The PIOGA press

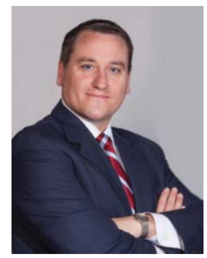
Pennsylvania Independent Oil & Gas Association

The monthly newsletter of the Pennsylvania Independent Oil & Gas Association

May 2015 • Issue 61

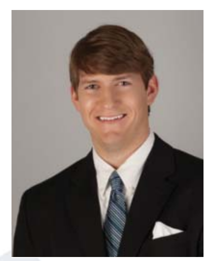
West Virginia is not the best comparison for proposed Pennsylvania tax

Authors:



Thomas C. Ryan

K&L GATES



Travis L. Brannon

Much of the discussion regarding the controversial severance tax and fee on natural gas called for in Governor Wolf's proposed "Education Reinvestment Act" has focused on the economic impact, both the perceived positives and negatives, of the 5-percent severance tax. A somewhat overlooked component, however, is the additional 4.7 cents per thousand cubic feet "adder" on extraction that is tacked onto the proposed Act. § 1102-E(b)(1). Although conveyed as a less significant[2] financial burden than the 5-percent severance tax itself, a closer examination of the rationale offered by the proponents for this adder casts some doubt on the suitability of the entire tax scheme for Pennsylvania.

The governor's office, in its March 11 letter to Pennsylvania legislative leaders, justifies imposition of the severance tax to generate needed revenue for the state's public education system and to also maintain funding for state programs supported by impact fees collected under Act 13. In response, the oil and gas industry cites difficult market conditions in the industry, while also emphasizing the risk that such a tax burden could stifle production and job growth. In rebuttal, proponents of the proposed tax point to neighboring West Virginia's existing severance tax system to negate the "tax burden" argument. In its March 11 letter, the governor's office publicly cited West Virginia as the "field tested" model for the proposed severance tax and stated that implementing "a similar structure to West Virginia will ensure that Pennsylvania is competitive with neighboring states."

In its simplest form, the proponents' position is that members of the industry are already accustomed to paying the 5-percent severance tax and 4.7 cents adder across the border. In some sense, the argument is that if operators are used to paying the West Virginia severance tax including the adder, the proposed act presents no additional economic burden to their business model. However, a cursory comparison of the adder's features in the proposed act to West Virginia's version shows at least three critical distinctions that undermine the argument.

A quick comparison of the adder provisions

First, the "adder"—for which the only apparent justification of its inclusion in the proposed act is because West Virginia had it first—was actually enacted in West Virginia only to address a specific liability unique to that state. In 2005, the West Virginia legislature voted to add the additional 4.7 cents per Mcf fee to the existing severance tax structure. W. Va. Code § 11-13V-4(b). The legislature did so with a particular purpose of "paying down the unfunded liability in the workers' compensation fund, or paying debt service on bonds sold to raise funds to pay down the unfunded liability in the workers' compensation fund." W. Va. Code § 11-13V-2(a). At that time, the unfunded liability in the state workers' compensation program exceeded $3 billion and significant annual appropriations from the general revenue fund were needed to fund that obligation. W. Va. Code § 11-13V-2(b)(1) & (4). Therefore, to remedy that specific problem, "all moneys received" in West Virginia from the additional 4.7 cent per Mcf fee "shall be deposited in the Workers' Compensation Debt Reduction Fund." W. Va. Code § 11-13V-4(f). The West Virginia Center on Budget & Policy recently noted the state has utilized the adder on both natural gas and coal, along with other discrete revenue sources, to make substantial progress in reducing workers' compensation liabilities. Since 2005, the debt has been reduced nearly 85 percent, from $2.4 billion to $350 million at the end of FY 2014.

As currently proposed in Pennsylvania, the 5-percent severance tax and 4.7 cents per Mcf fee are lumped together. The generated revenues will use to fund a variety of general earmarks to (1) continue projects funded by Act 13's impact fee, (2) transfer $10 million annually to Department of Environmental

(Continues on page 2)

Tax comparison: *Continued from page 1*

Protection for increased enforcement and (3) direct funding to the governor's proposed economic growth program starting in 2016-2017. Notwithstanding the proposed title for the legislation—"Education Reinvestment Act"—or its proposed placement within the Public School Code, none of the funds appear directed toward a reinvestment in education. Additionally, however, the proposed act prefaces distributions from the proposed severance tax revenues with "to the extent available," creating some uncertainty surrounding its eventual and actual use. In comparison, West Virginia's imposition of an additional adder was for a finite purpose when, in contrast, Pennsylvania's adder provision has no dedicated funding purposes and will mostly go to the general programs outlined above, potentially creating a dependency rendering the fee virtually impossible to repeal at a later date.

In that same vein, the second notable distinction, and perhaps even more striking, is that the West Virginia statute contains an explicit "sunset expiration date" for its adder provision. Specifically, "[t]he new taxes imposed by this section shall expire and not be imposed...following the month in which the Governor certifies to the Legislature that: (1) The revenue bonds issued...have been retired, or payment of the debt service provide for; and (2) that an independent certified actuary has determined that the unfunded liability of the old fund...has been paid or provided for in its entirety." W. Va. Code § 11-13V-4(g). Plainly, West Virginia's per-Mcf fee is not intended to continue indefinitely and, once the appropriate statutory conditions are satisfied, is set to expire. The proposed Pennsylvania act, however, has no sunset provision.

This difference is significant. On the one hand, West Virginia identified a discrete issue that needed additional funding and offered a compromise to the industry to help generate the additional needed tax revenue by mandating that the adder provision will expire once the state's workers' compensation debt has been satisfied. The West Virginia Center on Budget & Policy stated that analysis in the FY 2016 budget proposal expected the debt to be fully paid off by the end of calendar year 2016, or halfway through 2017. At that point in time, the additional severance tax will expire. On the other hand, Governor Wolf's proposed tax includes this same adder in Pennsylvania with no dedicated funding purpose and no definitive sunset provision—and certainly not representing a compromise based on the industry's initial reactions. Yet, its proponents tout this plan as identical to the "field tested" approach in neighboring West Virginia.

Finally, the two severance tax rates simply are not comparable. One accounts for market prices, while the other does not. West Virginia imposes a severance tax of 5 percent on the privi-

Deadline: May 19

Have you commented on the Chapter 78 regulations?

If the calendar has not yet passed May 19, you still have time to comment on what the Department of Environmental Protection says are final proposed revisions to its Chapter 78, Subchapter C regulations governing oil and gas surface activities.

The changes will have a major impact on conventional and unconventional operators alike. Although PIOGA is filing formal comments on behalf of the association's members, we strongly urge individual members to comment as well.

A posting in the news section of our website, www.pioga.org, includes a link to the DEP page that provides instructions on how to submit comments electronically. We hope to be able to post the PIOGA comments on our website by March 15. That document, along with issues about the DEP rulemaking raised in the cover article of the April *PIOGA Press,* will provide points that you can consider making in your own comments. We recommend that you highlight how the rules would impact your operations or the operations of your clients and offer specific suggestions for how the proposals could be improved.

The proposed rules are available on the DEP webpage mentioned above. In response to a directive last year by the General Assembly, the department's proposal rules are divided into separate sets applicable to conventional (Chapter 78) and unconventional (Chapter 78a) operations.

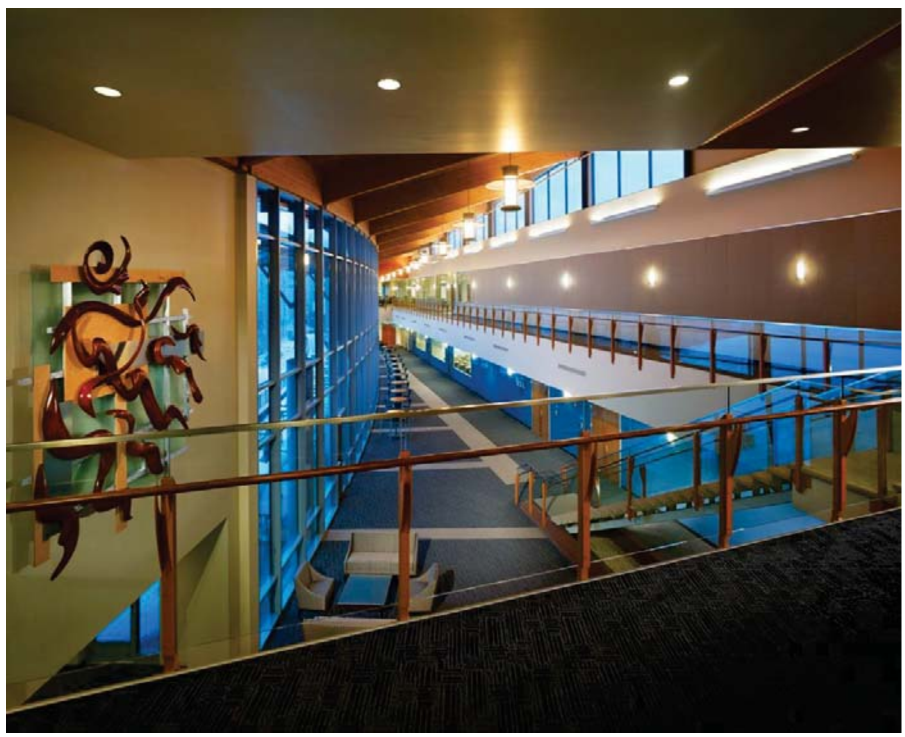
The regulations have been under development for since 2011. The first version of the proposed changes was formally published December 2013, and when the public comment period closed in March, 2014 DEP had received more than 24,000 public comments. The revised regulations were published as an advanced notice of final rulemaking on April 4, with a public comment period lasting through May 19. In addition, DEP held three public hearings in Washington, Warren and Williamsport in late April and early May.

