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## Homeowners and Gas Drilling Leases: Boon or Bust?

*By Elisabeth N. Radow*

*Also in this Issue*

Retaliation Claims
Dismissal Motions
New Trust Laws
Did the Odds Change?
Attorney Professionalism Forum

POINT OF VIEW

Gas drilling in Dimock, PA

# Homeowners and Gas Drilling Leases: Boon or Bust?

By Elisabeth N. Radow

## The Conundrum

Gas companies covet the shale gas deposits lying under homes and farms in New York's Marcellus Shale region and are pursuing leasing agreements with area property owners. Many homeowners and farmers in need of cash are inclined to say yes. In making their argument, gas companies reassure property owners that the drilling processes and chemicals used are safe. Yet aside from arguments about the relative safety of the extraction process are issues not often discussed, such as the owner's potential liability and the continued viability of the mortgage. The property owner can be particularly vulnerable when the drilling process involves high-volume, horizontal hydraulic fracturing, or "fracking."

For example, when Ellen Harrison signed a gas lease agreement in 2008, the company representative made no mention of fracking. Harrison received no details, only the chance for a "win-win" with "clean" gas for the locals and royalties for her. Like most Americans, Harrison has a mortgage loan secured by her home. All mortgages, Harrison's included, prohibit hazardous activity and hazardous substances on the property.

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Waste pond at hydro-fracking drill site, Dimock, PA

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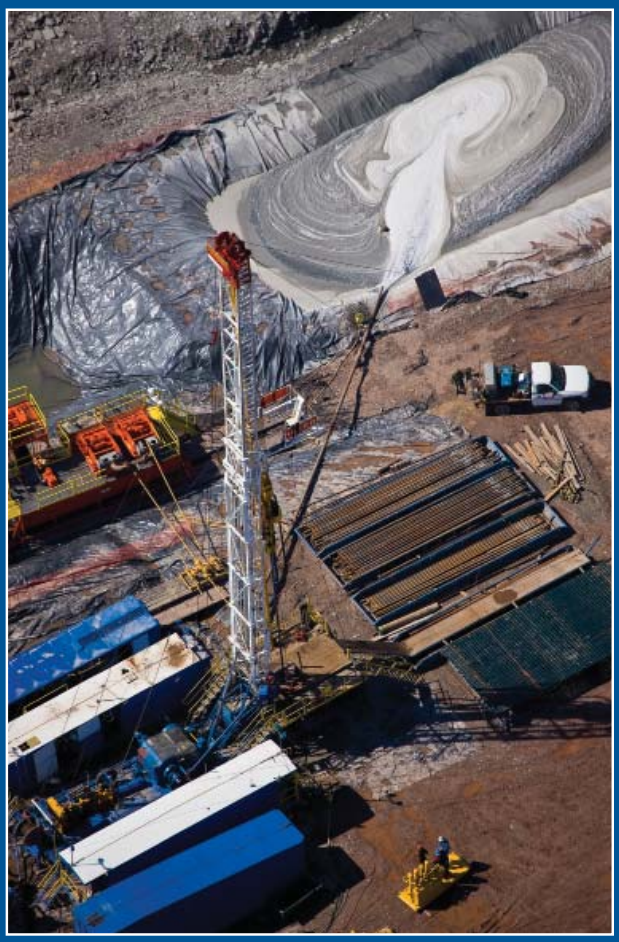
Photographs courtesy of J Henry Fair. Mr. Fair's work has appeared in the *New York Times, Vanity Fair, Time and National Geographic*. His new book, *The Day After Tomorrow: Images of Our Earth In Crisis* is a series of essays and startling images. www.industrialscars.com.

Flight services provided by LightHawk http://www.lighthawk.org.

Tanker trucks filling water reservoir at hydo-fracking gas drilling operations near Sopertown, Columbia Township, PA



Overspray of drilling slurry at hydro-fracking drill site, Dimock, PA

Residential fracking carries heavy industrial risks, and the ripple effects could be tremendous. Homeowners can be confronted with uninsurable property damage for activities that they cannot control. And now a growing number of banks won't give new mortgage loans on homes with gas leases because they don't meet secondary mortgage market guidelines. New construction starts, the bellwether of economic recovery, won't budge where residential fracking occurs since construction loans depend on risk-free property and a purchaser. This shift of drilling risks from the gas companies to the housing sector, homeowners and taxpayers creates a perfect storm begging for immediate attention.

> A home represents a family's most valuable asset, financially and otherwise.

The introduction of fracking in homeowners' backyards presents a divergence from typical current land use practice, which separates residential living from heavy industrial activity, and the gas leases allocate rights and risks between the homeowner and gas company-lessee in uncharacteristic ways. Also, New York's compulsory integration law can force neighbors who do not want to lease their land into a drilling pool, which can affect their liability and mortgages as well.

## The Marcellus Shale Region

The Marcellus Shale region, located across New York's Southern Tier, represents a portion of one of America's largest underground shale formations, with accessibility to gas deposits ranging from ground surface to more than a mile deep. The decade-old combined use of horizontal drilling and high-volume hydraulic fracturing is the current proposed means of extracting the trapped shale gas. Horizontal drilling, which dates back to 1929, became widely used in the 1980s, with the current technology providing lateral access to mile-deep shale in multiple directions from a single well pad.

