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# AN OHIO LANDOWNER'S GUIDE TO HYDRAULIC FRACTURING

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## ADDRESSING ENVIRONMENTAL AND HEALTH ISSUES IN NATURAL GAS LEASES

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***Note: It is strongly recommended that you consult a lawyer with expertise in oil and gas law before signing a lease or engaging in lease negotiations. This document is not meant to be definitive legal advice, nor is it intended to serve as a substitute for consulting with a lawyer. The authors assume no liability for the actions taken (or not taken) by any party in reliance on this guide.***

## Getting Started

**T**his guide is a source of information for you: a landowner in Ohio who is considering signing a lease with a natural gas company (“Company”) for the extraction of natural gas from your land by a process commonly referred to as hydraulic fracturing (“fracking”). Fracking is the process of drilling and extracting natural gas from layers of underground shale by injecting a mixture of water, sand, and chemicals to create horizontal and vertical fractures beneath the surface of the earth. This process allows otherwise unreachable gas to be extracted. You may want to sign a lease for a financial opportunity—but it’s important to realize that fracking is an industrial process that can have a big impact on your property and family. It’s very important to make sure that proper protections are included in any lease that you do sign.

When you sign a natural gas lease, you (then known as the “Lessor”) are not only agreeing to allow the Company (then known as the “Lessee”) to extract the natural gas from below your land, but you are also agreeing to allow the Company to engage in various related activities, such as drilling and storage of chemicals and waste products on the surface of your land. Because of the invasive nature of the fracking process, as well as the toxic chemicals used, these operations could lead to serious environmental and health risks for you, your family, your water sources, your land, your crops, your livestock, and your neighbors if not managed properly. As described in additional detail

below, these risks can include polluted drinking water, polluted soil, increased air and noise pollution, land scarring, and increased radon and hydrogen sulfide levels, all of which could adversely affect your health.

Once signed, a lease is the law between you and the Company. Negotiating terms that deal with the issues covered by this guide, and including them in your lease, can be an effective and important way to protect you, your family and your property. Keep in mind, however, that a lease cannot prevent harm; it only gives you legal rights in case things go wrong. Even the best companies can have accidents. It is impossible to eliminate all risk.

Specifically, this guide:

- + highlights some of the key environmental and health issues associated with various aspects of fracking; and
- + provides recommendations for how you can protect yourself, your family, and your property by incorporating suggested language into any lease that you sign with a Company.

This guide has been prepared with current Ohio laws and regulations in mind (as of May 2011).<sup>1</sup> These laws served as a starting point from which the more protective suggestions have been developed. It is important to keep in mind, however, that the Ohio Department of Natural Resources is currently reviewing its natural gas regulations and Best Management Practices (“BMPs”) and expects to modify them in the coming months. Thus, before beginning any lease negotiations, you should have your attorney check the most recent version of the laws

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<sup>1</sup> Specifically, these include Chapter 1509 of the Ohio Revised Code and Chapter 1501:9 of the Ohio Administrative Code. Note that the regulations are more stringent for “urbanized” areas (townships with more than 5,000 people and cities and villages) than they are for “non-urbanized” areas.

and regulations to ensure that your lease conforms to them and includes the most protective language available to you.

It is also important to note that this guide only deals with environmental and health issues (it does not address financial issues, for instance, which have been adequately covered by other guides). Moreover, while this guide attempts to provide specific lease language that you can use, you and your attorney should ensure that each provision is adapted to suit your particular needs.<sup>2</sup>

While this guide will hopefully be helpful in providing a concise overview of specific environmental and health risks and ways of mitigating those risks, there are other guides that you may also want to consult. Some particularly useful materials include:

- + Earthworks, Oil & Gas Accountability Project, *Oil and Gas at Your Door: A Landowner's Guide to Oil and Gas Development*, Second Edition (2005), available at <http://www.earthworksaction.org/LOguidechapters.cfm>
- + Network for Oil & Gas Accountability and Protection, Resources, available at <http://www.neogap.org/neogap/resources>
- + David McMahon, *Information about Oil and Gas Leasing for Surface Owners Who Also Own Their Minerals*, May 16, 2008, available at <http://www.wvagriculture.org/images/Executive/LeasingAdviceWVa2008-05-16.pdf>

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<sup>2</sup> To this end, where sample lease provisions call for specific numbers, this guide has adopted the convention of using “[xx]” – implying that you or your attorney should fill in whatever number is most appropriate to your particular situation.

## On Fracking

**S**hale gas drilling and production is a multi-year process involving several distinct stages of operations. The following outline provides a brief overview of the process. First, the Company will engage in seismic testing to determine where natural gas deposits are found in large quantities. Second, the Company will begin constructing various facilities on your land to enable it to extract the natural gas. These facilities often include, but are not limited to:

- + the well site (where the drilling occurs);
- + roads leading to the site;
- + pipelines (to carry the natural gas from the site);
- + pits (to store wastewater or other waste on the site);
- + fences (to protect facilities);
- + compressors (to compress the natural gas for transport); and
- + separators (to purify the natural gas for transport).

Third, the Company will drill the well and fracture the shale to allow the natural gas to be extracted. Fourth, the Company will extract the natural gas, a process which can last for years. A well can be refracked multiple times. Finally, when the well no longer produces enough natural gas for the Company to earn profits, the Company abandons and plugs it. Per current Ohio law, this is followed by reclamation of the abandoned site. This reclamation should entail, to the extent practicable, restoring the site to as close to its original condition as possible.

Each aspect of the drilling and production operations presents environmental or health risks. You may therefore want to incorporate language like the examples provided

in the remainder of this guide into your lease to reduce these risks and provide yourself legal remedies.

## Environmental and Health Issues

The following sections list the risks associated with each aspect of shale gas operations, identify possible ways that you can protect yourself, and provide examples of specific lease terms in green boxes that you can incorporate into a lease to legally secure these protections. In case it is useful to you or your attorney, an Appendix at the end of this guide provides a cohesive lease addendum that includes all of the sample lease provisions suggested in the individual sections below. This addendum may need to be revised to meet your unique circumstances.

### 1. Acquisition of Baseline Information

*Description of Activity:* Before the Company begins its operations, you want to get information about the condition of your land. This information will provide a yardstick by which you can monitor any impact of the Company's activities on your land. Having this baseline information will help deter the Company from neglecting its environmental duties under the lease as well as under applicable laws and regulations. Baseline information will make it easier for you to prove that the Company's operations harmed your property.

*Risks:* If you do not have baseline data regarding the state of your groundwater, the air you breathe, the quality of your soil, and the condition of your property, it will be difficult to show later on that the Company's actions have harmed you or your property.

*How to Protect Yourself:*

- + You can require that the Company hire an independent environmental engineering or consulting firm to conduct a baseline study—before starting its activities—to ascertain the condition of your soil, water, air, roads, livestock, crops, vegetation, buildings, structures, and other properties.

*Note: You can obtain the help of experts, such as a county soil and water district employee, in identifying sensitive areas where drilling should be avoided.*

- + You can require that the Company give you a written plan of its stage-by-stage activities, the adverse impacts expected, and how each of these impacts will be mitigated.

Prior to the commencement of any activity under this Lease, Lessee shall perform studies to ascertain the baseline condition of Lessor's environment. The baseline information collected shall include, but shall not be limited to: a) an inventory of crops, native or cultivated grasses, trees, pastures, and animals, whether domestic or wild, on the Leased Premises, and b) results of soil, water, and air quality testing performed by an independent company of Lessor's choosing that is certified by the Ohio Environmental Protection Agency and/or the Ohio Department of Health. Lessee shall pay all costs of such studies and testing. Lessor shall be provided complete copies of any and all studies and testing results and data, and shall have full rights to independently contact the testing laboratory for inquiry and information.

Lessee shall also provide Lessor with a plan describing each stage of Lessee's proposed activities, identifying the likely effects that said activities will have on all aspects of the Leased Premises, and setting out in detail what steps Lessee shall take to mitigate the adverse effects on the Leased Premises.

## **2. Limiting the Location and Scope of the Company's Operations**

*Description of Activity:* If you do not limit where the Company conducts its operations, it might choose to locate them on parts of your land that are environmentally sensitive or where you might not want them. Additionally, the Company's operations can interfere with your use of the land as well as that of your neighbors.

*Risks:* If natural gas operations are conducted in certain areas, they could cause ecological damage, could ruin areas of your property that have special significance for you, or could interfere with your everyday enjoyment of your land. Examples include areas near: your house, lakes, ponds, or streams, historical sites, and habitat of wildlife and endangered species. Additionally, the Company's operations could interfere with other activities on your land, such as farming, fishing, or hunting.

*How to Protect Yourself:*

- + You can designate certain areas as off-limits for the Company.
- + You can limit the Company's operations to certain areas of your property.
- + You can require that the operations be grouped together to leave the majority of your land free.
- + You can require that pre-disturbed land (e.g. farmland) should be used before undisturbed land (e.g. woodlands).
- + You can specify that you have the right to build additional structures on your land.
- + You can require the Company to conduct its activities in a manner that will not interfere with your use of the property.
- + You can prohibit the Company from taking or using any resources (other than natural gas) on the leased premises without your consent.

- + You can prohibit the Company's employees from engaging in activities that might be harmful to your use of the land (such as hunting, fishing, etc.).
- + You can specify that you have the right to the proceeds from the sale of any timber harvested on your land.

Before Lessee commences any operations on the Leased Premises, Lessee and Lessor shall mutually agree in writing on the location of all Seismic Testing Activities, Well Sites, wells, tanks, tank batteries, pits, roads, pipelines, pipes, pump stations, compressors, dryers, separators, gates, and other equipment and facilities so as to avoid disruption of Lessor's use of the Leased Premises. Lessor's consent shall not be unreasonably withheld. In no case shall Lessee locate any equipment, or conduct any operations, within [xx] feet of any occupied structure.