RLA
Regional Learning Alliance
At Cranberry Woods

RLA Premier Conference Center

28 Meeting Rooms

Full Service – One Price

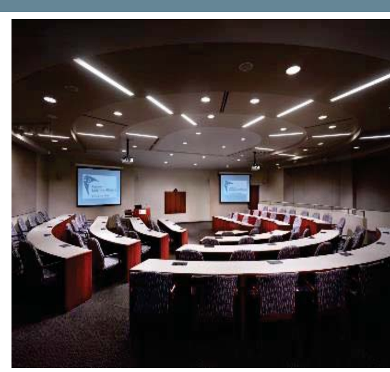


Expectations Exceeded

- Customized Meeting Packages
- Retreat-like Setting
- Ergonomic Furniture Design
- State-of-the-art Technology
- Executive Style Food Service

For inquires or a personal tour, call
724-741-1024
info@theRLA.org

Regional Learning Alliance at Cranberry Woods 850 Cranberry Woods Drive Cranberry Township, PA 16066
www.theRLA.org



Meet. Learn. Grow

lege of severing natural gas. W. Va. Code § 11-13A-3a(b). Notably, however, the West Virginia definitions in article 13A do not, like in the proposed Act in Pennsylvania, set a minimum price per unit of natural gas. *See* W. Va. Code § 11-13A-2. Under the proposed act, operators in Pennsylvania will be required to pay 5 percent of $2.97 and 4.7 cents per Mcf *regardless of whether the actual sales price dips below that statutory floor*. *See* § 1101-E (Definition of “Gross Value”). In other words, natural gas producers will pay approximately 20 cents in tax even if the market price per Mcf dips below $2, as the recent depressed natural gas market has proven to be possible. Accordingly, unlike the proposed act, West Virginia’s approach postures the state more like the industry’s partner as its revenue will fluctuate in the market price. By doing so, West Virginia did not insulate itself, as Pennsylvania has proposed, from a depressed natural gas market and instead West Virginia has a vested interest in encouraging a healthy market for the sale and distribution of natural gas.

Additionally, the proposed act appears to promote, notwithstanding privately negotiated lease provisions to the contrary[3], the non-deductibility of Pennsylvania severance taxes as post-production costs. To the contrary, even a “marketable-product” state like West Virginia, allows allocation of post-production costs between the lessor and the lessee if specificity requirements are satisfied. Not only is this a striking difference between the proposed act and its “model” scheme in West Virginia, but Pennsylvania would become the only state, according to most commentators, that does not allow the sharing of such severance taxes with lessors.

Conclusion

While proponents of the proposed act are quick to sell the 4.7 cents per Mcf adder as part of the “going rate” for extracting natural gas in Appalachia, a closer look at the oft-cited comparisons to the West Virginia severance tax and adder quickly reveal fundamental differences rendering the argument suspect. This debate is ongoing and the final outcome is far from decided. Undoubtedly, though, understanding the nuanced differences between these two approaches is important to shaping an informed dialogue in Pennsylvania over the coming months as the comparisons to West Virginia by supporters of the proposed act are likely to continue. ■

As attorneys practicing in the K&L Gates North American Oil & Gas Practice Group from the firm’s Pittsburgh office, Messrs. Ryan and Brannon represent members of the oil and gas industry throughout the entire Appalachian region, including both Pennsylvania and West Virginia, where each of them is licensed to practice law.

---

[1] Although less significant when the price of gas rises, when the price is low (such as the $1 transactions seen in the first calendar quarter this year) a 4.7 cent per Mcf “fee” equates to an additional 4.7 percent severance tax.

[2] A larger issue with such a prohibition on the deduction of severance taxes as post-production costs may be challenges filed for violation of private contract rights protected by the federal and state constitutions.

Methane emissions decrease from natural gas facilities

The headline on the Department of Environmental Protection's April 20 news release stated, "New Data Reveals Increase in Emissions from Natural Gas Drilling Operations as Activity Increase, Reporting Requirements Expand." While it's true that total emissions from four of the six categories increased between 2012 and 2013, the number of facilities also showed substantial growth and at the same time overall methane emissions dropped by 13 percent.

In other words, on a per-facility basis, emissions have declined or increased only slightly and operators are doing a better and better job of preventing methane leaks from unconventional gas wells. The DEP data are in line with what the U.S. Environmental Protection Agency is seeing nationally for greenhouse gasses. The EPA has reported a 79 percent decrease in methane emissions from well sites and hydraulic fracturing operations from 2005 to 2013.

DEP's data for six major categories of contaminants are shown in the accompanying table. The agency began collecting emissions data in 2011, and 2013 is the most recent year for which the numbers are available.

The emissions inventory represents unconventional natural gas production operations, processing facilities and compressor stations. Significantly, the number of well sites included in the annual emissions inventory increased by 18.3 percent from 2012 to 2013 and the number of midstream facilities that submitted data increased by 8.2 percent. Looking at the numbers on a per-source basis is revealing:

• While total methane emissions decreased by 13 percent from 2012 to 2013, on a per-source basis the average fell by 26 percent from 16.63 tons per site to 10.08.

• Overall nitrogen oxide emissions grew by 8 percent, though the average source's emissions fell by about 8 percent, from 1.8 tons per source to 1.65.

• Volatile organic compound emissions increased by 19 percent overall, but the per-source increase was less than 1 percent.

• Sulfur dioxide and fine particulate matter emissions increased overall, although their numbers represent a fraction of other pollutants.

"We're seeing decreased emissions with increased production, so obviously the industry is doing a better job of tightening up their ships," said David Yoxtheimer, a researcher at Penn State University's Marcellus Center for Outreach and Research, told the *Pittsburgh Tribune-Review*. ■

Natural gas emissions

Tons per year

Year	Well sites reporting	Midstream facilities reporting	Carbon monoxide	Nitrogen oxides	Particulate matter	Sulfur dioxide	Volatile organic compounds	Methane
2011	8,976	140	6.852	16,542	577	122	2,820	N/A
2012	8,678	400	7,350	16,361	600	101	4,024	123,884
2013	10,277	433	6,606	17,659	670	159	4,790	107,945

Court rules Delaware Riverkeeper can't have TENORM data

An environmental activist group cannot have raw data collected by the Department of Environmental Protection as part of the agency's investigation of technologically enhanced radioactive material (TENORM) in oil and gas operations.

The ruling overturned a decision by the state Office of Open Records directing DEP to provide the TENORM data to the Delaware Riverkeeper Network. The court indicated that data gathered by DEP's Bureau of Radiation Protection is exempt from public disclosure as part of a noncriminal investigation.

The Open Records Office had concluded that the information was part of a study rather than an investigation and should be available to the public. DEP has been collecting the data under a mandate to evaluate "potential radiation exposure to workers, the public and the environment resulting from certain materials generated by gas and oil exploration and production activities," stated Judge Anne E. Covey in the court's opinion.

DEP, which appealed the Open Records Office ruling, has collected samples from more than 100 facilities across the state since 2013. The examination has generated more than 57,000 pages of records.

Covey wrote that DEP is to use the information to determine whether to recommend regulations or legislation to safeguard public health and the environment. The raw data is still being evaluated and once that is done the agency has indicated it intends to release a detailed report that will be available to the public.

Covey cited the agency's argument that a "premature" public release of the still "unvalidated and preliminary" data could lead to the circulation of erroneous or misleading conclusions regarding health risks. "We hold that DEP met its burden of proving...that the data is exempt from disclosure and therefore is not a public record," she wrote. ■

PIOGA
Pennsylvania Independent Oil & Gas Association

2015 Summer Picnic

Sponsored by

ERGON
a company that works™

Wanango Golf Club, Reno, PA

Monday, June 1, 2015 (← Note new date)

A day of great golf followed by a delicious steak fry

Join your industry friends and associates for a day of golf and good food at PIOGA's 2015 Summer Picnic, sponsored by ERGON. The golf outing and steak fry return to one of the finest golf courses in Northwestern Pennsylvania, the Wanango Golf Club outside Oil City.

Golf Tournament – 10:00 a.m.

The golf tournament is in a scramble format, with registration at 9 a.m. and a shotgun start at 10 a.m. We plan a variety of contests on the course. Lunch will be provided to all golfers and beverages will be available on the course. The golf package includes cart and green fees, skill prizes, lunch and beverages during play, then a delicious steak fry when you return to the clubhouse. Mulligans will be available for purchase at registration.

Steak Fry – 4:00 p.m.

If you are coming to the dinner only then please come early and **join us at 3 p.m. for Happy Hour drinks**.
After golf, the Wanango Golf Club will serve us a delicious New York Strip Steak Fry with baked potato and a variety of side dishes to satisfy every palate. Dinner is at 4 p.m.

Registration

Registration and fees for the day's options are priced separately and they can be purchased by completing the form included the event package at www.pioga.org/publication_file/2015-PIOGA-Summer-Picnic-packet.pdf. A sponsorship form is included as well.

Getting There

❐ **Wanango Golf Club** (814-676-8133, **(www.wanango.com)** – between Oil City and Franklin on Route 8, turn right on Fifth Street in Reno, opposite a red Calument wax factory. Proceed three blocks to Chestnut Street and turn left toward the club gates.

Our new sponsorship category GOLD by AMERICAN REFINING GROUP, INC.