To envision what this looks like, imagine one well pad that accommodates eight or more vertical wells with each well engineered to extend a mile or more in depth then turn and drill horizontally in its own direction, up to a mile through shale across residential properties and farms owned by a cluster of neighboring residents. High-volume hydraulic fracturing, first introduced by Halliburton in 1949, mixes millions of gallons of water with sand, brine and any of a number of undisclosed chemicals, which are injected into the well bore at pressure sufficient to rupture open the formation, prop open the mile-deep shale fractures with sand and release the trapped gas back into the well. Fracking-produced wastewater, with concentrated levels of these toxic chemicals, drilling mud, bore clippings and naturally occurring radioactive material, such as uranium, radium 226 and radon, is released from the well into mud pits and holding tanks, then trucked out for waste treatment or reused. Reuse of frack fluid, currently the favored practice because it spares the finite water supply, concentrates the waste toxicity. The Environmental Protection Agency estimates that 20%–40% of the fracking wastewater stays underground. The Marcellus Shale sits amid an intricate network of underground aquifers that supply drinking water in New York and surrounding states via municipal water supplies, private wells and springs. Shallow private wells constitute the primary source of drinking water for the upstate New York residences and farms where fracking for shale gas would take place, posing a cumulative threat to the state's complex matrix of aquifers that source our groundwater.

## The Risks

The use of fracking expanded in 2005 when Congress exempted it through statutory amendments from complying with decades-old federal environmental laws governing safe drinking water and clean air. (This exemption is now commonly known as the Halliburton loophole.) Also in 2005, New York changed its compulsory integration law to pave the way for fracking.

According to the 2010 Form 10-Ks of Chesapeake Energy and Range Resources (both doing business in the Marcellus Shale region), natural gas operations are subject to many risks, including well blow-outs, craterings, explosions, pipe failures, fires, uncontrollable flows of natural gas or well fluids, formations with abnormal pressures and other environmental hazards and risks. Drilling operations, according to Chesapeake, involve risks from high pressure and mechanical difficulties such as stuck pipes, collapsed casings and separated cables. If any of these hazards occur it can result in injury or loss of life, severe damage or destruction of property, natural resources and equipment, pollution or other environmental damage and clean-up responsibilities,[1] all in the homeowner's backyard.

American culture traditionally favors land use that keeps heavy industrial activity out of residential neighborhoods. The reasons range from safety to aesthetics. A home represents a family's most valuable asset, financially and otherwise. In legal terms, homeownership or "fee simple absolute title" means a bundle of rights encompassing the air space above and the ground below the land surface. It entitles homeowners to build up and out, pledge the house and land as collateral for a mortgage loan, and lease or sell the property. Part of a home's purchase price pays for this bundle of rights. Another bundle of rights attributable to homeownership

Continued on Page 14

Continued from Page 12

consists of the actual roof over one's head; clean, running water; and access to utilities. A third bundle of rights is attributable to the intangibles that make a house a home, such as peaceful sanctuary, fresh air, and a safe, secure haven for budding children. Residential fracking challenges all of these attributes of home ownership.

## Shifting Risk

Gas leases provide the bundle of rights from which gas companies generate financing and operate gas wells. Profitable gas *extraction* benefits from broad rights to access, extract, store and transport the gas, on the company's timetable. Gas leases contain these rights. Profitable gas *investment* benefits from latitude on timing of gas extraction and the latitude not to extract gas at all. Gas leases contain these rights too. The gas company has the sole discretion to drill, or not to drill. Leases provide the currency in trade. The longer the lease term, the more latitude a leaseholder has to manage market fluctuations. With its broad gas storage rights, a leaseholder can store gas from other sources, on-site and wait for the demand curve to peak before executing the most favorable transactions. In August 2011, the U.S. Geologic Survey estimated reserves of "technically recoverable" shale in the Marcellus Shale play at 84 trillion cubic feet, reflecting a significant reduction from DEC's long-standing website estimate of between 168 trillion and 516 trillion cubic feet. Shale gas projections have an inherent value, separate and apart from the extracted gas. People invest capital based on the anticipated reserves. Time will tell how the new estimates change if and where gas companies actually drill in New York. Some regions may be too difficult or expensive to access; others will be off-limits by law. The terms of the gas leases nevertheless entitle the gas lessee to maintain the leasehold, which can facilitate investor activity. The Form 10-K appended to the 2010 Chesapeake Energy Annual Report states,

> Recognizing that better horizontal drilling and completion technologies, when applied to new unconventional plays, would likely create a unique opportunity to capture decades worth of drilling opportunities, we embarked on an aggressive lease acquisition program, which we have referred to as the "gas shale land grab" of 2006 through 2008 and the "unconventional oil land grab" of 2009 and 2010. We believed that the winner of these land grabs would enjoy competitive advantages for decades to come as other companies would be locked out of the best new unconventional resource plays in the U.S. We

Hydro-fracking drill sites, feeder pipelines, and access roads and gravel banks for road building (Dimock, PA)

> believe that we have executed our land acquisition strategy with particular distinction. At December 31, 2010, we held approximately 13.2 million net acres of onshore leasehold in the U.S. and have identified approximately 38,000 drilling opportunities on this leasehold. We believe this extensive backlog of drilling, more than ten years worth at current drilling levels, provides unmistakable evidence of our future growth capabilities.[2]

The broad bundle of rights granted by gas leases enables gas companies to raise capital in the millions or billions of dollars once the up-front per-acre signing bonus is paid to the homeowner. This is beneficial for the drilling investment itself and for maintaining the company's competitive advantage. On the other hand, the effect of the lease encumbering the homeowner's residence can have repercussions for mortgage financing, as will be discussed below.

