The Fuss Over Fracking

An Examination of the Insurance Issues Associated with Hydro-Fracking

A Nelson Levine de Luca & Hamilton White Paper

Nelson Levine de Luca & Hamilton
Focused on the Business of Insurance℠

New York • Pennsylvania • Washington, DC • Ohio • New Jersey • North Carolina • London
www.nldhlaw.com

August 2013

TABLE OF CONTENTS

INTRODUCTION

Hydraulic fracturing, commonly referred to as "fracking," is a drilling process used to extract underground oil or natural gas trapped in hard to reach shale rock formations deep in the earth. The process involves well construction, acquisition of source water, well "stimulation" by hydraulic fracturing, and waste disposal. Recent advancements in drilling technology have made significant shale gas formations newly accessible for development. As a result, natural gas production in the United States is at its highest level in over 30 years.[1]

With the monumental increase in fracking activity in certain geographic regions, and the media and governmental attention focused on fracking's actual and perceived risks, it was only a matter of time before litigation ensued involving those engaged in such activity and those impacted by such activity. The current and anticipated litigation has and will continue to have bearing on the insurance industry, raising numerous coverage and liability issues.

To assist insurance companies in better understanding the potential risks related to fracking, this paper discusses the types of claims that the industry can expect from individuals and businesses, and suggests actions that insurers should consider when investigating, evaluating and handling these claims. In addition, insurance company recovery options with regard to both subrogation and reinsurance are also addressed.

I. OVERVIEW

A. What is Fracking?

Hydraulic fracturing is a part of a process used to extract gas from underground shale rock formations. The identified shale gas deposits throughout the United States are viewed by many as a means for relieving or reducing the nation's dependence on foreign energy sources.[2]

1. Process and Evolution

Early 19th century gas extraction in the U.S. involved accessing shallow deposits via simple wells drilled vertically into natural gas seeps.[3] The first field-scale extraction of shale gas began in the 1920s at Ohio Shale in Kentucky.[4]

The energy industry began using hydraulic fracturing in the early 20th century. Halliburton claims to be the first company to use the process commercially in 1947 to access natural gas at Hugoton Field in Kansas. It was not until 1992, however, that advances in horizontal drilling, combined with hydraulic fracturing, made large-scale shale gas production economically feasible.[5]

These advances made shale gas formations more accessible for development. The formations produce and trap natural gas in deep rocky layers. Shale is formed from clay particles located in tidal flats and deep water basins rich with organic matter such as algae, plant and animal debris.[6] This sediment solidifies into laminate layers resulting in rock with limited permeability.[7] These shale deposits are typically located between 1,000 feet and 13,500 feet beneath the earth's surface.[8]

a. Drilling Stage

Vertical downward drilling, followed by newly developed horizontal drilling, allow operators to access more shale gas than ever before using a single well. This horizontal drilling is visually depicted in Figure 1 below.

Operators use drilling fluids to clear the borehole and to lubricate and cool the drill bit. Lined retention pits are used to store fresh water for drilling and fracking. Pressurized air is increasingly used as a lower cost alternative to such drilling fluids when operating on lower pressure formations.[9]

After a well is drilled, operators line the well with layers of protective steel casing and cement to contain

1 United States Energy Information Administration (EIA), Natural Gas Monthly (June 2013), Table 1, U.S. Natural Gas Monthly Supply and Disposition Balance.

2 The most prominent shale gas deposits where fracking operations are currently taking place include the Bakken Shale in North Dakota, the Barnett Shale in Texas, Marcellus Shale in Pennsylvania (discussed further below), Raton Basin in Colorado, and Haynesville Shale in Louisiana.

3 Department of Energy, *Modern Shale Gas Development in the United States, A Primer* (April 2009), p. 13.

4 *Id.*

5 *Id.*

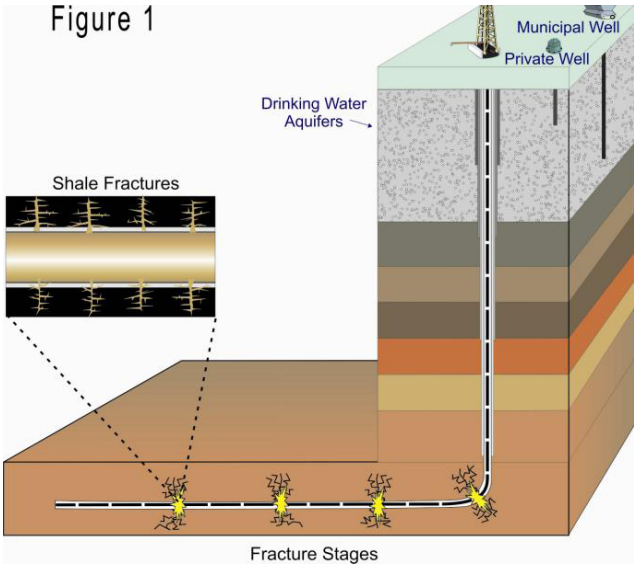
6 *Id. at* p.14.

7 *Id.*

8 *Id.*

9 *Id.* at p. 55.

the soon to be applied fracking fluids within the well and prevent contamination of underground water. This casing also supports the wellbore and prevents soil caving. The well is then pressure tested, followed by a perforation process in the region where the fracking fluids are to be injected.



Source: http://www.epa.gov/safewater/uic/pdfs/hfresearchstudyfs.pdf

b. Fracking Stage

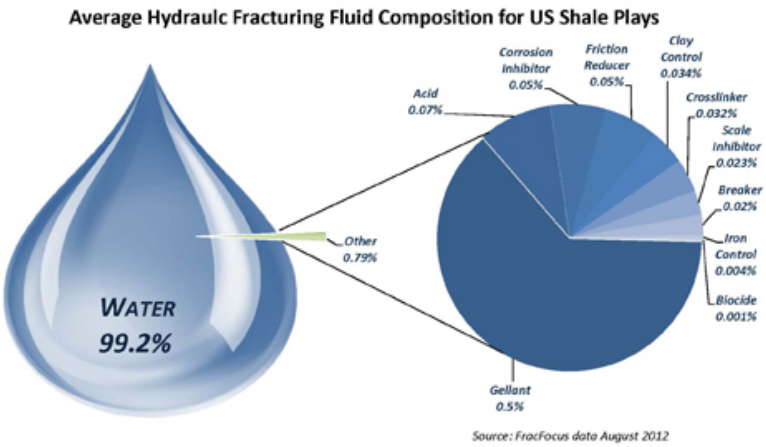
In the fracking stage, pressurized fluids made up of water and chemical additives are injected into the rock formation, opening or enlarging fractures in the rock.[10] Operators pump acid into the wellbore area to clean it. Then, a water based fracturing fluid with a friction reducing agent, also called "slickwater," is pumped into the well. Different companies use different proprietary fluids for this purpose. The involved companies have no existing legal duty to disclose the contents used in their fluid mixes.

Fracking fluids also contain sand or other materials (proppants) that enter the fractures to increase permeability and keep them open as the pressure is released.[11] Some of the applied fluids that return to the surface are contained. As a result, natural gas flows into the fractures for extraction.[12] The waste fluids are removed and stored in tanks, pits or underground wells; treated at a wastewater facility; or discharged into nearby surface water.

10 *Id.*
11 *Id.*
12 *Id.*

B. Fracking Fluid Components

There are opposing views as to the safety and composition of fracking fluid components. In 2010, pursuant to the request of the U.S. House of Representatives Committee on Energy and Commerce, 14 leading oil and gas service companies disclosed the chemical contents of their hydraulic fracturing fluids used from 2005-2009. A report summarizing the companies' data indicated that while some components, such as salt and citric acid, were harmless, other components contained toxins such as benzene and lead. The most widely used chemicals during this period included methanol (recognized as a hazardous air pollutant), isopropyl alcohol 2-butoxyethanol and ethylene glycol.[13] Benzene, toluene, xylene and ethylbenzene — each of which is classified as a regulated contaminant under the Safe Drinking Water Act and as a hazardous pollutant under the Clean Water Act (both of which are analyzed further in this paper) — were contained in 60 of the hydraulic fracturing products identified in the Minority Committee Report. The Committee further noted that while all of the responding companies supplied substantial information regarding the components of the fracking fluids they used, these companies did not identify certain components because they were proprietary. It was further noted in the report that fracking fluid additives vary according to the geographic region, drilling methodology and conditions. Typically, fracking fluid is comprised of the following components:

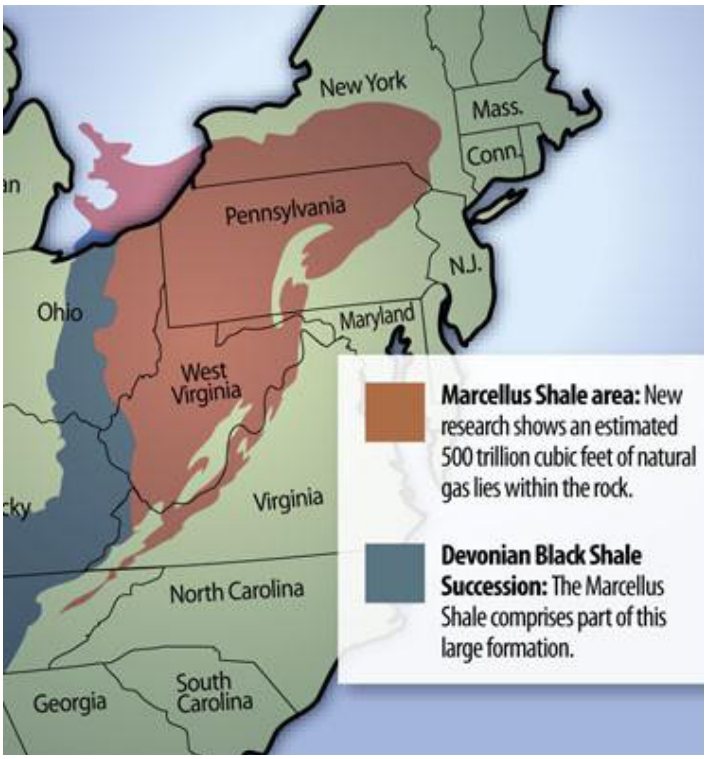


Source: ALL Consulting http://fracfocus.org/water-protection/drilling-usage

13 United States House of Representatives Committee on Energy and Commerce, Minority Staff April 2011, *Chemicals Used in Hydraulic Fracturing*. P.1.

C. Geography and Future Longevity

The Marcellus Shale formation is a unit of black shale that extends through much of the Appalachian Basin, including portions of New York, Ohio, Pennsylvania, Maryland and West Virginia. A report issued by Pennsylvania State University in July 2011 estimates that the Marcellus Shale formation will be the largest single gas field in the country, producing a quarter of the country's gas by 2020. The Marcellus Shale, depicted below as a portion of the Devonian Black Shale Succession, is only one of several formations being developed throughout the country. The economics of the energy sector suggest that large scale development of drilling operations using the hydraulic fracturing techniques is in the immediate future.

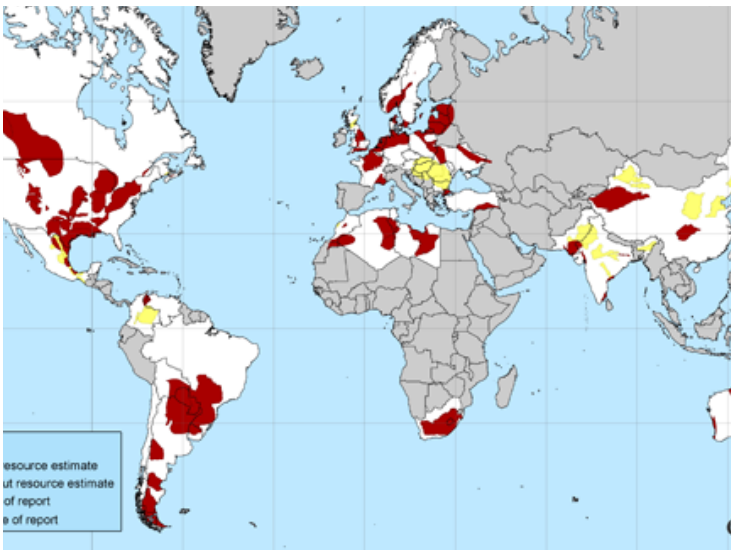


Source: http://www.bizjournals.com/buffalo/stories/2008/02/11/story2.html

The vast amount of domestic energy as well as the geographic location and size of these shale formations underlie much of the simmering controversy related to fracking. Drilling for such valuable resources is not taking place offshore or in some sparsely populated desert. It is happening on, around and under farmlands, rural and wooded communities, and watersheds of some major population centers. The interaction between these industrial endeavors and the residents and property owners in such communities forms the basis for much of the actual and potential conflict.

In 2012, the United States produced an estimated 24,063 *billion* cubic feet of natural gas.[14] In 2011, domestic shale production accounted for 30% of all U.S. natural gas production, and it is estimated to account for 56% by 2035.[15] The U.S. Energy Information Administration estimates that the United States, alone, has deposits sufficient to supply the domestic market for 110 years.[16] Simply, it is highly likely that fracking is and will continue to evolve as part of our natural energy program.

Shale gas production growth is also an international development. One study estimated that there are 5,760 trillion cubic feet of recoverable shale gas in 32 foreign countries, as depicted in Figure 3 below.[17]



Source: U.S. Energy Information Administration based on Advanced Resources International, Inc. data

14 U.S. EIA - www.eia.gov/naturalgas/annual/pdf/table_001.pdf
15 U.S. EIA - www.eia.doe.gov/todayinenergy/detail.cfm?id=811.
16 United States House of Representatives Committee on Energy and Commerce, Minority Staff, April 2011.
17 U.S. EIA - www.eia.doe.gov/todayinenergy/detail.cfm?id=811.

D. Regulation and Governmental Focus Arising from Public Concern

Fracking technology has increased shale gas development in geographic areas that were previously untouched by oil and gas production efforts. The expansion has, in turn, led to an increased, and sometimes heated, dialogue on the environmental and human health impacts of fracking.

The Safe Water Drinking Act of 1973 (SDWA) established the Underground Injection Control (UIC) program prohibiting "subsurface emplacement of fluids by well injection" that endangers underground drinking water. Nonetheless, the Environmental Protection Agency (EPA) concluded in 1996 that the **UIC did not apply to fracking**. In 1997, the United States Court of Appeals for the Eleventh Circuit overturned this EPA policy in response to a petition by Alabama citizens living near a coal bed methane operation.[18] In 2003, the EPA entered into a Memorandum of Agreement with the three largest providers of hydraulic fracturing fluids, with each provider agreeing to eliminate diesel fuel in fracking fluids for coal bed methane wells.[19]

FRACKING REGULATION TIMELINE

1996 - EPA concluded that the UIC did not apply to fracking.

1997 - The United States Court of Appeals for the Eleventh Circuit overturned this EPA policy.

2003 - The EPA entered into a Memorandum of Agreement with the three largest providers of hydraulic fracturing fluids.

2005 - Congress exempted hydraulic fracturing from the SDWA under the Energy Policy Act.

2010 - The EPA began to reassess the effect of hydraulic fracturing on drinking water.

2011 - The SEC entered into dialogue and began "asking" oil and gas companies to provide detailed fracking information, including chemicals.

2013 - The U.S. Environmental Protection Agency issued "significant new use rules" under the Toxic Substances Control Act for 15 chemical substances.

Two years later, **Congress exempted hydraulic fracturing from the SDWA** under the Energy Policy Act.[19] In doing so, gas companies were relieved from *any* obligation to disclose the chemicals used in the "fracking" process. Regulatory authority over fracking operations remained with the states. Initially, regulations specific to fracking were uncommon.

A bill addressing fracking is pending in the United States Congress (H.R.1921, entitled "the Fracturing Responsibility and Awareness of Chemicals Act of 2013"). The proposed act, originally introduced in 2008, includes provisions: (1) requiring companies to reveal the chemicals in their fluids and (2) repealing the exemption to the Safe Drinking Water Act noted above, while (3) maintaining certain protections for proprietary information.

