

# Conservation Committee Report

Volume 9 Issue 2

By Jack Walters, ACSL Conservation Chair

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## The Conservation Pledge

I give my pledge as an  
American to save  
and faithfully defend from  
waste,  
the natural resources of my  
country;  
the soil, the water, the air,  
the minerals, the plant life and  
the wildlife.

This is my Pledge!

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## DEP SECRETARY URGES PENNSYLVANIA HOMEOWNERS TO TEST FOR RADON

Naturally Occurring Gas Second-Leading Cause of Lung Cancer

Environmental Protection Secretary Kathleen A. McGinty today urged all Pennsylvania homeowners to test their homes for the presence of radon gas, which is the second-leading cause of lung cancer in the U.S. and is responsible for an estimated 22,000 deaths every year.

“Lung cancer from radon is preventable, but the only way to know the radon level in your home, and to know if you need to take action to lower that level, is to perform this simple and inexpensive test,” McGinty said. “Matt and Kelly

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## DEP SEEKS \$657,040 CIVIL PENALTY AGAINST NEW YORK COMPANY FOR ENVIRONMENTAL DAMAGE IN ALLEGHENY NATIONAL FOREST

Oil and Gas Companies Owned by New York Couple Violated Multiple State Laws

The Department of Environmental Protection (DEP) is seeking a civil penalty of \$657,040 from Stephen and Cynthia Ford of Lakewood, N.Y., owners of Synd Enterprises Inc. and Vertical Resources, for 98 violations of environmental laws and regulations at the couple's oil and gas well operations.

The companies have been actively drilling oil and gas wells in Forest County for many years in and around the Allegheny National Forest, and in environmentally sensitive areas known as special protection watersheds.

“The Fords and their companies operated in a manner that has resulted in the contamination of soil and water in one of Pennsylvania's most pristine areas,”

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## DEP SECRETARY URGES PENNSYLVANIA HOMEOWNERS TO TEST FOR RADON

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Mowry did the right thing to protect their health and that of their son, and I urge all Pennsylvanians to follow their example.”

McGinty made her comments at the Mowry’s home in the Pittsburgh suburb of Franklin Park. The Mowrys tested their home for radon last February following the birth of their son, Jonathan, and found the level to be above that recommended by the federal Environmental Protection Agency (EPA). The Mowrys then had a radon mitigation system installed in their home and reduced the level of radon to well below the EPA’s recommended action level.

“It’s best to conduct the test during the colder months when your home is closed, and radon is most likely to be trapped and build to unhealthy levels,” McGinty said. “You will gain peace of mind that comes from knowing you and your family are not being exposed to a known killer.”

Radon is a colorless, odorless gas that occurs naturally through the breakdown of uranium in soil and rocks. It seeps into homes through cracks in basements and foundations, and high levels of radon have been found in homes throughout Pennsylvania. The EPA recommends taking action to lower the level of radon in your home if the level is 4.0 pico Curies/liter (pCi/l) or higher. The Mowry’s home showed a radon level of 17.8 pCi/l in February of 2006. Following installation of a mitigation system, the home showed a level of 0.9 pCi/l.

Under the direction of Governor Rendell, the commonwealth has taken the lead on radon education and outreach, and launched a successful effort last year to increase the number of hospitals participating in DEP’s newborn radon program, which gives new parents information about radon along with a certificate for a free radon test kit. The initiative has increased hospital participation in the past year from just over 50 hospitals to more than 70. The Mowrys received their free test kit from the newborn radon program at West Penn Hospital in Pittsburgh. **Radon test kits cost about \$25 and are available at many home improvement, hardware, outdoor supply, lawn and garden, and department stores.** Most people can do radon tests themselves. After performing the test, the information is sent to a lab where the sample is analyzed and the results sent to the homeowner.

Radon mitigation systems typically cost between \$800 and \$1,200 and most homeowners will want to hire a radon mitigation professional to install the system. In Pennsylvania, anyone who tests or performs mitigation work for radon on a home other than the one in which they live must be certified by DEP. A list of certified radon contractors is available at [www.depweb.state.pa.us](http://www.depweb.state.pa.us), or by calling 1-800-23 RADON.

