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Analysis of litigation involving shale & hydraulic fracturing

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Analysis of litigation involving shale & hydraulic fracturing

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February 1, 2019

Hydraulic fracturing involves the injection of highly pressurized fluids and proppants into shale or other non-porous hydrocarbon formations in order to increase production of oil and natural gas wells. Hydraulic fracturing uses large volumes of water; thus, it also produces large volumes of fluids called "flowback" or "produced water." Most operators engaged in hydraulic fracturing dispose of their flowback or produced water either by treating and recycling the water, by treating the water and disposing of it, or by injecting the fluids into a well called a "Class II Well."

Although hydraulic fracturing has been utilized in the United States for decades, within the past several years, hydraulic fracturing and its alleged impact on water quality have received increasing attention and scrutiny from the media, the U.S. Environmental Protection Agency (EPA), Congress, regulatory agencies throughout the United States, state and local governments, and various environmental groups. Many parties have raised concerns about the reduction of citizens' water supplies due to the large volume of water used in the fracturing process, the alleged contamination of aquifers that supply drinking water, and the appropriate disposal of or recycling of the flowback or produced water. At the heart of these concerns are the additives used in fracturing fluids, which some argue contain potentially toxic substances such as benzene, toluene, xylene, methanol, formaldehyde, ethylene, glycol, glycol ethers, hydrochloric acid, and sodium hydroxide.

While lawmakers debate the need for policies and regulations, and environmental agencies prepare studies and conduct tests, the number of civil cases involving hydraulic fracturing is rising. Many of these lawsuits (some of which are class actions) filed by landowners in Arkansas, Colorado, Louisiana, Ohio, New York, Pennsylvania, Texas, and West Virginia against oil and gas operating and drilling companies, allege contamination of groundwater or sources of drinking water. These landowners either leased oil and gas rights to the companies, or reside in close proximity to where hydraulic fracturing operations have been conducted. Other shale and hydraulic fracturing lawsuits concern earthquakes, environmental issues, regulatory enforcement, municipal bans, government regulations, and oil and gas lease disputes.

This article discusses many of the lawsuits that implicate hydraulic fracturing, and the claims made in those cases. The cases are listed by filing date from earliest to latest within each topic of discussion. Many of the cases are in the early stages of litigation, while others have been dismissed or settled. As of the date of this White Paper, the authors have not located any judgment against a well operator, drilling contractor, or service company for contamination of groundwater resulting from hydraulic fracturing.

Litigation relating to hydraulic fracturing

***Maring v. John Nalbone, Jr., Universal Resource Oil & Gas; EnerVest Operating LLC, and Dallas Morris Drilling Inc.*, No. K12009001499 (N.Y. Sup. Ct., Aug. 27, 2009)**

In August 2009, Josephine Maring ("Plaintiff") filed suit in Chautauqua County, New York against John Nalbone Jr., Universal Resource Oil & Gas, EnerVest Operating LLC, and Dallas Morris Drilling Inc. (collectively, "Defendants"). According to Plaintiff, Defendants own and operate approximately 20 natural gas wells within a two-mile radius of her property. Plaintiff alleges that Defendants' drilling and extraction activities have resulted in the contamination of her water well with methane gas, making the water unfit for ordinary use.

The complaint includes causes of action for trespass, nuisance, and negligence. Plaintiff seeks damages in the amount of

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$250,000 plus litigation costs. Although the complaint states that Defendants' gas drilling and extraction operations caused methane contamination, the complaint does not specifically mention hydraulic fracturing. The Defendants appeared on September 19, 2011.

The case languished for many years without significant substantive activity. It was eventually disposed of in 2017 without publication of helpful information.

***Zimmermann v. Atlas America, LLC*, No. 2009-7564 (Pa. Ct. Com. Pl., Sept. 21, 2009)**

Zimmermann v. Atlas America, LLC was filed in Pennsylvania state court on September 21, 2009 against Atlas America, LLC ("Atlas"). Plaintiffs George and Lisa Zimmermann are a married couple owning only the surface rights to their property in Pennsylvania. After attempting to prevent Atlas from conducting drilling operations on their property, the Zimmermanns entered into a settlement agreement with Atlas. The claims of contamination in this lawsuit arose after that settlement and after drilling had commenced.

Plaintiffs, who agreed in the settlement agreement to permit Atlas to conduct hydraulic fracturing operations on their farm, alleged that Atlas used toxic chemicals during the fracturing process, and that the use of such chemicals contaminated and polluted their freshwater aquifers. They claimed that their natural water aquifers and their previously pristine Heirloom Tomato farmland were destroyed as a result of Atlas's hydraulic fracturing operations. Plaintiffs asserted claims for trespass, nuisance, negligence, negligence per se, res ipsa loquitur, fraud/misrepresentation, and breach of the settlement agreement. They also alleged that Atlas violated casing requirements of the Pennsylvania Oil & Gas Act.

For trespass, claiming that their surface rights extended to the aquifers below their property, Plaintiffs alleged that Atlas contaminated their soil and water with carcinogens and other pollutants, and that this contamination went beyond any disturbance contemplated in the parties' settlement agreement. In addition, Atlas used substantially more acreage than agreed upon in the settlement agreement. The petition included assertions that the contamination of the land and water and the release of noxious and harmful detectable gases into the air constituted a private nuisance.

For negligence, Plaintiffs argued that Atlas breached its duty of care to operate its mining operations with due regard to the rights of the property's surface estate, to use only so much of the property as reasonably necessary to conduct mining operations, and to conduct mining operations so as to leave the property intact. They asserted that Atlas breached this duty by (1) not conducting its operations in a reasonable manner to protect their property; (2) failing to take proper precautions to prevent toxic and carcinogenic chemicals from escaping and damaging their property; (3) failing to take appropriate measures after discovering damage to the surface estate; (4) selecting well sites that were in close proximity to their home and natural water aquifers; and (5) employing hydraulic fracturing with the knowledge that it would cause the contamination to the surface estate.

In their fraud/misrepresentation claim, Plaintiffs stated that prior to the commencement of drilling on their property, Atlas knew and should have disclosed that the chemicals injected into sub-surface reservoirs contained and/or would release hazardous contaminants into the soil and water.

The case eventually settled on April 14, 2014.

***Fiorentino v. Cabot Oil & Gas Corp. and Gas Search Drilling Services Corp.*, No. 3:09-cv-02284 (M.D. Pa., Nov. 19, 2009) (also known as *Ely v. Cabot Oil & Corp., et al.*)**

A group of 44 residents in Susquehanna County, Pennsylvania ("Plaintiffs") sued Cabot Oil & Gas Corporation ("Cabot") and Gas Search Drilling Services Corporation (collectively, with Cabot, "Defendants") for state law violations and common law claims, including negligence, gross negligence,[2] negligence per se, nuisance, strict liability, fraudulent misrepresentation, breach of contract, medical monitoring trust fund, and violation of the Pennsylvania Hazardous Sites Cleanup Act. According to Plaintiffs, Defendants, among other things, allegedly (1) released combustible gas into the headspaces of Plaintiffs' water wells; (2) caused elevated levels of dissolved methane to be present in Plaintiffs' water wells; (3) discharged natural gas into Plaintiffs' groundwater; (4) allowed excessive pressure to build up within gas wells near Plaintiffs' homes and water wells which resulted in an explosion; (5) spilled diesel fuel onto the ground near Plaintiffs' homes and water wells; (6) discharged drilling mud into diversion ditches near Plaintiffs' homes and water wells; (7) caused an explosion due to the accumulation of evaporated methane in wellheads; and (8) caused three significant spills within a ten-day period.[3]

2 The gross negligence claim was dismissed as a separate cause of action on November 15, 2010.

3 The Pennsylvania Department of Environmental Protection ("PDEP") also instituted a regulatory action against Cabot alleging methane contamination of certain residents' water wells as a result of Cabot's nearby drilling activities. The PDEP reached a settlement agreement with Cabot in December 2010. *See* Settlements Involving Hydraulic Fracturing and Shale Drilling, discussed *infra*.

Plaintiffs sought compensatory damages including loss of property value, natural resource damage, medical costs, loss of use and enjoyment of property, loss of quality of life, emotional distress, and personal injury. In addition, the Plaintiffs asked for punitive damages, the cost of remediation, the cost of future health monitoring, an injunction, and litigation costs and fees.

On September 12, 2012, a joint stipulation of dismissal was filed with the court. The stipulation covered the majority of Plaintiffs, leaving members of two families and the estate of a deceased decedent plaintiff.

Defendants filed a motion for summary judgment on the remaining Plaintiffs' strict liability claims on March 28, 2013. In a Report and Recommendation issued on January 9, 2014, the Magistrate Judge found that the "Plaintiffs have failed to support their assertion under Pennsylvania law that the Defendants' gas drilling operations represent abnormally dangerous activities . . . . [T]he Plaintiffs' claims for property damage and personal injury should be considered under traditional and longstanding negligence principles, and not under a strict liability standard." On April 23, 2014, the U.S. District Judge adopted the Report and Recommendation. In a footnote, agreeing with the Magistrate, the Judge stated that "based on an analysis of the six factors set forth in the Restatement (Second) of Torts §§ 520(1977), hydraulic fracturing does not legally qualify as an ultra-hazardous activity giving rise to strict tort liability."

Also on March 28, 2013, Defendants filed motions for summary judgment on all other claims asserted by the remaining Plaintiffs. Issuing a Report and Recommendation on March 28, 2014 and on April 21, 2014, the Magistrate dismissed all but the Plaintiffs' private nuisance claims against the Defendants.

In February of 2016, the case went to trial on the nuisance claims. Cabot presented multiple expert witnesses that testified that (1) the Plaintiffs had no damages because the water was suitable for consumption, and (2) any problems with the Plaintiffs water could not have occurred from Cabot's fracturing activities. The Plaintiffs put forth a haphazard presentation of evidence with several contentions seeming to contradict one another. But the jury ultimately decided against Cabot and awarded the Plaintiffs $4.2 Million.

Cabot filed motions for directed verdict, new trial, and for remitter. On March 31, 2017, the court granted Cabot's motion for new trial, finding that the jury's verdict was against the great weight of the evidence. As a separate and independent ground for the ruling, the court cited extensive misconduct by the plaintiff's counsel. While the court did not grant Cabot's Rule 50(b) request for judgment as a matter of law, it expressed serious doubt about the viability of the plaintiff's claims stating: the $4.24 million award "bore no discernable relationship to the evidence, which was at best limited." The court dismissed the case on September 21, 2017 pursuant to a settlement agreement among the parties.

***Kartch v. EOG Resources*, No. 4:10-cv-00014 (D. N.D. March 4, 2010)**

Frankie and Kristin Kartch ("Plaintiffs") filed suit in the Northwest Judicial District Court, County of Mountrail, State of North Dakota, against EOG Resources, Inc. on August 13, 2009, alleging that EOG was drilling a well on their property without any contractual agreement for compensation. The lawsuit was removed to the U.S. District Court for District of North Dakota, Northwestern Division on March 4, 2010. This case settled and was dismissed by the court on September 18, 2012.

In their Second Amended Complaint, Plaintiffs claimed that EOG had "entered upon a portion of the surface estate owned by Plaintiffs and constructed a road and a well pad, dug a waste pit, filled the pit with waste, and is operating a producing well with storage tanks and other associated facilities," without an agreement between the parties regarding compensation for damages. They claimed that the waste pit constructed by EOG was not reasonably necessary to explore and develop the mineral estate and that there were reasonable and economical alternatives to the waste pit. The waste pit which was "negligently constructed and monitored was used to store benzene, diesel fuel, trace elements and other chemicals and toxins." The toxic waste in the pit was not removed prior to EOG simply burying the liner and the contents of the pit. Plaintiffs sought compensation for damages to their surface estate.

***Hallowich v. Range Resources Corporation, Williams Gas/ Laurel Mountain Midstream, Markwest Energy Partners, L.P., Markwest Energy Group, LLC, and Pennsylvania Department of Environmental Protection*, Case No. 2010-3954 (Pa. Ct. Com. Pl. May 27, 2010)**

On May 27, 2010, by Praecipe to Issue Writ of Summons, the Hallowich family initiated an action against several oil and gas companies and the Pennsylvania Department of Environmental Protection, alleging that the companies' drilling activities interfered with their enjoyment of their

property rights and violated the state's environmental laws. They complained that their water was polluted by the wells, pipelines, processing operations and truck traffic that came into the rural area where they built their home. Before filing a complaint, the Hallowiches settled the dispute on July 11, 2011. With minor children involved, as required by state law, the Hallowiches filed a Petition for Approval of Settlement of Minors.

A hearing was held on August 23, 2011, at which time the court approved the settlement and the record was sealed. Immediately thereafter, two Pittsburgh newspapers sought to unseal the record. The newspapers' initial petition to unseal the record was denied. On appeal, the Pennsylvania Supreme Court reversed and remanded the case. Back in the Court of Common Pleas of Washington County, briefs were filed and an evidentiary hearing held. The oil and gas companies argued that they had the right to negotiate a mutual confidentiality agreement under the privacy protections of the Commonwealth's constitution.

On March 20, 2013, the court ordered that the settlement agreement be unsealed and made available to the public. The court found that there is "a presumption of openness under the common-law rule of access to the courts" and there is "no business-entity right of privacy within the Constitution of the Commonwealth of Pennsylvania to prevent the operation of that rule."

The Judge concluded that the companies' privacy rights were trumped by the press and public's right of access to the record. "Confidentiality runs only between defendants and the Hallowiches. Thus, the unsealing of this record leaves these obligations wholly intact, because the parties remain just as gagged from speaking of the terms and conditions of the settlement as they were prior to the unsealing." A page from the unsealed settlement agreement shows that the Hallowiches were paid $750,000.

***Scoma v. Chesapeake Energy Corp., Chesapeake Operating, Inc., and Chesapeake Exploration, LLC*, No. 3:10-cv-01385 (N.D. Tex., July 15, 2010)**

Plaintiffs Jim and Linda Scoma, landowners in Johnson County, Texas, brought an action for negligence, nuisance, and trespass against Chesapeake Energy Corporation (dismissed without prejudice on July 27, 2011), Chesapeake Operating, Inc., and Chesapeake Exploration, LLC (collectively, "Chesapeake"). Plaintiffs settled their claims and, on December 9, 2011, the court entered a Final Judgment dismissing all claims with prejudice.

Plaintiffs lived near oil and gas wells being developed by Chesapeake on adjacent property. In their complaint, Plaintiffs alleged that Chesapeake stored drilling waste at the well sites and disposed of fracturing waste in injection wells near Plaintiffs' property. They claimed that, as a result of Chesapeake's hydraulic fracturing and disposal activities, their water well became contaminated with benzene, toluene, ethylbenzene, xylene, barium, and iron.

For the nuisance claim, Plaintiffs asserted that the contamination prevented them from the use of their well water and made the enjoyment of their property uncomfortable and inconvenient. Plaintiffs stated in their trespass claim that Chesapeake exceeded its drilling rights on the adjacent property by causing petroleum by-products to enter Plaintiffs' land and contaminate their water. Plaintiffs further alleged that Chesapeake breached its duty of care by negligently or unnecessarily damaging Plaintiffs' land and well water. As damages, Plaintiffs sought the cost of water testing, loss of use of land, loss of market value of land, loss of intrinsic value of well water, emotional harm and mental anguish, nominal damages, exemplary damages, and injunctive relief.

***Berish v. Southwestern Energy Production Co. and Southwestern Energy Co.*, No. 2010-1882 (Pa. Ct. Com. Pl., Sept. 14, 2010), removed to M.D. Pennsylvania, No. 3:10-cv-01981, on Sept. 29, 2010**

In September 2010, a group of 13 families ("Plaintiffs") filed suit in Susquehanna County, Pennsylvania against Southwestern Energy Production Company ("Southwestern") and its parent Southwestern Energy Company (voluntarily dismissed by Plaintiffs on October 12, 2010). *Berish v. Southwestern Energy Production Co., et al.,* No. 2010-1882 (Pa. Ct. Com. Pl., Sept. 14, 2010). The case was removed to the Middle District of Pennsylvania on September 29, 2010. In their third amended complaint filed on May 17, 2012, Plaintiffs added four new defendants (Halliburton Energy Services, Inc.; BJ Services Company, Inc.; Schlumberger Limited (voluntarily dismissed on November 16, 2012); and Union Drilling, Inc.)[4] (collectively, with Southwestern, "Defendants").

4 The additional defendants provided services, equipment, and support for the drilling, casing, tubing, and fracking operations at the well site. *Berish* is one of the first cases in which plaintiffs named support companies, not just the operating and/or drilling company, as defendants. Including service and supply companies as defendants is likely to be a future trend. *See Haney v. Range Resources*, *infra*.

Plaintiffs alleged that, beginning in 2008, their water wells became contaminated from Defendants' hydraulic fracturing and horizontal drilling activities within 700 to 1,700 feet of their water resources. They claimed that Southwestern's natural gas well was improperly cased, allowing contaminants such as diesel fuel, barium, manganese, and strontium to migrate to the water wells. According to the complaint, at least one plaintiff exhibited neurological symptoms consistent with exposure to heavy metals.

Plaintiffs asserted causes of action for negligence per se, common law negligence, nuisance, strict liability, trespass, medical monitoring trust fund, and violation of the Pennsylvania Hazardous Sites Cleanup Act. On December 8, 2010, the court dismissed a portion of Plaintiffs' citizen's suit under the Pennsylvania Hazardous Sites Cleanup Act. On September 4, 2012, the court issued an order dismissing all personal injury claims (except for the minor who retained the right to assert a personal injury claim in the future if she develops an injury), all claims for natural resource damages, and portions of the negligence per se claim.

In their negligence claim, Plaintiffs alleged that Defendants had a duty of care to (1) responsibly drill, own, and operate the natural gas well; (2) respond to spills and releases of hazardous chemicals; (3) prevent such releases and spills; and (4) take all measures reasonably necessary to inform and protect the public, including Plaintiffs, from the contamination of their water supply and exposure to hazardous chemicals and combustible gases. Plaintiffs further stated that Southwestern created and maintained a continuing nuisance by allowing the natural gas well to exist and operate in a dangerous and hazardous condition, resulting in injuries to Plaintiffs' health, well being, and property. As for strict liability, Plaintiffs contended that "the use, processing, storage, and activity of hydro-fracturing" at the wells near their home constituted abnormally dangerous and ultra-hazardous operations, "subjecting persons coming into contact with the hazardous chemicals and combustible gases to suffer personal injuries, regardless of degree of caution Defendants might have exercised."

Plaintiffs sought costs for remediation of the hazardous substances and contaminants and for the purchase of an alternative source of water. They wanted compensatory damages for lost property value, damage to the natural resources on the property, loss of quality of life, loss of use and enjoyment of their properties, emotional distress as to one plaintiff,[5] inconvenience and discomfort, and personal injury. The complaint also requested punitive damages and preliminary and permanent injunctions against future contamination, as well as reasonable attorneys' fees.

As for discovery, on January 28, 2013, the parties agreed to and the court signed a Stipulated Case-Management Order that provided deadlines for Phase I discovery which focused on causation of the alleged contamination or damages to the Price No. 1 well and of the alleged personal injuries suffered by a minor plaintiff. The court limited and specifically set out the topics that the parties can cover in their discovery requests. Plaintiffs were allowed to request information about the drilling and construction of the well, including the substances and chemicals used during all phases of development (drilling, casing, cementing, and fracturing), the number of fracturing stages, the depth of each fracturing stage, sources of water, analysis of flowback water, how and where production water was stored, analyses or testing results related to subsurface geology and groundwater migration, and the sampling or testing of produced water, any potable water, and groundwater within 10 miles of the well. Defendants were allowed to request medical records, an independent medical examination, analyses and testing of water from any well alleged to be contaminated, construction and maintenance records of the well, and how Defendants' activities or substances/chemicals caused the injuries alleged.

Under a stipulation to extend the second amended scheduling order, fact discovery for Phase I had to be completed by May 23, 2014, with Plaintiffs' expert reports due 60 days thereafter. Defendants' expert reports were due 60 days later, with the deadline for expert depositions 60 days thereafter. Within 45 days of the close of Phase 1 Discovery, the parties had to file their *Daubert* motions.

The parties also fought bitterly over the discovery of alleged trade secrets. Plaintiffs asked Southwestern and non-party Schlumberger Technology Corporation ("STC") to produce open-hole logs and seismic data, maps, and interpretations relating to the well at issue. Both Southwestern and STC questioned the relevancy of these documents and asserted trade secret protection. On October 11, 2013, the court ordered the documents produced, finding that the documents were relevant and that Southwestern and STC had not met their burden to prove trade secrets. After motions for reconsideration, the court issued a Memorandum re-confirming its prior order that the documents should not be classified as trade secrets.

The court continued discovery and *Daubert* deadlines multiple times but *Daubert* motions were never filed. The case settled

5 The court dismissed all other claims for emotional distress on February 3, 2011, *see* 763 F. Supp. 2d 702 (M.D. Pa. Feb. 3, 2011).

in 2016 and the court entered dismissal pursuant to the settlement on September 9, 2016.

***Armstrong v. Chesapeake Appalachia, LLC; Chesapeake Energy Corp. and Nomac Drilling, LLC*, No. 10-cv-000680 (Pa. Ct. Com. Pl., Oct. 27, 2010), removed to M.D. Pennsylvania, No. 3:10-cv-002453, on Dec. 6, 2010, remanded to Pa. Ct. Com. Pl. on July 29, 2011.**

In October 2010, Plaintiff Judy Armstrong filed suit in Bradford County, Pennsylvania against Chesapeake Appalachia LLC, Chesapeake Energy Corporation, and Nomac Drilling, LLC ("Defendants"). *Armstrong v. Chesapeake Appalachia, LLC, et al.*, No. 10-cv-000680 (Pa. Ct. Com. Pl., Oct. 27, 2010). The case was removed to the Middle District of Pennsylvania on December 6, 2010 (Case No. 3:10-cv-02453). On January 20, 2011, Plaintiff added two new plaintiffs (Carl Stiles and Angelina Fiorentino) (collectively, "Plaintiffs") and two new defendants (Great Plains Oilfield Rental LLC and Diamond Y Enterprise, Inc.) to the lawsuit. With the addition of these new Pennsylvania corporate defendants, there was no longer a basis for federal diversity jurisdiction. Plaintiffs filed a motion for remand which was granted on July 29, 2011.

Plaintiffs own property and water wells located three miles from oil and gas wells owned and operated by Defendants. They alleged that Defendants' use of improper drilling techniques, including defective and ineffective well casings, caused methane, ethane, barium, and other harmful substances to enter into and contaminate their water supply.

Plaintiffs asserted causes of action and damages for negligence, negligence per se, nuisance, strict liability, trespass, medical monitoring trust funds, and violation of the Pennsylvania Hazardous Sites Cleanup Act.

As a result of water contamination complaints from Plaintiffs and others, the Pennsylvania Department of Environmental Protection ("PDEP") initiated a joint review of possible natural gas drilling violations by Chesapeake. The results of the joint review were inconclusive and the PDEP reached a settlement agreement with Chesapeake on May 17, 2011. *See* Settlements Involving Hydraulic Fracturing, *infra*.

***Sizelove v. Williams Production Co., LLC; Mockingbird Pipeline, LP; XTO Energy, Inc.; Gulftex Operating, Inc., Trio Consulting & Mgmt., LLC, and Enexco, Inc.*, No. 2010-50355-367 (367th Dist. Court, Denton County, Tex. Nov. 3, 2010) (transferred to 431st Dist. Ct., Denton County, Tex. Jan. 1, 2011)**

On November 3, 2010, the Sizelove family ("Plaintiffs") filed suit against Williams Production Company, LLC (non-suited on April 6, 2011); Mockingbird Pipeline LP; XTO Energy, Inc. (dismissed with prejudice on March 21, 2012); Gulftex Operating, Inc. (dismissed with prejudice on May 16, 2012); Trio Consulting & Management, LLC (dismissed with prejudice on May 11, 2012); and Enexco, Inc. (non-suited on April 13, 2011) (collectively, "Defendants") in Denton County, Texas. Williams Production-Gulf Coast Company, L.P. (n/k/a WPX Energy Gulf Coast, L.P.) and A&D Exploration Company were added as defendants on April 6, 2011 and April 13, 2011, respectively. This case was settled at mediation on November 9, 2012.

Plaintiffs initially sued for nuisance, trespass and negligence, alleging that Defendants' compressor operations, gas drilling, and hydraulic fracturing caused Plaintiffs to suffer severe headaches and respiratory problems. Specifically, Plaintiffs claimed that Defendants' operations were polluting the air and water surrounding Plaintiffs' home with toxic hydrocarbons such as benzene, toluene, ethylbenzene, and xylene.

In July 2011, Plaintiffs amended their complaint, dropping their negligence claim and all allegations of water contamination. Plaintiffs continued to pursue their claims for trespass and nuisance. In their nuisance claim, Plaintiffs alleged that Defendants have substantially interfered with and invaded Plaintiffs' private interest in their land by contaminating both the surface and the air above their property with hydrocarbons and other deleterious substances. For their trespass claim, Plaintiffs stated that Defendants wrongfully cut down nearly thirty trees on their property and allowed workers to use their land as a toilet.

Plaintiffs sought damages for the loss of market value of their land, sickness, annoyance, discomfort, bodily harm, injury to personal property, mental anguish, and additional exemplary damages.

***Heinkel-Wolfe v. Williams Production Co., LLC; Mockingbird Pipeline, LP, XTO Energy, Inc., Gulftex Operating, Inc., Trio Consulting & Mgmt., LLC, and Enexco Inc.*, No. 2010-40355-362 (362nd Dist. Court, Denton County, Texas, Nov. 3, 2010)**

In November 2010, Margaret Heinkel-Wolfe and her daughter, Paige Wolfe,[6] ("Plaintiffs"), filed suit against Williams Production Company LLC (dismissed without prejudice on April 6, 2011); Mockingbird Pipeline LP; XTO Energy Inc.

6 On August 4, 2011, the daughter non-suited all Defendants.

(dismissed with prejudice on March 21, 2012); Gulftex Operating Inc.; Trio Consulting & Management LLC; and Enexco, Inc. (non-suited on April 13, 2011) (collectively, "Defendants") in Denton County, Texas. Williams Production-Gulf Coast Company, L.P. (n/k/a WPX Energy Gulf Coast, L.P.) and A&D Exploration Company were added as defendants on April 6, 2011 and April 13, 2011 respectively. Defendants filed traditional and no evidence motions for summary judgment, but these became moot when the case was settled at mediation on August 14, 2012. A final judgment was signed by the court on August 27, 2012.

Plaintiffs sued Defendants for nuisance, negligence, and trespass, alleging that Defendants' activities related to their produced water collection site, gas compressor stations, and gas drilling polluted the air and water around Plaintiffs' property and seeking damages for the loss of market value of their land, sickness, annoyance, discomfort, bodily harm, injury to personal property, mental anguish, and exemplary damages. As in *Sizelove, supra*, Plaintiffs amended their petition and voluntarily dropped their negligence claim and all allegations of water contamination.

***Hagy v. Equitable Production Co.; Warren Drilling Co., Inc., BJ Services Co., USA, and Halliburton Energy Services, Inc.*, No. 10-c-163 (Jackson County Cir. Ct., Oct. 26, 2010), removed to U.S. District Court for the Southern District of West Virginia, No. 2:10-cv-01372 on Dec. 10, 2010**

The Hagy family ("Plaintiffs") filed suit in West Virginia state court on October 26, 2010 against Equitable Production Co. (summary judgment granted on May 17, 2012); Warren Drilling Company, Inc. (dismissed with prejudice on April 25, 2012); BJ Services Company USA; and Halliburton Energy Services, Inc. (settled in March 2012) (collectively, "Defendants").

In their complaint, Plaintiffs claimed contamination of their property and water well located approximately 1,000 feet from Defendants' natural gas wells. One of the Plaintiffs allegedly suffered neurological symptoms consistent with toxic exposure to heavy metals.

Plaintiffs' causes of action included negligence, negligence per se, nuisance, strict liability, trespass, and medical monitoring trust funds. Plaintiffs also sought an injunction against further drilling activities, along with compensatory damages, punitive damages, the cost of future health monitoring, and litigation fees and costs.

On July 22, 2011, the court dismissed Plaintiffs' claims of strict liability and medical monitoring and dismissed the claims of nuisance and trespass for two of the Plaintiffs (the adult children who no longer lived on the property). After settling with defendants Halliburton Energy Services, Inc. and Warren Drilling Company, Inc., on May 7, 2012, the adult children voluntarily dismissed all their other claims.

On March 19, 2012, BJ Services filed a motion for summary judgment and Plaintiffs responded. On May 23, 2012, the court ordered Plaintiffs to clarify their response by specifying "exactly what conduct by defendant BJ Services is alleged to have caused them harm..." Plaintiffs filed their response to the court's order on June 29, 2012. On that same date, the court entered its judgment order, dismissing the lawsuit, stating that Plaintiffs failed to provide evidence that BJ Services acted negligently, trespassed, or created a private nuisance; or to prove a causal connection between BJ Services and Plaintiffs' injuries.[7]

On July 30, 2012, Plaintiffs filed a Notice of Appeal to the U.S. Court of Appeals for the Fourth Circuit (Case No. 12-1926), appealing the court's orders granting the motions for summary judgment filed by BJ Services Company USA and Equitable Production Company. The Fourth Circuit Court of Appeals issued its unpublished opinion on October 8, 2013, affirming the lower court's orders.

***Mitchell v. Encana Oil & Gas (USA), Inc.; Chesapeake Operating, Inc.; Chesapeake Exploration, LLC*, No. 3:10-cv-02555 (N.D. Tex., Dec. 15, 2010)**

On December 15, 2010, Grace Mitchell ("Plaintiff") filed suit against Encana Oil & Gas (USA) Inc.; Chesapeake Operating, Inc.; and Chesapeake Exploration, LLC (collectively, "Defendants") in the U.S. District Court for the Northern District of Texas. This case was dismissed with a final judgment on December 27, 2011.

Plaintiff alleged that Defendants' hydraulic fracturing and horizontal drilling activities and associated storage of drilling wastes had contaminated her water well in Johnson County, Texas. After Defendants commenced hydraulic fracturing operations near her property, Plaintiff claimed that her well water became slick to the touch and gave off a gasoline-like odor and that test results revealed the groundwater was contaminated with various chemicals, including C12-C28 hydrocarbons, similar to diesel fuel.

7 The court did not consider Plaintiffs' experts' reports because Plaintiffs failed to identify the chemical to which they were exposed and to provide evidence of dose, exposure amount, and duration.

Plaintiff asserted causes of action for nuisance, trespass, negligence, fraud, and strict liability. For her nuisance claim, Plaintiff stated that Defendants had substantially interfered with and invaded her private interests in her land by contaminating her groundwater, offending her senses, and making her enjoyment of the property uncomfortable and inconvenient. For trespass, Plaintiff alleged that Defendants caused and permitted petroleum by-products to cross Plaintiff's property boundaries and enter her land and groundwater, resulting in damage to the property and injury to Plaintiff's right of possession. In addition, Plaintiff claimed that Defendants breached their duty to not negligently and unnecessarily damage her surface and subsurface estate, including the groundwater.

As for fraud, Plaintiff stated that Defendants failed to warn and/or concealed the danger that her groundwater would become contaminated from chemicals similar to diesel fuel. Finally, she alleged that Defendants should be held strictly liable because petroleum drilling and hydraulic fracturing constitute ultra-hazardous and abnormally dangerous activities. Both the fraud and strict liability claims were withdrawn when Plaintiff filed her amended complaint on April 25, 2011.

Plaintiff requested damages for loss of the use of groundwater, loss of market value of property, loss of the intrinsic value of well water, expenses incurred from buying water from an alternate source, medical monitoring damages, remediation, nominal damages, and exemplary damages.

***Otis v. Chesapeake Appalachia, LLC, Chesapeake Energy Corporation, and Nomac Drilling, LLC*, No. 3:11-cv-00115-ARC (M.D. Pa. (Scranton), Jan. 18, 2011)**

***Bidlack v. Chesapeake Appalachia, LLC, Chesapeake Energy Corporation, and Nomac Drilling, LLC*, No. 3:11-cv-00129-ARC (M.D. Pa. (Scranton), Jan. 19, 2011)**

Plaintiffs Edwin and Candy Bidlack, Jessie Northrup, and Jason and Janet Otis ("Plaintiffs") filed their lawsuits in Pennsylvania Court of Common Pleas of Bradford County, on December 17, 2010. *Bidlack, et al v. Chesapeake Energy Corp., et al*; No. 10-EQ-000761 (Pa. Ct. Com. Pl., Dec. 17, 2010); *Otis v. Chesapeake Energy Corp., et al*; No. 10-EQ-000775 (Pa. Ct. Com. Pl., Dec. 17, 2010). Both the *Bidlack* lawsuit and the *Otis* lawsuit were removed to the U.S. District Court for the Middle District of Pennsylvania (Scranton) in mid-January 2011. The U.S. District Court has stayed both cases, requiring the parties to engage in binding arbitration of their claims. Plaintiffs' counsel has filed motions to vacate the court's stay order, arguing that immediate action needs to be taken because the "harm to their residence and water supply is more extensive and more severe than originally contemplated..." Plaintiffs' motions to vacate were denied on May 11, 2012. These cases remain stayed pending arbitration. In June 2013, the parties filed status reports with the court, indicating that they were working to resolve the lawsuits.

Despite those indications, Defendants filed a motion to dismiss for failure to prosecute in May of 2015. According to the motion, the Plaintiffs had not initiated arbitration and had abandoned their case. The court disagreed, however, and denied the motion on August 21, 2015. The court reasoned that the Plaintiffs had not abandoned the case because they were still in settlement discussions with the Defendants. On September 11, 2017, the court entered an order approving the parties' stipulation of dismissal, dismissing all claims with prejudice.

Plaintiffs state that Defendants Chesapeake Appalachia, LLC, Chesapeake Energy Corporation, and Nomac Drilling, LLC ("Defendants") located, drilled, and conducted explorations of wells within 1,000 feet of the Otis residence and water supply well and within a five mile radius of the Bidlack residence and water supply well. Plaintiffs allege that their water supplies have been contaminated and they have been exposed to hazardous chemicals and substances, including methane. They have lost the use and enjoyment of their residence and their quality of life, living in constant fear of future physical illness.

Plaintiffs' causes of action include violations of the Hazardous Sites Cleanup Act, negligence, private nuisance, strict liability, trespass, and medical monitoring trust fund. For negligence, Plaintiffs accuse Defendants of failing to prevent and/or contain releases and migration of hazardous chemicals, failing to prevent contamination of the water supplies, creating a risk of explosion, and using improper drilling techniques and materials, including defective and ineffective well casings and negligent planning, training, and supervision of staff, employees and/or agents.

Plaintiffs seek costs for remediation of the hazardous substances and contaminants and compensatory damages for medical costs, loss of use and enjoyment of the property, loss of quality of life, emotional distress, personal injury, and future health monitoring. In addition, Plaintiffs have requested damages for the diminution of value of their residence and real

property, including the debt service and cost to maintain the residence and real property. They also request punitive damage and preliminary and permanent injunctions against future contamination, as well as litigation costs.

***Harris v. Devon Energy Prod. Co., L.P.*, No. 4:10-cv-00708 (E.D. Tex., Dec. 22, 2010) (originally filed in the N.D. Tex. Case No. 3:10-02554, Dec. 15, 2010).**

Doug and Diana Harris ("Plaintiffs") brought action against Devon Energy Production Co., LP in the U.S. District Court for the Northern District of Texas (Case No. 3:10-cv-02554) on December 15, 2010. The case was transferred to the Eastern District of Texas on December 22, 2010.

Defendant, Devon Energy, drilled bore holes under and near Plaintiffs' property in Denton County, Texas. Plaintiffs claimed that, after Devon Energy commenced hydraulic fracturing operations near their property, their groundwater became contaminated and polluted with a gray substance. According to the complaint, test results showed high levels of metals including aluminum, arsenic, barium, beryllium, calcium, chromium, cobalt, copper, iron, lead, nickel, potassium, and zinc.

In the complaint, Plaintiffs state causes of action for nuisance, trespass, negligence, fraud (dismissed July 12, 2011), and strict liability. The court dismissed the fraud claim on July 12, 2011. Damages sought include loss of the use of land and groundwater, loss of market value of property, loss of the intrinsic value of well water, expenses related to testing contaminated water, expenses incurred from buying water from an alternate source, emotional harm and mental anguish, medical monitoring damages, remediation, nominal damages, and exemplary damages.

In an interesting turn of events, on December 6, 2011, shortly after Devon Energy filed a motion for summary judgment, Plaintiffs filed a motion to dismiss without prejudice, stating that "recent testing showed that the contamination is no longer at a toxic level for human consumption." Plaintiffs stated that "[b]ecause the Plaintiffs' groundwater has apparently purged itself of elevated levels of toxic substances, Plaintiffs cannot trace or prove that Defendant Devon was the cause of the Plaintiffs' toxic water." On December 21, 2011, in its response to the dismissal motion, Devon Energy asked the court to dismiss the case with prejudice and award attorneys' fees. On January 25, 2012, the court dismissed the lawsuit without prejudice.

In February of 2012, Defendants appealed the voluntary dismissal without prejudice to the Fifth Circuit. The Fifth Circuit concluded that the district court abused its discretion and modified the judgment to a dismissal with prejudice. The court reasoned that the Plaintiff's voluntary dismissal was intended to avoid an adverse result on summary judgment and thereby constituted plain legal prejudice.

***Teel v. Chesapeake Appalachia, LLC*, No. 5:11-cv-00005-FPS (N.D. W. Va. January 6, 2011) (originally filed in the Circuit Court of Wetzel County, W. Va., Case No. 10-C-94DH, Nov. 30, 2010)**

On November 30, 2010, plaintiffs Dewey and Gay Teel filed a complaint in the Circuit Court for Wetzel County, West Virginia, against Chesapeake Appalachia, LLC ("Chesapeake") (Case No. 10-C-94DH). The case was removed to federal court on January 6, 2011.

Chesapeake began natural gas drilling on the Plaintiffs' property in 2008. At that time, according to Plaintiffs, Chesapeake affirmatively assured them that the drilling area would be suitable for home sites after completion. Among the facilities constructed by Chesapeake was a pit or pond to hold the waste materials generated by the hydraulic fracturing and natural gas drilling operations. As described by Plaintiffs, the waste that was deposited into and eventually filled the pit "was dark, thick and smelled strongly of diesel fuel." Plaintiffs claimed that in 2009 Chesapeake brought in a "foamy, foul-smelling material by truck and deposited" it in the waste pond and in other trenches on their property. Further, Plaintiffs contend that, after Chesapeake's heavy equipment breached the pit, allowing waste material to flow onto unprotected soil, Chesapeake simply covered the waste pit and trenches with dirt. The substances put into the pit and trenches remain beneath the surface, contaminating the soil and groundwater and killing grass, trees, and plants.

Plaintiffs asserted causes of action for nuisance (intentional nuisance, unintentional nuisance, and nuisance per se), trespass, negligence, res ipsa loquitur, strict liability, recklessness or gross negligence, intentional infliction of emotional distress, and negligent infliction of emotional distress. They sought both monetary relief and injunctive relief, including the removal of the waste and remediation of the contaminated areas of the property.

In ruling on both parties' motions for summary judgment, the court found that Chesapeake's use of pits for drill cuttings on Plaintiffs' land was not a trespass. The court then signed the

parties' joint stipulation of dismissal, enabling an appeal to the U.S. Court of Appeals for the Fourth Circuit to go forward (Case No. 12-2406). On October 10, 2013, Chesapeake filed a motion to dispense with oral argument or to dismiss the appeal based on the Fourth Circuit's decision in *Whiteman v. Chesapeake Appalachia, LLC*, *infra*, which had the same issues and similar facts. In *Whiteman*, the appeals court upheld the lower court's dismissal.

