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MONDAY, JUNE 21, 2010



## DANGERS SURFACE

Gas drilling hazards not limited to below ground; reporting of accidents often buried in bureaucracy

### Marcellus Shale spill sites

Examples of drilling company spills throughout Pennsylvania.



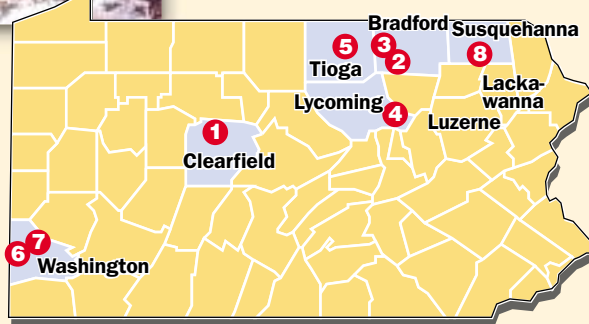
**8 Diesel fuel flowed into a flooded wetland in Dimock Twp.**



**ABOVE: Cleanup crews remove spilled hydraulic oil from a Cabot Oil and Gas Corp. pit in Dimock Twp. on June 3, 2009.**

**LEFT: Excerpt from DEP notes from a conversation with a tank manufacturer after a hydrochloric acid spill.**

- |  |   |  |
|--|---|--|
| <p><b>1 EOG Resources</b><br/><b>Late August 2009:</b> Marcellus Shale waste fluids leaked from a pit into a wild trout stream and the drinking water of a hunting camp</p> <p><b>2 Chesapeake Appalachia</b><br/><b>March 2009:</b> 420 gallons of hydrochloric acid spilled into a field and a pond<br/><b>Fine:</b> \$27,271.93</p> <p><b>3 Talisman Energy</b><br/><b>June 30, 2009:</b> 100-200 gallons of hydrochloric acid leaked from a truck on 2.5 miles of public roads</p> | <p><b>4 Chief Gathering</b><br/><b>Dec. 12, 2009:</b> Between 3,000 and 6,000 gallons of drilling mud erupted into a wetland</p> <p><b>5 East Resources</b><br/><b>June 3, 2009:</b> More than 30,000 gallons of diluted wastewater overflowed a waste pit</p> <p><b>6 Atlas Resources</b><br/><b>December 5 and 6, 2009:</b> A pit holding fresh and wastewater overflowed in a high quality watershed</p> | <p><b>7 Range Resources - Appalachia</b><br/><b>March 2008:</b> An oil leak from a hydraulic line spilled onto a field and into natural springs<br/><b>Fine:</b> \$21,200 fine for 18 violations</p> <p><b>8 Cabot Oil and Gas</b><br/><b>June and July 2008:</b> Two 800-gallon diesel spills onto soil and a wetland<br/><b>Fine:</b> \$4,915.30</p> |
|--|---|--|



## STATE'S RECORD KEEPING OF PROBLEMS INCONSISTENT

BY LAURA LEGERE  
STAFF WRITER

**A** Times-Tribune review of records detailing gas drilling spills, leaks and contamination incidents revealed hundreds of problems at well sites since the beginning of 2005.

It also found outdated and inconsistent record keeping by the environmental agency charged with regulating Marcellus Shale gas drilling in Pennsylvania.

Unlike Texas, Colorado, New Mexico, New York, West Virginia and other gas drilling states, Pennsylvania does not keep a public database detailing spills or contamination incidents at oil and gas wells.

The Department of Environmental Protection's online "eFacts" database, which enables public searches of any permitted facilities in the state, lists

coded descriptions of violations, but the information included there is often vague and provides no detail on what spilled, how much or where.

In some cases, eFacts masks the severity of an incident: DEP forced Cabot Oil and Gas Corp. to shut down a well that contributed to methane contamination in 14 residences in Dimock Twp., but the violation detail on eFacts notes only a "failure to report" a defective well casing and two "general" violations of the state law governing oil and gas drilling. The notation is to be used only when specific violation codes do not apply, even though a violation code exists for "failure to case and cement to prevent migrations into fresh groundwater."