More upcoming 2015 PIOGA events

Pig Roast, Equipment Show and Seminar

July 28-29, Seven Springs Mountain Resort, Champion

The highlight of our summer season is the PIOGA Pig Roast at gorgeous Seven Springs. The first day consists of golf and sporting clays tournaments in the morning, followed by an afternoon that features lunch, an outdoor equipment show, the new Product and Services Showcase sessions and a variety of entertainment. The evening includes the famous pig roast itself and then a fireworks display like none you've ever seen.

Day two is given over to technical presentations on a variety of useful and cutting-edge topics. Check the PIOGA website—www.pioga.org—or watch your email for the complete agenda and registration. If interested in exhibiting, please contact Debbie Oyler at 724-933-7306 ext. 22 or debbie@pioga.org

18th Annual Divot Diggers Golf Outing

August 26, Tam O'Shanter Golf Club, Hermitage

This traditional event is organized by PIOGA's Environmental Committee and the proceeds go to the association's work in the environmental arena. When you get the notice seeking sponsorship and registrations, don't put off responding—the event always fills up quickly.

Eastern Oil & Gas Conference and Trade Show

October 27-28, Monroeville Convention Center, Monroeville

We're returning to Monroeville this year with a new autumn date. Although still early in the planning process, we have some exciting new features in store and hope to be able to announce a major keynote speaker soon.

We anticipate opening exhibit space reservations in June. If you want to make sure you receive notice so that you can secure the best exhibit locations, contact Debbie at the phone number or email listed above.

PGW evaluates energy hub

By Joyce Turkaly
Director Natural Gas Market Development

Less than one mile from the TIOGA Marine Terminal at the Delaware River's edge sits PGW's Port Richmond LNG facility. Originally constructed in 1969 on a 30-acre site, this facility was designed as a peak-shaving facility, utilizing gas to serve the system on the coldest days of the year. Given that it was cost-prohibitive to build additional pipeline capacity simply for peak day needs, the PGW infrastructure has to rely on its existing asset base, which includes 18 Bcf of storage, two LNG facilities and 6,000 miles of mains and related services, in order to balance the system. With some additional upgrades to the original liquefier in 2000, the current system is capable of 16,000 Mcf/d or 200,000 GGE/d liquefaction. Given that the feedstock is within the range of required gas quality specifications, the facility itself was designed as a core plant with offloading facilities and includes two storage tanks that can store 2 Bcf each. PGW has another LNG storage facility in Passyunk where LNG processed at this location can be trucked; each ISO container truck holds 10,000 gallons, which is the equivalent of 850 Mcf.

Unlike the distillation towers and liquefaction trains found at larger export facilities, PGW utilizes natural air, then drops the pressure using compression and a glycol process to cool the gas. Both Transco and Spectra pipelines loop around the city of Philadelphia, serving PGW's market of roughly 500,000 mostly heat load customers. In 2013, increasing LNG demand for use in heavy-duty applications including Class 8 tractors, led PGW to expand its thinking regarding tapping into the transportation market. Earlier this year, PGW held a non-binding open season for LNG that generated 6-7 Bcf of demand interest (almost double of what they currently store). Since this solicitation, PGW is proposing to double the capacity of the plant, which has led PGW to request an increase in their 2016 capital budget of $60 million. PGW's business model to serve both the transportation and high-horsepower markets would be an all-in offering (including commodity, processing and truck loading), based on the weighted average cost of gas that PGW purchases daily, quoted for sale in the $7-$8/Mcf range. With easy access to major highways both in Pennsylvania and New Jersey, along with access to rail via CSX and Norfolk Southern and existing real estate at Port Richmond that extends to the river, the logistical advantages to this project make future expansion appear very promising.

By 2040, IHS Energy predicts that LNG will represent 40 percent of the fuel mix used in the transportation market. Assisting PGW with its business case was Concentric Energy Advisors. CEA estimated that PGW could generate as much as $10 million in profits from an LNG expansion. This is all good news as the municipally owned natural gas utility looks to new markets to offset what it is projecting to be a $40-million shortfall in 2018. PGW's Energy Hub expansion project, if approved by the Philadelphia City Council, will be slated for completion in early 2018. ■

PGW Port Richmond storage and glycol unit.

FERC approves rule to improve gas-electricity coordination

The Federal Energy Regulatory Commission (FERC) on April 16 approved a final rule to improve coordination of wholesale natural gas and electricity market scheduling as gas is increasingly used for electric generation.

After more than three years of evaluation, FERC said its rule will help ensure the reliable and efficient operation of both the interstate gas pipeline and electricity systems.

FERC did not adopt a proposal to move the 9 a.m. Central Clock Time (CCT) start of the gas day to the 4 a.m. CCT of the electric day.

"While certain efficiencies could be achieved through a better alignment of the natural gas and electric operating days, the record in this proceeding does not justify changing the start time for the nationwide natural gas day," FERC said.

The final rule adopts two proposals submitted by the North American Energy Standards Board to revise the interstate natural gas nomination timeline and make conforming changes to their standards. In the March 2014 notice of proposed rulemaking, the commission proposed changes to the nomination timeline for natural gas pipelines, but provided the gas and electric industries with time to consider revisions to those proposals. The commission adopted the proposal to move the Timely Nomination Cycle deadline for scheduling gas transportation from 11:30 a.m. CCT to 1 p.m. CCT and the proposal to add a third intraday nomination cycle during the gas operating day to help shippers adjust their scheduling to reflect changes in demand.

The rule takes effect 75 days after publication in the *Federal Register* and can be downloaded at www.ferc.gov/whats-new/comm-meet/2015/041615/M-1.pdf. ■

Brown named as PUC chair

Governor Tom Wolf has elevated Gladys M. Brown to chairwoman of the Pennsylvania Public Utility Commission.

A PUC commissioner since 2013, Brown replaces Robert F. Powelson, who will remain as commissioner, the governor's office said in a news release.

"I am pleased to appoint Gladys Brown to serve as chair of the Public Utility Commission," Wolf said. "I look forward to working with Gladys to ensure there is a stable balance between consumers and utilities, as well as utilizing PUC to advance the development of Pennsylvania's infrastructure to support the natural gas industry."

Wolf said Brown shares his vision to "reposition the Commonwealth as a leader in developing renewable energy and energy efficiencies."

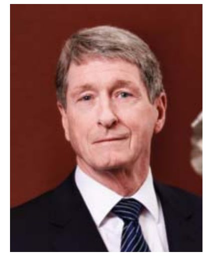
Prior to serving on the PUC, Brown was an aide and counsel to the Pennsylvania State Senate for nearly 23 years. The Harrisburg resident is a member of the Dauphin County Bar Association, the James S. Bowman Inns of Court and the Keystone Bar Association. ■

Recent New York Court of Appeals decision guts *force majeure* clauses in most oil and gas leases

On March 31, the New York State Court of Appeals issued an opinion in the case of *Walter R. Beardslee, et al. v. Inflection Energy, LLC, et al.*, interpreting the applicability of *force majeure* clauses to extend the primary term of oil and gas leases where lessees were prevented from drilling due to the moratorium on high-volume hydraulic fracturing in New York. The Court of Appeals, which is New York's highest court, held that a typical *force majeure* clause in the oil and gas leases in question did not modify the habendum clause of the leases, and therefore cannot extend the primary terms of the leases.

The habendum clause establishes the term of an oil and gas lease, broken down into a primary term, a fixed period of time during which the lessee must commence a specific activity—usually the drilling of a well—and a secondary term, which only comes into play if the lessee timely commenced the specified activity during the primary term and which continues while the subject property is operated for the production of oil and/or gas, subject to permissible interruptions in production as specified in the lease. The *Beardslee* decision means that the leases expired at the end of their primary terms, even though the failure of the lessees to commence drilling at, or produce oil or gas from, the leased premises was entirely due to the moratorium.

Authors:



Alan Laurita

Seth Pullen

Inflection Energy had advised landowners, who were lessors of oil and gas leases it controlled, that the moratorium was a *force majeure* event which would extend the primary term of their leases. A group of Tioga County landowners commenced an action in federal court (the U.S. District Court for the Northern District of New York) against Inflection and two other companies that had interests in the leases, seeking a declaratory judgment that the leases had expired. The District Court granted summary judgment in favor of the landowners, ruling that even if the moratorium constituted a *force majeure* event (a contention that the landowners opposed and that the district court did not decide), it would have no effect on the habendum clause and the lease terms because the energy companies did not have an obligation to drill.

The energy companies appealed to the U.S. Court of Appeals for the Second Circuit. The Second Circuit observed that the case involved previously unanswered questions of New York law relating to the interpretation of oil and gas leases and turned to New York's highest court for answers to those questions. The Court of Appeals was asked by the Second Circuit to interpret two questions: (1) under New York law, and in the context of an oil and gas lease, did the moratorium amount to a *force majeure* event, and (2) if so, did the *force majeure* event modify the habendum clause and extend the primary terms of the leases?

The Court of Appeals focused its analysis on the second question, and decided that even if there was a *force majeure* event it could not modify the habendum clause and thus would not extend the primary terms of the leases involved. Because the Court of Appeals answered the second question in the negative, it determined the first question to be academic and not necessary to answer. The court provided several reasons for its conclusion with respect to the second question, including:

• The habendum clause in the leases does not incorporate the *force majeure* clause by reference or contain any language expressly subjecting it to other lease terms nor does the language in the *force majeure* clause, which states that "the time of such delay or interruption shall not be counted against Lessee," refer to the habendum clause with specificity; accordingly, the habendum clause is not expressly modified or enlarged by the *force majeure* clause.

