

## **ABANDONED AND ORPHAN OIL AND GAS WELLS AND THE WELL PLUGGING PROGRAM**

### **INTRODUCTION**

Since the first commercial oil well was drilled in Pennsylvania in 1859, it is estimated that as many as 300,000 to 760,000 oil and gas wells have been drilled in the state.<sup>1, 2</sup> A significant number of these wells were drilled prior to modern well permitting and plugging requirements, and DEP estimates that as many as 560,000 remained unaccounted for. Although historical legislation considered what steps were necessary upon a well's abandonment, these "plugging standards" referenced materials and practices that were not adequate for ensuring protection of the state's water resources. As a result, a significant number of wells still pose a threat to human health and the environment if not attended to.

Because of the recognized human health and the environmental risks, oil and gas operators are currently required to plug abandoned wells, which the Oil and Gas Act defines as:

- "Any well that has not been used to produce, extract or inject any gas, petroleum or other liquid within the preceding 12 months, or
- any well for which the equipment necessary for production, extraction or injection has been removed, or
- any well, considered dry, not equipped for production within 60 days after drilling, re-drilling or deepening, except that it shall not include any well granted inactive status."

The Oil and Gas Act defines an orphan well as "A well abandoned prior to April 18, 1985, that has not been affected or operated by the present owner or operator and from which the present owner, operator or lessee has received no economic benefit other than as a landowner or recipient of a royalty interest from the well." This designation gives the Department of Environmental Protection (DEP) the authority to plug orphan wells. When no responsible party can be identified for an abandoned well, the DEP may enter the well site and plug the well.

### **THE DEP ORPHAN AND ABANDONED WELL PLUGGING PROGRAM**

DEP plugged its first abandoned well under the Orphan and Abandoned Well Plugging Program in 1989. Surcharges to fund this program were established by the Oil and Gas Act in 1984. The 2012 Oil and Gas Act, Section 3271, continued the provision for surcharges. These permit surcharges are in addition to the permit application fee paid by oil and gas operators. The orphan well surcharge is \$200 and \$100 for gas and oil well permits, respectively. The abandoned well surcharge is \$50 for all well permits.

### **REPORTING ORPHAN OR ABANDONED WELLS**

If an abandoned well is found, current law requires DEP is to be notified within 60 days of its discovery. DEP will investigate the well to determine if it qualifies as an abandoned or orphan well. Please contact the appropriate regional office referenced on this fact sheet if you are aware of any abandoned wells.

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<sup>1</sup> Than, Ker; Kang, Mary; Jackson, Robert (14 November 2016). [Stanford Study of Abandoned Oil and Gas Wells Reveals New Ways of Identifying and Fixing the Worst Methane Emitters](#).

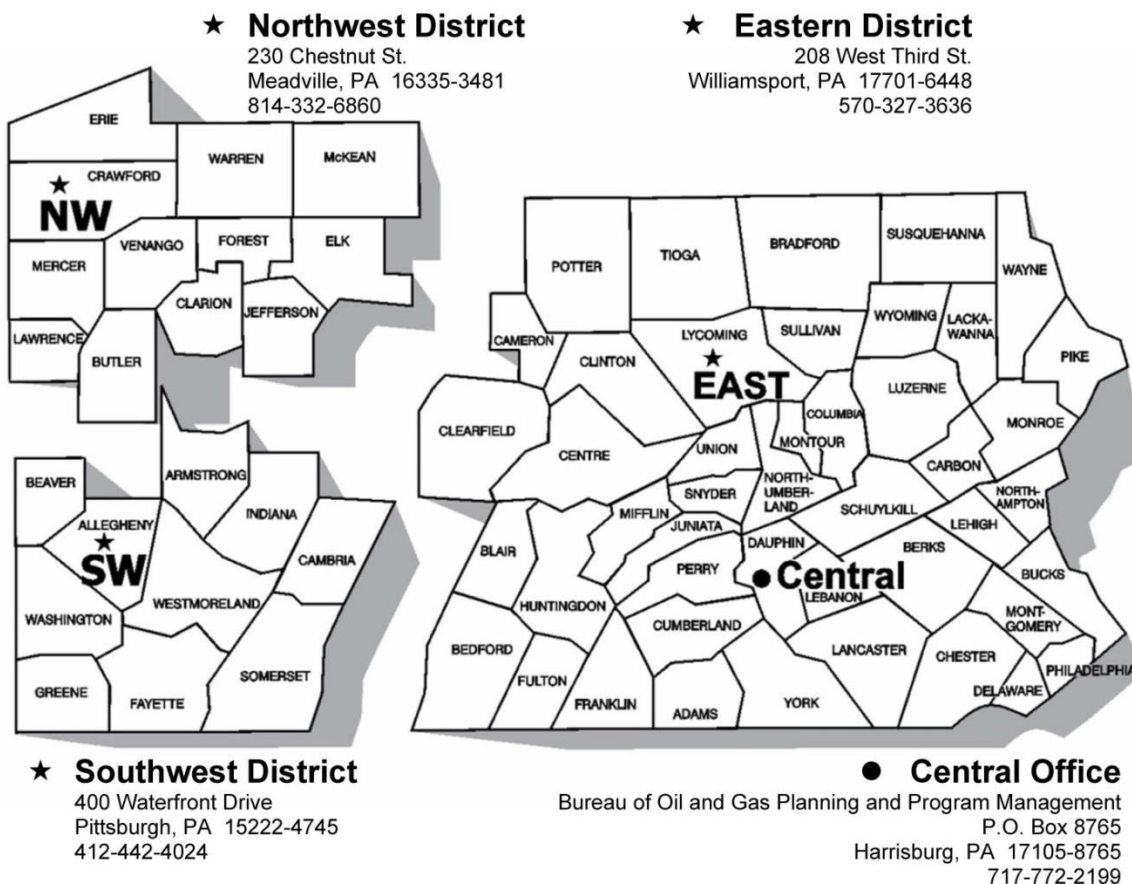
<sup>2</sup> Dilmore, Robert M. (17 August 2015). Spatial and Temporal Characteristics of Historical Oil and Gas Wells in Pennsylvania: Implications for New Shale Gas Resources. *Environ Sci Technol* 49 (20): 12015-12023.

## INFORMATION AND APPLICATION FORMS

This fact sheet is a brief summary of law, regulation, and policy on orphan and abandoned wells. Please do not rely on this alone for firm guidance about any specific situation. For more information on abandoned or orphan oil and gas wells and the Well Plugging Program, contact one of these offices:



# Oil and Gas Districts



For more information, visit [www.dep.pa.gov/O&G\\_factsheets](http://www.dep.pa.gov/O&G_factsheets).