Of the 421 violations DEP inspectors found at Marcellus Shale well sites between January and June this year,

109 of them were categorized as such "general" violations of state laws.

Alan Eichler, the oil and gas program manager for the Southwest regional office in Pittsburgh, explained that inspectors have to choose from among the computer system's list of codes when imputing a violation even when they are not "perfectly appropriate."

"Sometimes those violation codes are not as specific as maybe we would like," he said. "A code is chosen that might imply there was a discharge when there really wasn't a discharge."

In order to measure the frequency of well site spills, The Times-Tribune submitted a Right-to-Know request for the environmental agency's well

Please see **RECORDS**, Page A5

BY LAURA LEGERE  
STAFF WRITER

**F**ear about environmental damage from Marcellus Shale natural gas drilling is often trained on what could happen deep underground, but some of the gravest hazards posed by the process are driven in trucks, stored in tanks, carried through hoses and left in pits on the surface of natural gas well sites.

Concentrated chemicals, as well as wastewater containing toxic levels of salts and metals, are stored, produced or transported in large quantities at each well site, creating the potential for tainting drinking water or seeping into local ponds and streams.

While recent incidents at Marcellus Shale wells involving explosions, blowouts and methane-contaminated drinking water have drawn attention to the dangerous potential of the activity, information about the industrywide frequency and impact of spills and leaks has not been reported publicly.

Department of Environmental Protection files made available to The Times-Tribune through a Right-to-Know request reveal hundreds of examples of spills at natural gas drilling sites in the state during the last five years, recorded by at least 92 different drilling companies.

The documents show that many of the largest operators in the Marcellus Shale have been issued violations for spills that reached waterways, leaking pits that harmed drinking water, or failed pipes that drained into farmers' fields, killing shrubs and trees.

The frequency of violations has kept the state's gas inspectors on the run.

After a Marcellus Shale hearing last week, DEP produced a list for state legislators of 421 violations found by inspectors at Marcellus Shale wells this year through June 4.

At least 50 of the violations — recorded by 15 different Marcellus operators — involved a spill to soil or water. Generic descriptions used by the department to characterize the violations make it impossible to determine the exact number of spills.

"It goes from an accident to negligence," DEP Secretary John Hanger said at the hearing, and attributed the problems to "poor management"

Continued on Page A6



**TODAY**  
Review of records shows hundreds of problems since 2005.

**TUESDAY**  
Chemicals used to coax gas from shale a mystery.

**WEDNESDAY**  
Woes in western Pa. offer lesson for region.

For past stories about gas drilling and DEP violations database visit:  
[thetimes-tribune.com/gas](http://thetimes-tribune.com/gas)

### INSIDE

#### BP taps American to take over spill

BP has brought in one of its top-ranking Americans to clean up the Gulf Coast and its corporate image. Bob Dudley takes over from British CEO Tony Hayward, who was widely criticized for tone-deaf comments. **A7**

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**Weather, B8**

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## Cops: W-B man kills wife, stabs son, tot with 'spear'

*Fight between couple in their 60s reportedly started over how to spend Father's Day.*

BY MATTHEW HARRIS  
STAFF WRITER

**WILKES-BARRE** — Wielding a makeshift spear, a 66-year-old Wilkes-Barre man killed his 62-year-old wife, stabbed his son and wounded his young grandson late Saturday after arguing about Father's Day plans, police said Sunday morning.

Harun Ngolo, 28 Simpson St., allegedly stabbed Maria Jeringa Ngolo several times with a knife attached to a long wooden pole about 11 p.m. after an argument over

Records show same attack attempted in 2007. **A5**

Father's Day plans: She wanted to visit a casino Sunday, police said.