On October 17, 2013, referring to the *Whiteman v. Chesapeake Appalachia, LLC* lawsuit, *infra*, the Fourth Circuit affirmed the award of summary judgment to Chesapeake.

***United States v. Range Production Company and Range Resources Corporation*, No. 3:11-cv-00116 (N.D. Tex., Jan. 18, 2011)**

Range Production Company and Range Resources Corporation (collectively, "Range") own and operate gas extraction wells in the Newark East (Barnett Shale) Field, in and around the Fort Worth, Texas area. On December 7, 2010, the U.S. Environmental Protection Agency ("EPA") issued an Emergency Administrative Order ("EAO") pursuant to Section 1431 of the Safe Drinking Water Act, 42 U.S.C. § 300i. The EAO identified contaminants that "may present an imminent and substantial endangerment to the health of persons," and determined that two water wells had been affected by Range's drilling activities. The EPA also found that state and local authorities had not taken sufficient action to address the endangerment.[8]

The EAO required Range to: (1) notify the EPA of whether it intended to comply with the EAO within 24 hours; (2) provide replacement water supplies to the recipients of water from the affected water wells within 48 hours; (3) install explosivity meters at the affected dwellings within 48 hours; (4) submit a survey listing water wells within 3,000 feet of the gas wells at issue with a plan for EPA approval to sample those wells to see if they have been contaminated, including air and water samplings; (5) submit a plan for EPA approval to conduct soil gas surveys and indoor air analyses for all dwellings served by the affected water wells within 14 days; and (6) submit a plan to identify gas flow pathways to the affected aquifer if possible, and remediate impacted areas of the aquifer.

Range disputed the EPA's finding and the validity of the EAO. At the request of the Administrator of the EPA, the United States filed a complaint for injunctive relief and civil penalties against Range on January 18, 2011 in the Northern District of Texas. The action by the U.S. alleged violations of the EAO, resulting in the presence of contaminants that may pose an imminent and substantial endangerment to the health of persons in violation of the Safe Drinking Water Act. The U.S. sought permanent injunctive relief to require Range to comply with the provisions of the EAO, as well as to pay a civil monetary penalty for each day of each violation.

On January 20, 2011, Range filed a petition for review of the EAO with the Fifth Circuit Court of Appeals (Case No. 11-60040), arguing that the EAO violated its due process rights. On June 20, 2011, the U.S. District Court for the Northern District of Texas entered an order staying its action until the Fifth Circuit ruled on Range's petition. Oral arguments in the Fifth Circuit were heard on October 3, 2011. A decision from the Fifth Circuit became moot when the EPA withdrew its EAO on March 29, 2012, after the U.S. Supreme Court's March 21, 2012 decision in the *Sackett* case, *infra*. The Fifth Circuit dismissed its case on April 2, 2012 while the district court action was dismissed on March 30, 2012.

Of interest, in relation to determining the validity of an EAO issued by the EPA is *Sackett v. Environmental Protection Agency*, 566 U.S. 120 (2012). The Sacketts placed fill material on their Bonner County, Idaho property, which is located approximately 500 feet from Lake Priest, a navigable waterway. Claiming that the land was jurisdictional wetlands under the Clean Water Act, the EPA issued an administrative compliance order directing the Sacketts to remove the fill and restore the lot to its original condition or face civil penalties up to $32,500 per day per violation, plus administrative penalties. The Sacketts contested the EPA's findings and filed a lawsuit asking the District Court to declare that their property was not protected wetlands. The District Court ruled, and the Ninth Circuit Court of Appeals agreed, that the Sacketts could not seek that declaration until the EPA asked a federal judge to enforce the EPA's administrative order. The U.S. Supreme Court disagreed with both lower courts, holding that parties subject to an EAO have the right to challenge that compliance order in court before the agency brings legal action to enforce it.

Now that the U.S. Supreme Court has determined that the Sacketts had their due process rights violated and that the Sacketts and other alleged environmental violators have a right to judicial review of an EAO issued without a hearing or any proof of violation, the EPA's use of EAOs may be curtailed.[9]

8 Notably, a parallel investigation by the Texas Railroad Commission ("TRC") concluded that Range's operations of the gas wells did not cause or contribute to contamination of the water wells (Case No. 7B-0268629).

9 Parties considering a judicial challenge to an EAO should be aware that the EPA would likely file a counterclaim and face review under the Administrative Procedures Act ("APA"). The APA might provide a favorable standard for the EPA if it prepares an administrative record. *See* B. Shrestha, *Sackett's Impact on EPA Not So Dramatic, Ex-Official Says*, Law360, April 26, 2012.

***Whiteman v. Chesapeake Appalachia, LLC*, No. 5:11-cv-00031-FPS (N.D. W. Va. February 23, 2011) (originally filed in Circuit Court of Wetzel County, W. Va., Case No. _____, Dec. 23, 2010)**

In 2007, Chesapeake Appalachia, LLC ("Chesapeake") began natural gas drilling on property owned by Martin and Lisa Whiteman. Chesapeake chose prime hay fields and graded approximately 10 to 15 acres of land, where it installed natural gas wells and ancillary facilities, including two large waste ponds used for the deposit of waste materials resulting from hydraulic fracturing and drilling operations. Chesapeake also deposited waste materials in open trenches on the property. The waste ponds with their contents were buried. The Whitemans believed that the waste was migrating through the soil, surface water and groundwater on their property.

On December 23, 2010, the Whitemans brought this lawsuit in the Circuit Court of Wetzel County, West Virginia, complaining that Chesapeake did not have permission to leave waste material on the site. The case was removed to federal court on February 23, 2011. The causes of action alleged were nuisance, trespass, negligence, strict liability, recklessness or gross negligence, intentional infliction of emotional distress, and negligent infliction of emotional distress. On June 7, 2011, the court granted in part Chesapeake's motion for summary judgment and dismissed the Whiteman's trespass claim. On June 11, 2011, the parties stipulated to the dismissal of the remainder of the claims.

The order dismissing the trespass claim was appealed to the U.S. Court of Appeals for the Fourth Circuit, Case No. 12-1790. Oral arguments were heard on March 21, 2013. On September 4, 2013, the Fourth Circuit upheld the lower court's dismissal of the trespass claim by finding that

> ...creating drill waste pits was reasonably necessary for recovery of natural gas and did not impose a substantial burden on the Whitemans' surface property, that creation of the pits was consistent with Chesapeake's rights under its lease, was a practice common to natural gas wells in West Virginia, and consistent with requirements of applicable rules and regulations for the protection of the environment.

Whiteman v. Chesapeake Appalachia, LLC, 729 F.3d 381, 2013 WL 4734969 (4th Cir. Sept. 4, 2013)

***Smith v. Devon Energy Production Company, L.P.*, Case No. 4:11-cv-00104 (E.D. Tex., March 7, 2011) (originally filed in N.D. Texas, Case No. 3:11-cv-00196, on Jan. 31, 2011)**

The Smith family complained that the quality of their water deteriorated after Defendant Devon Energy Production Company began natural gas exploration, hydraulic fracturing, and other production operations near their home. At first, their water supply contained sediment. They installed an in-line filtration system. That system worked well until April 2010 when Defendant installed a natural gas collection infrastructure about 600 feet away from their home. Then, according to the Smiths, the water became fouled with a grey, clay-like substance. This was reported to Defendant, who contacted the Texas Railroad Commission. Water samples were taken, and the results showed high levels of arsenic, barium, chromium, lead, and selenium. The Smiths stopped using their water supply.

The Smiths asserted causes of action for trespass, nuisance, and negligence for allowing metals, chemicals, and other substances from Defendant's drilling and fracking activities to enter their land and their only source of drinking water. They sought damages for loss of land use, loss of market value, loss of intrinsic value of the well water, loss of value of groundwater, emotional harm and mental anguish.

On May 25, 2012, this lawsuit was dismissed on the Smiths' motion, indicating that "water test results [provided during discovery] show that the well water no longer exhibits contamination in excess of the MCLs [maximum contaminant levels]."

***Baker v. Anschutz Exploration Corp., Conrad Geoscience Corporation, and Pathfinder Energy Services, Inc.*, No. 6:11-cv-06119 (W.D. N.Y. March 9, 2011)**

In February 2011, 15 landowners ("Plaintiffs") filed suit under Cause No. 2011-1168 in the Supreme Court of the State of New York, Chemung County, against Anschutz Exploration Corporation ("Anschutz"); Conrad Geoscience Corporation (dismissed on June 12, 2013); and Pathfinder Energy Services, Inc. (stipulation of dismissal January 24, 2014) (collectively, "Defendants"). This case was transferred to the U.S. District Court for the Western District of New York, Rochester Division, on March 9, 2011.

Plaintiffs alleged that Defendants were negligent in their drilling, construction, and operation of natural gas wells such that: (1) combustible gas was released into the headspaces of Plaintiffs' water wells; (2) elevated levels of dissolved methane, propane, and other natural gases were present in Plaintiffs' wells; (3) natural gas was discharged into Plaintiffs' groundwater; (4) excessive pressures were present within gas wells near Plaintiffs' homes and water wells; (5) pollutants

including toxic sediments and industrial waste were discharged into the soil and water near Plaintiffs' homes and water wells; and (6) drilling muds and fluids were allowed to be discharged onto the surface and into the subsurface near Plaintiffs' homes and water wells. Specifically, Plaintiffs claimed that Anschutz's improper drilling, well capping, and/or cement casing caused toxic chemicals to be discharged into Plaintiffs' groundwater. Plaintiffs further claimed that, when hired by Anschutz to investigate possible contamination, Conrad Geoscience failed to conduct a reasonable and prudent investigation, in conformity with industry standards that would have warned Plaintiffs about the contamination.

The complaint set out causes of action for negligence per se, common law negligence, nuisance, strict liability, trespass, medical monitoring, premises liability, fear of developing cancer, and deceptive business acts and practices. Damages sought included the loss of market value of land, costs of repair and restoration, loss of the use of land, expenses related to testing, medical monitoring, and consequential damages, in the amount of $150,000,000 per cause of action. Plaintiffs sought exemplary or punitive damages of at least $500,000,000, litigation costs, and attorneys' fees.

On September 25, 2012, the court entered a Modified Scheduling Order requiring (a) Defendants to provide Plaintiffs with all data and documents relating to the monitoring of the water wells and (b) Plaintiffs to provide Defendants with (i) expert reports identifying all hazardous substances to which they claim exposure, the precise location of each exposure, and an explanation of causation; (ii) all studies and reports showing contamination of Plaintiffs' property; and (iii) identification and quantification of contamination of Plaintiffs' real property that Plaintiffs attributed to Defendants' operations.

Fact discovery was completed on January 14, 2014 and expert reports were submitted in mid-2014. As was a stipulation that Plaintiffs were dropping their claims for deceptive business acts, fear of developing cancer, medical monitoring, and strict liability. On October 22, 2014, the Defendants moved to strike one of the Plaintiff's experts contending that the expert's opinion that exploration activities had caused the contamination in Plaintiffs water wells was overly reliant on the temporal connection between the commencement of drilling and the first appearances of elevated toxicity levels. The court agreed that the expert offered no true explanation of the causal connection. Accordingly, the court struck the expert's opinion. The court later granted reconsideration of the issue but ultimately came to the same conclusion. Without any admissible expert testimony on the issue of causation, the court granted summary judgment for the defendants. After a motion for reconsideration, the court affirmed its decision.

***Parr v. Aruba Petroleum, Inc., Ash Grove Resources, LLC, Encana Oil & Gas (USA), Inc., Halliburton Co., Republic Energy, Inc., Ryder Scott Co., LP; Ryder Scott Oil Co., Tejas Production Services, Inc., and Tejas Western Corp.*, No. 11-01650-E (Dallas County Ct. at Law, Mar. 8, 2011)**

Plaintiffs are a married couple in Wise County, Texas, owning property close to oil and gas wells being developed by defendants Aruba Petroleum, Inc.; Ash Grove Resources LLC;[10] Encana Oil & Gas (USA) Inc.;[11] Halliburton Company;[12] Republic Energy Inc.;[13] Ryder Scott Company, LP;[14] Ryder Scott Oil Company;[15] Burlington Resources Oil & Gas Company LP,[16] Tejas Production Services, Inc.;[17] and Tejas Western Corporation[18] (collectively, "Defendants").

Plaintiffs alleged that Defendants' natural gas drilling activities and operations, including releases, spills, emissions, and discharges of hazardous gases from vehicles, engines, construction, pits, condensate tanks, dehydrators, flaring, venting, and fracking, exposed Plaintiffs and their property to hazardous gases, chemicals, and industrial wastes. Plaintiffs identified more than 60 natural gas well sites that are located in close proximity to their property. Due to Defendants' natural gas activities, Plaintiffs claimed they experienced serious health effects, with medical tests revealing the presence of natural gas chemicals, compounds, and metals such as ethylbenzene and xylene. The complaint further alleged that Defendants' activities resulted in the death of household pets and chickens, and ultimately forced Plaintiffs to evacuate their home.

In the Eleventh Amended Petition filed on September 17, 2013, Plaintiffs asserted claims for common law negligence,

10 Ash Grove Resources LLC was dropped as a named defendant in Plaintiffs' Sixth Amended Petition filed on September 20. 2012. On March 22, 2013, the claims against Ash Grove Resources LLC and Tejas Western Corporation were severed (Cause No. CC-13-01784-E) for settlement purposes. A final judgment was entered on May 3, 2013.
11 On February 19, 2014, the claims against Encana Oil & Gas (USA), Inc. were severed (Case No. CC-14-00994-E) for settlement purposes.
12 On January 27, 2014, the claims against Halliburton Energy Services, Inc. were severed (Cause No. CC-14-00371-E).
13 Republic Energy Inc. was dismissed with prejudice on November 11, 2011.
14 Ryder Scott Company, LP was dropped as a defendant in Plaintiffs' Second Amended Petition filed on August 5, 2011.
15 Ryder Scott Oil Company was dropped as a defendant in Plaintiffs' Fourth Amended Petition filed on February 2, 2012.
16 Burlington Resources Oil & Gas Company LP ("Burlington") was added as a defendant in Plaintiffs' Second Amended Petition. Burlington settled with plaintiffs and was dismissed on April 16, 2014
17 Tejas Production Services, Inc. was dismissed without prejudice on July 25, 2012.
18 Tejas Western Corporation was dropped as a named defendant in Plaintiffs' Sixth Amended Petition filed on September 20. 2012. On March 22, 2013, the claims against Ash Grove Resources LLC and Tejas Western Corporation were severed (Cause No. CC-13-01784-E) for settlement purposes. A final judgment was entered on May 3, 2013.

gross negligence, negligence *per se*,[19] private nuisance,[20] and trespass. Plaintiffs sought actual damages in a maximum amount of $66,000,000 for medical expenses, loss of earning capacity, loss of consortium, property damage, loss of market value, replacement and repair costs, sentimental value damages, loss of use, medical monitoring, cost of remediation, unliquidated damages, attorneys' fees, nominal damages, and exemplary damages. In addition, Plaintiffs sought a permanent injunction to preclude current and future drilling and hydraulic fracturing activities near Plaintiffs' land.

In January 2014, the court severely limited the family's lawsuit by dismissing the claims for negligence and negligence per se and only allowing the nuisance and trespass claims to go forward. For the family's personal injury damages, the court ruled that these would be limited to injuries that were "within the common knowledge and experience of a layperson" and barred recovery for "any claim that Defendants' actions caused a disease that occurs genetically and for which a larger percentage of the causes are unknown." The court also disallowed expert testimony, stating that "the sequence of events is such that a layperson may determine causation without the benefit of expert evidence."

The trial of this case started on April 8, 2014, one of the first hydraulic fracturing personal injury cases to come to trial. In opening argument, counsel for the Parr family explained that, since 2008 when Defendants began to drill gas wells in the area surrounding the family's home, the Parrs have suffered numerous medical problems, at times so severe that they could not work and had to leave their home. Due to Defendants' natural gas activities, including hydraulic fracturing, flaring, venting, and discharges of hazardous gases, the Parr family claims to have experienced serious health effects, with medical tests revealing the presence of natural gas chemicals, compounds, and metals, including, among others, ethylbenzene and xylene.

Defense counsel advised the jury that the Parr family could not prove that one of Aruba's 22 wells within a two-mile radius of the residence, out of the hundreds of wells in the area, made them sick. Counsel argued that there is no proof of diminished air quality at the home following drilling, asserting that its wells stayed within the air quality limits set by the Texas Commission on Environmental Quality and the Texas Railroad Commission. Counsel also explained that the company operates within industry standards and best practices. As for the Parr family's medical conditions, counsel stated that evidence would be presented to show that the family suffered from these same maladies before the companies started drilling.

On April 22, 2014, a Dallas jury in a 5 to 1 verdict awarded $2.925 million to the Parr family. Answering the questions in the court's charge, the jury found that Aruba had intentionally created a private nuisance with its activities and awarded $275,000 for loss of market value, $2.0 million for past pain and suffering, $250,000 for future pain and suffering, $400,000 for past mental anguish, and $0 for future mental anguish. The jury did not award exemplary damages, finding no malice and that Aruba's conduct was not abnormal nor out of place in its surroundings.

The trial court entered judgment and the Defendants took an appeal to the Texas 5th Court of Appeals where they asserted six points of error: (1) that the evidence was insufficient to support a jury finding that Aruba intentionally created a private nuisance; (2) that Plaintiffs are barred from recovering personal damages that require expert evidence of causation because they expressly disclaimed those damages before trial; (3) that the lay evidence was insufficient to establish that the Defendants actions caused the alleged damages; (4) that the evidence was insufficient to support a finding of damages; (5) that the trial court abused its discretion by admitting the testimony of the Plaintiff's environmental expert; and (6) that a new trial must be conducted because one of the jurors had a previous conviction for misdemeanor theft.

The Texas 5th Court of Appeals heard oral argument on September 14, 2016 and the case was submitted. While the appeal was pending, Aruba filed for bankruptcy protection in the Eastern District of Texas. The bankruptcy judge lifted the stay, however, and ordered that the appeal move forward. On December 6, 2016, the appellate court acknowledged the bankruptcy and the lift stay order and agreed to move forward with the case.

On February 1, 2017, the Texas 5th Court of appeal reversed the trial court and rendered judgment for the defendants. In order to survive the appeal, the Plaintiff had to point to evidence that (1) Aruba "knew that its activities were harming" them and (2) that Aruba "was intentionally causing

19 For negligence *per se*, Plaintiffs set out four (4) statutes allegedly violated by Defendants. These are the Texas Administrative Code (Chapter 101. §101.4) relating to water protection, leaks, and environmental quality, Texas Penal Code (§22.01) for assault, Texas Penal Code (§28.04) for reckless damage or destruction to property, and Texas Civil Practice & Remedies Code (§75.002(h))for trespass.

20 Plaintiffs include claims for negligent private nuisance, intentional private nuisance, and *per quod* private nuisance. For the *per quod* claim, Plaintiffs allege that, even absent negligence or intentional private nuisance, Defendants engaged in activities that were "abnormal and out of place in their surroundings." Plaintiffs set out a list of "Private Nuisance Activities" which include Defendants' alleged air and subsurface trespass as well as the creation of offensive noise, odors, smells, sights and light pollution, heavy traffic, and disturbances "in the natural environment to cause wildlife to flee."

a "substantial interference" with their use and enjoyment of the property. The court acknowledged that the plaintiff had presented evidence that Aruba was generally aware of complaints about its operations. But there was not legally sufficient evidence to show that Aruba could have connected those complaints to the Plaintiffs or their specific property. The court appeared to give particular weight to the fact that Lisa Parr, the primary plaintiff, had not reached out directly to Aruba through a letter, an email, or an in-person meeting at Aruba's offices.

***Strudley v. Antero Resources Corp., Calfrac Well Services, and Frontier Drilling LLC*, No. 2011-cv-2218 (Denver County Dist. Ct., Mar. 23, 2011)**

On March 23, 2011, the Strudley family ("Plaintiffs") sued Antero Resources Corporation; Calfrac Well Services ("Calfrac"); and Frontier Drilling LLC (collectively, "Defendants") in Colorado state court. According to Plaintiffs, Defendants operate several natural gas wells in Garfield County, Colorado, within one mile of their residence and water supply well. Plaintiffs allege that environmental contamination from Defendants' drilling activities caused health injuries, loss of use and value of their property, loss of quality of life, emotional distress, and other damages. Specifically, Plaintiffs stated that Defendants' negligence caused the presence of hydrogen sulfide, hexane, n-heptane, toluene, and other toxic hydrocarbons and hazardous pollutants to be discharged into the air, ground, and aquifer near Plaintiffs' property.

The Strudleys set out causes of action for negligence per se, common law negligence, nuisance, strict liability, trespass, and medical monitoring trust funds. On July 20, 2011, the Court dismissed the negligence per se claim against Calfrac, finding that fracturing fluids and other oil and gas materials used by Calfrac were not "wastes" under the Colorado Hazardous Waste Act and that Calfrac was not an operator or owner as required by the Colorado Oil and Gas Conservation Commission regulations.

Damages sought in this case included the cost of remediation, cost of future health monitoring, compensatory damages, loss of use and enjoyment of property, loss of quality of life, emotional distress, personal injury, diminution of property value, and litigation costs and fees.

In their Motion to Modify the court's Case Management Order filed on September 19, 2011, Defendants asserted that Plaintiffs had only provided vague allegations of injury and exposure and that Plaintiffs failed to identify any current or future disease or to allege that any treating physician or qualified scientist had connected any such disease to the chemicals or wastes used during Defendants' operations. Because of the vagueness of the claims, Defendants argued that the court should issue a "Lone Pine" order,[21] requiring Plaintiffs to make a prima facie showing of exposure, injury, and specific causation by providing expert affidavits. The court agreed with the Defendants and, on November 10, 2011, ordered Plaintiffs to provide sufficient evidence of their claims by means of sworn affidavits from doctors, contamination reports, and other information relating to the identification and quantification of contamination on their property attributable to Defendants' operations. Plaintiffs presented their evidence to the court on February 23, 2012.

Defendants filed a Motion to Dismiss or, in the Alternative, for Summary Judgment on March 23, 2012, arguing that the Plaintiffs' evidence was insufficient to support their claims. The court agreed, ruling that the affidavit from Plaintiffs' doctor failed to establish a causal connection between Plaintiffs' injuries and Defendants' drilling activities, and dismissed Plaintiffs' claims with prejudice on May 9, 2012. Plaintiffs appealed this dismissal.

On July 3, 2013, the Colorado Court of Appeals (Case No. 12 CA 1251) reversed the Lone Pine order and the dismissal order. The court cited two primary reasons for doing so. The first was anchored in two Colorado Supreme Court cases that the court said stand for the proposition "that a trial court may not require a showing of a prima [facie] case before allowing discovery on matters central to a plaintiff's claims." Second, the court cited differences between Colorado Rule of Procedure 16 and Federal Rule of Civil Procedure 16.[22] (Federal courts often cite Fed. R. Civ. P. 16 as the basis of their authority to issue Lone Pine orders.) The court further held that, even assuming it was writing on a blank slate, unlike the majority of cases allowing Lone Pine orders, this was not a mass tort case nor was it "any more complex or cost intensive than an average toxic tort case." The court saw this lawsuit as a simple case involving four family members suing four defendants over

21 *See Lore v. Lone Pine Corp.*, No. L-33606-85 1986 WL 635707 (N.J. Sup. Ct. Nov. 18, 1986). In order to streamline the proceedings in this toxic tort case, the court entered a case management order requiring the Plaintiffs to present certain basic facts regarding their claims of contamination from a landfill. First, the court required the Plaintiffs to provide the following documentation with respect to each personal injury claim: (i) facts of each individual Plaintiff's exposure to alleged toxic substances at or from the site; and (ii) reports from treating physicians or other experts, supporting each individual Plaintiff's claim of injury and causation. The court then required the Plaintiffs to give the following with respect to the property damage claims: (i) location of the property; and (ii) reports from real estate or other experts supporting property damage claims, including the timing and degree of the damage as well as causation of the same.

22 Fed. R. Civ. P. 16(c)(2) allows a federal court to "consider and take appropriate action…" to formulate and simplify the issues and eliminate frivolous claims or defenses. The Colorado Court of Appeals points out that, while the Colorado rule does not contain this language, rules relating to motions to dismiss and motions for summary judgment "provide adequate procedures for challenging claims lacking in merit."

alleged pollution of one parcel of land, making the Lone Pine order unnecessary.

On April 7, 2014, the Colorado Supreme Court agreed to review the appeals court decision. The following were the questions presented:

- Whether a district court is barred as a matter of law from entering into a modified case management order requiring the plaintiffs to produce evidence essential to their claims after initial disclosures but before further discovery.

- Whether, if such modified case management orders are not prohibited as a matter of law, the district court in this case acted within its discretion in entering and enforcing such an order.

The Colorado Defense Lawyers Association, the Colorado Civil Justice League, and the American Petroleum Institute all filed amicus curiae briefs in support of the use of Lone Pine orders in Colorado.

Despite support from those industry groups, the Colorado Supreme Court affirmed the lower court's disposition holding that Colorado procedural rules do *not* permit the district court to enter a modified case management order, such as a *Lone Pine* order, that requires prima facie evidence in support of a claim before a plaintiff can exercise full rights of discovery. *Antero Resources Corp. v. Strudley*, 347 P.3d 149 (Colo. 2015). The opinion echoed the reasoning of the lower court emphasizing that the narrower text of the Colorado rules did not allow for federal-style *Lone Pine* orders. A dissenting opinion would have allowed the orders. Citing a long line of cases that encourage "active case management" by the trial judge, the dissent viewed *Lone Pine Orders* as a valuable part of that management. The majority, however, held that in managing the case, the trial judge is limited to orders that do not bar "discovery that might expose the very support sought to prove a claim." *Id.* at 159.

***Andre v. EXCO Resources, Inc. and EXCO Operating Co.*, No. 5:11-cv-00610-TS-MLH (W.D. La. April 15, 2011)**

***Beckman v. EXCO Resources, Inc. and EXCO Operating Co.*, 5:11-cv-00617-TS-MLH (W.D. La. April 18, 2011)**

On April 15, 2011, David Andre, individually and on and behalf of "consumers of water in the immediate vicinity of DeBroeck Landing, Caddo Parish, Louisiana" and, on April 18, 2011, Daniel Beckman with seven other people (collectively "Plaintiffs") filed suit against EXCO Resources, Inc. and EXCO Operating Company.

According to both complaints, on April 18, 2010, a natural gas well operated by EXCO near DeBroeck Landing "experienced problems resulting in the contamination" of the Caddo Parish aquifer and all of the Plaintiffs' properties.

While the complaints did not allege that EXCO engaged in hydraulic fracturing, the Plaintiffs sought to compel disclosure of the formulation of the "drilling muds and solutions" allegedly used by EXCO in the natural gas well in order to allow "appropriate tests and monitoring of the aquifer [to] take place."

Plaintiffs set out causes of action for negligence, strict liability, nuisance, trespass, unjust enrichment, and impairment of use of property. They sought a variety of damages, including groundwater remediation costs, diminution of property value, and losses from "stigma" affecting the market value of the property. They also sought a declaratory judgment, "general and equitable relief," economic damages, and mental anguish and emotional distress damages. Additionally, the Plaintiffs requested an order requiring remediation by EXCO of the groundwater and development of a "long-term monitoring program" near the site of the alleged well failure and the allegedly contaminated aquifer.

On November 12, 2013, the court entered a final order certifying a settlement class (any person owning, residing or working at residences or businesses within 1.5 miles of the incident that were subject to a mandatory evacuation for any period of time between April 18, 2010 and May 4, 2010), approving the settlement, and dismissing the action with prejudice.

***Ginardi v. Frontier Gas Services, LLC, Kinder Morgan Treating LP, Chesapeake Energy Corporation, and BHP Billiton Petroleum*, No 4:11-cv-0420 BRW (E.D. Ark. May 17, 2011)**

On May 17, 2011, a class action suit was filed on behalf of all Arkansas residents who live or own property within one mile of any natural gas compressor or transmission station (collectively, "Plaintiffs"). Defendants were Frontier Gas Services, LLC; Kinder Morgan Treating, LP; Chesapeake Energy Corp.; and BHP Billiton Petroleum (Fayetteville), LLC (dismissed without prejudice on August 17, 2011) (collectively, "Defendants"). On July 8, 2011, Crestwood Arkansas Pipeline LLC was added as a defendant. According to Plaintiffs,

Defendants used hydraulic fracturing to produce gas from the Fayetteville Shale and own and operate related facilities across the state of Arkansas. Plaintiffs complained that Defendants' operations polluted the atmosphere, groundwater, and soil with harmful gases, chemicals, and compounds. The causes of actions alleged by Plaintiffs were strict liability, nuisance, trespass, and negligence.

Plaintiffs sought compensatory and punitive damages for loss of use and enjoyment of property, contamination of soil, contamination of groundwater, contamination of air and atmosphere, loss of property value, and severe mental distress. Besides punitive and compensatory damages, Plaintiffs further requested establishment of a fund for monitoring future air, soil, and groundwater contamination, costs, and pre-judgment interest. The court dismissed Plaintiffs' claim for attorneys' fees on August 10, 2011.

On December 14, 2011, Plaintiffs filed a motion for partial summary judgment on their trespass cause of action, alleging that there was no disputed issue of fact that Defendants' activities trespassed upon Plaintiff's property. On January 17, 2012, the court denied this motion as being premature, advising that the class certification had to be held first. On February 6, 2012, Plaintiffs filed their Motion to Certify Class. The certification hearing was held on April 3, 2012. On April 6, 2012, the Judge issued a letter stating that "I am much inclined to deny class certification..." A formal order denying class certification was issued on April 19, 2012, with the court ruling that "individual issues presented in this case predominate over the common issues."

On July 11, 2012, the parties filed a Joint Motion to Dismiss With Prejudice, stating that they had "resolved and settled all their claims and cross-claims" and that the case should be dismissed with prejudice, which the court granted.

***Tucker v. Southwestern Energy Co., XTO Energy, Chesapeake Energy Corp., and BHP Billiton Petroleum*, No. 1:11-cv-0044-DPM (E.D. Ark. May 17, 2011)**

***Berry v. Southwestern Energy Co., XTO Energy, Chesapeake Energy Corp., and BHP Billiton Petroleum*, No. 1:11-cv-0045-DPM (E.D. Ark. May 17, 2011)**

On May 17, 2011, two class action suits were filed on behalf of all Arkansas residents who live or own property within three miles of any bore holes, wellheads, or other gas extraction operations. These two cases were consolidated on July 22, 2011. Southwestern Energy Corporation; XTO Energy (dismissed on July 15, 2011); Chesapeake Energy Corporation (dismissed with prejudice on May 17, 2012); and BHP Billiton Petroleum (Fayetteville), LLC (collectively, "Defendants") were the defendants. These cases settled and were dismissed on August 29, 2012.

On February 17, 2012, the court ordered Plaintiffs to amend their complaints to "plead more facts to give the companies notice of what and how each driller supposedly did wrong" because the complaints are "too thin on some critical facts." The court also determined that the motion to deny class certification was premature and would be considered after Plaintiffs amended their complaints. Plaintiffs filed their Combined Amended Complaint on March 23, 2012, adding two plaintiffs and adding more facts to support their claims for strict liability, nuisance, trespass, and negligence.

On July 2, 2012, Plaintiffs asked the court for permission to file their Second Combined Amended Complaint ("Second Complaint") in order to remove certain parties who are no longer Defendants . . . and to add allegations concerning Southwestern Energy's Underwood experimental salt water disposal well. The court granted Plaintiffs' motion and the Second Complaint was filed on July 11, 2012. This Second Complaint did not include BHP Billiton as a named defendant.

Plaintiffs claimed that Defendants' drilling operations in the Fayetteville Shale polluted their soil, groundwater, air, and water wells. Plaintiffs asserted that their water wells and groundwater were contaminated with alpha methyl styrene or had emitted methane and hydrogen sulfide.

Plaintiffs sought punitive and compensatory damages for loss of use and enjoyment of their property, contamination of soil, contamination of groundwater, contamination of water wells, contamination of air and atmosphere, loss of property value, emotional and mental anguish, and physical harm and injury. Additionally, Plaintiffs requested establishment of a fund for monitoring future air, soil, and groundwater contamination, costs and attorney's fees, and pre-judgment interest.

***Ruby Hiser v. XTO Energy, Inc.*, No. 4:11-cv-00517-KGB (E.D. Ark. June 24, 2011)**

On June 7, 2011, plaintiff Ruby Hiser sued XTO Energy, Inc., alleging that XTO's natural gas drilling operations on her next-door neighbor's property "created mechanical vibrations which have caused near-total destruction of the Plaintiff's home and continues to cause injury to" her and her home. According to the Plaintiff, her home was rendered unstable and

un-level, the roof separated from the home, ceramic tile and mortar cracked and loosened, windows were broken, and there were cracks in the ceilings and walls throughout the home. She plead nuisance per se and unlawful trespass. Damages sought included the value of her home and the diminution in value of her property, the loss of use and enjoyment of her property, and the intentional and negligent infliction of emotional distress which have caused harm to Plaintiff's health and welfare.

This case was tried to a jury on August 27-29, 2012, with a final judgment signed on September 10, 2012. The verdict was in favor of the plaintiff, with a damage award of $300,000 ($100,000 compensatory and $200,000 punitive damages). During deliberations, the jurors sent out a question asking "were they [XTO] drilling only or were they also fracking?" The court instructed the jury to make their decision based on what they recalled of the evidence. It is undisputed that there was no evidence of hydraulic fracturing presented at trial and that any discussions among the jurors as to fracking were outside the record.

After the verdict, XTO's counsel's request to contact the jurors was granted. One of the jurors provided an affidavit stating that the jurors discussed the negative impact that fracking might have had on the plaintiff's property. More specifically, the jurors discussed that fracking caused earthquakes and vibrations.

XTO filed a motion for new trial based on the jury's alleged misconduct. On April 23, 2013, the court issued an order, stating that it would examine whether the jury had discussed extraneous information in making its decision. Two jurors were called to testify before the court. On September 30, 2013, the court denied XTO's motion for a new trial, stating in part that the jury had not been influenced by extraneous, prejudicial information.

XTO filed a notice of appeal to the 8th Circuit Court of Appeals (No. 13-03443) on October 3, 2013. The court heard arguments on September 10, 2014, and filed its opinion on October 3, 2014. *Hiser v. XTO Energy, Inc.*, 768 F.3d 773 (8th Cir. 2014). Reviewing the trial court's actions for abuse of discretion, the 8th Circuit affirmed the denial of a request for new trial and the refusal to subpoena. The jurors' discussions of fracking and earthquakes did not warrant a new trial because the statements themselves were not targeted at a particular episode or defendant. And, in any event, XTO was unable to demonstrate "a reasonable possibility that the discussions prejudiced it or altered the verdict." XTO's second issue—the refusal to grant a subpoena—also failed as the standard for gathering evidence is that the court "consider relevant testimony" not that it "gather *all* relevant testimony." *Id.* at 778.

***Lipsky v. Durant, Carter, Coleman LLC, Silverado on the Brazos Development Company #1 Ltd., Jerry V. Durant, James T. Coleman, Estate of Preston Carter, Range Production Company, and Range Resources Corp.*, Cause No. CV11-0798 (Parker County Dist. Ct., June 20, 2011)**

In 2005, Steven and Shayla Lipsky ("Plaintiffs") built their dream home in Silverado on the Brazos, a subdivision developed by Durant, Carter, Coleman LLC in Parker County, Texas. In the summer of 2010, Plaintiffs discovered that their well water contained benzene, toluene, ethane, and a large amount of methane gas, making the well unusable. Plaintiffs learned that Range Production Company and Range Resources Corporation (the "Range Defendants") had begun to extract gas from the Barnett Shale formation very near their home, in direct violation of the subdivision's covenants. Plaintiffs filed their lawsuit on June 20, 2011, seeking $6.5 million in damages.

Earlier, in December 2010, the EPA issued an emergency order against Range, finding that the hydrocarbons in the Plaintiffs' well water were likely caused by gas drilling and posed serious health risks.[23] Later this statement was refined to indicate that the hydrocarbons from Range's operations may have caused or contributed to the contamination. The order required Range to conduct research on the source and extent of contamination, provide drinking water to affected residents, and develop a plan to mitigate contamination in the aquifer. Range did not fully comply with the order, and legal actions between Range and the EPA ensued. The sides settled in March 2012, with Range agreeing to test the North Texas wells for a year and share the findings with the EPA. But Range admitted no guilt and was not ordered to provide residents with another water source.[24]

The Texas Railroad Commission ("Commission") stepped in to investigate the claims; and in March 2011, the Commission

23 *See United States v. Range Production. Co., et al,. supra.*

24 A Congressional inquiry was launched to review this settlement order. The Inspector General issued a response to this inquiry on December 13, 2013, finding that the regions subsequent enforcement actions, conformed to agency guidelines, regulations and guidelines. However, the report recommended that the Region 6 Regional Administrator (1) collect and evaluate the testing results being provided by Range to determine whether the data is of sufficient quality and utility, (2) determine whether an imminent and substantial endangerment still exists at the original residential well involved, (3) inform the affected residents of the present status of the contamination and of any Region 6 planned actions, (4) work with the Railroad Commission of Texas to ensure appropriate action is taken as needed, and (5) document the costs and resources invested to complete the work included in these recommendations. *See* http://www.epa.gov/oig/reports/2014/20131220-14-P-0044.pdf for a copy of the report.

issued an order exonerating the Range Defendants, stating that Range's wells were not responsible for the contamination of Plaintiffs' water and that the methane gas in the water wells likely was naturally occurring and came from the shallow Strawn geological formation, far above the Barnett Shale.

In the lawsuit, the Range Defendants filed a plea to the court's jurisdiction, alleging that Parker County was not the proper venue for challenging the Commission's order. On January 30, 2012, the court ruled that Plaintiffs should have filed their lawsuit in Travis County, where the Commission sits. Because the statute of limitations has run on appealing the Commission's decision, the court's order essentially dismissed Plaintiffs' claims against the Range Defendants.[25]

***Evenson v. Antero Resources Corporation, Antero Resources Piceance Corporation, and John Doe Well Service Providers*; No. 2011-cv-5118 (Denver County Dist. Ct., July 20, 2011)**

This lawsuit was filed by several families ("Plaintiffs") residing in Battlement Mesa, Garfield County, Colorado, who claimed that the drilling and exploration activities of Antero Resources Corporation, Antero Resources Piceance Corporation, and John Doe Well Service Providers (collectively "Defendants") were exposing their properties and persons to hazardous gases, chemicals, and industrial wastes. Plaintiffs requested class action status for more than 1,000 property owners and 5,000 past and present residents of the community. Plaintiffs' claims were based on one alleged incident in which petroleum odors emanated from one well pad near Battlement Mesa.

Based on the anticipated effects of future natural gas drilling, Plaintiffs sought equitable relief requiring Defendants to use unspecified practices to prevent releases, spills, and discharges; compensation for diminution in property value resulting from a "stigma" that has attached to the property; and creation of a medical monitoring fund to cover the costs arising from the alleged intentional, knowing, reckless and negligent acts and omissions of the Defendants in connection with their releases, spills, and discharges of hazardous chemicals used in their drilling activities.