• The language in the *force majeure* provision does not supersede all other clauses in the leases, only those with which it is in conflict, and the *force majeure* clause is not in conflict with the provisions of the primary term of the habendum clause, because the lessee is not obligated to drill for or produce oil or gas during the primary term.

• The words "anything in this lease to the contrary notwithstanding" alone are insufficient to compel the conclusion that the *force majeure* clause modifies the primary term, as compared to the secondary term, of the habendum clause.

• Because the *force majeure* clause expressly refers to a delay or interruption in drilling or production, the clause only conflicts with and only modifies the secondary term of the habendum clause, in which the lessee has the obligation to operate in the production of oil or gas or the lease terminates.

• The sentence of the *force majeure* clause that deals with governmental regulations pertains only to the energy companies' express or implied covenants (i.e. the lessee's obligations); since there are no express or implied covenants applicable to the primary term other than the payment of delay rentals, the *force majeure* clause must relate only to continuous drilling/production operations during the secondary term.

• The clause in the *force majeure* provision relating to governmental laws, orders, rules or regulations dealt with lease termination not lease expiration, and the corresponding habendum clause provision is the secondary term, which addresses the conditions under which the leases would terminate, whereas the primary term deals with lease expiration.

• The court interpreted the "notwithstanding" language of the *force majeure* clause as excusing only performance during the secondary term during which operations in the production of oil and gas would be necessary for leases to remain viable and concluded that to read the *force majeure* clause as applying to the primary term would be to interpret the leases in a manner contrary to the plain intent of the parties.

• Finally, the Court of Appeals stated that its position was consistent with out-of-state "oil" jurisdictions, which have held that similar *force majeure* clauses cannot extend the primary terms set forth in the habendum clause, and pointed out that if the energy companies intended for the habendum clause to be subject to other provisions of the lease they could have expressly so indicated.

The decision in *Beardslee* essentially makes the *force majeure* clause in most existing oil and gas leases inapplicable to the primary term of the lease. Most oil and gas companies will be surprised by the court's conclusion that this is what they intended when they entered into the leases. While the *Beardslee* case focused on the moratorium initiated by Governor Paterson, the result of the court's decision is that any event that may constitute *force majeure* will not result in an extension of the primary term of an oil and gas lease unless the lease expressly provides to the contrary. While it is unreasonable to expect that existing lessors will execute amendments to their leases making the *force majeure* clause applicable to the primary term, companies wishing to execute new leases in New York should revise their lease forms to include this language.

Companies taking leases in other states should also consider revising their lease forms in light of the *Beardslee* decision. The Court of Appeals cited previous holdings by courts in California and Texas that ruled similar *force majeure* clauses could not extend the primary term of a habendum clause in oil and gas leases. The *Beardslee* decision will be added to that list of cases and used as precedent to challenge the application of *force majeure* clauses wherever leases are affected by the increasingly frequent delays resulting from the efforts of anti-drilling/anti-fracking activists. ■

Alan Laurita is a partner at Hodgson Russ and leader of the firm's Oil & Gas Practice. Seth Pullen is a senior associate in Hodgson Russ's Oil & Gas Practice.

Forest Service withdraws groundwater directive

A proposed directive on groundwater usage that would have affected oil and gas operations in Pennsylvania's Allegheny National Forest (ANF) has been permanently withdrawn by the U.S. Forest Service. The decision was announced by a Forest Service deputy chief at an April 14 hearing of the U.S. House of Representatives' Natural Resources Committee.

The Forest Service in May 2014 proposed amending its internal agency directives for watershed and air management to establish direction for managing groundwater resources on National Forest System (NFS) lands as an integral component of watershed management. The proposed amendment would have:

—provided direction on the consideration of groundwater resources in agency activities, approvals and authorizations;

—encouraged source water protection and water conservation;

—established procedures for reviewing new proposals for groundwater withdrawals on NFS land;

—required the evaluation of potential impacts from groundwater withdrawals on NFS natural resources; and

—provided for measurement and reporting to help build understanding of groundwater resources on lands managed by the agency.

In a fact sheet issued along with the proposal, the Forest Service said: "The proposed directive would establish goals and clarify responsibilities for consistently considering potential effect of activities to groundwater resources at each level of the Forest Service. The proposed directive also would provide clear direction for evaluating proposed Forest Service activities and special uses that could affect groundwater resources on National Forest System lands and provide for measurement and monitoring of major groundwater withdrawals."

Regarding the impact on oil and gas activities, the agency said the directive would call for no new regulations or requirements. However, the proposal would have required a detailed assessment of alternative water sources and potential impacts of hydraulic fracturing on groundwater prior to authorization by the Forest Service. In addition, the Forest Service planned to ensure that operators "appropriately address compliance" with the U.S. Environmental Protection Agency's Underground Injection Control Program or the state equivalent to protect underground sources of drinking water.

Groups ranging from the western governors' association to members of Congress to industry groups strongly objected to the Forest Service proposal, charging that it would restrict access to public lands and interfere with state and private water rights.

PIOGA objections

In formal comments on the proposal, PIOGA challenged the agency's contention that it had the legal authority to regulate water uses. Focusing on the split-estate situation in the Allegheny National Forest, PIOGA argued that the holder of mineral rights does not need a Forest Service permit or authorization to use groundwater as part of mineral exploration or development and that groundwater use is regulated only under state law.

PIOGA also reminded that Forest Service that in 2011 a former supervisor issued a letter asserting that the United States owned the groundwater resources of the ANF and the forest managers would not recognize a particular operator's right to use groundwater to hydraulically fracture Marcellus Shale wells on private mineral holdings in the national forest. The association initiated a legal challenge against the forest supervisor's directive, and the letter was ultimately withdrawn.

Congressman Glenn "GT" Thompson, who represents the ANF region of Pennsylvania and is chairman of the of the House Agriculture Committee's Subcommittee on Conservation and Forestry, held a public hearing last September to air concerns about the directive. Following additional pressure, Forest Service Chief Tom Tidwell in February announced the proposal would be put on hold. Then on April 14 during another House subcommittee hearing, Forest Service Deputy Chief Leslie Weldon announced the decision to permanently withdraw the groundwater directive.

"From the beginning, policy makers from both political parties have questioned the Forest Service's presumed legal authority to regulate groundwater as they were proposing. It was clear the proposed directive infringed upon states' rights and would supersede the longstanding precedent of state management," Thompson said in a statement. "I am pleased the Forest Service has listened to these concerns, which were outlined during oversight hearings by the Conservation and Forestry Subcommittee on Agriculture. I applaud the Forest Service for finally putting an end to this proposal." ■

PIOGA objects to adding non-voting members to TAB

PIOGA is questioning the legality of the Department of Environmental Protection expanding its Oil & Gas Technical Advisory Board (TAB) to including non-voting members with no required industry expertise.

The five-member TAB since 1985 has been formally advising DEP on the technical aspects of proposed oil and gas regulations, and the group has played an important role over the years. TAB was created under the Oil & Gas Act of 1984 (and reauthorized without change under Act 13 of 2012) to consult with DEP in the development of oil and gas regulations of a technical nature. The board reviews and comments on draft regulations before they are formally presented to the Environmental Quality Board to start the rulemaking process.

TAB's five members are appointed by the governor and must include three individuals who are a petroleum engineer, a petroleum geologist or an experienced drilling representative of the oil and gas industry; one experienced mining engineer from the coal industry; and one geologist or petroleum engineer chosen from among three names submitted by the Citizens Advisory Council.

The Wolf administration early this year dismissed TAB's long-serving members and named a new roster that also included four non-voting members. Further, TAB was refocused to consider only regulations dealing with the unconventional side of the industry *(March PIOGA Press, page 15)*. At the same time, DEP created the Conventional Oil & Gas Advisory Committee (COGAC) to provide input on regulations affecting the state's traditional industry. Unlike TAB, COGAC is not an entity created under state law but instead is a group of DEP's own making and carries no statutory obligations.

On April 10, PIOGA sent a letter to TAB's voting members urging them not to approve DEP's proposed bylaws expanding the board, arguing that neither the original Oil and Gas Act of 1984 nor Act 13 of 2012 gives DEP the legal authority to expand the board.

"Notwithstanding the General Assembly's determination in Act 13 not to make any changes with respect to TAB, Governor Wolf and his advisors decided that TAB's composition and scope should be expanded to afford greater representation of the public interest than the General Assembly has determined is adequate," Kevin Moody, PIOGA's general counsel and vice president for government affairs, wrote to TAB's five voting members.

"It is equally clear that the Governor and others in the executive branch can neither expand nor restrict the legislative directives concerning TAB in Section 3226 [of the 2012 Oil & Gas Act], but that is exactly what the Governor's proposed bylaws would do," Moody continued. He urged the board's voting members to disapprove DEP's proposed bylaws and retain the existing set.

As might be expected, DEP countered that what it did was perfectly legal. At TAB's April 23 meeting, a DEP attorney contended that the law only sets a minimum number of board members and does not prohibit the department from adding representatives with other areas of expertise or interests. The department expanded TAB's makeup in a quest for "enhanced public participation," the official said.