Police responding to the incident also found 3-year-old Noah Cobin with cuts on his legs, and Harun Ngolo's 29-year-old son, Moses Ngolo, sprawled on the floor with stab wounds to the stomach and chest, police said. Both were hospitalized.

Mr. Ngolo faces charges of homicide and aggravated and simple assault.

Lying in his hospital bed Sunday, Moses Ngolo turned his head to the windows with the blinds turned down. He sighed and picked at a ban-

Please see **SLAYING**, Page A5



KRISTEN MULLEN / STAFF PHOTOGRAPHER

Harun Ngolo is taken for arraignment before Magisterial District Judge Daniel O'Donnell in Sugarloaf Twp.

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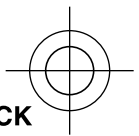
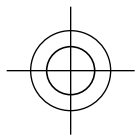
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# Ngolo family has history of violence

## Records show alleged killer tried same attack in 2007

BY ANDREW STAUB  
STAFF WRITER

WILKES-BARRE — Though years apart, the afternoon of Dec. 21, 2007, and the night of June 19, 2010, unfolded in similarly violent fashion at 28 Simpson St., court records show.

On both days, police say an angry Harun Ngolo armed himself with a makeshift spear — a steak knife attached to a 3-foot metal pole in 2007 and a knife fashioned to a long wooden pole Saturday — and terrorized his family in their Wilkes-Barre home.

At about 4:30 p.m. Dec. 21, 2007, police converged on the

*"There's no magic shield that's going to be able to stop these things."*

**Jackie Musto Carroll**  
Luzerne County district attorney

Ngolo home after a report Mr. Ngolo had chased his wife, Maria Jeringa Ngolo, and two of their sons into an upstairs bedroom, threatening to kill them, police said.

At the time, Mrs. Ngolo had an active protection-from-abuse order against her husband, who police said attacked her with a hammer



KRISTEN MULLEN / STAFF PHOTOGRAPHER

Luzerne County District Attorney Jackie Musto Carroll, right, speaks about homicide charges against Harun Ngolo during a news conference at Wilkes-Barre Police Headquarters. Looking on are city Detective Brent Sevison, left, and Assistant District Attorney Mike Vough.

in March 2007. "You're going to send me to jail?" Mr. Ngolo said, court

documents indicate. "I'm going to kill you!" A locked door — pock-

marked with six or seven holes from the spear — kept the man from his family, police said.

On Saturday, no door separated Mr. Ngolo from his wife. Police say the 66-year-old man killed Mrs. Ngolo during a fight over Father's Day plans, stabbed his son Moses Ngolo when he tried to intervene and slashed his 3-year-old grandson.

Originally charged with simple assault, prohibited offensive weapons and harassment in the 2007 case, Mr. Ngolo eventually agreed to plead guilty to the prohibited offensive weapons charge.

Former Luzerne County Judge Michael T. Conahan ordered Mr. Ngolo to serve six months' probation, court records indicate.

Mr. Ngolo also agreed to cease contact with his wife and son, a stipulation that faded over the years. As of Saturday, no protection-from-abuse order had been in effect for Mr. Ngolo, Luzerne County District Attorney Jackie Musto Carroll said, and he and his wife had reconnected.

Despite harbingers of violence and the previous protection-from-abuse order, Ms. Musto Carroll said, "There's no magic shield that's going to be able to stop these things."

"We see this a lot, that people try to reconcile and make things work," she said, "and some of the time, they're not fortunate enough to make things work out."

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## SLAYING: Man recalls his mother screaming before her death

FROM PAGE A1

*"She died protecting a kid."*

**Moses Ngolo**  
Of his slain mother

dage on his left hand. He recalled hearing a thump as he tucked his son beneath the covers Saturday night. Then the shriek of his mother's voice bounced off the walls up to the third floor of their Simpson Street house.

"Save me, save the baby," he heard her scream.

Moses sprinted downstairs to try to save her.

"She was a saint, and she died protecting a kid," Moses said. "And I feel like it's my fault. I couldn't save her. I couldn't do more."