In 2010, the EPA began to reassess the effect of hydraulic fracturing on drinking water. A plan was submitted to an EPA ad hoc committee, the Science Advisory Board on February 7, 2011. According to the EPA, the first progress report was released in December 2012. A final draft of the report is expected to be released for public comment and peer review in 2014.[20]

In August 2011, the Securities and Exchange Commission (SEC) entered into dialogue and began "asking" oil and gas companies to provide detailed fracking information, including chemicals used and

18 *Legal Environmental Assistance Foundation v. EPA*, 118 F.3d 146 (11th Cir. 1997) ("LEAF I") (holding that hydraulic fracturing constitutes "underground injection" under the SDWA) and *Legal Environmental Assistance Foundation v. EPA*, 276 F.3d 1253 (11th Cir. 2001) ("LEAF II") (holding that wells used for injection of fracking fluids must be regulated as Class II wells under UIC program).

19 The language added via the Energy Policy Act of 2005 included:
The term 'underground injection':
(A) means the subsurface emplacement of fluids by well injection; and (B) **excludes:**
(i) the underground injection of natural gas for purposes of storage; and (ii) the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas or geothermal production activities."
While the SDWA specifically excludes hydraulic fracturing from UIC regulation under SDWA §1421(d)(1), the use of diesel fuel during hydraulic fracturing is still regulated by the UIC program. Any service company that performs hydraulic fracturing using diesel fuel must receive prior authorization from the UIC program. Injection wells receiving diesel fuel as a hydraulic fracturing additive will be considered Class II wells by the UIC program. The UIC regulations can be found in Title 40 of the Code of Federal Regulations, Parts 144-48. State oil and gas agencies may have additional regulations for hydraulic fracturing. In addition, states and the EPA have authority under the Clean Water Act to regulate discharge of produced waters from hydraulic fracturing operations.

20 http://www2.epa.gov/hfstudy.com

efforts made to minimize environmental harm.[21] The SEC's interest in fracking was presented as ensuring that investors were being told about risks a company may face related to its operations, such as potential lawsuits, compliance costs, environmental liabilities, and other uncertainties, including production estimates. Oil and gas companies were "asked" to supply information confidentially to the SEC. It is uncertain what further steps the agency may take.

Much of the environmental and safety concerns arise from the fact that the increased fracking activity is in areas zoned as "residential" and "agricultural."

Some concerns focus on the potential contamination of local or individual water supplies by the chemical additives in the fluids and potential carcinogens as well as the long term effects of abandoned wells. Other concerns involve reports of surface spills of hydraulic fracturing fluid; methane contamination from improperly cased wells; pollutant discharges from wastewater treatment facilities affecting aquatic species in streams and rivers; and environmental effects of above ground infrastructure associated with the production.

In May 2013, the U.S. Environmental Protection Agency issued "significant new use rules" under the Toxic Substances Control Act for 15 chemical substances. This action requires persons who intend to manufacture, import, or process any of these 15 chemicals for an activity that is designated as a significant new use by this rule to notify EPA at least 90 days before commencing that activity. The required notification will provide EPA with the opportunity to evaluate the intended use and, if necessary, to prohibit or limit that activity before it occurs.[22]

Despite this rising public concern, industry experts state that fracking technology is safe and effective in the vast majority of cases. They assert that it will have an economic benefit on states where the drilling is occurring, and on the country as a whole through the promotion of an alternative to foreign fossil fuel. Government officials in many states where fracking activity is expanding have voiced their support of such expansion and its underlying safety.

The division of public opinion was clearly demonstrated when the New Jersey legislature passed a statutory ban on fracking in June 2011 (very little shale gas potentially exists in New Jersey); that same week, the Pennsylvania legislature sponsored bills *supporting* fracking development and the governor of New York advised that he supports lifting the state's temporary ban on fracking in certain parts of his state. In May 2012, Vermont became the first state to ban hydraulic fracturing within its borders.

Another source of controversy is the manner by which the natural resource companies gain access to the land. Companies are entering into land leases from property owners who typically have enough open or wooded acreage to install and utilize drilling facilities. Furthermore, the infrastructure required to bring drilling equipment, pumps and millions of gallons of water (for the fracking fluid) to such remote sites and move the gas extracted from the wells is considerable. Trees must be cleared; roads must be built; trucks must be used for the well construction and fracking process. This activity puts a strain on local roads and highways. Pipelines must be built across miles of land in order to transport the gas from locations.

As *60 Minutes* highlighted in a November 2010 piece entitled "Shale-ionaires,"[23] there are inherent conflicts between property owners who are being compensated for allowing industrial activities on their property, and their neighbors who do not receive compensation and feel their properties and communities are being adversely affected (whether by health, environmental or valuation risks). This disparity within the local communities has the obvious potential to add fuel to the conflict.

With the inevitable increase in fracking in multiple geographic regions, and the media and governmental attention being drawn to its actual and perceived risks, related litigation will continue to arise. This will continue to impact the insurance industry, raising a wide variety of coverage and liability issues.

21 "SEC Bears Down On Fracking," Wall Street Journal, August 24, 2011

22 https://www.federalregister.gov/articles/2013/05/09/2013-11061/significant-new-use-rules-on-certain-chemicalsubstances

23 http://www.cbsnews.com/video/watch/?id=7054210n

II. LIABILITY CLAIMS

Fracking-related litigation has commenced. The issues are somewhat similar to those raised in the toxic tort litigation of the 1990s. As with any commercial activity, fracking presents various liability and insurance coverage issues that could arise under a wide array of factual situations.

A. Homeowner/Resident Claims

1. Allegations, Causes of Action and Damages

Liability suits arising from or related to fracking have been filed in state and federal courts spanning Pennsylvania, Texas, Arkansas and elsewhere. Property owners who sold mineral rights and residents in production areas have brought civil claims against operators alleging damages under several factual scenarios.

Initially, these actions focused upon allegations of contamination of surrounding land, ground and surface water caused by faulty well-casings, improper drilling and/or the improper disposal of fracking fluids. These plaintiffs tend to live predominantly in rural areas with private water wells that they claim are being contaminated with fracking chemicals. Other plaintiffs have alleged that there are now high quantities of non-fluid substances in their wells, and that the fracking activity caused such substances, such as methane, to migrate into their wells.

Plaintiffs and their attorneys have pursued a variety of additional allegations of injury resulting from fracking. Plaintiffs have alleged that fracking has resulted in air pollution and excess noise, both with regard to the drilling process itself and to the compression stations used in fracking. A number of actions have been filed alleging that fracking activity has given rise to earthquakes, resulting in property damage. These cases may have resulted from recent scientific studies suggesting that fracking activity may cause earthquakes in areas that previously had no seismic activity. For example, the Oklahoma Geological Survey issued a study noting that increased fracking activity may have contributed to a number of small earthquakes in Oklahoma in January 2011.[24] This study has led to speculation that fracking may have been a contributing factor in a more significant, although far from severe, earthquake affecting Oklahoma in November 2011. In addition, researchers from the U.S. Geological Survey presented an abstract of a paper at an April 18, 2012 meeting of the Seismological Society of America which suggests that an increase in earthquakes may be caused by waste water from oil or gas drilling injected into the ground. While no study to date appears to have conclusively determined that hydraulic fracturing will directly lead to seismic activity, this has not discouraged plaintiffs from seeking to impose liability for earthquake damage upon entities engaged in fracking.

Other claims related to fracking include ground subsidence or sinkhole claims. In areas with limestone formation, it is easy to understand how such activities could lead to sinkhole allegations. In such areas, underground limestone may naturally dissolve by the circulation of water. Over time, this results in the formation of underground caverns and voids. As these spaces increase, a lack of support for above-ground land may result in sudden and dramatic collapses. Some believe that the voluminous quantity of fracking fluid used in hydraulic fracturing can have a similar effect.

Claims may also result from the pipelines required to transport gas extracted from the fracked wells. Pipeline leaks and other conceivable failures may affect local air, water and soil, damage property, sicken and/or kill livestock and cause bodily injury. The likelihood of such claims will increase as more wells are drilled and demand for pipeline and transportation infrastructure continues to expand.

These claims are particularly likely to arise given a number of recent high-profile incidents involving defective pipelines that caused property damage, significant injury and death. Although none of these incidents involved pipelines used in fracking operations, the media have focused attention upon the harm that may arise from their defects. Media reports have not only addressed the potential risk of such defects, but have also emphasized the lack of meaningful regulations with regard to many pipelines used in fracking activities, including pipelines used in the Marcellus Shale. In light of this media coverage, any accident involving the failure of pipelines used in fracking is likely to be followed by an onslaught of lawsuits filed on behalf of allegedly injured parties.

24 Austin Holland, "Examination of Possibly Induced Seismicity from Hydraulic Fracturing in the Oela Field, Garvin County, Oklahoma," Oklahoma Geological Survey, available at http://www.ogs.ou.edu/pubsscanned/openfile/OF1_2011.pdf.

In fracking litigation, causes of action are often asserted under state statutes such as Pennsylvania's Hazardous Sites Cleanup Act,[25] as well as common-law theories such as strict liability, negligence, private nuisance, physical trespass (usually based upon allegations that contaminated materials generated by fracking have infiltrated the plaintiff's property), medical monitoring, emotional distress, "inconvenience and discomfort" and negligence *per se*. Claims of strict liability have often been based on allegations that the drilling is an "ultra-hazardous" or "abnormally dangerous" activity. As discussed below, additional causes of action may be asserted in litigation regarding the allegedly improper extraction of natural gas pursuant to a lease entered into with the injured party.

Multiple theories of damage have also been claimed, including bodily injury, diminution in property values, breach of quiet enjoyment, loss of business, increased risk of disease and punitive damages. In addition to claims for monetary damages (including punitive damages and attorneys' fees), plaintiffs frequently seek injunctions to stop drilling activity and mandate remediation of alleged contamination.

While many of the lawsuits filed by purportedly injured property owners and residents have been individual in nature, a significant number of these suits have been presented as putative class actions. At least 10 such actions have been filed in recent years, particularly in the state of Arkansas. One such example of these lawsuits was *Tucker v. Southwestern Energy Co.*[26] The plaintiffs in *Tucker* claimed that fracking contaminated their water well with alpha methylstyrene, described in the complaint as a "flammable and poisonous component which is a known component of fracking fluids." The plaintiffs also contended that their soil, groundwater and air were contaminated by the defendants' fracking activities. In the complaint, the plaintiffs asserted causes of action for strict liability, negligence, nuisance and trespassing. The plaintiffs contended that they sustained damages that include loss of use and enjoyment of their property, "severe diminution" in property value, and "fear, shock, mental distress and physical harm." The complaint contained demands for $1 million in compensatory damages, $5 million in punitive damages, establishment of an environmental monitoring fund and creation of a medical monitoring fund. The case settled for an undisclosed sum.

Similar putative class actions have been filed regarding allegations that fracking has caused seismic activity[27] as well as claims that compression stations used in fracking generate excessive noise and noxious gases.[28] A putative class action filed in the District Court of Denver County, Colorado[29] on behalf of 1,000 property owners and 5,000 current or former residents of Battlement Mesa, Colorado raised allegations of air and water pollution purportedly resulting from fracking activity near the community. According to the complaint, such pollution resulted in acute health effects, such as nausea, insomnia, and eye and throat irritation.

Several lawsuits alleging mass torts have been filed on behalf of multiple plaintiffs said to have sustained injury from hydraulic fracturing. An example of a typical case is *Fiorentino v. Cabot Oil & Gas Corp.*,[30] which was brought by 63 current and former residents of the towns of Dimick and Montrose, Pennsylvania who executed leases regarding the extraction of natural gas from their properties. These plaintiffs contended that the lessee improperly conducted fracking and other natural gas production activities, resulting in the release of methane, natural gas and other toxins onto the plaintiffs' land and into their groundwater, resulting in fires and explosions. In addition to asserting the tort claims typically pled in fracking complaints (such as strict liability and negligence), claims of breach of contract and fraudulent misrepresentation were asserted with regard to the leases entered into by the plaintiffs.

Private civil litigation will often intersect with administrative proceedings of state government enforcement actions for fracking-related spills and blowouts. For example, Cabot Oil & Gas entered into a Consent Order and Settlement Agreement with the

25 35 P.S. § 6020.101 *et seq.* The Act provides that "[a] person who is responsible for a release or threatened release of a hazardous substance" is "strictly liable" for certain costs and damages, including "reasonable and necessary or appropriate costs of response incurred by any … person," and "[t]he cost of a health assessment or health care study." 35 P.S. § 6020.702(a)(3), (5).

26 *Tucker v. Southern Energy Co.*, 2012 WL 52853 (E.D. Ark. 2012)

27 *Lane v. BHP Billiton Petroleum (Arkansas) Inc.*, No. 1:11-cv-00047 (E.D. Ark.).

28 *Ginardi v. Frontier Gas Services, LLC*, 2012 WL 1377052 (E.D. Ark. 2012)

29 *Evenson v. Antero Resources Corp.*, No. 2011 CV 05118 (Colo. Distr. Ct.). The court dismissed the claims based on lack of jurisdiction.

30 No. 09-cv-2284 (M.D. Pa.).

Pennsylvania Department of Environmental Protection for contamination of local water supplies following one of the incidents referenced in *Fiorentino*. The Settlement Agreement required, among other things, that Cabot establish and finance escrow funds in the names of affected property owners in the area. According to filings by the *Fiorentino* plaintiffs, 22 plaintiffs who were offered escrow monies under this agreement rejected the money and appealed the Consent Order while maintaining the federal litigation.

2. Defenses

a. Causes of Action

Numerous and varied theories of liability have been asserted with regard to fracking lawsuits. Decisions pertaining to motions to dismiss offer some guidance on how courts may view certain causes of action typically asserted in fracking litigation.

aa. Strict Liability

Plaintiffs have alleged that fracking is an "ultra-hazardous" or "abnormally dangerous" activity, so as to impose strict liability for injuries resulting from fracking. Courts have held that while the storage and transmission of fuel has not been deemed an "ultra-hazardous" activity, this does not compel the same conclusion with regard to the drilling and operation of gas wells.[31] The *Fiorentino* Court noted that the determination of whether an activity may be deemed "ultra-hazardous" for purposes of applying strict liability requires consideration of factors such as the "existence of a high degree of risk of some harm to the person, land or chattels of others"; "likelihood that the harm that results from it will be great"; "inability to eliminate the risk by the exercise of reasonable care"; "extent to which the activity is not a matter of common usage"; "inappropriateness of the activity to the place where it is carried on"; and "extent to which its value to the community is outweighed by its dangerous attributes."[32] Based upon the need to consider these factors, the Court concluded that the question of whether fracking was an "ultra-hazardous" activity could not be considered at the pleading stage, but instead required a developed factual record.

A similar determination was reached by the United States District Court for the Middle District of Pennsylvania in *Berish v. Southwestern Energy Production Co.*[33] While concluding that the question of whether fracking was an "ultra-hazardous" activity could not be answered at the outset of litigation, the *Berish* court observed that this issue may present the plaintiffs with "difficulty … at the Summary Judgment stage," given the need to consider whether the activity is not a matter of "common usage," whether it is inappropriate to its location, and whether its "dangerous attributes" outweigh its value to the community.

While the question of whether hydraulic fracturing is an "abnormally dangerous" activity does not appear to have been addressed on the merits by any court, courts have addressed the more general question of whether the drilling and operation of natural gas wells may be deemed "abnormally dangerous." In *Williams v. Amoco Production Co.*,[34] the Kansas Supreme Court reversed a jury verdict that was based in part upon the determination that strict liability should be imposed for such activity. In doing so, the Court accepted the defendant's contention that "neither the operation of a gas well nor natural gas as a substance presents a high degree of risk of harm."[35] The Court also noted that as the drilling and operation of the wells occurred on "the largest known reservoir of natural gas in the world," the "drilling and operation of natural gas wells in this area is a common, accepted and natural use of the land."[36]

Of course, the recognition that the operation of a natural gas well is not an "abnormally dangerous" activity does not resolve the question of whether hydraulic fracturing may be deemed "abnormally dangerous" or "ultra-hazardous." However, as the *Berish* Court observed, such a characterization may be difficult to justify, in light of the fact that fracking has become a common manner of extracting natural gas from shale formation and has value to the community by contributing to the local economy as well as the nation's energy supply. Absent evidence demonstrating significant injuries likely to occur as a result of the fracking process, it may be quite difficult for plaintiffs to establish that strict liability should be imposed for

31 *Fiorentino v. Cabot Oil & Gas Corp.,* 750 F. Supp.2d 506, 512 (M.D. Pa. 2010).