Lessee shall also, to the degree practicable:

design and lay out its operations to be concentrated in a single area of the Leased Premises so as to avoid unnecessary utilization of surface areas; locate all pipelines and roadways within a single corridor; and conduct operations on pre-disturbed land prior to using undisturbed land.

Lessor reserves the right to construct any structure or other improvements, at any location selected by Lessor, anywhere on the Leased Premises. If Lessor commences construction of a structure or other improvement on the Leased Premises, Lessee will not locate any equipment, nor conduct any operations, within [xx] feet of the proposed structure or improvement without Lessor's written permission.

Lessee hereby agrees that it shall conduct its activities in such a manner that shall not render Lessor or any other person rightfully in close proximity to the site incapable of continuing to enjoy the use of his or her land. Lessee will plan and conduct its surface operations in a manner that will avoid or minimize intrusion into crop fields. In the event such an intrusion cannot be avoided, Lessee shall compensate Lessor for the damage or loss of growing crops at current market value.

Employees, agents, and independent contractors of Lessee shall have no right to and are prohibited from firing any firearms, hunting, and

fishing on the Leased Premises. Lessor has the right to deny access to the Leased Premises to any person found to have violated this provision. Furthermore, Lessor retains the right for Lessor, its successors, assigns, and invitees to fish and hunt anywhere on the Leased Premises.

Lessee shall notify Lessor in writing at least [xx] calendar days prior to any removal of marketable timber (marketability to be within the discretion of Lessor). At Lessor's option, Lessor may choose to harvest timber, or Lessor may require an appraisal of the timber by a qualified independent appraiser, and Lessee shall pay Lessor the appraised value for the timber identified prior to its removal by Lessee.

### **3. Maintenance of Water, Soil, and Air Quality**

*Description of Activity:* Various aspects of the Company's operations can lead to contamination of well water, ponds, streams or other water sources on your land. These operations can also contaminate your soil and/or pollute your air.

*Risks:* Water contamination is extremely serious and can be dangerous to your health and the health of those around you. In addition, if your water were to become contaminated, it would reduce the value of your property. Additionally, soil contamination and increased air pollution can also lead to increased health hazards to you, your family, and your livestock.

*How to Protect Yourself:*

- + You can require the Company to conduct periodic tests to detect any changes in the smell, color, taste, or quality of your water and provide the test results to you.
- + If the testing reveals any negative change to your water sources compared to the baseline, you can require the Company to take steps to remedy the problem.

- + You can also require the Company to conduct periodic tests of the quality of your soil and air and provide those test results to you.

Lessee shall maintain or improve the baseline quality and quantity of all water sources on the Leased Premises, including, but not limited to, streams, ponds, lakes, springs, aquifers, and wells. To this end, in addition to the required studies and testing that take place prior to operations, Lessee shall also test all water sources on the Leased Premises at the completion of operations, at least every [xx] months during operations, and as deemed necessary by Lessor in Lessor's sole discretion due to changes in flow or quality, including but not limited to color, smell, or taste. This testing shall be performed by an independent company of Lessor's choosing that is certified by the Ohio Environmental Protection Agency and/or the Ohio Department of Health. Lessee shall pay all costs of testing and shall provide Lessor with complete copies of any and all testing results and data. Lessor shall have full rights to independently contact the testing laboratory for inquiry and information.

Should any of these water sources be compromised, contaminated, degraded, tainted, chemically altered, infiltrated, polluted, or reduced as a result of Lessee's operations, Lessee shall promptly take any and all steps necessary to restore water quality and quantity to its baseline condition. During the period of such remediation, Lessee shall provide Lessor with an adequate supply of potable water consistent with the baseline condition of the water source prior to Lessee's operation. Any pollution or reduction of any water source after any operations commence will be presumed to be the result of Lessee's operations unless Lessee can prove otherwise, with Lessee having the burden of proof by a preponderance of the evidence. Until Lessee can prove otherwise as to cause, Lessee shall provide the required replacement supply beginning immediately upon Lessor's providing evidence to Lessee of the water quality and/or quantity condition causing concern.

Lessee shall also maintain or improve the baseline soil quality and air quality on the Leased Premises. To this end, in addition to the required studies and testing that take place prior to operations, Lessee shall also conduct air quality and soil quality testing on the Leased Premises at the completion of operations, at least every [xx] months during operations, and as deemed necessary by Lessor in Lessor's sole discretion due to noticeable changes in quality. This testing shall be performed by an independent company of Lessor's

choosing that is certified by the Ohio Environmental Protection Agency and/or the Ohio Department of Health. Any pollution of the air or soil on the Leased Premises after any operations commence will be presumed to be the result of Lessee's operations unless Lessee can prove otherwise, with Lessee having the burden of proof by a preponderance of the evidence. Lessee shall pay all costs of testing. Lessor shall be provided complete copies of any and all testing results and data, and shall have full rights to independently contact the testing laboratory for inquiry and information. In the event that, during the term of this Lease, a local government or government agency having jurisdiction over the Leased Premises develops a plan for testing or other analysis of water, soil, and/or air quality that involves formation of a fund for specific or random tests of water quality in areas subject to oil and gas exploration, including the Leased Premises, Lessee agrees to participate in such a plan to the same extent as if that plan had been in existence at the time of inception of this Lease.

#### **4. Roads**

*Description of Activity:* Fracking and development involve the transportation of large amounts of water, chemicals, and supplies by truck. To support its operations, a Company might widen existing roads and/or build new roads to access various parts of its work sites. A Company may also wish to build roads where you prefer they not be built, such as close to your house or through a crop field.

*Risks:* Roads create additional "scars" on the land and can lead to more traffic if other people decide to use the new or improved road. Roads and traffic can interfere with your daily life and activities, and result in continuous noise and dust pollution.

*How to Protect Yourself:*

- + You can limit the Company's ability to widen existing roads and/or build new roads.

*Note: You should check with the local fire department, county engineer, and/or planning*

*commission to determine that the road will be constructed with sufficient turnaround space for emergency vehicles.*

- + You can also require that the Company install and maintain a gate on any new road it builds to help limit access by other people who might seek to use the newly-built road.
- + You can require that roads be placed in specific areas (or not in specific areas), especially avoiding areas that are environmentally sensitive.

*Note: This issue is covered by the lease language provided in the section above on limiting the location and scope of the Company's activities.*

Lessee agrees to locate and grade not more than one (1) road to each major work area necessary for its operations and to confine travel to such road. Any road constructed by Lessee shall not exceed [xx] feet in width, or a minimum width required to perform required operations. Any road constructed by Lessee shall be constructed such that there is sufficient turnaround space for emergency vehicles.

At Lessor's request, Lessee shall install and diligently maintain fences, gates, closures, and/or cattle guards on all roads built by Lessee. Lessor will be allowed free use thereof. At Lessor's request, such fences, gates, closures, and cattle guards will become Lessor's property on termination of this Lease. At Lessor's request, Lessee shall keep all gates closed when not in use.

**Risks:** The increased truck traffic from all aspects of the operations can tear up existing roads.

**How to Protect Yourself:**

- + You can require that the Company repair and maintain certain roads periodically, especially after certain activities that are known to be very damaging to roads, such as seismic testing with

“thumper” trucks and/or after the fracking process.

*Note: Improving local roads might have the unintended consequence of inviting other drivers to use the newly improved road, potentially increasing traffic.*

To the extent permitted by applicable law, Lessee agrees to improve and maintain all roads used by it in good repair. These duties apply to all roads utilized by Lessee, regardless of whether such road was constructed by Lessee. For public roads, Lessee shall maintain such roads in conformity with standards set forth by the relevant permitting authority to provide a smooth, rut-free, all-weather surface suitable for use by automobiles. For private roads, Lessee shall utilize shale, gravel, or crushed stone where necessary to provide a smooth, rut-free, all-weather surface suitable for use by automobiles. When such roads are no longer being used by Lessee, if Lessee has laid stone or any other topping, Lessee agrees, upon Lessor’s request, to remove such topping and to restore the surface as nearly as possible to its baseline condition. When improving, constructing, or maintaining roads, Lessee shall not use any materials from the Leased Premises without the written consent of the Lessor.

*Risks:* This increased truck traffic leads to visual, noise, and air pollution.

*How to Protect Yourself:*

- + If dirt roads are involved, you can have the Company periodically use non-polluting dust suppression techniques, the easiest of which is spraying water on the road.
- + You can require that all of the Company’s employees drive slowly on the roads.
- + You can prohibit the Company from using the roads at certain times of the day or year, such as not early in the morning, late at night, or on weekends.

At Lessor's request, Lessee shall control dust from traffic to the maximum extent practicable, utilizing water or, with Lessor's approval, another harmless or benign substance as a dust suppressant when necessary. Unless otherwise authorized by Lessor, Lessee shall use fresh water not obtained from the Leased Premises.

Lessee shall prevent its employees, agents, and contractors from operating vehicles in a negligent manner or at speeds in excess of [xx] miles per hour while on the Leased Premises. Unless emergency conditions dictate or Lessee has received prior written consent from Lessor, Lessee shall prevent its employees, agents, and contractors from traveling and operating any vehicle on the Leased Premises between: [xx] o'clock PM and [xx] o'clock AM, as well as on [xx].

## 5. Fencing

*Description of Activity:* The Company's operations will include many activities that, for safety reasons, it will be important to keep enclosed.

*Risks:* Fencing is especially important to keep children, livestock, wildlife, and unauthorized persons from getting too close to certain structures and equipment that could be harmful to them.

*How to Protect Yourself:*

- + You can require that the Company use fences around all of its operations and grant you reasonable access to those areas.

At Lessor's request, Lessee shall (i) fence all wells and well sites, tank batteries, pits, and other equipment placed on the Leased Premises with a fence capable of deterring livestock, wildlife, small children, and trespassers; (ii) keep such fences in good repair; and (iii) keep all gates and fences closed at all times. Lessor shall be allowed all reasonable access to fenced areas.