Twelve hours later, two city police officers guided the diminutive Mr. Ngolo, who

stands just 5 feet tall, to face arraignment at District Justice Daniel O'Donnell's office in Sugarloaf Twp.

In the courtroom, Mr. Ngolo craned his head over four pink sheets of paper outlining the charges against him: criminal homicide, aggravated assault and simple assault. The narrative followed a chillingly familiar arc.

In December 2007, an irate Mr. Ngolo fashioned a makeshift pike, lashing a steak

knife to a 3-foot metal pole, threatened his family and trapped Maria and Moses in an upstairs room, according to court records.

Before that attack, Mrs. Ngolo had taken out an order of protection against her husband, who allegedly attacked her with a hammer in March 2007.

But that was years ago, and no PFA was in effect prior to Saturday.

"We've said it before in these cases that this does not have to happen," Luzerne County District Attorney Jackie Musto Carroll said during a morning news conference. "It's important that they try to get out (of) the situation,

and the person who (commits) these crimes can get help."

Moses Ngolo had battled his father before in the family home, and his mother had hedged at leaving the man with whom she crossed an ocean.

In 1994, the family escaped war-torn Zaire, where refugees and violence spilled over the border from a raging Rwandan genocide. Two years later, they bought the quaint three-story house on Simpson Street between railroad tracks and Carey Avenue, according to property records.

Yet Moses Ngolo said his father drifted in and out of the lives of his wife and seven children. He suspected his

father suffered from a mental disorder, a stint on medication and time in a shelter serving as evidence.

Violence was a facet of life in the Ngolo home. Often, Moses Ngolo intervened, stepping between his mother and his father's blows, he said.

Yet, Mrs. Ngolo didn't file for divorce or leave, telling

her son she would break it off after she retired from her job at Sears.

"No one really understood until yesterday," he said. "It was just screwed up."

**ANDREW STAUB** and **PATRICK SWEET**, staff writers, contributed to this report.

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## RECORDS: Reductions in staffing cited

FROM PAGE A1

### On the Web

Check out our searchable Lackawanna and Luzerne counties database on natural gas drilling leased land at [thetimes-tribune.com/gas](http://thetimes-tribune.com/gas)

inspection reports and violation notices that detail spills, leaks and seepage. But inconsistent responses and record keeping from the four regional offices that oversee drilling made finding an exact count of spills impossible.

Some offices gathered only industrial waste violations; some included erosion and runoff violations. Few of the offices included waste pit violations, even those when plastic liners meant to protect the soil fell in or were breached, leaving the waste in contact with the ground.

The files contained reports of spills that were not included on lists of incidents provided by the DEP, and revealed inconsistent characterizations of violations by inspectors.

In one case, a fluid and oil mixture meant to be pumped into a lined pit ran behind the liner or missed the pit entirely, but the violation noted only that the pit was not "structurally sound." In

another case, wastewater overflowed a pit, ran down an access road and into the woods, but the company was cited for not keeping an open space between the top of the pit and the fluid.

Other files were incomplete. At the Southwest regional office, more than a dozen files for wells where there have been spills of diesel, wastewater and other fluids were missing any documentation of those spills.

Some of those files noted ongoing violations or described the progress of cleanup from a spill, but records of the original spill were not there.

Mr. Eichler said the lack of precision in the violations

coding process may explain the missing files.

However, he could not explain why the eFacts database contains records of spills when inspection reports for the same spills are not in the files.

"That shouldn't be," he said. "If there's a record in eFacts there should be a hard copy report in the file."

"If you're telling me that there were inspections that were listed in eFacts that you couldn't find in the file," he said, "that would cause me some concern."

The file review process was also work- and time-intensive for the regional offices.

Because the agency does not keep a list of spill incidents, it took four regional DEP offices up to three months to identify and gather the files containing the documents.

Ed Stokan, an assistant counsel at the Southwest regional office, explained that the delay was due in part to state budget cuts that

reduced the staff as well as the fact that such a search would entail "our going through hard paper files."