## Getting the Gas

Drilling companies derive the right to drill underneath residential (and non-residential) property in three ways:

- deed to the subsurface rights below the fee estate (a practice not typically used in New York);
- lease agreement with the fee owner; and
- compulsory integration, which involves government action that forces a property owner who wishes no drilling activity below its property into a drilling pool if the lessee otherwise has control of a statutorily prescribed percentage of land (in New York it is 60%).

A drilling application submitted to DEC must show the area (up to 640 aces), known as a spacing unit, assigned to the well. The spacing unit becomes officially established when DEC issues the well permit.

### Deed to Subsurface Rights

A deed to the subsurface or mineral rights splits the fee estate between the surface property and the subsurface property, with separate deeds for each estate. Subsurface deeds are common in Western states where drilling is an established practice; it gives the deed holder the full range of rights to the subsurface. As with the surface deed, it is considered a real property interest and is also recorded in the land records against the section, block and lot for the surface property. The rights do not extend above the subsurface and should not, as a legal matter, interfere with the rights of the surface owner. As a practical matter, because of drilling lifecycle hazards, the surface owner may sacrifice some of the attributes of home ownership discussed in this article.

### Standard Lease Agreement With Fee Owner

The standard space lease, between a building owner (landlord or lessor) and a tenant (or lessee) grants the right to occupy a specified space in the building for a finite time, in exchange for an agreed upon rent payable in regular installments. If the lease contains a percentage rent (a commercial lease concept based upon tenant revenue), it includes a formula for calculating the percentage rent and gives the landlord the right to inspect the tenant's books to verify that the landlord receives the agreed upon percentage. Except for the space leased to the tenant, the landlord retains all rights of ownership. When the lease expires, the tenant moves out, or the tenancy converts to a month-to-month tenancy. No duration of month-to-month holding over on the tenant's part converts the month-to-month arrangement into a lease for years. To end the relationship, either the landlord or tenant can give 30 days' written notice to the other.[3] To extend beyond the month-to-month relationship, the parties must enter into a new written lease.

In contrast, gas leases function more like a deed with a homeowner indemnity than a space lease – revealed by an assessment of the cumulative impact of the broad bundle of rights granted to the gas company-lessee and the corresponding bundle of rights relinquished by the homeowner. Standard pre-printed gas leases presented to New York homeowners by landmen and signed, *without negotiation*, represent the typical practice (until recently) in our state, and will be used here to illustrate the impact this has on the of rights and responsibilities of the homeowner. Depending upon the DEC's ultimate regulatory framework, homeowners who negotiate gas leases can expect similar impacts given the industrial sized risks involved.

### The Use

A gas lease grants the right to extract the gas and a litany of related gas-constituents; it also grants the right to explore, develop, produce, measure and market for production from the leasehold and adjoining lands using methods and techniques which are not restricted to current technology.

### The Space

In a standard gas lease, the physical leased space consists of the subsurface area within the property boundaries and undesignated portions of the surface lands

> to set up and store drilling equipment; create a surface right of way to use or install roads, electric power and telephone facilities, construct underground pipelines and so-called "appurtenant facilities," including data acquisition, compression and collection facilities for use in the production and transportation of gas products to, from and across the leased property; and store any kind of gas underground, regardless of the source, including the injecting of gas, protecting and removing gas, among other things.

The lessee's expansive, undesignated, reserved surface rights can result in acres going to support the operation, jeopardize a home mortgage and eliminate the homeowner's ability to build on the surface in

areas the lessee determines would interfere with drilling operations. Without limiting the location, size and type of pipeline, the homeowner leaves open the chance of a high-pressure gas line running under the property.

### The Term

The lease runs for a five-year primary term (a portion contain a five-year renewal term), which in a standard lease the lessee can unilaterally transform into an indefinite, extended term, without signing a new lease, for any of the following reasons:

> exploration anywhere in the spacing unit, or a well in the spacing unit is deemed "capable of production," or gas from the spacing unit is produced, or the spacing unit is used for underground gas storage, or the prescribed payments are made.

The term "capable of production" is defined broadly enough to include off-site preparatory work. Regardless of the stated lease term, once a well is "capable of production," the rights continue for as long as operations continue, possibly decades.