32 *Id.* citing Restatement (Second) of Torts § 520.

33 *See, e.g., Berish v. Southwestern Energy Production Co.*, 763 F. Supp. 2d 702, 705 (M.D. Pa. 2011).

34 241 Kan. 102, 734 P.2d 1113 (1987).

35 *Williams*, 241 Kan. at 115, 734 P.2d at 1123.

36 *Id.*

fracking-related damage. In such a case, plaintiffs may be forced to focus upon the more challenging process of establishing that the particular fracking activity at issue was performed in a negligent or reckless manner.

ab. Trespass

Fracking cases frequently incorporate a cause of action for trespass, usually based upon allegations that hazardous materials generated during the fracking process migrated onto the plaintiff's property. The viability of such a claim was examined by the Texas Supreme Court in *FPL Farming Ltd. v. Environmental Processing Systems, L.C.,*[37] which concerned allegations that a defendant's fracking activities constituted trespass when wastewater injected into the defendant's land purportedly migrated into an adjacent property, contaminating the property's water supply. The defendant contended that the trespass claim was without merit, because the fracking was conducted pursuant to a permit issued by a Texas governmental agency under the authority of the state's Injection Well Act.[38]

In assessing the defendant's argument, the Court emphasized that the Act expressly stipulated that "[t]he fact that a person has a permit issued under [the Injection Well Act] does not relieve him from any civil liability."[39] The Court further noted that regulations enacted in support of the Act stipulate that "[t]he issuance of a permit does not authorize any injury to persons, or property or an invasion of other property rights, or any infringement of state or local laws or regulations."[40] As "the tort of trespass falls" within "invasion of property rights," the Court concluded that while the defendant "may have permission from [the agency] to inject authorized wastewater, but the consequences of acting under the permit have not been immunized."[41] The Court therefore reversed the Court of Appeals' determination that the agency's issuance of a fracking permit precluded a cause of action for trespass, although it did not reach the merits of the trespass claim.[42]

Whether fracking activity may support a cause of action for trespass depends upon the jurisdiction. In Texas, a trespass claim may be supported by any unauthorized entry on to property, regardless of whether the entry was intentional or merely negligent.[43] However, in observing that actionable trespass requires injury, the Texas Supreme Court held that damages for drainage by hydraulic fracturing are precluded by the rule of capture – a rule that gives a mineral rights owner title to the oil and gas produced from a lawful well bottomed on the property, even if the oil and gas flowed to the well from beneath another owner's tract.[44] A federal district court in West Virginia, on the other hand, opined that fracking activity under the land of a neighboring property without that party's consent is not protected by the rule of capture but, rather, constitutes an actionable trespass.[45] Pennsylvania courts have held that only intentional conduct may constitute an actionable trespass,[46] while rejecting an "anticipatory trespass" claim that was based on fracking activities.45 However, Pennsylvania has recognized a related cause of action for "inconvenience and discomfort" that is "caused by interference with another's peaceful possession of his or her real estate."[47] Courts have permitted such claims to proceed in cases challenging fracking activities.[48]

ac. Medical Monitoring

Fracking cases may involve plaintiffs who allege that the activity at issue has placed them at significant risk of physical injury, but have not manifested such an injury at the time of filing the complaint. This is particularly true with regard to putative class actions and mass tort claims involving numerous named or potential plaintiffs. While the absence of apparent bodily injury has certainly not discouraged litigants from pursuing claims based upon the mere risk of harm, courts have been reluctant to recognize the viability of such claims under traditional common law causes of action.[49]

---

37 351 S.W.3d 306 (Tex. Aug. 26, 2011).
38 Tex. Water Code § 27.001 *et seq.*
39 *FPL Farming*, 351 S.W. 3d at 312, citing Tex. Water Code § 27.104.
40 *Id.*
41 *Id. et. 313.*
42 *Id.* at 314-315.
43 *Watson v. Brazos Elec. Power Co-op, Inc.,* 918 S.W.2d 639, 645 (Tex. App.-Waco 1996).
44 *Coastal Oil & Gas Corp. v. Garza Energy Trust*, 268 S.W.3d 1 (Tex. 2008)]
45 *Stone v. Chesapeake Appalachia*, 2013 WL 2097397 (N.D.W.Va. 2013).
46 *Valley Forge Gardens, Inc. v. James D. Morrissey, Inc.*, 385 Pa. 477, 483-84, 123 A.2d 888, 891 (1956).
47 *Houston v. Texaco, Inc.*, 371 Pa. Super. 399, 408, 538 A.2d 502, 506 (1988).
48 *Berish, supra*, 763 F. Supp. 2d at 706.
49 *See id.* (dismissing cause of action for emotional distress asserting by plaintiff who did not raise allegations of current bodily injury).

The cause of action for "medical monitoring" has developed to address these concerns. Such a claim seeks to have the defendant pay for a program to periodically monitor plaintiffs for the purpose of diagnosing and treating the illness or illnesses that the plaintiffs are at risk of developing as a result of the fracking activities.

While medical monitoring has proven to be a controversial cause of action, a growing number of states have permitted such claims to move forward when supported by factual allegations similar to those raised in fracking cases. In *Fiorentino*, the court held that allegations that fracking exposed the plaintiffs to hazardous chemicals properly stated a claim for medical monitoring under the standards for such a claim under Pennsylvania law. The court held that the plaintiff could proceed upon proof of (1) "exposure greater than normal background levels"; (2) "to a proven hazardous substance"; (3) "caused by defendant's negligence"; (4) "as a proximate result of the exposure, plaintiff has a significantly increased risk of contracting a serious latent disease"; (5) "a monitoring procedure exists that makes the early detection of the disease possible"; (6) "the prescribed monitoring regime is different from that normally recommended in the absence of the exposure"; and (7) "the prescribed monitoring regime is reasonably necessary according to contemporary scientific principles."[50]

A 2011 decision by the United States Supreme Court may make it more difficult to obtain class certification for medical monitoring claims in federal courts. Plaintiffs have typically sought to certify an injunctive class under Federal Rule of Civil Procedure 23(b)(2) with regard to such claims, in order to avoid the need to satisfy the requirement for certification of a monetary class under Rule 23(b)(3) that common issues of fact or law predominate over issues individual to the class members. In *Wal-Mart Stores, Inc. v. Dukes*,[51] the Supreme Court emphasized that certification under Rule 23(b)(2) is only appropriate when "a single injunction or declaratory judgment would provide relief to each member of the class."[52] Based in part upon this holding, courts such as the United States Court of Appeals for the Third Circuit have recognized that certification of a medical monitoring class under Rule 23(b)(2) (as well as Rule 23(b)(3)) is improper due to the prevalence of individualized issues pertaining to individual claimants, particularly with regard to exposure to the substance or substances at issue.[53]

The difficulty of obtaining class certification may remove much of the incentive for pursuing medical monitoring claims. However, in the jurisdictions that have recognized such claims, it remains relatively simple to craft a complaint (at least on an individual basis) regarding fracking activities that satisfies these elements. The task of actually demonstrating a link between fracking activities and exposure to a "proven hazardous substance" may prove far more difficult.

b. Causation

At the present time, relatively few fracking cases have proceeded to the summary judgment stage or to trial. As a result, there is little caselaw offering guidance with regard to issues such as causation and challenges to expert opinions. As fracking litigation progresses, these are likely to be hotly contested issues. Most fracking complaints name several defendants, presumably operating in the same region. Courts are likely to require plaintiffs to establish (to a reasonable degree of certainty) that any particular injury was the result of a specific defendant's fracking operations. Thus, a plaintiff may be required to demonstrate a link between the presence of a particular chemical or other foreign substance in the atmosphere, water and/or land and a particular defendant's fracking activities.

This may prove difficult in three ways. First, if plaintiffs have no pre-existing water, air or land tests reflecting environmental conditions before the drilling activity took place, they may be limited in their ability to demonstrate a causal connection between the alleged contamination and the fracking operations at issue.

Establishing causation may be further complicated by the absence of available information regarding the components of fracking fluids. Federal law does not currently mandate disclosure of such information. A growing number of states do mandate such disclosures, and companies have become increasingly willing to voluntarily make such disclosures

50 *Fiorentino*, 750 F. Supp.2d at 513.
51 131 S. Ct. 2441 (2011),
52 *Id.* at 2557.
53 *Gates v. Rohm and Haas Co.*, 655 F.3d 255, 262-71 (3d Cir. 2011).

(whether legally required or not) in the interest of public relations. However, companies have been reluctant to disclose information regarding fracking fluid components deemed to be proprietary and these state laws and regulations typically do not require the disclosure of such information.

In many cases, such information may not be available to the gas exploration company itself. While the Occupational Health and Safety Administration requires chemical manufacturers to provide a Material Safety Data Sheet (MSDS) for every product they sell identifying hazardous materials that are contained in the product,[54] this regulation does not require manufacturers to disclose "the specific chemical identity, including the chemical name and other specific identification of a hazardous chemical," with regard to chemicals deemed to be "trade secrets."[55] Contentious discovery battles are certain to take place as plaintiffs seek to procure evidence regarding fracking fluid components that may often prove vital to establishing liability.

Second, with energy companies operating in close proximity on neighboring lands, it may prove a challenge to establish whether any defendant's fracking activities resulted in the contamination at issue. This causation issue may also be presented in cases where a plaintiff is required to establish that a particular defendant's fracking activities gave rise to seismic events, subsidence or collapse.

The "market share" theory may be relevant to this causation issue in some jurisdictions. New York has recognized this theory in certain product liability cases in which numerous entities manufactured a "fungible product" and "identification of the actual manufacturer that caused the injury to a particular plaintiff was impossible."[56] In these cases, liability is apportioned among the various manufacturers based upon their market share for the period in question. It remains to be seen whether and to what extent this theory will be applied to fracking litigation in which it is difficult or impossible to determine which of the many companies involved in fracking activities in the area was responsible for the injuries at issue.

It may also prove difficult to establish a causal link between the use of certain fracking fluids and the alleged contamination. Fracking fluids are not uniform in character. Rather, a wide range of formulations are produced by various manufacturers for use in different geological contexts. Contaminating substances may not even be present in the fluids used at particular wells. Causative proof may need to be based on multiple coordinated areas of scientific and expert evidence including chemistry, geology, hydrogeology, toxicology, industrial hygiene, epidemiology, engineering (material, safety, mining and chemical) and architecture.

In Colorado, at least, toxic tort plaintiffs do not have to establish their injuries or evidence of causation prior to discovery. In *Strudley v. Antero Resources Corp.*,[57] the plaintiffs asserted that exposure to chemicals related to gas production activities caused them to suffer various health problems. In May 2012, the trial court dismissed the case, holding that the plaintiffs failed to adequately link their claimed injuries to the alleged contamination. The plaintiffs were operating under what is known as a "Lone Pine" order, which required plaintiffs to detail their alleged injuries and show some evidence of causation prior to discovery. In July 2013, the Colorado Court of Appeals reversed that decision, ruling the "Lone Pine" orders are barred under state law.

In the future, state statutes and regulations may make it easier to establish a causal link between hydraulic fracturing and injuries. States, including Michigan, are considering legislation that would create a presumption of liability for groundwater contamination near a hydraulic fracturing well. Such legislation would establish that if chemicals used in fracking operations at a particular well are subsequently found in groundwater within the vicinity of the well, there is a rebuttable presumption that the contamination was caused by the fracking operations. As public concern over fracking continues to grow, the enactment of statutes and regulations imposing a rebuttable presumption of liability for fracking may become more likely, which may lead to a dramatic increase in the potential exposure as a result of fracking operations.

54 29 C.F.R. § 1910.1200(g)(1).

55 29 C.F.R. § 1910.1200(i)(1).

56 *Hamilton v. Beretta USA Corp.*, 96 N.Y.2d 222, 240, 750 N.E.2d 1055, 1067 (2001).

57 __P.3d __, 2013 WL 3427901 (Colo.App. July 3, 2013).

3. Contractual Issues

Many property owners entered into contracts for the use of their land and the removal of resources buried deep under the property. The wide variety of natural resource companies entering into such contracts (usually referred to as "leases" for gas and oil), and an equally wide variety of contracts used by each over the years prevents detailed discussion of the specific contractual provisions. At the same time, whenever a loss occurs in which an insured has entered into such a contract (whether the insured is a property owner, a natural resource company or an involved subcontractor), the contractual provisions should be reviewed to best understand how they may act to buttress a claim between the parties, or to limit such a claim.

Some contractual leases may contain provisions, which limit the liability and/or protect or indemnify the lessee (the natural resource company) for damages that arise from the drilling operations. Others may contain waivers of subrogation, whereby the lessee would be protected from claims from the property owners' carriers — to the extent covered losses occurred. These should be considered when evaluating any such liability claims.

Other contractual provisions may explicitly limit the liability, protect or indemnify a property owner from all damages arising from the drilling operations. There could be great disagreement about the legal ramifications of such a minimalistic clause in the face of a variety of losses. Some contracts provide more express promises of protection to lessors — and more opportunity for litigation. For example, *Fiorentino* includes a breach of contract action based upon allegations that the defendant breached a contractual provision in its gas leases stipulating that if its operations adversely affected the lessors' water supply, the defendant would take corrective action to return the water supply to pre-fracking conditions.

In addition, lessees who allege property damage from fracking activities are likely to assert claims of fraud, based upon the contention that they were not warned of the potential that such damage could result from fracking. The *Fiorentino* complaint incorporates a claim for fraudulent misrepresentation, based in part upon the contention that the lessor failed to disclose "risks to Plaintiffs' person and property as a result of the well drilling process, including the fact that fluids containing pollutants and hazardous substances used in the hydraulic fracturing process, as well as gas or gas components, could escape into their groundwater wells to their harm and detriment."

Therefore, the specific contractual language used in a lease with regard to fracking operations may not be fully dispositive of the claims ultimately asserted by a lessee against a lessor. Nevertheless, it is important to review any such lease documents when considering the strength or weakness of any liability claim.

4. Potential Defendants

Fracking lawsuits asserted by residents and/or property owners of affected areas have typically been brought against the natural gas drilling and exploration company that is spearheading the particular fracking operations. However, as the number of such lawsuits increase, claims are likely to be pursued against any and all entities involved in the fracking process. In a number of actions, contractors and subcontractors who participated in fracking operations have been named as defendants. Design professionals who assisted in the development of the fracking process at issue may likewise be named as parties. Litigation is also likely to be brought against the chemical companies who prepared components used in fracking fluids. It is also possible that property owners who leased land for hydraulic fracturing could be named as defendants, particularly if these owners have "deep pockets" and certain facts (such as the property owner's status as an absentee landlord) may support allegations that the lessor knew or should have known of the risks involved in the fracking activities.

As the issues unfold, it is evident that there is potential for a significant number of fracking lawsuits with regard to allegedly defective pipelines. These lawsuits are almost certain to name the manufacturers and installers of the defective pipelines as defendants. Other entities likely to be named as defendants include contractors who performed work related to

the installation of the pipelines (such as excavation); parties that performed maintenance and/or repair work on the pipelines; and energy companies that utilized these pipelines.

Lawsuits asserted by residents or property owners of allegedly affected areas have comprised the majority of the current fracking-related litigation. As fracking activities continue to accelerate, however, lawsuits are unlikely to be limited to claims by these parties. The sections below provide a brief analysis of additional types of lawsuits that have been filed with regard to hydraulic fracturing, and are likely to become more common as the hydraulic fracturing industry matures.