"The department staff has been so stripped that we don't have the staff to go through the files," he said.

Staffing limitations also hampered other regional offices. In the Northcentral office in Williamsport, which is responsible for inspecting the bulk of the state's Marcellus Shale wells, one person has run the file room since December because of budget cuts.

Oil and gas field inspectors are now responsible for filing, and finding, their own reports there.

The DEP is currently in the process of hiring a second person to work in the file room, a spokesman said.

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### SENTENCES

The following defendants were recently sentenced in Lackawanna County Court:

■ Santinie Alvarez, 30, 528 River St., Scranton; six to 18 months in county prison for indecent assault March 19, when he gave numerous "hickies," or suck marks, on a 16-year-old

girl at his residence.

■ Christopher Lynch, 21, 6 Ollendike St., Throop; one to 18 months in prison for delivery of a controlled substance, marijuana, in Dickson City and Dunmore in October and November.

■ Edward J. Brozowski, 42, 934 Cottage St., Blakely; three

months' house arrest, three months' probation and a \$1,000 fine for drunken driving Aug. 27 near the McDade Expressway.

■ Franklin J. Ramos, 31, 2232 Comegys Ave., Scranton, 140 days to a year in prison for theft of copper pipe from 424 Fig St., Scranton, on Jan. 14.

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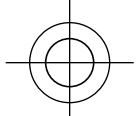
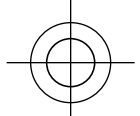
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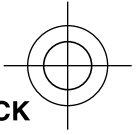
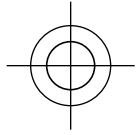
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# 'THIS INDUSTRY'S GOT TO LOOK IN THE MIRROR'

JOHN HANGER, secretary of the state Department of Environmental Protection, speaking about the natural gas industry

FROM PAGE A1

and "not proper oversight" by the companies.

"This industry's got to look in the mirror," he said.

Kathryn Klaber, the director of the Marcellus Shale Coalition, a Pennsylvania industry group, said shale drilling is an industrial activity, like many others.

"Any spill is a problem," she said. "For PR (public relations) reasons, for fines, for reputation, stock price — there's no good reason to have one."

But, she added, "I think if we were looking across multiple industries ... the question I'd like to pose is, is it worse or better than others?"

The following list highlights examples of spills, seeps and accidents as described in DEP documents that have been committed by an array of Marcellus Shale operators.

It illustrates that none of the companies currently pulling gas from the shale has been able to avoid potentially harmful accidents and errors.

## Spills and leaks near a state forest

An accident at a Marcellus Shale well in early June caused a geyser of gas and wastewater to erupt for 16 hours on property owned by a private hunting club in the middle of a state forest frequented by campers and anglers.

The well is one of 44 permitted or pending Marcellus Shale wells operated by Houston-based EOG Resources on the hunting club land in Clearfield County, and the nearly catastrophic rupture was a dramatic demonstration of the hazards of natural gas drilling.

But months before that incident, a seemingly invisible plume of contamination affected water sources around the same EOG lease, prompting months of investigation by DEP.

Beginning in late August 2009, inspectors found evidence that Marcellus Shale waste fluids had impacted Alex Branch, a wild trout stream and high-quality fishery, and damaged the drinking water at a nearby hunting camp, where water tests found barium that was four times above the state and federal drinking water limits — an amount that can cause vomiting, diarrhea and muscle weakness after drinking it for even a short period of time.

DEP inspectors had not noticed any evidence of a spill from the nearest EOG well site and could see nothing wrong with the earthen pit where the company stored the well's waste, but it was determined that undetected seepage from one pit, and maybe several, most likely caused the wastewater to contaminate the stream.