### The Rent

Homeowners receive a signing bonus ranging from dollars to thousands of dollars per acre of leased land. This single payment can potentially tie up the property, indefinitely. References in so-called "paid-up" leases (common in New York) to other potential additional payments (except for the royalty payment) are deemed satisfied by the signing bonus. Absent negotiation, royalties consist of a percentage (typically 1/8 or 12.5%), net of production-related expenses and any loss in gas volume that reduces the revenue received. Late payments or failure to make a royalty payment can "never" result in an automatic lease termination. Homeowners share the royalty with other members of the drilling pool on a pro-rated basis. This is known as correlative rights. The larger the drilling pool, the smaller the royalty. Unlike the percentage rent provision in a commercial lease, a gas lease contains no detailed formula for calculating the net royalty payment, no pro-rata share corollary to calculate the relative percent the homeowner bears to the pool of all other property owners entitled to divide the royalty pie and no right to review the lessee's books and records.

### Assignment

Space leases require a tenant to obtain landlord consent for a third-party lease assignment. In contrast, a gas lessee can sell and assign to or finance the gas lease (or any interest) with any party it selects, without providing notice to the homeowner. This continuing right deprives homeowners of control over confirming consistency between the initial lease and the terms of the assigned document – who ends up with the lease, who gets hired and allowed onto the family's private property and the quality of the drilling activity performed in their backyard. As the record title holder, homeowners remain potentially liable for the activity that occurs on their property, if it is not effectively delegated.

### Hazardous Activity/Hazardous Substances

Space leases expressly prohibit hazardous activity and the presence or storage of hazardous substances on the property, such as chemicals and flammable or toxic petroleum products. Gas leases permit both the drilling activity and the use of hazardous substances and flammable products, such as the methane gas itself. Gas leases reserve the right to store gas of any kind, indefinitely, underground, regardless of the source, which can create additional risk to the homeowner's personal safety and adversely impact, as will be discussed, a homeowner's responsibility to its lender.

### Easements

Gas leases contain grants of easements, which is not typical for a lease. This grant includes the lessee's right, even after surrendering the leasehold, to "reasonable and convenient easements" for the existing wells, pipelines, pole-lines, roadways and other facilities on the surrendered lands. Assuming its enforceability, a driller can surrender a lease and still assert a range of potentially perpetual surface and subsurface rights as superior to those of the fee owner without any further payment and without the obligation for repair, maintenance or resulting damage. However, unless the actual lease containing the easement grant gets recorded against the residential property in the public records, which, apparently is often not the case, the lessee has no assurance the easements will be protected. Even so, leases reserving potentially perpetual, undesignated easements for roads and pipelines raise expensive, long-term liability concerns for homeowners, their lenders and, potentially, fellow taxpayers.

### Insurance/Indemnification-Risk Allocation to Homeowner

Space leases typically require the tenant to post a security deposit to cover late rent or property damage. Gas leases do not contain a similar provision. Space leases also require tenants to purchase general liability insurance naming the landlord as an additional named insured with an indemnity covering costs for uninsured damage and other costs occasioned by the tenant and its invitees. Risks associated with typical leasehold property damage belong to tenants since they control the space. Drilling leases typically omit these points. Absent negotiation, gas leases contain no insurance and no indemnification. Even assuming the existence of an indemnification, federal protection via the Halliburton loophole can provide cover. Unless anticipated DEC rules change, New York intends to require disclosure only of fracking chemicals by gas companies. While this represents a step in the right

direction, it also gives companies an "out" by merely requiring them to disclose which chemicals they use. It does not necessarily make companies liable for the damage those chemicals cause. Eliminating the right to frack with toxic and carcinogenic chemicals by reinstating the laws amended by the Halliburton loophole would eliminate the shift of financial responsibility away from the gas company as it relates to this aspect of the gas drilling lifecycle. Regulating use of benign fracking additives that can boost risk would be useful as well. For example, radioactivity, a known danger at elevated levels, poses greater risks when it interacts with frack-fluid additives that contain calcium.[4] By not restoring liability to the companies that control drilling operations and coupling it with economic reasons to prevent casualties, a homeowner will have to first experience the property damage or personal injury, then successfully arbitrate or litigate against the gas lessee for reimbursement and remediation, a burden most homeowners can't afford or mentally handle. Even assuming a homeowner's fortitude to sue, focus on damages and remediation misses the fact that residential fracking introduces irreparable risks to homes and the families that live there.

> Assuming its enforceability, a driller can surrender a lease and still assert a range of potentially perpetual surface and subsurface rights as superior to those of the fee owner.

### Gas Lease Mortgages

New York law[5] recognizes minerals (before extraction) as real property. In May 2011, a Chesapeake Energy subsidiary, Chesapeake Appalachia, pledged mineral rights on over 1,000 Bradford County, Pennsylvania, mineral leases as collateral for a $5 billion line of credit mortgage loan with Union Bank of California, while in July, 2011, another Chesapeake Energy subsidiary, Appalachia Midstream Services, pledged pipeline rights-of-way on over 2,000 Bradford County properties to access an unspecified line of credit mortgage loan with Wells Fargo. Although the mortgage was properly recorded in the county recorder's office against the section, block and lot of the fee/surface property, the news of a $5 billion loan linked to their property surprised mortgage-seeking homeowners. Legally, Chesapeake's mortgaged interests are distinguishable from the surface owner's, so that shouldn't interfere with a home loan, but residential fracking might. It is worth noting that Wells Fargo, one of Chesapeake's lenders, stands among national lenders that do not grant mortgage loans to homeowners with gas leases.