## 6. Noise

*Description of Activity:* The operation and movement of heavy machinery and equipment associated with well site development may be noisy.

*Risks:* This noise could cause nuisance and stress for you, your family, your neighbors, and any livestock, wildlife, or pets in the vicinity.

*How to Protect Yourself:*

- + You can require that the Company limit noise-producing activities to specific times of day. For example, you can prohibit such activity when people are asleep early in the morning and/or late at night, and/or on weekends and holidays.
- + You can also require that the Company's operations do not generate noise in excess of a certain decibel level.

Lessee shall not operate any vehicles, equipment, or machinery on the Leased Premises between: [xx] PM and [xx] AM, as well as on [xx]. At any given time, Lessee's operations shall not generate noise in excess of [xx] decibels, on average over the course of any [xx] minute period, nor [xx] decibels at any one time, as measured from any point within [xx] feet from the activity generating the sound.

## 7. Restrictions on Using Hazardous Materials

*Description of Activity:* Companies will be using hazardous materials and chemicals in most phases of their operations.

*Risks:* These hazardous materials could be very harmful to you, your family, animals, and/or your property by polluting water, air, and land.

*How to Protect Yourself:*

- + There is conflicting information regarding whether it is possible to frack without using hazardous materials. If it is possible, you should prohibit their use in your lease. If it is not possible, you should ensure that the Company provides you with the names of, and information about, all such chemicals used on your property. As a practical matter, however, you cannot prohibit the presence of hazardous materials on your property because some naturally-occurring hazardous materials come to the surface during the fracking process.
- + You can, however, require the Company to provide you with detailed information about such substances. For example, you can ask for the Material Safety Data Sheets for all hazardous chemicals used.
- + You can also require the Company to take all necessary precautions when using such hazardous materials.

Lessee shall not use, dispose of, or release on the Leased Premises or permit to exist or to be used, disposed of or released on the Leased Premises as a result of its operations any substances (other than those Lessee has been licensed or permitted by applicable public authorities to use on the Leased Premises) which are defined as "hazardous materials", "toxic substances" or "solid wastes" in federal, state, or local statutes, regulations, or ordinances. For any such materials or substances that are used or generated on the Leased Premises, Lessee shall provide Lessor with the name, chemical composition, and any applicable Material Safety Data Sheets.

Should any pollutant, hazardous material, toxic substance, or solid waste be accidentally released on the Leased Premises, Lessee shall immediately notify Lessor and the applicable governmental body of such event, and shall take all action necessary to mitigate harm and clean up, remediate, and restore all affected areas.

## 8. Seismic Testing

*Description of Activity:* Before engaging in any drilling or production operations, the Company may perform seismic testing to pick the best places to drill wells. This testing works by sending seismic waves into the earth to determine the makeup of the rock layers, from which the Company may be able to determine where the natural gas is and how much is there. There are different ways that the Company can generate these seismic waves, including the use of explosives and large “thumper” trucks (trucks that pound the ground in various spots to generate seismic waves). Explosives are not common in current operations, but they are still sometimes used.

*Risks:* If explosives are used, the resulting holes can cause erosion and/or pollution of adjacent ponds, streams, and wells. Thumper trucks generally cause fewer environmental risks, but can create additional visual, noise, and air pollution while they are in use (these concerns are dealt with in the “Roads” section included above).

*How to Protect Yourself:*

- + You can prohibit the Company from using explosives when conducting its seismic testing.
- + If you do not prohibit the use of explosives during seismic testing, you can require that the Company minimize erosion by not conducting seismic testing on sloped land.
- + You can require that the Company plug all “shot holes” caused by explosives from bottom to top when it has finished seismic testing activities.
- + You can require the Company to limit its seismic testing period to a specific number of weeks.
- + As with all activities, you can require that seismic testing be conducted in specific areas (or not in

specific areas), especially avoiding areas that are environmentally sensitive.

*Note: This issue is covered by the lease language provided in the section above on limiting the location and scope of the Company's activities.*

Without Lessor's prior written consent, Lessee shall refrain from using explosives during its Seismic Testing Activities.

[In the event that you do not prohibit the use of explosives during seismic testing]:

Lessee shall not conduct Seismic Testing Activities on slopes which have an angle that is greater than [xx] degrees. Any holes in the ground resulting from Lessee's seismic testing shall be plugged, from bottom to top, within [xx] days from the date on which the hole was shot. Lessee shall plug and abandon these holes in a manner that prevents vertical movement of water in the hole.

The duration of Seismic Testing Activities shall not exceed [xx] weeks.

For the purposes of this Lease, Seismic Testing Activities shall include all activities undertaken by Lessee for the purpose of gathering information regarding the subsurface geology of and/or natural resources located on or beneath the Leased Premises and/or adjacent lands.

*Risks:* If the Company uses wire survey flags to mark land as part of its seismic testing process, farm equipment (such as tractors) can shred the flags, producing metal bits that can kill livestock which graze on the land. Additionally, if the Company uses seismic lines to mark land, these lines can destroy vegetation and could cause erosion.

*How to Protect Yourself:*

- + You can require that the Company minimize its use of seismic lines.

- + You can require that seismic survey stakes be made of wood instead of metal.
- + As with all activities, you can require that the Company remove all materials when the process is finished.

Throughout its Seismic Testing Activities, Lessee shall minimize the use of physical markers, including, but not limited to, seismic lines, survey flags, and stakes. To the extent that Lessee utilizes survey flags in its seismic testing activities, Lessee shall refrain from using flags or flag stands made of metal. Within [xx] days from the date on which the Lessee has completed its Seismic Testing Activities, Lessee shall remove all materials used in such Seismic Testing Activities, including all physical markers, as well as any refuse or other equipment that may have been left behind by Lessee.

## 9. Development of the Well Site

*Description of Activity:* Once the Company determines where to put its drilling well(s), it will begin preparing the well site(s) for drilling operations. This process involves stripping the land of vegetation and putting in place drilling and production equipment such as the large, concrete well pad, drill rig, tank battery, compressors, and water tanks. It also involves building access roads so that trucks can reach the well site(s).

*Risks:* Developing the well site(s) can leave an ugly “scar” on the land if the Company does not engage in proper reclamation and re-vegetation. If the Company spreads out its operations and the location of equipment, then more land will be impacted.

*How to Protect Yourself:*

- + Given that well pads are often much larger than they need to be, you can limit their size.
- + You can require that all infrastructure (e.g., well pads, compressor stations, condensate tanks) be

- located as close together as possible, in as small an area as possible.
- + You can make the Company engage in “interim reclamation,” i.e. planting trees and other vegetation near the well in order to minimize the eyesore and to help reduce the noise associated with ongoing drilling and production operations.
  - + As with all activities, you can require that the well site be placed in a specific area (or not in specific areas), especially avoiding areas that are environmentally sensitive.

*Note: This issue is covered by the lease language provided in the section above on limiting the location and scope of the Company's activities.*

The Well Site shall be no larger than [xx] acres. In addition, Lessee shall use its best efforts to minimize the size of the Well Site and locate equipment and infrastructure as close together as possible.

Following the construction of the Well Site, and prior to Lessee engaging in any drilling or production operations, Lessee shall consult with Lessor to take steps to minimize the visual impact associated with the Well Site. At Lessor's request, and to the extent that it does not present an increased fire hazard, Lessee shall take reasonable efforts to plant trees and other vegetation in areas that help minimize the visual impact of the well site. Both parties recognize that said vegetation shall be limited to that which does not interfere with Lessee's ability to conduct its operations. Well Site construction is deemed to have been completed when the Well Site has been constructed such that it is able to be used for its primary purpose.

For the purposes of this Lease, the Well Site shall refer to the area that includes a well drilled on the Leased Premises and the associated facilities that are appurtenant to the operation of said well for the purpose of aiding in the processes of extraction and recovery, lifting, stabilization, treatment, separation, production processing, storage, and measurement of hydrocarbon gas and/or liquids.

## 10. Drilling and Fracking

*Description of Activity:* Once the equipment is in place, the Company will begin drilling the well. The first part involves drilling a vertical well that is thousands of feet deep. Once the well reaches the layer of shale which contains the natural gas that the Company is seeking, the Company will change the direction of its drilling and drill horizontally into the shale. Next, the Company will engage in the actual “fracking” of the shale to extract the gas trapped within. This is done by shooting water, chemicals, and additives down the well hole at high pressures to create fractures in the shale so that the gas can be extracted. This mixture of water, sand, and chemicals is commonly referred to as “frackwater” or “slickwater.” When the mixture comes back up from the well, it is often referred to as “flowback,” “wastewater,” or “produced water.” This flowback carries with it additional organic compounds that are picked up from inside the well. Some of these compounds, although occurring naturally, may pose health or environmental hazards when brought to the surface.

*Risks:* The drilling and fracking processes can lead to the contamination of water sources such as ponds, streams, and wells and could thus be harmful to health. Fracking requires the use of many different chemicals. The drilling process can also release and carry to the surface naturally occurring substances, like arsenic or mercury, and radioactive material (often referred to as “NORM”) such as radon, all of which can be harmful to health.

*How to Protect Yourself:*

- + You can require that the Company provide you with notice before it starts drilling.
- + You can require that the Company provide you with a list of substances that it will use in its fracking fluid.

- + You can require that the Company not store chemicals on your property, or require that they be kept in a particular area at a safe distance from your home, crops, livestock, and water sources.
- + You can require that the Company pay for periodic radon and hydrogen sulfide testing in and around occupied structures.

*Note: Lease provisions regarding other types of testing, such as water and soil, are included above in the sections covering acquisition of baseline information and maintenance of water quality.*

Lessee shall provide at least [xx] calendar days prior written notice to Lessor before Lessee commences any actual drilling on the Leased Premises.

