

## **ORPHAN OIL AND GAS WELLS AND THE ORPHAN WELL PLUGGING FUND**

### **INTRODUCTION**

Since the first commercial oil well was drilled in Pennsylvania in 1859, perhaps as many as 350,000 oil and gas wells have been drilled in the state. But only since 1956 has the state been permitting new drilling, and not until 1985 were oil and gas operators required to register old wells. In the prior hundred-odd years of the oil and gas industry in Pennsylvania, many wells were not properly plugged when abandoned.

An unplugged abandoned well can be a hazard to the health and safety of people living near it, and it can cause pollution. For example, a rusted-out casing in a gas well can let natural gas flow underground and accumulate in the basement of a nearby building, with explosive consequences. Occasionally, gas leaking from an old well contaminates a nearby water well.

An old well might be a conduit for salt brine from deeper formations to pollute fresh groundwater, or to discharge at the surface. In some cases, oil can leak from abandoned wells, polluting soil and water.

In the vicinity of a coal mine, an old well can be a conduit for explosive gas to enter the mine -- a serious mine safety problem. Where coal mining has occurred, an old well can allow mine drainage water to discharge at the surface.

Because abandoned wells can cause many problems, the Oil and Gas Act of 1984 requires oil and gas well operators to plug non-producing wells.

Some gas wells are drilled to depths of 5,000 feet and deeper. Oil wells are usually shallower; many are less than 1,000 feet deep. Generally, to properly plug a well, all of the pipe should be removed and the well bore cleaned out. Then the well bore must be filled with a non-porous material. In crucial portions of the well, such as coal seams, oil and gas formations and fresh groundwater aquifers, a cement plug is needed to seal off those zones from each other. The result will be a "plug" which prevents gas or liquids from entering or flowing in the well bore.

### **ORPHAN WELLS**

In 1992 the legislature amended the Oil and Gas Act to allow certain oil or gas wells abandoned before April 1985 to be classified as "orphan" wells. That amendment also gave DEP the authority to plug orphan wells, and created a modest means of funding this work. Landowners, leaseholders and oil and gas operators are thus relieved from the responsibility to plug orphan wells on their properties (if they received no "economic benefit" from the well after April 1979).

### **ORPHAN WELL PROGRAM**

DEP's Bureau of Oil and Gas Management oversees the Orphan Well Program to locate and plug orphan wells. To date (September 2010), about 8,800 abandoned wells have been reported and classified as orphan wells.

The Orphan Well Plugging Fund is a separate account in the state treasury which provides money for the Orphan Well Program. The money in this fund comes from surcharges on permit application fees for new oil and gas wells. Taxpayers do not finance the Orphan Well Plugging Fund; the oil and gas industry does.

Over the past three years (January 2007 - December 2009), DEP contracted for the plugging of 790 orphan wells. The average plugging cost was almost \$9,650.00 per well.

## IDENTIFY ORPHAN WELLS

If you discover an abandoned oil or gas well on your property, you should report it to DEP right away. When you notify us about an old well, you will get a form to apply for orphan status for the well. After that, we will check our files and possibly investigate the well to determine if it qualifies as an orphan well. If approved, you would be protected from possible future plugging liability for the well. There is no charge or fee to apply for orphan well status.

## INFORMATION AND APPLICATION FORMS

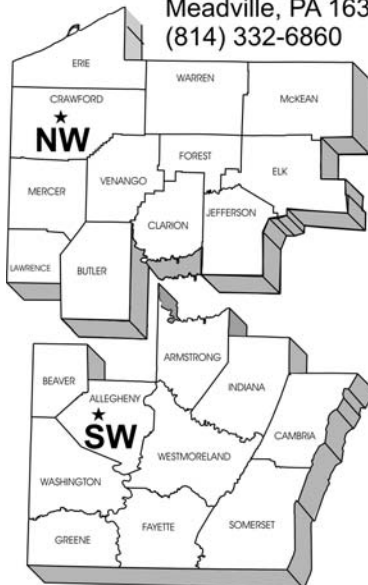
This Fact Sheet is a brief summary of law, regulation, and policy on orphan wells. Please do not rely on this alone for firm guidance about any specific situation. For more information on the Orphan Well program or to apply for orphan well status for a particular well, contact one of these offices:

### COMMONWEALTH OF PENNSYLVANIA - OIL & GAS OFFICES DEPARTMENT OF ENVIRONMENTAL PROTECTION

## Oil and Gas Regions

#### ★ Northwest Region

230 Chestnut Street  
Meadville, PA 16335-3481  
(814) 332-6860



#### ★ Eastern Region

208 West Third Street  
Williamsport, PA 17701-6448  
(570) 321-6550



#### ★ Southwest Region

400 Waterfront Drive  
Pittsburgh, PA 15222-4745  
(412) 442-4024

#### ● Central Office

Bureau of Oil and Gas Management  
PO Box 8765  
Harrisburg, PA 17105-8765  
(717) 772-2199

For more information, visit [www.depweb.state.pa.us](http://www.depweb.state.pa.us), keyword: Oil and Gas.