### Homeowner Predicament

Despite DEC website warnings about the potential adverse impacts of gas leases,[6] the government plays no role in the lease process. Contract law favors the rights of private parties to enter into arm's-length transactions without government intervention. Yet, when large numbers of complaining upstate homeowners recount consistent practices employed by the landmen that resulted in pre-printed standard gas leases signed without negotiation, it would be appropriate to involve the New York Attorney General, to examine the facts. In consumer protection contexts, the government (on its own or as a result of litigation) has seen fit to offer protection. Homeowners who signed gas leases do not constitute consumers *per se*, but the analogy supports Attorney General involvement to restore to the landowner the bulk of rights attributable to fee ownership and, by extension, the property's value. Paradoxically, for example, gas leases reciting "good faith negotiations" between the parties lock in homeowners with lessee-favored termination clauses. Unlike space leases that terminate on a stated expiration date, gas leases give lessees latitude to extend a stated lease term, indefinitely, by asserting it is "capable of production" or "paid up" or otherwise, subject to "force majeure," asserting New York's de facto drilling moratorium as the event beyond their control. "Force majeure" litigation is now on the dockets across New York's Southern Tier.

### Municipal Backlash; Indefinite Leases

Municipalities within the 28 counties sitting on top of New York's Marcellus Shale differ on the benefits of fracking. Municipalities in favor of fracking focus on local economic growth.[7] Municipalities opposing fracking take into consideration competing established economies, such as agriculture and tourism. By asserting home rule, municipalities have enacted moratoria, amended master plans or codes to prohibit heavy industry, including gas drilling, and banned drilling on public land or altogether.[8] In September 2011, Anschutz Exploration Corp. filed a lawsuit against the Town of Dryden asserting the supremacy of the state to issue a drilling permit over the right of the municipality to amend its zoning law to prohibit drilling or storage of natural gas.[9] The outcome of this case will have significant ripple effects throughout the state.

When municipalities favor fracking, homeowners with questions or concerns are on their own. Residents who do not wish to renew and residents who are committed to leasing but want to renegotiate terms when their lease expires, as with an expired space lease, are meeting some resistance from the gas

companies, who are using General Obligations Law § 15-304 (GOL) to reinstate expired leases. That statute states that before a recorded drilling lease expires by its own terms, the owner "may" serve a cancellation notice to the lessee triggering a lessee right to file an affidavit affirming that the lease is in full force and effect. Then, more papers get filed to confirm and preserve that right. Unlike the space lease which terminates on a certain date, GOL § 15-304 gives drillers a second chance which (so long as the driller has recorded the full lease) can tie an unwilling homeowner indefinitely to a gas lease the homeowner no longer wants. Homeowners electing not to give the statutory notice live in limbo, uncertain as to where they stand.

If a lessee decides to drill for gas but lacks the total acreage it needs, the lease provides the statutorily required leverage to form a so-called "spacing unit" by forcing unwilling property owners surrounding the voluntarily leased property into a drilling pool, a process called compulsory integration.

### Compulsory Integration

Involuntary compulsory integration represents the most controversial method drilling companies use to access gas. Compulsory integration (or forced pooling) exists by statute in 39 states.[10] It replaced the common law rule of "capture" which allowed Person A to legitimately collect and own gas from Person B's supply if it flowed into Person A's well. To capture gas before a neighbor did, surface wells proliferated in close proximity to one another, causing the overall gas pressure to drop and making gas extraction inefficient for all involved. It also blighted the surface lands. Today, Environmental Conservation Law § 23-0901 (ECL) deputizes a driller, subject to a DEC hearing, to force an unwilling property owner into a spacing unit if the drilling company otherwise controls 60% or more of the acreage in the spacing unit either by lease, deed or voluntary integration,[11] which itself involves lease swaps among leaseholders to form the spacing unit.

Proponents assert that forced pooling makes the drilling infrastructure investment more cost efficient by maximizing access to gas while also maintaining the surface landscape and fairly compensating the noncontributing "integrated" homeowner with a shared net 12.5% royalty. Opponents consider it a form of eminent domain. The constitutionality of forced pooling under a predecessor statute was confirmed in dicta by the New York Court of Appeals in *Sylvania v. Kilborne*, itself citing the United States Supreme Court, which held that "a state has constitutional power to regulate production of oil and gas so as to prevent waste and to secure equitable apportionment among landholders of migratory gas and oil underlying their land fairly distributing among them the costs of production and the apportionment."[12]

Yet, the updated statute's effect eliminates the homeowner's right to control the homestead, creates financial risk for the driller's acts by not expressly holding the driller responsible, and jeopardizes access to a mortgage or the ability to sell the property. The ECL permits objection by a homeowner to the forced pooling within prescribed guidelines (having a scientific basis) none of which includes asserting a conflict with other (existing or intended) contract obligations, such as a mortgage. ECL § 23-0503, empowers DEC to schedule an adjudicatory hearing if it determines that "substantial and significant issues have been raised in a timely manner." Whether a driller's rights of involuntary compulsory integration come after, or trump, sanctity of contract between a homeowner and its mortgage lender needs clarification.