B. Worker Claims

Laborers hired to work at or near drilling sites have begun to file civil actions alleging injuries resulting from harmful chemical exposures. Such lawsuits are subject to the strict limits most states have imposed upon lawsuits against one's employer, pursuant to workers' compensation laws. To get around these limits, plaintiffs have alleged that operators *knowingly* used and hid harmful chemicals in proprietary mixtures and willfully subjected the workers to the exposure. Allegations of intentional or reckless conduct are not precluded by workers' compensation laws in many states.

Injured workers have also looked for opportunities to sue parties involved in fracking projects other than their employers. This is relatively simple if the injured worker was employed by a contractor or subcontractor retained by the energy company to assist in the project, thereby enabling the worker to sue the energy company. Even if the injured worker was employed directly by the energy company, other potential targets of litigation may exist, including the manufacturer of the fracking fluids as well as any other companies involved in the project.

In 2012, the Centers for Disease Control and Prevention (CDC) indicated that its research, conducted at various oil and gas sites in 2010 and 2011, revealed that some workers may be exposed to high amounts of silica and other chemicals during the hydraulic fracturing process. This potential risk may lead to an increase in workers' claims.

C. Business to Business Claims

Given the large number of businesses that may be involved in a fracking operation, it is foreseeable that there will be lawsuits between these entities. A power company recently filed suit against an engineering firm contracted to construct a fracking fluid treatment plant. After coming on-line, the metal piping and containers in the plant began to corrode and come apart, allegedly forcing the plant's closure for six months. The suit claimed that the engineering firm suggested treatment technologies that did not work, and asserted causes of action for breach of contract, negligence and negligent misrepresentation.

The consequences of negligent hydraulic fracturing work performed by a contractor or other professional on behalf of a natural gas drilling and exploration company are unlikely to be limited to business interruption or damage to the energy company's property. Such negligence is likely to result in significant liability exposure to the drilling company. Often, the plaintiffs allegedly injured by a fracking project may focus their attention upon the company supervising the project, rather than other entities that may have performed the allegedly sub-par work. This may prompt the drilling and exploration company to commence litigation against a purportedly negligent contractor, subcontractor, or other service provider for the purpose of seeking defense and indemnification for lawsuits resulting from the alleged negligence.

D. Government Suits

In addition to administrative enforcement actions, government entities are filing civil suits. New York Attorney General Eric Schneiderman filed suit before the Delaware River Basin Commission in March 2011 against the EPA for allegedly failing to conduct a scientific study as to the Marcellus Shale.

Maryland Attorney General Douglas Gansler issued a formal notice of intent to file suit against Chesapeake Energy Corp. (Chesapeake) for a spill, alleging that a well owned by Chesapeake released fracking fluids into Towanda Creek, a tributary of the Susquehanna River that supplies 45% of the water to the Chesapeake Bay. The May 2011 notice indicated that

the Attorney General would file a "citizen suit" seeking injunctive relief and civil penalties for contamination of the surface waters of Towanda Creek within 90 days. In June 2012, Chesapeake agreed to pay $500,000 for water quality monitoring.[58] The Maryland Attorney General's response reflects a renewed intent by state governments to recognize and challenge perceived improprieties during the fracking process.

Although the EPA previously concluded that the Safe Water Drinking Act did not apply to fracking, it has yet to finalize its fracking study, as it does not directly regulate fracking. Yet the EPA is still attempting to regulate fracking operators in the courts. The EPA filed a complaint in the United States District Court for the Northern District of Texas in early 2011 against an operator of two wells, seeking injunctive relief and civil penalties for an alleged failure to comply with an emergency order issued under the EPA's emergency powers pursuant to the SDWA. Under Section 1431 of the SDWA, the EPA may exercise emergency powers when it has information that a contaminant is present or likely to enter a public water system. 42 U.S.C.A. § 300(i).

In response, the well operator primarily argued that the EPA had to prove that the operator was liable for the contamination before EPA could invoke emergency enforcement powers. The court stayed the action because the EPA could not prove that the operator actually contaminated the wells at issue.[59]

E. First Responders

Explosions and other accidents during the fracking process may expose companies to liability not only from injured laborers, but also by fire, police and medical personnel who arrive on the scene to administer emergency services following the incident. As demonstrated by many of the first responders to Ground Zero following the September 11, 2001 terrorist attacks, even momentary exposure to high concentrations of hazardous materials may result in long-term health consequences (or allegations of same), leading to efforts to seek compensation from allegedly responsible parties.

F. Other Liability Suits

Dozens of fracking lawsuits are currently pending in states such as Pennsylvania, Texas, Arkansas and West Virginia. These suits involve homeowners, nearby residents, small drilling companies, component supplier companies, staffing companies and engineering firms as well as state and federal government entities. Substantially more litigation will follow in the coming years.

Despite the expected onslaught of fracking litigation, companies will not be discouraged from pursuing the vast economic benefits promised by fracking. Instead, these entities will rely upon their insurance carriers to provide defense and indemnification for these lawsuits. As liability issues related to fracking continue to unfold, it is likely that coverage issues, as those addressed in the following section, will be on the rise.

III. COVERAGE ISSUES

As the number of fracking-related claims rise, the need to recognize and analyze the insurance coverage issues associated with these claims becomes vitally important. The insurance industry is just beginning to address the myriad of coverage issues that arise out of the alleged losses due to fracking activities.[60] There have been no reported insurance coverage decisions,[61] but that is likely to change as more claims are filed. Set forth below are some of the more unique insurance coverage topics that will likely arise in connection with fracking claims.

58 http://www.oag.state.md.us/press/2012/061412.html

59 The case was subsequently dismissed by the parties without prejudice in March 2012.

60 Nationwide Insurance Company, for one, has chosen not to underwrite risks involved with hydraulic fracturing. http://huffingtonpost.com/2012/07/13/nationwide-insurance-fracking_n_1669775.html

61 In January 2013, ACE American Insurance Company settled an Ohio federal court lawsuit filed against it by an insured in what was considered the first fracking-related coverage litigation. http://www.businessinsurance.com/article/20130224/news07/302249990. The insured, a drilling company, sued ACE after the insurer denied coverage for a third-party claim involving drilling activities that allegedly contaminated a property owner's drinking well. http://www.claimsjournal.com/columns/burkes-law/2012/09/05/213109.htm
ACE claimed that the Energy Pollution Liability Extension Extension endorsement and the Underground Resources and Coverage endorsement on a commercial general liability policy issued to the driller were not triggered. *Id.*

A. First-Party Insurance Coverage Issues

1. Loss or Damage to Covered Property

A preliminary coverage issue presented by any claim submitted under a first-party property policy concerns ensuring that the claim actually falls within the scope of the particular grant of property insurance coverage. First-party fracking claims will likely implicate both personal lines and commercial policies. Personal lines and business policyholders could assert a wide variety of purported claims for actual property damage. In addition, certain types of claims may be dependent upon establishing the existence of physical loss or damage to covered property. Businesses may pursue claims for loss of business income, extra expense incurred or other time element losses that customarily require, as a threshold to coverage, actual physical loss or damage to insured property from a covered cause of loss. Similarly, homeowners could seek to recover for loss of use (or additional living expenses) incurred as a result of damage to insured property from a covered cause.

Property policies based on a common ISO insuring agreement may state that a carrier will afford insurance only for "direct physical loss of or damage to Covered Property at the premises described in the Declarations caused by or resulting from any Covered Cause of Loss." Other policy language may state that the insurance company insures "against risk of direct physical loss to property described," or require "sudden and accidental direct physical loss."[62] The wording of these types of provisions may raise several first-party coverage questions.

Under a typical insuring provision, property coverage is dependent upon the existence of direct physical loss or damage to covered property "**at the premises described in the Declarations**," as opposed to some unnamed, distant location not identified at all in the policy. Thus, first-party insurance coverage may be unavailable to the extent that the only claimed (or known) direct physical loss or damage that forms the basis of a particular fracking claim happened at some off-site location not otherwise insured under the policy at issue.[63]

Another important aspect of analyzing coverage for a first-party fracking claim may involve establishing that the alleged direct physical loss or damage occurred to property that is covered under the terms of the subject policy. In this regard, many property policies tend to define the term "property" or "covered property" (*i.e.* what "property" is covered under the policy) by simply listing several examples of physical, tangible objects deemed to be covered property, such as buildings, additions, tenant improvements, permanently installed equipment, personal property or business personal property.

Traditional property policies also impose significant limitations that could restrict the scope of insurance protection afforded for potential claims asserted for loss or damage allegedly caused by fracking. Many property policies generally define categories of objects that are not covered (within the terms of the insuring agreement), or are excluded, under the policy. In that regard, first-party property policies specify that **covered property usually does not include land or water** (which could include land that the insured's property is located). Such terms and conditions may operate to limit insurer liability for claims likely to result from fracking operations, precluding first-party property claimants, including homeowner and/or commercial or business claimants, from successfully obtaining coverage for claimed loss or damage that happened to underlying water sources, wells or water aquifers, or the geologic formations underlying their properties.

A related insurance issue concerns the basic coverage prerequisite that the insured establish that a covered peril caused "**direct physical loss of or damage**" to insured property. For example, as a result of fracking, insureds may submit environmental-related claims, contending that some pollutant, toxin or waste by-product somehow contaminated their property. Other claimants may contend that airborne particulate matter caused property damage, or that an odor has prevented the use and enjoyment of insured property. Depending upon the specific facts underlying the claim, it may be possible that the alleged contaminating substance at issue did not actually change the otherwise satisfactory physical properties, character or nature of any covered property by operation of some external event, nor "materially" decrease the insured's ability to use the

62 *See, e.g., Tinucci v. Allstate Ins. Co.,* 487 F. Supp. 2d 1058 (D. Minn. 2007) (water damage loss was not "abrupt and unexpected" so as to be "sudden and accidental").

63 *See, e.g., Haines v. Continental Ins. Co.,* 852 F. 2d 1289 (9th Cir. 1988) (interpreting the meaning of the term "premises").

property.[64] An insurer evaluating such claims, therefore, may need to address the legal concept whether or not "direct physical" loss or damage to property occurred for purposes of triggering first-party property coverage.

Any insurer presented with such a claim must be cognizant that the nature or degree of the alleged contamination or damage may rise to such a level that a court may consider the extent of the contamination to be the functional equivalent of physical loss or damage sufficient to enable an insured to tap into first-party insurance coverage. For instance, in a case involving a comprehensive, governmental response to remediate a released fracking pollutant, toxin or waste by-product, extensive remediation efforts may effectively constitute "direct physical" loss or damage to the adversely affected property.

2. Trigger of Coverage in First-Party Cases

Covered property loss or damage is a predicate to insurance indemnity under a first-party policy of insurance. The inherent nature of fracking presents unique coverage issues in the context of an insurance claim that involves latent, progressive or continuous **loss or damage that occurred during multiple or successive policy periods**. In a usual first-party insurance case, both the subject property damage as well as the insured's realization that covered property sustained damage, occurs virtually simultaneously — such as when lightning strikes a structure. Fracking activities present the potential for causing regular and/or uninterrupted loss or damage for an extended span of time (possibly years) before any insured recognizes or fully understands that damage has actually occurred to insured property.

There are several theoretical alternative methods or approaches to determine which one of multiple first-party policies must respond to cover continuous, progressive damage that had remained undiscovered for a prolonged period of time: (1) the property policy that was in effect when the loss or damage first commenced; (2) the property policy in effect when the loss or damage first manifested; or (3) any property policy in effect when any loss or damage occurred. By way of analogy, in the context of determining the scope of insurance coverage available to claimants in third-party progressive bodily injury insurance cases, courts have enumerated several rules, or approaches, using nomenclature such as manifestation, injury-in-fact, triple-trigger and/or continuous injury.

As a general rule, **courts usually apply a manifestation trigger of coverage to first-party property insurance cases** that involve continuing or progressively deteriorating unwanted damage to insured property. Under such an approach, an insured is considered to have sustained covered property damage during the policy term when the property damage became manifest.[65] Therefore, the date of the manifestation of the property damage at issue typically controls if a particular first-party policy otherwise affords coverage for claimed loss or damage. In addition, generally, the duty of a property insurer to indemnify **for the entire scope of the progressive loss or damage** (not otherwise excluded) falls on the insurer on the risk at the time of manifestation, as opposed to only that portion of the loss or damage discovered during the manifested policy period.

Most courts define the date of manifestation (i.e., when covered progressive property loss or damage is deemed to have occurred) as the date when the property damage first becomes apparent, appreciable, identifiable or capable of being recognized and understood by the insured. An insured's attempt to rely exclusively upon a claimed "subjective" date of discovery (i.e., when the insured actually discovered loss or damage) usually is not sufficient to enable an insured unilaterally to manipulate the manifestation date on which insurance coverage triggers under a first-party coverage grant.[66] Rather, an "objective" evaluation of the facts and circumstances known to the insured (and reasonably discoverable by the insured) plays a key role in establishing the appropriate manifestation date.[67] In any event, determining the date of manifestation presents a fact-intensive analysis unique to each claim.

64 *See, e.g., Universal Image Prod. v. Chubb Corp.,* 703 F. Supp. 2d 705, 709-11 (E.D. Mich. 2010).

65 *See, e.g., Flores v. Allstate Texas Lloyd's Co.,* 278 F. Supp. 2d 810, 815-16 (S.D. Tex. 2003); *Prudential-LMI Commercial Ins.,* 51 Cal. 3d 674, 274 Cal. Rptr. 387, 798 P. 2d 1230 (1990).

66 *See Flores,* 278 F. Supp. 2d at 816.

67 *See, e.g., United Nat'l Ins. Co. v. Best Truss Co.,* No. 09-22897-CIV, 2010 WL 5014012 (S.D. Fla. Dec. 3, 2010) (discussing the date of manifestation).

Establishing the trigger rule applicable to a first-party claim can significantly impact claim valuations. The manifestation rule affords insurers a strongly supportable argument to avoid liability when a latent, gradual loss first manifests prior to (or after) an insurer's effective policy period.[68] For example, a first-party property insurer after the date of initial manifestation of loss or damage may avoid coverage for a potential claim relating to a previously manifested loss, or possibly for any additional related loss or damage that may have continued into the carrier's policy period.

Generally speaking, property insurance is not intended to indemnify for loss that is ongoing and known to the insured, causing many courts to apply a manifestation trigger in first-party property insurance cases involving latent, protracted loss or damage. Depending upon the application of the law governing the resolution of any insurance contract dispute at issue, and the language of the policy at issue itself, insurance claims professionals must be aware that some jurisdictions use an approach similar to an injury-in-fact trigger of coverage in order to resolve first-party property trigger disputes.[69] In such cases, courts impose first-party property insurance coverage liability for actual, but undisclosed, loss or damage that occurred over a prolonged time span, regardless of when that loss or damage became manifest.

Overall, these "trigger" issues and the relevant factual circumstances must be carefully investigated and reviewed when undertaking any first-party coverage analysis.

3. Collapse Coverage

The principal methodology utilized by companies to extract natural gas through fracking may give rise to claims that the structural integrity of residential or commercial buildings has been adversely affected, and, in some cases, that structures collapsed or were at risk of collapse.

Categories of claimed "collapse" damage could include complaints as innocuous as minor cracks appearing in plaster of interior walls, the sinking or slanting of floors or ceilings, or the appearance of deformed trusses or joists. Other types of such damage could be as significant as cracks in concrete slabs, footings and foundations; leaning facades and walls gradually pulling away from buildings; or the breaking apart of load-bearing concrete support beams. First-party claims may involve an attempt by an insured to obtain coverage by arguing that these types of structural issues constitute a "collapse" or "partial collapse" to covered property, or that there is simply a "risk" of collapse.[70]

Determining whether a claimed property loss constitutes a "collapse" depends primarily upon two considerations: (1) the specific language of the policy at issue, including any language that actually attempts to define the term "collapse"; and (2) the specific approach adopted by the particular jurisdiction for defining this term.