The Antero Defendants filed a motion to dismiss, arguing that Plaintiffs had not asserted any legal claims for relief, but only requested remedies based on conduct that had not yet occurred. Further the Antero Defendants asserted that Plaintiffs had failed to plead any injury to their property; that Plaintiffs were attempting to usurp the jurisdiction of the Colorado Oil and Gas Conservation Commission by imposing additional drilling and operational requirements on the Antero Defendants; and that medical monitoring was not a recognized cause of action in Colorado. Moreover, the Antero Defendants argued that all of Plaintiffs' claims were not "ripe" since they were based on speculative future drilling and operational activities. The court ruled in favor of the Antero Defendants on August 17, 2012 and dismissed the claims.

***Kamuck v. Shell Energy Holdings GP, LLC, Shell Energy Holdings LP, LLC, and SWEPI, LP (d/b/a Shell Western Exploration and Production, LP)*; No. 4:11-cv-01425-MCC (M.D. Pa., August 3, 2011)**

Edward Kamuck ("Plaintiff") brought this lawsuit claiming damages from hydraulic fracturing activities on his 93-acre tract of land, which was under an oil and gas lease at the time of his purchase in 2009.[26] Plaintiff complained that fracking fluid contains significant amounts of hazardous, toxic and carcinogenic chemicals which remain in the well, come to the surface, and harm his property and his health. He further complained that 100 to 150 vehicles a day go directly past his residence (within 45 feet) on an unpaved, dusty road, creating noise and dust. In addition, Plaintiff claimed that Defendants spray an unidentified fluid on the dirt roads which drains into the ditches and seeps into the ground.

25 The lawsuit in Parker County continues on Range's counterclaims for defamation, business disparagement, and conspiracy under the Texas anti-SLAPP (strategic lawsuits against public participation) Act, 27 Tex. Civ. Prac. & Rem. Code § 27.001 *et seq.* The defamation and business disparagement claims are based in part on videos purportedly showing Steven Lipsky setting fire to well water flowing from a garden hose, while in reality the hose was attached to the gas vent on the water well.

The Lipskys appealed the trial court's February 16, 2012 order, in which the court denied their motion to dismiss and found "sufficient clear and specific evidence" for Range's counterclaims. *Steven and Shyla Lipsky and Alisa Rich v Range Production Company and Range Resources Corporation*, in Case No. 2-12-00098, in the Second Court of Appeals for the State of Texas (filed March 12, 2012). The Court of Appeals dismissed this appeal for want of jurisdiction, stating that it had no jurisdiction over an interlocutory appeal under the anti-SLAPP Act. On October 8, 2012, the Lipskys appealed this decision to the Texas Supreme Court (Case No. 12-0811), which dismissed the petitions for review on December 3, 2013.

On August 23, 2012, the Lipskys filed a request to proceed as a petition for writ of mandamus (Case No. 2-12-00348-CV, *In re Steven and Shyla Lipsky and Alisa Rich)*. On April 22, 2013, the Court of Appeals concluded that there was enough evidence for Range to proceed with its defamation and business disparagement counterclaims against Steven Lipsky, but the claims against Shyla Lipsky and Alisha Rich should be dismissed. All motions for rehearing and en banc reconsideration were denied on October 10, 2013.

The Lipskys filed a Petition for Writ of Mandamus to the Texas Supreme Court on November 25, 2013 (Case No. 13-0928, *In Re Lipsky*), arguing that the entire case should be dismissed because Range did not show clear and specific evidence of the alleged defamation. On December 2, 2013, Range countered with its own Petition for Writ of Mandamus (Case No. 13-0928, *In Re Range Production Company and Range Resources Corporation*), seeking to reinstate the dismissed claims and asking the court to determine what and how much evidence must be shown to prove that a claim under the Texas Citizens Participation Act (TCPA) is not frivolous.

The Supreme Court of Texas heard oral arguments on December 4, 2014, and decided the case on April 24, 2015. The court denied both petitions for mandamus, effectively siding with Range Resources. The court held that the anti-SLAPP statute does not require direct evidence of each essential element of the underlying claim to avoid dismissal. Instead, a plaintiff can make its showing of the prima facie case by providing circumstantial evidence.

The denial of mandamus returned the case to the Parker County trial court. The May 2017 jury trial was cancelled upon agreed resolution between the parties.

26 Plaintiff is also suing to correct an alleged improper unitization under the oil and gas lease as well as to stop Defendants from drilling into the Marcellus Shale because the lease only allowed unitization for drilling in the Onondaga or Oriskany formations or below. The Marcellus Shale is located above these formations.

Plaintiff brought the following causes of action relating to hydraulic fracturing: injunctive relief (prohibiting all fracking operations and related activities), anticipatory trespass, private nuisance, negligence, negligence per se, gross negligence, and strict liability. On April 27, 2012,[27] upon Defendants' motion, the court dismissed the claims for anticipatory trespass, negligence per se, and gross negligence. The Judge indicated that he would entertain motions for summary judgment on the remaining claims of negligence, strict liability, and private nuisance after discovery was completed.

In the remaining claim, Plaintiff sought damages for the reasonable and necessary costs of remediation of the hazardous substances and contaminants on his property, the cost of future water and health monitoring, loss of property value, damage to natural resources, medical costs, loss of use and enjoyment of property, loss of quality of life, emotional distress, and other reasonable damages.

On June 21, 2012, Defendants' filed a Motion for A Modified Case Management Order, requesting that the court enter a "Lone Pine" order[28] as in the *Strudley* case, *supra*. Plaintiff argued that such an order was not warranted because this was not a mass tort case, having only one plaintiff, and the motion seeks to circumvent the standing discovery orders. On September 5, 2012, the court denied the Defendants' request, finding that it was not currently warranted "despite what appear to be arguable shortcomings on the part of Plaintiff's allegations and evidentiary production to date."

Beginning in December 2013, Plaintiff proceeded *pro se*. In the following months he was largely unresponsive, even to court orders. On January 17, 2014, the Defendants filed a Motion to Dismiss for Lack of Prosecution Pursuant to Rule 41(b) or, in the Alternative, for Summary Judgment. Plaintiff filed a response to the motion on February 24, 2014. But, after Plaintiff failed to initiate the required Rule 16.3(b) pre-trial conference by March 17, 2014, Defendants urged the court to consider this inaction when ruling on the motion to dismiss. On March 19, 2014, the court ordered the case stayed pending the court's ruling on Defendants' motion. The court continued to wait for any activity by the Plaintiff but none came. So almost exactly one year after staying the action, the court issued an opinion and order granting the Defendant's dispositive motions. *Kamuck v. Shell Energy Holdings GP, LLC.*, 2015 WL 1345235 (M.D. Pa. March 25, 2015).

27 *See* 2012 WL 1466490.
28 *See* fn. 23, *supra*.

***Dillon v. Antero Resources a/k/a Antero Resources Appalachain [sic] Corp. s/k/a Antero Resources Appalacia [sic], LLC*; No. 2:11-cv-01038 (W.D. Pa. August 11, 2011) (originally filed in the Court of Common Pleas of Washington County, Pa., Case No. 2011-4813, July 18, 2011)**

***Becka v. Antero Resources a/k/a Antero Resources Appalachain [sic] Corp. s/k/a Antero Resources Appalacia [sic], LLC;* No. 2:11-cv-01040 (W.D. Pa. August 12, 2011)) (originally filed in the Court of Common Pleas of Washington County, Pa., Case No. 2011-4812, July 18, 2011)**

The Dillon and Becka families (collectively, "Plaintiffs") filed their lawsuits in the court of Common Pleas of Washington County, Pennsylvania on July 18, 2011 (Case Nos. 4813 of 2011 G.D. and 4812 of 2011 G.D., respectively). These cases were then removed to federal court on August 12, 2011. Court-ordered mediation took place in each case on December 15, 2011, ending with no resolution. The court consolidated both cases on April 25, 2012. Both cases have now settled, *Dillon* on August 9, 2012 and *Becka* on September 24, 2012.

According to the complaints, in early 2010, Defendant Antero Resources began drilling activities on property within 400 to 580 feet of Plaintiffs' well water supplies. Plaintiffs claimed that Antero used hazardous chemicals during its hydraulic fracturing activities and that the use of such chemicals contaminated Plaintiffs' groundwater.

Plaintiffs asserted claims for negligence, absolute liability, and trespass; and sought injunctive relief to stop the drilling. In their negligence claim, the Plaintiffs set out 31 alleged negligent acts and omissions of the Defendants, including (1) injecting hazardous chemicals, compounds, or fluids into the earth in such a fashion as to damage Plaintiffs' water supplies, the soil, and the environment; (2) failing to properly safeguard the groundwater and spring water; (3) failing to report or warn of spills and releases; (4) failing to prevent drilling mud and other contaminants from being discharged into erosion ditches near Plaintiffs' homes and water wells; (5) failing to prevent run-off through Plaintiffs' driveways and residence areas; (6) failing to comply with state statutes relating to safe drinking water and drilling activities; (7) failing to hire, train, manage, and supervise qualified professionals; and (8) failing to properly monitor the work being performed.

Plaintiffs sought damages for personal and property damage. Plaintiffs wanted compensation for their fear that their health had been compromised and that they might develop cancer or other serious illnesses. Plaintiffs also sought reimbursement for increased medical expenses, testing and monitoring of water and soil quality, emotional distress and inconvenience, contamination of their water and land, loss of property value, and loss of enjoyment and use of their land.

***Scoggin v. Cudd Pumping Services, Inc., RPC Inc., and Cudd Energy Services*, No. 4:11-cv-00678-JMM (E.D. Ark. Sept. 12, 2011)**

This lawsuit was brought on behalf of two minor children, B. and H. Scoggin, by and through their next friend, Tina J. Scoggin ("Plaintiffs") against Cudd Pumping Services, Inc., RPC Inc., and Cudd Energy Services (collectively, "Defendants"). Defendant Cudd Energy Services was dismissed without prejudice from the lawsuit on December 9, 2011.

In August of 2011, Defendants hydraulically fractured three natural gas wells which were located approximately 250 feet from the Plaintiffs' home. Plaintiffs alleged that, during the fracking process, large amounts of benzene, zylene, and methylene chloride were released into the environment, causing "dense clouds of a toxic mixture of atomized chemicals..." Air quality measurements taken in the Plaintiffs' home revealed toxic levels of the chemicals.

Plaintiffs set out causes of action for strict liability, nuisance, trespass, and negligence, claiming that Defendants did not exercise reasonable care in their operations by allowing hazardous chemicals to migrate from the well sites without warning. According the Plaintiffs' complaint, they "suffered severe and life threatening exposure to carcinogenic substances, as well as other toxic pollutants" that can cause Acute Myeloid Leukemia. Plaintiffs alleged that, because Acute Myeloid Leukemia can take up to ten years to fully manifest itself, the minors needed bi-annual monitoring for signs and symptoms. Plaintiffs sought $20,000,000 in compensatory damages, $50,000,000 in punitive damages, and the establishment of a medical monitoring fund. In June 2013, the case was settled and a joint Stipulation of Voluntary Dismissal Without Prejudice was filed with the court.

***Beck v. ConocoPhillips Company*, No. 2011-484 (Dist. Ct. Panola County Tex., Dec. 1, 2011)**

***Strong v. ConocoPhillips Company*, No. 2011-487 (Dist. Ct. Panola County Tex., Dec. 2, 2011)**

There were approximately 70 named Plaintiffs[29] between these two lawsuits which were filed in Panola County, Texas in early December of 2011. Plaintiffs alleged that Defendant ConocoPhillips contaminated their water wells through its use of hydraulic fracturing to extract gas from the Haynesville Shale formation and by disposing of fracturing waste near Plaintiffs' properties. Plaintiffs claimed that their water wells intermittently smell bad, taste bad, and "give off a gas that they believe to be methane gas." Upon receiving notice of the water problems, Defendant began providing potable water to the Plaintiffs but advised Plaintiffs that this practice would be temporary.[30]

Plaintiffs set out causes of action for nuisance, trespass, and negligence claiming that "Defendant failed to use a reasonable alternative means of recovering the minerals pursuant to the accommodation doctrine." They seek damages of $5,000,000 for loss of use of their land, loss of market value of their land, and loss of the intrinsic value of their well water. They also sought damages for their "emotional harm and mental anguish from deprivation of enjoyment, loss of peace of mind, annoyance, inconvenience, and anxiety about the contaminated well water." In addition, Plaintiffs asked the court for a permanent injunction precluding future drilling and fracking activities near Plaintiffs' land.

In early 2012, the defendant requested a *Lone Pine* order in the *Beck* case which the court denied. The court later denied motions for summary judgment in both cases. Having survived summary judgment, the cases were dismissed with prejudice in May of 2017 pursuant to a settlement.

***Perna v. Reserve Oil & Gas, Inc.*, No. 11-c-2284 (Circuit Court of Kanawha County, West Virginia, Dec. 21, 2011)**

Louis Perna ("Plaintiff") owns forty acres on which Reserve Oil & Gas, Inc. ("Defendant") operates a natural gas well. Plaintiff complained that the well was placed within 1,000 feet of his water well and that Defendant destroyed timber on his property when it constructed a road and installed a culvert. Plaintiff was forced to install a fence to prevent Defendant from using his property as a staging area and from depositing fracking fluid on his property. In addition, the fracking fluid was kept in two pits, one of which did not have a synthetic liner, and the pit waste was not fully reclaimed after completion of the well.

29 Plaintiffs' Fourth Amended Complaint in the *Beck* case was filed on September 28, 2012, adding 10 plaintiffs and removing one (for a total of 67 plaintiffs). The Fifth Amended Petition filed on January 23, 2013, added one plaintiff.

30 In the Third Amended Complaint in the *Beck* case, Plaintiff Ada Smith alleged a cause action for fraud, claiming that she signed a release, releasing any damages caused to her water well. She alleged that she signed the release due to duress and coercion from Defendants' agents who allegedly advised that the delivered water would be stopped if she did not sign.

Plaintiff wanted the well leases to be declared unenforceable and asserted claims for negligence, prima facie negligence, trespass, unreasonable use, and nuisance. Further, Plaintiff sought property damages under the West Virginia Oil and Gas Production Damage Compensation Act as well as damages for mental anguish, emotional distress, annoyance and inconvenience, and economic loss.

The parties conducted discovery throughout most of 2013 and 2014. Dispositive motions were filed in the fall of 2014 and on October 17, 2014, the court granted the defendant's motion for summary judgment on Reserve's primary claims. After briefing on the motions for reconsideration, the parties dismissed their remaining claims and counterclaims in January or 2015 and the court entered its final order closing the case on January 9, 2015.

***Bartlett v. Frontier Gas Services, LLC, Crestwood Arkansas Pipeline, LLC, Kinder Morgan Treating, LP, and Chesapeake Energy Corporation*, Case No 4:11-cv-0910 (E.D. Ark. Dec. 23, 2011)**

This class action with 10 named plaintiffs was brought on behalf of all citizens, residents, and property owners who lived or owned property within a one mile radius of defendants' Point Remove Compressor Station. Plaintiffs sought injunctive relief to stop defendants' operation of the station which allegedly was causing pollution or contamination of the air, groundwater, and soil as well as creating "incessant and constant noise pollution." Plaintiffs set out causes of action for strict liability, nuisance, trespass, and negligence. Each plaintiff requested compensatory damages of $1,000,000 and punitive damages of $5,000,000.

On March 5, 2012, the court stayed this lawsuit pending a decision on class certification in the *Ginardi* case, *supra*. With the *Ginardi* court denying class certification on April 19, 2012, this lawsuit was re-opened and the court entered a Scheduling Order. The parties filed a joint stipulation of voluntary dismissal which the court signed on September 17, 2012.

***Teekell v. Chesapeake Operating, Inc., Crow Horizons Company, JPD Energy, Inc., and Chesapeake Louisiana, L.P.*, No. 5:12-cv-00044 (W.D. La. Jan. 12, 2012) (originally filed in the First District Court of Caddo Parish, La., Cause No. 555,703, Dec. 6, 2011)**

Scott and Patricia Teekell ("Plaintiffs") filed their Petition for Injunctive Relief and Damages in the First Judicial District Court of Caddo Parish, Louisiana (Cause No. 555,703) on December 6, 2011. On the basis of diversity, Defendant Chesapeake Operating, Inc. (the unit operator) removed the case to federal court on January 12, 2012 with allegations that the other defendants (Crow Horizons Company, JPD Energy, Inc., and Chesapeake Louisiana, L.P.) were fraudulently joined.

On June 6, 2012, the court denied Plaintiffs' motion to remand and dismissed all claims against Chesapeake Louisiana, JPD Energy, and Crow Horizons stating that these defendants were not properly joined to the lawsuit.

Plaintiffs alleged that the groundwater beneath their property was contaminated as a result of Defendant Chesapeake Operating, Inc.'s natural gas drilling and production operations on adjacent property. Plaintiffs had two water wells on their property. The first water well was replaced with a new well in 2010. In January of 2011, after noticing a bad taste in the water from the new well, Plaintiffs had the water tested. The water was found to have high concentrations of sodium salts and iron, as well as dissolved solids at over twice the suggested maximum contaminant level set by the EPA. At that point, Plaintiffs went back to using their original well. In November of 2011, the water from this well began to smell and Plaintiffs determined that the well was holding hydrogen sulfide gas.

Plaintiffs asserted that Defendants were "liable under a number of theories including general negligence . . . and the obligations of neighborhood." Plaintiffs sought damages for the loss of use of their water wells, loss of usable water, costs to obtain a usable water supply, inconvenience, and mental anguish. In addition, Plaintiffs asked the court for an injunction to stop Defendants' activities.

On August 20, 2012, the court signed an order in which the parties agreed to the entry of a "Lone Pine" order[31] whereby Plaintiffs would "attempt to make a prima facie case as to causation through expert witnesses prior to engaging in full discovery." The Plaintiffs advised the court on January 29, 2013 that they had run "into difficulty with the selection and hiring of expert witnesses. The court extended the dates for "Lone Pine" discovery. All this became moot when the lawsuit was voluntarily dismissed on June 25, 2013.

***Mangan v. Landmark 4, LLC*, No. 1:12-cv-00613 (N.D. Ohio, March 12, 2012)**

***Boggs v. Landmark 4, LLC*, No. 1:12-cv-00614 (N.D. Ohio, March 12, 2012)**

31 *See* fn. 23, *supra*.

Plaintiffs Mark and Sandra Mangan and William and Stephanie Boggs ("Plaintiffs") filed their Complaints on March 12, 2012, alleging that Defendant Landmark 4, LLC ("Landmark") had contaminated their properties and persons with toxic, carcinogenic, and ultra-hazardous materials by releasing, spilling, or discharging these materials during hydraulic fracturing on wells located within 2,502 feet of Plaintiffs' property, homes, and water well supplies.

Seeking injunctive relief to prevent continuing and future contamination, Plaintiffs asserted causes of action for medical monitoring, negligence, strict liability, private nuisance, unjust enrichment, negligence per se, battery, and intentional fraudulent concealment. Defendant filed motions to dismiss several of Plaintiffs' causes of action. On August 13, 2012, the court dismissed Plaintiffs' claims for battery and intentional fraudulent concealment; and on March 11, 2013, the court dismissed Plaintiffs' claim for negligence per se.

In the unjust enrichment claim, Plaintiffs state that Landmark had been unjustly enriched by its unlawful contamination of their properties. "These acts and omissions allowed Defendant to save millions of dollars in costs that should have been expended to properly contain and control the substances emanating from their facility."

On August 13, 2012, the court denied Defendants' request for a "Lone Pine" order,[32] stating that "at this stage of the proceedings . . . there are no extraordinary circumstances that would render the normal discovery and motion practice procedures insufficient in this case."

Expert discovery and dispositive motions were to be completed by summer of 2014. After full briefing but before the motions were ruled on, the parties asked for continuance to pursue settlement. The matter was settled and the court dismissed the case in February of 2015.

***Manning v. WPX Energy Inc. and The Williams Companies, Inc., et al.*, No. 3:12-cv-00646 (M.D. Pa. April 9, 2012)**

Tammy Manning, Matthew Manning, Bryanne Burton, Amada Grondin, and Robert Lee, Jr. ("Plaintiffs") filed their complaint on April 9, 2012. The court immediately issued an order requiring Plaintiffs to amend their complaint to properly allege diversity jurisdiction. An amended complaint was filed on May 3, 2012, but once again the court ordered Plaintiffs to properly allege diversity jurisdiction. The Second Amended Complaint filed on May 17, 2012 was accepted by the court. On October 3, 2013, Plaintiffs filed their Third Amended Complaint, adding WPX Energy Appalachia, LLC as a defendant. A Case Management Order was entered with trial scheduled for January 2015.

Plaintiffs complained that, beginning in March 2011, Defendants engaged in drilling and hydraulic fracturing at 15 wells, with well pads within 1,000 to 7,390 feet of Plaintiffs' properties, homes, and water supplies. They argued that, because their water supplies were contaminated, they were exposed to hazardous chemicals, their property values have decreased, and they lost the use and enjoyment of their properties.

Causes of action included violations of the Hazardous Sites Cleanup Act, negligence, private nuisance, strict liability, trespass, and medical monitoring trust funds. In the negligence claim, Plaintiffs accused Defendants of failing to prevent and/or contain releases and migration of hazardous chemicals and combustible gases, and failing to prevent contamination of the water supplies. Plaintiffs sought compensatory and punitive damages for remediation, loss of property value, loss of use and enjoyment of their property, loss of quality of life, emotional distress, inconvenience, and discomfort in an unspecified amount.

Prior to filing their lawsuit, in December 2011, the Mannings complained to the Pennsylvania Department of Environmental Protection (PDEP) about their water supply containing methane. The PDEP launched an investigation to determine the source of the methane. The PDEP tested the water wells and compared it with the chemical make-up of natural gas samples taken from nearby drilling rigs and also with samples from water wells in the nearby Salt Springs State Park. In April 2013, the PDEP released the testing results. The testing showed that the methane in the water of the private wells contained a similar isotopic makeup to the samples from the state park, indicating that the methane in the wells is naturally occurring shallow gas. The PDEP concluded that the methane in the private wells was not production gas from the near-by gas wells being drilled by WPX Energy.

Despite the conclusion of the PDEP, the Mannings continued their lawsuit and filed an appeal of the PDEP's determination (Environmental Hearing Board Docket No. 2013-067-M) on May 29, 2013. On February 26, 2014, the PDEP ordered the Mannings to reply to all outstanding discovery by no later than April 28, 2014. After disputing the propriety of a protective order, the Mannings dropped the appeal on May 23, 2014.

32 *See* fn. 23 *supra*.

In the main case, discovery continued. On October 2, 2014, two of the plaintiffs, Bryanne Burton and Amanda Grondin, asked the court to voluntarily dismiss their claims without prejudice. Those plaintiffs had never alleged personal injuries, only property torts. They sought dismissal after they learned that they actually had no property interest in the affected property. The Defendants opposed the dismissal arguing that it would expose them to costly and duplicative litigation. The court agreed and denied the motion, effectively forcing those plaintiffs to either stay in the litigation or accept a dismissal with prejudice. The two Plaintiffs ultimately filed voluntary dismissals in October of 2014.

The remaining case was set for trial in June 2015 but discovery disputes and continuances on dispositive motions forced the court to reschedule the trial. In January of 2016, the Defendants filed their *Daubert* motion. After full briefing by both sides, the parties agreed on March 3, 2016, to settle their claims for $100,000 with $25,000 going to each of the remaining Plaintiffs. The parties notified the court and the case was stayed pending execution of the settlement. According to Defendants, the Plaintiffs even signed releases. When the settlement agreement was circulated, however, the Manning Plaintiffs refused to sign.

The Defendants then moved for enforcement of the settlement agreement. The Mannings did not respond through their attorney, but instead wrote a letter to the court. In that letter, they claimed they refused to fully execute the settlement agreement because it does not contain mutual releases. Specifically, they are concerned that the Defendants will file "retaliatory" lawsuits in the future over the Manning's "outspoken" criticism of fracking. They also accuse their attorney of malpractice for recommending the settlement without securing such releases. On the Defendants' request, court ordered that a conference call be held on November 9, 2016. Following a compromise, the case was dismissed with prejudice in its entirety on February 23, 2017.

***Roth v. Cabot Oil and Gas Corporation and Gas Search Drilling Services Corporation*, No. 3:12-cv-00898 (M.D. Pa. May 14, 2012) (originally filed in the Court of Common Pleas of Susquehanna County, Pa., Case No. 2012-324, March 19, 2012)**

Plaintiffs Frederick and Debra Roth filed their lawsuit on March 19, 2012, in the court of Common Pleas of Susquehanna County, Pennsylvania, Case No. 2012-324. The case was removed to federal court on May 14, 2012.

Plaintiffs complained of environmental contamination and pollution caused by releases, spills, and discharges of combustible gases, hazardous chemicals, and industrial wastes from Defendants' oil and gas facilities and their drilling and exploration activities, including hydraulic fracturing. According to Plaintiffs, these releases, spills, discharges, and activities damaged the natural resources in and around their home, including the contamination of their drinking water supply.

In their First Amended Complaint filed on August 6, 2012, Plaintiffs set out nine causes of action: (1) Hazardous Sites Cleanup Act; (2) negligence; (3) negligence per se, (4) private nuisance, (5) strict liability, (6) trespass, (7) inconvenience and discomfort, (8) breach of contract, and (9) fraudulent misrepresentation, with the last two against Defendant Cabot Oil and Gas Corporation. For breach of contract, Plaintiffs alleged that Cabot failed to perform in accordance with lease provisions by not conducting their operations as required by state regulations, not taking the necessary steps to return Plaintiffs' water supply to pre-drilling conditions, and not constructing the wells in a manner which would minimize soil erosion. On January 30, 2013, the court dismissed Plaintiffs' claims of trespass, inconvenience and discomfort, and fraudulent misrepresentation.

On December 12, 2013, the court signed a Rule 54(b) Final Judgment, dismissing the lawsuit with prejudice.

***Haney, et al v. Range Resources Appalachia, LLC., et al.*, No. 2012-3534 (Pa. Ct. Com. Pl., May 25, 2012)**

The 180+ page complaint was filed by three families against seventeen defendants,[33] including the drilling operator, the manufacturers of the impoundment pond liners, the suppliers of fracking fluids, the engineers who constructed the well sites, the companies that tested the drinking water supplies, and the trucking companies who transported water to and waste water away from the wells. This case is one of the first to name as defendants the operator and/or driller and the supporting supply and service companies for the well and hydraulic fracturing activities.

The causes of action include strict liability, negligence, negligent and intentional infliction of emotional distress,

33 Range Resources Appalachia, LLC.; Carla L. Suszkowski, P.E., individually and on behalf of Range Resources Appalachia, LLC.; The Gateway Engineers, Inc.; Scott Rusmisel, P.E., individually and on behalf of The Gateway Engineers, Inc.; New Dominion Construction, Inc.; Terrafix Environmental Technology, Inc.; Skaps Industries, Inc.; Engineered Synthetic Products, Inc.; Red Oak Water Transfer NE, LLC.; Microbac Laboratories, Inc.; Multi-Chem Group, LLC; Universal Well Services, Inc.; Halliburton Energy Services, Inc.; Saxon Drilling, L.P.; Highland Environmental, LLC; EAP Industries, Inc.; and Test America, Inc.

battery, private nuisance, trespass, Medical Monitoring Trust Fund, violations of Hazardous Sites Clean Up Act, professional liability against the engineering companies and individuals, civil conspiracy, and fraud. The last two claims of civil conspiracy and fraud are against Range Resources Appalachia, LLC ("Range Resources") and the two companies that were taking water samples at Plaintiffs' homes. Plaintiffs allege that the water reports were modified to intentionally provide incomplete information so that Range Resources could continue its fracking operations.

Despite objections from the *Haney* Plaintiffs, on June 26, 2013, the Pennsylvania Department of Environmental Protection (PDEP) issued permits to Range Resources Corporation, allowing the company to begin hydraulic fracturing operations at two wells in Washington County. The Plaintiffs filed an appeal of the PDEP's decision on July 25, 2013. In the Notice of Appeal (*Haney, et al v. Pennsylvania Department of Environmental Protection*, Case No. 2013-112, before the Pennsylvania Environmental Hearing Board), the landowners claimed that the PDEP was conducting on-going investigations into violations at the site of the operating well which was drilled in 2009. These alleged violations included a series of spills, contamination of drinking water sources, and numerous leaks in 2010 and 2011 from an impoundment used to store water, drilling fluids, and other chemicals. The landowners argued that the Pennsylvania Oil and Gas Act allows for the denial of a permit where the operators have previously been found to have violated environmental regulations, and they point to an April 2010 notice of violation issued to Range for failing to properly control or dispose of drilling fluids and violations at other drilling sites. They also claimed that Range's applications for the permits were incomplete. The landowners sought a reversal of the PDEP's permits "as [being] arbitrary and capricious and as an abuse of discretion."

Before the appeal could be heard, however, the operations on and near the Haney's property were concluded. So, on June 9, 2014, the Haneys dismissed their appeal pursuant to a stipulation with Range Resources that the PDEP would provide notice to the Haney's of any violations or penalties by or against Range Resources in relation to the subject properties.

While the PDEP appeal was dismissed, the civil case continued and bitter discovery disputes ensued. *Haney v. Range Resources-Appalachia, LLC*, 2015 WL 1812842 (Pa. Super. Ct. Apr. 14, 2015). The Superior Court of Pennsylvania has published two opinions arising from those disputes. The first, issued on April 14, 2015, related to the disclosure of proprietary ingredient lists in fracking fluid. The trial court first held that all third-party suppliers of fracking material had to disclose the chemical contents of their products. Few of the suppliers complied. The Plaintiffs then argued that Range Resources should be responsible for securing the ingredient lists, proprietary or not. Range Resources argued to the Superior Court that the trial judge lacked the power to require this disclosure of proprietary business information. The Superior Court seemed sympathetic to the merits of Range Resource's position but held that Range had no standing to pursue the claim. According to the Superior Court, only the third-party manufacturers have standing to pursue the claim.

A second Superior Court decision in the case was issued on January 29, 2016. *Haney v. Range Resources-Appalachia, LLC*, 2016 WL 386390 (Pa. Super. Ct. Jan. 29, 2016). This appeal by Range Resources was in response to the trial court's permitting a subpoena to issue against an environmental consulting group that Range Resources argues was hired as a consulting expert. But the record showed that Range Resources had hired the consultant prior to the incidents in question. Also, an employee of Range testified that it hired the consultant in response to complaints. The Superior Court held it was in the trial judge's discretion to interpret these facts to mean that the consultant's work was not done in anticipation of litigation.

With the Superior Court passing on the merits of Range Resources' primary discovery dispute and Range Resources' demonstrating a willingness to take matters to appeal, an adverse result in this case is likely to end up in a protracted appellate battle. In November of 2017, Haney filed an Application for Extraordinary Relief with the Pennsylvania Supreme Court, which has yet to be reviewed.

***Butts, et al. v. Southwestern Energy Production Company*, No. 3:12-cv-01330 (M.D. Pa. July 10, 2012)**

Three families brought this lawsuit, complaining that the use and enjoyment of their vacation homes in Susquehanna County, Pennsylvania have been destroyed by Southwestern Energy Production Company's ("Southwestern") drilling and hydraulic fracturing activities. Plaintiffs set out causes of action for private nuisance and negligence and sought a permanent injunction to stop unreasonable drilling activities. These "unreasonable" drilling activities include mobilizing heavy equipment, maintaining a constant flow of truck traffic day and night, using large flood lights, drilling, fracking, blasting, and low-level flying of helicopters over their homes. According to the complaint, these activities caused deforestation, dust, high decibel noises, high pressure venting noises, and loud gas flaring that emits air pollutants. Also Plaintiffs' well water

is allegedly no longer safe for drinking, cooking, and other residential uses. Plaintiffs also contended that they can no longer enjoy the peace and serenity of their vacation homes and have seen the value of their homes decrease.

Southwestern filed a motion to dismiss on September 10, 2012, asserting that each of Plaintiffs' claims is flawed and barred by Pennsylvania's economic loss rule. In particular, Southwestern asserted that Plaintiffs have not alleged a cause of action for private nuisance and have not properly pleaded causation. This motion was denied on May 14, 2013.

In the summer of 2014, Southwestern Energy filed another motion to dismiss which the court denied. Southwestern Energy then filed a motion to strike the Plaintiff's expert. The *Daubert* motion contended that the expert's damages calculation was internally inconsistent because his reports attributed the alleged loss in value of the subject properties to the noise produced by Southwestern Energy's exploration activities. In his deposition, however, the expert admitted that the damages were actually attributable to the general presence of natural-gas wells. Further, insofar as the general presence of wells caused the damages, Defendants argued, the expert's opinions did not "fit" the case because the general presence of wells will not support a claim for nuisance. Before the court could rule on the Defendant's motion, the parties settled the case and the court dismissed the action on November 16, 2014.

***Smith, et al v. Southwestern Energy Company*, No. 4:12-cv-00423 (E.D. Ark., July 11, 2012)**

William and Margaret Smith (the "Smiths") sued Southwestern Energy Company in connection with the Puma North Compressor Station, which is located about 900 feet from their home. At the station, compressor units powered by engines gather, treat, and recompress natural gas produced by hydraulic fracturing operations to ensure the gas's continued flow through the pipeline. The Smiths complained of noise, vibration, and emissions from the compressor station and asserted causes of action for strict liability, nuisance, trespass, and negligence.

In a Second Amended Complaint filed on January 14, 2013, seven plaintiffs[34] and several claims relating to royalty payments were added. These royalty claims included: (a) breach of statutory duty of good faith to correctly pay royalties associated with the production of natural gas; (b) unfair and deceptive trade practices by knowingly withholding information concerning royalty calculations; and (c) unjust enrichment.

The Smiths sought $2,500,000 for compensatory damages (loss of use and enjoyment of their property, soil and groundwater contamination, physical damage to property as a result of vibration, diminution in property value, personal injuries, and severe mental distress, annoyance and discomfort) per household and $5,000,000 in punitive damages per household.

On February 19, 2013, SEECO Inc., a wholly owned subsidiary of Southwestern and a citizen of Arkansas, filed a motion to intervene, arguing that it was the lessor and the party responsible for the payment of royalties. The Smiths filed a Third Amended Complain which did not include SEECO on April 8, 2013. Southwestern then filed a motion to dismiss for lack of subject matter jurisdiction. On May 13, 2013, the court ruled that the case could not proceed without joinder of SEECO, the non-diverse, necessary party. Because the joinder of that party destroyed diversity, the court dismissed the case for lack of subject matter jurisdiction.

***Hill, et al. v. Southwestern Energy Company, et al.*, No. 4:12-cv-00500 (E.D. Ark., Aug. 10, 2012)**

This class action lawsuit was filed on August 10, 2012, with two plaintiffs against Southwestern Energy Company ("Southwestern"). On October 4, 2012, the complaint was amended to add thirteen plaintiffs (nine families total) and to add Chesapeake Energy and XTO Energy, Inc. as defendants. According to Plaintiffs, Defendants have injected fracking flowback and other oilfield waste fluids into vertical wells drilled into rock formations both above and below the Fayetteville Shale. Plaintiffs complain that this fluid flows out horizontally and is permanently deposited into the rock formation. There are several oilfield waste disposal wells in the vicinity of their residences.

Plaintiffs asserted causes of action for RICO and Arkansas Deceptive Trade Practices Act (DTPA) violations, fraud, civil conspiracy, strict liability, contract-based claims, conversion, trespass, and unjust enrichment. In an order dated September 26, 2013, the court dismissed the RICO and DTPA claims,

34 Fifteen plaintiffs were initially added, eight of which were complaining about the Scotland CPF II, not the Puma North Compress Station. The court ordered these Scotland CPF II plaintiffs removed from the *Smith* lawsuit. Counsel for these Scotland CPF II plaintiff filed a separate lawsuit, *Pruitt v. Southwestern, infra*.

the good faith and fair dealing breach of contract claim, and the claims for fraud, civil conspiracy, strict liability, and conversion.

Plaintiffs sought damages for loss of use and enjoyment of their property, for contamination, disturbance and dislocation of their property, for severe diminution in property value, and for the creation of a toxic waste site on their property. Each plaintiff family sought $2,000,000 in compensatory damages and $15,000,000 in punitive damages.

On November 6, 2013, Southwestern filed a motion for joinder of SEECO (an Arkansas corporation which is a wholly owned subsidiary of Southwestern) as a required party, arguing that SEECO primarily or exclusively performs the activities about which Plaintiffs complain. On December 10, 2013, the court agreed with Southwestern that SEECO must be joined to the lawsuit and asked that the parties come to the December 19, 2013 status conference prepared to discuss "whether the Court must decline to exercise jurisdiction under 28 U.S.C. § 1332(d)(4)(A) or § 1332(d)(4)(B) or should decline under § 1332(d (3)."

Plaintiffs amended their complaint on January 10, 2014 to include SEECO, Inc. as a defendant, alleging jurisdiction under the Class Action Fairness Act because "minimal diversity exists between the parties, there are at least 100 members of the putative class, and the amount in controversy exceeds $5,000,000." Plaintiffs also added a claim for intentional and reckless conduct which the defendants asked the court to dismiss. The court ruled that that claim "may stand in service of the potential exemplary damages. Those allegations, though, are not acceptable as a belated new claim. About eighteen months in, we've finally got this lawsuit focused. It needs to stay focused [on trespass and unjust enrichment]."

On December 20, 2013, the court issued a scheduling order with "phase one discovery produced" by February 3, 2014. The parties concluded that discovery and in the summer of 2014, acknowledging that they had produced no evidence that exploration-related fluid had migrated onto their property, the Hill, Smith, Hamilton, and King Plaintiffs voluntarily dismissed their claims. While Plaintiffs requested that the dismissal be without prejudice, the court was unpersuaded and dismissed the claims with prejudice.

The Defendants filed a motion for summary judgment on the remainder of the claims on January 9, 2015. The Defendants argued that Plaintiffs had produced no evidence in the case that any fluids had migrated onto their property other than the testimony of one expert witness. That witness admitted at deposition that the formula on which he based his opinions was invented for the case, had never been outside of litigation, and had never been published or peer-reviewed. Agreeing that these doubtful and unscientific opinions were the only evidence presented, the court entered judgment for the defendants on September 25, 2015. The Plaintiffs filed notice of appeal on December 8, 2015.

The 8th Circuit reversed the district court's ruling on summary judgment and remanded the case. The court reasoned that the district court improperly excluded Plaintiff's expert because the expert report was not "so unreliable that it should be excluded." Even without the expert report, the court of appeals stated that summary judgment was improper because several fact issues still existed regarding whether any disposed waste migrated onto the Plaintiffs' property. After remand, the Parties are still conducting discovery and trial is tentatively set for October of 2018.

***Pruitt, et al v. Southwestern Energy Company*, No. 4:12-cv-00690 (E.D. Ark., Nov. 2, 2012)**

The eight Plaintiffs in this lawsuit sued Southwestern Energy Company in connection with the Scotland CPF II Compressor Station.[35] This compressor station is used to gather, treat, and transport the shale gas that is produced through the hydraulic fracturing process. As in the *Smith v. Southwestern* case, *supra*., the Plaintiffs complained of noise, vibration, and emissions from the compressor station and asserted causes of action for strict liability, nuisance, trespass, and negligence. Six of the Plaintiffs also alleged unjust enrichment and unfair deceptive trade practices relating to the payment and calculation of royalties.

Plaintiffs sought $3,000,000 per household for compensatory damages (loss of use and enjoyment of their property, soil and groundwater contamination, physical damage to property as a result of vibration, diminution in property value, personal injuries, and severe mental distress, annoyance and discomfort) and $5,000,000 per household in punitive damages. As in the *Smith v. Southwestern* case, *supra*., the court found that the lawsuit could not proceed without the joinder of the non-diverse, necessary party. Because the joinder of that party would destroy diversity, the court dismissed the case for lack of subject matter jurisdiction on May 14, 2013.