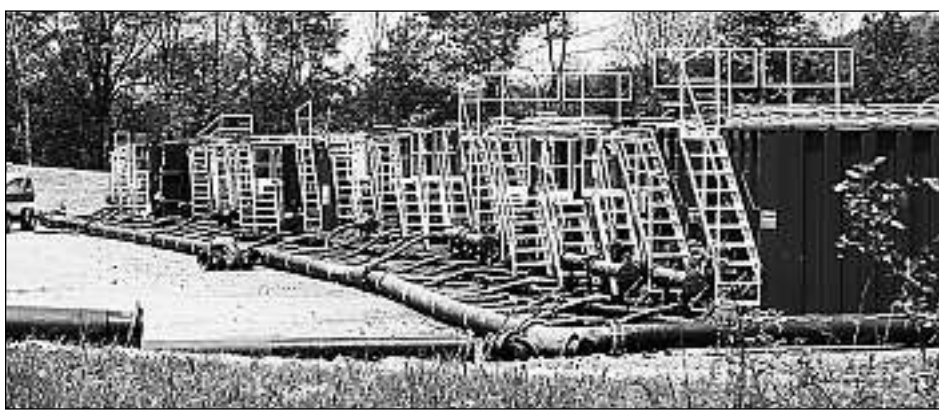
An accident in early August may also have contributed to the damage when a small hole in a hose carrying wastewater from the well sprayed a fine mist for several days that landed on nearby plants and a small wetland. A heavy rain swamped the pad, likely washing the fluids downhill to the hunting camp and stream.

In response to the leaks, EOG excavated the suspected faulty pit and another nearby pit, backfilled other unused pits on the lease and transitioned to a system in which drilling fluids and waste drawn from a well are piped to closed tanks rather than pits, which helps to minimize the risk of seepage and overflows. In an e-mail to DEP, the EOG environmental safety administrator said the company would transition to the safer systems, which are not required by Pennsylvania law, because "we don't want to risk anything."

In a separate incident, on Oct. 12, 2009, a leak in a tank



Workers prepare a Marcellus Shale gas well drilling pad near state Route 3004 in rural Susquehanna County.



Hydrofracking tanks are in place at a gas drilling well in Springville, Susquehanna County.

*"I think if we were looking across multiple industries ... the question I'd like to pose is, is it worse or better than others?"*

**Kathryn Klaber**  
Director, Marcellus Shale Coalition

used to store a fluid mixture of water and hydraulic fracturing chemicals spilled about 7,980 gallons, most of which was absorbed into the ground.

It caused a nearby tributary to Alex Branch to turn cloudy and sudsy when agitated.

An EOG spokeswoman said the company "regrets these incidents occurred and took immediate steps to address the issues," including adopting new operating procedures and hiring outside contractors to perform water sampling after both events.

## Acid leaks and unlabeled tanks

Twice in two months, hydrochloric acid spilled at two well sites operated by Chesapeake Appalachia in Bradford County — including once when the company used a tank that was not meant to store the acid.

Alarmed notes from an inspector's telephone conversation with the tank's manufacturer at the time of the first spill, at the Chancellor well site in Asylum Twp. in February 2009, showed the tank was not designed or lined to hold 36 percent hydrochloric acid, and that even less concentrated acid should only have been held for a day and a half.

"Somebody messed up big time to put 14,000 gall. 36% HCL in a frac tank for 30 days!!" the note stated.

DEP records also show the same inspector pursuing concerns about the proper labeling of the tank, which was one among between 25 and 50 identical 500-barrel, corrugated wall storage tanks on site without placards to differentiate it.

"It's bad enough dealing with unlabeled 55 gallon drums in our line of work," he wrote in an internal e-mail, "but having to contend

with unlabeled 21,000 gallon acid 'frac' tanks in the boondocks, on properties that have unrestricted access, is a bit much."

The second acid spill, at the Vannoy well site in Granville Twp., may have contributed to the contamination of a private pond and a 30-foot swath of dead or stressed vegetation, including several evergreen trees.