Prior to injecting any substance into a well drilled on the Leased Premises, Lessee shall provide Lessor with a list of all substances, broken down by compound, that are to be injected. Lessee shall also provide Lessor with Material Safety Data Sheets for each compound to be injected into the well. Lessee shall not store chemicals on the Leased Premises, except to the extent necessary to carry out current use of such chemicals in operations. Lessee shall keep chemicals necessary to carry out current use [xx] feet from any occupied structure, growing crops, livestock, and water sources on the Leased Premises.

At Lessor's request, Lessee shall pay for radon and hydrogen sulfide testing, to occur once every [xx] months, of any occupied structures on the Leased Premises, whether constructed before or after the effective date of this Lease. Such test results shall promptly be provided to Lessor. This testing shall be performed by an independent company of Lessor's choosing that is properly licensed to conduct such testing by the State of Ohio. Testing shall also be conducted prior to and at the completion of operations on the Leased Premises or on any land in the unit of which any of the Leased Premises is a part.

**Risks:** Fracking fluid uses a tremendous amount of water, sometimes up to several million gallons per fracking event, and wells can be fracked multiple times. If local water

sources are used by the Company, the fracking process can deplete the water in your wells, streams, or ponds.

*How to Protect Yourself:*

- + You can require that the Company bring all water for its operations from off site.

*Note: One potential downside to this approach is that it will mean more trucks driving to and from the well site.*

Without Lessor's prior written consent, Lessee shall not use surface or groundwater from the Leased Premises, including Lessor's springs, ponds, wells, creeks, streams, rivers, or lakes for any operations undertaken by Lessee.

Without Lessor's prior written consent, Lessee shall not drill or operate any water well, take water, or otherwise use or affect water in subsurface water formations. Any water well drilled by Lessee on the Leased Premises, with Lessor's written consent, shall be left intact and shall become the property of Lessor upon the termination of this Lease.

## **11. Disposal of Flowback (Wastewater)**

*Description of Activity:* After the well has been fracked, a portion of the wastewater returns to the surface where it will be stored for re-use or discarded. This flowback is usually contaminated. There are various methods of temporarily storing flowback, most notably in large open-air impoundment pits or several closed tanks usually grouped in batteries. Additionally, companies sometimes try to dispose of flowback by spraying or misting it out of an open-air impoundment pit, or by spreading it on dirt roads. In some cases, companies try to pipe flowback between well locations so that it can be managed at a central location. Centralized impoundment pits are thus larger than pits serving single wells.

*Risks:* If the Company uses an impoundment pit to store flowback, it will dig a large pit on your property, which can leave a scar on the land.

*How to Protect Yourself:*

- + You can require that flowback be stored temporarily in a tank, trucked away, and properly disposed of by the Company, thus eliminating the need for a pit.

*Note: One potential short-term downside to this approach is that it will mean more trucks driving to and from the well site. This nuisance is slight, however, compared to the problems an impoundment pit presents.*

Without Lessor's prior written consent, Lessee shall not dig any pits on the Leased Premises for the storage of flowback, produced water, wastewater, brine, saltwater, or frackwater ("Flowback"). Lessee shall remove all Flowback from the Leased Premises and dispose of it off-site in conformity with applicable Ohio law.

*Risks:* If an impoundment pit is used for temporary storage, it can present a hazard for children, livestock, and wildlife. Evaporating flowback can create air pollution and foul odors in the surrounding area. Additionally, if there is a tear in the pit liner, (or no liner), the chemical-filled wastewater can seep into the ground and contaminate soil and water sources.

*How to Protect Yourself:*

- + If you decide to allow the Company to build an impoundment pit, you can ensure that the Company builds it in accordance with Ohio law, including that it be adequately lined and fenced to keep out livestock and children.

*Note: This fencing provision is covered by the lease language provided in the section above on fencing.*

- + You can require that the Company does not spray wastewater into the air or onto the ground to aid in its evaporation or disposal.
- + You can require that the Company treat the wastewater on-site to mitigate the air pollution and foul odors associated with it.
- + As with all activities, you can require that pits be placed in specific areas (or not in specific areas), especially avoiding areas that are environmentally sensitive.

*Note: This issue is covered by the lease language provided in the section above on limiting the location and scope of the Company's activities.*

Any pit agreed upon by Lessor and Lessee shall conform to all applicable regulatory requirements and be deep enough to allow at least [xx] inches of backfill over the liner after grading to surrounding pre-drill contour. Promptly after completion of operations, any backfill, liners, and Flowback shall be removed, and the pits shall be prepared for burial, back filled, graded, and planted within [xx] days, weather permitting.

Lessee shall immediately notify Lessor and the Ohio Department of Natural Resources if any pit lining is torn, punctured, or otherwise breached, allowing any fluid contained in a pit or designated to be contained in a pit to seep, leak, or overflow through or around the liner.

Lessee shall not employ any methods that actively aid in the evaporative process of any Flowback stored in a pit on the Leased Premises. This prohibition includes spraying, misting, dispersing, or otherwise actively aiding in the evaporation of such Flowback into the surrounding environment by any means whatsoever.

At Lessor's request, Lessee shall use reasonable means to periodically treat the Flowback temporarily stored in a pit on the Leased Premises so as to minimize any odors emanating from it.

*Risks:* If the Company pipes wastewater to a different location, the wastewater can contaminate local water sources, such as wells, streams, and ponds, if the piping leaks and/or ruptures.

*How to Protect Yourself:*

- + You can require that the Company refrain from piping wastewater across your land.

*Note: As above, one potential downside to this approach is that it will mean more trucks driving to and from the well site.*

- + If you do allow the Company to pipe wastewater, you can require that the Company inspect the piping regularly.
- + As with all activities, you can also require that the wastewater pipes be placed in specific areas (or not in specific areas), especially avoiding areas that are environmentally sensitive.

*Note: This issue is covered by the lease language provided in the section above on limiting the location and scope of the Company's activities.*

Without Lessor's prior written consent, Lessee shall not utilize any piping to transport Flowback over any part of the Leased Premises.

In the event that Lessee utilizes piping to transport Flowback, Lessee shall visually inspect the length of such piping regularly, with such inspections occurring no less frequently than once every [xx] days. In the event that any portion of the piping is damaged or leaking, Lessee shall a) immediately notify Lessor and the Ohio Department of Natural Resources, b) cease utilizing the piping until it is repaired, and c) undertake all cleanup efforts necessary to fully remediate any resulting contamination.

## 12. Extraction of Natural Gas

*Description of Activity:* The actual extraction of natural gas entails the gas flowing up through the well and through the pipelines that have been connected to carry the gas to places where it can be prepared for market.

*Risks:* Natural gas is highly flammable and its extraction creates a risk of fires at the well site.

*How to Protect Yourself:*

- + In addition to the primary fire prevention techniques required by Ohio law, you can require that the Company build dikes and/or firewalls around the well site and associated equipment to prevent the spread of substances that could increase the risk of fire.
- + You can also require that the Company has the ability to disable the well remotely if necessary.

Lessee must construct and maintain at all times dikes, berms, firewalls, or other methods of secondary containment around the Well Site, including around all tanks and other receptacles, so as to contain a volume of liquid equal to at least [xx] times the total volume of such tanks and other receptacles located within the boundaries of the firewall, dike, or berm.

Lessee shall have remote capability to cease all activity at the well site and to close the well in the event that such emergency cessation of activities is necessary.

## 13. Pipelines

*Description of Activity:* To carry gas from the well to market, the Company will need to build pipelines that connect the well to the larger network of pipelines around the country.

*Risks:* Above-ground pipelines are an eyesore. Buried pipelines require excavation and leave a “scar” on the land. Additionally, buried pipelines could be ruptured during any future construction activities.

*How to Protect Yourself:*

- + You can require that any pipelines that the Company builds are not interstate pipelines (which are larger than the typical “gathering lines” used locally).
- + You can require that pipelines be limited in their usage and not be used beyond the life of the well.
- + If you are concerned about the pipeline being an eyesore, you can require that the Company bury all pipelines.
- + You can require “interim reclamation” for any area affected by either above-ground or buried pipelines.
- + As with all activities, you can require that pipelines be placed in specific areas (or not in specific areas), especially avoiding areas that are environmentally sensitive, or areas where you might want to build something in the future, and perhaps utilizing areas that are already developed, such as near and parallel to roads.

*Note: This issue is covered by the lease language provided in the section above on limiting the location and scope of the Company’s activities.*

Lessee shall have the right to construct pipelines that are necessary for its operations, provided that it reimburse Lessor for reasonable damages caused by their construction. Lessee shall provide at least [xx] calendar days prior written notice to Lessor before Lessee commences construction of pipelines on the Leased Premises. Unless otherwise agreed to in advance in writing by Lessor, all pipelines shall be less than [xx] inches in diameter and shall not be designed or used for interstate transmission. Lessee shall use its best efforts to locate all pipelines near and parallel to preexisting or planned roads.

The right to build and/or operate pipelines on the Leased Premises may not be assigned to a utility company, pipeline company, or anyone else who owns no interest in the Leased Premises or is not otherwise contracted or affiliated with Lessee for the purpose of carrying out the rights and obligations under this Lease. The right to use said pipelines terminates when production from the Leased Premises ceases and all wells associated therewith are plugged and abandoned.

[If you would like the pipeline to be buried]:

Lessee shall bury any and all pipelines that it constructs on the Leased Premises. Lessee shall “double ditch” all underground lines so that all topsoil will be replaced on the surface. Unless otherwise agreed to in writing by Lessor, the width of the graded underground line corridor shall not exceed [xx] feet. If Lessee constructs buried pipelines on the Leased Premises, Lessor shall have the right to construct and lay drainage and other utility pipes, wires, and lines across or under Lessee pipelines in a manner which does not interfere with the use thereof.

[Note: Ohio law requires that buried pipelines be 2 feet below the surface; if you would like them to be buried deeper than that, you should specify that in the lease.]