35 This lawsuit was filed as a direct result of *Smith v. Southwestern Energy Company, supra.* On August 27, 2012, the Smiths amended their complaint to add fifteen plaintiffs, including the eight now in the *Pruitt* lawsuit. Ruling on a motion to sever filed by Southwestern, the court in *Smith* ordered the eight Scotland CPF II Compressor Station plaintiffs to file a separate lawsuit, which is this *Pruitt* case.

***Magers, et ux v. Chesapeake Appalachia, L.L.C., CNX Gas Company, L.L.C., and Columbia Gas Transmission, L.L.C.*, No. 5:12-cv-00049-FPS (N.D. W.Va., Sept. 4, 2012)**

Jeremiah and Andrea Magers ("Plaintiffs") alleged that the oil and gas operations of Chesapeake Appalachia, L.L.C. ("Chesapeake"), CNX Gas Company, L.L.C. (dismissed on August 13, 2013), and Columbia Gas Transmission, L.L.C ("Columbia Gas") contaminated their water well with methane gas. Chesapeake drilled Marcellus gas wells on land near or adjacent to the acreage where Plaintiffs' water well was located. Columbia Gas drilled several gas storage wells near or adjacent to that same acreage.

Plaintiffs asserted causes of action for negligence, gross negligence, and statutory violations arguing that Chesapeake and Columbia Gas released methane gas and other contaminants into their water well and into Fish Creek while constructing the gas wells and during the processes of producing gas from those wells. According to the Plaintiffs, they were forced to purchase and haul water from third parties to their home to supply their needs. Plaintiffs sought damages for diminution in the value of their property.

On December 16, 2013 and on January 7, 2014, Plaintiffs agreed to dismiss their claims for gross negligence and statutory violations against Columbia Gas, leaving only the negligence claim. Columbia Gas' filed a motion for summary judgment based on Plaintiffs' failure "to establish with relevant evidence that Columbia is more likely than not the cause of methane gas in Plaintiffs' water supplies." That motion was granted on September 2, 2014. The remaining claims matters were settled within a month of the court's ruling and the case was dismissed with prejudice.

***Scoggin, et al v. Southwestern Energy Company*, No. 4:12-cv-763 (E.D. Ark., December 7, 2012)**

This class action lawsuit was filed by the Scoggin family[36] on behalf of all residents and property owners who live or own property within a 500 foot radius of any drilling/hydraulic fracturing operation being performed by Southwestern Energy Company ("Southwestern"). The plaintiffs allege that Southwestern Energy allowed its drilling/fracking operations to cause a noxious and harmful nuisance, contamination, physical harm, trespass, property damage, and diminution of property values. Plaintiffs sought $10,000,000 in compensatory damages and $15,000,000 in punitive damages. Southwestern filed a Motion to Dismiss for Failure to State a Claim and Motion for More Definite Statement, seeking dismissal of all Plaintiffs' claims of alleged contamination of their cistern, dismissal of the strict liability claim, and a more definite statement of all remaining claims. The court denied the motion to dismiss and for more definite statement on March 15, 2013.

On March 29, 2013, Southwestern filed a motion for joinder of SEECO (a wholly owned subsidiary of Southwestern) as a required party, arguing that SEECO primarily or exclusively performs the activities about which Plaintiffs complained. The court agreed with Southwestern and ordered that SEECO be joined to the lawsuit. Because SEECO is a citizen of Arkansas, its joinder to the lawsuit destroyed diversity and the court dismissed the lawsuit without prejudice on May 29, 2013.

***Ramsey, et al. v. Desoto Gathering Company, LLC*, Case No. 23CV-14-258, In the Circuit Court of Faulkner County, Arkansas for the 20th Judicial District (April 24, 2014)**

In the Circuit Court of Faulkner County, Arkansas, on April 24, 2014, eight families who live near compressor stations operated by Desoto Gathering Company sued that company, alleging the emission of "huge amounts of methane and hydrogen sulfide, as well as other flammable, malodorous and noxious gases, chemicals and compounds, directly into the air." In addition, these families asserted that the compressor stations "are injuriously loud and produce harmful levels of noise and toxic emissions" and that they have been harmed by the noise, vibration, odor and pollution.

Having purchased their property many years ago because it was in a rural, non-industrial setting, the families alleged that they were not consulted when the compressor stations were built or when the stations were enlarged. The families claim that their "homes are within the blast/impact zone of the Midge 2 [and Scotland CPF 2] compressor station[s], the area which is likely to be impacted in the event the massive amounts of explosive natural gas or other flammable hydrocarbons on-site were to explode or catch fire."

Stating causes of action for strict liability and negligence, each of seven families sought $3 million for compensatory damages and $5 million in punitive damages (with one family seeking $8 million and $12 million, respectively, claiming exacerbation of the husband's post-traumatic stress disorder diagnosed by the Department of Veterans Affairs) for discomfort resulting from the company's activities and for personal injuries resulting from the noise and vibration of the compressor stations.

36 *See Scoggin v. Cudd Pumping Services, Inc., et al., supra.*

This lawsuit was filed two days after a $2.925 million verdict in Dallas, Texas for nuisance damages arising from the drilling activities of a natural gas company. See *Parr* lawsuit, *supra*.

The eight families in this lawsuit were severed from a class action in federal court, *Ramsey, et al. v. Desoto Gathering Company, LLC, et al.*, Case No. 4:13-cv-00626-BRW, In the U.S. District Court for the Eastern District of Arkansas, Western Division, on March 27, 2014. The court severed these families because the class action was not based on claims arising from the Midge CPF-2 and Scotland CPF-2 compressor stations, but rather on another compressor station.

On February 12, 2015, the federal district court remanded the case back to Arkansas state court. Defendants responded with a motion to dismiss or to transfer for improper venue. In Arkansas, that issue can be heard by the state supreme court through a procedure called a writ of prohibition. So the case was stayed while the Arkansas Supreme Court decided the venue issues.

The high court denied the defendants request for writ of prohibition on January 28, 2016, thus allowing the trial court to move forward with the litigation. On March 2, 2016, DeSoto filed its answer and the case moved into discovery. On November 2, 2016, the court stayed the action for the parties to pursue settlement.

***Nicholson v. XTO/Exxon Energy, Inc.*, Case No. 4:13-CV-0899-K-BJ, (N.D. Tex. Nov. 6, 2013)**

Daniel Nicholson filed a pro se complaint against XTO/Exxon Energy, Inc. ("XTO") on November 6, 2013. In the complaint, Nicholson alleged that the "cumulative effects of the chemicals and silica used during the hydraulic fracturing drilling and venting of compressed gas operations in very close proximity directly downwind from [his mother's] house" had resulted in her death. Nicholson also sought "to include the possible long-term effects" on his family still living in the house. Altogether, he sought damages in the amount of $9 million on claims of survival and wrongful death, both of which are recognized causes of action under Texas law.

On September 25, 2014, XTO filed a motion to dismiss for lack of subject matter jurisdiction under Rule 12(b)(1). XTO contended that both Nicholson's wrongful death claim and his survival claim should be dismissed.

The court agreed and on March 4, 2015, the district court accepted the magistrate's recommendation that both counts be dismissed. The court dismissed the survival action because there was not diversity of citizenship and for lack of standing. Nicholson claimed that his domicile was in Arizona and XTO's was in Texas. But for purposes of a survival action, a party may only bring a claim in its capacity as personal representative of the deceased's estate. Nicholson claimed in his motion that he was not bringing the action in that capacity. Thus, Nicholson either lacked standing to sue (because he was not acting as the executor) or there was not complete diversity of citizenship (because the legal representative is deemed to be a citizen of the same state as the deceased).

The court dismissed the wrongful death action for similar reasons. Unlike a survival action where the executor can recover damages that belong to the estate, a wrongful-death action allows the deceased's close family members to recover for their own independent losses. Under Texas law, all persons entitled to recover for wrongful death must be a party to the same suit. Even though Nicholson was diverse to XTO, his siblings—who were indispensable parties to the wrongful death action—were not diverse. Thus, complete diversity could not be achieved.

Litigation Relating to Earthquakes and Hydraulic Fracturing Operations

On March 23, 2011, Jacob Sheatsley[37] filed a class action lawsuit claiming that "Central Arkansas has seen an unprecedented increase in seismic activity, occurring in the vicinity of" wastewater disposal injection wells.[38] According to the Arkansas Geological Survey, there had been 599 seismic events in Guy, Arkansas between September 20, 2010 and the date of the lawsuit. The largest earthquake in 35 years occurred on February 28, 2011, and measured 4.7 in magnitude. On that same day, the U.S. Geological Survey recorded as many as 29 earthquakes around Greenbrier and Guy, Arkansas, that ranged in magnitude from 1.7 to 4.7.[39] Mr. Sheatsley asserted causes of action for public nuisance, private nuisance, absolute liability, negligence, and trespass, all based on the interference with the use and enjoyment of his property and on the risk of serious personal harm and property damage from the earthquakes.

37 *Sheatsley v. Chesapeake Operating, Inc. and Clarita Operating, LLC*, Cause No. 2011-28, In the Circuit Court of Perry County, Arkansas 16th Division, removed to the U.S. District Court for the Eastern District of Arkansas, Western Division, Case No. 4:11-cv-00353-JLH, on April 4, 2011; closed on July 13, 2011.

38 *See* U.S. EPA Technical Program Overview: Underground Injection Control Regulations, rev. July 2001, for information relating to injection wells.

39 This earthquake information is referenced in the *Sheatsley* Class Action Complaint. *See also* Arkansas Geological Survey's Earthquake Master List, found at www.geology.arkansas.gov/xl/Earthquake_Archive.xls and U.S. Geological Survey found at http://earthquake.usgs.gov/earthquakes/recenteqsus/.

In May 2011, four additional class action complaints with the same allegations were filed in state court and then removed to federal court.[40] With these additional filings, on July 13, 2011, Mr. Sheatsley voluntarily dismissed his lawsuit, in "an effort to streamline these cases and further judicial economy." On August 31, 2011, all four lawsuits were consolidated under Case No. 4:11-cv-00474, *Hearn v. BHP Billiton Petroleum (Arkansas) Inc., et al.*

After the consolidation, there were changes to both plaintiffs and defendants, some being dismissed and others being added.[41] On December 15, 2011, plaintiffs filed their First Amended and Consolidated Class Action Complaint, adding Deep Six Water Disposal Services, LLC ("Deep Six") as a defendant and expanding their claims to include damages for (1) physical damage to their homes and commercial real estate; (2) losses attributable to the purchase of earthquake insurance; (3) losses in the fair market value of their real estate; (4) economic loss due to temporary stoppage of business operations; and (5) emotional distress.

On May 4, 2012, defendant Deep Six filed a motion for summary judgment, arguing plaintiffs' inability to sustain their burden of proof regarding causation. Deep Six pointed to testimony from seismologist Dr. Haydar Al-Shukri before the Arkansas Oil & Gas Commission who stated that the seismic events were not caused by hydraulic fracturing.[42] On June 25, 2012, plaintiffs voluntarily dismissed Deep Six.

Another earthquake lawsuit was filed on March 11, 2013,[43] and three more were filed on April 1, 2013.[44] The plaintiffs claimed property damage to their homes "due to defendants' disposal well operations, which caused thousands of earthquakes in mini-clusters and swarms in central Arkansas in 2010 and 2011." They asserted causes of action for public nuisance, private nuisance, absolute liability, negligence, trespass, Deceptive Trade Practices, and outrage. They sought compensation for physical damage to their homes (cracking or separation in concrete, tiles, walls, ceilings, brick facings, and hardwood floors; the un-leveling of foundations; doors that will not properly close; and cracks in swimming pool), losses in the fair market value of their real estate, and emotional distress.

The *Hearn* case proceeded as a class action until April 9, 2013, with the filing of the Second Amended and Consolidated Complaint when all class action allegations were dropped. Because of settlements with some *Hearn* plaintiffs, the Court transferred and consolidated the claims of the remaining plaintiffs with the claims in the *Mahan* lawsuit (Case No. 4:13-cv-00184-JLH).

On October 17, 2013, the *Mahan* lawsuit was referred to the U.S. Magistrate Judge for a settlement conference. On January 6, 2014 and on January 9, 2014 respectively, an Amended Complaint was filed in the *Sutterfield* lawsuit (Case No. 4:13-cv-0183-JLH) and the *Mahan* lawsuit. In late February, in both cases, defendants Chesapeake Operating, Inc. and BHP Billiton Petroleum (Fayetteville) LLC each filed third-party complaints against Clarita Operating LLC–Arkansas and Deep-Six Water Disposal Services, LLC., asserting that "if any well caused Damages to Plaintiffs, it was the Clarita Well and the Deep-Six Well," both of which are "deeper than the wellbore of the wells described in Plaintiff's Complaint."

On March 6, 2014, the court granted the *Mahan* and *Sutterfield* plaintiffs' motion to dismiss emotional distress claims. On March 20, 2014, the *Mahan*, and *Sutterfield, Miller, and Thomas* cases were voluntarily dismissed with prejudice.

Two new lawsuits[45] involving the Arkansas swarm of earthquakes was filed in February 2014. Pointing to the wastewater disposal wells in Faulkner County, the plaintiffs[46] asserted causes of action for public nuisance, private nuisance, absolute liability, negligence, trespass, deceptive trade practices, and outrage. However, both of these lawsuits were

40 *Frey v. BHP Billiton Petroleum (Arkansas) Inc., et al.*, Case No. 23CV-11-488, In the Circuit Court of Faulkner County, Arkansas, 2nd Division (May 23, 2011), removed to the U.S. District Court for the Eastern District of Arkansas, Western Division, Case No. 4:11-cv-0475-JLH, on June 9, 2011; closed August 31, 2011.

Hearn v. BHP Billiton Petroleum (Arkansas) Inc., et al, Case No. 23CV-11-492, In the Circuit Court of Faulkner County, Arkansas, 2nd Division (May 24, 2011), removed to the U.S. District Court for the Eastern District of Arkansas, Western Division, Case No. 4:11-cv-00474-JLH, on June 9, 2011; closed on August 29, 2013.

Lane v. BHP Billiton Petroleum (Arkansas) Inc., et al, Case No. 23CV-11-482, In the Circuit Court of Faulkner County, Arkansas, 3rd Division (May 20, 2011), removed to the U.S. District Court for the Eastern District of Arkansas, Western Division, Case No. 4:11-cv-00477-JLH, on June 9, 2011, closed August 31, 2011.

Palmer v. BHP Billiton Petroleum (Arkansas) Inc., et al, Case No. 23CV-11-491, In the Circuit Court of Faulkner County, Arkansas, 3rd Division, Case No. 4:11-cv-00476-JLH, on June 9, 2011, closed on August 31, 2011.

41 On September 15, 2011 and on November 1, 2011, respectively, defendants Clarita Operating LLC and BHP Billiton Petroleum (Arkansas) Inc. were dismissed. Plaintiffs Sam and April Lane and plaintiffs Randy and Joyce Palmer dismissed their claims on November 18, 2011; and Peggy Freeman, Tony and Karen Davis, and Jason and Misty Spiller were added as plaintiffs.

42 For Dr. Al-Shukri's testimony, *see* Exhibit C to Deep Six's Statement of Material Facts As to Which There is No Genuine Issue to Be Tried judgment [Docket #63, Case No. 4:11-cv-00474] which was filed with the motion for summary judgment.

43 *Miller v. Chesapeake Operating, Inc. and BHP Billiton Petroleum (Fayetteville) LLC*, No. 4:13-cv-131-JMM (E.D. Ark., March 11, 2013).

44 *Thomas v. Chesapeake Operating, Inc. and BHP Billiton Petroleum (Fayetteville) LLC*, No. 4:13-cv-182-JLH (E.D. Ark., April 1, 2013).

Sutterfield v. Chesapeake Operating, Inc. and BHP Billiton Petroleum (Fayetteville) LLC, No. 4:13-cv-183-JLH (E.D. Ark., April 1, 2013).

Mahan v. Chesapeake Operating, Inc. and BHP Billiton Petroleum (Fayetteville) LLC, No. 4:13-cv-184-JLH (E.D. Ark., April 1, 2013).

45 *2010-2011 Guy-Greenbrier Earthquake Swarm Victims v. Chesapeake Operating, Inc. and BHP Billiton Petroleum (Fayetteville) LLC*, Case No. 23CV-14-84, In the Circuit Court of Faulkner County, Arkansas, 1st Division, February 11, 2014 (dismissed with prejudice on March 31, 2014); and *Davis, et al. v. Chesapeake Operating, Inc. and BHP Billiton Petroleum (Fayetteville) LLC*, Case No. 4:14-cv-81 JLH (E.D. Ark., February 12, 2014) (dismissed with prejudice on March 20, 2014).

46 Of the 24 plaintiffs in the *2010-2011 Guy-Greenbrier Earthquake Swarm Victims* lawsuit, five previously filed lawsuits: Sam and April Lane, Randy and Joyce Palmer, and Jacob Sheatsley.

dismissed with prejudice in March of 2014 pursuant to a confidential settlement agreement.

On July 30, 2013, four residents of Alvarado, Texas filed a class action lawsuit alleging that their homes were damaged by earthquakes caused by hydraulic fracturing.[47] These plaintiffs claimed that the defendant oil and gas companies' fracking and injection well operations caused "earthquakes, ground subsidence and other seismic activity" on their property. According to plaintiffs, the injection of drilling wastewater into underground disposal wells can enter a fault, causing slippage and earthquakes. Setting out causes of action for negligence, nuisance, and strict liability, the plaintiffs sought actual and exemplary damages in undisclosed amounts. This lawsuit was dismissed on April 13, 2015.

Beginning in 2014, numerous separate lawsuits were filed in federal and state court in Oklahoma, alleging that hydraulic fracturing operations caused and/or induced earthquakes in Oklahoma.

On August 4, 2014, Ms. Sandra Ladra filed the first such action in the District Court of Lincoln County, Oklahoma, against New Dominion and Spess Oil Company, both of which operated wastewater injection wells near the plaintiff's home.[48] The plaintiff alleged that in November of 2011, she was at her home in Oklahoma when an earthquake struck nearby causing rocks from the plaintiff's two-story fireplace and chimney to fall on her, badly injuring her legs.[49] The plaintiff claimed personal injury damages of approximately $75,000.[50] She also alleged that the defendants, through their use of injection wells, caused the earthquake that occurred when she was injured and, thus, were the proximate cause of her injuries.[51] On October 16, 2014, on defendants' motion, the district court dismissed the case on the basis that the Oklahoma Corporate Commission ("OCC") retains exclusive jurisdiction of any cases based around oil and gas operations.[52] The plaintiff filed a petition seeking review of the district court's dismissal of the case.[53]

The Supreme Court of Oklahoma disagreed. Quite the contrary, it held that the OCC's jurisdiction is limited and it does not have authority to hear and rule on disputes between private parties in which there is no public interest.[54] Thus, private tort actions, even ones relating to oil and gas operations, are exclusively within the district court's jurisdiction.[55]

On remand to the district court, the plaintiff survived an additional motion to dismiss based on the statute of limitations. On January 9, 2017, the court entered a scheduling order requiring any dispositive motions to be filed by October 2, discovery to be complete by November 1, and setting the case for a two-week trial beginning November 27th, 2017. After additional discovery, the court dismissed the case with prejudice before trial took place.

On February 10, 2015, Ms. Jennifer Cooper, a property owner in Oklahoma, filed suit against the same two energy companies, New Dominion and Spess Oil Company.[56] This plaintiff alleged that her property was damaged as a result of earthquakes from November of 2011.[57] She further alleged that New Dominion and Spess Oil Company are responsible for the property damage from the earthquakes because of each company's use of water disposal wells.[58] Cooper has sought class-action status for people who owned homes that were damaged by earthquakes in the counties surrounding the plaintiff's home.[59] This case is pending and discovery is ongoing.[60]

On January 11, 2016, Terry and Deborah Felts, along with many other residents of Oklahoma County, Oklahoma, filed suit against Devon Energy and over ten other energy companies operating in or near the state.[61] On December 29, 2015, and on January 1, 2016, earthquakes of over a 4.0 magnitude occurred, and each earthquake allegedly caused damage to the plaintiffs. The plaintiffs assert that they suffered damage to their property because the defendants negligently discharged their drilling waste. The plaintiffs also assert that discharging drilling waste is ultra-hazardous. If successful, this argument could subject the defendants to strict liability—irrespective of their level of care. This case is still pending.

On January 12, 2016, Lisa Griggs, an Oklahoma property owner, filed suit against Chesapeake Operating, New Dominion, and several other energy companies.[62] In the action she sought class status on behalf of Oklahoma property owners

47 Finn v. EOG Resources, Inc., et al, Cause No. C2013-00343, In the 18th Judicial District Court of Johnson County, Texas.
48 Ladra v. New Dominion, LLC, 353 P.3d 529, 530-31 (Okla. 2015).
49 *Id.* at 530.
50 *Id.*
51 *Id.*
52 *Id.*
53 *Id.*
54 *Id.* at 531.
55 *Id.*
56 Cooper v. New Dominion, LLC, et al., CJ-2015-00024 in the District Court of Lincoln, Oklahama.
57 *Id.*
58 *Id.*
59 *Id.*
60 *Id.*
61 *Oklahoma Residents Sue 12 Fracking Companies For Damage From Earthquakes*, Lexis Legal News (Jan. 27, 2016), http://www.lexislegalnews.com/articles/5533/oklahoma-residents-sue-12-fracking-companies-for-damage-from-earthquakes.
62 *Id.*

who experienced damages from earthquakes.[63] The plaintiff alleged that the earthquakes were caused by the defendants' operation of disposal wells for wastewater and also claims that the defendants' injection caused numerous seismic events throughout Oklahoma. The plaintiff claimed these events damaged the foundation and structure of her home.[64] Ms. Griggs, too, claimed strict liability on the ultra-hazardous activity theory, as well as negligence, private nuisance, and trespass. On July 21, 2016, the plaintiff voluntarily dismissed her claims without prejudice to refiling.[65]

On February 16, 2016, the Sierra Club filed a civil action against four energy companies in the United States District Court for the Western District of Oklahoma: Chesapeake Operating; Devon Energy Production Company; SandRidge Exploration and Production; and New Dominion.[66] The Sierra Club claimed that these energy companies were a contributing factor in the recent rise in earthquakes throughout all of Oklahoma and parts of Southern Kansas because of their waste disposal activities of deep injection of liquid waste from oil and gas extraction activities. The Sierra Club sought declaratory and injunctive relief through the citizen suit provision of the Resource Conservation and Recovery Act as, according to the Sierra Club, the defendant's waste disposal activities have already caused substantial harm to the public through property damage and harm to individuals. Additionally, the Sierra Club claimed that eventually these earthquakes could cause wide-spread damage to the entire energy infrastructure of these areas by rupturing oil storage tanks and pipelines.

The defendants argued that due to the Burford abstention and primary jurisdiction doctrines, the court should not exercise jurisdiction over this action. The Burford abstention doctrine is a doctrine that is primarily concerned with limiting federal influence on state administrative processes. The Burford abstention doctrine provides that if adequate state-court review is available,

> [A] federal court sitting in equity must decline to interfere with the proceedings or orders of state administrative agencies: (1) when there are difficult questions of state law bearing on policy problems of substantial public import whose importance transcends the result in the case then at bar; or (2) where the exercise of federal review of the question in a case and in similar cases would be disruptive of state efforts to establish a coherent policy with respect to a matter of substantial public concern.[67]

The court found that it was sitting in equity as the Sierra Club had only requested declaratory and injunctive relief under this action. Next, the court found that both federal and state law designated the OCC as the primary regulator of wastewater injection wells in Oklahoma. Many decades earlier, the state of Oklahoma applied for exclusive control of the enforcement and regulation of underground injection activities, and the Environmental Protection Agency ("EPA") approved it. Then, through a statute, Oklahoma granted exclusive jurisdiction and authority to enforce and monitor underground injection activities to the OCC, and the OCC established and began operating its own regulatory program to monitor disposal of wastewater. As part of its regulatory program, the OCC implemented a three step, traffic light system for the issuance of disposal permits and promulgated new rules for the disposal of waste water in the Arbuckle formation. Moreover, the court held that because the Sierra Club sought relief in the form of a large-scale decrease in the amount of wastewater injected by the defendants, timely and adequate state-court review is available as the OCC has the ability to provide the requested relief.[68]

Ultimately, the court concluded that it should abstain under the Buford doctrine; thus, the court granted the defendant's request to dismiss the Sierra Club's claims.[69] The court also held that this claim should be dismissed on primary jurisdiction grounds because the OCC has primary jurisdiction to resolve the harm the Sierra Club alleged took place.[70]

On February 18, 2016, Lisa West filed suit against over 14 defendants individually and a class of other defendant companies operating injection wells.[71] Ms. West is also filing this suit as a class representative. The plaintiffs requested relief in the form of payment of home insurance premiums in the future as well as insurance premiums already paid by the homeowners. The plaintiffs allege that this relief is needed because the defendants' injection of wastewater into the Arbuckle formation induced earthquakes. Further, it is alleged that the defendants' injection of wastewater will induce harms for a long period of time beyond the date that the injection of wastewater stopped. On December 19, 2016, several of the defendants filed motions to dismiss. The motion to dismiss was briefed by the parties throughout the spring of 2017. The

63 *Id.*
64 *Id.*
65 *Id.*
66 Sierra Club v. Chesapeake Operating, LLC, No. CIV-16-134-F, 2017 WL 1287546, at *1 (W.D. Okla. Apr. 4, 2017).
67 *Id.*
68 *Id.* at *6.
69 *Id.*
70 *Id.* at *9.
71 West v. ABC Oil Company, Inc., Cause No. 5:16-cv-00264 (W.D. Okla. Mar. 18, 2016)

court ruled on the motion to dismiss as well as motions to strike the class allegations. The court did rule entirely in favor of the defendants but it granted much of the requested relief, dismissing the claims against 10 of the defendants for lack of causation. The plaintiffs initially responded with a request to file an amended complaint which the court granted. That amended complaint dropped the remaining class allegations, thus mooting the remaining motions to strike. Then, on August 10, 2017 the plaintiffs voluntarily dismissed their claims against all defendants without prejudice to refiling.

On November 17, 2016, James Adams filed, as a class action, lawsuit seeking property damages, damages from the loss of the value of property, and emotional harm against several energy companies arising from a September 3, 2016 earthquake with a magnitude of 5.8. The plaintiffs allege that the defendants' operations of wastewater disposal wells were a contributing factor in causing the earthquake and that these actions are ultra-hazardous activities that involve such serious harm that the harm cannot be eliminated by the exercise of the utmost care. The plaintiffs further allege that the defendants are strictly liable for emotional harm suffered. This case is pending, and has been remanded back to state court.[72]

On December 5, 2016, a lawsuit was filed with David Reid as the lead plaintiff in a class action lawsuit. In this action, the plaintiffs, similar to *Adams v. Eagle Road Oil*, are seeking property damages from the loss of the value of property as well as emotional harm against several energy companies.[73] On November 7, 2016, a 5.0 magnitude earthquake occurred near Cushing, Oklahoma. The plaintiffs allege that the defendants' operation of wastewater disposal wells were a contributing factor in causing the earthquake and that these actions are ultra-hazardous activities that involve such serious harm that the harm cannot be eliminated by the exercise of the utmost care. The plaintiffs further allege the defendants are strictly liable for emotional harm suffered. This case is pending.

On March 3, 2017, the Pawnee Nation of Oklahoma filed a lawsuit in tribal court seeking damages to structures on the Pawnee Nation's lands.[74] The lawsuit claims that the alleged damages resulted from a 5.8 magnitude earthquake that occurred in September of 2016. The plaintiffs further allege that the defendants' actions of operating wastewater disposal wells, some of which were located on the Pawnee Nation's land, are ultra-hazardous activities that involve such serious harm that the harm cannot be eliminated by the exercise of the utmost care. The plaintiffs also asserted claims of negligence, private nuisance, and trespass. This case is pending.

Studies Concerning Possible Connections between Earthquakes and Fracking

Before the lawsuits in Arkansas were filed, in December 2010, the Arkansas Oil & Gas Commission ("AOGC") Staff expressed concern about a possible connection between hydraulic fracturing and the unusual seismic activity in Arkansas. The Staff requested that the AOGC establish an immediate moratorium on any new or additional disposal wells in certain counties.[75] Shortly after the large earthquakes in February 2011, the AOGC had a special hearing and ordered the cessation of disposal wells operated by Clarita Operating LLC and Chesapeake Operating, Inc.[76] In July 2011, the AOGC held a hearing and determined that there was sufficient documentary and expert witness[77] proof to order a moratorium on drilling disposal wells in the earthquake area.[78]

Other organizations besides the AOGC have been studying the possible connections between drilling and earthquakes. In August 2011, the Oklahoma Geological Survey ("OGS") drafted an Open-File Report entitled "Examination of Possibly Induced Seismicity from Hydraulic Fracturing in the Eola Field, Garvin County, Oklahoma." [79] This group concluded that

72 Blake Watson, *Hydraulic Fracturing Tort Litigation Summary*, U. of Dayton School of Law (Apr. 14, 2017), http://udayton.edu/directory/law/documents/watson/blake_watson_hydraulic_fracturing_primer.pdf.

73 Residents Seek Damages For Fracking Earthquakes In Oklahoma, Lexis Legal News (Dec. 7, 2016), http://www.lexislegalnews.com/articles/13138/residents-seek-damages-for-fracking-earthquakes-in-oklahoma.

74 *Pawnee Nation Sues Oklahoma Oil Companies in Tribal Court Over Earthquake Damages*, N.Y. Times (Mar. 4, 2017), https://www.nytimes.com/2017/03/04/us/pawnee-nation-oklahoma-oil-earthquake-lawsuit.html?_r=0.

75 Letter dated December 2010 from director Lawrence Bengal to the Commissioners of the Arkansas Oil & Gas Commission regarding amended request for an immediate moratorium on any new or additional Class II disposal well or Class II disposal well in certain areas (Faulkner, Conway, Van Buren, Cleburne and White counties). *See* http://www.aogc2.state.ar.us/Hearing%20Applications%20Archive/2010/December/602A-2010-12.pdf.

76 Order No. 602A-2010-12, February 8, 2011, Class II Commercial Disposal Well or Class II Disposal Moratorium, *available at* http://www.aogc2.state.ar.us/Hearing%20Orders/2011/Jan/602A-2010-12.pdf; *see also* Edward McAllister, *Avoiding Fracking Earthquakes May Prove Expensive*, *Scientific American*, (Jan. 3, 2012), *available at* http://www.scientificamerican.com/article.cfm?id=avoiding-fracking-earthquakes-expensive*; see also* http://www.intellectualtakeout.org/library/articles-commentary-blog/avoiding-fracking-earthquakes-expensive-venture.

77 Researchers with the Arkansas Geological Survey say that, while there is no discernible link between earthquakes and gas production, there is "strong temporal and spatial" evidence for a relationship between the Arkansas earthquakes and the injection wells. Campbell Robertson, *A Dot on the Map, Until the Earth Started Shaking*, N.Y. Times, Feb. 5, 2011, http://www.nytimes.com/2011/02/06/us/06earthquake.html?pagewanted=all&_r=0. Dr. Haydar al-Shukri, director of the Arkansas Earthquake Center at the University of Arkansas testified before the Commission that, because only 280 of the more than 10,000 small seismic events occurred within three miles of the well, these events were not caused by hydraulic fracturing. *See* http://apps.americanbar.org/litigation/committees/energy/articles/spring2012-0512-frackings-alleged-links-water-contamination-earthquakes.html.

78 *Natural Gas: Arkansas Commission Votes to Shut Down Wells*, HuffPost Green, July 27, 2011; Order No. 180A-2-2011-07, August 2, 2011, Class II Commercial Disposal Well or Class II Disposal Moratorium, *found at* http://www.fossil.energy.gov/programs/gasregulation/authorizations/Orders_Issued_2012/64._AOGC_Hearing.pdf

79 Holland, *Examination of Possibly Induced Seismicity from Hydraulic Fracturing in the Eola Field, Garvin County, Oklahoma*, Oklahoma Geological Survey, Open File Report OF-1 2011, *available at* http://www.ogs.ou.edu/pubsscanned/openfile/OF1_2011.pdf. This report examined 43 earthquakes occurring in the Eola Field of southern Garvin County, Oklahoma, in mid-January 2011. Allegedly the earthquakes began to occur about seven hours after the first and deepest hydraulic fracturing stage at Picket Unit B well 4-18.

> [D]etermining whether or not earthquakes have been induced [by drilling] ...is problematic, because of our poor knowledge of historical earthquakes, earthquake processes and the long recurrence intervals in the stable continent. In addition, understanding fluid flow and pressure diffusion in the unique geology and structures of an area poses real and significant challenges . . . . The number of historical earthquakes in the area and uncertainties in hypocenter locations make it impossible to determine with a high degree of certainty whether or not hydraulic fracturing induced these earthquakes.[80]

Although our understanding of earthquakes has improved somewhat, the view of the OGS Open-File Report is largely still valid. Most recent research into the link between hydraulic fracturing and seismic activity fails to establish a clear and traceable causality. In 2014, seismologist Dr. Austin Holland presented research at the United States Energy Association Symposium demonstrating an association or link between hydraulic fracturing and earthquakes in Oklahoma, however, this research also specified that the abnormal seismic activity in Oklahoma was largely not caused by hydraulic fracturing activities.[81] Additionally, the earthquakes attributed to fracking activities by this research were below a 3.0 magnitude.[82] Less than a year after publishing that study, Dr. Holland—in a joint statement issues by the OGS—clarified that his research tends to show that increased seismicity is a result increased water injections rather than directly from fracking activities.[83]

A study was commissioned by Cuadrilla Resources Ltd. to evaluate the relationship between Cuadrilla's operations and two small earthquakes that occurred in Lancashire, United Kingdom, in April 2011.[84] The group concluded that the probability of a single factor, such as hydraulic fracturing, inducing a seismic event "with similar magnitude is quite low."[85] Cuadrilla stated that the "seismic events [in Lancashire] were due to an unusual combination of geology at the well site coupled with the pressure exerted by water injection as part of operations."[86] This combination of geological factors was extremely rare and would be unlikely to occur together again at future well sites. In response, the company modified the amount of fluid used and installed a seismic early warning system.[87]

The UK Department of Energy and Climate Change ("DECC") commissioned three independent experts to review Cuadrilla's study and other information and to make appropriate recommendations for the mitigation of seismic risks in the conduct of future hydraulic fracturing operations. The report[88] which was published on April 17, 2012, supported Cuadrilla's determinations and concluded that fracking in Lancashire could continue as long as a new set of recommended safety measures were followed.[89]

Pre-dating the Arkansas, Oklahoma, and United Kingdom studies, the U.S. Geological Survey ("USGS") prepared a 1990 report entitled "Earthquake Hazard Associated With Deep Well Injection – A Report to the U.S. Environmental Protection Agency."[90] This report evaluates the "probable physical mechanism for the triggering of and the criteria for predicting whether earthquakes will be triggered, based on the local state of stress in the Earth's crust, the injection pressure, and the physical and the hydrologic properties of the rocks into which the fluid is being injected." The report recommends care in selecting the locations of deep injection wells, namely "the desirability of high permeability and porosity in the injection zone and a site situated away from known fault structures," which would make the possibility of "induced earthquakes... less likely."[91]

The USGS has continued its research into earthquakes and hydraulic fracturing, and its scientists presented a report to the Seismological Society of America ("SSA") in mid-April 2012.[92] The study, led by USGS geophysicist Dr. William Ellsworth, found that, since 2001, the frequency of 3.0 or greater magnitude earthquakes has increased from 50 in

80 *Id.*
81 Austin Holland, *Induced Seismicity 'Unknown Knowns': The Role of Stress and Other Difficult to Measure Parameters of the Subsurface*, presentation at the U.S. Energy Association Symposium: Subsurface Technology and Engineering Challenges and R&D Opportunities, Washington, DC, October 30, 2014, available at http://www.usea.org/event/subsurface-technology-engineering-challenges-and-rd-opportunities-stress-state-and-induced.
82 *Id.*
83 Richard D. Andrews and Dr. Austin Holland, *Statement on Oklahoma Seismicity*, Oklahoma Geological Survey, Apr. 21, 2015, http://wichita.ogs.ou.edu/documents/OGS_Statement-Earthquakes-4-21-15.pdf.
84 Dr. C. J. De Pater and Dr. S. Baisch, *Geomechanical Study of Bowland Shale Seismicity: Synthesis Report*, Nov. 2, 2011, *available at* http://www.cuadrillaresources.com/wp-content/uploads/2011/12/Final_Report_Bowland_Seismicity_02-11-11.pdf.
85 *Id.*
86 *Id.*
87 *Id.*
88 Green, Styles, and Baptie, *Preese Hall Shale Gas Fracturing – Review & Recommendations for Induced Seismic Mitigation*, *available at* http://og.decc.gov.uk/assets/og/ep/onshore/5075-preese-hall-shale-gas-fracturing-review.pdf.
89 *Id.* Recommendations for continued hydraulic fracturing in Lancashire included the following: (1) pre-injection and monitoring before the main injection; (2) monitoring of fracturing growth and direction during the injection; (3) seismic monitoring; and (4) operations must be halted if events of magnitude of 0.5 or above are detected. Recommendations for all future fracturing activities include: (1) assessment of seismic hazards before injection begins; (2) establish baseline seismic monitoring; (3) locate any possible active faults in the region; and (4) apply suitable ground motion prediction models to assess the potential impact of any induced earthquakes.
90 Craig Nicholson and Robert L. Wesson, *Earthquake Hazard Associated With Deep Well Injection – A Report to the U.S. Environmental Protection Agency*, *available at* http://foodfreedom.files.wordpress.com/2011/11/earthquake-hazard-associated-with-deep-well-injection-report-to-epa-nicholson-wesson-1990.pdf.
91 *Id.*
92 Mike Soraghan, *'Remarkable' Spate of Man-Made Quakes Linked to Drilling, USGS Team Says*, EnergyWire March 29, 2012, *available at* http://eenews.net/public/energywire/2012/03/29/1.