Depending upon the particular language of the policy at issue, the term "collapse" can appear in property insurance policies in the context of either an exclusion, or as an insured peril (or a specified cause of loss). Some policies simply leave the term "collapse" undefined. Other policy forms may limit collapse coverage afforded (usually in the context of a grant of an "additional coverage") to collapse caused by specific enumerated causes of loss (*e.g.*, hidden decay or the use of defective construction materials). Although not universal, in recent years many carriers have attempted to limit collapse exposure by inserting provisions into policies that define "collapse" in a specific and narrow manner.[71] Consequently, fracking claims, in general, could implicate numerous, different policy formulations that afford, or exclude, collapse coverage.

Attempting to define the exact meaning and parameters of the term "collapse" is complicated by the fact that courts in various jurisdictions apply divergent approaches to define the word "collapse" for purposes of property insurance coverage.[72]

68 *See, e.g., Larkspur Isle Condo. Owners' Ass'n Inc.,* 31 Cal. App. 4th 106, 37 Cal. Rptr. 2d 3 (1994).

69 *Compare Ellis Court Apartments Ltd. P'ship v. State Farm Fire & Cas. Co.,* 117 Wash. App. 807, 812-16, 72 P. 3d 1086, 1089-91 (2003); *Kief Farmers Co-op Elevator Co. v. Farmland Mut. Ins. Co.,* 534 N.W. 2d 28 (N.D. 1995).

70 *401 Fourth St., Inc. v. Investors Ins. Group,* 583 Pa. 445, 456, 879 A.2d 166, 172 (2005) (focusing upon the meaning of the phrase "risk of direct physical loss involving collapse").

71 *See, e.g., Miller v. First Liberty Ins. Corp.,* Civil Action No. 07-1338, 2008 WL 2468 605, at *2 (E.D. Pa. June 17, 2008).

72 *Zoo Properties, LLP v. Midwest Family Mut. Ins. Co.,* 797 N.W. 2d 779, 780-82, (S.D. 2011); *Council Tower Ass'n v. Axis Specialty Ins. Co.,* No. 4:08 CV 1605 CDP, 2009 WL 3806 994 (E.D. Mo. Nov. 12, 2009), *aff'd,* 630 F. 3d 725 (8th Cir. 2011); Annotation, *what constitutes "collapse" of a building within coverage of property insurance policy,* 71 A.L.R. 3d 1072 (1976).

The traditional (and the most narrow and stringent) approach restricts the definition of collapse and essentially requires an actual and (for the most part) total collapse of at least some part of a covered structure. Holding that the meaning of the word collapse is plain and unambiguous, the courts adopting this approach generally mandate that the claimed collapse involve a sudden, relatively abrupt and/or instantaneous falling down, loss of shape or reduction into a flattened form of rubble. Under this conventional rule, a first-party fracking claim involving alleged damage to a building that was exhibited only in the form of some type of cosmetic damage, minor instability or insignificant weakened structural state would probably not lead to property insurance collapse coverage.

Other courts focus upon the degree of the alleged physical loss or damage, and the conclusion that the term "collapse" can be ambiguous, and interpret the term to include coverage for any substantial impairment of the structural integrity of covered property (which could include what policyholders increasingly refer to as "partial collapse"). This broader approach permits insurance coverage for alleged collapse damage that, although perhaps involving some degree of weakened structural integrity, does not necessarily threaten an immediate actual collapse.

Regardless of this, other courts acknowledge the existence of a middle ground, requiring that a collapse be impending, threatening or imminent as the predicate to coverage under a first-party property policy. Under this mode of evaluating first-party property insurance coverage for collapse, an amorphous possibility of some future substantial structural impairment should not trigger first-party insurance indemnity.

Remarkably, some property insurance policies contain an additional related coverage grant styled as **"sinkhole collapse,"** or **"sinkhole loss,"** affording protection for direct physical loss or damage due to a sudden collapse of the land supporting an insured structure, subject to excluded types or causes of loss.[73] In geographical locations where fracking is occurring most, sinkhole losses may result from the activity, and such coverage may be a factor presented by fracking claims. In turn, although policy language ultimately governs interpreting the meaning of "collapse," insurance professionals must always try to investigate the underlying mechanisms and causes of collapses (such as possibly sinkholes) to ensure that coverage under any collapse provision is fully considered.

4. Earth Movement Exclusions

Many personal lines and commercial first-party property insurance policies exclude coverage relating to causes of loss by earthquake, structural movement or earth movement. A typical ISO-based policy provision may include language that excludes categories of causes of loss such as "[e]arth sinking…, rising or shifting including soil conditions which cause settling, cracking or other disarrangement of foundations or other parts of realty." Other policies may define the excluded peril of earth movement as "any loss caused by, resulting from, contributed to or aggravated by earthquake; landslide; mudflow; earth sinking, rising or shifting; volcanic eruption…; unless direct loss by [specific enumerated causes of loss]."[74]

An important coverage issue presented by these types of exclusions concerns whether the earth movement at issue was caused by a natural, as opposed to a human, force because courts in different jurisdictions have held that such earth movement exclusions only preclude coverage for damage caused by natural earth movements, while others have not applied such restriction.

The intrinsic nature of fracking may adversely affect, at least to some degree, the strength and stability of the earth underlying insured structures. In turn, insureds may seek to assert a wide variety of claims for damages, such as cracks appearing on walls or foundations, allegedly resulting from any number of causes related to fracking activity. Such causes could include access road-resurfacing work, excavating activities, drilling vibration or the movement of an underlying rock formation due to the application or release of hydrostatic pressure through the use of liquid fracking materials.

Applying the terms of an earth movement exclusion set forth in a property insurance policy to a particular claim situation is not an exact science.

73 *Betz v. Erie Ins. Exch.,* 2008 Pa. Super. 221, 957 A. 2d 1244, 1251 (2008).

74 *Steele v. Statesman Ins. Co.,* 530 Pa. 190, 192, 607 A. 2d 742, 742 (1992).

Material differences in the language of earth movement exclusions are a critical factor in analyzing the effectiveness of any such exclusion. As noted above, one of the most critical aspects governing the operation of an earth movement exclusion concerns determining if the exclusion operates to apply to loss or damage caused not only by natural events, but also by man-made acts. Many courts have held that certain earth movement exclusions are ambiguous and, therefore, are limited to precluding coverage for loss or damage caused only by some natural happening or occurrence, as opposed to human doing.[75]

Courts holding that such exclusions do not apply to man-made earth movement forces generally find that the policy does not specify clearly that the exclusion applies to both types of forces, and in turn grants coverage.[76] Some policy exclusions define earth movement as "meaning earthquake, including land shock waves or tremors before, during or after a volcanic eruption; landslide; mine subsidence; mudflow; earth sinking, rising or shifting." Absent specific policy language to the contrary, courts have ruled that ambiguity exists regarding whether such an exclusion, which focuses on only natural causes of loss when identifying examples of excluded causes of loss, applied to natural forces as well as to human forces.[77] Courts have reached similar conclusions with respect to other types of related earth movement exclusions, including those involving loss or damage caused by "settling, cracking, shrinking or expansion."

On the other hand, some first-party polices set forth terms (commonly referred to as "lead-in" clauses or anti-concurrent causation provisions) that operate to clarify that claims arising out of earth movement (and/or other specified causes of loss) are barred regardless of whether any other cause or event, such as a human force, contributed to the loss. For example, some policies state that the insurance company will "not pay for LOSS caused directly or indirectly by any of the following [excluded causes of loss]; such LOSS is excluded regardless of any other cause or event that takes place at the same time or in any sequence to such LOSS…." Courts have held that this policy language is clear and unambiguous, and operates to exclude coverage caused directly or indirectly from an excluded event (regardless of whether a man-made force also played a role in causing the loss).[78]

Earth movement exclusions may present a formidable basis for an insurer to disclaim first-party liability for claimed loss or damage allegedly caused by fracking operations. The precise language of the earth movement exclusion at issue is an important factor. In attempting to apply such an exclusion, care must be taken in determining the correct scope of the particular exclusion based upon the language of the exclusion. In any such case, the retention of qualified experts will be essential in order to investigate the cause or causes of the claimed loss or damage, and to establish a factual basis to apply any such earth movement exclusion.

5. Pollution and Contamination Exclusions

The processes utilized to extract natural gas via fracking inherently involve the release of substances into the environment. Fracking companies inject water mixed with various compounds into underground shale formations in order to promote the extraction of natural gas from rock strata. Fracking also involves the use of similarly proprietary materials to assist with the drilling process at the surface. This manner of natural gas recovery creates a significant possibility that pollutants, chemicals and/or toxins will be released into the underground, surface and above-ground environment, and never fully recovered. The underground movement of rock formations and/or water sources may lead to the migration of pollutants, chemicals and waste, causing damage to adjoining or neighboring properties. In addition, the construction of both temporary and permanent natural gas pipelines and storage facilities presents the potential that hazardous substances otherwise safely contained may discharge into the environment through some catastrophic transport or storage event. Other claimants may complain about the alleged emission of hazardous solid, liquid or gaseous substances in the atmosphere.

It should be anticipated, in turn, that first-party property carriers will receive claims involving the loss

75 *Id.* at 193-94; 607 A. 2d Compare at 743; *see also Pioneer Tower Owners Ass'n v. State Farm Fire & Cas. Co.,* 12 N.Y. 3d 302, 307, 880 N.Y.S. 2d 885, 887-88, 908 N.E. 2d 875, 877-78 (2009).

76 *Fayad v. Clarendon Nat'l Ins. Co.,* 899 So. 2d 1082, 1088-90 (2005).

77 *Powell v. Liberty Mut. Fire Ins. Co.,* 127 Nev. 14, 252 P. 3d 668 (2011).

78 *Gillin v. Universal Underwriters Ins. Co.,* Civil Action No. 09-5855, 2011 WL 780744, at *6 (E.D. Pa. Mar. 4, 2011).

or damage resulting from environmental pollution and/or contamination, whether actual or merely perceived, alleged or feared. Given recent governmental efforts to study and/or to regulate the fracking industry, the distinct possibility exists that chemicals utilized in the fracking process may be considered as pollutants and/or contaminants.

As a general matter, with respect to first-party property insurance coverage, personal lines and commercial property insurance policies almost all uniformly include an exclusion for loss or damage caused by pollution, contamination or some combination of both. A first-party pollution exclusion usually states that the insurer does not pay for loss or damage caused directly or indirectly from the discharge, escape, mitigation or release of a pollutant or contaminant. However, some pollution exclusions included in first-party policies set forth an exception that affords coverage if the pollution was caused in the first instance by any one of a list of specified causes of loss (such as lightning or explosion). The language of a typical "contamination" exclusion may state that the insurance does not cover "loss or damage caused by or made worse by any kind of contamination of…property covered."[79] Any evaluation of a claim that implicates a pollution or contamination coverage issue should be carefully reviewed in light of the language set forth in the particular policy.

Given the numerous factual scenarios that could result in alleged property damage caused by fracking, it is difficult to predict how any particular pollution or contamination exclusion will apply to a multitude of loss scenarios. However, it is likely that pollution and contamination exclusions will operate to bar many first-party property damage claims associated with fracking for loss or damage as a result of contaminated property.

Attempting to define the meaning of policy terms such as "pollution" or "contamination" necessarily is contingent upon not only the facts underlying the subject loss, but also on the legal interpretation applied to the precise language of the exclusion. In particular, courts interpreting contamination exclusions, as well as some pollution exclusions, do not always provide clear guidelines regarding their scope, operation and effect, and in some instances have held some contamination exclusions to be ambiguous in cases in which airborne particulate matter caused alleged property damage.[80]

The application of a pollution exclusion can turn on several independent considerations. A threshold requirement involves determining if the alleged injury-causing substance is actually a "pollutant" or "contaminant" within the meaning of the subject policy language. This task usually involves an analysis of the nature of the alleged injury-causing substance or chemical at issue, recognizing that courts narrowly construe insurance policy exclusions, including pollution exclusions. Courts may interpret first-party pollution and contamination exclusions narrowly, requiring that insurers satisfy a high standard of proof to establish that a substance is in fact a pollutant or contaminant. In that regard, courts carefully scrutinize cases involving a substance or chemical that is highly regulated, even if that substance or chemical may also have significant legitimate personal or commercial uses.

In some instances, courts hold that the failure of a pollution exclusion to identify specifically a particular substance at issue (in a representative listing of pollutants set forth in the policy exclusion) is insufficient to trigger the exclusion in the absence of product reports, expert opinion or other source information.[81] On the other hand, many courts give pollution and contamination exclusions broad effect, and hold that such exclusions are clear and unambiguous. Irrespective of a jurisdiction's general findings in the past, establishing that any chemical or substance constitutes a pollutant or contaminant will likely require a substantial amount of analysis and input from proper experts. The analysis related to fracking will be further complicated by the fact that fracking fluids typically contain a mixture of chemicals that may arguably be considered "pollutants" and non-toxic materials, including water. Because of this, even if fracking fluids contain some materials that may be deemed "pollutants," this raises the question of whether these fluids contain these materials in such concentration that the fluids themselves may be deemed "pollutants."[82]

79 *Parks Real Estate Purchasing Group v. St. Paul Fire & Marine Ins. Co.,* 472 F. 3d 33, 37 (2d Cir. 2006).

80 *See, e.g., Parks Real Estate*, 472 F. 3d at 45 (court held that the term "contamination" was ambiguous); *Ocean Partners, LLC v. North River Ins. Co.,* 546 F. Supp. 2d 101, 111-15 (S.D.N.Y. 2008) (pollution exclusion was ambiguous).

81 *See, e.g., Whitmore v. Liberty Mut. Fire Ins. Co.,* Civil Action No. 07-5162, 2008 WL 4425227, at **3-6 (E.D.Pa. Sept. 30, 2008). (heating oil not a pollutant under homeowners' policy).

82 A related question is whether fracking fluid is a "product" under a CGL policy for purposes of products/completed operations coverage.

Another factor that may impact the application of a pollution exclusion to an alleged fracking loss involves the interpretation of the salient law that would govern any coverage dispute. In some cases, mostly in the context of third-party liability cases, courts have held that pollution exclusions were neither designed, nor intended, to exclude coverage for all instances in which a pollutant or contaminant allegedly caused loss or damage. Citing to the general purpose underlying the insurance industry's decision to draft and to use such exclusions (i.e., to exclude coverage as applied to traditional environmental polluters), some courts limit the effect of the exclusion so as to preclude coverage only in the context of traditional environmental pollution claims.[83] The industrial nature of the activities associated with fracking, such as using massive amounts of water and other chemicals for drilling and/or the transportation of natural gases extracted, suggests, but does not guarantee, that a traditional pollution exclusion should operate to bar coverage for many types of expected pollution damage claims resulting from fracking.

Regardless of the broad or narrow scope of the pollution exclusion as a bar to coverage, causation issues will also likely play a key role in evaluating exactly how to apply any pollution exclusion to a particular loss situation. For instance, establishing the identity of a claimed pollutant, as well as the source of any alleged pollutant or contaminant, is imperative and will usually compel the need for expert opinion. Likewise, other relevant causation issues could involve determining whether multiple pollutants and/or contaminants caused any one, single claim for damage, the timing of each release and the path of dispersion of any pollutant/contaminant.

Pollution and contamination exclusions afford a strong basis to preclude coverage for claimed environmental damage related to fracking since exclusions are unambiguous and enforceable in most circumstances. However, depending upon the facts developed and the terms and conditions of the policy at issue, one must be cognizant that pollution and contamination exclusions may not always operate as an absolute bar to coverage in every situation.

83 *See generally Scottsdale Indemnity Co. v. Village of Crestwood,* 784 F. Supp. 2d 988, 994-95 (N.D. Ill. 2011).

6. Causation/Concurrent Causation

Under first-party property policies, coverage is typically contingent upon loss or damage caused by a covered cause of loss or an insured peril. Many first-party insurance coverage claims involve loss or damage that arguably results from multiple causes. In those cases, significant coverage questions arise when a combination of both covered and non-covered perils operate, in some combination or sequence (or possibly simultaneously), to produce first-party loss or damage. In that regard, it becomes necessary to evaluate what portions of the loss or damage, if any, are covered under the property policy at issue.