**Homeowners are not required to test for radon. However, if a home has been tested, the results of that test must be disclosed when the home is sold.** More information about radon is available at DEP’s Web site, or by calling the radon hotline listed above.

Source: DEP

**DEP SEEKS \$657,040 CIVIL PENALTY AGAINST NEW YORK COMPANY FOR ENVIRONMENTAL DAMAGE IN ALLEGHENY NATIONAL FOREST**

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DEP Regional Director Kelly Burch said. "DEP inspectors have recorded numerous violations of the companies' drilling permits and Pennsylvania law. The Fords' failure to comply with standards that protect these environmentally-sensitive areas cannot be allowed."

On Dec. 12, 2006, DEP issued an order to the Fords, Synd Enterprises and Vertical Resources to cease all oil and gas well drilling, earth disturbance and well stimulation activities in Pennsylvania because of continued and numerous violations of the state Oil and Gas Act, Solid Waste Management Act, Dam Safety and Encroachments Act, and the Clean Streams Law.

DEP had determined that the Fords and their companies had shown a lack of ability or intention to comply with the provisions of the commonwealth's environmental laws.

Violations included: over-pressured wells that cause gas migration and contaminate groundwater; failure to implement erosion and sedimentation controls at well sites which has caused accelerated erosion; unpermitted discharges of brine onto the ground; and encroachments into floodways and streams without permits.

In addition, the order mandated that the Fords allow DEP immediate access to all well sites. The Fords have obstructed DEP from conducting inspections by manipulating equipment and by denying state inspectors access through gated areas.

The department is seeking civil penalties before the state Environmental Hearing Board against Stephen and Cynthia Ford for violations discovered during the course of the investigation into the Ford's operating practices.

Oil and gas permitting, exploration and development is regulated in Pennsylvania under the Oil and Gas Act of 1984. It is estimated that as many as 300,000 wells have been drilled in Pennsylvania since Edwin Drake drilled the world's first commercial oil well in 1859 in Titusville, Venango County.

For more information on oil and gas exploration in Pennsylvania, visit DEP's Web site at [www.depweb.state.pa.us](http://www.depweb.state.pa.us), Keyword: "Oil and Gas."

Source: DEP

## DOE's Microhole R&D Program Yielding Promising New Tools

Ambitious Program Aims to Reduce Costs, Environmental Impacts of Oil and Gas Well Drilling

New technology being developed under the U.S. Department of Energy's ambitious two-year-old Microhole Initiative is already yielding new tools perched on the edge of commercialization.

Some of these tools, designed to drill ultrasmall-diameter natural gas and oil wells, have been successfully field-tested in real-world drilling conditions and await a final decision in 2007 for full-scale commercialization. Other microhole projects are wrapping up and will soon move into the field-test stage.

Microhole technology, by virtue of its ability to dramatically reduce drilling costs, risks, and environmental impacts, could change the way America's oil and natural gas wells are drilled. It entails using coiled tubing drilling rigs -- small, easily transportable rigs that unspool coils of thin tubing -- to drill "grassroots" wells with diameters of less than 4-1/2 inches or equally small-diameter "sidetrack" boreholes from existing wells. This approach leaves a much smaller footprint in environmentally sensitive areas and produces much less drilling waste compared with the more cumbersome conventional rigs that deploy standard-size drill pipe to drill larger-diameter holes.

The new tools developed under the Energy Department's microhole program will help further the application of coiled tubing drilling in the United States, in turn improving the economics of recovering previously unattainable oil and natural gas resources in marginal or declining fields throughout the Nation.

Coiled tubing drilling has generally been limited to high-cost areas such as Alaska and Canada but is gaining traction in the Lower 48 States. For the first time, a Canadian coiled tubing drilling company, Xtreme Coil Drilling Corp., is drilling grassroots wells in the Lower 48 for an American company, Anadarko Petroleum Corp. In late December, Shell Technology Ventures B.V. agreed with Xtreme Coil to form a jointly owned company, Coil-X, that would use Xtreme's coiled tubing drilling technology to drill conventional and unconventional resource exploration wells throughout the United States and Canada.