2009, to 87 in 2010, and to 134 in 2011.[93] The scientists stated that "the acceleration in activity that began in 2009 appears to involve a combination of source regions of oil and gas production, including the Guy, Arkansas region, and in central and southern Oklahoma . . . . A naturally-occurring rate change of this magnitude is unprecedented outside of volcanic settings or in the absence of a main shock, of which there were neither in this region. While the seismicity rate changes described here are almost certainly manmade, it remains to be determined how they are related to either changes in extraction methodologies or the rate of oil and gas production."[94]

A joint USGS and OGS study and analysis, most recently updated on May 2, 2014, reached similar conclusions to the previously mentioned USGS research as the frequency of earthquakes of 3.0 or greater magnitude has continued to rise. This joint study resulted in the discovery that over 140 earthquakes occurred in Oklahoma equal to or exceeding a 3.0 magnitude from January 2014 until May 2014.[95] Prior to this discovery, the average number of earthquakes of 3.0 or greater magnitude in Oklahoma was two per year.[96] The USGS analyzed this dramatic increase in earthquakes and deduced that it is unlikely that this increase is caused by the typical fluctuations in the number of natural-made earthquakes.[97] This analysis further suggests that wastewater injected into deep geological formations is likely a contributing factor to the growth in the number of earthquakes.[98] In fact, the USGS suggests that a foreshock to the Prague, Oklahoma, earthquake in 2011 was induced by fluid injection.[99] Similar OGS studies suggest that other Oklahoma earthquakes were caused by fluid injection.[100]

At the same SSA meeting in mid-April 2012 mentioned previously, University of Memphis seismologist Steve Horton presented his paper entitled "Deep Fluid Injection Near the M5.6 Oklahoma Earthquake of November 2011," in which he opined that the build-up of seismic activity in Oklahoma was triggered by fluid injection into the subsurface.[101] He concluded that, "[b]ased on the previous injection history, proximity of the wells to the earthquakes and the previous seismic activity [in Oklahoma], the M5.6 earthquake was possibly triggered by fluid injection at these wells."[102]

Dr. Horton has also studied the earthquake swarms in Arkansas, and observed that the geological fault line is a danger independent of any injection well.[103] What Dr. Horton concludes is that a reasonable seismic risk strategy is needed to monitor earthquake activity and to reduce or stop the injection rate/pressure when seismic activity warrants.[104]

From March through November 2011, there were nine microearthquakes near Youngstown, Ohio,[105] within an eight-kilometer radius of a waste water injection well.[106] Because earthquakes are rare in the Youngstown area, the Ohio Department of Natural Resources asked scientists with Columbia University's Lamont-Doherty Earth Observatory ("LDEO") to place mobile seismographs in the vicinity to better determine what was occurring. Four seismographs were installed on November 30, 2011.[107] Two earthquakes measuring 2.7 and 4.0 on the Richter scale hit Youngstown on December 24, 2011, and December 31, 2011, respectively.[108] Scientific American[109] reported that, "[b]y triangulating the arrival time of shock waves at the four stations, [the LDEO] determined with 95% certainty that the epicenters of the two holiday quakes were within 100 meters of each other, and within 0.8 kilometer of the injection well. The team also determined that the quakes were caused by slippage along a fault at about the same depth as the injection site, almost three kilometers down."[110]

The LDEO scientists did not go so far as to say that the pumping caused the quakes, but indicated that "fluids can act as lubricants between two abutting rock faces, helping them to suddenly slip along the boundary."[111] Nevertheless, on

93 *Id.; see also* Ellsworth, *Are Seismicity Rate Changes in the Midcontinent Natural or Manmade*, *available at* http://www.fossil.energy.gov/programs/gasregulation/authorizations/Orders_Issued_2012/65._Are_Seismicity_Rate_or_Manmade_.pdf.
94 *Id.*
95 U.S. Geological Survey and Okla. Geological Survey, Record Number of Oklahoma Tremors Raises Possibility of Damaging Earthquakes (last updated May 2, 2014), https://earthquake.usgs.gov/earthquakes/byregion/oklahoma/newsrelease_05022014.php.
96 *Id.*
97 *Id.*
98 *Id.*
99 *Id.*
100 *Id.*
101 Horton, S. (2012), *Deep Fluid Injection Near the M5.6 Oklahoma Earthquake of November, 2011*, *available at* http://www2.seismosoc.org/FMPro?-db=Abstract_Submission_12&-sortfield=PresDay&-sortorder=ascending&-sortfield=Special+Session+Name+Calc&-sortorder=ascending&-sortfield=PresTimeSort&-sortorder=ascending&-op=gt&PresStatus=0&-lop=and&-token.1=ShowSession&-token.2=ShowHeading&-recid=631&-format=%2Fmeetings%2F2012%2Fabstracts%2Fsessionabstractdetail.html&-lay=MtgList&-find.
102 *Id.*
103 Horton, S., *Disposal of Hydrofracking-Waste Fluid by Injection into Subsurface Aquifers Triggers Earth Quake Swarm in Central Arkansas with Potential for Damaging Earthquake*, Seismological Research Letters 83, 250-260 2012; *see also* S. Horton, *Seismic Hazard and Class 2 UIC Disposal Wells*, presentation made February 22, 2012, *available at* http://earthquake.usgs.gov/hazards/about/workshops/CEUS-WORKSHP/2.22.2012/Horton2012TriggeredEqs.pdf.
104 *Id., see also* Richard A. Kerr, *Learning how to NOT Make Your Own Earthquakes*, Science, March 23, 2012, *available at* http://ceriblog.files.wordpress.com/2012/03/learning-how-to-not-make-your-own-earthquakes.pdf.
105 Ohio Department of Natural Resources website, http://www.dnr.state.oh.us/tabid/8144/Default.aspx.
106 Henry Fountain, *Ohio: Sites of Two Earthquakes Nearly Identical*, N.Y. Times, Jan. 3, 2012, *available at* http://www.nytimes.com/2012/01/03/science/earth/ohio-sites-of-two-earthquakes-nearly-identical.html?_r=1&ref=us
107 *Id.*
108 *Id.*
109 Mark Fischette, *Ohio Earthquake Likely Caused by Fracking Wastewater*, Scientific American, Jan. 4, 2012.
110 *Id.*
111 *Id.; see also Ohio Quakes Probably Triggered by Waste Disposal Well, Say Seismologists*, *available at* http://www.ldeo.columbia.edu/news-events/seismologists-link-ohio-earthquakes-waste-disposal-wells

December 31, 2011, Ohio Governor John Kasich shut down five storage wells in the vicinity pending additional investigation.[112] As requested by the Governor, the Ohio Department of Natural Resources ("ONDR") researched and issued in March 2012, "A Preliminary Report on the Northstar 1 Class II Injection Well and the Seismic Events in the Youngstown, Ohio, Area."[113] This preliminary report recommends reforms to carefully monitor and stringently regulate Class II deep injection wells[114] and recommends that an outside expert with experience in seismicity, induced seismicity and Class II injection wells conduct an independent review of all technical information available relating to earthquakes and injection wells.

A similar situation has arisen in West Virginia, which experienced 10 quakes in 2010 and another one in January 2012.[115] After the initial quakes in 2010, the West Virginia Department of Environmental Protection ("WVDEP") worked with Chesapeake Energy Corporation to reduce the amount of fluid being injected into disposal wells in the area.[116] The WVDEP claimed that Chesapeake Energy had begun to slowly increase the amount of injected fluid when the latest earthquake struck.[117] While the WVDEP believes that there is a link between the earthquake and Chesapeake Energy's alleged increased volume of fluid, there is no evidence to prove this conclusion because no seismic monitors were present at the site.[118] Chesapeake Energy denies increasing the volume of underground injections and has stated that it is skeptical that any link exists, given that the earthquake occurred six miles from the disposal well, nearly three miles below the well's disposal zone, and 25 earthquakes have been reported within 100 miles of the current seismic activity since 2000, one of which struck before the injection well was even drilled.[119]

Further research regarding multiple earthquakes in Ohio was published in 2014.[120] That research demonstrated that hydraulic fracturing impacted a fault located below the rocks that were being fractured and suggested that this fault was triggered by those hydraulic fracturing operations.[121] The researchers claim that their findings are the first evidence of earthquakes on an unmapped fault that are related to hydraulic fracturing operations. The earthquakes that resulted were relatively small as all of them failed to reach a magnitude of 2.3.[122] These earthquakes revealed this unmapped fault that was directly below three horizontal gas wells.[123] The first earthquake relating to this fault was identified on October 2, 2013, however, a later analysis showed that 190 earthquakes occurred on October 1 and 2.[124] All of these earthquakes occurred only hours after hydraulic fracturing operations began on the horizontal gas wells.[125] Further, the seismic activity corresponded with the hydraulic fracturing operations at the wells.[126] This, along with their linear clustering and similar waveform signals suggested to the researchers that the hydraulic fracturing operations were the cause of all 190 earthquakes.[127]

Similarly, in 2016, a study of seismic events in Canada, near British Columbia, revealed a link between seismic events and hydraulic fracturing activities near pre-existing faults.[128] Dr. Gail Atkinson and other researchers analyzed over 12,000 hydraulic fracturing wells and approximately 1,200 wastewater disposal wells evaluating the operations of those wells for a potential relationship to magnitude 3 or larger earthquakes between 1985 and 2015 in an area of over 100,000 square miles.[129] The seismic events linked to hydraulic fracturing activities reached a magnitude 3.0 or greater, including one earthquake that registered a magnitude of 4.6.[130] Although Dr. Atkinson's research revealed a link between seismic events and hydraulic fracturing activities near pre-existing faults, generally, Dr. Atkinson's research proved that only 0.3% of the total of hydraulic fracturing wells studied, and approximately 1% of the disposal wells studied, could possibly be linked to earthquakes of magnitude 3.0 or greater.[131]

Seismologist Arthur McGarr at the USGS has presented a model for calculating the highest magnitude earthquake that an operation injecting fluid deep underground, (i.e., hydraulic

112 Maggie Schneider CNN, *Ohio Fracking Wells Closed in Wake of Quake*, CNN, Jan. 2, 2012, *available at* http://www.cnn.com/2012/01/01/us/ohio-earthquake; Joe Vardon, *State links quakes to work on wells*, The Columbus Dispatch, Jan. 1, 2012, *available at* http://www.dispatch.com/content/stories/local/2012/01/01/state-links-quakes-to-work-on-wells.html

113 Report is available at http://ohiodnr.com/downloads/northstar/UICreport.pdf.

114 *Id.* Some of the required reforms sought by the ODNR include: a review of existing geologic data for known faulted areas; a complete suite of geophysical logs to be run on newly drilled Class II disposal wells; operators must plug back with cement, prior to injection; a measurement of original downhole reservoir pressure prior to initial injection; installation of an automatic shut-off system set to operate if the fluid injection pressure exceeds a maximum pressure set by the ODNR; and installation of an electronic data recording system to track all fluids brought by a brine transporter for injection.

115 The Associated Press, *W.Va. DEP: Injection, quakes could be tied*, Star Gazette, Jan. 13, 2012, *available at* http://www.stargazette.com/article/20120113/NEWS11/120113015/W-Va-DEP-Injection-quakes-could-tied.

116 *Id.*

117 *Id.*

118 *Id.*

119 The Associated Press, *Chesapeake Skeptical of Quake-Drilling Connection*, Saturday Gazette-Mail, Jan. 13, 2012, *available at* http://www.wvgazette.com/News/Business/201201130127.

120 Paul A. Friberg, Glenda M. Besana-Ostman, and Illya Dricker, *Characterization of an Earthquake Sequence Triggered by Hydraulic Fracturing in Harrison County, Ohio*, 85 Seismological Research Letters 1, 2-11 (2014).

121 *Id.*

122 *Id.*

123 *Id.*

124 *Id.*

125 *Id.*

126 *Id.*

127 *Id.*

128 Atkinson et al., *Hydraulic Fracturing and Seismicity in the Western Canada Sedimentary Basin*, 87 Seismological Research Letters 1, 2-5, 9 (2016).

129 *Id.*

130 *Id.* at 8, 11.

131 *Id.*

fracturing) could induce.[132] Dr. McGarr and his team studied seven cases of quakes induced by fluid and uncovered a link between the volume of injected fluid and an earthquake's magnitude.[133] They found that every time the volume of fluids doubles, the magnitude increases by about 0.4.[134] While the model cannot determine the likelihood of a quake occurring, it does assist engineers in knowing what to expect.[135]

On June 15, 2012, the National Research Council issued its report concerning the scale, scope and consequences of induced seismicity (earthquakes attributable to human activities) relating to energy technologies that involve fluid injection or withdrawal from the earth's subsurface, including activities such as shale gas recovery, the use of hydraulic fracturing, and the disposal of waste water.[136] The main findings of this study are: (1) the process of hydraulic fracturing as presently implemented does not pose a high risk for inducing seismic events; and (2) injection for disposal of waste water into the subsurface does "pose some risk for induced seismicity, but very few events have been documented over the past several decades relative to the large number of disposal wells in operation . . . ."[137]

On July 12, 2013, Dr. William Ellsworth published findings that appear to agree with the earlier findings of the National Research Council.[138] Dr. Ellsworth, using a regional seismographic network, found that the Marcellus Shale has experienced less than 10 earthquakes of a 2.0 magnitude or greater, even though—over the past ten years—there have been thousands of hydraulic fracturing operations in the Marcellus Shale.[139] Thus, it appears that, at least in the Marcellus Shale, hydraulic fracturing does not pose a high risk of inducing earthquakes.[140] Additionally, Dr. Ellsworth concluded that although hydraulic fracturing operations periodically induce earthquakes, these hydraulic fracturing induced earthquakes are too small to be felt on the earth's surface and that current hydraulic fracturing operations pose an extremely low risk of inducing larger, potentially more destructive earthquakes.[141]

132 Zoe Corbyn, *Method Predicts Size of Fracking Earthquakes,* Nature, Dec. 9, 2011, *available at* http://www.nature.com/news/method-predicts-size-of-fracking-earthquakes-1.9608; *see also,* McGarr, A. (1976), Seismic Moments and Volume Changes, J. Geophys. Res. 81(8), 1487-1494, doi: 10.1029/JB081i008p01487, abstract *available at* http://www.agu.org/pubs/crossref/1976/JB081i008p01487.shtml.
133 *Id.*
134 *Id.*
135 *Id.*
136 *See Induced Seismicity Potential in Energy Technologies*, at http://www.nap.edu/catalog.php?record_id=13355).
137 *Id.*
138 William L. Ellsworth, *Injection-Induced Earthquakes*, 341 Science, July 12, 2013, http://www.sciencemag.org/content/341/6142/1225942.
139 *Id.*
140 *Id.*
141 *Id.*

Government Regulatory Action Concerning Possible Connections between Earthquakes and Fracking

The primary law authorizing federal regulation of underground injection operations is the Safe Drinking Water Act of 1974 ("SDWA").[142] The SDWA delegates to the EPA the duty of promulgating regulations for state programs to control underground injection activities and prevent underground injection activities that jeopardize sources of drinking water; however, the SDWA provided that a state can assume primary enforcement authority over the EPA provided that the state meet certain requirements.[143] For several decades, the EPA considered hydraulic fracturing to be outside of the agency's regulatory powers.[144] In 2005, through the Energy Policy Act of 2005, the SDWA expressly and unambiguously exempted hydraulic fracturing from the production processes that the EPA can regulate; thus, hydraulic fracturing is regulated by the states, not by any federal agency.[145]

A recent case addressed the issue of whether a federal agency has proper authority to regulate hydraulic fracturing. In 2015, the Department of Interior ("DOI") promulgated new regulations on hydraulic fracturing that required companies to ensure that wells are safe and to disclose chemicals used in the process for wells on federal and tribal lands.[146] Four states, Colorado, North Dakota, Utah, and Wyoming, quickly brought the issue to court arguing that these regulations overstepped the DOI's authority.[147] The United States District Court in Wyoming ruled that the DOI had never been granted the proper authority to regulate hydraulic fracturing and that the state currently holds that authority.[148] On appeal to the Tenth Circuit, the court threw out the suit when rule in September of 2017 based on the Trump administration's comments on the fracking rule and the Bureau of Land Management's proposal to officially rescind it.[149] The court dismissed the appeals and vacated the trial court's finding that the DOI did not have the authority to promulgate these rules. On petition for rehearing, North Dakota and three other states urged the court to reinstate the lower court's ruling to prevent the DOI and Bureau of Land

142 Peter Folger, Mary Tiemann, Cong. Research Serv., R43836, Human-Induced Earthquakes from Deep-Well Injection: A Brief Overview (2016).
143 *Id.*
144 *Id.*
145 *Id.*
146 Camila Domonoske, *Federal Judge Strikes Down Obama Administration's Fracking Rules*, National Public Radio (June 22, 2016, 9:17 AM), http://www.npr.org/sections/thetwo-way/2016/06/22/483061014/federal-judge-strikes-down-obama-administrations-fracking-rules.
147 *Id.*
148 *Id.*
149 Michael Phillips, *ND Asks 10th Circ. To Keep Fracking Rule Rejection in Place*, Law360, (Feb. 8 2018), https://www.law360.com/articles/1010470/nd-asks-10th-circ-to-keep-fracking-rule-rejection-in-place.

Management from unfairly erasing an adverse decision. That appeal is still pending.

In 2013, the Oklahoma Corporation Commission created a 'traffic light' permitting system for Class II disposal wells.[150] This traffic light system requires that all disposal well permit applications go through a review based on the well's proximity to faults.[151] Operators operating new wells within an 'area of interest,' within six miles of a seismic cluster or within three miles of a stress fault must analyze and demonstrate the level of risk of human-induced seismic activity, including providing the technical and scientific data based around their conclusion.[152] Additionally, a requisite public hearing for the permit application must occur allowing stakeholders to voice their opinion on the potential operation.[153] The language of each traffic light permit typically differs among each well, but generally, the permits limit both injection pressures and volumes and outline conditions that require the operator to shut down the well—these are known as 'red light' conditions.[154] Wells proposed in areas that do not meet the conditions of a 'red light' area but are still cause for concern (in terms of potential seismic activity) receive a 'yellow light' permit status.[155] Yellow light permits are granted for approximately 180 days, and the regulators have wide discretion to make the requirements of the permit stricter at any time.[156] Additionally, every sixty days, wells must shut down and conduct bottom-hole pressure readings.[157]

In 2015, the OCC updated this permitting system expanding the term "areas of interest" to include additional permitting requirements for injection wells.[158] Further, in the same year, the OCC required that operators that inject into the Arbuckle Formation must provide information proving that their operations were not in contact with the crystalline basement rock.[159] Any wells that are in contact with the basement rock are required to plug the wells to a depth that is no longer in contact with the basement rock.[160]

In 2014, following the increase in earthquakes mentioned previously, the Ohio Department of Natural Resources created new rules and drilling requirements pertaining to the construction and operation of production wells.[161] These rules and drilling requirements provided standards for the design of well sites as well as the construction of those sites.[162] Additionally, these rules provide for stronger drilling permit conditions that must be met for horizontal production wells located near faults or other areas that are associated with previous earthquake activity.[163] Under these rules, Ohio now requires a company to install seismic monitors for any new permit for horizontal drilling within three miles of a fault, and if the monitor detects a 1.0 magnitude or greater seismic event, the operator must cease all activities at that well until the cause of the seismic event is determined.[164] Furthermore, if the investigation results in a probable connection between the hydraulic fracturing operations and the seismic event, then all operations must be suspended at that well.[165]

In November of 2014, the Texas Railroad Commission amended the state's oil and gas rules. Under these new rules, all applicants for a disposal well permit must submit research information from the USGS that provides the locations of any seismic events that have occurred within 100 square miles of the well site.[166] Additionally, the state may require permit applicants to submit further information and data if the proposed well site is within an area that may increase the risk of seismic activity.[167] And if a well is approved in a risky area, the regulators have the option to request that the operators monitor and report disposal well injection pressures and rates more frequently than an area that is not deemed as great of a risk.[168] The new rules also provide much more discretion to the state to modify, suspend or even terminate a permit for a disposal well through broad language – where the injection is "likely to be" a contributor to seismic activity.[169]

On October 20, 2015, the Insurance Commissioner for Oklahoma, John D. Doak, issued an insurance bulletin regarding earthquake insurance.[170] This insurance bulletin issued notice to insurance providers that provide property or liability insurance in Oklahoma that they must send clarifying notice to all Oklahoma policyholders in an attempt to clarify

150 Tim Baker, Oil and Gas Conservation Division, *Oklahoma Corporation Commission Town Hall Presentation on Seismicity & Updates to the Traffic Light System*, (April 2015), https://earthquakes.ok.gov/wp-content/uploads/2015/04/OGCD_Presentation.pdf.
151 *Id.*
152 *Id.*
153 *Id.*
154 *Id.*
155 Oklahoma Office Of The Secretary Of Energy & Environment, https://earthquakes.ok.gov/what-we-are-doing/oklahoma-corporation-commission/ (last visited May 22,2017).
156 *Id.*
157 *Id.*
158 Press Release, Oklahoma Corporation Commission, Ongoing OCC Earthquake Response (Mar. 25, 2015) http://www.occeweb.com/News/2015/01-30-15EQ%20ADVISORY.pdf.
159 *Id.*
160 *Id.*
161 Press Release, Ohio Dept. of Nat. Resources, Ohio Announces Tougher Permit Conditions for Drilling Activities near Faults and Areas of Seismic Activity (Apr. 11, 2014) http://ohiodnr.gov/news/post/ohio-announces-tougher-permit-conditions-for-drilling-activities-near-faults-and-areas-of-seismic-activity
162 *Id.*
163 Ohio Admin. Code 1501:9-2-02 (2015).
164 Ohio Dept. of Nat. Resources, Division of Oil and Gas Resources Management, ***Shale Well Drilling and Permitting: Seismic Restrictions, http://oilandgas.ohiodnr.gov/shale***
165 *Id.*
166 39 Tex. Reg. 8996-9005 (Nov. 14, 2014).
167 *Id.*
168 *Id.*
169 16 Tex. Admin. Code §3.9(6)(A)(vi).
170 Oklahoma Ins. Bulletin PC 2015-04, 2015, https://www.ok.gov/oid/documents/102115_EQ%20Bulletin.pdf

the insurance coverage provided for earthquakes that allegedly result from hydraulic fracturing operations or other human events.[171] Commissioner Doak issued this bulletin after a rise in the number of small earthquakes in Oklahoma caused both interest in earthquake insurance and concern among many Oklahoma citizens as to whether particular earthquake insurance policies covered or excluded human caused earthquakes.[172] Commissioner Doak stated in this bulletin that insurance providers with earthquake policies in Oklahoma have reacted to the link between oil and gas exploration and production activities and the increase in earthquakes experienced in the state in several ways.[173] Some insurance providers amended their coverage to include damage resulting from oil and gas exploration and production activities, while others waived any exclusions of human-induced exclusions to their policy.[174] However, some insurers continue to exclude man-made earthquakes from coverage.[175]

Several months before Oklahoma's insurance bulletin, Pennsylvania took a similar action but went further to protect homeowners. On April 11, 2015, the Commissioner of Insurance in Pennsylvania, Teresa Miller, issued a bulletin requiring all insurers that have provided earthquake endorsements to homeowner's insurance policies in Pennsylvania to cover all earthquakes.[176] The bulletin does not distinguish between earthquakes that occur naturally and those that may be influenced by man-made activities.[177] Commissioner Miller stated in the bulletin that one driver of this requirement was the difficulty of "determining with certainty that human activity caused an earthquake."[178]

Litigation concerning local bans of hydraulic fracturing

***Northeast Natural Energy, LLC and Enrout Properties, LLC v. The City of Morgantown, West Virginia*, Civil Action No. 11-C-411; In the Circuit Court of Monongalia County, West Virginia (June 23, 2011)**

Northeast Natural Energy, LLC ("Northeast") signed several lease agreements with landowners in the Morgantown area, including one lease with Enrout Properties, LLC. ("Enrout") (collectively, Northeast and Enrout, "Plaintiffs"). In March 2011, Northeast obtained drilling permits from the West Virginia Department of Environmental Protection ("WVDEP"). In May 2011, the Morgantown Utility Board questioned certain aspects of the permits as to the wells' impact on the Monongahela River, specifically as to spill containment, spill prevention, well integrity, waste disposal, and fracking fluid containment. Northeast agreed to comply with the Board's requests for additional safeguards. On June 7, 2011, the City of Morgantown began the process of enacting an ordinance completely prohibiting "drilling a well for the purpose of extracting or storing oil or gas using horizontal drilling with fracturing or fracking methods within the limits of the City...or within one mile of the corporate limits of the City..."

Plaintiffs challenged the ordinance, claiming that the City violated their constitutional rights by adopting a regulation in derogation of state laws promulgated by the WVDEP which regulates natural gas extraction. Plaintiffs contended that the WVDEP regulations preempted and precluded enforcement of the city's ordinance. The City argued that it had the authority to enact and enforce the ordinance under the "Home Rule" provision in the West Virginia constitution by characterizing the hydraulic fracturing process as a nuisance.

The court held that the state legislature had given the WVDEP the "primary responsibility for protecting the environment; other governmental entities, public and private organizations and our citizens have the primary responsibility of supporting the state in its role as protector of the environment." W.Va. Code § 22-1-1(a)(2) (1994). Additionally, the WVDEP was formed to "consolidate environmental regulatory programs in a single state agency, while also providing a comprehensive program for the conservation, protection, exploration, development, enjoyment and use of the natural resources of the state of West Virginia." W.Va. Code § 22-1-1(b)(2)-(3) (1994). The WVDEP controls the development of oil and gas in the state, including the issuance of permits. While acknowledging that the city has an interest in the control of its land, on August 12, 2011, the court held that, in light of the state's interest in oil and gas development and operations throughout the state and the all-inclusive authority given to the WVDEP, the city's ordinance was preempted by state legislation and was invalid. This decision of the court was not appealed.[179]

***Weiden Lake Property Owners Association, Inc. v. Jeff A. Klansky and Cabot Oil & Gas Corporation*, 2011 N.Y. Misc. LEXIS 4081 (Sup. Ct.-Sullivan County, Aug. 18, 2011)**

171 *Id.*
172 *Id.*
173 *Id.*
174 *Id.*
175 *Id.*
176 45 Pa.B. 1916, *available at* www.pabulletin.com/secure/data/vol45/45-15/704.html
177 *Id.*
178 *Id.*

179 The City of Wellsburg, West Virginia which had enacted a similar ban in May 2011, rescinded its ordinance following the court's decision in the *Northeast Natural Gas* case.

The Weiden Property Owners Association, Inc. ("Plaintiff") was formed in 1999 to oversee and manage the subdivision and to maintain Weiden Lake and Dam. In May 2008, Plaintiff affirmed that the protective covenants it established prohibited commercial uses of the properties. The covenants included provisions restricting the premises to single family homes and to agricultural and/or recreational use.

In June 2007, Jeff A. Klansky ("Klansky") purchased one of the lots in the subdivision. In July 2008, he entered into a lease that granted Cabot Oil & Gas Corporation ("Cabot") the exclusive right to "explore for, drill for, produce and market oil, gas and other hydrocarbons" from Klansky's lot for five years. Klansky received $99,255 as a signing bonus. The lease provided that Klansky made no representation as to the "permitted use(s) of the subject property and/or the legality of the use(s) contemplated" in the lease agreement.

Upon hearing of Klansky's lease, Plaintiff filed this lawsuit and sought summary judgment that the activities under the lease were prohibited by the protective covenants. The court agreed with Plaintiff and ruled that the covenants unambiguously restricted the use of land in the community to single family residential, agricultural or recreational use. The court also determined that Klansky did not have to return the signing bonus because of the "no representation" clause and because Cabot was a sophisticated business entity and knowingly decided to enter into the lease, approve title and pay the signing bonus with full knowledge of the protective covenants and Plaintiff's position.

***Anschutz Exploration Corporation v. Town of Dryden and Town of Dryden Town Board*, 35 Misc.3d 450, 940 N.Y.S.2d 458 (N.Y. Sup. Ct. 2012)**

The Town of Dryden amended its zoning ordinance on August 2, 2011 to ban all activities related to the exploration for, and production or storage of, natural gas and petroleum within the town's limits. Section 2104[5] of the ordinance provided that "[n]o permit issued by any local, state or federal agency, commission or board for a use which would violate the prohibitions shall be deemed valid within the Town."

Prior to the amended zoning ordinance, Anschutz Exploration Corporation ("Anschutz") had acquired gas leases covering approximately 22,000 acres in Dryden and had already invested approximately $5.1 million in activities within the town. On September 6, 2011, Anschutz filed its lawsuit (Case No. 2011-0902), requesting the court to nullify Dryden's ordinance under New York Environmental Conservation Law § 23-0303(2) (ECL).[180]

On February 21, 2012, after a careful and detailed analysis of the legislative history of ECL § 23-0303(2), the court determined that generally the Town of Dryden's amended zoning ordinance was not preempted by the State laws, but ordered Section 2104[5] to be severed and stricken from the ordinance. This decision was affirmed on May 2, 2013,[181] with the appellate court stating that the ordinance "simply establishes permissible and prohibited uses of land within the Town for the purpose of regulating land generally."

The New York State Court of Appeals (Case No. APL-2013-00245) granted Norse Energy Corporation USA (successor in interest to Anschutz) leave to appeal the lower courts' decision.[182]

Norse Energy filed its brief on October 28, 2013, asserting that the decision cannot stand because it "allows every municipality in the State of New York to ban any and all oil and gas development. The inevitable result is zero resource recovery, the ultimate in waste, and the obliteration of mineral owners' correlative rights. This result starkly conflicts with the language and policies of the OGSML [Oil, Gas, and Solution Mining Law]."

The Town of Dryden responded in a brief dated December 13, 2013, arguing that the "OGSML does not expressly preempt a locality's right to enact a zoning ordinance that regulates land use generally and designates oil and gas mining as a prohibited use within municipal borders." The Town urged that the two separate, distinct regulatory schemes (the Town's zoning ordinances and the policies of the OGSML) can "harmoniously coexist."

A number of interested parties on both sides of the question filed amicus briefs with the Court of Appeals.

- In their brief, fifty-two towns and villages in New York, the Association of Towns of the State of New York, the New York Conference of Mayors, and the New York Planning Federation argued that a local municipality has "the constitutionally guaranteed right…to create and preserve

180 "The provisions of this article shall supersede all local laws or ordinances relating to the regulation of the oil, gas and solution mining industries; but shall not supersede local government jurisdiction over local roads or the rights of local governments under the real property law." New York State ECL § 23-0303(2).

181 The case was affirmed under the name *In the Matter of Norse Energy Corporation USA v. Town of Dryden, et al.*, 964 N.Y.S. 2d 714 (Sup. Ct., 3d. Dep't, App. Div. 2013), *leave to appeal granted, Matter of Norse Energy Corp. USA v. Town of Dryden*, 21 N.Y.3d 863 (N.Y. Aug. 29, 2013).

182 *Id.*

its own community character through generally applicable land use planning and zoning laws." New York's energy law "preempts only local regulation of the operations of the oil and gas industry, not local land use laws that govern whether and where such operations may take place within a municipality's borders."

- On behalf of the 1.6 million residents of Manhattan, the Manhattan Borough President asserted that "municipalities are far better situated than the State to discern what land use is appropriate for their territory." While home rule provides municipalities with wide latitude to use zoning to address environmental and public health issues, the State Legislature can "expressly [preempt] municipal zoning power where its sees fit...and local zoning ordinances will not necessarily disrupt the development of industry statewide."

- According to the Independent Oil and Gas Association of New York, Inc., the OGSML "unequivocally states that all local ordinance relating to oil and natural gas development are preempted."

- A group of 26 businesses argued that "a municipality's home rule authority to protect sustainable enterprises through the exercise of State-delegated zoning powers over potentially detrimental land uses" must be preserved.

- The American Petroleum Institute and the Chamber of Commerce of the United States of America stated that their members have made "substantial financial investments in New York in order to develop the State's natural gas resources." These groups assert that the town's ordinance is invalid because it conflicts with the structure and purpose of the OGSML which vests exclusive authority over drilling operations to the state's Department of Environmental Conservation and because it puts "at risk the efficacy of drilling across the State..."

- Several groups of landowners, farmers, labor unions, municipalities, and businesses joined to file an amicus brief urging that "decisions regarding the production of New York's natural resources must be made by the experts at the State level and not by New York's municipalities, each possessing varying degrees of expertise, and each making decisions in an individual vacuum without consideration for the important State interests and policies at issue."

- Siding with the Town of Dryden, a group of land-use legal experts opined that a "presumption against preemption of local zoning laws is especially strong where the allegedly preemptive state law makes no provision for protecting the quiet enjoyment of land. It is simply implausible to infer that the state legislature intentionally conferred on the gas and oil extraction industry a statutory right to site a towering drill and accompanying truck traffic, waste pits, compressor stations, and the like next door to a quaint bed-and-breakfast in a rural hamlet or single-family home in a quiet residential suburb."

Both the intermediate and highest courts in New York agreed with the municipal parties that the OGSML "does not preempt the home rule authority vested in municipalities to regulate land use. *Wallach v. Town of Dryden*, 23 N.Y.3d 728 (N.Y. 2014). The ruling came as a surprise to many considering the seemingly broad language of the OGSML's supersession clause. The court, however, held that the challenged policies regulated primarily land use, not oil and gas operations. According to the court, the control over oil and gas operations was "incidental" rather than primary, so the home rule regulations were permitted. Because the court's decision was based on a narrow question of state law, other states will have to approach this issue with a clean slate.

***Cooperstown Holstein Corporation v. Town of Middlefield*, 35 Misc.3d 767, 943 N.Y.S.2d 722 (N.Y. Sup. Ct. 2012)**

The Town of Middlefield, Otsego County, New York, enacted a zoning law on June 14, 2011, which effectively banned oil and gas drilling within the geographical borders of the township by stating that "heavy industry and all oil, gas or solution mining and drilling are prohibited uses" of property within the Town. Cooperstown Holstein Corporation ("Plaintiff") had signed two leases with Elexco Land Services, Inc. in 2007 with respect to property Plaintiff owned in Middlefield. Plaintiff asserted that the purposes of those leases would be frustrated by the new zoning law.

As in the *Town of Dryden* case, Plaintiff brought a lawsuit to have Middlefield's zoning law overturned, claiming that New York Environmental Conservation Law § 23-0303(2) (ECL) preempted any regulations emanating from local authorities with respect to the regulation of gas, oil, and solution drilling or mining. On February 24, 2012, after examining the legislative history of ECL § 23-0303(2), the court ruled that this clause did not "preempt a local municipality...from enacting land use regulation within the confines of its geographical jurisdiction and, as such, local municipalities are permitted to permit or prohibit oil, gas and solution mining or drilling in conformity with such constitutional and statutory authority."

This ruling was confirmed by the New York appellate court on May 2, 2013.[183] It was then consolidated with *Town of Dryden*, *supra*, and ultimately affirmed.

***Jeffrey, et al v. Matthew T. Ryan, in his official capacity as Mayor, City of Binghamton, and the City Council, City of Binghamton*, No CA2012-001254, 37 Misc.3d 1204(A), 2012 WL 4513348). (N.Y. Supreme Court, Broome Co. Oct. 2, 2012)**

On December 22, 2011, the Mayor of the City of Binghamton, New York signed Local Law No. 6, prohibiting all natural gas exploration and extraction activities and all natural gas support activities within the city limits and at all sites within 500 feet of any city boundary. The Plaintiffs (an individual landowner, an owner of an 11-acre industrial site, two unincorporated associations of landowners, and the owner of a Holiday Inn) filed a lawsuit in late May 2012, alleging that the Mayor signed this law without the required approval of the Broome County Department of Planning and Economic Development and that New York law prohibits the city from banning or regulating any oil and gas exploration and extraction activities.

The Plaintiffs claimed that this ban adversely affects their opportunities to lease their land for natural gas exploration and extraction as well as their business opportunities.[184] They sought a court order that Local Law No. 6 be declared jurisdictionally defective and therefore null and void because the city did not obtain the mandatory approval of the Broome County Department of Planning and Economic Development; because New York's Oil, Gas and Solution Mining Law, ECL § 23-303[2] prohibits local governments from directly regulating the mining industry or its activities; and because neither New York's Municipal Home Rule Charter nor the city's general police power authorizes the city to adopt a moratorium banning otherwise permissible land-use and development activities.

Defendants filed a motion to dismiss and a motion for summary judgment on July 27, 2012. On October 2, 2012, the Supreme Court determined that the "City cannot just invoke its police power solely as a means to satisfy certain segments of the community." The local law failed to meet the criteria for a properly enacted moratorium because there was "no showing of dire need since the New York State Department of Environmental Conservation has not yet published the new regulations that are required before any natural gas exploration or drilling can occur in this state." Without actual drilling, there is no emergency and, therefore, no need for a moratorium. The court invalidated the local ban.

***Penneco Oil Co., Inc., et al. v. County of Fayette, Pennsylvania, et al.*, 4 A.3d 722 (Pa. Commw. Ct. June 22, 2010), appeal denied, 2012 Pa. LEXIS 40, 41 (Pa. Jan. 6, 2012)**

In May of 2008, Penneco Oil Company, Inc., Range Resources-Appalachia, LLC, and the Independent Oil & Gas Association of Pennsylvania filed a lawsuit against Fayette County and the county agency responsible for zoning administration claiming that the Fayette County zoning code provisions applicable to oil and gas development were preempted by the Pennsylvania Oil and Gas Act (the "Act"). A county zoning ordinance allowed oil and gas development as a permitted use in some areas but required special exception approval in other areas within Fayette County. The ordinance provided that wells may not be located within the flight path of an airport runway, wells may not be located closer than 200 feet of a residence or 50 feet of a property line or right-of-way; fencing and shrubbery must surround the pump head and support equipment; and the zoning hearing board may attach additional conditions to protect the public's health, safety and welfare. The gas operator plaintiffs argued that the county's ordinance was preempted by the Act because (a) surface or deep mining did not require a special exception in the same areas, (b) it gives the zoning hearing board discretion to impose conditions for oil and gas wells, (c) it requires a costly well permit, (d) there is no guarantee of a special exception even if all the special exception requirements are met, and (e) the purposes of the zoning ordinance are the same as the Act.

The trial court found that the zoning ordinance was not preempted by the Act. That decision was upheld on appeal to the Commonwealth Court of Pennsylvania which determined that the ordinance did not pertain to the technical aspects of well operations, but rather to preservation of the character of residential neighborhoods. The appeals court also determined that the zoning board did not impose unreasonable conditions on the grant of a special exception and could attach additional conditions to protect the public's health, welfare and safety and that these provisions did not reflect an attempt by Fayette County to enact a comprehensive regulatory scheme relative to oil and gas development in the county.

183 *Cooperstown Holstein Corporation v. Town of Middlefield*, 964 N.Y.S.2d 431 (2013) *leave to appeal granted*, 21 N.Y.3d 863 (N.Y. Aug. 29, 2013).

184 For example, the owners of the Holiday Inn and the industrial site had anticipated renting rooms and/or storage space to the oil field companies and their workers.

***Lenape Resources, Inc. v. Town of Avon, Town of Avon Board, and New York State Department of Environmental Conservation*, Index No. 1060-2012, In the Superior Court of the State of New York, County of Livingston (November 13, 2012)**

In the summer of 2012, the town of Avon passed Local Law T-A-5-2012 entitled "Moratorium on and Prohibition of Gas and Petroleum Exploration and Extraction Activities Underground Storage of Natural Gas and Disposal of Natural Gas or Petroleum Extraction Exploration and Production Wastes." The one-year moratorium on natural gas extraction and underground storage began in June 2012 and includes a "grandfather clause" for existing wells. Lenape Resources, Inc. ("Lenape") who operates 16 to 20 wells in the Avon area on about 5,000 acres sought to overturn the moratorium, asserting that the local law was preempted by state law, invalid, unreasonable, arbitrary, oppressive, and unconstitutional. Lenape requested an injunction to stop enforcement of the law and sought actual and compensatory damages of no less than $50 million.

On March 15, 2013, Judge Robert B. Wiggins of the State of New York, Supreme Court, County of Livingston, entered an order dismissing Lenape's 10-count lawsuit. The court determined that New York state court precedents have established that local bans based on zoning laws do not amount to attempts to regulate the oil and gas industry and therefore are not preempted by the state's Oil, Gas and Solution Mining Law. Lenape appealed this decision.[185]

The New York Appellate Division, Fourth Department, dismissed the appeal as moot for two reasons.[186] First, the moratorium expired by its own terms after one year. Second, any issues remaining after the end the of the moratorium were completely resolved by the New York Court of Appeals' decision in *City of Dryden*, *supra*.

***Sarner v. City of Loveland, Colorado*, Case No. 2013CV03171, In the District Court of Larimer County, Colorado (September 3, 2013)**

***Protect Our Loveland, Inc. v. City of Loveland, Colorado and City Council of Loveland, Colorado*, Case No. 2013CV31142, In the District Court, Larimer County, Colorado (September 30, 2013)**

The group Protect Our Loveland, Inc., seeking to give the citizens of Loveland, Colorado a chance to vote on a proposed ordinance as to whether hydraulic fracturing should be banned within the city for two years while health and environmental impacts studies are being conducted, circulated a petition, collected the required signatures from Loveland voters, and submitted the petition to the City Clerk. The Clerk later notified the group that the petition contained the requisite number of valid signatures and was sufficient to be submitted to the Loveland City Council for further action.