While TAB did not reject the new bylaws, it did amend them at the April meeting to call the non-voting members "advisers" and to eliminate wording calling these individuals representatives of the public interest. ■

Support the companies that support your association with their advertising


Serving the Oil & Gas Industry with a full line of tools and equipment, backed by 24/7 support.
sunbeltrentals.com
1-877-687-1146
Sunbelt Rentals provides rental equipment solutions for even the most demanding or challenging oil and gas project. Devoted specifically to addressing the growing needs of this industry, our Oil and Gas division offers specialized knowledge and equipment to meet your needs, all backed by 24/7 support and our commitment to safety. For the most comprehensive product and service offering, contact the professionals at Sunbelt Rentals.
SUNBELT RENTALS OIL & GAS SERVICES
3 Phase Test Separators
4800w Light Towers
25KW–2000KW Generators
Telehandlers/Forklifts 10,000 lbs
Trash Trailers
Trash Pumps
3000 PSI Steamers
Water Stations
Pipe Racks
Shower Trailers
Heater Treater Ignition Burner Management Systems
Sunbelt Rentals, Inc. ©2014
SUNBELT® RENTALS
OIL & GAS SERVICES

Failing to property calculate overtime payments on day rates and bonus payments could lead to significant liability

Author:

Stephen L. Korbel, Esq.

Babst Calland Attorneys at Law

Recently, the United States Department of Labor (DOL) announced that it has helped more than 5,300 oil and gas workers recover nearly $4.5 million in back wages for unpaid overtime and other wage violations as a result of an "ongoing multiyear enforcement initiative" conducted by the DOL's Wilkes-Barre and Pittsburgh Wage and Hour Division offices which found significant violations of the Fair Labor Standards Act (FLSA). The DOL found that the majority of the FLSA violations were due to improper payment of overtime. In many cases, employee's production bonuses were not included in their "regular rate" of pay. In other cases, employers failed to pay overtime to employees that were paid day rates. The DOL attributed the wage violations in part to the structure of the oil and gas industry in Pennsylvania and West Virginia. According to the DOL, job sites "that used to be run by a single company can now have dozens of smaller contractors performing work, which can create downward economic pressure on lower level subcontractors," which can lead to noncompliance with wage and hour laws and regulations.

Regular rate

What exactly is the "regular rate" that the DOL mentions in its announcement? The term "regular rate" essentially means all compensation paid to an employee that must be included in determining an employee's hourly rate of pay for purposes of calculating overtime compensation. Specifically, the FLSA regulations state that the "regular rate" includes all remuneration paid to an employee, including hourly pay, commissions, incentive bonuses and non-discretionary bonuses. The "regular rate" does not include gifts, discretionary bonuses, reimbursed expenses, insurance premium payments, holiday or vacation pay, profit sharing payments and overtime pay. The employer's determination of the "regular rate" is critical because the FLSA regulations state that "overtime must be compensated at a rate not less than 1.5 times the "regular rate" at which the employee is actually employed." Therefore, if the employer fails to accurately determine the "regular rate" it is likely that the employer's non-exempt employees will receive improperly calculated overtime payments that may be uncovered in a DOL audit or could become the subject of wage and hour litigation.

Calculating overtime on day rates

Day rate compensation plans are common in the oil and gas industry. Some employers believe that paying their non-exempt employees a day rate eliminates the need to track hours or pay overtime compensation. This is a common misconception. Non-exempt employees that are paid on a day rate basis must track their hours worked and must be paid overtime for hours worked in excess of 40 each week. The FLSA regulations are clear on the manner in which overtime is to be calculated for employees that work on a day rate or shift rate basis. Specifically, the FLSA regulations provide that the "regular rate" for an employee that is "paid a flat sum for a day's work or for doing a particular job, without regard to the number of hours worked in the day or at the job is determined by totaling all the sums received at such day rates or job rates in the workweek and dividing by the total hours actually worked." The FLSA regulation further provides that the employee is "then entitled to extra half-time pay at this rate for all hours worked in excess of 40 in the workweek."

By way of example, if an employee's day rate is $260 and that employee works seven days in a workweek and works a total of 75 hours that week, the employee's overtime pay should be calculated as follows:

Day-rate pay — $260 [day rate] x 7 [days of work] = $1,820

Overtime pay — ($1,820 / 75 [total hours of work]) x 0.5 [half time pay] x 35 [hours worked in excess of 40 in the work week] = $424.67

Total pay — $1,820 + $424.67 = $2,244.67

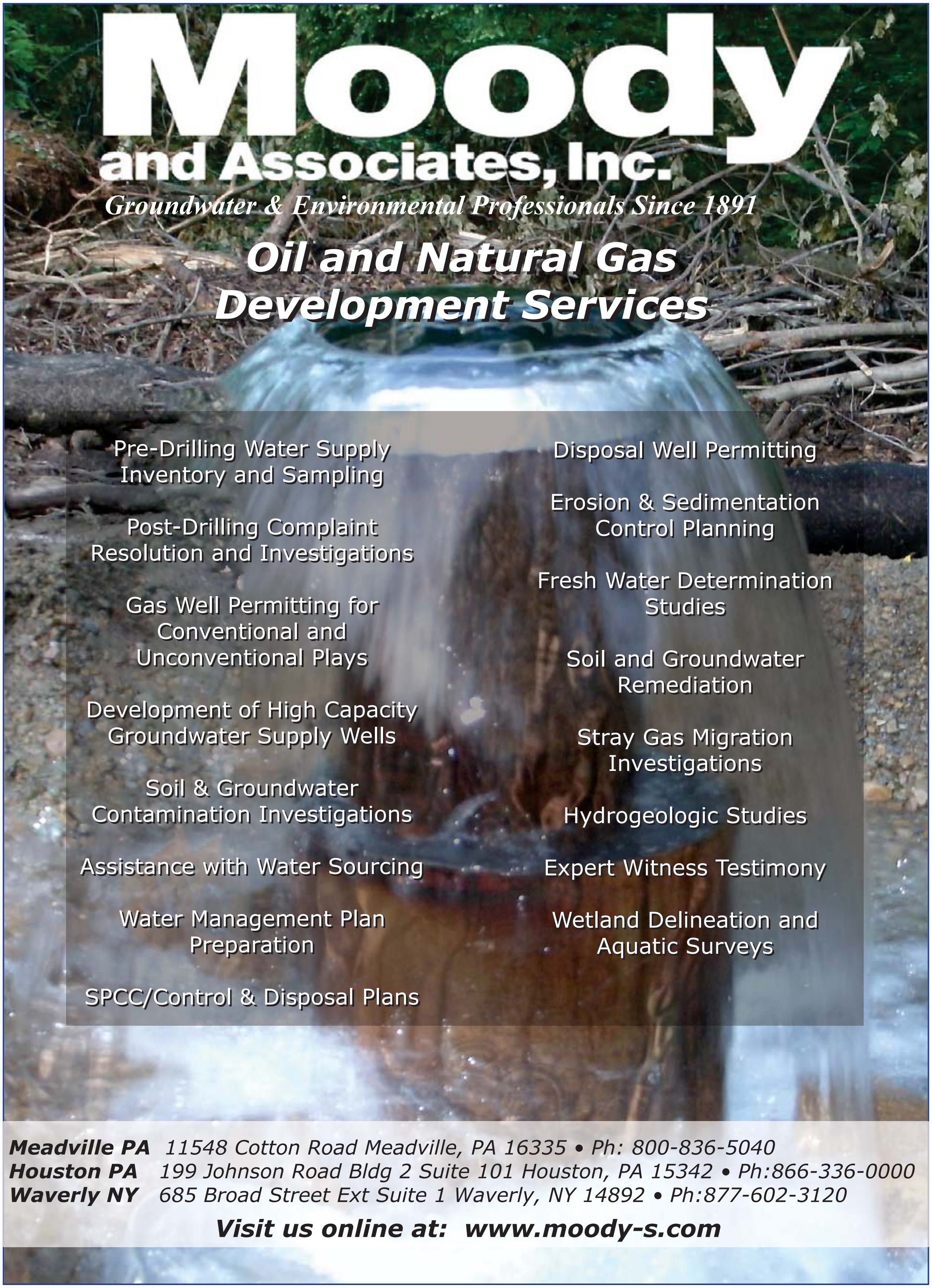
Non-discretionary bonus payments

Production bonuses, attendance bonuses and other non-discretionary bonus payments are commonplace in the oil and gas industry. Under the FLSA's regulations, bonuses that are considered "non-discretionary" will increase the amount of overtime pay non-exempt employees are entitled to receive because the bonus payment will increase the employee's "regular rate." A bonus is considered discretionary if the bonus satisfies three general rules: (1) the employer must maintain sole discretion whether the bonus will be paid and it must keep that discretion until the end of the period in which the bonus is paid; (2) the employer must maintain sole discretion with respect to the manner in which the bonus will be calculated and it must keep that discretion until the end of the period in which the bonus is paid; and (3) there must not be a prior "custom or practice" of paying the bonus with such regularity that the employee understand that he or she will regularly receive such a bonus.

To the extent that employers provide bonus payments to their non-exempt employees, the nature of such bonus payments should be examined to ensure compliance with the FLSA. If the bonus is something that has been promised to the employee or the employer has a regular practice of making such a bonus payment, then there is a strong likelihood that the bonus is nondiscretionary under the FLSA regulations. If that is the case, the employer should ensure that retroactive overtime payments are calculated in accordance with the FLSA regulations as demonstrated below.