Courts apply various nuanced approaches in order to resolve concurrent causation issues presented in the first-party property context. As a general rule, the two most common doctrines are: (1) concurrent causation and (2) efficient proximate causation. No unanimity exists as to an exact definition for each approach.

Distilled to its essence, the **concurrent causation approach**, utilized by a minority of courts, establishes first-party insurance indemnity coverage when any covered cause of loss, or insured risk, contributes to the claimed loss or damage, unless the cause of loss was too remote.[84]

Although some courts have used adjectives such as "leading," "predominant" or "dominant" forces to describe the **efficient proximate causation approach**, many courts characterize an efficient proximate cause of a first-party loss as "the risk that sets the others [causes of loss] in motion," focusing on the quality of the links in the chain of events that result in the claimed loss or damage.[85]

Consequently, depending upon the law of the jurisdiction governing the resolution of any coverage dispute, evaluating the nature, scope and extent of policyholder recovery may very well depend on whether the "cause" is a covered or excluded cause of loss. In response to the uncertainties that can be presented

84 *See, e.g., Davidson Hotel Co. v. St. Paul Fire & Marine Ins. Co.,* 136 F. Supp. 2d 901, 905-07 (W.D. Tenn. 2001) (discussion regarding concurrent causation).

85 *Murray v. State Farm Fire & Cas. Co.,* 203 W. Va. 477, 488, 509 S.E. 2d 1, 12 (1998).

in connection with applying causation concepts in first-party insurance cases, many insurers include "lead-in" clauses, or "anti-concurrent" language, in first-party property policies. These provisions strive to preclude coverage when both covered and non-covered perils operate in any combination or sequence to cause property loss or damage. Such provisions explain that coverage is not available for loss or damage caused by a specific list of perils, regardless of any other cause or event that contributes to the loss or damage in any sequence.[86]

It must be noted that not every jurisdiction enforces the terms of anti-concurrent causation provisions. In some cases, courts held that such provisions were ambiguous, or were contrary to statutory law requiring carriers to provide coverage for loss or damage proximately caused by a covered peril. Nevertheless, an overwhelming majority of courts, recognizing that such policy clauses are clear and unambiguous, enforce expansive anti-concurrent causation provisions as a means to preclude policyholder claims when a non-covered cause of loss combines with a covered peril.

In response to property damage claims arising out of fracking operations, insurers should evaluate claims carefully to determine if multiple causes acted to create the claimed loss or damage, one or more of which may be specifically excluded from the coverage afforded. Any number of scenarios could exist in which causes of loss typically excluded under first-party policies (including those noted above as well as others such as faulty workmanship, construction and design; deterioration; or settling, cracking, shrinking or expansion of foundations, floors or walls) combine with a covered peril to cause property damage. As with most of the prominent first-party coverage issues anticipated to arise out of fracking, analyzing causation involves a fact-intensive process, and often requires expert input. The facts of each claim, considered under different policy terms, and in different jurisdictions, may lead to vastly different coverage assessments.

86 *See, e.g., Tuepker v. State Farm Fire & Cas. Co.,* 507 F. 3d 346, 353-57 (5th Cir. 2007); *T.H.E. Ins. Co. v. Charles Boyer Children's Trust,* 455 F. Supp. 2d 284, 291-94 & 298 (M.D. Pa. 2006), *aff'd,* 269 F. App'x 220 (3d Cir. 2008).

7. Number of Occurrences

The maximum amount of indemnity coverage available under a first-party property insurance policy can be expressed through the use of various policy formulations. For the most part, property policies set an absolute upper limit of insurer liability by establishing a maximum dollar amount customarily stated in terms of a "limit of liability" or a "limit of insurance." Other property policies may quantify overall attainable indemnity through a provision stating that insurance liability for covered loss or damage is afforded on an "occurrence" or "per occurrence" dollar basis. By contrast, liability insurance policies almost always afford coverage on a per occurrence basis, although usually imposing a stated aggregate limit (pursuant to a policy term defining the word "occurrence"). In addition, property policies may apply deductibles to a covered loss based upon some type of occurrence calculation.

An insurer evaluating a claim for property damage associated with fracking should carefully consider the existence and the effect of any occurrence-based first-party policy language in attempting to determine the ultimate amount of insurance indemnity available for any given claim. In that regard, depending upon the language of the policy at issue in light of applicable law, the definition of the term "occurrence" may yield substantial variations as to the amount of indemnity obtainable to pay a covered, compensable claim. By way of analogy, the most recent, prolific instance of a first-party "number of occurrences" case arose in the context of the World Trade Center property insurance litigation, in which the parties disputed whether the destruction of the World Trade Center towers on September 11, 2001, constituted one versus two occurrences.[87]

The facts underlying any particular fracking claim will obviously impact a "number of occurrences" analysis. Many categories of acts or conduct could theoretically cause property damage as a result of fracking. Vibrations from the operation of a drilling rig located at a single site may cause alleged property damage at different times over the span of several separate days, followed by subsequent releases of toxic chemicals that allegedly cause damage to covered property. In such a case, policyholders and insurers may dispute whether all of the alleged damage

87 *See SR Int'l Bus. Ins. Co. Ltd. v. WTC Properties LLC,* 222 F. Supp. 2d 385 (S.D.N.Y. 2002), *aff'd,* 345 F. 3d 154 (2d Cir. 2003).

resulting from a single drilling site resulted from one occurrence, or from multiple occurrences that occurred over the span of several days, weeks or months — for purposes of determining policy limits or deductibles.

In addition to such factual underpinnings of any insurance claim, an important aspect of any such "occurrence" analysis relates to the jurisdiction's interpretation of the terms and conditions of the actual policy under which any claim has been made. Although some property policies fail to define the term "occurrence," other policies set forth somewhat specific, detailed definitions. However, the possibility remains that policy interpretation will be deemed necessary to arrive at the meaning of the policy term "occurrence" to determine the amount of liability limits or number of deductibles. In that regard, many courts (and, for the most part, courts considering third-party liability claims) apply tests using monikers that focus on a "cause," an "effect," or "unfortunate events."

It is important to note that only a limited number of reported cases address the meaning of the word "occurrence" specifically in the context of a first-party property insurance policy. Those courts, highlighting the differences between coverage provided under first-party and third-party liability policies (which involve different interests, both public and private), do not necessarily rely upon or apply simple "tests." Rather, courts often consider a case-by-case analysis of the issue while referencing traditional insurance contract principles.[88] Unfortunately, this limited and scattered first-party "occurrence" analysis makes predictability as to interpretations and application very difficult.

Claims arising out of fracking may involve multiple losses, or loss or damage that has occurred over a prolonged period of time. These types of claims may raise a "number of occurrences" issue that could have a significant dollar impact on claim valuation. The term "occurrence" may have different meanings in different insurance contexts, and, therefore, vary widely depending upon nuances in the policy language at issue, requiring a fact-specific inquiry in each such case. Very careful legal analysis, along with expert advice and consultation as to the factual bases of the claim, is necessary if such an issue arises.

88 *SR Int'l Bus. Ins. Co. Ltd. v. World Trade Ctr. Properties LLC,* No. 01 Civ. 9291 (JSM), 2002 WL 1163577, at **2-6 (S.D.N.Y. June 3, 2002), *aff'd,* 345 F. 3d 154, 186-190 (2d Cir. 2003).

B. Third-Party Insurance Coverage Issues

1. Insureds/Additional Insureds

Commercial operations associated with fracking foster the intersection of many industries and participants, including natural gas drilling and exploration companies, construction firms, design professionals, various subcontractors, and, of course, individuals who work for each one of those companies as employees or independent contractors. The interaction between enterprises involved in any fracking venture could present a variety of insurance coverage issues with respect to the identity of the persons or businesses actually entitled to defense or indemnification under a specific liability policy arising out of any given loss circumstance. Businesses may have entered into contracts with each other relating to the nature and scope of the tasks to be performed at a particular site that could impact liability insurance coverage afforded, such as: (1) contractual provisions requiring that one company maintain certain types of insurance, and name another company or companies involved in the project as an additional insured; or (2) written agreements containing hold-harmless provisions, in which the contracting parties attempt to allocate defense and indemnification with respect to various categories of claims, demands and/or causes of action.

Defining the exact parameters of general liability coverage afforded for any given claim may be dependent upon several policy provisions. Like all policies of insurance, general liability policies contain provisions identifying who is considered an "insured" or "named insured" (or, possibly, an "additional insured") under the policy, and, therefore, is entitled to defense and indemnification as stated and limited by the policy's terms and conditions. The language of liability insurance policy clauses defining "who is an insured" vary greatly, and can appear in pre-printed standard clauses, as well as in manuscripted "additional insured" policy endorsements. Therefore, when evaluating any third-party claim (or tender) it is imperative to determine, as a threshold inquiry, whether each person or entity seeking defense or indemnification under any liability coverage grant properly qualifies as an insured or additional insured under the policy at issue, consistent with the terms of any applicable indemnity agreement entered into by any putative insured.[89]

89 *See, e.g., Insurance Co. of the State of Pa. v. APAC-Southeast, Inc.,* 297 Ga. App. 553, 677 S.E. 2d 734 (2009).

2. Occurrence Requirement

Claimants are expected to assert a wide variety of third-party claims against companies involved in fracking operations seeking to recover for alleged "bodily injury" or "property damage." Bodily injury lawsuits could involve allegations that residents living or working near fracking drilling sites were exposed to toxic chemicals used during the process through airborne inhalation or the ingestion of contaminated water. Property damage suits could include breach of contract claims or allegations that some aspect of a fracking operation caused damage to residential dwellings, commercial structures and/or water sources. In such cases, insured defendants (as well as defendants seeking status as additional insureds) will turn to their liability insurance carriers for defense and/or indemnity with respect to such claims.

An initial evaluation of any third-party claim should include determining whether the claim falls within the applicable policy's insuring agreement (i.e., that the claimant has alleged injury or damage that was **caused by an occurrence)**.[90] In general, CGL policies, as well as other policies that afford a grant of liability coverage, offer coverage with respect to claims asserted against an insured for bodily injury or property damage caused by or resulting from an "occurrence." Standard CGL policies often define the term "occurrence" as "an accident, including continuous or repeated exposure to substantially the same general harmful conditions." However, most liability policies often do not define the word "accident" in any precise detail.

Courts apply various legal formulations to define what constitutes an "accident" by analyzing the alleged liability-producing conduct of the insured in order to establish whether the alleged conduct involved: (1) unforeseeable risks; (2) an event that occurred without the insured's foresight or expectation; (3) claimed injury or damage that was neither expected, nor intended, from the standpoint of the insured; or (4) intentional conduct, if the effect was not an intended or expected result. In addition, although not universal, some courts have recently held that breach of contract/warranty claims and causes of action based upon alleged defective workmanship do not constitute an "accident" within the meaning of CGL occurrence-based insuring agreements as a matter of law.[91] These decisions have often been based on determinations that the damages resulting from such contractual or defective workmanship claims were not "accidents."

Coverage (or, at least, the duty to defend) for third-party liability claims will depend, in large part, on comparing the underlying allegations asserted against the insured, and additional facts developed in discovery, against the terms of the CGL policy.[92] When analyzing a claim related to fracking, it is therefore imperative to evaluate any facts alleged or as further developed in discovery as to an underlying target defendant's particular knowledge or awareness as to the possibility of causing the subject injury or damage. Historically, courts tend to be more likely to find coverage for bodily injury claimants, as opposed to claimants that have sustained only property damage.

3. Trigger of Coverage in Third-Party Cases

Another threshold issue in analyzing third-party coverage afforded under a liability insurance policy is determining when coverage is "triggered," and if more than one policy is triggered.[93] Assuming that a particular claimant has successfully alleged an otherwise covered "bodily injury" or "property damage" claim, typical CGL insurance coverage applies only if the bodily injury or property damage "**occurs during the policy period**."[94] As with many insurance coverage issues, different courts address this inquiry in the third-party context in different ways.

When a third-party claim involves alleged injury or damage that happens or "occurs" at an easily recognized point in time, few, if any, questions arise in connection with determining when (i.e., during

90 *See AES Corp. v. Steadfast Ins. Co.,* 282 Va. 252, 715 S.E. 2d 28 (2011).

91 *Compare Lamar Homes, Inc. v. Mid-Continent Cas. Co.,* 242 S.W. 3d 1 (Tex. 2007) (faulty workmanship constituted an occurrence); *Meridian Mut. Ins. Co. v. James Gilligan Builders,* Civil Action No. 08-1995, 2009 WL 1704474, at *6 (E.D. Pa. June 18, 2009) (breach of contract and breach of warranty claims do not constitute an occurrence); *see also Specialty Surfaces Int'l, Inc. v. Continental Cas. Co.,* 609 F. 3d 223, 238-39 (3d Cir. 2010) (breach of warranty/faulty workmanship; no occurrence).

92 *See, e.g., USF Ins. Co. v. Orion Dev. RA XXX, LLC,* 756 F. Supp. 2d 749 (N.D. W.Va. 2010).

93 The involvement of multiple carriers insuring a single risk over a period of time is likely to create allocation issues.

94 *See, e.g., Don's Bldg. Supply, Inc. v. One Beacon Ins. Co.,* 267 S.W. 3d 20 (Tex. 2008).

what CGL policy period) the alleged injury or damage "occurred" for purposes of triggering coverage under a liability policy. Trigger of coverage becomes a much more complex subject, however, when bodily injury or property damage is gradual and potentially occurs over an extended period of time that spans multiple CGL policy periods. Compounding this important inquiry in the context of expected fracking claims is the presumed fact that bodily injury or property damage may go unnoticed and remain undiscovered for a substantial period of time before a claimant becomes aware of or comprehends the extent of any such injury or damage.

Thus a recurring issue likely to arise in the context of evaluating liability coverage for alleged injury and damage associated with fracking operations is the proper method for ascertaining the date of the occurrence of the bodily injury or property damage in circumstances involving ongoing and/or continuing injury or damage that was latent for any period of time. By way of example, an individual or group of individuals could contend that they sustained injury over an extended period of time due to unknown and unwelcome exposure to toxic chemical releases, requiring medical monitoring. As claims such as these arise, it may become extremely difficult to link and pinpoint alleged injury or damage to a single, isolated date. In addition, significant related issues may involve the inability to identify the correct tortfeasor (i.e., the source of the liability-producing conduct or event).

Courts apply several theories for determining the appropriate trigger of coverage that applies in the situation of latent or ongoing injury or damage, using phrases, terms and variables such as "manifestation," "exposure," "injury-in-fact," "continuous" and even "triple-trigger," in order to determine if bodily injury or property damage occurred during any particular effective policy period.[95] To the extent that trigger of coverage becomes a paramount consideration in any third-party claim arising out of fracking, as a general rule, the trigger approach adopted by a majority of courts is that coverage is triggered from the date of the first latent injury or damage, and continues to at least the date when the injury or damage first manifested itself. Because liability coverage is triggered by bodily injury or property damage that occurs during the policy period, courts considering third-party liability claims often note that the foregoing rule comports with the express terms of common liability or CGL policy language.

The foregoing discussion assumes that some actual, ongoing injury or damage occurred during an effective policy period. In some cases, there may be no new injury or damage that occurs after an initial policy period, or injury or damage may never have been corrected over a period of time that spans multiple policy periods. In other words, injury or damage in such cases took place during the initial policy period, but did not worsen. In that event, only the initial insurer on the risk would be responsible to afford coverage, as opposed to insurers who issued policies for subsequent, multiple policy periods.

Determining the appropriate trigger of coverage in third-party cases can drastically affect an insurer's defense and indemnity obligations. It should be noted that some courts have held that no injury or damage occurs under a CGL policy of insurance — and, therefore, no coverage is triggered — until bodily injury or property damage has become manifest or discoverable by the insured.[96] Other courts have held that, although the trigger of coverage applicable to bodily injury claims relates to the date of the occurrence of each instance of latent bodily injury, the trigger of coverage for a property damage claim relates to the date of the manifestation of the property damage.