The 420-gallon acid spill was one of several accidents at the site DEP thought might have caused the damage, including a spill of several thousand gallons of water on March 3, 2009, that was never tested for metals and salts, the hallmark constituents of Marcellus Shale wastewater. The acid spill, on March 20, also flowed into the pond. Chesapeake neutralized the acid and removed the contaminated soil, but a cleanup plan commissioned by the company in December said some of the acid likely percolated through the pad and may have remained perched on the shallow bedrock causing additional contamination.

In July, DEP inspectors found stained areas at the base of a waste pit where the company left rock cuttings and drilling fluids in direct contact with the ground, and said the stain was a sign that drilling fluid "either has or is seeping from the pit."

DEP fined Chesapeake \$27,271.93 and its hydraulic fracturing contractor BJ Services \$8,598.46 for the second hydrochloric acid spill in February, a fine the agency never announced publicly.

Brian Grove, Chesapeake's director of corporate development, said the company "responded proactively to both situations" and "learned very valuable lessons from the incidents." It turned those lessons into new operating practices, including requiring secondary containment for all materials brought to a pad, he said.

## Hydrochloric acid on public roads

A worker for Fortuna Energy (now called Talisman Energy USA) drove a tanker leaking hydrochloric acid about 2½ miles over public roads between two of the company's well sites in Troy Twp., Bradford County, on June 30, 2009.

At the second site, the driver, wearing an acid-resistant

suit and a respirator, tried to put a catch pan under the leak, passed out from inhaling the fumes and was taken by helicopter to Robert Packer Hospital in Sayre. The tanker lost between 100 and 200 gallons of acid and contaminated soil was later removed from both sites.

Talisman did not report the spill to DEP until late the next day, a delay DEP officials called "unacceptable."

A February press release from DEP announced a \$3,500 fine for some incidents at one of the pads involved with the acid spill, but it did not address that spill. It also did not address three drilling wastewater spills in July and August 2009 on the same two well pads.

Efforts to reach a Talisman spokesman were unsuccessful. In the company's written response to DEP after the acid spill, the operations manager said it "takes the issue very seriously" and he visited each well site to emphasize to workers "the importance of our zero spill approach."

## Mud eruption in a wetland

Crews for Chief Gathering — the pipeline subsidiary of driller Chief Oil and Gas — were boring a path for a pipeline 13 feet under a stream, wetland and road in Penn Twp., Lycoming County, on Dec. 12, 2009, when the muds used to drill the hole erupted to the surface, spilling between 3,000 and 6,000 gallons into the wetland.

Initial reports from the company estimated the spill to be only about 100 gallons and to have stopped at least 10 feet away from the stream, but the DEP inspector who was called two days later found sandbags and a silt sock right at the water's edge and the barrier did not prevent some of the mud from reaching the stream.

Efforts to clean up the spill were slowed, first because the muds clogged the suction hoses the company used to try to remove it from the wetland, and later because the fluids froze solid.

While he was on site, the inspector also saw evidence of muds in a roadside ditch and was told that there had been another, unreported spill on Dec. 10 of about 110 gallons.

The inspector noted that chemical safety sheets pro-

vided by the company for the mud, "Hydraul-EZ," listed the ingredients bentonite, a kind of clay, and a "bentonite extender," but the manufacturer "claims that any further details about these substances is proprietary" making it "difficult" to determine the potential of the mud to cause pollution.

Kristi Gittins, a Chief spokeswoman, said that the spilled mud is "not hazardous. It's dirt."

"There were no chemicals, and the DEP knows that," she said.

The remedy for such a spill is to "let it settle," she said, which is what the company was told to do.

## Overflowing waste pit 1

More than 30,000 gallons of diluted wastewater overflowed a waste pit, rushed over a barrier and soaked a pasture on June 3, 2009, when workers transferring the fluid to the site owned by East Resources in Tioga County accidentally dumped too much into the pit.

The spill was first noticed by DEP inspectors, who happened to stop by the well pad.