Within [xx] days from the date on which pipeline construction has been completed, weather permitting, Lessee shall engage in interim reclamation of the surface disturbance caused by the pipeline. Pipeline construction is deemed to have been completed when the pipeline has been constructed such that it is able to be used for its primary purpose. As part of this interim reclamation, Lessee shall grade all areas as nearly as practicable to the baseline contours following applicable state regulations and Best Management Practices (“BMPs”), and spread set aside topsoil evenly to its original depth. Lessee shall purchase and plant graded areas with seeds of Lessor’s choice that meet the Ohio Division of Natural Resources regulations and BMPs. Lessee shall pay for all damage to growing crops, fences, tiles, and other appurtenances to the Leased Premises caused by such pipelines.

## 14. Compressors

*Description of Activity:* Before piping the natural gas long distances, the Company will compress it to allow for more efficient transport. This will involve the use of a compressor station at some point in the process. Note that there does not need to be a compressor station at every well site.

*Risks:* Compressor stations run on engines and can be very loud. Additionally, the engine running the compressor causes local air pollution and may add to respiratory problems for you and your family.

*How to Protect Yourself:*

- + Given that it is not necessary that every well site has a compressor station, you can prohibit the Company from putting a compressor on your land.
- + If you decide to allow a compressor, you can require that the Company erect noise barriers to reduce the noise pollution from the Compressor.
- + As with all activities, you can also require that the compressor station be placed in a specific area (or not in specific areas), especially avoiding areas that are environmentally sensitive.

*Note: This issue is covered by the lease language provided in the section above on limiting the location and scope of the Company's activities.*

Without a separate written agreement, no pump stations or compressors shall be located on the Leased Premises.

[If you decide to allow a compressor on your property]:

Lessee shall take reasonable steps to erect noise barriers between the compressor and any residence and barn located on the Leased Premises, whether constructed before or after the effective date of

this Lease. Prior to the construction of any pump station or compressor, Lessor and Lessee shall mutually agree in writing on the type of noise barrier to be used. In no case shall any pump station or compressor be located within [xx] feet of any structure occupied by humans or animals.

## 15. Separators and Dryers

*Description of Activity:* Before sending the natural gas through interstate pipelines, the Company will use a separator to purify it. As with compressor stations, there does not need to be a separator at every well site.

*Risks:* Separators can release harmful contaminants into the air such as hydrogen sulfide, benzene, and volatile organic compounds (sometimes called “VOCs”). Additionally, the separation process produces more wastewater that must be disposed of.

*How to Protect Yourself:*

- + Given that it is not necessary that every well site has a separator, you can prohibit the Company from putting a separator on your land.
- + As with all activities, you can also require that the separator be placed in a specific area (or not in specific areas), especially avoiding areas that are environmentally sensitive.

*Note: This issue is covered by the lease language provided in the section above on limiting the location and scope of the Company’s activities.*

Without a separate written agreement, no dryers or separators shall be located on the Leased Premises.

[If you decide to allow a separator on your property]:

In no case shall any dryer or separator be located within [xx] feet of any occupied structure.

## 16. Injection Wells

*Description of Activity:* After a well no longer produces enough gas for the Company to make a profit by extracting it, the Company will often seek to reuse the well for the purpose of either a) storing natural gas or b) storing or disposing of flowback (wastewater). This process involves injecting natural gas or wastewater back into the well (hence the well is often referred to as an “injection well” or a “disposal well”).

*Risks:* Allowing the gas well to be reused in the future as an injection well increases the potential that the substances injected into the well will contaminate soil, groundwater, and nearby wells, ponds, and streams.

### *How to Protect Yourself:*

- + You can expressly prohibit the gas well from being used as an injection well in the future.
- + If you do decide to allow the Company to use the well as an injection well in the future, you can require that this be covered by a separate agreement that specifies the exact conditions according to which injection must take place.

Without a separate written agreement, Lessee is prohibited from using any well drilled on the Leased Premises as a “disposal” or “injection” well. Pursuant to this prohibition, Lessee shall not use the Leased Premises for the permanent disposal of any drill cuttings, or the storage or disposal of Flowback or other wastes resulting from the Company’s use of the Leased Premises. No disposal wells or any other devices or means of disposal of Flowback or other wastes resulting from the Company’s use of the Leased Premises are permitted on the Leased Premises. Lessee shall have no right to use

the Leased Premises or any portion thereof, surface or subsurface, for gas, oil, or Flowback storage purposes.

## 17. Waste Management

*Description of Activity:* The Company's activities will generate, in addition to wastewater, solid waste and debris, some of which will be hauled off, but some of which could end up on your land temporarily, or even permanently.

*Risks:* If not properly managed and disposed of, this waste (liquid and solid) and/or debris can create an eyesore and could potentially pollute your land.

*How to Protect Yourself:*

- + You can require that the Company properly dispose of all waste and debris within a certain period of time.
- + You can specifically prohibit the Company from burying any waste on your property.
- + You can require that the Company keep the property and equipment clean at all times.

Lessee shall at all times keep the Leased Premises clean and free of debris, litter, and waste (whether liquid, solid, or gaseous).

Lessee shall not bury any materials, including, but not limited to, drill cuttings, Flowback, or any other wastes, on the Leased Premises.

Lessee shall keep all tanks and other equipment at each well location painted, and shall keep the well site and all roads leading thereto free of all noxious weeds and debris. Unless there is agreement otherwise, Lessee shall remove all waste and debris (i.e. material not originally from or of the Leased Premises, or material no longer in its original condition), in whatever form or state, from the Leased Premises, within [xx] days of the termination of this Lease or of the cessation of construction, production, or operations on the Leased Premises, whichever may occur sooner.

## 18. Monitoring

*Description of Activity:* It is also helpful to ensure that you are monitoring the Company's activities throughout its operations.

*Risks:* Without the ability to monitor the Company's activities, there is no way to ensure that it is complying with its obligations under the lease and under the laws and regulations of the State of Ohio.

*How to Protect Yourself:*

- + You can require that the Company grant you access to its operations, including the well site, any impoundment pits, etc., so that you can monitor compliance with lease terms and applicable laws and regulations.
- + You can also require that the Company provide you with copies of its permits, plans, reports and other relevant documents to ensure general compliance with applicable laws and regulations.

Lessee shall at all times grant Lessor reasonable access to its operations on the Leased Premises for the purposes of determining compliance with the terms and provisions of this Lease.

Upon Lessor's written request, Lessee shall furnish Lessor copies of all permits, plans, and other relevant documents required under any applicable law for the operations to be conducted on the Leased Premises.

Lessee shall promptly notify Lessor upon receipt by Lessee of any notice of noncompliance, governmental enforcement action, judicial proceeding and/or threat thereof brought to the attention of Lessee affecting its possession under the Lease or the interest of Lessor in the Leased Premises as well as copies of all filings, statements, and reports made by Lessee, or others with regard to Lessee or its operations, with the Ohio Department of Natural Resources or other

government agency pertinent to drilling, completing and equipping wells.

## 19. Reclamation Bonding

*Description of Activity:* After the Company ceases operations, it might abandon the leased premises without having fully reclaimed (i.e., restored) them. Even though Ohio law requires that the Company engage in reclamation following its activities, for various reasons, this reclamation sometimes does not occur. This can be because the Company has gone out of business. It can also be because the Company has sold the lease to another Company that is not as reputable and is willing to risk violating the state's reclamation laws.

*Risks:* If the Company fails to engage in reclamation, you can be left with the responsibility of reclaiming your land at your own expense. Reclamation is important, as the natural gas operations create residual waste materials and leave scars on your property, including roads, seismic activities, well drilling, fracking, any pits that have been dug and any areas that have been cleared of trees or other vegetation. While Ohio law requires the Company to post a reclamation bond, the required amount can be relatively minimal.

### *How to Protect Yourself:*

- + You can require that the Company post a reclamation bond in an amount that will be sufficient to cover the costs of reclamation, should you need to do it yourself.

Prior to commencement of operations, Lessee shall provide Lessor with a surety or collateral well-plugging, waste removal, and reclamation bond, in form acceptable to both parties (i.e. surety bond, irrevocable letter of credit, or bank certificate of deposit) in an amount equal to or exceeding [xx] times the reasonably expected

estimated total cost of plugging and abandonment of the well, removal and remediation of any waste and associated contamination, and reclamation of the Leased Premises, as described in Chapter 1509.072 of the Ohio Revised Code. Said bond shall remain in effect until the plugging and abandonment of the well have been completed in compliance with applicable State law, the well site has been restored and re-vegetated and wastes have been removed and any contamination remediated to the satisfaction of Lessor. This estimated total cost must include, at a minimum, expected labor rates, equipment rental/contracting rates, and a listing of all materials and their affiliated costs per unit required to plug and abandon each well and to reclaim associated areas on the Leased Premises.

## **20. Insurance, Indemnification, and Assignments**

*Description of Activity:* Natural gas operations create a risk of property damage and/or personal injury. It is thus important that the Company, and not you, bears these risks and has the ability to pay when something goes wrong.

*Risks:* It would be financially damaging to you and your family if you were to be held liable for an accident that happened on your land as a result of the Company's operations.

*How to Protect Yourself:*

- + You can require that the Company maintain insurance policies throughout the life of its operations.
- + You can require that you be named as an additional insured party on the Company's policies.
- + You can require that the Company indemnify and hold you harmless from any damages, loss, or claims arising out of its operations.
- + You can require that the Company get your consent before transferring the lease to anyone else.

The provisions of this section shall survive the termination of this Lease.

#### Insurance

(a) A company licensed by the Ohio Department of Insurance to do business in the state shall underwrite all policies required by this Lease. Insurance requirements may be met by a combination of self-insurance, primary, and excess insurance policies.