Calculating overtime on non-discretionary bonus payments

Generally speaking, if an employer pays a bonus to a non-exempt employee, the employer is required to retroactively pay additional overtime pay. By way of example, suppose that an employee receives a first quarter production bonus of $1,200. A production bonus is a non-discretionary bonus because it is paid with regularity and the sum is typically based upon the achievement of certain production levels. To determine the overtime payment, the employer must allocate the bonus to each work-


Moody
and Associates, Inc.
Groundwater & Environmental Professionals Since 1891
Oil and Natural Gas
Development Services
Pre-Drilling Water Supply Inventory and Sampling
Post-Drilling Complaint Resolution and Investigations
Gas Well Permitting for Conventional and Unconventional Plays
Development of High Capacity Groundwater Supply Wells
Soil & Groundwater Contamination Investigations
Assistance with Water Sourcing
Water Management Plan Preparation
SPCC/Control & Disposal Plans
Disposal Well Permitting
Erosion & Sedimentation Control Planning
Fresh Water Determination Studies
Soil and Groundwater Remediation
Stray Gas Migration Investigations
Hydrogeologic Studies
Expert Witness Testimony
Wetland Delineation and Aquatic Surveys
Meadville PA 11548 Cotton Road Meadville, PA 16335 • Ph: 800-836-5040
Houston PA 199 Johnson Road Bldg 2 Suite 101 Houston, PA 15342 • Ph:866-336-0000
Waverly NY 685 Broad Street Ext Suite 1 Waverly, NY 14892 • Ph:877-602-3120
Visit us online at: www.moody-s.com

week in the period in which the bonus is based. In our example, the first quarter contains 12 weeks. Therefore, the allocation is $1,200 / 12 weeks = $100 per workweek. Thereafter, the employer must reduce the weekly $100 bonus payment to an hourly rate by dividing $100 by the total number of hours worked during the workweek. The rate must then be multiplied by the number of overtime hours and by 0.5 for the additional overtime pay since the straight time rate has already been paid. The employer must repeat this weekly calculation for each workweek in the in the bonus period. For example:

Week 1: If the employee worked 45 hours, then he or she is entitled to $5.56 in additional overtime pay for that workweek ($100 / 45 hours x 0.5 x 5 overtime hours).

Week 2: If the employee worked 75 hours, then he or she is entitled to $23.33 in additional overtime pay for that workweek ($100 / 75 hours x 0.5 x 35 overtime hours).

Liability concerns

Although the DOL's initiative began in 2012, it shows no sign of slowing. Employers in the energy industry, regardless of size, continue to receive notice of random compliance checks from the DOL. Moreover, the DOL's announcement corresponds with a noticeable increase in individual and class-action wage and hour litigation. Oil and gas industry employers should pay particular attention to FLSA and state-related wage and hour issues because violations of these laws and their regulations lead to significant damages. Following an audit where the DOL concludes that a violation has occurred, the DOL can order employers to pay employees' back wages. The DOL can also assess civil money penalties. In litigation, an employer may be ordered to pay employees' back wages for two years, plus liquidated damages that equal the amount of the back pay award, as well as court costs and attorneys' fees. If a court determines the violations to be "willful," the scope of the back pay award (and the corresponding liquidated damages) may be extended to three years. ■

The calculations in this article are for demonstrative purposes only and only account for federal law and regulations. They do not take into account potential nuances that may exist under state law and state regulations. Please consult with legal counsel to ensure compliance with all applicable laws. If you would like additional information about developments described in this article, contact Stephen L. Korbel at 412-394-5637 or skorbel@babstcalland.com.

Protecting yourself from poisonous plants

Many native and exotic plants are poisonous to humans when ingested or if there is skin contact with plant chemicals. However, the most common problems with poisonous plants arise from contact with the sap oil of several ever-present native plants that cause an allergic skin reaction—poison ivy, poison oak and poison sumac.

These three plants release oil called urushiol when the leaf or other plant parts are bruised, damaged or burned. When the oil gets on the skin, an allergic reaction—referred to as contact dermatitis—occurs in most people as an itchy red rash with bumps or blisters. The rash, depending upon where it occurs and how broadly it is spread, may significantly impede or prevent a person from working. Although over-the-counter topical medications may relieve symptoms, immediate medical attention may be required for severe reactions, particularly when exposed to smoke from burning these plants. Burning can be very dangerous because the allergens can be inhaled, causing lung irritation.

One or more of the most common poisonous plant species are found throughout the United States (except Alaska and Hawaii). These plants can be found in forests, fields, wetlands and along streams, road sides, and even in urban environments, such as parks and backyards.

Plant identification

The old saying, "Leaves of three, let it be!" is a helpful reminder for identifying poison ivy and oak, but not poison sumac, which usually has clusters of seven to 13 leaves. Even poison ivy and poison oak may have more than three leaves and their form may vary greatly depending upon the exact species encountered, the local environment and the season. Being able to identify local varieties of these poisonous plants throughout the seasons and differentiating them from common nonpoisonous look-a-likes are the major keys to avoiding exposure.

Poison ivy. Eastern poison ivy is typically a hairy, ropelike vine with three shiny green (or red in the fall) leaves budding from one small stem. Western poison ivy is typically a low shrub with three leaves that does not form a climbing vine. Poison ivy may have yellow or green flowers and white to green-yellow or amber berries. Both varieties are present in Pennsylvania.

Poison oak is typically a shrub with leaves of three, similar to poison ivy, and may have yellow or green flowers and clusters of green-yellow or white berries. It is not common in Pennsylvania.

Poisonous plants, from left to right: poison ivy, poison oak, poison sumac.

Images courtesy of U.S. Department of Agriculture.

Safety Committee Corner

Poison sumac is a woody shrub that has stems containing seven to 13 leaves arranged in pairs. It may have glossy, pale yellow or cream-colored berries.

Exposure

Workers may become exposed to urushiol through:

- Direct contact with the plant.
- Indirect contact, such as touching tools, livestock or clothing that has urushiol on them.
- Inhalation of particles containing urushiol from burning plants.

Symptoms

Signs or symptoms may include:

- Red rash within a few days of contact.
- Possible bumps, patches, streaking, or weeping blisters (blister fluids are not contagious)
- Swelling
- Itching

Recommendations for protecting workers

Employers should protect their workers from poisonous plants by training them about:

- Their risk of exposure to poisonous plants.
- How to identify poisonous plants.
- How to prevent exposure to poisonous plants.
- What they should do if they are exposed to poisonous plants.

Prevention

Workers can prevent contact with poisonous plants by taking these steps:

- Wear long sleeves, long pants, boots and gloves. Wash exposed clothing separately in hot water with detergent.
- Barrier skin creams, such as a lotion containing bentoquatum, may offer some protection before contact. Barrier creams should be washed off and reapplied twice a day.
- After use, clean tools with rubbing alcohol or soap and lots of water. Urushiol can remain active on the surface of objects for up to five years. Wear disposable gloves during this process.
- Do not burn plants that may be poison ivy, poison oak or poison sumac. Inhaling smoke from burning plants can cause severe allergic respiratory problems.

Employers should prevent workers from being exposed to burning poisonous plants whenever possible. However, when exposure to burning poisonous plants is unavoidable, employers should provide workers with a NIOSH-certified half-face piece particulate respirator rated R-95, P-95 or better.

First aid

Anyone who has come in contact with poisonous plants should:

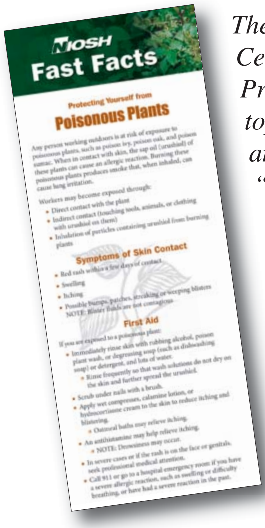
- Immediately rinse skin with rubbing alcohol, specialized poison plant washes, degreasing soap (such as dishwashing soap) or detergent and lots of water. Rinse frequently so that wash solutions do not dry on the skin and further spread the urushiol.
- Scrub under nails with a brush.

• Apply wet compresses, calamine lotion or hydrocortisone cream to the skin to reduce itching and blistering. Do not apply to broken skin, such as open blisters. Oatmeal baths may relieve itching.

• An antihistamine such as diphenhydramine (Benadryl) can be taken to help relieve itching. If children come in contact with work clothing contaminated with urushiol, a pediatrician should be contacted to determine appropriate dosage.

• In severe cases or if the rash is on the face or genitals, seek professional medical attention.

• Call 911 or go to a hospital emergency room if the worker is suffering a severe allergic reaction, such as swelling or difficulty breathing, or has had a severe reaction in the past. ■



The information above comes from the Centers for Disease Control and Prevention. Visit www.cdc.gov/niosh/topics/plants for additional information and resources, including a printable "Fast Facts" card.

EIA report recognizes Marcellus as nation's largest gas field

The U.S. Energy Information Administration (EIA) recently released the 2015 version of its *Top 100 U.S. Oil and Gas Fields* report and the "Marcellus Shale Area" has surpassed the Barnett Shale as the nation's largest gas field ranked by proved reserves in 2013.

The Marcellus Shale in Pennsylvania and West Virginia produced far more natural gas in 2013 than any other field in the United States. The EIA report said that Marcellus operators produced 2.86 trillion cubic feet of gas in 2013, eclipsing the Barnett Shale of Texas with 1.95. The Barnett was the most-productive field the last time the survey was conducted, in 2009.

The Marcellus also contains significantly more gas reserves than the Barnett field, the EIA said, citing an earlier report in which it estimated the Marcellus held 64.9 Tcf at the end of 2013 compared with 26.0 Tcf in the Barnett field.

The EIA described the Marcellus a "notable addition" to its top 10 fields.