Although microhole technology's roots extend back a decade with early experimentation funded by DOE in the mid-1990s, the agency's National Energy Technology Laboratory (NETL) formally launched the new initiative in 2004. About 20 projects are active under the \$20 million, cost-shared program.

The program's main driver is to find a way to economically develop America's vast untapped oil and natural gas resources lying at shallow depths in tens of thousands of declining or depleted reservoirs that are operated mostly by thousands of small, independent companies. The United States has more than 218 billion barrels of by-passed conventional oil at less than 5,000 feet subsurface that is nonrecoverable with current technology. If a tenth of that by-passed oil be recovered, it would equal roughly 10 years of OPEC imports at current levels. A similar scenario exists for trillions of cubic feet of by-passed natural gas. Microhole

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## DOE's Microhole R&D Program Yielding Promising New Tools

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drilling also could slash drilling waste volumes by as much as 80 percent compared with conventional drilling.

Microhole drilling's reduced costs and environmental impacts could render viable many currently uneconomic deposits. That was borne out by the recent success of a NETL-sponsored hybrid coiled tubing drilling rig that opened a marginally economic play totaling as much as 1 trillion cubic feet of natural gas in the Midcontinent region (see TechLine here).

Microhole coiled tubing drilling also offers the potential to support the economics of drilling thousands of low-cost injector wells needed to inject carbon dioxide for enhancing oil recovery and for capturing and storing this principal greenhouse gas.

DOE's program focuses on developing technology and equipment to facilitate microhole drilling, notably the miniaturization of key tools. Among the most advanced of these projects is a microhole "smart" steering motor and logging-while-drilling (LWD) system developed by Baker Hughes INTEQ. The system provides the capability to more accurately steer the drill bit to drill smooth, straight boreholes, while providing real-time information about the rock being drilled. The result is faster drilling, improved well-path accuracy, better hole quality, and longer horizontal sections (essential for exposing more of the reservoir to the well). While such technology is not new in the oil and natural gas industry, it has never been deployed in tools so small -- a mere 2-3/8 inches in diameter.

BP America Inc.'s Alaska unit used the two components to drill a well on Alaska's North Slope, one of the world's most challenging drilling environments. Baker Hughes INTEQ described the tools' performance as "an overall technical success, showing that both components add benefit when drilling re-entry wells." In noting that it will make a decision on full commercialization of the tools in 2007, Baker Hughes INTEQ added, "The investment of the DOE was a substantial contribution to the development of new techniques to recover oil and gas for the American market."

Baker Hughes INTEQ also is developing a miniaturized, wireless steering-while-drilling system that enables precise, real-time geosteering by incorporating a two-way power and communications module, and a surface control system that communicates with the downhole tool assembly. Plans call for field trials of the two tools -- intended to work with the Baker Hughes INTEQ microhole steering motor and LWD system -- in the first quarter of 2007. DOE is funding 75 percent of the cost of the two projects, each valued at about \$1 million.

Among other NETL-funded microhole tools making progress toward commercialization:

**Western Well Tool Inc.** will deploy its prototype microhole drilling tractor in three demonstration wells on Alaska's North Slope this winter, the first one in early January. One of the shortcomings of drilling with coiled tubing is that it buckles easily, making it difficult to impart enough weight on the drill bit to rapidly drill through rock. Fast penetration rates are critical to coiled tubing drilling to keep drilling costs down.

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## DOE's Microhole R&D Program Yielding Promising New Tools (continued)

Western Well Tool's miniaturized (3-1/4 inch) drilling tractor thrusts the drill bit into the subsurface formation while pulling the coiled tubing along behind and thus speeds penetration rates. DOE is funding 80 percent of the nearly \$1 million cost of the project.

**Stolar Research Corp.** this Fall was awarded a prestigious *R&D 100 Award* for its NETL-funded project to develop a radar navigation and radio data transmission system for microholes. Stolar's invention, originally developed for the coal mining industry, provides a real-time measurement-while-drilling capability to guide and navigate coiled tubing drilling through oil and gas reservoirs while also providing two-way inductive radio data transmission on the coiled tubing. The system tracks the boundaries of oil and gas reservoirs and transmits data from borehole to the surface in real time, essentially "seeing" ahead of the drill bit. Stolar completed field tests on the system last summer and is preparing a final report. DOE is funding 56 percent of the roughly \$900,000 cost of the project.