(b) Lessee shall assure that Lessee and any person acting on Lessee's behalf under this Lease carry the following insurance with one or more insurance carriers at any and all times such party or person is on or about the Leased Premises or acting pursuant to this Lease:

(i) Workers Compensation and Employer's Liability Insurance (\$[xx] minimum coverage);

(ii) Commercial General Liability and Umbrella Liability Insurance (\$[xx] minimum coverage);

(iii) Business Auto and Umbrella Liability Insurance (\$[xx] minimum coverage); and

(iv) Environmental Liability (\$[xx] minimum coverage).

Lessee shall cause Certificates of Insurance evidencing the above coverage to be provided promptly upon request to Lessor, or to such other representative of Lessor as Lessor may from time to time designate. The insurance policies required under this section shall cover the Lessor as additional insureds with regard to the Leased Premises and all operations thereon, and shall reflect that the insurer has waived any right of subrogation against the Lessor. Failure to comply with this Insurance section shall be a basis of default and all operations on the Leased Premises shall cease immediately.

#### Indemnity

Lessee agrees to defend, indemnify, and hold harmless Lessor and Lessor's heirs, successors, representatives, agents, and assigns ("Indemnitees"), from and against any and all claims, demands, and causes of action for injury (including death) or damage to persons, property and/or natural resources and fines or penalties, or environmental matters arising out of, incidental to, or resulting from the operations of or for Lessee or Lessee's servants, agents,

employees, guests, licensees, invitees, or independent contractors, and from and against all costs and expenses incurred by Indemnitees by reason of any such claim or claims, including attorneys' fees; and each assignee of Lessee of this Lease, or an interest therein, agrees to indemnify and hold harmless Indemnitees in the same manner provided above. Such indemnity shall apply to any claim arising out of operations conducted under or pursuant to this Lease, however caused.

#### Assignments

Lessee may not assign this Lease without prior written approval of Lessor. No assignment by Lessee (or any assignee of Lessee) of all or any part of or interest in this Lease shall relieve Lessee (or any assignee of Lessee) of any liability for breach of any covenant, warranty, or other obligation of Lessee hereunder, whether theretofore or thereafter accrued. Each assignee of all or any portion of the rights of Lessee hereunder agrees to be bound by the provisions of this lease to the same extent as if such assignee were an original party to this Lease.

## **21. Violation of Lease Terms and Applicable Laws**

*Description of Activity:* As mentioned above, there can be certain circumstances in which the Company (or a different company which ends up with rights under your lease) may fail to follow the terms of the lease or applicable laws. If this occurs, you want to be able to terminate the lease.

*Risks:* If the Company violates lease terms or applicable environmental laws, it could result in operating conditions that are dangerous to you, your family, your neighbors, animals, and/or your property.

#### *How to Protect Yourself:*

- + You can make it a condition of the lease for the Company to comply with all lease terms and applicable laws, whereby any breach of this condition breaks the lease at your option.

All operations conducted by Lessee shall comply with federal, state, and local statutes, regulations, ordinances, and orders, and any applicable terms of this Lease, whichever is more stringent for Lessee. Lessee shall obtain all permits, plans, and other relevant documents required under any applicable law for the operations to be conducted on the Leased Premises. Lessee's failure to comply with any federal, state, or local law, any regulation or order of any enforcement agency having jurisdiction over Lessee's operations, or any of the terms of this Lease shall be deemed, at Lessor's option, to be a default under this Lease. If Lessor exercises its option to terminate the Lease, Lessee shall not be absolved of its obligations incurred by Lessee up to that point, including those obligations that have been contemplated to remain in effect beyond the terms of the Lease itself.

## Appendix: Sample Lease Clauses

Note: The following section replicates in one cohesive addendum the sample lease language presented above. Even putting all of these clauses together does not create a complete lease; these sample clauses address only the environmental and health issues covered by this guide. They do not include, for example, provisions covering royalties or remedies.

### 1. Acquisition of Baseline Information

(a) Prior to the commencement of any activity under this Lease, Lessee shall perform studies to ascertain the baseline condition of Lessor's environment. The baseline information collected shall include, but shall not be limited to: a) an inventory of crops, native or cultivated grasses, trees, pastures, and animals, whether domestic or wild, on the Leased Premises, and b) results of soil, water, and air quality testing performed by an independent company of Lessor's choosing that is certified by the Ohio Environmental Protection Agency and/or the Ohio Department of Health. Lessee shall pay all costs of such studies and testing. Lessor shall be provided complete copies of any and all studies and testing results and data, and shall have full rights to independently contact the testing laboratory for inquiry and information.

(b) Lessee shall also provide Lessor with a plan describing each stage of Lessee's proposed activities, identifying the likely effects that said activities will have on all aspects of the Leased Premises and setting out in detail what steps Lessee shall take to mitigate the adverse effects on the Leased Premises.

### 2. Location and Scope of the Operations

(a) Before Lessee commences any operations on the Leased Premises, Lessee and Lessor shall mutually agree in

writing on the location of all Seismic Testing Activities, Well Sites, wells, tanks, tank batteries, pits, roads, pipelines, pipes, pump stations, compressors, dryers, separators, gates, and other equipment and facilities so as to avoid disruption of Lessor's use of the Leased Premises. Lessor's consent shall not be unreasonably withheld. In no case shall Lessee locate any equipment, or conduct any operations, within [xx] feet of any occupied structure.

(b) Lessee shall also, to the degree practicable:

design and lay out its operations to be concentrated in a single area of the Leased Premises so as to avoid unnecessary utilization of surface areas;

locate all pipelines and roadways within a single corridor;  
and

conduct operations on pre-disturbed land, prior to using undisturbed land.

(c) Lessor reserves the right to construct any structure or other improvements, at any location selected by Lessor, anywhere on the Leased Premises. If Lessor commences construction of a structure or other improvement on the Leased Premises, Lessee will not locate any equipment, nor conduct any operations, within [xx] feet of the proposed structure or improvement without Lessor's written permission.

(d) Lessee hereby agrees that it shall conduct its activities in such a manner that shall not render Lessor or any other person rightfully in close proximity to the site incapable of continuing to enjoy the use of his or her land. Lessee will plan and conduct its surface operations in a manner that will avoid or minimize intrusion into crop fields. In the event such an intrusion cannot be avoided, Lessee shall compensate Lessor for the damage or loss of growing crops at current market value.

(e) Employees, agents, and independent contractors of Lessee shall have no right to and are prohibited from firing any firearms, hunting, and fishing on the Leased Premises. Lessor has the right to deny access to the Leased Premises to any person found to have violated this provision. Furthermore, Lessor retains the right for Lessor, its successors, assigns, and invitees to fish and hunt anywhere on the Leased Premises.

(f) Lessee shall notify Lessor in writing at least [xx] calendar days prior to any removal of marketable timber (marketability to be within the discretion of Lessor). At Lessor's option, Lessor may choose to harvest timber, or Lessor may require an appraisal of the timber by a qualified independent appraiser, and Lessee shall pay Lessor the appraised value for the timber identified prior to its removal by Lessee.

3. Maintenance of Water, Soil, and Air Quality

(a) Lessee shall maintain or improve the baseline quality and quantity of all water sources on the Leased Premises, including, but not limited to, streams, ponds, lakes, springs, aquifers, and wells. To this end, in addition to the required studies and testing that take place prior to operations, Lessee shall also test all water sources on the Leased Premises at the completion of operations, at least every [xx] months during operations, and as deemed necessary by Lessor in Lessor's sole discretion due to changes in flow or quality, including but not limited to color, smell, or taste. This testing shall be performed by an independent company of Lessor's choosing that is certified by the Ohio Environmental Protection Agency and/or the Ohio Department of Health. Lessee shall pay all costs of testing and shall provide Lessor with complete copies of any and all testing results and data. Lessor shall have full rights to independently contact the testing laboratory for inquiry and information.

(b) Should any of these water sources be compromised, contaminated, degraded, tainted, chemically altered, infiltrated, polluted, or reduced as a result of Lessee's operations, Lessee shall promptly take any and all steps necessary to restore water quality and quantity to its baseline condition. During the period of such remediation, Lessee shall provide Lessor with an adequate supply of potable water consistent with the baseline condition of the water source prior to Lessee's operation. Any pollution or reduction of any water source after any operations commence will be presumed to be the result of Lessee's operations unless Lessee can prove otherwise, with Lessee having the burden of proof by a preponderance of the evidence. Until Lessee can prove otherwise as to cause, Lessee shall provide the required replacement supply beginning immediately upon Lessor's providing evidence to Lessee of the water quality and/or quantity condition causing concern.

(c) Lessee shall also maintain or improve the baseline soil quality and air quality on the Leased Premises. To this end, in addition to the required studies and testing that take place prior to operations, Lessee shall also conduct air quality and soil quality testing on the Leased Premises at the completion of operations, at least every [xx] months during operations, and as deemed necessary by Lessor in Lessor's sole discretion due to noticeable changes in quality. This testing shall be performed by an independent company of Lessor's choosing that is certified by the Ohio Environmental Protection Agency and/or the Ohio Department of Health. Any pollution of the air or soil on the Leased Premises after any operations commence will be presumed to be the result of Lessee's operations unless Lessee can prove otherwise, with Lessee having the burden of proof by a preponderance of the evidence. Lessee shall pay all costs of testing. Lessor shall be provided complete copies of any and all testing results and

data, and shall have full rights to independently contact the testing laboratory for inquiry and information.

(d) In the event that, during the term of this Lease, a local government or government agency having jurisdiction over the Leased Premises develops a plan for testing or other analysis of water, soil, and/or air quality, that involves formation of a fund for specific or random tests of water quality in areas subject to oil and gas exploration, including the Leased Premises, Lessee agrees to participate in such a plan to the same extent as if that plan had been in existence at the time of inception of this Lease.

#### 4. Roads

(a) Lessee agrees to locate and grade not more than one (1) road to each major work area necessary for its operations and to confine travel to such road. Any road constructed by Lessee shall not exceed [xx] feet in width, or a minimum width required to perform required operations. Any road constructed by Lessee shall be constructed such that there is sufficient turnaround space for emergency vehicles.