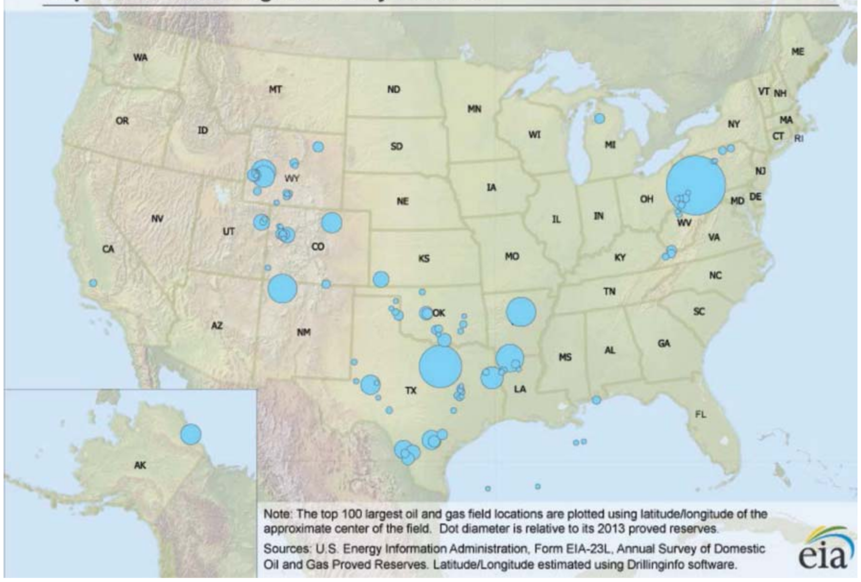
Additionally, the EIA says Pennsylvania contains eight of the top 100 natural gas fields in the United States, including the Marcellus Shale Area, Waynesburg, Armenia, Herrick, Majorsville, Bend North, Grugan and Bellevernon fields.

The EIA defines a field as "an area consisting of a single reservoir or multiple reservoirs all grouped on, or related to, the same individual geological structural feature and/or stratigraphic condition. There may be two or more reservoirs in a field that are separated vertically by intervening impervious strata or laterally by local geologic barriers, or by both."

The top 100 gas fields as of December 31, 2013, accounted for 239.7 Tcf of total proved reserves, about 68 percent of the U.S. total natural gas proved reserves in 2013.

The full report can be found at www.eia.gov/naturalgas/crudeoilreserves/top100. ■

Top 100 U.S. natural gas fields by reserves



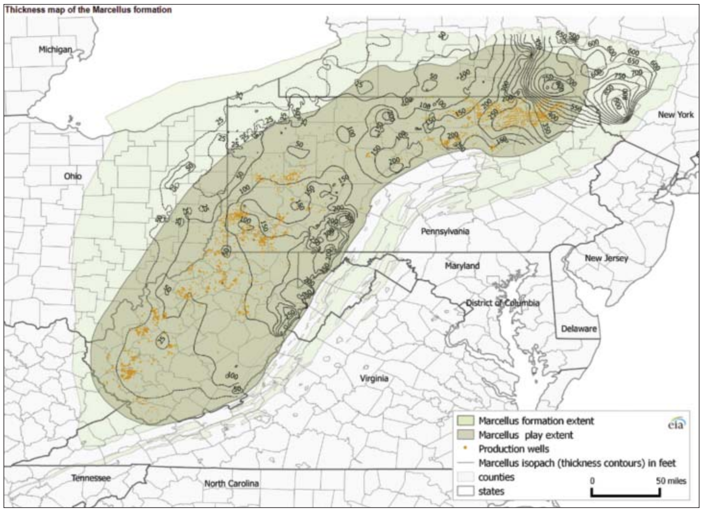
Note: The top 100 largest oil and gas field locations are plotted using latitude/longitude of the approximate center of the field. Dot diameter is relative to its 2013 proved reserves.
Sources: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Proved Reserves. Latitude/Longitude estimated using Drillinginfo software.

Update to Marcellus geologic maps

The Energy Information Administration published a *Today In Energy* article last month reporting that recent updates to the agency's maps and geologic information provide greater detail for the Marcellus formation.

Key points include:

• Natural gas production from the Marcellus Shale in the Appalachian Basin increased to 14.4 billion cubic feet per day in January, accounting for more than 36 percent of shale gas production and more than 18 percent of total dry natural gas production in the United States, according to EIA's *Natural Gas Weekly Update.*



• The top of the Marcellus formation ranges in elevation from 1,000 feet to 8,000 feet below sea level (or about 100-9,900 feet below the surface) and primarily produces natural gas in northeast Pennsylvania, but becomes more liquids-rich in less thermally mature areas of southwestern Pennsylvania, West Virginia and southeastern Ohio.

• The Marcellus range is up to 950 feet thick and generally shows a decrease in thickness westward from the central part of the basin and pinches out in the subsurface along its eastern limit. The thick, potentially natural gas-rich interval extends southwest in an arc through New York, Pennsylvania and West Virginia and runs parallel to the western edge of the Appalachian Mountains.

The full article and maps can be found at www.eia.gov/todayinenergy under the April 2015 archive. ■

A day without natural gas

Commentary

By Dan Garcia
Leech Tishman Fuscaldo and Lampl

Let's play a thought exercise: Imagine you're living in a rural part of the state on a family farm that belonged to your great-grandfather. For generations, this modest farm contributed to the local economy in a many agrarian ways, but these last few years have been tough. Your family has been a staple to these parts for just over 100 years…that is, until this year.

This year your farm has been hit with a tax bill that you just can't seem to afford. You and your wife sit at the kitchen table with a stack of tri-folded bills, an old calculator and a wilting Gerbera daisy you brought in a few days back. This farm, this home, this family's survival fell into jeopardy the moment you opened that letter from the county telling you how much you still owed, and the thoughts of these things make your stomach run sour from the stress. Your head, heavy from the fear of losing everything you have ever known, falls into your hands.

Just then, you hear a knocking at your door. You look up to make eye contact with your wife, but you can tell she was not expecting anyone either. Cautiously, you make your way to the door and take a look through the hard cracked glass framing your front door. You see a young lady standing on your front porch. Her navy blue fleece has a prominent blue flame embroidered just above the North Face logo; in her hands, a clipboard.

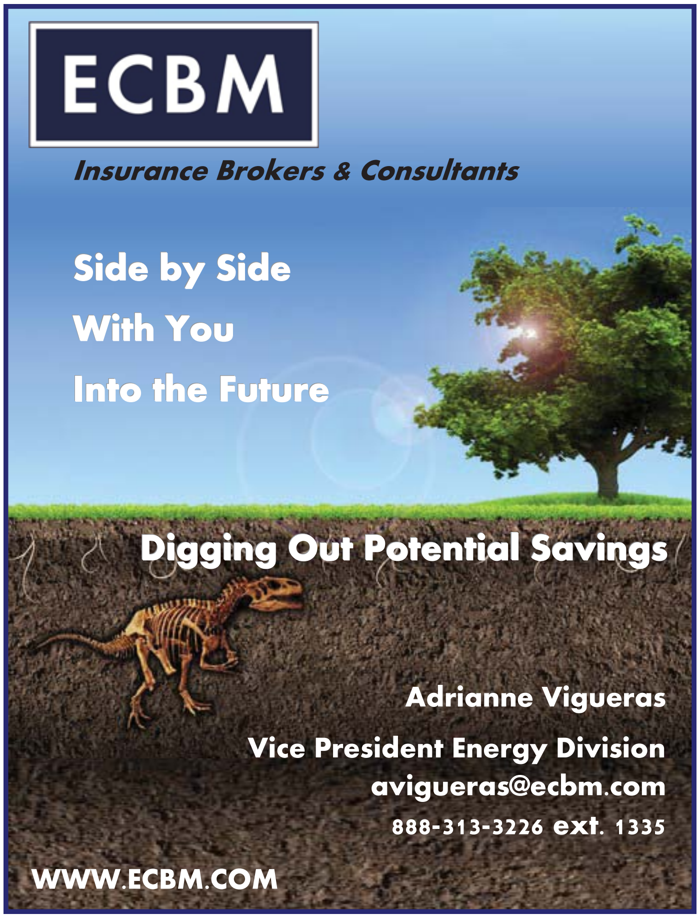
"Mr. Smith? My name is Cassie. I am a land agent with _______. May come in?"

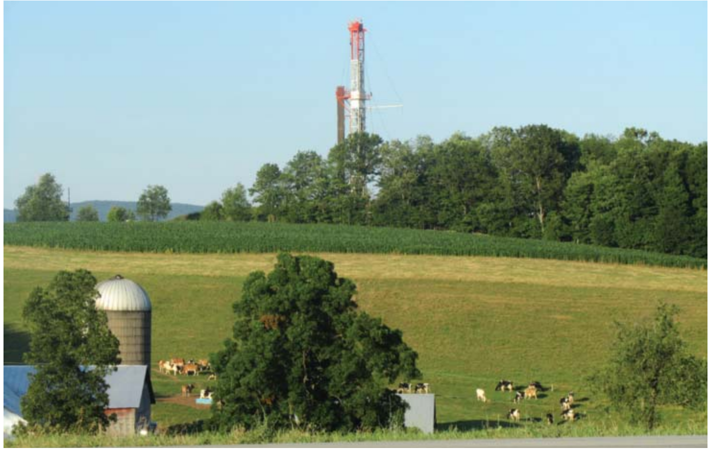
This is how the conversation started for a number of small family farms in Pennsylvania, Ohio, West Virginia and New York. Before the discovery of the Marcellus and Utica, many small families faced the real danger of losing their farms. Instead, thanks to the development of shale gas, these families are the recipients of life-changing bonuses and royalties.