Widespread adoption of a low-cost, low-impact new paradigm for oil and gas drilling such as microhole technology would help bolster domestic production, thus creating thousands of jobs, improving America's energy security, and putting downward pressure on oil and gas prices.

Source: DOE

## DEP SEEKS MAXIMUM PENALTY AGAINST KILBUCK PROPERTIES, ORDERS STRICT TIMELINE FOR PERMANENT STABILIZATION OF SITE

### Company's Efforts Called 'Deficient and Unacceptable'

The Department of Environmental Protection today filed a complaint for civil penalties of \$470,000 – the maximum allowed by law - against Kilbuck Properties, and issued an order establishing a strict timeline, stringent performance standards, daily round-the-clock monitoring of the property and biweekly reporting requirements for the development of a permanent site stability plan at the construction site where a September landslide closed roads and train tracks along the Ohio River.

“This is a wake up call to Kilbuck Properties that they must take immediate, effective action to stabilize this property,” said DEP Southwest Regional Director Kenneth Bowman. “To date, the company’s response has been wholly deficient and unacceptable and further delay cannot, and will not, be tolerated.”

The penalty is the maximum allowable under the Pennsylvania Clean Streams Law, and assesses Kilbuck Properties’ \$10,000 a day from Dec. 2, 2006, for failure to comply with an Oct. 4, 2006, order requiring the company to provide a permanent stabilization plan for the site of the proposed River Pointe Plaza shopping center complex along Ohio River Boulevard. in Allegheny County. The penalty assessment was filed with the Pennsylvania Environmental Hearing Board.

A landslide at the site last September closed Rt. 65 /Ohio River Boulevard., a major artery leading to and from Pittsburgh, for about two weeks as crews cleared tree limbs, rocks and dirt that fell from the construction site hillside. The landslide also affected three Norfolk Southern train tracks. Three of the four lanes of state Route 65 have since reopened.

Following the landslide, on Sept. 22, DEP suspended Kilbuck Properties’ erosion and sedimentation control permit for earth disturbance activities, and, on Oct. 4, ordered Kilbuck Properties to develop a plan and establish a schedule to permanently stabilize the site.

The plan was originally due on Nov. 1, but a one-month extension was granted to allow the developer to collect additional data, including a study of soil composition and other subsurface conditions.

The report was first submitted on Dec.1, and was missing several elements including core boring logs, analysis of data collected to measure movement at the site and an implementation schedule for a permanent stability plan. DEP issued a deficiency letter to Kilbuck Properties on Dec. 6 for the initial Geotechnical Report.

A revised report was submitted on Dec. 21, and was found to be deficient and incomplete following review by the Commonwealth Geotechnical Team, a team of engineers and geologists from DEP, DCNR and PennDOT assembled specifically to monitor and review developments at the site.

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## DEP SEEKS MAXIMUM PENALTY AGAINST KILBUCK PROPERTIES

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DEP's latest order establishes a specific timeline for action by the developer and provides for monitoring and enforcement of the company's actions.

Compliance will be tracked through biweekly reports made by the developer to the Commonwealth Geotechnical Team, and by site inspections by DEP. If any deadline is missed, DEP will initiate appropriate enforcement action. The strict timeline will ensure that a permanent stabilization plan that meets with design parameters imposed by DEP is submitted by April 19 and completed by, or before, Oct. 31, 2007.

The first deadline Kilbuck Properties must meet is Jan. 19, when it is required to submit a drilling plan for groundwater monitoring devices, and design parameters that are required for slope stability analysis.

The results of an investigation and stability analysis of the soil and material removed from Ohio River Boulevard following the landslide, known as the stockpile, must be submitted by close of business on Jan. 22.

Kilbuck Properties must install additional earth movement sensors by Feb. 19. Additionally, it must also complete a variety of tests and conduct a thorough evaluation of the stability of site soil with the results to be submitted by Feb. 26.

The suspension of the company's erosion and sedimentation control permit remains in effect, prohibiting any construction at the site except for earth moving that relates to site stabilization. The developer will need to apply for and obtain the appropriate permits for any future development at the site.

Source: DEP