### $6.7 Trillion Secondary Mortgage Market

The Federal Housing Finance Agency (FHFA) was created in July 2008 on the heels of the mortgage crisis, to provide supervision, regulation and housing mission oversight of Fannie Mae and Freddie Mac and the Federal Home Loan Banks (FHLB) and to support a stable and liquid mortgage market. As of September 2010, according to FHFA, the combined debt obligations of these government-sponsored entities totaled $6.7 trillion, with Fannie Mae and Freddie Mac purchasing or guarantying 65% of new mortgage originations. FHFA, as conservator of the secondary mortgage market, has a fiduciary responsibility to promote the soundness and safety of the secondary mortgage market. It is in FHFA's interest to limit mortgage defaults.

Most American homeowners hold a mortgage loan and 90% of all residential mortgage loans are sold into the secondary mortgage market (exceptions exist for million dollar homes which do not get sold by the lending bank). It is assumed that most upstate New Yorkers who signed gas leases have a mortgage, will want one in the future or want that right for a future purchaser. Mortgage lending favors low-risk activity on its mortgaged properties. Fannie Mae, Freddie Mac and the FHLB establish lending guidelines for appraisers and underwriters that dictate whether a home is a worthy investment. This helps to facilitate their combined mission to attract investors, such as pension funds, who provide liquidity in the secondary mortgage market. Primary lenders, in turn, rely on their borrowers' compliance with mortgage covenants mirroring these lending guidelines for the life of the loan.

Assuming 10% of the existing secondary mortgage market portfolio includes residential properties subject to drilling activity, this amounts to $670 billion of secondary mortgage market debt; assuming the number is only 1%, this amounts to $67 billion. Eventually, gas drilling may span up to 34 of the lower 48 states, including densely populated cities such as Fort Worth,

Texas. If so, a substantial portion of the secondary residential mortgage market portfolio may be at risk from residential fracking.

## Loan Underwriting Reveals Collateral Flaws With Residential Fracking

### Home Appraisal

All mortgage loans require a property appraisal, title insurance covering the lender or its assignees and homeowner's insurance. Home and land appraisals are based upon like-properties, similarly situated, and are used to determine market value, the loan-to-value ratio and the maximum loan amount. Reliable appraisals of properties subject to gas leases are difficult to obtain and potentially prohibitively expensive; it would require a comprehensive title search of area properties encumbered by gas leases. Often a memorandum of the gas lease and not the lease itself is recorded, and a read-through of the entire gas lease is required to make a fair comparison between lease-encumbered properties. Underwriters need to evaluate the risks and know who pays for them; without the full lease in hand, they can't make such an evaluation.[13]

Evaluating the driller's identity can be another underwriting challenge; with unrecorded lease assignments, lenders don't know who is performing the heavy industrial activity on their residential collateral. Federal Housing Authority guidelines for federally insured mortgage loans, which make up a portion of the secondary mortgage market debt, require that a site be rejected "if property is subject to hazards, environmental contaminants, noxious odors, offensive sights or excessive noise to the point of endangering the physical improvements or affecting the livability of the property, its marketability or the health and safety of its occupants,"[14] all of which are potential characteristics of residential fracking.

Flare at hydro-fracking gas drilling operations near Sopertown, Columbia Township, PA

### Lender's Title Insurance

A lender's title policy insures the mortgage lien, as of the date of the policy (up to the loan amount), against loss or damage if title is vested in someone other than the homeowner. Gas leases signed after the policy date are not covered by the policy. Gas leases in effect when the policy is issued will be listed as a title exception. Coverage won't include the gas lease or any claims arising out of it. Title endorsements don't eliminate this exception to coverage. Underwriters consider these exceptions a red flag, sufficient to jeopardize the loan. Lenders financing properties subject to compulsory integration won't discover the title encumbrance from a title search because ECL § 23-0901 makes no apparent reference to recording the DEC determination of compulsory integration in the land records. New York title policies expressly exclude from coverage loss or claims relating to any permit regulating land use. It remains unclear whether a gas drilling permit which includes forced pooled property would fall within this exclusion. Either the Legislature will clarify the statute or the ambiguity will be a source of future litigation. Rating agencies and secondary mortgage market investors should be apprised if a loan portfolio which they have rated or in which they have invested, as the case may be, contains gas leases or forced pooled properties, since both add new risk.

### Homeowner's Insurance

All residential mortgage lenders require homeowner's insurance from their borrowers. Even the most comprehensive homeowner's coverage, known as "broad risk form" or "special form" insurance excludes the types of property damage associated with the drilling lifecycle, such as air pollution, well-water contamination, earth movement and other risky commercial activity performed on residential property.