As third-party claims relating to fracking develop, claims will likely result from the continuous exposure to harmful substances, chemicals and/or toxins used in the process. In evaluating these types of coverage claims, it is likely that courts will apply trigger of coverage theories adopted and relied upon over the years to address similar claims, such as asbestos and pollution coverage claims. However, applying trigger of coverage will be contingent upon the law of the applicable jurisdiction and the specific facts of each individual claimed loss scenario.

4. Known or Continuous Injury

Many CGL policies contain endorsements that preclude coverage for bodily injury or property damage of which the insured was aware prior to the policy inception date, based upon the traditional insurance coverage principle that an insured cannot insure against loss or damage that has already begun, and which is known by the insured. Generally speaking, this type of endorsement seeks to buttress the proposition that insurance policies do not grant indemnity coverage

95 *See, e.g., Inland Waters Pollution Control v. National Union Fire Ins. Co.,* 943 F. 2d 52 (6th Cir. 1991); *Morrow Corp. v. Harleysville Mut. Ins. Co.,* 110 F. Supp. 2d 444, 446-55 (E.D. Va. 2000).

96 *See, e.g., Appalachian Ins. Co. v. Liberty Mut. Ins. Co.,* 676 F. 2d 56, 61-63 (3d Cir. 1982).

for two related categories of losses: (1) known losses and (2) losses-in-progress. Given that a necessary element to applying any such endorsement focuses on establishing an insured's "knowledge," relying upon such an endorsement can become extremely fact-sensitive, and subject to proving an insured's subjective and individual knowledge regarding prior injury or damage that is the same or similar to the injury or damage underlying the claim asserted.

These types of endorsements are commonly referred to in the insurance industry as "Montrose endorsements."[97] These policy endorsements are also sometimes called "Exclusion-Known Loss and Loss in Progress" or "Known Injury or Damage." A Montrose endorsement generally contains language that embodies and imports the known loss and loss-in-progress doctrines into a typical CGL policy insuring agreement, and therefore operates to bar liability coverage if the insured had knowledge that the same or similar bodily injury or property damage that is the subject of a claim occurred (or began to occur) prior to the effective date of the policy period.

Although courts have not issued uniform decisions enforcing the desired effect of Montrose endorsements, and in many cases have construed such endorsements narrowly, the endorsement may provide a defense to coverage if the necessary factual basis exists.[98] Yet, establishing the nature, scope and extent of an insured's pre-policy "knowledge," or awareness, regarding bodily injury or property damage of the same (or similar) type that is at issue most often entails a fact-intensive undertaking that usually leads to disputed issues of fact in any subsequent coverage disagreement.

5. Expected or Intended

Policies of liability insurance often contain an exclusion that precludes coverage for bodily injury or property damage "expected or intended." In general, those policies do not specifically define the words "expected" or "intended." As a result, relying on this exclusion can lead to uncertainty. The outcome can turn on whether or not the insured "expected or intended" the resultant injury or damage under a legal rule that views the insured's acts pursuant to an objective standard, as opposed to a legal rule that utilizes more subjective standards.[99] An objective standard would focus on whether a reasonable insured should have known that the injury or damage at issue would have resulted from the insured's conduct. In contrast, a subjective standard requires evidence that the insured actually expected or intended the consequent injury or damage.

With respect to fracking, claimants may contend that drilling companies or contractors "knew" that their conduct would cause others bodily injury or property damage. However, it is likely that the exact "injury" or "damage" that actually occurred would not necessarily be viewed as having been "intended." In any attempt to disclaim coverage for "bodily injury" or "property damage" that is "expected or intended from the standpoint of the insured," developing a detailed factual record will be necessary to answer questions pertaining to the insured's knowledge of the potential risks and hazards of the insured's conduct that led to the injury/damage.

It should be emphasized that some courts recognize that these types of exclusions apply only in the context of established intentional conduct by the policyholder, rather than in situations in which the insured's conduct was negligent (or even grossly negligent), and when the insured specifically intended to cause the claimed, resultant injury or damage.[100] Under these circumstances, it may be difficult for any insurer to disclaim coverage by relying upon such an exclusion prior to developing an extensive and compelling factual basis with respect to the insured's objective knowledge of the adverse risks associated with the alleged liability-producing conduct at issue.

6. Total or Absolute Pollution Exclusion

Most general liability policies of insurance contain an exclusion that is typically known as a "total" or "absolute" pollution exclusion. A primary difference between a "total" and an "absolute" pollution exclusion is that a "total" exclusion generally contains an exception

97 *See Montrose Chemical Corp. v. Admiral Ins. Co.,* 10 Cal. 4th 645, 42 Cal. Rptr. 2d 324, 913 P.2d 878 (1995).

98 *See, e.g., Travelers Cas. & Sur. Co. v. Dormitory Auth.,* 732 F. Supp. 2d 347 (S.D.N.Y. 2010); *HSB Group, Inc. v. SVB Underwriting, Ltd.,* 664 F. Supp. 2d 158, 182-84 (D. Conn. 2009); *Essex Ins. Co. v. H&H Land Dev. Corp.,* 525 F. Supp. 2d 1344 (M.D. Ga. 2007) (fact issues existed regarding application of a "known loss" exclusion).

99 *See Royal Indemnity Co. v. Soneco/Northeastern, Inc.,* 183 F. Supp. 2d 526 (D. Conn. 2002).

100 *Delta & Pine Land Co. v. Nationwide Agribusiness Ins. Co.,* 530 F. 3d 395, 402 (5th Cir. 2008).

that provides coverage for pollution arising from certain specified perils. In general, these types of pollution exclusions state that the insurance does not apply to any injury or damage that would not have occurred but for the discharge or escape of a pollutant at any time.

Pollution exclusions may serve as a significant basis to bar coverage for claims arising out of activities undertaken in connection with fracking. However, the application and effect of any pollution exclusion will depend upon the facts and circumstances surrounding each claim, as well as the law of the jurisdiction that applies to determine coverage matters. The precise contours of any such exclusion will vary from state-to-state, requiring careful consideration in connection with evaluating how to apply the exclusion to any third-party liability insurance claim asserted against a policyholder.[101]

It will be critical, when analyzing the application of such an exclusion, to determine whether the alleged substance believed to have caused injury or damage is in fact a "pollutant" within the meaning of the policy exclusion.[102] Liability policies generally set forth a provision that defines the term "pollutant," however, many of those definitions simply outline the meaning of that policy term by listing representative, nonspecific words such as an "irritant," "contaminant," "chemical" or "waste." As a result, many courts have reviewed dictionary definitions and statutory or regulatory enactments to arrive at a determination regarding whether the substance at issue constitutes a "pollutant."[103]

A third-party fracking claim could encompass an instance in which an unintended release of some naturally occurring substance happens, such as a release of water into an underground rock formation (causing property damage to an adjoining landowner) or an escape of methane into the air (causing bodily injury through inhalation). Insureds would most likely assert that a natural substance should never be considered a "pollutant" for purposes of liability coverage. Nevertheless, the alleged liability-producing act may have materially altered the concentration of the natural substance, or enabled that substance to migrate to a new location, thereby causing a release of a "pollutant" for purposes of applying the exclusion.

Given the expected large number of drilling operations that may occur in or near a localized affected area, causation issues may also arise as a case-determinative factor in applying any pollution exclusion. In that regard, qualified expert opinions will most likely be necessary to establish the actual nature, source and migration of any alleged "pollutant."

7. Contractual Liability Exclusion

Business opportunities arising in connection with fracking can involve many participants aside from those companies actually engaged in drilling to extract natural gas. Commercial entities, such as contractors and subcontractors, provide related products and services that support this thriving trade. Recognizing the potential for liability exposure, it is highly likely that these business organizations and individuals will enter into written agreements that attempt to delineate certain rights and responsibilities within their business relationships as well as to allocate risk between the parties relative to the contract. The same is true for property owners that lease their land and resource rights to the drilling companies.

Written agreements will often include two types of contractual duties that can impact directly upon an insurer's evaluation of defense and/or indemnity obligations owed under a liability insurance contract: (1) one contracting party may undertake an obligation to obtain insurance that affords liability coverage for another party, or to name the other party as an additional insured under a liability policy of insurance already purchased; and/or (2) one contracting party may agree to assume some aspect of the liability of another party or parties, arising out of work or services performed in connection with the contract. This second category of contract is commonly referred to as a "hold harmless" or "indemnity" agreement (whereby one party agrees to defend and/or

101 *See, e.g., NGM Ins. Co. v. Carolina's Power Wash & Painting, LLC,* Civil No. 2:08-cv-3378-DCN, 2010 WL 146482, at *4 (D.S.C. Jan. 12, 2010), *aff'd,* 407 F. App'x 653 (4th Cir. 2011) (noting the existence of a nationwide split of opinion concerning the application of absolute pollution exclusions as a bar to coverage for incidents outside of traditional environmental pollution).

102 *Whittier Properties, Inc. v. Alaska Nat'l Ins. Co.,* 185 P. 3d 84 (Alaska 2008) (gasoline); *Reed v. Auto-Owners Ins. Co.,* 284 Ga. 286, 667 S.E. 2d 90 (2008) (carbon monoxide); *City of Chesapeake v. States Self-Insurers Risk Retention Group, Inc.,* 271 Va. 574, 628 S.E. 2d 539 (2006).

103 *Builders Mut. Ins. Co. v. Parallel Design & Dev. LLC,* 785 F. Supp. 2d 535, 547 (E.D. Va. 2011).

to indemnify another business or individual with respect to some specified third-party liability).

The second of these two types of underlying contractual obligations presents critical considerations when evaluating a claim made under a standard liability policy. Typical CGL policies of insurance contain a "contractual liability exclusion," that precludes coverage for liability for injury or damage assumed by an insured pursuant to such "hold harmless" or "indemnity" contracts or agreements.[104] An underlying rationale for including this type of exclusion in a liability policy relates to the carrier's inability to evaluate, underwrite, and charge a premium for risks of liability exposure presented after the initial underwriting and issuance of the policy.

As a general rule, however, these types of standard CGL policy exclusions also set forth two important exceptions, affording coverage for liability or damage that the insured: (1) would have incurred in the absence of entering into the underlying contract or agreement (such as pursuant to some independent common law or statutory duty); and (2) assumed under a contract or agreement that is considered under the terms of the policy to constitute an "incidental contract," and/or an "insured contract." By way of explanation, recent versions of liability policies customarily provide expanded liability coverage with respect to certain enumerated categories of "incidental" or "insured" contracts. Standard CGL policy language, by way of example, typically lists five such agreements, including contracts relating to the lease of premises; a sidetrack agreement; certain easements/licenses not connected with railroad work; obligations required by ordinance to indemnify municipalities in some instances and elevator maintenance agreements. Another significant exception that can appear in a liability policy concerns a contract or agreement that directly pertains to the insured's business under which the insured commonly assumes the tort liability of other third-party organizations or individuals. Industry professionals frequently refer to this exception as "blanket contractual liability" coverage. However, some liability policies contain endorsements that attempt to restrict coverage for such a transfer of liability under this aspect of the "insured contract" exception.

It is important to closely evaluate third-party insurance claims arising out of fracking operations to determine if an insured entered into a contractual arrangement where the insured assumed liability of another. Also, one must be cognizant that an agreement to afford indemnity to a business or individual for liability for injury or damage may not necessarily be limited to an instance in which the parties had reduced their agreement to writing. Determining the scope of contractual liability coverage, if any, can involve a multitude of legal and factual considerations. Some courts caution that contractual liability exclusions operate to deny coverage only when an insured assumes responsibility for the conduct of a third party, as opposed to when an obligation accepted by the insured relates solely to the insured's own breach of contract or negligent conduct.[105] Allegations asserted against an insured that attempt to impose liability independent of some contractual undertaking may still give rise to defense, and potentially indemnification, obligations in response to a third-party claim, depending upon the language of the policy at issue and the facts of each case.[106] In any event, the legal effect of contractual liability exclusions, and any accompanying exceptions, present important topics for attention, especially in the context of a claim involving many alleged liable parties that may have entered into contracts designed to apportion third-party liability.

8. Number of Occurrences/Aggregates

Because liability policies are usually written to afford insurance indemnity on a "per occurrence" basis (typically subject to an aggregate limit), the calculation of deductibles and policy limits available under a CGL policy can result in significant variations

104 *See, e.g., Ewing Constr. Co. v. Amerisure Ins. Co.,* 814 F. Supp. 2d 739, 744-51 (S.D. Tex. Apr. 28, 2011); *James v. Burlington Northern Santa Fe Ry. Co.,* No. CV05-04106-PCI-NVW, 2007 WL 2461685 (D. Ariz. Aug. 27, 2007).

105 *Compare Fireman's Fund Ins. Co. v. Sneed's Shipbuilding, Inc.,* 803 F. Supp. 2d 530, 542 (E.D. La. Mar. 22, 2011) (insured's own liability for breach of contract with a third-party does not constitute a covered contractual liability); *Gilbert Tex. Constr., L.P. v. Underwriters at Lloyd's London,* 327 S.W. 3d 118 (Tex. 2010).

106 *QBE Ins. Co. v. ADJO Contracting Corp.,* 32 Misc. 3d 1231 (A) (N.Y. Sup. Ct. Apr. 5, 2011) (exclusion does not apply if independent source of liability exists), *re-argument denied,* 2011 WL 2110370 (N.Y. Sup. Ct. May 16, 2011); *American Family Mut. Ins. Co. v. Fisher Dev., Inc.,* 391 Ill. App. 3d 521, 532, 330 Ill. Dec. 561, 571, 909 N.E. 2d 274, 284 (2009).

with respect to the value of a particular claim, if multiple causes or events operate to produce the claimed injury or damage.[107] Without repeating the discussion presented previously in connection with the first-party property coverage issues prone to arise out of fracking activities, multiple causes or sources could result in claimants asserting third-party claims against insureds for alleged bodily injury or property damage. Ultimately, the issue of what constitutes an "occurrence," and in turn the number of such occurrences, may very likely be left to courts to decide in light of the particular policy language at issue and the precise facts presented by each individual claim.

Although courts have employed a number of approaches to this issue, courts in most jurisdictions utilize a "cause" test in the third-party liability insurance context, and evaluate the cause or causes of the alleged injury or damage (and not the number of manifestations of injury or damage) to determine the number of occurrences.[108] In a minority of jurisdictions, courts have focused upon the "effects" of the causative acts in order to determine the number of occurrences.[109]

Of course, determination of the number of occurrences is separate and distinct from the question of whether there has been an occurrence within the meaning of the insuring agreement set forth in a typical liability policy. As noted above, evaluating the number of occurrences often becomes contingent upon an exceedingly fact-intensive process. To illustrate, in the context of drilling natural gas wells, possible claims could arise out of the release of a pollutant by one company, or by numerous companies applying different underground gas extraction techniques over an extended period of time that allegedly caused some type of bodily injury or property damage. In such cases, in order to determine the number of occurrences, there will be a need for significant expert involvement to evaluate each possible cause of any of the alleged injury or damage, and to analyze the conduct that allegedly led to the claim.

107 *See, e.g., Luk Clutch Sys., LLC v. Century Indemn. Co.,* 805 F. Supp. 2d 370 (N.D. Ohio 2011).

108 *See, e.g., Appalachian Ins. Co. v. Liberty Mut. Ins. Co.,* 676 F. 2d 56, 61 (3d Cir. 1982); *Dragas Mgmt. Corp. v. Hanover Ins. Co.,* 798 F. Supp. 2d 758, 762-64 (E.D. Va. July 21, 2011) (each installation of drywall constituted a separate occurrence).

109 *See E.I. du Pont de Nemours & Co. v. Stonewall Ins. Co.,* C.A. No. 99C-12-253 (JTV), 2009 WL 1915212, at *4 nn. 6&7 (Del. Super. Ct. June 30, 2009) (discussing different tests), *aff'd in part, rev'd in part,* 996 A. 2d 1254 (Del. 2010).