(b) At Lessor's request, Lessee shall install and diligently maintain fences, gates, closures, and/or cattle guards on all roads built by Lessee. Lessor will be allowed free use thereof. At Lessor's request, such fences, gates, closures, and cattle guards will become Lessor's property on termination of this Lease. At Lessor's request, Lessee shall keep all gates closed when not in use.

(c) To the extent permitted by applicable law, Lessee agrees to improve and maintain all roads used by it in good repair. These duties apply to all roads utilized by Lessee, regardless of whether such road was constructed by Lessee. For public roads, Lessee shall maintain such roads in conformity with standards set forth by the relevant permitting authority to provide a smooth, rut-

free, all-weather surface suitable for use by automobiles. For private roads, Lessee shall utilize shale, gravel, or crushed stone where necessary to provide a smooth, rut-free, all-weather surface suitable for use by automobiles. When such roads are no longer being used by Lessee, if Lessee has laid stone or any other topping, Lessee agrees, upon Lessor's request, to remove such topping and to restore the surface as nearly as possible to its baseline condition. When improving, constructing, or maintaining roads, Lessee shall not use any materials from the Leased Premises without the written consent of the Lessor.

(d) At Lessor's request, Lessee shall control dust from traffic to the maximum extent practicable, utilizing water or, with Lessor's approval, another harmless or benign substance as a dust suppressant when necessary. Unless otherwise authorized by Lessor, Lessee shall use fresh water not obtained from the Leased Premises.

(e) Lessee shall prevent its employees, agents, and contractors from operating vehicles in a negligent manner or at speeds in excess of [xx] miles per hour while on the Leased Premises.

(f) Unless emergency conditions dictate or Lessee has received prior written consent from Lessor, Lessee shall prevent its employees, agents, and contractors from traveling and operating any vehicle on the Leased Premises between: [xx] o'clock PM and [xx] o'clock AM, as well as on [xx].

## 5. Fencing

At Lessor's request, Lessee shall (i) fence all wells and well sites, tank batteries, pits, and other equipment placed on the Leased Premises with a fence capable of deterring livestock, wildlife, small children, and trespassers; (ii) keep such fences in good repair; and (iii) keep all gates and

fences closed at all times. Lessor shall be allowed all reasonable access to fenced areas.

6. Noise

Lessee shall not operate any vehicles, equipment, or machinery on the Leased Premises between: [xx] PM and [xx] AM, as well as on [xx]. At any given time, Lessee's operations shall not generate noise in excess of [xx] decibels, on average over the course of any [xx] minute period, nor [xx] decibels at any one time, as measured from any point within [xx] feet from the activity generating the sound.

7. Restrictions on Using Hazardous Materials

(a) Lessee shall not use, dispose of, or release on the Leased Premises or permit to exist or to be used, disposed of or released on the Leased Premises as a result of its operations any substances (other than those Lessee has been licensed or permitted by applicable public authorities to use on the Leased Premises) which are defined as "hazardous materials", "toxic substances" or "solid wastes" in federal, state, or local statutes, regulations, or ordinances. For any such materials or substances that are used or generated on the Leased Premises, Lessee shall provide Lessor with the name, chemical composition, and any applicable Material Safety Data Sheets.

(b) Should any pollutant, hazardous material, toxic substance, or solid waste be accidentally released on the Leased Premises, Lessee shall immediately notify Lessor and the applicable governmental body of such event, and shall take all action necessary to mitigate harm and clean up, remediate and restore all affected areas.

8. Seismic Testing

(a) Without Lessor's prior written consent, Lessee shall refrain from using explosives during its Seismic Testing Activities.

(b) Lessee shall not conduct Seismic Testing Activities on slopes which have an angle that is greater than [xx] degrees. Any holes in the ground resulting from Lessee's seismic testing shall be plugged, from bottom to top, within [xx] days from the date on which the hole was shot. Lessee shall plug and abandon these holes in a manner that prevents vertical movement of water in the hole.

(c) The duration of Seismic Testing Activities shall not exceed [xx] weeks.

(d) Throughout its Seismic Testing Activities, Lessee shall minimize the use of physical markers, including, but not limited to, seismic lines, survey flags, and stakes. To the extent that Lessee utilizes survey flags in its seismic testing activities, Lessee shall refrain from using flags or flag stands made of metal. Within [xx] days from the date on which the Lessee has completed its Seismic Testing Activities, Lessee shall remove all materials used in such Seismic Testing Activities, including all physical markers, as well as any refuse or other equipment that may have been left behind by Lessee.

(e) For the purposes of this Lease, Seismic Testing Activities shall include all activities undertaken by Lessee for the purpose of gathering information regarding the subsurface geology of and/or natural resources located on or beneath the Leased Premises and/or adjacent lands.

9. Development of the Well Site

(a) The Well Site shall be no larger than [xx] acres. In addition, Lessee shall use its best efforts to minimize the

size of the Well Site and locate equipment and infrastructure as close together as possible.

(b) Following the construction of the Well Site, and prior to Lessee engaging in any drilling or production operations, Lessee shall consult with Lessor to take steps to minimize the visual impact associated with the Well Site. At Lessor's request, and to the extent that it does not present an increased fire hazard, Lessee shall take reasonable efforts to plant trees and other vegetation in areas that help minimize the visual impact of the well site. Both parties recognize that said vegetation shall be limited to that which does not interfere with Lessee's ability to conduct its operations. Well Site construction is deemed to have been completed when the Well Site has been constructed such that it is able to be used for its primary purpose.

(c) For the purposes of this Lease, the Well Site shall refer to the area that includes a well drilled on the Leased Premises and the associated facilities that are appurtenant to the operation of said well for the purpose of aiding in the processes of extraction and recovery, lifting, stabilization, treatment, separation, production processing, storage, and measurement of hydrocarbon gas and/or liquids.

#### 10. Drilling and Fracking

(a) Lessee shall provide at least [xx] calendar days prior written notice to Lessor before Lessee commences any actual drilling on the Leased Premises.

(b) Prior to injecting any substance into a well drilled on the Leased Premises, Lessee shall provide Lessor with a list of all substances, broken down by compound, that are to be injected. Lessee shall also provide Lessor with Material Safety Data Sheets for each compound to be injected into the well. Lessee shall not store chemicals on the Leased Premises, except to the extent necessary to

carry out current use of such chemicals in operations. Lessee shall keep chemicals necessary to carry out current use [xx] feet from any occupied structure, growing crops, livestock, and water sources on the Leased Premises.

(c) At Lessor's request, Lessee shall pay for radon and hydrogen sulfide testing, to occur once every [xx] months, of any occupied structures on the Leased Premises, whether constructed before or after the effective date of this Lease. Such test results shall promptly be provided to Lessor. This testing shall be performed by an independent company of Lessor's choosing that is properly licensed to conduct such testing by the State of Ohio. Testing shall also be conducted prior to and at the completion of operations on the Leased Premises or on any land in the unit of which any of the Leased Premises is a part.

(d) Without Lessor's prior written consent, Lessee shall not use surface or groundwater from the Leased Premises, including Lessor's springs, ponds, wells, creeks, streams, rivers, or lakes, for any operations undertaken by Lessee.

(e) Without Lessor's prior written consent, Lessee shall not drill or operate any water well, take water, or otherwise use or affect water in subsurface water formations. Any water well drilled by Lessee on the Leased Premises, with Lessor's written consent, shall be left intact and shall become the property of Lessor upon the termination of this Lease.

#### 11. Disposal of Wastewater

(a) Without Lessor's prior written consent, Lessee shall not dig any pits on the Leased Premises for the storage of flowback, produced water, wastewater, brine, saltwater, or frackwater ("Flowback"). Lessee shall remove all Flowback from the Leased Premises and dispose of it off-site in conformity with applicable Ohio law.

(b) Any pit agreed upon by Lessor and Lessee shall conform to all applicable regulatory requirements and be deep enough to allow at least [xx] inches of backfill over the liner after grading to surrounding pre-drill contour. Promptly after completion of operations, any backfill, liners, and Flowback shall be removed, and the pits shall be drained, prepared for burial, back filled, graded, and planted within [xx] days, weather permitting.

(c) Lessee shall immediately notify Lessor and the Ohio Department of Natural Resources if any pit lining is torn, punctured, or otherwise breached, allowing any fluid contained in a pit or designated to be contained in a pit to seep, leak or overflow through or around the liner.

(d) Lessee shall not employ any methods that actively aid in the evaporative process of any Flowback stored in a pit on the Leased Premises. This prohibition includes spraying, misting, dispersing, or otherwise actively aiding in the evaporation of such Flowback into the surrounding environment by any means whatsoever.

(e) At Lessor's request, Lessee shall use reasonable means to periodically treat the Flowback temporarily stored in a pit on the Leased Premises so as to minimize any odors emanating from it.

(f) Without Lessor's prior written consent, Lessee shall not utilize any piping to transport Flowback over any part of the Leased Premises.

(g) In the event that Lessee utilizes piping to transport Flowback, Lessee shall visually inspect the length of such piping regularly, with such inspections occurring no less frequently than once every [xx] days. In the event that any portion of the piping is damaged or leaking, Lessee shall a) immediately notify Lessor and the Ohio Department of Natural Resources, b) cease utilizing the piping until it is

repaired, and c) undertake all cleanup efforts necessary to fully remediate any resulting contamination.

12. Extraction of Natural Gas

(a) Lessee must construct and maintain at all times dikes, berms, firewalls, or other methods of secondary around the Well Site, including around all tanks and other receptacles, so as to contain a volume of liquid equal to at least [xx] times the total volume of such tanks and other receptacles located within the boundaries of the firewall, dike, or berm.

(b) Lessee shall have remote capability to cease all activity at the well site and to close the well in the event that such emergency cessation of activities is necessary.