Larry Sarner protested the City Clerk's certification of the ballot initiative, arguing that the group had not gathered sufficient signatures and that their proposed ordinance did not meet other requirements for ballot placement. A hearing was held on August 22, 2013, at which the City Clerk rejected Sarner's arguments. Sarner sought review of this decision by filing a complaint in the state district court of Larimer County on September 3, 2013. A few hours later the City Council voted to take no action with regard to the proposed ordinance. Shortly thereafter, Protect Our Loveland filed its complaint.

On February 11, 2014, the district court upheld the Loveland City Clerk's ruling that Protect Our Loveland had met the requirements of election law to place the initiative on a ballot. In the end the litigation mattered not. The moratorium initiative lost by 900 votes.

***City of Denton v. Eagleridge Energy LLC, et al.*, Case No. 2013-30817-211, In the 211th Judicial District Court of Denton County, Texas, October 18, 2013)**

The city of Denton, Texas filed suit against Eagleridge Energy LLC to prevent the company from continuing to drill two new gas wells in an area between two residential developments without the required city permit approvals. The city argued that Eagleridge was violating an ordinance that required the approval of a site plan before drilling could commence and a second ordinance that required a setback of at least 1,200 feet from any residence. This case was mooted by Texas's enactment of House Bill 40 or the so-called "fracking bill."

On May 18, 2015, H.B. 40 was signed into law. This was rightly seen by many as a direct response to Denton's municipal ban on hydraulic fracturing and the concern that other municipalities would enact similar restrictions. The new law expressly preempts local authority regarding the regulation of oil and gas exploration, including hydraulic fracturing, reserving all such power to the state. Where much

185 Docket No. 14-00102, In the Appellate Division of the Supreme Court of New York, Fourth Department.
186 *Lenape Resources, Inc. v. Town of Avon*, 121 A.D.3d 1591 (N.Y. App. Div. 2014).

of the litigation involving municipal bans on fracturing deals with so-called "home rule" statutes and the contours of state preemption law, Texas short-circuited that process with legislative action.

***Vermillion, et al v. Mora County, New Mexico, Mora County Board of County Commissioners, et al.*, No. 1:13-cv-01095 (D.N.M., November 11, 2013)**

***SWEPI L.P. v. Mora County, New Mexico, Mora County Board of County Commissioners, et al.*, Case No. 1:14-CV-00035 (D.N.M. January 10, 2014)**

On April 29, 2013, the members of the Mora County Board of County Commissioners voted 2-1 to enact an ordinance, entitled "Mora County Community Water Rights and Local Self-Government Ordinance." The Ordinance was described as being "a local bill of rights for Mora County that protects the natural sources of water from damage related to the extraction of oil, natural gas or other hydrocarbons..." According to the Vermillion plaintiffs (landowners and the Independent Petroleum Association of New Mexico), the real purpose of this ordinance is to prevent the lawful development of oil and natural gas resources located in Mora County and to ban hydraulic fracturing within the County.

The Vermillion plaintiffs argue that the Ordinance deprives them of their "fundamental property rights" to lease their minerals, in violation of substantive due process and the first and fourteenth amendments. In addition, they assert that the Ordinance is preempted by the New Mexico Oil and Gas Act, which confers authority over oil and natural gas extraction within the state to the Oil Conservation Commission and the Oil Conservation Division.

In a related lawsuit, SWEPI, L.P. argued that was unable to exercise its constitutional property rights under an oil and gas lease dated August 1, 2010. According to SWEPI, the ordinance prohibited the company from various activities, including drilling wells, transporting and storing materials and equipment, and constructing the necessary infrastructure relating to the exploration for and extraction of gas, oil and other hydrocarbons. SWEPI sought an injunction preventing Mora County from enforcing the ordinance and "damages as compensation for a regulatory taking of its property."

On January 19, 2015, the United States District Court for New Mexico held largely for SWEPI and invalidated the ordinance. *SWEPI, L.P. v. Mora County, N.M.*, 81 F.Supp.3d 1075 (D.N.M. 2015). The court did not accept SWEPI's argument the ordinance violated substantive due process rights or the first or fourteenth amendment. But it did agree that the ordinance violated the supremacy clause and, because invalid provisions were not severable from the remaining provisions, the ordinance had to be struck in its entirety.

The ordinance being invalidated, the Vermillion plaintiffs dropped their suit on April 14, 2015.

***Trinity East Energy LLC v. Dallas*, Case No. DC-14-01443, In the 192nd Judicial District Court of Dallas, Texas (February 13, 2014)**

On February 13, 2014, Trinity East Energy LLC sued the city of Dallas for alleged breach of an oil and gas lease when the City Council voted to deny the company's drilling permits on public land. Seeking more than $200 million in damages, Trinity East argues that the city's planning commission denied the permits without any evidence that the drilling would cause harm to the environment or to the residents. A spokesperson for Dallas stated that Trinity had asked for permits to drill on city park land, in the floodplain and near a new soccer complex and that the city validly exercised its regulatory powers to protect public health and safety as well as the environment by denying the permits.

In August of 2008, Trinity leased 3,600 acres of mineral interests from the city of Dallas. The company paid the city $19 Million in bonus payments for the land. Then city manager Mary Suhm has admitted that she told Trinity at the time of the lease that she was "reasonably confident" that the company would obtain the rights to drill on a particular piece of land. The permits were hotly debated for several years and in 2013 the city council decided once and for all not to issue the permits. Making matters worse, Dallas also changed its drilling ordinance in 2013 to require a 1,500-foot setback from homes, businesses, and churches. Functionally, this prevents Trinity from exploring on the leases.

On March 18, 2016, the trial judge granted summary judgment on the majority of the city's claims. The trial court held that the city could not be liable for Trinity on the breach of contract allegations because the city is a government actor and protected by the governmental immunity. The only claim left is Trinity's inverse condemnation claim arguing that the city has effectively prevented it from accessing the land.

Trinity immediately filed an appeal of the summary judgment order to the Texas Fifth Court of Appeals at Dallas. On appeal, the court held that the city was engaged in a "proprietary

function" when it leased mineral rights, and thus did not enjoy governmental immunity. Additionally, the court found a viable regulatory takings claim against the city. Therefore, the court of appeals reversed the trial court's order on Trinity's claims because the city was not protected by immunity.

Litigation concerning state vs. local zoning regulation of hydraulic fracturing

***State of Ohio ex rel. Jack Morrison, Jr., Law Director City of Munroe Falls, Ohio, et al. v. Beck Energy Corporation, et al.*, Case No. CV2011-04-1897; appealed to the 9th Appellate District, Summit County, Ohio, 989 N.E.2d 85 (Feb. 8, 2013); and Supreme Court of Ohio, 37 N.E.3d 128 (February 17, 2015).**

Beck Energy Corporation secured a permit from Ohio's Department of Natural Resources to drill on property located in the City of Munroe Falls. When Beck Energy began to drill, the city issued a Stop Work Order and filed a complaint in the Summit County Court of Common Pleas seeking an injunction to stop the drilling based on Beck Energy's alleged failure to comply with local ordinances requiring permits for drilling, zoning, and rights-of-way. The trial court granted the injunction, and Beck Energy appealed to the 9th Court of Appeals.

The appellate court reversed and remanded the lawsuit, finding that the city's ordinances concerning drilling were in direct conflict with and were preempted by R.C. 1509.02 which provides that the Division of Mineral Resources Management of the Ohio Department of Natural Resources has "sole and exclusive authority to regulate the permitting, location, and spacing of oil and gas wells." The city, however, "may enforce ordinances governing rights-of-way and excavations" as long as they are enforced fairly, in a way that does not discriminate against, unfairly impede, or obstruct oil and gas activities and operations.

The decision was appealed to the Ohio Supreme Court. Several other Ohio municipalities, as well as environmental groups including the Natural Resources Council, filed briefs in support of Munroe Falls, while industry groups such as the American Petroleum Institute sided with the state. The court heard the case on February 26, 2014, and rendered a decision affirming the lower court's ruling on February 17, 2015.

The Supreme Court of Ohio described its precedent as "clear" on the point that "any municipal ordinance, which prohibits the doing of something without a municipal license to do it, is a police regulation." The court went on to the quote the Ohio Revised Code which provides that the state government has the "sole and exclusive authority" to regulate oil and gas exploration and production. Because the municipal police action was expressly preempted by the state statute, the court concluded that the city's hydraulic fracturing ban was invalid.

***Robinson Township, et al v. Commonwealth of Pennsylvania, et al*, No. 284 M.D. 2012 (Commonwealth Court of Pennsylvania, March 29, 2012), which is being appealed, 63 MAP 2012, 64 MAP 2012, 72 MAP 2012 and 73 MAP 2012 (Supreme Court, Middle District, August 17, 2012)**

Seven municipalities in three counties,[187] the Delaware Riverkeeper Network, and Dr. Mehernosh Kahn[188] ("Plaintiffs") filed a lawsuit against the Commonwealth of Pennsylvania and three state agencies[189] ("Defendants") seeking an injunction to prevent the state from putting into effect the Act of February 14, 2012, P.L. ___, 58 Pa. C.S. §§2301-3504 ("Act 13").[190] Plaintiffs challenged whether the state is authorized to supersede local regulation of gas drilling by restricting the municipalities' ability to zone natural gas drilling and barring them from keeping natural gas wells out of residential zones.

Act 13 is a substantial re-write of the Commonwealth's Oil and Gas Act and applies to unconventional natural gas operations involving either hydraulic fracturing or the use of multilateral well bores or techniques that expose more of the geological formation to the well bore. Act 13 imposes statewide standards that dictate where wells, compressor stations[191] and other drilling-related structures can be built. It requires all local drilling regulations to be reasonable and that any questions of reasonableness would be determined by the Public Utility Commission. 58 Pa. C.S. §§ 3302-3309.

Section 3309 provides that Act 13 applies to all ordinances existing on April 14, 2012 (the effective date of the Act) and that municipalities had 120 days from the effective date to "review and amend an ordinance in order to comply

187 Robinson Township, Peters Township, Cecil Township, and Mount Pleasant Township in Washington County; Yardley Borough and Nockamixon Township in Bucks County; and South Fayette Township in Allegheny County.

188 Dr. Kahn questions a section of Act 13 (the legislation that is under scrutiny in this lawsuit) which provides that, except in an emergency, a physician who needs proprietary information about chemicals used in natural gas drilling to assess a patient must provide "a written statement" to a company and must sign a confidentiality agreement. 58 Pa. C.S. §3222.1(b)(11).

189 Pennsylvania Public Utility Commission, Office of the Attorney General of Pennsylvania, and Pennsylvania Department of Environmental Protection.

190 For a complete summary of Act 13, *see* Janet L. McQuaid, Megan E. Smith Miller, Kristen Roche, Stefanie A. Lepore, and Michael P. Gaetani, *Pennsylvania Act 13 (BH1950) Rewrites Law Governing Oil and Gas Activities*, Fulbright & Jaworski L.L.P. Briefing, March 2012.

191 *But see MarkWest Liberty Midstream & Resources LLC v. Cecil Township*, Case No. 430 MD 2012, In the Commonwealth Court of Pennsylvania (June 29, 2012) (court affirmed Township's denial of MarkWest's application to build a gas compression station even though plan met requirements of Act 13).

with" the Act. 58 Pa. C.S. §3309 (a) - (b). In their motion for preliminary injunction, the municipalities argued that due to the requirements of the Municipalities Planning Code 53 P.S. § 10101 *et seq.*, 120 days was insufficient time to amend their ordinances and that "the oil and gas industry has taken the position that it has free reign for the installation of any and all of its infrastructure as of April 14, 2012."[192] The court agreed with Plaintiffs and issued a limited preliminary injunction on April 11, 2012, stating:

> While the ultimate determination on the constitutionality of Act 13 is not presently before the Court, the Court is of the view that municipalities must have an adequate opportunity to pass zoning laws that comply with Act 13 without the fear or risk that development of oil and gas operations under Act 13 will be inconsistent with later validly passed local zoning ordinances. For that reason, pre-existing ordinances must remain in effect until or unless challenged pursuant to Act 13 and are found to be invalid... [T]he Court agrees with petitioners that 120 days is not sufficient time to allow for amendments of local ordinances and, therefore, will preliminarily enjoin the effect date of Section 3309 for a period of 120 days.

On May 3, 2012, the commonwealth agencies filed a notice of appeal with the Supreme Court of Pennsylvania, Middle District (Case No. 40 MAP 2012), questioning the issuance of the injunction. On the remaining issues, the Court of Common Pleas issued an order on July 26, 2012, in response to the commonwealth's preliminary objections and cross-motions for relief. The court found that section 3304 violated substantive due process because it forced municipalities to enact zoning ordinances that permit oil and gas operations in all zoning districts, including residential areas. This order of the Commonwealth Court was also appealed (Cases Nos. 63 MAP 2012, 64 MAP 2012, 72 MAP 2012 and 73 MAP 2012). These four appeals were argued on October 17, 2012.

A word on Case No. 63 MAP 2012: After the July 26, 2012 decision, the Pennsylvania Public Utility Commission ("PUC") started reviewing local zoning ordinances under a section of the law not specifically mentioned in the Commonwealth Court's ruling. In a short order dated October 26, 2013, the Commonwealth Court stated that the PUC did not have the authority to review local oil and gas drilling ordinances under the terms of the injunction while the high court was deliberating on the portion of the law that would prevent municipalities from banning natural gas drilling.

The PUC appealed this decision to the state Supreme Court (Case No. 63 MAP 2012). On July 25, 2013, in a one-page decision, the state Supreme Court with six justices (one justice suspended and now a convicted felon on public corruption charges) rejected the appeal, upholding the Commonwealth Court's October 26th ruling. With seven justices now sitting on the Supreme Court, on August 6, 2013, the PUC and the Pennsylvania Department of Environmental Protection ("PDEP") filed an Application to Resubmit Case and an Application for Reconsideration Before Entire Court. The agencies argue that the matter should be considered by the full court "because of the importance of the issues pending in this appeal, and in light of the fierce divide among the commissioned judges of the Commonwealth Court as to the constitutionality of the [provision]."

On December 19, 2013, in a 4-2 decision, the Supreme Court of Pennsylvania, Middle District issued its opinion and mandate affirming the lower court's decision in the main appeal. In a 162-page opinion, three justices held that the law preventing local governments from passing zoning ordinances prohibiting natural gas drilling was unconstitutional, violating the Environmental Rights Amendment of the state's constitution. A fourth justice, concurring with the majority, found that the law violated due process rights by "unconstitutionally, as a matter of substantive due process, usurp[ing] local municipalities' duty to impose and enforce community planning."

The court also remanded the case back to the lower Commonwealth Court (284 M.D. 2012) to determine whether the other provisions of Act 13 are severable from those provisions found to be unconstitutional and whether a section of the law that exempts drillers from having to inform owners of private water sources in the event of a potentially contaminating spill near their properties is unconstitutional.

Both the Pennsylvania Department of Environmental Protection and the Pennsylvania Public Utility Commission (PUC) urged severability. In its brief, the PUC stated that "when it is reasonably possible to sustain the bulk of a legislative enactment, the courts of the Commonwealth should do so. Here, there are no special circumstances that require – or even suggest the need for – this Court to deploy its red pen any further. It is plain that [certain sections] of Act 13 may operate independently of those provisions that have already been stricken."

192 Motion for Preliminary Injunction ¶19.

The PUC asserted that, in spite of the December 2013 ruling, it retained the authority to review local ordinances regulating oil and gas drilling operations. Specifically, the PUC contended that Sections 3305-3309 could be implemented without the sections that were declared invalid. Section 3305 allows the PUC to review local zoning ordinances for compliance with the Municipalities Planning Code (MPC); Sections 3306-3307 provide that an aggrieved person can file a lawsuit to invalidate an ordinance that violates the MPC; Section 3308 provides that, for noncompliance with the MPC, impact fees may be withheld from the municipality; and Section 3309 gives a municipality 120-days to review and amend an ordinance for compliance.

In their brief, the petitioners argued that Section 3218.1 of Act 13 which provides that the public water well owners are to receive notice of a spill resulting from drilling operations is unconstitutional because it violates equal protection by excluding notice to owners of private water sources. The intermediate court of appeals rejected this argument and left the law almost entirely intact. But in September of 2016, the Supreme Court of Pennsylvania reversed the ruling of the lower court and held that the remaining portions of the law were also unconstitutional or, at minimum, not severable from the unconstitutional portions of Act 13. In doing so, the Supreme Court accepted the argument that requiring notice for public water owners but not for similarly situated private owners was a violation of equal protection. Thus, the entire ordinance was struck down.

***Colorado Oil and Gas Conservation Commission v. City of Longmont, Colorado*, Case No. 2012-0730, In the District Court, Boulder County, Colorado (July 30, 2012)**

***Colorado Oil & Gas Association v. City of Longmont, Colorado*, Case No. _____, In the District Court, Weld County, Colorado (December 17, 2012), transfer of venue to Boulder County, Colorado on March 8, 2013**

The City Council of Longmont, Colorado passed several ordinances relating to banning and/or restricting hydraulic fracturing activities in the area around the city. The ordinances provide that the city would decide whether directional and horizontal drilling were "possible and appropriate," what set-backs would be used, how to protect wildlife and their habitat, and where drilling could take place as well as requiring chemical reporting, visual mitigation methods, and water quality testing and monitoring. In November 2012, a citizen-initiated hydraulic fracking restriction was passed by the voters, and the City amended its charter to prohibit hydraulic fracturing and the disposal of fracking wastes anywhere within the city limits.

The Colorado Oil and Gas Conservation Commission (COGCC) sued the city, arguing that only the COGCC had the authority to establish regulations concerning hydraulic fracturing and the city's ordinances were preempted by the COGCC's authority. The Colorado Oil & Gas Association (COGA) presented the same argument, stating that the city ordinances constitute an "illegal ban on oil and gas drilling, they deny private mineral owners the right to develop their property, they attempt to prohibit operations that the state laws permit, and they purport to regulate technical aspects of oil and gas operations in a manner that is preempted by the Colorado Oil and Gas Conservation Act and its implementing regulations."

In early July 2013, the COGA asked the court to join the COGCC as a co-plaintiff in its lawsuit, stating that the Commission has "a broader interest in its ability to protect its plenary and regulatory authority to regulate the technical aspects of oil and gas drilling, generally, in Colorado." The COGCC agreed to the joinder. The court has allowed other parties to join, including TOP Operating, the Sierra Club, Food & Water Watch, Earthworks, and Our Health, Our Future, Our Longmont, but with a warning not to go beyond the issues set out in COGA's complaint.

The district court ultimately held for COGA, finding that the local rules were preempted. The case was appealed and, on request of the court of appeals, transferred to the Supreme Court of Colorado. On May 2, 2016, the Supreme Court of Colorado affirmed the lower court on preemption grounds and for similar reasons to those set out in the cases below.

***Colorado Oil and Gas Association v. City of Fort Collins, Colorado*, 369 P.3d 586 (Colo. 2016).**

***Colorado Oil and Gas Association v. City of Lafayette, Colorado*, Case No. 2013CV031746, In the District Court, Boulder County, Colorado (December 3, 2013)**

In November 2013, the citizens of Fort Collins, Colorado and Lafayette, Colorado voted to ban hydraulic fracturing from their cities. In Fort Collins, a five-year ban on hydraulic fracturing was approved with 55% of the vote. Sixty percent (60%) of the voters in Lafayette approved an indefinite ban on all oil and gas development, including the deposit, storage, or transportation of fracking wastewater through "the land,

air or waters" of the city. In both cities, the City Councils had opposed the bans.

On December 3, 2013, the Colorado Oil & Gas Association (COGA) filed a lawsuit against each city, challenging the validity of the bans. COGA argues that a conflict exists between the bans and state law since the cities have no constitutional or statutory authority to implement regulations on oil and gas development techniques, such as hydraulic fracturing. COGA points to Colorado Supreme Court precedent and state law to support its stance that hydraulic fracturing cannot be blocked by municipalities.

According to COGA, the state's General Assembly has declared it to be in the public's interest for the state to "foster the responsible and balanced development, production, and utilization of the natural resources of oil and gas in Colorado in a manner consistent with protection of public health, safety, and welfare, including protection of the environment and wildlife resources." The Oil and Gas Conservation Act created the Colorado Oil and Gas Conservation Commission (COGCC) to administer all "rules, regulations and orders with respect to operations for the production of oil and gas," including "permitting, drilling production, plugging, spacing and chemical treatment of wells."

The district court agreed with the COGA and the court of appeals requested transfer to the Colorado Supreme Court which affirmed the district court on May 2, 2016. The Colorado Supreme Court described the case as a relatively straightforward application of preemption principles. Under Colorado law, a local rule is subject to preemption analysis if it presents a mixed issue of state and local concern. And where, as here, a rule affecting such a mixed issue "conflicts operationally" with the state rule, the local rule is preempted.

Litigation claiming moratorium on hydraulic fracturing affected investment

***Wallach, et al. v. The New York State Department of Environmental Conservation, et al.*, Index No. 6770-13, In the Supreme Court of the State of New York, County of Albany (December 17, 2013)**

On December 17, 2013, the trustee for a bankrupt energy company and a shareholder in that company sued New York State's Department of Environmental Conservation ("DEC") and other state officials, including the governor, asserting that the shareholder had lost almost his entire investment of $21,305.52 due to the decrease in the value of the company's stock and that the company has lost more than $100 million due to the hydraulic fracturing moratorium that has been in place since 2008.

The energy company had 27 well-permit applications pending before the DEC. As part of the bankruptcy proceedings, the trustee tried to sell these assets at auction, but received no bids. According to the complaint, "the only way to salvage the value of [the company's] assets was to complete the SGEIS [Supplemental Generic Environmental Impact Statement] Process." The Plaintiffs sought mandamus to compel completion of the SGEIS Process and a determination that government officials have "arbitrarily and capriciously, abused their discretion."

In 2008, the New York legislature passed regulations covering hydraulic fracturing. Then-governor David Patterson ordered the DEC to conduct an environmental evaluation of fracking and ordered the well approval process halted until the study was completed which was anticipated to be November 2009. A draft report was published in September 2009, but the DEC spent more than one year reviewing public comments. In December 2010, Patterson issued an executive order requiring further environmental review. Gov. Andrew Cuomo kept the order in place when he took office. In September 2012, the DEC and the Department of Health began a study of the health impacts associated with hydraulic fracturing.

At a news conference on December 16, 2013, Gov. Cuomo and Dr. Nirav R. Shah, the New York State Health Commissioner, stated that there was no timeline to complete the study. Mr. Cuomo said, "My timeline is whatever commissioner Shah needs to do it right and feel comfortable." The governor said he did not want "to put undue pressure on them that would artificially abbreviate what they're doing." Dr. Shah indicated that he was still conducting his review, collecting "new data from Texas and Wyoming." When asked about transparency of the study, he stated that "the process needs to be transparent at the end, not during."[193]

On February 21, 2014, the New York Attorney General filed a motion to dismiss, arguing that the Plaintiffs had no legal right to mandamus relief, failed to state a claim, and that their claims were barred by the statute of limitations. The mandamus was denied but on July 11, 2014, the trial court dismissed the plaintiff's claim on the basis that it lacked standing to pursue them. Because the Plaintiffs were invoking

193 *See* Jesse McKinley, *Still Undecided on Fracking, Cuomo Won't Press for Health Study's Release*, N.Y. Times, December 16, 2013.

environmental statutes as the basis for their claims, standing requires that they assert environmental harms. Instead, the plaintiffs were asserting damages in the form of lost profits from their inability to drill. This, according to the court, did not fall within the scope of relief under the statute.

Litigation over delays in completing state study of hydraulic fracturing

***Joint Landowners Coalition of New York, et al. v. Andrew M. Cuomo, et al.*, Case No. _____, In the Supreme Court of the State of New York, County of Albany**

In mid-2008, the New York legislature passed regulations covering high volume hydraulic fracturing. Then-governor David Patterson ordered the DEC to conduct an environmental evaluation of fracking and horizontal wells and ordered the well approval process halted until the study was completed which was anticipated to be November 2009. A draft report was published in September 2009, but the DEC spent more than one year reviewing public comments. In December 2010, Patterson issued an executive order requiring further environmental review. Gov. Andrew Cuomo kept the order in place when he took office. In September 2012, the DEC and the Department of Health began a study of the health impacts associated with hydraulic fracturing. At a news conference on December 16, 2013, Gov. Cuomo and Dr. Nirav R. Shah, the New York State Health Commissioner, stated that there was no timeline to complete the study. Gov. Cuomo said, "My timeline is whatever commissioner Shah needs to do it right and feel comfortable." The governor said he did not want "to put undue pressure on them that would artificially abbreviate what they're doing."

With no deadline in sight, on February 14, 2014, a group of more than 70,000 landowners and several other individual landowners filed a lawsuit against Gov. Cuomo, the DEC, the New York Department of Health (DOH), and Dr. Shah, complaining that the failure to finalize the supplemental generic environmental impact statement (SGEIS) has prevented them "from developing their mineral estate . . . or otherwise leasing or conveying their mineral estate, all of which has been detrimental and contrary to environmental and energy policies in the State of New York and the guarantees found in the Fifth and Fourteenth Amended to the United States Constitution." The landowners sought an order compelling completion of the SGEIS within a court-ordered deadline. They argued that Gov. Cuomo had exceeded his authority by orchestrating the delay in the SGEIS process and that the referral to the DOH was arbitrary, capricious, and an "improper delegation of the DEC's substantive and procedural Lead Agency responsibilities" as required by the State Environmental Quality Review Act.

Similar to the result in *Wallach, supra*, the court held that the plaintiffs lack standing and dismissed the case on July 11, 2014. According to the court, the only asserted basis for standing was New York's State Environmental Quality Act which authorizes and, according to Plaintiffs, requires the state to issue an appropriate Supplemental Generic Environmental Impact Statement. But, according to the court, the Plaintiffs were not within the zone of interest protected by the Act. Thus, the court dismissed the claims.

Litigation concerning restrictions for drilling and seismic testing

***Pennsylvania Oil and Gas Association, et al. v. U.S. Forest Service, et al.*, Case No. 1:08-cv-0162, In the U.S. District Court for the Western District of Pennsylvania**

On February 21, 2014, an opinion and order from U.S. District Judge Mark R. Hornak dismissed for want of subject matter jurisdiction a nearly six-year old lawsuit brought by oil and gas industry groups challenging 2007 rules restricting drilling in the Allegheny National Forest. Filing a lawsuit against the U.S. Forest Service (USFS) in 2008, the groups sought to prevent implementation of those restrictions. Because the USFS "abandoned any intent to" put the [2007] rules into effect, the court concluded that "no justiciable case or controversy remains" and dismissed the lawsuit without prejudice. See Pennsylvania Independent Oil and Gas Association, et al. v. U.S. Forest Service, et al., No. 08-162, W.D. Pa.; 2014 U.S. Dist. LEXIS 21601.

Prior to 2008, access to private oil and gas holdings within the Allegheny National Forest occurred through a "cooperative process" under which drillers were required to give the USFS detailed notice concerning proposed drilling activities at least 60 days before commencing drilling operations. The drillers and USFS would then enter into negotiations to address and mitigate any potentially unnecessary or harmful surface use. When agreement was reached, the USFS would issue a "Notice to Proceed" (NTP).

In late 2008, several environmental groups questioned the issuance of NTPs without first conducting an appropriate National Environmental Policy Act (NEPA) analysis. In early 2009, the USFS agreed to undertake appropriate NEPA analysis

before issuing any NTP. Private mineral owners challenged the agreement arguing that the USFS "lacked sufficient regulatory authority over the dominant mineral estate to restrict or bar drilling activities for the length of time required to complete the proposed environmental analysis." On December 15, 2009, U.S. District Judge Sean J. McLaughlin granted an injunction, enjoining the USFS from requiring the preparation of a NEPA document as a precondition to the exercise of private oil and gas rights in the Allegheny National Forest. This decision was followed by a declaratory judgment action which was confirmed by the Third Circuit.

During this same time period, the USFS was in the process of updating a 1986 plan for managing the Allegheny National Forest. In 2007, a new plan restricting drilling in the forest was approved. The industry groups filed their lawsuit on May 27, 2008. After review, the USFS chief agreed that the new provisions were invalid and overstepped the agency's authority. The USFS began revising the rules but stopped after Judge Laughlin's December 2009 order. Because the USFS has done nothing to implement the 2007 rules or change the existing 1986 procedures, Judge Hornak determined that the lawsuit could be dismissed without prejudice, preserving the "ability of the Plaintiffs to petition to reopen this case and pick up where they left off, should the Forest Service resume the challenged activity by discontinuance of its adherence to the 1986 Plan."

***Seitel Data Ltd. V. Center Township, et al.*, Case No. 492 M.D. 2013, In the Commonwealth Court of Pennsylvania, October 3, 2013**

***Seitel Data Ltd. V. Shippingport Borough, et al.*, Case No. 493 M.D. 2013, In the Commonwealth Court of Pennsylvania, October 3, 2013**

***Seitel Data Ltd. V. Greene Township, et al.*, Case No. 494 M.D. 2013, In the Commonwealth Court of Pennsylvania, October 3, 2013**

Seitel Data Ltd. ("Seitel") conducts seismic surveys[194] in several Pennsylvania counties and provides the data to oil and gas companies. Seitel entered into contracts with property owners in Center Township, Shippingport Borough, and Greene Township, which contracts provided that the company had the right to conduct seismic surveys on and across these private properties. Seitel also obtained the necessary permits from the Pennsylvania Department of Environmental Protection and the Pennsylvania Department of Transportation, including a blasting activities permit.

Seitel filed these three lawsuits alleging that each community either enacted or considered enacting resolutions regulating seismic activities, creating a "pattern of conduct . . . that evinces unreasonable delay and ever-changing requirements for Seitel to fulfill in order to conduct seismic activities." Seitel claimed that these ordinances violated Act 13, the state's statute regulating gas drilling, parts of which had been declared unconstitutional.[195]

The municipalities countered that the court lacked subject matter jurisdiction because there was no ordinance to invalidate or enjoin since Center and Shippingport never passed an ordinance prohibiting or restricting seismic testing and Greene rescinded its ordinance.

On March 7, 2014, the court granted the municipalities' objections due to lack of subject matter jurisdiction and transferred the cases to the Court of Common Pleas of Beaver County. On April 8, 2014, the Commonwealth Court of Pennsylvania denied Seitel's application for reargument *en banc*.

Litigation involving oil and gas lease disputes

***Coastal Oil and Gas Corp. v. Garza Energy Trust*, 268 S.W.3d 1 (Tex. 2008)**

In this case, the Plaintiff attempted to recover damages from an operator using hydraulic fracturing on a neighboring mineral lease by alleging that the hydraulic fracturing fluids unlawfully drained the Plaintiff's mineral resources.[196] Plaintiff's case was based on the theory that hydraulic fracturing fluids entered the property and caused damage in the form of enhanced drainage of hydrocarbons from the Plaintiff's property to the Defendant's property.

In previous cases, Texas courts established that if an operator drills a well that originates on the Defendant's land but crosses underneath the surface into another person's mineral rights (a "slant well"), the neighboring landowner has a cause of action

194 Seismic testing involves the placement of devices known as geophones 220 feet from one another to measure the vibrations from a "thumper truck," which drives down roads and thumps the ground with heavy metal plates. If thumping fails to produce the necessary vibrations, small explosives are detonated underground to provide the vibrations.

195 *See Anschutz Exploration Corporation v. Town of Dryden and Town of Dryden Town Board*, 35 Misc.3d 450, 940 N.Y.S.2d 458 (N.Y. Sup. Ct. 2012), *supra*.

196 In *Garza*, the parties agreed that hydraulic fracturing fluids and proppants had crossed the property line. *Garza*, 268 S.W.3d at 7. The parties disagreed on whether the "effective length" (the area where the hydraulic fracturing cracks are actually increasing production at the well) crossed the property line. *Id.* However, the distinction did not factor into the court's ruling.

against the operator.[197] However, the court distinguished hydraulic fracturing from slant drilling because hydraulic fracturing merely enhances the flow of hydrocarbons from one mineral lease to another where it is lawfully extracted. In contrast, a slant well actually crosses into the neighbor's property, extracting the minerals directly from the neighbor.[198]

Ultimately, the court ruled that drainage caused by hydraulic fracturing is not a form of trespass, but rather is permitted by the rule of capture, which under the common law allows a mineral leaseholder to collect all of the oil that it can through a well drilled on its own lease, even if the result is to drain hydrocarbons out from under another's lease.[199] As noted above, a claim for trespass in Texas requires the claimant to establish that he has been injured by the Defendant's actions.[200] Here, the Plaintiff could not show injury because damages for drainage were barred by the rule of capture.[201] Thus, the court did not have the opportunity to rule on whether the entry of hydraulic fracturing fluid into another's land that causes injury is a trespass.

Because the court left this issue open, property owners who believe that they have been injured by hydraulic fracturing will continue to attempt to bring claims for trespass. If a court were to rule that pumping hydraulic fracturing fluid into another's land is actionable, potential damage claims could include damages for injury to (1) groundwater/well water, (2) the subsurface mineral interest, or (3) in very unusual cases, the surface estate. The practice of horizontal drilling increases the length of the bore hole and thereby increases the area potentially affected by hydraulic fracturing. In this regard, the practice of horizontal drilling may increase the sphere of potential plaintiffs who may bring an action for trespass.

***Wiser, et al v. EnerVest Operating LLC and Belden & Blake Corporation*, No. 3:10-cv-00794-DEP (N.D. N.Y., July 2, 2010)**

In 1999 and 2000, numerous property owners entered into 10-year oil and gas lease agreements with EnerVest Operating LLC and Belden & Blake Corporation ("Defendants"). Landowners were paid $3.00 per acre to sign and offered 12.5% royalty payments.[202] The leases were subject to an indefinite extension should drilling occur, and Defendants were required to pay annual delay rentals.

> RENTAL PAYMENT – This lease is made on the condition that it will become null and void and all rights hereunder shall cease and terminate unless work for the drilling of a well is commenced on the leased premises or lands pooled herewith within ninety (90) days from the date of this lease . . . , or unless the Lessee shall pay to the Lessor, in advance, every twelve (12) months until work for the drilling of a well is commenced, the sum of $_____ [calculated on the basis of number of acres] for each twelve (12) months during which the commencement of such work is delayed.

During the 10-year term, Defendants did not develop the land nor did they drill or have any operations on the properties. Seeking to extend the leases, Defendants asserted claims to the land under the "force majeure" clause of the lease. The alleged "force majeure" is New York Governor David Paterson's 2008 moratorium on drilling, which Defendants argue exempted them from paying the delay rentals and would keep the leases open until the end of the moratorium.

On March 22, 2011, the U.S. District Court ruled for the Plaintiffs, declaring that the leases were null and void for non-payment of delay rentals under the "unless" leases.

***Pollock, et al. v. Energy Corporation of America*, No. 2:10-cv-01553 (W.D. Pa. Nov. 30, 2010)**

This lawsuit was originally filed by ten landowners on November 22, 2010 and was amended as a class action on March 4, 2011. On September 16, 2013, U.S. Magistrate Judge Robert C. Mitchell determined that two subclasses of plaintiffs met class certification requirements: (1) landowners who allegedly had interstate pipeline charges withheld from their royalty payments and (2) landowners who allegedly had marketing fees deducted after the gas had been sold. The U.S. District Judge approved this certification on September 30, 2013.

In January 2013, the court partially granted ECA's motion for summary judgment by dismissing plaintiffs' claims that ECA used the wrong gas prices, took excessive or unauthorized expense deductions, and underpaid oil and gas royalties. As for the plaintiffs' motion for summary judgment, the court ruled that ECA improperly deducted charges for interstate transportation costs incurred after ECA sold and transferred title to the gas.

197 *Id.* at 14.
198 *Id.*
199 *Id.* at 13.
200 *Id.* at 12.
201 *Id.* at 13.
202 Plaintiffs alleged that, at the time of the filing of the complaint, land in the Marcellus Shale was being leased at a rate of $5,700 to $7,000 per acre in bonus payments and between 20% and 25% royalty payments.

At a March 19, 2014 status conference, the court ordered the plaintiffs to complete damages discovery before June 15, 2014 and to produce an expert report by July 15, 2014. The parties participated in mediation but the case did not settle. The parties filed dispositive motions and the court denied the defendant's motions. It granted, however, the plaintiffs motion as to the issue of transportation costs. The case proceeded to trial on the remaining claims on March 2, 2015. The jury found for the plaintiff on all counts and the court entered judgment for $911,922.16 plus prejudgment interest.

The defendants appealed the case to the Third Circuit Court of Appeals. The case was argued on September 15, 2016, with the parties essentially rehashing their trial issues. On October 24, 2016, the Third Circuit affirmed the district court entirely. The defendants requested to argue the case *en banc* but the Third Circuit declined on December 5, 2016. The judgment was executed in 2017.

***Richard L. Cain v. XTO Energy Inc. and Waco Oil & Gas Co. Inc.*, No. 1:11-cv-00111-IMK, (N.D. W. Va., July 22, 2011) (originally filed in the Circuit Court of Marion County, W.Va., Case No. 11-c-165, June 21, 2011)**

Richard L. Cain ("Plaintiff") filed a lawsuit in West Virginia state court on June 21, 2011 against XTO Energy Inc. ("XTO") and Waco Oil & Gas Co. Inc. (dismissed on March 29, 2012). *Cain v. XTO Energy Inc.. and Waco Oil & Gas Co. Inc.*, No. 11-c-165 (Circuit Court of Marion County, West Virginia, June 21, 2011). The case was removed to federal court on July 22, 2011. On March 29, 2012, the Plaintiff's Motion to Remand was denied.

On April 26, 2012, the Plaintiff filed his First Amended Complaint asserting causes of action for trespass, excess user, acts and omissions beyond the contemplation of the parties, unjust enrichment, and quantum meruit, as well as seeking injunctive relief. For trespass, the Plaintiff claimed that XTO had no right to (1) enter his property for any purpose relating to oil and gas exploration and production, (2) drill well bores horizontally into neighboring oil and gas tracts, (3) frac geological formations on neighboring tracts from his land, (4) pipe gas from neighboring tracts across his land, and (5) build or alter roads for any oil and gas activities.

Plaintiff's excess-user and acts-and-omissions-beyond-the-contemplation-of-the-parties claims rest on a severance deed signed in 1907. According to the Plaintiff, XTO's use of his property exceeds any rights granted under the 1907 deed and that "XTO's activities are beyond those in usage and custom of the natural gas industry at the time of the 1907 deed." The Plaintiff also claimed that XTO's activities would disturb more acreage, destroy more property, create more hazards, take more time, and cause more traffic with heavy equipment than was contemplated by the parties to the 1907 deed.

For unjust enrichment, the Plaintiff sought all of XTO's "profits and monies obtained in contravention of Plaintiff's rights." Under quantum meruit, the Plaintiff "expected to be paid for the properties which XTO used and continues to use for its exclusive financial benefit." XTO filed a Motion to Dismiss Plaintiff's claims, arguing that the unjust enrichment and quantum meruit are not allowed under West Virginia law and that the excess user and contemplation claims are not recognized as independent causes of action under West Virginia law. This motion was denied on August 9, 2013.

On July 2, 2012, Plaintiff filed a Motion to Certify Questions of Law to the Supreme Court of Appeals of West Virginia ("First Certification Motion"). The questions that Plaintiff sought to certify were:

> Is a person who obtains a benefit by an act of trespass or conversion, by comparable interference with other protected interests in tangible property, or in the consequence of such an act by another, liable in restitution to the victim of the wrong?
>
> May a defendant be liable for interference with real property in an amount that exceeds quantifiable injury to the property owner on the principle that restitution is justified because the advantage acquired by the wrongdoer is one that should properly have been the subject of negotiation and payment?