9. Relief Requested By Claimants

Liability insuring agreements customarily include provisions that provide for both defense and indemnity obligations, subject to various terms and conditions. Individuals or businesses may assert an entitlement to legal relief against an insured based on various causes of action that do not comport with underlying notions of insurance indemnity. If third-party claimants seek any of a wide range of possible requested relief against an insured that simply falls outside of the scope of a classic CGL insuring agreement, then such claims may not implicate an insurer's defense or indemnity obligations.

Traditional CGL policies state that the insurance company agrees to pay those sums that the insured becomes "legally obligated to pay as damages because of 'bodily injury' or 'property damage' to which this insurance applies." The evaluation of a third-party claim should include ensuring that the claim has set forth elements that satisfy the basic insuring agreement of a CGL policy. Although it is impractical to theorize regarding the substance of each and every possible third-party claim, a sampling of several representative traditional insurance considerations highlight coverage issues that should be anticipated in any such case:

(1) for purposes of general liability insurance coverage, the term "damages" is usually limited to legal relief requested under a claim or cause of action that seeks the assessment of a monetary award by a court, as opposed to including a claimant's request for other forms of judicial relief, such as injunctive or declaratory relief;

(2) with respect to coverage afforded for "bodily injury," as a general rule, but not in all circumstances, third-party claims solely for mental anguish or emotional distress damages do not fall within the grant of coverage afforded under a CGL insuring agreement (especially in the absence of accompanying physical injury);

(3) in order to obtain coverage for "property damage," third-party liability policies may require that physical injury or loss of use occur to "tangible" property, which, of course, would not involve claims for loss or damage to intangible property, such as a nuisance claim seeking a dollar award for alleged diminished property value (without any accompanying physical

damage to the property), or for claims seeking recovery for pure economic loss; and

(4) as to claimants seeking punitive damages, depending upon the jurisdiction, punitive damages (based upon individual liability and/or on vicarious liability) may be uninsurable pursuant to a policy endorsement, or as a matter of law.

A fracking lawsuit could raise allegations of harm that fall outside the scope of standard CGL coverage, such as financial losses that do not concern "bodily injury" or "property damage."[110] Professional liability/ errors and omissions (E&O) policies may be a potential source of coverage for such lawsuits. Such policies may provide coverage for allegations of business interruption arising from fracking operations. Furthermore, while E&O policies, like CGL policies, typically do not provide coverage for breach of contract claims, many E&O insurers offer policyholders the opportunity to purchase extended coverage for such causes of action.

Given the increased efforts of federal, state and local governmental entities to regulate the fracking industry, it is likely that individuals and businesses exploring fracking opportunities will require legal assistance in many forums. A carrier's defense obligations under a CGL policy, however, only provides for the carrier to undertake an insured's defense relating to any "suit," typically defined to include civil proceedings and certain arbitrations. In some instances, therefore, administrative or regulatory matters may not constitute a "suit" for purposes of triggering an insurer's defense obligation.

IV. CLASS ACTION ISSUES

While numerous individual actions are expected to be filed by property owners purportedly affected by fracking activities, the large-scale use of such drilling practices may lead to the filing of class action lawsuits against those involved in the activity and/or against first-party property insurance carriers. It remains to be seen whether claimants in either circumstance can satisfy the necessary requirements for a court to grant class certification for such claims. The Federal Rules of Civil Procedure (Federal Rules) serve as a good roadmap to explain the standards that plaintiffs will need to satisfy in order to obtain such class certification.

A. Certification under the Federal Rules

To obtain class certification under the Federal Rules, a party seeking certification must first satisfy four threshold issues under Federal Rule of Civil Procedure 23(a): (1) the putative class is so numerous that "joinder of all members is impracticable"; (2) "questions of law or fact common to the class" exist; (3) the claims of the representative party are "typical" of the class; and (4) the representative party can "fairly and adequately protect the interests of the class."

If these threshold issues are met, the party seeking certification must then satisfy one of three additional requirements under F.R.C.P. 23(b) by showing that: (1) prosecuting separate actions would create a risk of either inconsistent adjudications or adjudications with respect to individual class members that would be dispositive of the interests of the other members or would substantially impair their ability to protect their interests; (2) the party opposing the class has acted or refused to act on grounds that apply generally to the class, so that final injunctive relief or corresponding declaratory relief is appropriate respecting the class as a whole; or (3) questions of law or fact common to class members predominate over any questions affecting only individual members, and that a class action is superior to other available methods for fairly and efficiently adjudicating the controversy.

1. F.R.C.P. 23(b)(3) Requirements

For plaintiffs in these lawsuits, satisfying the necessary criteria to achieve class certification may prove difficult in a number of ways. Certification difficulties typically arise at the second prong of Rule 23's requirements.[111] For instance, when attempting to obtain certification under Rule 23(b)(3), parties must

110 It should be noted that in most jurisdictions, a liability insurer's duty to defend exists with regard to all lawsuits that raise allegations falling within the scope of coverage, even if the lawsuit incorporates allegations and causes of action falling outside the scope of coverage. However, the insurer's duty to indemnify in such cases is limited to the claims that fall within the scope of coverage.

111 The United States Supreme Court has re-emphasized the importance of the often neglected class certification requirement of commonality. In *Wal-Mart Stores, Inc. v. Dukes*, 131 S. Ct. 2541, 2551 (2011), the Court noted that to satisfy the commonality requirement, class claims must be based upon a "common contention" that is "of such a nature that it is capable of class-wide resolution — which means that determination of its truth and falsity will resolve an issue that is central to the validity of each one of the claims in one stroke."

show that the questions of law or fact common to class members predominate over any questions affecting only individual members, and that a class action is superior to other available methods for fairly and efficiently adjudicating the controversy.

Considering this "predominance" requirement, parties seeking certification may have difficulty showing damages on a class-wide basis. As conditions can vary factually among class members, parties opposing certification may have various individualized factual defenses to refute predominating issues concerning liability and damages. These defenses, similar to those discussed in Section II, would seek to demonstrate a cause of loss other than the fracking activity of the initial defendant — either a cause separate and apart from drilling entirely or the activity of another company in the area. Based on these varied circumstances, as well as the fact that some class members may never sustain injury or have sustained injury because of other individualized factors, there may be no evidence of damages that can be proven on a common class-wide basis.

Rule 23(b)(3) also states that pertinent findings to consider in determining whether to certify a class under the Rule include: (1) the class members' interests in individually controlling the prosecution or defense of separate actions; (2) the extent and nature of any litigation concerning the controversy already begun by or against class members; (3) the desirability or undesirability of concentrating the litigation of the claims in the particular forum; and (4) the likely difficulties in managing a class action. With respect to the last point, even if a party could establish a predominating common theme, such as showing that *all* fracking is harmful or that a particular company's isolated conduct was harmful, individual liability and damage issues will likely turn the litigation into an unmanageable series of mini-trials that are more appropriately litigated as individual cases. In this respect, class members may have a greater interest in controlling their individual actions so as not to jeopardize the strength of their cases against others where liability and damages are not so clear.

2. F.R.C.P. 23(b)(2) Requirements

In addition to arguing the sufficiency of certification by satisfying the requirements of Rule 23(b)(3) on a "damages-type" basis, plaintiffs may also seek class certification on an "injunctive relief" basis pursuant to Federal Rule 23(b)(2). This rule requires that the moving party show that the party opposing class certification has acted or refused to act on grounds that apply generally to the class, so that final injunctive relief or corresponding declaratory relief is appropriate with respect to the class as a whole. These plaintiffs may have brought claims demanding that activity cease or desist, and/or for environmental testing (presently or in the future) in an effort to bypass the damages concerns addressed in Rule 23(b)(3). In effect, plaintiffs would attempt to show that property owners and their property may be exposed to allegedly harmful toxins, and while these toxins may not cause immediate injury or damage, they could potentially manifest at some later point in time. While this certification strategy has been employed under different factual scenarios, most notably asbestos exposure, the fact that it is not universally accepted in all jurisdictions and the high standard of proof needed when its use is, in fact, permitted by the courts, makes this a difficult approach towards obtaining class certification.

B. Class Action Jurisdiction and Removal

In the event that a party is faced with a class action lawsuit in state court seeking damages arising from fracking activity, that party will also want to evaluate whether the action is removable to federal court under the Class Action Fairness Act (CAFA).[112] Although not an absolute rule, parties involved in class action litigation tend to view federal court as a more favorable forum in which to resolve class certification issues.

In determining whether a case is removable under CAFA, parties should initially look to whether the aggregate value of the case is $5 million or more and the class includes 101 or more class members. Parties will also need to evaluate the citizenship of class members, as this plays a pivotal role in determining whether a federal court has jurisdiction over a class action. If less than one-third of the plaintiffs and the primary defendants are from the same state, then the action will automatically be removed to federal court. If more than two-thirds of the plaintiffs and the primary defendants are from the same state, then the action automatically remains in state court. If more than two-thirds of the plaintiffs are from the same state, and at least one in-state defendant is present, then the action can also remain in state court if certain criteria are met.

112 28 U.S.C. § 1332.

If between one-third and two-thirds of the plaintiffs and the primary defendants are from the same state, then the action will be removed to federal court at the discretion of the federal judge, taking into account certain factors enumerated in the Act.

As CAFA includes other considerations and exclusions with respect to removal under its provisions, parties are cautioned to look carefully at its provisions to ensure that all of its terms are satisfied.

V. SUBROGATION/RECOVERY OPPORTUNITIES AND RISKS

A. Opportunities

Although fracking has the potential to generate a great deal of troublesome coverage and litigation issues, it provides insureds with subrogation and recovery opportunities. Such opportunities may exist in the typical property insurance subrogation context when a carrier reimburses its insured for covered losses, such as those noted above that are not otherwise excluded. In these situations, subrogation targets could include natural resource companies, contractors engaged in the drilling process and arguably complicit neighboring property owners where the operations are being engaged.

Carriers confronted with liability claims against their insureds should take appropriate steps from the outset to recognize contribution or indemnity claims against other companies or individuals who are arguably more responsible. Insurers facing claims against their property owner insureds should consider claims against those more directly involved with the drilling process on and around the property involved. Also, insurers met with claims against insureds that oversee the drilling activity must consider claims against their contractors to the extent clearly irresponsible activities may have given rise to such claims. Although each of these circumstances present possible strong recovery opportunities, unless they are recognized and protected from the outset the recoveries can be easily jeopardized. These reimbursement efforts are also complicated by a plethora of legal hurdles, which can be manageable, but only if proper steps are taken.

B. Hurdles/Risks

1. Factual Support

As discussed throughout the liability defense and coverage analysis sections, plaintiffs at times will have an uphill battle in demonstrating a nexus between a particular drilling activity and alleged damages. If a carrier indemnifies an insured for a covered loss, it then stands in the shoes of the insured and must eventually demonstrate in any subrogation effort that the reimbursed damages were proximately caused by the negligent conduct of the subrogation targets identified. In such instances, prompt and thorough investigations will inevitably be required to demonstrate the relationship.

2. Contractual Limitations

To the extent that any subrogation or contribution/indemnity claim is asserted against a party that has entered into a contract with the carrier's insured, the possibility always exists that the contract contains risk allocation provisions that will limit or eliminate recovery efforts. These may come in the form of hold-harmless or liability-limitation provisions in contracts between energy companies and property owners upon and under whose land the subject drilling operations occurred, or in the form of similar limitations in contracts between such energy companies and the subcontractors performing work on their behalf. Further, such business contracts may contain insurance provisions that require one or both parties to name the other as an additional insured under their liability policy, which in most stages will preclude cross claims for indemnification or contribution between such competing parties.

An additional aspect of these contracts is the likelihood that disputes between such parties will need to be addressed in arbitration proceedings, as compelled in the contracts for resolution of any and all disputes arising from the drilling activity. While this aspect of the contract may not itself limit the recovery, it may complicate any recovery process by either injecting greater uncertainty into resolution proceedings outside a formal court setting, or causing dual litigation in the contribution/indemnification context (by defending an

insured in a court setting from the initial claimant, while being compelled to resolve any claim against a more responsible party in a mandatory arbitration process).

Some contracts may also require detailed or time-sensitive notice requirements that can be overlooked while parties focus on initial investigations and/or underlying coverage disputes.

These possible contractual limitations on recovery should be considered when the initial coverage issues arise so as to best understand their viability, and, in turn, their true loss potential, and to avoid overlooking troublesome contractual limitations.

C. Evidence Retention and Preservation

If any party intends to properly assert a recovery action in the face of a first- or third-party claim, it must appreciate from the outset that it should take steps to properly identify and preserve all pertinent evidence underlying a future liability claim against a neighboring property owner or company involved in suspect drilling activity.

Two important steps in this regard are to: (1) place all possible recovery targets on notice of the claim, giving them an opportunity to visit the property and investigate the claims as early in the process as possible; and (2) preserve all pertinent evidence in coordination with the recovery targets and with the cooperation of the property owners.

These steps may be problematic if the carrier or initial defendant is aggressively denying liability, coverage or other responsibility, because such party will not want such actions to cause any property owner to rely on actions indicating that liability, coverage or legal responsibility is being accepted. Properly presented "reservations of rights" (or similar statements or agreements noting that communications with possible third-party recovery targets is not any indication of coverage or liability) should serve, however, to prevent any such unjustified reliance, while at the same time avoiding future spoliation defenses by recovery targets.

D. Perfecting the Contribution/Indemnification Claim: Releases and Settlements

Energy companies seeking to maintain business reputations by reimbursing property owners for any alleged damages must take certain steps to perfect any contribution or indemnification claim against others involved in the subject activity. This usually requires obtaining a complete general release from the property owner as to their claims arising from the drilling, thus extinguishing the property owner's own claims against any other entities.

Under normal circumstances this is usually not problematic, but it may be an insurmountable burden if the property owners refuse to cooperate out of concerns that the alleged damages may have longer term effects and that they are not comfortable providing a release to the energy company that remedies an initial property damage claim. This issue should be resolved with well-crafted releases that contain a limited yet adequate scope that extinguishes the dwelling owner's compensated property damage claim yet preserves the separate and distinct possible future claims.

Additionally, such initial insured defendants may wish to ensure that their payments are not viewed as "voluntary" payments, which may not give rise to contribution actions in certain jurisdictions. This may require these parties to obtain expert opinions before resolution with the property owners as to the nature of the damages at the specific property, whether from the owners' expert or an expert retained by the initial defendant.

Before settling any such third-party claims, these issues must be addressed so as to properly protect all available recovery efforts.

CONCLUSION

With the emergence of increased litigation involving fracking activity, companies in that arena need to become more cognizant of the issues involved to develop a comprehensive strategy to handle these allegations. Defense counsel and the energy industry should keep abreast of the developing sciences surrounding such activity by monitoring the media and governmental actions related to the industry. For insurers, developing a going-forward strategy for investigating these claims will help ensure that practices remain consistent and that policy provisions are employed properly. As more claims are filed, the industry itself will look to their insurers for coverage.

Nelson Levine has outlined some of the issues relating to fracking. However, this paper is not an exhaustive treatise on this phenomenon where both scientific and legal investigations continue with respect to the allegations presented. This paper was developed to provide insight into how the growth of fracking activity can also impact insurance coverage and liability and cautions insurers that, based on such growth, these allegations may be asserted in the near future.

***Additional Resource**
The Fuss Over Fracking: Liability and Insurance Issues Exist Above and Below Ground Infographic
http://www.nldhlaw.com/content/uploads/2013/08/Fracking-Infographic-Final.pdf

CONTACTS

David Brown
Partner
(336) 419-4902
dbrown@nldhlaw.com

Michael A. Hamilton
Partner
(215) 358-5172
mhamilton@nldhlaw.com

Steven P. Nassi
Partner
(212) 233-3099
snassi@nldhlaw.com

James E. Prendergast
Partner
(215) 358-5087
jprendergast@nldhlaw.com

Michael S. Savett
Partner
(856) 330-8918
msavett@nldhlaw.com

Marc S. Voses
Partner
(212) 233-3207
mvoses@nldhlaw.com

New York
Pennsylvania
Washington, DC
Ohio
New Jersey
North Carolina
London
www.nldhlaw.com