### The Mortgage: No Hazardous Activity/Substances, No Gas/Gas Storage, No Radioactive Material

Residential mortgages prohibit borrowers from committing waste, damage or destruction or causing substantial change to the mortgaged property or allowing a third party to do so. This includes operations for gas drilling. Standard residential mortgages prohibit borrowers from causing or permitting the presence, use, disposal, storage, or release of any "hazardous substances" on, under or about the mortgaged property. In mortgages, "hazardous substances" include gasoline, kerosene, other flammable or toxic petroleum products, volatile solvents, toxic pesticides and herbicides, materials containing asbestos or formaldehyde and radioactive materials. Borrowers are also prohibited from allowing anyone to do anything affecting the mortgaged property that violates any "environmental law." "Environmental law" means federal, state and local law that relates to health, safety and environmental protection. Mortgages obligate borrowers to give lenders written notice of any release, or threat of release, of any hazardous substances and any condition involving a hazardous substance which adversely affects the value of the mortgaged property.

Mortgages prohibit the activities gas leases permit to preserve the property's marketability. For example, shallow water wells and springs, typical in the northeast, represent the home's drinking water source; they become susceptible to contamination from drill site spills and leaks or flooding from frack wastewater. Frack fluid chemicals, pollutants and naturally occurring radioactivity in the waste have been reported to far exceed levels considered safe for drinking water. A contaminated well cannot be easily remediated, if at all. A home or a farm without on-site potable water may not sell. Migrating methane gas from the drilling process risks explosions both inside and outside of the home.

Because water and migrating methane gas each defy boundaries, following minimal underwriting setback requirements between the home and the drill site may prove inadequate to protect a water well from irreparable contamination or a home from explosion. A bank can consider these factors when approving a mortgage loan, and once financed, when declaring a mortgage loan in default.

### Homeowner and Lender Vulnerability

The 2010 Form 10-K issued by Chesapeake states:

> There is inherent risk of incurring significant environmental costs and liabilities in our operation due to our generation, handling and disposal of materials, including waste and petroleum hydrocarbons. We may incur joint and several liability, strict liability under applicable U.S. federal and state environmental laws in connection with releases of petroleum hydrocarbons and other hazardous substances at, on, under or from our leasehold or owned properties, some of which have been used for natural gas and oil exploration and production activities for a number of years, often by third parties not under our control. For our non-operated properties, we are dependent upon the operator for operational and regulatory compliance. While we maintain insurance against some, but not all risks described above, our insurance may not be adequate to cover casualty losses or liabilities, and our insurance does not cover penalties or fines that may be assessed by a governmental authority. Also, in the future we may not be able to obtain insurance at premium levels that justify the purchase.[15]

In the Form 10-K appended to its 2010 Annual Report, Range Resources adds:

> We have experienced substantial increases in premiums, especially in areas affected by hurricanes and tropical storms. Insurers have imposed revised limits affecting how much the insurer will pay on actual storm claims plus the cost to re-drill wells where substantial damage has been incurred. Insurers are also requiring us to retain larger deductibles and reducing the scope of what insurable losses will include.[16]

Signing a gas lease without lender consent is likely to constitute a mortgage default. At any time before or after the drilling begins, a lender can demand the borrower to either terminate the lease or pay off the loan. Since the gas companies have pledged the gas leases as collateral for loans or brought in investors based upon the potential income the gas lease can produce, facilitating a lease termination may require protracted litigation. Further, it is not likely that most homeowner-borrowers will have the ready cash to repay the loan. This places the lender in an untenable position.

Residential fracking, perpetual unfunded easements and long-term gas storage beneath mortgaged homes create a cumulative threat to the repayment of mortgage loans tranched in secondary mortgage market portfolios. Homeowners suffering irreparable property damage, such as well water contamination, structural damage or casualty from a gas explosion, won't have coverage from homeowner's insurance and may have no recourse against the gas company holding the lease. This is so even if homeowners sue and succeed in court since the gas companies' own disclosure statements state they are underinsured. New York State Comptroller Thomas Di Napoli has proposed an up-front gas company–funded emergency fund to remediate those emergencies that can be fixed. As of yet, the gas industry, the Governor, the state Senate and the Assembly have not offered support for such a fund. The Form 10-K for Chesapeake Energy and Range Resources, for example, cite the risks attendant to gas drilling. They do not indicate the source of funding to support the numerous risks from the drilling activity. Unless this source of funding can be identified, the secondary mortgage market, as holder of 90% of the nation's home mortgages, may be left with the

clean-up bill. Ultimately, financial responsibility could fall on the taxpayers.

New York homeowners who signed gas leases without the facts about this unconventional drilling claim they did not know the risks involved. These homeowners did not know that they violated their mortgage by entering into the gas lease or have potentially no insurance coverage in case of a drilling loss. Impacted homeowners can write to New York's Attorney General to (1) document their experience; (2) request a reprieve from a mortgage loan default; and (3) institute a "no gas drilling" policy until it is determined that the mortgaged collateral won't be at risk from the driller's plans. To achieve this, gas leases should be revised to modify or omit the risky clauses, such as gas storage, surface rights and undesignated, unfunded easements. In the alternative, the gas leases can be terminated. Homeowners need help before gas permitting begins, in order to spare the homestead and the home mortgage market too.

## New Mortgages for Homeowners With Gas Leases and New Construction[18]

Even before the drilling commences, many upstate New York homeowners with gas leases cannot obtain mortgages. Bank of America, Wells Fargo, Provident Funding, GMAC, FNCB, Fidelity and First Liberty, First Place Bank, Solvay Bank, Tompkins Trust Company, CFCU Community Credit Union and others[17] are either imposing large buffer zones (too large for many borrowers) around the home as a condition to the loan or not granting a mortgage at all.