The fluid was diluted enough, and cleaned up quickly enough to avoid killing or stressing vegetation, and the fluid did not appear to reach a stream.

The pit was among four at East Resources well sites in Tioga and Potter counties that discharged the wastewater they were holding. The three other pits all leaked, and at least one was concentrated enough to kill or stress nearby vegetation.

East is finalizing a consent order with DEP that covers those and about 30 other violations at its sites, according to a violation notice posted on a DEP database that indicates the company will pay a \$29,000 fine.

Stephen Rhoads, East's director of external affairs, said the spill was an "unfortunate accident" with no long-term impact.

"Working with DEP, we took care of it immediately," he said.

## Overflowing waste pit 2

A 750,000-gallon pit holding a mixture of fresh water and wastewater overflowed off a well pad run by Atlas Resources in Washington County, through a drain and into a small tributary in a high quality watershed on Dec. 5 and 6, 2009.

The spill was reported to DEP by the property owner, who noticed the spill before Atlas saw or reported it. It apparently was caused by a pump that turned on automatically but had no mechanism for turning off automatically when the pit was full.

The spill, for which the company has not been fined, is one of several violations the company has recorded in southwestern Pennsylvania. In January, DEP fined Atlas \$85,000 for violations at 13 well

sites between December 2008 and July 2009, including improper erosion controls and site remediation, and spills of diesel fuel and wastewater.

In late March, on the same Hopewell Twp. farm as the pit overflow, liquid hydrocarbons called condensate on the surface of a 400,000-gallon wastewater pit caught fire, engulfing the pit and burning its plastic liner, causing a plume of black smoke that was visible for miles.

Atlas, a Pennsylvania company, also drills non-Marcellus Shale natural gas wells, including one near Kush-equa, McKean County, that DEP found to have caused explosive levels of methane and ethane to seep into residential water supplies and triggered a small explosion in the village's public well in late 2007.

Efforts to reach a spokesman for Atlas were unsuccessful.

## Hydraulic oil leak

An oil leak from a hydraulic line in March 2008 spilled onto a field and into natural springs surrounding a Range Resources - Appalachia well in Washington County. The oil mixed with water and flowed 100 yards downhill, contaminating soil and killing vegetation.

Range excavated the contaminated soil and paid a \$21,200 fine in June 2009 for the spills at that site and for 16 other violations, an enforcement action that was never publicized by DEP.

DEP also investigated whether a Marcellus Shale well drilled by Range on the same property affected an old abandoned well, causing gas to contaminate private water supplies and bubble up through the soil.

Matt Pitzarella, a Range spokesman, said the gas migration was a pre-existing issue that was only discovered once Range's activities started on the site. The company capped and remediated the old well, he said.

The oil leak he called a mechanical error, and said the other violations included many that were administrative.

"Fortunately it was an incident that had minimal, if any, environmental impact, but you have to take care of every little detail," he said.

"Since that time we've increased efforts to keep spills on location."

## Two months, two diesel spills

Cabot Oil and Gas Corp. had two 800-gallon diesel spills in five weeks in 2008 at some of its earliest Marcellus Shale sites in Dimock Twp.

On June 3, off-road diesel spilled from a break in a fuel line to a drilling rig, ran down a hill and into a roadside swale and pooled in a flooded wetland near Meshoppen Creek.

On July 11, a dump truck driver working to build an access road to a well backed into a 1,000-gallon tank of off-road diesel, panicked and dragged the tank about 30 feet before it tipped over and spilled onto the ground. Crews dug pits and vacuumed up about 170 gallons of the visible diesel, then removed contaminated soil and stone from the site. When two of nine soil tests showed continued contamination, contractors dug a foot deeper and excavated more soil. A total of 272 tons of contaminated soil was taken from the site.

The company was fined \$4,915.30 for the first spill after the site was cleaned up.

According to DEP records, Cabot was never fined for the second spill.

Cabot spokesman George Stark said the company "works hard to ensure that we have a plan in place to control and maintain any accidental release."

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