13. Pipelines

(a) Lessee shall have the right to construct pipelines that are necessary for its operations, provided that it reimburse Lessor for reasonable damages caused by their construction. Lessee shall provide at least [xx] calendar days prior written notice to Lessor before Lessee commences construction of pipelines on the Leased Premises. Unless otherwise agreed to in advance in writing by Lessor, all pipelines shall be less than [xx] inches in diameter and shall not be designed or used for interstate transmission. Lessee shall use its best efforts to locate all pipelines near and parallel to preexisting or planned roads.

(b) The right to build and/or operate pipelines on the Leased Premises may not be assigned to a utility company, pipeline company, or anyone else who owns no interest in the Leased Premises or is not otherwise contracted or affiliated with Lessee for the purpose of carrying out the rights and obligations under this Lease. The right to use said pipelines terminates when production from the

Leased Premises ceases and all wells associated therewith are plugged and abandoned.

(c) Lessee shall bury any and all pipelines that it constructs on the Leased Premises. Lessee shall “double ditch” all underground lines so that all topsoil will be replaced on the surface. Unless otherwise agreed to in writing by Lessor, the width of the graded underground line corridor shall not exceed [xx] feet. If Lessee constructs buried pipelines on the Leased Premises, Lessor shall have the right to construct and lay drainage and other utility pipes, wires, and lines across or under Lessee pipelines in a manner which does not interfere with the use thereof.

(d) Within [xx] days from the date on which pipeline construction has been completed, weather permitting, Lessee shall engage in interim reclamation of the surface disturbance caused by the pipeline. Pipeline construction is deemed to have been completed when the pipeline has been constructed such that it is able to be used for its primary purpose. As part of this interim reclamation, Lessee shall grade all areas as nearly as practicable to the baseline contours following applicable state regulations and Best Management Practices (“BMPs”), and spread set aside topsoil evenly to its original depth. Lessee shall purchase and plant graded areas with seeds of Lessor’s choice that meet the Ohio Division of Natural Resources regulations and BMPs. Lessee shall pay for all damage to growing crops, fences, tiles, and other appurtenances to the Leased Premises caused by such pipelines.

14. Compressors

Without a separate written agreement, no pump stations or compressors shall be located on the Leased Premises.

**[ or ]**

Lessee shall take reasonable steps to erect noise barriers between the compressor and any residence or barn located on the Leased Premises, whether constructed before or after the effective date of this Lease. Prior to the construction of any pump station or compressor, Lessor and Lessee shall mutually agree in writing on the type of noise barrier to be used. In no case shall any pump station or compressor be located within [xx] feet of any structure occupied by humans or animals.

15. Separators and Dryers

Without a separate written agreement, no dryers or separators shall be located on the Leased Premises.

**[ or ]**

In no case shall any dryer or separator be located within [xx] feet of any occupied structure.

16. Injection Wells

Without a separate written agreement, Lessee is prohibited from using any well drilled on the Leased Premises as a “disposal” or “injection” well. Pursuant to this prohibition, Lessee shall not use the Leased Premises for the permanent disposal of any drill cuttings, or the storage or disposal of Flowback or other wastes resulting from the Company’s use of the Leased Premises. No disposal wells or any other devices or means of disposal of Flowback or other wastes resulting from the Company’s use of the Leased Premises are permitted on the Leased Premises. Lessee shall have no right to use the Leased Premises or any portion thereof, surface or subsurface, for gas, oil, or Flowback storage purposes.

17. Waste Management

(a) Lessee shall at all times keep the Leased Premises clean and free of debris, litter, and waste (whether liquid, solid, or gaseous).

(b) Lessee shall not bury any materials, including, but not limited to, drill cuttings, Flowback, or any other wastes, on the Leased Premises.

(c) Lessee shall keep all tanks and other equipment at each well location painted, and shall keep the well site and all roads leading thereto free of all noxious weeds and debris. Unless there is agreement otherwise, Lessee shall remove all waste and debris (i.e. material not originally from or of the Leased Premises, or material no longer in its original condition), in whatever form or state, from the Leased Premises, within [xx] days of the termination of this Lease or the cessation of construction, production, or operations on the Leased Premises, whichever may occur sooner.

18. Monitoring

(a) Lessee shall at all times grant Lessor reasonable access to its operations on the Leased Premises for the purposes of determining compliance with the terms and provisions of this Lease.

(b) Upon Lessor's written request, Lessee shall furnish Lessor copies of all permits, plans, and other relevant documents required under any applicable law for the operations to be conducted on the Leased Premises.

(c) Lessee shall promptly notify Lessor upon receipt by Lessee of any notice of noncompliance, governmental enforcement action, judicial proceeding and/or threat thereof brought to the attention of Lessee affecting its possession under the Lease or the interest of Lessor in the Leased Premises as well as copies of all filings, statements,

and reports made by Lessee, or others with regard to Lessee or its operations, with the Ohio Department of Natural Resources or other government agency pertinent to drilling, completing and equipping wells.

19. Reclamation Bonding

Prior to commencement of operations, Lessee shall provide Lessor with a surety or collateral well-plugging, waste removal, and reclamation bond, in form acceptable to both parties (i.e. surety bond, irrevocable letter of credit, or bank certificate of deposit) in an amount equal to or exceeding [xx] times the reasonably expected estimated total cost of plugging and abandonment of the well, removal and remediation of any waste and associated contamination and reclamation of the Leased Premises, as described in Chapter 1509.072 of the Ohio Revised Code. Said bond shall remain in effect until the plugging and abandonment of the well have been completed in compliance with applicable State law, the well site has been restored and re-vegetated and wastes have been removed and any contamination remediated to the satisfaction of Lessor. This estimated total cost must include, at a minimum, expected labor rates, equipment rental/contracting rates, and a listing of all materials and their affiliated costs per unit required to plug and abandon each well and to reclaim associated areas on the Leased Premises.

20. Insurance, Indemnification, and Assignments

The provisions of this section shall survive the termination of this Lease.

**Insurance:**

(a) A company licensed by the Ohio Department of Insurance to do business in the state shall underwrite all policies required by this Lease. Insurance requirements

may be met by a combination of self-insurance, primary, and excess insurance policies.

(b) Lessee shall assure that Lessee and any person acting on Lessee's behalf under this Lease carry the following insurance with one or more insurance carriers at any and all times such party or person is on or about the Leased Premises or acting pursuant to this Lease:

(i) Workers Compensation and Employer's Liability Insurance (\$[xx] minimum coverage);

(ii) Commercial General Liability and Umbrella Liability Insurance (\$[xx] minimum coverage);

(iii) Business Auto and Umbrella Liability Insurance (\$[xx] minimum coverage); and

(iv) Environmental Liability (\$[xx] minimum coverage).

Lessee shall cause Certificates of Insurance evidencing the above coverage to be provided promptly upon request to Lessor, or to such other representative of Lessor as Lessor may from time to time designate. The insurance policies required under this section shall cover the Lessor as additional insureds with regard to the Leased Premises and all operations thereon, and shall reflect that the insurer has waived any right of subrogation against the Lessor. Failure to comply with this Insurance section shall be a basis of default and all operations on the Leased Premises shall cease immediately.

**Indemnity:**

Lessee agrees to defend, indemnify, and hold harmless Lessor and Lessor's heirs, successors, representatives, agents, and assigns ("Indemnitees"), from and against any and all claims, demands, and causes of action for injury (including death) or damage to persons, property and/or

natural resources and fines or penalties, or environmental matters arising out of, incidental to, or resulting from the operations of or for Lessee or Lessee's servants, agents, employees, guests, licensees, invitees, or independent contractors, and from and against all costs and expenses incurred by Indemnitees by reason of any such claim or claims, including attorneys' fees; and each assignee of Lessee of this Lease, or an interest therein, agrees to indemnify and hold harmless Indemnitees in the same manner provided above. Such indemnity shall apply to any claim arising out of operations conducted under or pursuant to this Lease, however caused.

**Assignments:**

Lessee may not assign this Lease without prior written approval of Lessor. No assignment by Lessee (or any assignee of Lessee) of all or any part of or interest in this Lease shall relieve Lessee (or any assignee of Lessee) of any liability for breach of any covenant, warranty, or other obligation of Lessee hereunder, whether theretofore or thereafter accrued. Each assignee of all or any portion of the rights of Lessee hereunder agrees to be bound by the provisions of this lease to the same extent as if such assignee were an original party to this Lease.

21. Violation of Lease Terms and Applicable Laws

All operations conducted by Lessee shall comply with federal, state, and local statutes, regulations, ordinances, and orders, and any applicable terms of this Lease, whichever is more stringent for Lessee. Lessee shall obtain all permits, plans, and other relevant documents required under any applicable law for the operations to be conducted on the Leased Premises. Lessee's failure to comply with any federal, state or local law, any regulation or order of any enforcement agency having jurisdiction over Lessee's operations, or any of the terms of this Lease shall be deemed, at Lessor's option, to be a default under

this Lease. If Lessor exercises its option to terminate the Lease, Lessee shall not be absolved of any obligations incurred by Lessee up to that point, including those obligations that have been contemplated to remain in effect beyond the terms of the Lease itself.

## Notes



This Guide was prepared for informational purposes only. It does not, and is not intended to, constitute legal advice. Use of the Guide does not create an attorney-client relationship between you and the Emmett Environmental Law & Policy Clinic. Because of the rapid pace of change in this area of the law, the Guide should not be used as a substitute for competent legal advice from a licensed professional attorney in your state.



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\* The Clinic works on a variety of local, national, and international projects covering the spectrum of environmental law and policy issues under the direction of Wendy B. Jacobs, a Clinical Professor at Harvard Law School and Director of the Emmett Environmental Law & Policy Clinic. This Guide was prepared by Joshua Herlands and Humu-Annie Seini, students at the Clinic, together with Shaun Goho, Clinical Instructor, and Justin DuClos, Fellow.