In addition, on that same date, Plaintiff filed a Motion to Certify Question or In the Alternative for Partial Summary Judgment and Permanent Injunctive Relief ("Second Certification Motion"), with the question being whether XTO "has the right to use Mr. Cain's surface for well pads, access roads, and other disturbance and operations to drill gas well bore holes into neighboring mineral tracts that did not underlie his surface at the time of the severance of his surface from the minerals, where those severance deeds expressly limit the Defendant's rights to gas within and underlying the tract." XTO filed its opposition to each of Plaintiff's motions on July 16, 2012 and August 6, 2012 respectively.

In an Order dated March 28, 2013, the court denied the First Certification Motion as not being ripe for disposition in that "the question of damages...is highly fact-specific, and the factual record on the issue of damages is, as of yet, underdeveloped." The court did order certification of the question raised in the Second Certification Motion as to whether the severance deed gives XTO the right to drill horizontal wells on Plaintiff's property "in order to extract oil and gas from a shared pool of oil and gas estates." At a hearing on May 10, 2013 and by written order dated May 16, 2013, the court withdrew its March 28th Order, deeming that the certification to the Court of Appeals of West Virginia "is premature at this time."

This case was settled at mediation in November 2013 and dismissed by the court on December 23, 2013.

***Alexander, et al v. Chesapeake Appalachia LLC and Statoilhydro USA Onshore Properties, Inc.*, No. 3:11-cv-00308-DNH-ATB (N.D. N.Y., March 18, 2011)**

***Aukema, et al v. Chesapeake Appalachia LLC and Statoilhydro USA Onshore Properties, Inc.*, No. 3:11-cv-00489-DNH-ATB (N.D. N.Y., April 29, 2011)**

More than 250 Plaintiffs sued Chesapeake Appalachia LLC ("Chesapeake") and Statoilhydro USA Onshore Properties, Inc. ("Statoilhydro") (collectively, "Defendants"), complaining that the Defendants violated New York's deceptive trade practices statutes concerning extension of the terms of approximately 200 oil and gas leases in several New York counties. One group of leases was executed in 1999 or 2000 and had a 10-year term, paying $3.00 per acre/year, and another group of leases executed in 2004 and 2005 with a five-year term, paying $5.00 per acre/year.[203] All of the leases expired. No wells were drilled on any of the properties. No oil or gas in paying quantities was ever extracted. No royalties were paid to the Plaintiffs.

As each lease expired, the Defendants filed notices and affidavits of extension of the leases claiming that continued tender of delay rentals under a "Delay in Marketing" clause maintained the leases in full force and effect. Alternatively, the Defendants claimed that under a "covenants" or "force majeure" clause, the leases were not subject to termination "due to failure to comply with obligations if compliance is prevented by federal, state, local law, regulation, or decree." The Defendants asserted that a suspension of the granting of generic permits to use "high-volume hydrofracking" with horizontal drilling in the Marcellus Shale is a force majeure event which extends the leases. The Plaintiffs objected to these extensions, but encumbrances remain against their property. The Plaintiffs sought the termination of their leases and compensatory damages.

In the *Alexander* case, on March 20, 2012, the court ordered that all Plaintiffs with arbitration clauses in their lease contracts must arbitrate their claims and that the case was stayed pending the arbitration. On February 15, 2013, the parties provided the court with an update, explaining that no arbitration had taken place because both sides believed it was the burden of the other party to initiate the arbitration process. On February 21, 2013, the court issued a Decision and Order, dismissing the case and directing the parties to arbitrate.

The *Aukema* case was dismissed on November 15, 2012, with the court concluding that "the leases terminated at the conclusion of their primary terms, and Defendants cannot invoke force majeure, the doctrine of frustration of purpose, or the prescribed payments clauses to extend the leases." This order was appealed by the Defendants and cross-appealed by the Plaintiffs to the Second Circuit, Case No. 12-5092 and Case No. 12-5108 respectively. On September 3, 2013, the parties advised the Second Circuit that they had reached a settlement agreement. Chesapeake agreed to release the leases.

***Koonce v. Chesapeake Exploration, LLC and CHK Utica, LLC*, No. 2012CV00136 (Ohio Ct. Com. Pl., March 7, 2012)**

This lawsuit was originally filed in the Court of Common Pleas, Columbiana County, Lisbon, Ohio, Cause No. 2012CV00136 on March 7, 2012, and then removed to the U.S. District Court for the Northern District of Ohio on March 27, 2012 (Case No. 4:12-cv-00736-BYP). The parties filed a Stipulation to Remand on April 9, 2012, sending the case back to state court.

In the Second Amended Complaint filed on October 10, 2012, a group of approximately 50 landowners ("Plaintiffs") sought to void their oil and gas leases with Chesapeake Exploration, LLC, CHK Utica, LLC, and Total E&P U.S.A., Inc. (collectively all three referred to as "Defendant Companies"), four land agents, five notary publics, and the Columbiana County Recorder. The Plaintiffs alleged that the Defendant Companies misrepresented environmental disruptions caused by hydraulic fracturing and concealed the land rights' true profit potential. The Plaintiffs claimed that the land agents failed to present "truthful and accurate information" about the leases, resulting

203 In their petition, Plaintiffs allege that in November 2008, Statoilhydro paid about $5,800 per net acre for 32.5% of Chesapeake's interests in the leases. Based on this, the Plaintiffs assert that the true market value of their leaseholds was approximately $17,400 per acre.

in many landowners receiving less than 1% of the fair market value for signing bonus payments. The Plaintiffs also claimed that they were tricked into signing leases without appropriate lease clauses to protect them from the risks and disruptions associated with horizontal drilling and hydraulic fracturing. As for the notary publics, the Plaintiffs claimed that they did not appear nor execute the leases before these officials, making the leases null and void; and that the Columbiana County Recorder then incorrectly filed these void leases in the county's deed records.

The Plaintiffs' original leases with Anschutz Exploration Corporation were executed between 2008 and 2010, with primary terms of three to five years, continuing in effect if the Defendant Companies were conducting operations or have an active well on the land. These leases have a "fair value right" clause (or "Preferential Right to Renew" clause). This clause allowed landowners to seek fair value from a third-party offeror for the leases, with the leaseholder having the chance to match or better that third-party offer. The Plaintiffs contended that, after acquiring the leases in 2010, the Defendant Companies intentionally modified this clause in order to prevent landowners from receiving third-party offers and that the Defendant Companies publicly stated they would not honor the fair value clause in the original leases. The Plaintiffs alleged that they relied on this clause when signing the leases and the Defendant Companies' actions constituted a material breach and repudiation of the leases.

On January 25, 2012, Chesapeake Exploration LLC ("Chesapeake") and CHK Utica LLC filed a separate declaratory judgment action in federal court[204] concerning the "fair value right" provision. This declaratory action was filed against numerous landowners who threatened to terminate the leases unless Chesapeake matched or "bettered" third-party offers that they have received. On October 30, 2012, the court found no ambiguity in the provision and ruled that Chesapeake had the right to match a bona fide offer and renew the lease; and if Chesapeake chose not to match the offer, the lease runs its course. This lawsuit was closed on November 20, 2012. The landowners filed appeals with the U.S. Court of Appeals for the Sixth Circuit (Case Nos. 12-4466 and 12-4517) The Sixth Circuit agreed with the trial court that the landowners had no right to terminate the lease if Chesapeake failed to match an offer by a third party.

Meanwhile, in state court, on September 12, 2012, the parties in the *Koonce* case and two other cases (*Coniglio, et al v. Chesapeake Exploration LLC, et al.*, Case No. 2012CVH27102, in the Carroll County, Ohio Court of Common Pleas and *William R. Green vs. Chesapeake Exploration, et al.*, Case No. 2012CV01223, in Stark County Common Pleas Court) signed a Letter Agreement providing that, at the time of a ruling in any one of these three related cases concerning the "fair value right" provision (Paragraph 14 in the lease), all other claims filed by the parties in that case would be dismissed without prejudice to allow the "fair value right" ruling to be a final appealable order.

On November 15, 2012, in a combined opinion and order in the *Koonce* and *Coniglio* cases that denied both sides' motions for summary judgment, the court ruled that, "as a matter of law . . . paragraph 14 of the . . . lease gives the plaintiff-landowner-lessors a right to accept a competitor's offer during the primary term and during the first year after all other lease rights end, if Chesapeake fails to match that competitor's offer pursuant to paragraph 14, provided that the replacement lease cannot interfere with Chesapeake's rights to maintain inactive speculation during the primary term, or its rights to maintain continuing operations or production under" other provisions of the lease. A final judgment was signed on January 11, 2013.

***Caldwell v. Kriebel Resources Co., LLC, et al.*, Case No. 2012-14-CD, 2012 WL 8745184 (Court of Common Pleas, Clearfield County, Aug. 3, 2012), affirmed at 72 A.3d 611, 1305 WDA 2012 (Pa. Super. Ct. June 21, 2013), hearing declined by Pennsylvania Supreme Court, November 26, 2013)**

On November 26, 2013, the Pennsylvania Supreme Court denied an appeal of a Superior Court decision which held that a gas lessee has no obligation to drill into the Marcellus Shale formation.

In the Court of Common Pleas, the plaintiff landowners sought a declaratory judgment that would allow them to terminate their lease agreement with the defendant gas company. The company had drilled a series of shallow wells on the plaintiffs' property, which produced gas in paying quantities, but did not drill deeper wells into the Marcellus Shale formation. The Court of Common Pleas dismissed the suit, holding that the company was developing the property as required by the lease. The

204 *Chesapeake Exploration LLC and CHK Utica, LLC v. Catlett Quality Plumbing & Heating, Inc., et al*, No. 5:12-cv-00188 (N.D. Ohio, Jan. 25, 2012), on appeal to the U.S. Court of Appeals for the 6th Circuit, Case No. 12-4466 and Case No. 12-4517, filed Dec. 6, 2012 and Dec. 17, 2012 respectively, consolidated on May 1, 2013. The case was argued before the 6th Circuit on August 1, 2013. On October 30, 2013, the 6th Circuit ruled that the landowners had no right to terminate Chesapeake's oil and gas leases if the company refused to match third-party offers to lease the land. *See Chesapeake Exploration LLC and CHK Utica, LLC v. Catlett Quality Plumbing & Heating, Inc., et al*, 2012 U.S. Dist. LEXIS 156169, 2012 WL 5364259 (N.D. Ohio Oct. 30, 2012).

court also rejected plaintiffs' argument that minimum royalty payments should be based on the natural gas potentially available in all strata underlying the property, finding instead that a well should be deemed to have produced in paying quantities if it resulted in any profit whatsoever.

The Pennsylvania Superior Court affirmed the trial court holding by stating that company was not "required to drill additional wells to different depths to completely develop the entire property."

> Under Pennsylvania law, we are not authorized to impose an implied duty on the lessee to develop the various strata in light of the language contained in their contract. This is so particularly in light of the fact that defendants are producing gas pursuant to the agreement, a fact that appellants acknowledge."

With the Pennsylvania Supreme Court denying the appeal, the Superior Court's decision based on the strict language of the lease remains controlling Pennsylvania law.

***Canaan Wildlife Preserve, Inc., et al v. Chesapeake Energy Corporation, et al.*, Case No. 2:13-cv-02064-RTD (W.D. Ark., March 6, 2013)**

In this class action lawsuit, the Plaintiffs alleged that Defendants[205] fraudulently skimmed $5 million from royalty payments to thousands of oil and gas leaseholders over a 25 year period. They claimed that the Defendants underpaid royalties, added fraudulent fees and charges to billing statements, misreported gas volume purchases, and paid less than the materials were actually worth. They sought more than $5,000,000 in damages.

In a motion to dismiss, the Defendants argued that Plaintiffs did not allege that any particular Defendant has caused them harm, only that they have been injured by "one of more Defendants." On October 1, 2013, the Magistrate Judge issued a report and recommendations denying the motion, finding that the Plaintiffs had sufficiently stated their claims. On February 27, 2014, the U.S. District Judge adopted the Magistrate's report and recommendations.

205 Chesapeake Energy Corporation, Chesapeake Operating, Inc., Chesapeake Energy Marketing, Inc. Chesapeake Midstream Operation, LLC, Arkansas Midstream Gas Services Corp., Chesapeake Midstream Gas Services, LLC, BP America Production Company, BP Energy Company, BHP Billiton Petroleum (Fayetteville), LLC, BHP Billiton Petroleum (Arkansas), Inc., and BHP Billiton Marketing, Inc.

Having accepted the Magistrate's refusal to dismiss the claims, the court moved on the certification stage. The court held a hearing on class certification on March 19, 2015. Two weeks later, before the court had ruled on the certification, the parties agreed to stay the case and confidentially settled their claims. The remaining litigation and appeal were not on the merits, but rather on the issue of whether the plaintiff's attorney had properly secured a lien on the class for their fees.

***EQT Production Company v. John Opatkiewicz, et al.*, Case No. GD-13-013489, In the Court of Common Pleas of Allegheny County, Pennsylvania**

On July 9, 2013, Pennsylvania Governor Tom Corbett signed a law giving drillers the ability to pool leased properties into one unit for horizontal wells, as long as the oil and gas contracts in effect do not prohibit these combinations. This provision is the basis of a complaint filed by EQT Corporation on July 22, 2013 in the Court of Common Pleas against at least 57 landowners and one golf course in Allegheny County, who hold old oil and gas contracts without pooling provisions.

EQT, who had been negotiating with landowners in the county for access to their properties, accused them of blocking the company from conducting surveys on their land to determine where to drill for shale gas. EQT requested an injunction allowing it to access the properties and to engage in horizontal drilling on the pooled properties.

In their answer, the defendants alleged that the pooling law "constitutes an unconstitutional taking of . . . private property for non-public use and without just compensation" and deprives them of "rights to acquire, possess, and protect property in violation of" the U.S. Constitution and the state's constitution. They argued that the new law should not be applied retroactively to their leases, the majority of which do not contain pooling provisions, and that the leases are invalid to the extent that EQT has not made the required payments under the leases to store natural gas on their property.

On December 26, 2013, the judge ordered the defendants to allow an oil and gas production company "reasonable ingress, egress, access to and use of the . . . properties of . . . sixteen (16) oil and gas leases identified in the Amended Complaint for the purpose of performing seismic testing." The company was ordered to post a bond of $25,000 before beginning the testing.

On January 30, 2014, shortly after the defendants filed a motion for partial judgment on the pleadings in which they argued the unconstitutionality of the pooling law, the judge decided to vacate her January 8th order and agreed to reconsider her memorandum opinion.

In a second order dated April 8, 2014, the judge concluded that the pooling statute (section 34.1 of the Oil and Gas Lease Act) "does not violate the Constitution of the Commonwealth of Pennsylvania nor the United States Constitution, and that as such, where EQT has the right to develop multiple contiguous oil and gas leases separately, it may develop those leases jointly by horizontal drilling unless expressly prohibited by a lease."

***May v. BHP Billiton Petroleum (Fayetteville) LLC*, No. 4:13-cv-0494 (E.D. Ark., August 23, 2013)**

This case began as a class action in which Plaintiffs alleged that, by failing to drill more than one well per lease, BHP Billiton Petroleum (Fayetteville) LLC ("BHP Billiton") breached an implied covenant requiring an oil and gas lessee to act with reasonable diligence to develop the lease. Plaintiffs sought cancellation of the leases.

BHP Billiton filed a motion to dismiss and to strike class allegations, arguing that the Plaintiffs' claims were barred by the terms of the leases which contain language that is inconsistent with the implied covenant of reasonable development. The leases state that the leases will remain in effect according to their terms so long as production continues on the property, notwithstanding any other contractual provision, whether express or implied, to the contrary. BHP Billiton asserted that, since it drilled at least one producing well on each leased property, the terms of the lease are satisfied.

In an order dated April 2, 2014, the court struck "the class allegations . . . for lack of predominate common issues" but allowed the claims "which arise from BHP's implied covenant to reasonably develop" to go forward on the merits.

The case moved forward on behalf of just a few plaintiffs, the Mays and the Snowdens, who each had leases with BHP Billiton in the Fayetteville Shale. The parties each filed *Daubert* motions and dispositive motions. The court decided those motions in a July 29, 2015, opinion. The court mostly allowed the plaintiff's expert testimony as admissible. But the court did strike one expert that the court believed was only offered to provide opinions on what the law required. The court granted a portion of BHP Billiton's summary judgment motion eliminating the claims related to a lease on which BHP was no longer the operator.

With most of the claims and defenses intact, the parties returned to trial preparation. The court issued a fourth scheduling order, the parties resumed discovery, and a trial was scheduled for April 2016. On April 11, 2016, the jury rendered a verdict for BHP Billiton finding that BHP did act as a reasonably prudent operator by not drilling additional wells on the subject properties.

***Demchak Partners Limited Partnership, et al. v. Chesapeake Appalachia, L.L.C.*, No. 3:13-cv-02289 (M.D. Pa. Aug. 30, 2013)**

In October 2012, class action Plaintiffs confronted Chesapeake Appalachia LLC ("Chesapeake") with allegations that Chesapeake violated leases by deducting from their royalty checks post-production costs for gathering, dehydration and compression of the gas taken from their property. Plaintiffs argued that their leases contained a "Market Enhancement Clause," which expressly precluded Chesapeake from charging them for transforming the gas into its "marketable" form or making the gas ready for sale or use, but would allow Chesapeake to deduct a pro-rata share of these costs after the gas had been placed in a marketable form or made ready for sale or use. Plaintiffs contended that the gas is not actually "marketable" until it meets the quality and pressure specifications of the interstate pipeline into which it is delivered; and that, by deducting costs that were incurred prior to the gas entering the transmission pipeline, Chesapeake underpaid the royalties due under the lease. In opposition, Chesapeake contended that the gas produced or to be produced under plaintiffs' leases was marketable at the wellhead and was entitled to make the deductions.

With an arbitration clause in the leases, the parties hired retired Judge Edward N. Cahn, a mediator with Blank Rome LLP, to help settle the questions. Judge Cahn met with the parties on June 18, 2013, and then negotiated for more than two months with each side to reach a proposed $7.5 million settlement. On August 30, 2013, the plaintiffs filed their Class Action Complaint and the Unopposed Motion for Preliminary Approval of Class Action Settlement.

The settlement agreement requires Chesapeake to pay the class action plaintiffs 55% of post-production costs for gathering, dehydration and compression prior to September 1, 2013 and 27.5% of post-production costs until the effective date of the

settlement. Moving forward, Chesapeake will implement a revised royalty calculation methodology that provides a 27.5% reduction in costs for gathering, dehydration, and compression borne by the class action plaintiffs. After the settlement, these plaintiffs will continue to bear 100%, on a pro-rata basis, of the transportation costs that are incurred after the gas has entered the interconnect point of a transmission pipeline.

Prior to approving the settlement, the court had to deal with several motions, all of which include Russell and Gayle Burkett (the "Burketts") who are other landowners involved in an arbitration concerning the contract provisions. The Burketts wanted to intervene in the *Demchak* case and consolidate the *Demchak* case with their arbitration. Chesapeake filed a motion for a permanent injunction to enjoin the Burketts from pursuing their "putative class [arbitration] proceedings related to the Market Enhancement Clause." Further confusing the issue, on December 30, 2013, Chesapeake filed a lawsuit for declaratory and injunctive relief against the Burketts, seeking declarations that the court should decide whether class arbitration is available pursuant to the Burketts' Lease and that class arbitration is not available pursuant to that lease.[206] Additional confusion was created by the arbitration panel ruling on January 28, 2014, that it, not the court, should decide whether Chesapeake agreed to arbitrate with the Burketts on a class basis. Chesapeake asked the U.S. District Court to vacate that ruling.

After the settlement was approved, the court separately took up the "emergency" motion to intervene by the Burketts and ruled that their intervention into the case would be improper and given only to delay. The court denied the intervention fully and finally on April 1, 2016. The only ongoing proceedings in this litigation are regular reports from Chesapeake on the distribution of the class settlement.

Note that, after many discussions in the Pennsylvania legislature, on July 9, 2013, Governor Tom Corbett signed into law S.B. 259 which requires royalty check "transparency." Royalty check statements must provide a range of details, including well identification information; the price received per barrel, Mcf, or gallon; the net value of total sales after deductions; the owners' percent of interest in production and share of the total value of the sales prior to deductions; and the total amount of taxes and deductions permitted under the lease.

206 *Chesapeake Appalachia, LLC v. Russell E. Burkett and Gayle Burkett*, Case No. 3:13-cv-03073, In the U.S. District Court for the Middle District of Pennsylvania

***Wisdahl, et al. v. XTO Energy, Inc.*, Case No. 53-2013-cv-01188 (In District Court of Williams County, North Dakota, Northwest Judicial District), removed to U.S. District Court for North Dakota, No. 4:13-cv-00136, on Nov. 15, 2013**

***Wisdahl, et al. v. Crescent Point Energy U.S. Corp.*, Case No. 53-2013-cv-01189 (In District Court of Williams County, North Dakota, Northwest Judicial District), removed to U.S. District Court for North Dakota, No. 4:13-cv-00139, on Nov. 15, 2013**

***Miller Family Partnership, et al. v. HRC Operating, LLC*, Case No. 53-2013-cv-01190 (In District Court of Williams County, North Dakota, Northwest Judicial District), removed to U.S. District Court for North Dakota, No. 4:13-cv-00137, on Nov. 15, 2013**

***Sorenson, et al. v. Burlington Resources Oil & Gas Company, LP*, Case No. 27-2013-cv-00242 (In District Court of McKenzie County, North Dakota, Northwest Judicial District), removed to U.S. District Court for North Dakota, No. 4:13-cv-00132, on Nov. 14, 2013**

***Singer, et al. v. Statoil Oil & Gas LP*, Case No. 27-2013-cv-00243 (In District Court of McKenzie County, North Dakota, Northwest Judicial District), removed to U.S. District Court for North Dakota, No. 4:13-cv-001338 on Nov. 15, 2013**

***Kummer, et al. v. Continental Resources, Inc.*, Case No. 27-2013-cv-00244 (In District Court of McKenzie County, North Dakota, Northwest Judicial District), removed to U.S. District Court for North Dakota, No. 4:13-cv-00135, on Nov. 15, 2013**

***Border Farm Trust, et al. v. SM Energy Company*, Case No. 27-2013-cv-00245 (In District Court of McKenzie County, North Dakota, Northwest Judicial District), removed to U.S. District Court for North Dakota, No. 4:13-cv-00140, on Nov. 15, 2013**

***Border Farm Trust, et al. v. Samson Resources Company*, Case No. 12-2013-cv-00067 (In District Court of Divide County, North Dakota, Northwest Judicial District), removed to U.S. District Court for North Dakota, No. 4:13-cv-00141, on Nov. 15, 2013**

***Vogel, et al. v. WPX Energy Williston, LLC*, Case No. 31-2013-cv-00162 (In District Court of Mountrail County,**

North Dakota, Northwest Judicial District), removed to U.S. District Court for North Dakota, No. 4:13-cv-00133, on Nov. 15, 2013

***Vogel, et al. v. Marathon Oil Company*, Case No. 31-2013-cv-00163 (In District Court of Mountrail County, North Dakota, Northwest Judicial District)**

***Lawyer, et al. v. Kodiak Oil & Gas (USA) Inc.*, Case No. _____ (In District Court of Williams County, North Dakota), removed to U.S. District Court for North Dakota, No. 4:14-cv-00014, on February 10, 2014**

***Lawyer, et al. v. EOG Resources, Inc.*, Case No. 53-2014-cv-0043 (In District Court of Williams County, North Dakota), removed to U.S. District Court for North Dakota, No. 4:14-cv-00009, on January 31, 2014**

***Hansen, et al. v. Hunt Oil Company*, Case No. 13-2014-cv-00008 (In the District Court of Dunn County, North Dakota), removed to U.S. District Court for North Dakota, No. 1:14-cv-00021, on February 20, 2014**

***Sheryle J. Olson Family Mineral Trust, et al. v. Hess Corporation and Hess Bakken Investments II, LLC*, Case No. 13-2014-000007 (In the District Court of Dunn County, North Dakota, Southwest Judicial District), removed to U.S. District Court for North Dakota, No. 1:14-cv-00020, on February 18, 2014**

Fourteen class actions were filed in North Dakota by mineral owners alleging lost income due to the flaring of natural gas by various oil and gas producers, including EOG Resources, XTO Energy, Burlington Resources Oil and Gas, Continental Resources, Crescent Point Energy, HRC Operating, Hess Corporation, Hess Bakken Investments II, Hunt Oil Company, Kodiak Oil & Gas (USA), Marathon Oil, Samson Resources, SM Energy, Statoil, and WPX Energy (the "Producers").

The lawsuits allege that the Producers violated several North Dakota Industrial Commission rules relating to flaring and paying royalties for flared gas. After an oil well begins to produce, North Dakota allows limited flaring during the first year. After one year, the producer must apply for a written exemption for any future flaring. If the producer does not ask for the exemption, royalties and state taxes on the flared gas must be paid.

The lawsuits alleged that the Producers flared gas without the proper authorization and therefore, owe royalties on "(a) gas flared from a well one year after the first production without applying for and obtaining a flaring exemption; (b) gas flared from a well within the first year of production under an order issued by the Industrial Commission limiting the maximum barrels of oil to be produced per day until the well is connected to a gathering system and processing plant; and (c) gas flared within the first year of production even though the operator reported the well was physically connected to a gathering system and processing plant."

The Plaintiffs claimed that they lost millions of dollars in royalties due to producers' practice of burning off large quantities of gas rather than selling it.

In each of the thirteen federal lawsuits, the Producers filed a motion to dismiss, arguing that the Plaintiffs failed to exhaust their administrative remedies and that there is no private right of action for damages under the North Dakota statutes referenced by the Plaintiffs. On March 14, 2014, the U.S. District Court agreed with the Producers and dismissed the lawsuits. The court stated that the cases rest "upon the resolution of fairly technical and complex questions of fact and law," including "(1) the volume of gas flared . . . , (2) the value of such flared gas; and (3) the application of the relevant Industrial Commission orders that pertain to each well." The court concluded that "[n]o decision-maker is better equipped to resolve such issues than the Industrial Commission itself which is possessed of the authority, experience, and expertise to make such determinations."

Lawsuits brought by citizens, states, and environmental groups

***Hamblet v. James Martin, in his official capacity as Director, Office of Oil and Gas, West Virginia Department of Environmental Protection; Office of Oil and Gas, West Virginia Department of Environmental Protection; and EQT Production Company*, Case No. 10-P-15 (Circuit Court of Doddridge County, W. Va., May 21, 2010)**

EQT Production Company ("EQT") holds a valid oil and gas lease executed in 1905 which encompasses the property owned by Matthew Hamblet. On March 22, 2010, EQT filed a permit application with the West Virginia Office of Oil and Gas of the West Virginia Department of Environmental Protection ("WVDEP") to drill a shallow well with a "horizontal leg into the Marcellus" Shale formation. As part of the permit application, EQT provided notice to the surface owners, including Hamblet.

On April 7, 2010, Hamblet submitted comments to the WVDEP in which he complained of prior damage and disturbance to his property from at least four other wells in the area. He further complained that the erosion and sediment control plan was inadequate and that the proximity of drilling waste to surface water presented a failure to protect fresh water resources. Thereafter, EQT submitted additional information in response to Hamblet's comments. The WVDEP conducted an inspection of the site and found that all the application requirements were satisfied.

On May 21, 2010, Hamblet filed his "Petition for Appeal of Issuance of a Well Permit," seeking to nullify the drilling permit and stating that the state regulators had not done enough to protect his land and environment. He asserted that EQT's personnel were "driving around and off the access roads, parking in the meadows in an unorganized way, taking more time than is reasonably necessary to construct the well site, leaving chemicals and trash all over the ground, allowing for the silting of creeks which washes away meadow and destroys creek life and habitat."

The WVDEP and EQT filed motions to dismiss, arguing that Hamblet did not have the right to appeal the issuance of the permit under any relevant statutory authority. While the Circuit Court concluded that Hamblet did have the right to appeal, it also granted the defendants' request to submit its ruling to the Supreme Court of Appeals of West Virginia. In answer to the certified question, the appeals court determined that surface owners have no statutorily-defined right to seek judicial review with respect to a permit issued by the WVDEP. Accordingly, the trial court entered a dismissal order on February 6, 2013.

***Ouachita Watch League, et al v. Judith L. Henry, Forest Supervisor, Ozark-St. Francis National Forests, United States Forest Service, et al*, No. 4:11-cv-425 (E.D. Ark., May 19, 2011)**

The Plaintiffs consist of individual citizens residing in Arkansas and several not-for-profit organizations established for "enjoyment, protection, and preservation of the environment and natural resources," including the Ozark-St. Francis National Forest and Greers Ferry Lake in Arkansas. Seeking an injunction to prevent any additional wells from being drilled in the forest and lake area, the Plaintiffs assert that the United States Forest Service, the Bureau of Land Management, United States Army Corps of Engineers, United States Department of Agriculture, United States Department of the Interior, and their directors and managers ("collectively "Defendants") failed to comply with the National Forest Management Act, the Mineral Leasing Act for Acquired Lands, the Wild and Scenic Rivers Act, the National Environmental Policy Act ("NEPA"), and the rules and regulations implementing NEPA issued by the White House Council on Environmental Quality when the Defendants approved oil and gas exploration activities in or under the lake on September 21, 2010, in a Supplemental Information Report ("SIR").

Ruling on Plaintiffs' discovery motions, the court ordered Defendants to produce the administrative record of documents and information leading to the SIR. Defendants filed the administrative record on December 14, 2012 and then a supplement to that record on November 18, 2013. The parties completed briefing on the defendants' motion to dismiss for failure to state a claim on January 17, 2014. In October of 2014, the court denied a portion of the claims but allowed some of the claims based on NEPA and the National Forest Management Act.

In April of 2015, the government defendants filed a motion for summary judgment on the merits. They argued that the plaintiffs could not prevail under the Administrative Procedures Act because only a "final agency action" may be reviewed when the enabling statutes do not provide a separate right of action—which neither of the relevant statutes did. Also, the agency action was not final because the 2010 SIR merely analyzed whether the agency should supplement previous environmental impact statements. The SIR did not allow or approve any gas development nor obligate the government to permit such development. The court agreed and entered summary judgment for the government on March 16, 2016.

Plaintiffs subsequently appealed to the 8th Circuit. The court dismissed the appeal on the grounds that Plaintiffs did not have standing because they failed to identify any particular member of the Society who was harmed by the government action. Specifically, the Ozark Society did not identify a particular member with a plan to enjoy the Ozark forest. Absent sufficient case or controversy, the court decided it lacked jurisdiction and dismissed the appeal.

***State of New York v. United States Army Corps of Engineers, et al*; No. 1:11-cv-02599 (E.D.N.Y., May 31, 2011)**

***Delaware Riverkeeper Network, et al v. United States Army Corps of Engineers, et al*; No. 1:11-cv-03780 (E.D.N.Y., Aug. 4, 2011)**

***State of New York v. United States Army Corps of Engineers, et al*; No. 1:11-cv-03857 (E.D.N.Y., Aug. 10, 2011)**

In all three lawsuits (which were consolidated for pre-trial purposes), the Plaintiffs[207] sought to compel the Defendants[208] to comply with the National Environmental Policy Act of 1969 ("NEPA") by requiring them to prepare and make available for public comment a draft environmental impact statement ("EIS") before proceeding to adopt federal regulations to be administered by the Delaware River Basin Commission ("DRBC") that would authorize natural gas development within the Basin.[209] The DRBC anticipated that between 15,000 and 18,000 natural gas wells would be developed using hydraulic fracturing within the Basin. The Delaware River Basin comprises 13,539 square miles, draining parts of New Jersey, New York, Pennsylvania, and Delaware. The Upper Delaware River within the Basin serves as the primary source of clean unfiltered drinking water for 9,000,000 New Yorkers each day and is federally designated as a scenic and recreational river by the United States Park Service.

On June 4, 2012, the Defendants filed motions to dismiss, arguing lack of subject matter jurisdiction, Plaintiffs' lack of standing, lack of ripeness for adjudication, and inapplicability of NEPA to these Defendants. The court granted these motions on September 24, 2012 and dismissed all three lawsuits.

***San Juan Citizens Alliance; Colorado Environmental Coalition, Colorado Wild; Oil and Gas Accountability Project, and The Wildness Society v. Mark Stiles, in his official capacity as San Juan National Forest Supervisor and BLM Center Manager of the San Juan Public Lands Center; et al.*[210]; 654 F.3d 1038 (10th Cir. 2011)**

The lawsuit filed by several environmental groups ("Plaintiffs") concerns the Northern San Juan Coal Bed Methane Project ("Project"), which was approved by the federal government Defendants. The Project contemplated the construction of numerous gas wells within the San Juan National Forest and other federal lands. The Plaintiffs claimed that the 2007 Record of Decision ("ROD") approving the Project was unlawful, that the ROD-approved wells violated the Forest's standards and guidelines protecting riparian areas, and that the environmental impact statement ("EIS") assessing the Project's environmental consequences was not adequate under the National Environmental Policy Act ("NEPA").

The district court ruled in favor of the Defendants. The Plaintiffs appealed this decision to the 10th Circuit Court of Appeals. The appeal court determined that the Plaintiffs' claims were not ripe, that the Project was inconsistent with the Forest's plan and guidelines, and that Plaintiffs' NEPA claims properly were rejected on the merits.

***Citizens for Pennsylvania's Future v. Ultra Resources, Inc.*, No. 4:11-cv-01360-RDM (M.D. Pa. July 21, 2011)**

Citizens for Pennsylvania's Future ("Plaintiff") sought declaratory and injunctive relief from Ultra Resources, Inc.'s ("Defendant") alleged violations of the Clean Air Act ("CAA") (42 U,.S.C. § 7604(a)(3)), Pennsylvania's Implementation Plan ("SIP"), and Pennsylvania's New Source Review Regulations, 25 Pa. Code Chapter 127, Subchapter E. Plaintiff alleged that, beginning in 2008, the Defendant operated an extensive network of natural gas wells, pipelines, compressor stations, and associated equipment without obtaining all the necessary permits and without achieving the lowest achievable emissions rate as required by Pennsylvania's regulations. Plaintiff claimed that the environment was damaged by large amounts of nitrogen oxides and related pollution that create fine particulate matter in the atmosphere.

Arguing that it obtained all the appropriate permits from the Pennsylvania Department of Environmental Protection, the Defendant filed a motion to dismiss for lack of jurisdiction, asserting that the Plaintiff's claims should be heard by the Pennsylvania Environmental Hearing Board. The Pennsylvania Department of Environmental Protection filed an *amicus curiae* brief in support of the Defendant's motion but the motion to dismiss was denied on September 24, 2012.

A Case Management Order set a fact discovery deadline of November 30, 2013 with dispositive motions filed by February 28, 2014. The expert designation deadline for Plaintiffs was March 14, 2014, with Defendant's designation due by April 15, 2014.

207 In the first *State of New York* case, the Plaintiff was the State of New York. In the second *State of New York* lawsuit, the Plaintiffs were the State of New York and Damascus Citizens for Sustainability, Inc. In the *Delaware Riverkeeper Network* case, the Plaintiffs were Delaware Riverkeeper Network, Inc., Delaware Riverkeeper, Inc., the Hudson Riverkeeper, and National Parks Conservation Associations.

208 In both *State of New York* cases, the Defendants were the United States Army Corps of Engineers; Colonel Christopher Larsen, in his official capacity as Division Engineer, North Atlantic Division of the United States Army Corps of Engineers; United States Fish and Wildlife Service; Rowan W. Gould, in his official capacity as Acting Director of the United States Fish and Wildlife Service; United States National Park Service; Jonathan B. Jarvis, in his official capacity as Director of the United States National Park Service; United States Department of the Interior; Kenneth Salazar, in his official capacity as Secretary of the United States Department of the Interior; United States Environmental Protection Agency; Lisa Jackson, in her official capacity as Administrator of the United States Environmental Protection Agency; Delaware River Basin Commission; and Carol Collier, in her official capacity as Executive Director of the Delaware River Basin Commission. In the *Delaware Riverkeeper Network*, the Defendants are the United States Army Corps of Engineers; Brig. Gen. Peter A. DeLuca, Division Engineer, North Atlantic Division of the United States Army Corps of Engineers; the Delaware River Basin Commission; and Carol Collier, in her official capacity as Executive Director of the Delaware River Basin Commission.

209 In addition to the Plaintiffs and Defendants, numerous groups intervened on behalf of defendants (American Petroleum Institute, the Independent Petroleum Association of America, and the US Oil & Gas Association) and/or filed amicus briefs (the City of New York, Chesapeake Bay Foundation, and Susquehanna River Basin Commission).

210 Other defendants were Rick Cables, in his official capacity as Regional Forester of the Rocky Mountain Region of the United States Forest Service; United States Forest Service; Thomas Vilsack, in his official capacity as Secretary of the Department of Agriculture; United States Bureau of Land Management; and Kenneth Salazar, in his official capacity as Secretary of the Department of Interior.

On February 28, 2014, Ultra Resources filed a motion for summary judgment based on its having obtained "all necessary air permit approvals for its compressor stations . . . and [that it] did not construct a major source of NOx emissions." The Plaintiffs argued the case presented fact issues stemming from whether Ultra's compressor stations were physically proximate and functionally related. The court held that, at least in this case, those issues did not present a genuine dispute of material fact—mostly because the challenged stations were not physically connected and thus did not share capacity or emissions. Accordingly, the court entered summary judgment in favor Ultra Resources on February 23, 2015.

***The Ozark Society v. United States Forest Service; Judith Henry, Supervisor of the Ozark-St. Francis National Forest; the Bureau of Land Management; John Lyon, Eastern States Director, Bureau of Land Management; and Bruce Dawson, Eastern States Field Manager, Bureau of Land Management*; No. 4:11-cv-00782 (E.D. Ark., October 31, 2011)**

The Ozark Society ("Plaintiff"), a non-profit corporation with over 850 dues-paying members, describes its mission as conservation, education, and recreation. In the complaint, the Plaintiff stated that its members utilize the Ozark National Forest's wilderness areas and wild and scenic rivers for hiking, boating, and other outdoor activities. The Plaintiff asserted that the United States Forest Service, the Bureau of Land Management, and their directors and managers ("collectively "Defendants") failed to comply with the National Environmental Policy Act ("NEPA") and other federal environmental and procedural statutes in approving gas leases for exploration and development in the Ozark National Forest. According to the complaint, more than 60 gas wells have been drilled in the forests, creating a number of environmental impacts including the construction of roads, increased traffic, storage of drilling fluids, noise, venting gas, storm water runoff, and increased water usage for hydraulic fracturing use.

The Plaintiff sought an injunction stopping all natural gas exploration and development in the Ozark-St. Francis National Forests. On March 1, 2012, the court heard arguments on the preliminary injunction. In denying the injunction on March 23, 2012, the court found that the Plaintiff failed to establish that it is likely to succeed on the merits or that it likely will suffer irreparable harm absent preliminary relief.

On November 2, 2012, this case was re-assigned to the court handling the *Ouachita Watch League* lawsuit, *supra*.

***Center for Biological Diversity and Sierra Club v. The Bureau of Land Management and Ken Salazar, Secretary of the Department of the Interior*, No. 5:11-cv-06174 (N.D. Cal., December 8, 2011)**

The Center for Biological Diversity and the Sierra Club ("Plaintiffs") filed this lawsuit to overturn the Bureau of Land Management's "illegal and unwise lease sale" to allow oil and gas development on sensitive California lands without analyzing the full environmental effects of such development. The Plaintiffs claimed violations of the National Environmental Policy Act ("NEPA") and the Mineral Leasing Act of 1920 ("MLA").