Once lenders connect the "no hazardous activity" clause in the mortgage with the mounting uptick in uninsurable events from residential fracking, this policy can be expected to expand. Originating lenders with gas industry business relationships may decide to assume the risk, make mortgage loans to homeowners with gas leases and keep the non-conforming loans in their own loan portfolio. However, there is a limit to what an originating bank can keep in its own loan portfolio. Eventually, cash infusions from the secondary mortgage market will become a necessity; and secondary mortgage market lending guidelines will be a reality. If homeowners with gas leases can't mortgage their property, they probably can't sell their property either (this assumes the purchaser will need mortgage financing to fund the purchase). The inability to sell one's home may represent the most pervasive adverse impact of residential fracking.

Real estate developers and contractors rely on construction financing and financeable homeowners to stimulate construction starts. New York's upstate construction future depends upon the ability to sell what one builds. Washington County, Pennsylvania, for example, reported improved home sales servicing the gas industry in 2010, but apparently not of properties built on drill sites.

## The Conundrum Revisited

The energy and housing sectors both rely on investor dollars to fund their future. Pension funds and other money sources that still invest in housing but now consider natural gas the preferred investment raise a potential paradox: Will individuals' retirement funds expand as their homeownership rights fade away? The conundrum to consider: how can a nation with $6.7 trillion in residential secondary mortgage market debt that measures economic recovery by construction starts and new mortgage loans also accommodate risky and underinsured residential fracking involving a still-unknown quantity of this residential mortgage collateral? Before New York embraces fracking as a new frontier, it would be wise for our corporate and government leaders focused on the vitality of our housing and energy sectors to address and resolve this conundrum. ■

1. Chesapeake Energy Corp., *10-K: Annual Report Pursuant to Section 13 and 15(d)* 27 (2011) (Chesapeake Energy 10-K: Annual Report); Range Resources, Uncovering Tomorrow's Energy: 2010 Annual Report 13 (2010) (Range Resources 2010 Annual Report).

2. Chesapeake Energy 10-K: Annual Report 4.

3. N.Y. Real Property Law § 232-b.

4. Mark Greenblatt, *Texas drinking water makes pipes and plumbing radioactive*, KHOU.com (May 18, 2011) at http://www.khou.com/home/-I-Team-Texas-drinking-water-makes-pipes-and-plumbing-radioactive-1221408194.html.

5. N.Y. Jurisprudence, Mines § 7; *see* N.Y. Uniform Commercial Code § 9-102.

6. Div. of Mineral Res., A Landowner's Guide to Oil & Gas Leasing, Dep't of Envtl. Conservation (2008), http://www.dec.gov/docs/materials_minerals_pdf/brochure.pdf.

7. Cornell University Professor Susan Christopherson cautions against boom-bust impacts. *See* Susan Christopherson, *Marcellus Gas Drilling*, Cornell Univ. 2011, http://www.greenchoices.cornell.edu/development/marcellus.

8. Joe Hoff, *Moratoria, Bans, Resolutions Opposed to Hydrofracking: A Local and Global Sampling*, R-Cause (Sept. 20, 2011) www.r-cause.net/bans-moratoria.

9. *Anschutz Exploration Corp. v. Town of Dryden & Town of Dryden Town Bd.*, Supreme Court, Tompkins County; N.Y. Environmental Conservation Law § 23-0303(2) (ECL).

10. ECL § 23-0901; Marie C. Baca, *State Law Can Compel Landowners to Accept Gas and Oil Drilling*, Pro Publica (May 19, 2011), http://projects.propublica.org/tables/forced-pooling.

11. ECL § 23-0901.

12. *Sylvania Corp. v. Kilborne*, 28 N.Y.2d 427 (1971) (quoting *Hunter Co. v. McHugh*, 320 U.S. 222 (1943)).

13. *See* Greg May, VP, residential lending, *Gas and Oil Leases Impact on Residential Lending*,Tompkins Trust Co., White Paper,(Mar. 24, 2011), http://www.tompkins-co.org/tccog/Gas_Drilling/Focus_Groups/Assessment%20Documents/White%20Paper.pdf

14. Dep't of Hous. & Urban Dev., *Valuation Analysis for Single Family One-to-Four Unit Dwellings* (4150.2) (2011).

15. Chesapeake Energy 10-K: Annual Report 29, *supra* note 1.

16. Range Resources 2010 Annual Report 13, *supra* note 1.

17. Greg May, VP, residential lending Tompkins County Trust, telephonic update of white paper, *supra* note 13, and Joseph Heath, Esq.

18. *See* Ian Urbina, *Rush to Drill for Natural Gas Creates Conflicts With Mortgages*, N.Y. Times, Oct. 20, 2011, p. 1. Mr. Urbina's article used Elisabeth Radow's August 11, 2011, letter to Freddie Mac and the federal agency that oversees Freddie Mac, warning the agencies about potential conflicts in the mortgage market, as a documentary source for his piece. The letter may be viewed at http://www.nytimes.com/interactive/us/drilling-down-documents-8.html#document/p12/a33448.