NEPA requires the preparation of an environmental impact statement ("EIS") to consider the effects of each activity on the properties while the MLA requires the lessee to conduct its operations using all reasonable precautions to prevent waste of oil or gas developed in the land. Expressing concern about endangered species living in the area (San Joaquin kit fox, blunt-nosed leopard lizard, steelhead trout, and the California condor), the "highly controversial and dangerous drilling method" of hydraulic fracturing, and the impacts of oil spills, habitat contamination, and methane leaks, the Plaintiffs argued in their motion for summary judgment that the Bureau of Land Management ("BLM") failed to consider and fully analyze the impacts of oil and gas development on the area in its environmental assessment ("EA") and in its finding of no significant impact. Plaintiffs wanted the leases set aside. BLM countered in a cross-motion for summary judgment that it was premature to evaluate the impacts at this stage, that the impacts must be evaluated in the site-specific assessments conducted in relation to applications for permits to drill.

On March 31, 2013, U.S. Magistrate Judge Paul S. Grewal ruled that the BLM violated NEPA by leasing land for oil and gas extraction without assessing the risks posed by hydraulic fracturing. He stated that NEPA required federal agencies to conduct the impact review at the earliest possible time to allow for proper consideration of environmental values. The BLM unreasonably relied on an earlier single-well development scenario and failed to take into account all reasonably foreseeable effects of its actions in categorically refusing to consider the effects of hydraulic fracturing. The BLM could not shirk its NEPA responsibilities by labeling discussion of hydraulic fracturing as a "crystal ball" inquiry. Therefore, Magistrate Judge Grewal ruled that the BLM failed to conduct the "hard look" analysis required by NEPA by dismissing any development scenario involving hydraulic fracturing when

used in combination with technologies such as horizontal drilling. The EA and the finding of no significant impact were found to be erroneous as a matter of law.

The court ordered the parties to meet and confer and submit to the court an appropriate judgment on remedy issues. On September 16, 2013, the parties advised the court that they had reached a tentative resolution. After much negotiation by the parties, the court granted a Joint Motion to Stay and Administratively Close the Case on July 17, 2014.

***Powder River Basin Resource Council, Wyoming Outdoor Council, and National Wildlife Federation v. U.S. Bureau of Land Management, Kenneth Salazar in his official capacity as Secretary of the Interior, Mike Pool in his official capacity as Acting Director of the Bureau of Land Management, Donald Simpson in his official capacity as Wyoming State Director of the Bureau of Land Management, and Duane Spencer in his official capacity as the Buffalo Field Office Manager of the Bureau of Land Management*, Case No. 1:12-cv-00996 (D.C. June 19, 2012)**

Environmentalists sued the U.S. Bureau of Land Management (and affiliated government officials) (BLM) over the approval of a resource management plan that they claimed would endanger elk and other wildlife in Wyoming's Powder River Basin area which contains more than 100,000 acres of remote and steep terrain called the Fortification Creek Planning Area. They requested the court void and suspend all approved and future natural gas drilling activities in the Powder River Basin area until there is compliance with the National Energy Protection Act (NEPA).

According to the complaint for declaratory and injunctive relief, the BLM failed to "take a hard look at direct, indirect, and cumulative impacts to the environment" of its oil and gas development plan; failed to prepare an Environmental Impact Statement (EIS) or to justify its decision to forego an EIS; failed to provide a reasonable basis for comparatively analyzing and choosing between alternatives; and failed to comply with its duty to take a hard look at potentially significant new circumstances and information and to prepare a supplemental NEPA analysis. The State of Wyoming and Lance Oil & Gas Company (who holds federal leases) intervened in the lawsuit.

On March 28, 2014, the court ruled on the parties' cross-motions for summary judgment. The court determined that the BLM had complied with NEPA, acted reasonably in its evaluations and methodology, and adequately analyzed the impacts on water resources. The court closed the case on March 31, 2014.

***Sierra Club, et al. v. The Village of Painted Post, et al.*, Index No. 2012-0810CV, In the State of New York, Supreme Court, County of Steuben (June 25, 2012); also 115 A.D.3d 1310 (N.Y. App. Div. 2014); 22 N.Y.S.3d 388 (N.Y. 2015); on remand 134 A.D.3d 1475 (N.Y. App. Div. 2015).**

The Sierra Club, People for a Healthy Environment, Inc., Coalition to Protect New York, and several residents of Painted Post and other surrounding towns ("Plaintiffs") filed suit to prevent the transportation of water from the municipal water system to gas drilling sites in Pennsylvania "until such time as Respondents shall have fully complied with the New York State Environmental Quality Review Act, Environmental Conservation Law," the New York State Water Supply Law, and other state and federal statutes. The Plaintiffs complain that the Village "failed to consider even one of the significant adverse environmental impacts of water transports from the proposed water loading facility" and that the Village failed to adequately prepare the Environmental Assessment Form required to be filed with the State by not identifying potential significant adverse environmental consequences, including the significant increase in truck traffic, noise, and depletion of water supplies.

The Village signed a five-year agreement with a Shell subsidiary, allowing the company to withdraw over 1 million gallons of water per day from a local aquifer. In return, the Village would make a minimum of $3.2 million. The water shipping stopped in September 2012 due to a slowdown in drilling/fracking operations in Pennsylvania.

A hearing on the injunction request was held on March 1, 2013. On March 25, 2013, the judge issued his decision, voiding the agreement and enjoining any further shipments because the Village had not done the required environmental review under the State Environmental Quality Review Act. The New York intermediate appellate court reversed the trial court's injunction ruling on the basis that the plaintiff's lacked standing to challenge the city's actions—it did not reach the merits. Regarding standing, the intermediate court held that both the organizations and the individual plaintiffs lacked standing because the injuries they alleged were not unique or specific and instead would be experienced by all.

The New York Court of Appeals disagreed and clarified that standing, at least in New York, requires only that the plaintiff's

injury be direct and in some way distinct from the injury to the public at large. In this case, then, standing existed because at least one of the plaintiffs lived near the train corridor that transported the water and complained of the increased traffic keeping him awake. Having determined that standing exists, the court remanded to the intermediate appellate court on November 19, 2015, to consider the merits of the action.

Whereas the intermediate court disagreed with the trial court on the issue of standing, it agreed with the trial courts on the merits. On December 31, 2015, the intermediate appellate court issued an opinion stating the Defendant's environmental review was arbitrary and capricious.

***Center for Biological Diversity, Earthworks, Environmental Working Group, and Sierra Club v. California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, and DOES I through X*, Case No. RG12652054, In the Superior Court for the State of California for the City and County of Alameda (October 16, 2012)**

The Plaintiffs, who are several well-known environmental groups, wanted a declaratory judgment and an injunction prohibiting any new oil and gas permit approvals until the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources ("DOGGR") complied "with its legal requirements to evaluate and mitigate the significant environmental and public health impacts caused by hydraulic fracturing." The Plaintiffs claimed that the DOGGR issued permits "without any environmental analysis" of "contamination of domestic and agricultural water supplies, the use of massive amounts of water, the emission of hazardous air pollutants, and the potential for induced seismic activity" allegedly created by hydraulic fracturing.

Western States Petroleum Association ("WSPA"), the California Independent Petroleum Association, and the Independent Oil Producers Agency intervened as defendants in the lawsuit.

On October 21, 2013, WSPA filed a motion to dismiss citing the provisions of California's new hydraulic fracturing law (S.B. 4).[211] WSPA argued that the complaint is now irrelevant because the law requires the DOGGR "to conduct an EIR [environmental impact report] addressing any potential environmental impacts from hydraulic fracturing in the state" by July 15, 2015. According to WSPA, the law released oil and gas companies from any need to go through California Environmental Quality Act (CEQA) until the EIR is completed. The DOGGR filed pleadings concurring with WSPA, stating that "the regulatory framework adopted in S.B. 4, including new provisions for well stimulation permits and for environmental review, render plaintiff's claims regarding the Department's alleged past pattern and practices for environmental review of hydraulic fracturing moot."

At a hearing on January 13, 2014, the Superior Court judge dismissed the lawsuit, giving the "regulations substantial deference." The judge stated that "S.B. 4 directs how the DOGGR must proceed regarding its environmental review of applications for hydraulic fracking, and that S.B. 4 is a comprehensive legislative solution that moots the claims in this case" by giving the DOGGR "clear directions to study fracking and to have regulations in place by 1/1/15." Any "challenge to DOGGR's policy or practice after 1/1/15 is not ripe for judicial review because the DOGGR has not yet completed its regulations."

***Center for Biological Diversity and Sierra Club v. The Bureau of Land Management and Sally Jewell, Secretary of the Department of the Interior*, No. 5:13-cv-01749 (N.D. Cal., April 18, 2013)**

The Center for Biological Diversity and the Sierra Club sued the Bureau of Land Management ("BLM"), claiming that the BLM violated the National Environmental Policy Act (NEPA) by leasing nearly 18,000 acres for oil and gas development without assessing the risks posed by hydraulic fracturing. As in Case No. 5:11-cv-06174, *Center for Biological Diversity v. The Bureau of Land Management, supra.*, the groups asserted that a detailed environmental impact study (EIS) was needed to investigate how potential hydraulic fracturing could affect the local groundwater and endangered species living in the area. They alleged that the BLM unreasonably and arbitrarily relied on an environmental assessment that only looked at the environmental impact of a single well on one acre of land, even though the lease covered almost 18,000 acres.

As a related case, this lawsuit was reassigned to the U.S. Magistrate Judge handling Case No. 5:11-cv-06174, *Center for Biological Diversity v. The Bureau of Land Management, supra*. On September 16, 2013, the parties advised the court that they had reached a tentative resolution and were initiating the approval process. One July 17, 2014, the court entered a stipulation of dismissal.

211 *See* http://legiscan.com/CA/bill/SB4/2013.

***Hughes, et al. v. Department of Environmental Quality*, Case No. 312902 (State of Michigan Court of Appeals, February 11, 2014)**

Several Michigan citizens and the group Ban Michigan Fracking questioned the Department of Environmental Quality (DEQ) about its definition of "injection well" in Mich. Admin. Code , R. 324.102(x), urging that the definition should include wells completed with hydraulic fracturing ("frack wells").

The DEQ responded by stating that "a frack well is not an injection well under Rule 324.102(x) because a frack well injects fluids for the 'initial stimulation' of oil and gas, whereas Rule 324.102(x) limits injection wells to wells that are used for disposal, storage, or secondary recovery of oil and gas."

The citizens and Ban Michigan Fracking then filed a declaratory judgment action, requesting that the definition of injection well include a frack well, thus making the regulations relating to injection wells applicable to frack wells.

On February 11, 2014, the Michigan Court of Appeals sided with the DEQ, stating that under the plain language of the rule, an "injection well is either a well used to dispose of . . . waste fluids or a well used to inject . . . fluids for the purpose of increasing the ultimate recovery of hydrocarbons from a reservoir or for the storage of hydrocarbons." According to the court, for a well to be categorized as an "injection well," it must be used for the purposes of recovering hydrocarbons before and after the injection of fluid.

The court continued: "[I]t is undisputed that the frack wells at issue are not used for the purpose of recovering hydrocarbons before the injection of fluid . . . [B]ecause a newly constructed frack well does not involve the continuing recovery of hydrocarbons, but rather the initial recovery of hydrocarbons when such recovery was nonexistent, the wells at issue here to not fall within the scope of the unambiguous language of Rule 324.102(x).

On March 3, 2014, a motion for reconsideration was filed, asking the court to resolve a separate part of the appeal which the opinion overlooked. The appellants indicated that the court's opinion did not adjudicate the "contention that a frack well is used to dispose of waste fluids." The motion was rejected.

***WildEarth Guardians v. United States Forest Service, United States Bureau of Land Management, et al.*, Case No. 2:14-cv-00349, (D. Utah, May 7, 2014)**

On May 7, 2014, WildEarth Guardians filed a complaint in the U.S. District Court, District of Utah, Central Division, against the U.S. Forest Service and the U.S. Bureau of Land Management, seeking to enjoin these agencies from approving oil and gas drilling in the Ashley National Forest, located in the Uinta Basin.

In a Record of Decision (ROD) based on a Final Environment Impact Statement (FEIS) and other documents, the Forest Service approved a 400-well project on February 12, 2012. This 400-well project on 162 well pads is being developed on 25,900 acres in the Ashley National Forest and will require the surface disturbance of 836 acres, 57 miles of new roads, 493 stripped acres for well pads, four four-acre compressor stations, and 87 miles of natural gas pipeline.

WildEarth Guardians argue that the Forest Service and the Bureau of Land Management "failed in their legal obligations to take a hard look at the impacts of the 400-well Project on sage grouse [considered to be a threatened and endangered species], roadless areas and air and water quality and[,] to prevent and mitigate the adverse consequences the project will have on these natural resource values." The agencies also allegedly failed to examine alternative actions that would allow development while still protecting sage grouse and roadless areas and while moving toward compliance with air and water quality standards.

The defendants filed a motion to dismiss almost immediately but the parties spent almost a year arguing the propriety of various intervenor plaintiffs and alternate defendants. A request for a preliminary injunction was finally filed on February 26, 2015, and set for a hearing on January 26, 2016. On February 1, 2016, the court ruled on the defendant's motion to dismiss. The government defendants argued that much of the Plaintiff's claims were barred by the 90-day statute of limitations contained in the relevant enabling statute. Specifically, that provisions states that no challenge may be brought contesting a decision of the Secretary involving an oil and gas lease unless the action is commenced within 90 days of the final decision of the Secretary. The court held that only one of the contested provisions actually challenged the terms of the leases. The others instead challenged the actions

of the Secretary in failing to attempt to impose additional environmental protections supplemental to the leases. Thus, the case moved forward largely intact.

The court entered a briefing schedule and case management order aiming to resolve the case in late 2016. Following a bankruptcy by one of the intervenors, Berry Petroleum, the case was rescheduled and briefing is ongoing as of publication.

Litigation involving conflict between mineral owners

***Allegheny Enterprises, Inc. v. Cohort Energy Company and J-W Operating Company*, Case No. 4:10-cv-02539 (M.D. Pennsylvania, Dec. 15, 2010)**

Allegheny Enterprises, Inc. ("Allegheny") owns the coal, shallow gas and oil and related rights under certain properties. In March 2008, Allegheny partially assigned its interest in the oil and gas 4,000 feet below the surface to Cohort Energy Company, who in turn contracted with J-W Operating Company ("J-W Operating") to develop the resources.

On February 17, 2010, Allegheny filed the necessary paperwork with the Pennsylvania Department of Environmental Protection ("DEP") to evidence its intent to develop and mine the coal located under a portion of the properties. On June 18, 2010, J-W Operating filed the necessary paperwork with the DEP to begin drilling on the properties. In its lawsuit filed in late 2010, Allegheny alleges that the location of J-W Operating's well will make it impossible for Allegheny to extract the coal valued at $941,570.

On March 5, 2014, the court ruled on the parties' motions for summary judgment, ordering J-W Operating to pay for the damages it caused when drilling through the site of a proposed Allegheny coal mine in an attempt to access a deep deposit of natural gas in a strata it had purchased the rights to. The court based this decision on its prediction "that the Pennsylvania Supreme Court would hold that an oil and gas lessee must compensate the owner of an above-located coal estate for otherwise useful coal rendered inaccessible by oil and gas drilling." Imposing liability on an oil and gas driller was seen as "beneficial from a public policy point of view . . . . If there is a tradeoff between using a given plot of land for producing coal on the one hand and oil and gas on the other, the court should encourage efficient use of the land."

The case was tried to the bench in November of 2014. The court permitted post-trial briefing which the parties filed up through the end of January, 2015. Then, in May of 2015, before the court had rendered its decision on the merits, the parties settled the case and the action was dismissed.

Litigation involving enforcement

***In Re U.S. Energy Development Corp.*, File No. 11-57 (New York Department of Environmental Conservation, filed Jan. 24, 2012)**

U.S. Energy Development Corporation ("EDC") is a privately owned oil and natural gas exploration and development company with oil and gas drilling operations in McKean County, Pennsylvania and in a watershed that contains Yeager Brook which flows into New York. The New York Department of Environmental Conservation ("NYDEC)" filed a complaint against EDC, seeking an order requiring EDC to pay $187,500 for water quality violations associated with fracking activities. These violations include contamination problems associated with poor storm water controls around the roads used to access the wells. NYDEC seeks the maximum penalty because of EDP's failure to comply with two previous consent orders from August and November 2010.

EDP filed a motion to dismiss the complaint, arguing that there was no subject matter jurisdiction because the Clean Water Act preempted the application of New York law to an out-of-state source of water pollution. On August 23, 2013, the Administrative Law Judge denied EDP's motion and also dismissed many of EDP's affirmative defenses, pointing to the fact that EDP made the business decision to settle with the NYDEC despite knowing of the federal preemption defense. Therefore, the Judge concluded that EDP voluntarily consented to New York's standards to resolve the claims.

Throughout 2014 and 2015, the parties disputed various discovery issues, especially those related to trade secrets and experts. The last reported activity on the matter was a further discovery order by the administrative law judge in February 2016.

Litigation challenging government regulations

***Independent Petroleum Association of America and U.S. Oil & Gas Association v. United States Environmental Protection Agency*, No. 10-1233 (D.C. Aug. 12, 2010)**

The Independent Petroleum Association of America and U.S. Oil & Gas Association ("Plaintiffs") filed this lawsuit against the U.S. Environmental Protection Agency ("EPA"), seeking review of a statement made on the EPA's website that any service company performing hydraulic fracturing using diesel fuel must receive prior authorization from the Underground Injection Control ("UIC") program and that injection wells using diesel fuel as a hydraulic fracturing additive are Class II wells under the UIC program.

The parties settled on February 23, 2012, when the EPA agreed to modify its online statement to read that "[a]ny service company that performs hydraulic fracturing using diesel fuel must receive prior authorization through a permit under the applicable UIC program. For more information on how the UIC regulations apply to hydraulic fracturing using diesel fuels, please see EPA's Guidance issued for public comment . . . ." It was agreed that another paragraph on the website would read: "State oil and gas agencies may have additional regulations for hydraulic fracturing. In addition, states or EPA have authority under the Clean Water Act to regulate discharge of produced waters from hydraulic fracturing operations." This lawsuit was voluntarily dismissed on May 10, 2012.

***Coalition for Responsible Growth and Resource Conservation, et al v. Federal Energy Regulatory Commission*, No. 12-566 (2nd Cir., Feb. 28, 2012)**

The Coalition for Responsible Growth and Resource Conservation, Damascus Citizens for Sustainability, and the Sierra Club ("Plaintiffs") sought to overturn the Federal Energy Regulatory Commission's ("FERC") approval of Central New York Oil and Gas Company LLC's proposal to construct and operate a 39 mile long pipeline with related facilities, including compressors, to transport gas from Pennsylvania's Marcellus Shale formation. Plaintiffs asserted that FERC did not properly consider the environmental impact and ecological damage that the pipeline would have on the areas where the pipeline would be constructed and operated.[212]

Plaintiffs petitioned the Second Circuit Court of Appeals to review FERC's order and to stay any pipeline construction pending a hearing. The Second Circuit denied the request for a stay but agreed to an expedited briefing and argument schedule for the Plaintiffs' petition for review. On June 12, 2012, the Second Circuit denied the petition for review, stating that FERC's 296-page environmental assessment thoroughly considered the issues and that FERC reasonably concluded that the cumulative impacts of development in the Marcellus Shale region were not sufficiently causally related to the project to warrant a more in-depth analysis.

Litigation challenging disclosure regulations

***Powder River Basin Resource Council, Wyoming Outdoor Council, Earthworks, and OMB Watch v. Wyoming Oil and Gas Conservation Commission*, Case No. 94650, In the Seventh Judicial District Court of the State of Wyoming, in and for the County of Natrona; March 22, 2012**

The four environmental group Plaintiffs in this lawsuit assert that the Wyoming Oil and Gas Conservation Commission has unlawfully withheld the identification of hydraulic fracturing chemicals used by various oil and gas producers, including Baker Hughes, BJ Services Company, CESI Chemical, Champion Technologies, Core Laboratories, Halliburton Energy Services, Inc., NALCO Company, SNF, Inc., and Weatherford International, under the trade secret exception of its disclosure rules. Plaintiffs complained that the oil and gas producers did not provide sufficient factual support to uphold their claim of trade secret and want all the chemicals publicly disclosed. Halliburton Energy Services, Inc., who intervened in this litigation, warned that uncovering the hydraulic fracturing formula could hamstring project development efforts in the state.

On March 21, 2013, the court ruled that the Commissioner "acted reasonably when he established a policy for evaluating trade secret requests and that policy is in accordance with the Wyoming Public Records Act"[213] and that the Plaintiffs failed to demonstrate that the Commissioner's "decisions to grant trade secret protection requests were arbitrary, capricious, or not in accordance with the law." Thus, the Commission's decision

212 The Pennsylvania Game Commissioner has described the area through which the pipeline would be built as undisturbed forest habitat "where the abundance and species richness of various area-sensitive forest bird species are among the highest in the state."

213 Wyoming's hydraulic fracturing disclosure rules require owners, operators or service companies to disclose to the Commission the chemical additives, compounds and concentrations or rates proposed to be mixed and injected. Wyo. Oil & Gas Comm'n Ch. 3, § 45 (d)-(f). The required information includes additive type, compound name and Chemical Abstract Service (CAS) numbers, and proposed rate or concentration for each additive. The Commission retains discretion to request the formulary disclosure for the chemical compounds. However, this formulary information only needs to be disclosed to the Commission and confidentiality protection shall be provided for trade secrets. Before granting trade secret exemptions, the Commission requires the party seeking the exemption to submit details of the chemicals whose identities they want to withhold, along with a cover letter justifying their trade secret position. The Commission staff then reviews the chemical information and the justification to ensure compliance with the disclosure rule and the Wyoming Public Records Act. If there is compliance, the Commission withholds the information.

to withhold the hydraulic fracturing formula information was upheld by the court. In its conclusion, the court expressed its awareness of the "important issues of public policy" implicated in the parties' positions. The Plaintiffs' position that the "identity of hydraulic fracturing chemicals is key to understanding the potential environmental and health impacts of hydraulic fracturing" and the Defendant's position that hydraulic fracturing has a positive economic impact on Wyoming and that disclosure would adversely affect the industry have "substantial merit, however the court feels these competing concerns are best addressed through legislative action, or further rule promulgation and are not properly within the court's purview."

On March 12, 2014, the Wyoming Supreme Court reversed and remanded the lawsuit for further proceedings, pointing to a "procedural flaw" and stating that "[b]ecause the district court reviewed the Commission Supervisor's decision under the [Wyoming Administrative Procedure Act], we must reverse and remand." The Wyoming Supreme Court found that, in their prayer for relief, the environmental groups "asked the district court to compel the Supervisor to show cause why its partial denial of their request for access to its records was lawful. However, no order to show cause [under the Wyoming Public Records Act (WPRA)] was ever issued, and . . . the district court never held a show-cause evidentiary hearing." The Wyoming Supreme Court directed the district court to determine whether it will allow the environmental groups "to amend their existing pleadings to request and issue an order to the Supervisor to show cause as to why the documents requested should not be produced, or dismiss the case, which will permit Appellants to file a new action."

"[U]nwilling to cast the district court adrift without some guidance on the standard to be applied . . ." and adopting the Freedom of Information Act standard, the Wyoming Supreme Court defined a trade secret under the WPRA as "a secret, commercially valuable plan, formula, process, or device that is used for the making, preparing, compounding, or processing of trade commodities and that can be said to be the end product of either innovation or substantial effort, with a direct relationship between the trade secret and the productive process." The district court is required to determine as a matter of fact based on evidence presented to it whether the information sought is a trade secret. The district was instructed to "review the disputed information on a case-by-case, record-by-record, or perhaps even on an operator-by-operator basis, applying the definition of trade secrets . . . and making the particularized findings which independently explain the basis of its ruling for each."

***Dr. Alfonso Rodriguez v. Michael L. Krancer, in his official capacity as Secretary of the Pennsylvania Department of Environmental Protection; Robert F. Powelson, in his official capacity as Chairman of the Public Utility Commission; and Linda L. Kelly, in her official capacity as Attorney General of the Commonwealth of Pennsylvania*, Case No. 3:12-cv-01458, (M.D. Pa. July 27, 2012**

On February 14, 2012, the Pennsylvania Governor signed into law Act 13 of 2012 which regulates the disclosure of hydraulic fracturing chemical components. Section 3222.1(b)(10) of the Act requires that companies engaged in hydraulic fracturing disclose information regarding chemicals used in the process to medical providers contingent on the medical provider agreeing to keep certain proprietary information confidential:

> A vendor, service company or operator shall identify the specific identity and amount of any chemicals claimed to be a trade secret or confidential proprietary information to any health professional who requests the information in writing if the health professional executes a confidentiality agreement and provides a written statement of need for the information indicating all of the following: (i) the information is needed for the purpose of diagnosis or treatment of an individual; (ii) the individual being diagnosed or treated may have been exposed to a hazardous chemical; and (iii) knowledge of information will assist in the diagnosis or treatment of an individual.

Section 3222.1(b)(11) imposes similar disclosure requirements on the oil and gas industry in emergency situations contingent on oral representations of the medical provider where it is not feasible to obtain immediate written agreement to Act 13's confidentiality provisions.

In his lawsuit, Dr. Alfonso Rodriguez ("Plaintiff"), a licensed medical physician "who has treated patients that have been exposed to toxic fluids and/or environmental contamination caused by oil and gas operations," complained that the "medical gag" provisions of Pennsylvania's Act 13 of 2012 improperly restricts his First Amendment freedom of speech rights. He argued that the "practice of medicine requires a free and open exchange of questions, answers and information between" the doctor and the patient, medical community, researchers and insurance companies, among others. Plaintiff sought an injunction from requiring him to sign any confidentiality agreement.

On October 23, 2013, the court granted Defendants' motions to dismiss, ruling that Plaintiff lacked standing because his

"alleged injury . . . is too conjectural to satisfy the injury in fact requirement of [U.S. Constitution] Article III standing." "Plaintiff has not alleged that he has been in a position where he was required to agree to any sort of confidentiality agreement under the act. Therefore . . . he has not yet . . . been prevented from engaging in any sort of communication as a result of the act. Similarly, Plaintiff has failed to indicate that he has been forced to waive any of his fundamental constitutional rights."

Litigation involving antitrust issues

***Cherry Canyon Resources, L.P. v. Halliburton Company, et al.*, Case No. 2:13-cv-00238, In the U.S. District Court for the Southern District of Texas, Corpus Christi Division**

On July 31, 2013, Cherry Canyon Resources, L.P. filed a federal class action lawsuit against Halliburton Co., Schlumberger Ltd., and Baker Hughes, Inc., claiming that these companies conspired to raise prices for hydraulic fracturing services and limit competition in the market for fracking pressure pumping services. According to the complaint, Cherry Canyon purchased pressure pumping services from one or more of the defendants who control approximately 60% of the North American market of fracking services. Cherry Canyon alleges that in 2011, after many new, small competitors entered the industry and threatened to drive down prices, these "Defendants colluded to restrict and manipulate supply in order to increase prices and market share toward their pre-entry 'boom year' levels." Cherry Canyon also alleged that these companies participated in "meetings, conversations and communications" where they agreed on prices and output, and later held similar meetings to enforce the illegal agreements.

This complaint was filed in the wake of confirmation by the Department of Justice that in May, Baker Hughes and Halliburton received civil investigative demands concerning an antitrust investigation regarding their pressure pumping services.

On October 15, 2013, the court signed a final judgment, dismissing the lawsuit without prejudice on the motion for voluntary dismissal filed by Cherry Canyon.

Litigation between operator and service company

***Cabot Oil & Gas Corp. v. Casedhole Solutions Inc., et al.*, Cause No. 2014-14786, In 127th Judicial District Court of Harris County, Texas, March 19, 2014**

On March 19, 2014, Cabot Oil & Gas Corporation ("Cabot") sued two oil and gas field service companies, alleging that they perforated the casing of a Pennsylvania gas well about 7,000 feet higher than what Cabot had ordered and concealed the discrepancy. Cabot contracted with Casedhole Solutions Inc. and Superior Well Services, Inc. ("Superior") to perforate a well in Susquehanna County, Pa., at three measured depths between 11,500 and 11,700 feet. Instead the service companies perforated the well at measured depths between 4,000 and 4,500 feet while advising Cabot that they had followed instructions.

Perforation of the production casing and the cement surrounding it was necessary to allow the flow of hydrocarbons from the well's targeted formation to the production casing in order to produce gas.

When Superior began hydraulic fracturing of the well, low fracture pressures indicated that the well might not have been perforated at the specified depths and that the fracturing fluid might have migrated into the wrong underground formation, requiring the well to be re-developed.

Cabot sought damages for delay in completion and production of the well and for the costs of remediation. Cabot brought claims of breach of contract, negligence, gross negligence, negligent misrepresentation, and fraud.

The parties conducted discovery, designated experts, and filed dispositive motions in late 2015. On December 18, 2015, the court rejected Cabot's motion for summary judgment. Throughout 2016 the parties continued discovery and prepared for trial. But on July 28, 2016, the Defendant advised the court that the matter must be stayed due to bankruptcy. However, in January of 2017, the parties agreed to modify the stay to allow the case to move forward. On September 21, 2017 the parties agreed to dismiss the action with prejudice.

Transport of shale oil by rail

With the volume of produced oil rising faster than can be moved by pipeline, companies have turned to alternate methods of transporting oil products to processing facilities. Oil and gas companies are using railroads and semi-trucks more and more to transport crude oil and drilling waste by-products away from the well site as well as to bring in chemicals, fluids, and other materials needed to drill and develop the resource.

Unsurprisingly, this increased volume has led to an increase in the number of oil-related accidents. Since April of 2013, there have been train derailments in western Minnesota, Baltimore, Pennsylvania, North Dakota,[214] Alabama,[215] and at three sites in Canada: Lac-Mégantic,[216] Gainfield,[217] and Landis.[218] And in the Lac-Mégantic crash, inspectors determined that the oil the train carried was more explosive than labeled.[219]

***In re: Montreal Maine & Atlantic Railroad Ltd.*, Case No. 1:13-mc-00194, In the U.S. District Court in Maine; In re: Montreal Maine & Atlantic Railroad Ltd., Case No. 1:13-bk-10670, In the U.S. Bankruptcy Court for the District of Maine**

Nineteen wrongful death lawsuits[220] from the July 2013 train derailment and explosion in Lac-Mégantic, Quebec, Canada were transferred from U.S. District Court in Illinois to the U.S. District Court in Maine (*In re: Montreal Maine & Atlantic Railroad Ltd.*, Case No. 1:13-mc-00194) on March 21, 2014. The Maine federal judge ordering the transfer found that these lawsuits were "related to" the Maine bankruptcy proceedings filed by Montreal Maine and Atlantic Railroad Ltd. (MMAR) in Maine (Bankruptcy Case No. 1:13-bk-10670, U.S. Bankruptcy Court for the District of Maine) one month after the accident. Presented with evidence of shared insurance between MMAR and some of the wrongful death defendants, the court made the "limited finding that claims against certain of the defendants named therein are related to the Railway's bankruptcy."

***Communities for A Better Environment, Asian Pacific Environmental Network, Sierra Club, and Natural Resources Defense Council v. Bay Area Air Quality Management District*, Case No. _____, In the Superior Court of the State of California, County of San Francisco**

On March 27, 2014, Earthjustice, on behalf of several environmental and conservation groups, filed a lawsuit against the Bay Area Air Quality Management LLC (BAAQM) for issuing a permit allowing North Dakotan Bakken crude oil to be transported to refineries in the San Francisco Bay area. The environmentalists argued that the BAAQM issued the permit without any notice or public process, without considering the "well-known and potentially catastrophic risk to public health and safety" as evidenced in the Lac-Mégantic, Québec train derailment in July 2013, and without complying with the requirements of the California Environmental Quality Act (CEQA).

The environmentalists contended that, in labeling the permit request as "ministerial," the BAAQM ignored "the risks of derailment and accidents, risks of explosions, increased release of toxic air pollutants, increased greenhouse gases from further train travel, and increased noxious odors." The groups asserted that these impacts from the issuance of the permit should have been publicly disclosed, analyzed and mitigated in an Environmental Impact Review (EIR). They pointed to the already-heavily polluted community where the rail yard is located and to California's inadequate and aged railroad infrastructure.

The environmental groups sought a declaratory judgment and a preliminary injunction to set aside the permit, to require full compliance with the CEQA, and to enjoin crude-by rail operations under the permit until an EIR is complete and subject to public scrutiny.

Without many disputed facts, the parties were able to file dispositive motions beginning on July 17, 2014. On September 19, 2014, the trial court granted the defendants motion for judgment and entered judgment accordingly. The

214 On December 30, 2013, there was a derailment of 21 tank cars in Casselton, North Dakota resulting in an explosion which required the evacuation of 1,400 people.
215 On November 8, 2013, there was a derailment of more than 20 cars in a 90-car petroleum crude oil train near Aliceville, Alabama.
216 In the early hours of July 6, 2013, a train carrying crude oil derailed in Lac-Mégantic, Quebec. The train, an unattended 72-car freight train, wrecked in the center of the small town, rupturing many of the tanker cars that were being hauled and creating a fire approximately 400 feet in diameter. Forty-seven people died in the explosion and fire. *See* http://www.theatlantic.com/infocus/2013/07/freight-train-derails-and-explodes-in-lac-megantic-quebec/100548/.
217 On October 19, 2013, 13 cars (9 carrying liquefied petroleum gas and 4 carrying crude) derailed in the accident in Gainford, Alberta, which happened at around 1 a.m. One rail car carrying liquefied petroleum gas exploded and three others caught fire. There were no injuries, but local authorities evacuated the area as a precaution. *See* http://www.reuters.com/article/2013/10/19/us-cnrailway-derailment-idUSBRE99I04820131019.
218 Seventeen cars derailed, one of which leaked lube oil. *See* http://www.reuters.com/article/2013/10/19/us-cnrailway-derailment-idUSBRE99I04820131019.
219 *See* "Safety Alert Relating to Flammability of North Dakota Bakken Crude Oil Transported by Rail" at http://fracking.nortonrosefulbright.com/2014/01/SafetyAlertRelatingToFlammabilityOfNorthDakotaBakkenCrudeOilTransportedByRail.html, and "Emergency Order Requires Testing and Classification of Crude Oil Transported by Rail, available at http://fracking.nortonrosefulbright.com/2014/02/EmergencyOrderRequiresTestingAndClassificationOfCrudeOilTransportedByRail.html.
220 For identification of the nineteen wrongful death lawsuits, *see* fn. 1 in the Order of the U.S. District Court of Maine dated March 21, 2014 in Case No. 1:13-mc-00184 [docket no. 100].

environmental groups appealed the loss but the appellate court sided with the Management District and affirmed the trial court's ruling awarding costs for the appeal against the environmental groups.

Settlements involving hydraulic fracturing and shale drilling

Settlement with Oil and Gas Corporation (related to *Fiorentino* case)

A settlement related to the *Fiorentino* matter was reported on December 16, 2010, when the Pennsylvania Department of Environmental Protection ("PDEP") announced a resolution of its action against Cabot Oil and Gas Corporation. The action by PDEP was related to claims that 19 resident families' water wells were allegedly affected by methane contamination as a result of nearby drilling activities. The families collectively were entitled to receive $4.1 million in compensation and other concessions, and a $500,000 penalty was to be paid to the PDEP. The settlement allows Cabot to continue its hydraulic fracturing operations, and the families were allowed to maintain their individual tort claims against the company, which allege claims for health and property damage.[221]

Settlement with Chesapeake Energy Corporation (related to *Armstrong* case)

Similarly, on May 17, 2011, the Pennsylvania Department of Environment Protection and Chesapeake Energy Corporation reached a settlement agreement relating to complaints of water contamination from the *Armstrong* plaintiffs[222] and others.[223] A joint review between Chesapeake and the PDEP to study possible natural gas drilling violations produced inconclusive results. Under the settlement, Chesapeake agreed to pay a $900,000 penalty for alleged contamination of the water supply and an additional $188,000 for violations regarding unrelated tank fires. Chesapeake may continue operations and drilling subject to obtaining approval from the PDEP for a condensate management plan for each well site.

Brockway Borough Municipal Authority Settlement

In another unique action, the Brockway Borough Municipal Authority ("Brockway") sued Flatiron Development Force, Inc. and New Growth Resources (collectively, "Defendants") in November 2010 in Pennsylvania State Court. Brockway owns reservoirs, groundwater wells, and surface rights in the watershed area for the purpose of providing drinking water to the Borough. The Defendants own the mineral rights and planned to clear timber from 23 acres in preparation for drilling activities. The Defendants also planned to construct a 10 million gallon impoundment to store resultant wastewater. Brockway requested an injunction against further site preparation or drilling, claiming that the Defendants did not have a proper easement for the drilling activities and that the activities constituted a public nuisance.[224]

After winning a temporary injunction, Brockway settled the case. The terms of settlement require the Defendants to provide drinking water to the Borough's residents within 24 hours if drilling activities pollute ground or surface waters. If groundwater is polluted, the Defendants must drill a new water well for the Borough within 45 days. If surface water is polluted, the Defendants must provide filtration systems to remedy the pollution. Additionally, the Defendant companies are prohibited from disposing of drill cuttings or other wastes on the property. Hydraulic fracturing fluids cannot be stored on-site, and the Defendants must maintain insurance policies to ensure that they can meet their financial obligations to the Borough if contamination occurs.[225]

Potential for shareholder litigation

Shale operators and other publicly traded companies involved in the production of shale gas and shale oil could also face the potential risk of private shareholder litigation arising from issues relating to reserve reporting, financial projections, or environmental issues.[226]

221 *See Fiorentino v. Cabot Oil, supra. See also Pennsylvania, Cabot reach settlement over methane contamination*, Greenwire (Dec. 16, 2010), *available at* http://www.eenews.net/Greenwire/2010/12/16/20/.

222 *See Armstrong v. Chesapeake Appalachia, LLC, et al., supra.*

223 *See Chesapeake Settles Pa. Water Pollution Claims for $1M*, Law360 (May 17, 2011), available at http://www.law360.com/energy/articles/245667?utm_source=newsletter&utm_medium=email&utm_campaign-energy (last visited June 3, 2011).

224 *See Municipal Authority Files Suit Over Drilling Activity,* McLean Publishing Co. (Nov. 24, 2010) *available at* http://www.thecourierexpress.com/courierexpresscourierexpresslocal/900518-349/municipal-authority-files-suit-over-drilling-activity.html (last visited Apr. 14, 2011).

225 *See Brockway Watershed Deal Reached*, McLean Publishing Co. (Jan. 21, 2011) *available at* http://www.thecourierexpress.com/courierexpresscourierexpresslocal/906223-349/brockway-watershed-deal-reached.html (last visited Apr. 14, 2011).

226 *See* Gerard G. Pecht and Peter A. Stokes, *Securities Litigation and Enforcement Risks for Shale Operators*, *Fulbright & Jaworski L.L.P.*.

Conclusion

As detailed above, hydraulic fracturing and shale drilling litigation has rapidly increased since 2009. While merely speculation, the rise in such litigation evidenced by the cases discussed may be attributed, at least in part, to increased drilling in proximity to populated areas and heightened media scrutiny of the process. With most cases in the early stages of litigation, it likely will be a number of years before they are resolved. It will be interesting to see whether courts ultimately address the issue of the alleged water contamination before the final results of pending environmental studies and congressional investigations.

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