So, why did I start off with this story? A number of editorials are great at touting the benefits of Marcellus and Utica gas but come off a bit academic since many of these oil and gas magazines have industry leaders as their target audience. In light of New York's recent preemptive shutdown of the shale gas industry, perhaps a more appropriate editorial is one that addresses the effects this industry has had on some economically depressed areas in the Northeast.

The Marcellus and Utica is the greatest discovery of a natural resource in our lifetime and will be a positive economic game-changer for generations. This fact is lost on the decision-makers in New York State and is certainly lost on the highly vocal anti-drilling crowd. The benefit of shale gas drilling that is most widely felt will be the decrease in winter heating and utility costs. While many of the anti-frackers scream about environmental "damages," they do not seem to understand that the survivability of millions of lower- and middle-class Americans depends on the availability of clean-burning and inexpensive natural gas.

The abundance in supply makes this fuel inexpensive and has been the primary source of comfort to many lower- and middle-class families. Without the availability of this resource, many of





these families' living conditions would be much worse. Imagine waking up at 4 a.m. every morning this past winter, not because your alarm went off but because your house went cold. The prevention of shale gas development and infrastructure construction can have devastating effects on the very people the anti-frackers are claiming to protect. According to data from UGI Penn Natural Gas, despite a rate increase on June 1, the company says consumers' bills should still be approximately a third lower than they were in 2008.

Second to a less expensive winter heating bill, communities from central Ohio to the far northeast corner of Pennsylvania are experiencing an uptick in entrepreneurship and job creation. The industry demands a diverse cross section of professional and non-professional services needed to support the massive $1.5-trillion infrastructure development of pipelines, railroads, gathering systems and processing plants. Many of these projects will be financed by private capital and have the potential to create 1.6 million jobs in the process. This massive capital injection will likely push the economic wave to other industries such as real estate, retail, education and health care. Imagine what this improvement in job availability could do for that lower- to middle-income family. Better yet, imagine what this new opportunity could do to that small survey company that was treading water after the real estate bubble burst in 2008. Had the Marcellus or Utica never been discovered or, even more dramatic, there was a national ban on fracking, these economic opportunities for millions of small businesses would cease to exist.

Finally, let's get back to that family farm mentioned in the introduction. For thousands of land owners, the development of the Marcellus and Utica has saved family farms and homesteads. This new-found income has provided the means for more rural areas of the state to improve their infrastructure. In states like Pennsylvania, the use of an impact fee has injected some much-needed funds into utility and roadway projects in traditionally lower-income counties. These counties are improving their roads, building parks and funding their pensions, all thanks to this new found windfall.

These benefits from shale drilling are real; the science supporting the anti-fracking movement is not. Hydraulic fracturing is not a new technology. This technology has been used by the oil and gas industry since 1949. Since 1949, this technology and its supporting infrastructure have been responsible for providing the fuel that allows us to flip on a light switch, watch television and keep our homes warm during the winter months. ■

David Sweet named Wolf advisor for energy and manufacturing

Governor Tom Wolf has appointed David Sweet, an attorney and former state lawmaker, to fill a new position as advisor on energy and manufacturing.

The Pittsburgh native most recently was a partner in the PIOGA member law firm of Buchanan Ingersoll & Rooney in Harrisburg. He represented Washington County in the state House of Representatives from 1977 to 1988 and has been involved in a number of statewide political campaigns, including managing Ed Rendell's successful gubernatorial campaign in 2002.

In his new position, Sweet will advise Wolf and his cabinet on development issues specific to the energy and manufacturing industries. He will work to recruit businesses to locate and expand in Pennsylvania and identify opportunities for new jobs. He will also serve as deputy secretary for the Department of Community and Economic Development.

"I'm not touting myself as an expert on energy issues," Sweet told StateImpact Pennsylvania. "What my role is, I believe, in those two areas is really figuring out ways to mobilize what government resources are there, work with [multiple] state departments…and develop consensus. I'm bringing more of the government and political experience to try to get things done."

A Wolf spokesman said Sweet's job will include leading collaborative efforts among different state agencies to carry out the governor's budget priorities such as "strengthening manufacturing and taking advantage of natural gas," as well as pursuing clean coal, wind and solar, StateImpact reported. ■

North American Coalbed Methane Forum 30th anniversary

Celebrating its 30th anniversary, the North American Coalbed Methane Forum will hold a two-day event May 20-21 at the Hilton Garden Inn in Canonsburg. On the first day, the forum is offering a short course titled "CBM Reservoir and Production Engineering." The second day will be the forum's regular session consisting of presentations on technical, regulatory, and legal aspects of coalbed methane development and production. The program will conclude with a panel discussion by state coal association executives on the importance of coal. Luncheon keynote speaker will be Robert Murray, chairman of Murray Energy Inc., on the topic, "The Future of Coal in the USA." For information and registration, visit www.nacbmforum.com/conference.html.

Where in the World is the PIOGA Outreach Team?

Wolf at PEDA

Hoping to send signals that Pennsylvania is open for business, Governor Tom Wolf received a standing ovation at this year's Pennsylvania Economic Development Association Spring Legislative Conference in Harrisburg on April 21. In front of a delegation of 150 the governor spoke to three highlights on which his administration will focus: creating jobs that pay, schools that teach and government that works. Referring to his own cabinet-making business and to the desire to keep manufacturing the cabinets in the U.S., he supports tax credits exclusively for the manufacturing sector. Along with the desire to cut corporate net income tax in half and eliminate the capital stock and franchise tax altogether, he stressed the importance of why economic development is key making the market work better. Getting Governor Wolf to attend was a major accomplishment, said conference attendees, and marked the end to an 11-year gap of governors absent from the event. Also speaking was PIOGA's Lou D'Amico.

Our Energy Moment expands into the Philadelphia port

The Ridge Policy Group organized a panel of LNG and industry experts to discuss considerations of an export facility for the Port of Philadelphia at Drexel University. The evening was intended to educate the public as well as members of the Philadelphia City Council. The meeting got off to a rough start due to some strategically seated members who railed against the initial comments from Jason French, Cheniere's government affairs manager, who was there to speak about Cheniere's project in the Gulf.

The event was hosted by Philadelphia Councilman David Oh *(shown above at the podium)*, and although he encouraged the audience to stay for the entire program and most specifically the question-and-answer portion, members of the anti-industry group(s) were escorted out by police within the first 40 minutes of the meeting due to their disruptive behavior. Once the room was cleared of the disruptions, the panel went on to discuss the potential of manufacturing jobs that would be needed to support such a project as well as Philadelphia's prime waterfront location and PGW's existing real estate that could support such a project. Improvements in air emissions over diesel were explained by members of the panel as well as customers benefit to greater utilization of system assets. Luticia Clipper, CEO, Clipper Enterprises *(above at far right)* spoke to Americans' love affair with transportation. She reminded the audience of the fact that our history documents the struggle for 200 years to get people to think about converting from coal to diesel and now diesel to natural gas. Also taking part was PIOGA member David Kailbourne of REV LNG *(second from right above).*

Member Profile guidelines

Introduce your company and tell other members what you offer to Pennsylvania's oil and gas industry. The guidelines for making a PIOGA Member Profile submission are:

- Include a brief history of your company. When and where was it founded, and by whom? Is the company new to the oil and gas industry in general or to Pennsylvania?
- Describe the products and services you offer specifically for the oil and gas industry. Do you have a product in particular that sets your company apart from the competition?
- If applicable, tell how the business been positively impacted by Pennsylvania's oil and gas industry. Have you expanded, added employees or opened new locations?
- Include a website address and/or phone number.
- Your submission may be a maximum of 400-450 words and should be provided as a Word document. Use minimal formatting—bold and italic fonts are OK, as are bulleted or numbered lists. Your submission is subject to editing for length, clarity and appropriateness.
- Include your company logo or a photo. Images must be high-resolution (300 dots/pixels per inch or higher) and in any common graphics format. Please include identifications for any people or products in a photo. Send image files separately, not embedded in your document.

Email material to Matt Benson at matt@pioga.org. This is a free service to our member companies and publishing dates are at the discretion of PIOGA. If you have questions or want to follow up on a submission, email Matt or call 814-778-2291.

PIOGA Member News

EMLF establishes Legacy Fund honoring Russell Schetroma

The Energy & Mineral Law Foundation (EMLF) has established a Legacy Fund which can be used to honor Russell L. Schetroma, an attorney with Steptoe & Johnson PLLC who passed away in March. The fund allows donors the opportunity to recognize Schetroma's contributions to the organization and to the field of energy law. Contributions will provide scholarships for law students, stipends for student research and writing, as well as funding for research, presentations and writing by professors.

For more than 30 years, Schetroma, known by his friends and colleagues as the "Dean of Pennsylvania Energy Law," was a sought after speaker and author on energy issues. He was a nationally recognized figure in the field of energy law and a driving force behind Steptoe & Johnson's expansion in Pennsylvania, Texas and Colorado. He was also managing member of the firm's offices in Meadville and Woodlands, Texas.

Gifts can be made to the EMLF Legacy Fund at 340 South Broadway, Suite 101, Lexington, KY, 40508, with the notation that the gift honors Russell Schetroma. All contributions will be invested in the fund.

Jeffrey Dick teams with KU Resources

KU Resources, Inc., a consulting firm that specializes in environmental management and site development engineering, is partnering with Jeffrey C. Dick, Ph.D., to increase its presence in the Marcellus and Utica shale regions among drilling and pipeline companies and their strategic partners. Dick is chairman of the Geological and Environmental Sciences Department at Youngstown State University (YSU) and also serves as director of YSU's Natural Gas and Water Resources Institute. He has more than 30 years of academic and industry experience on a variety of geologic issues, including petroleum exploration and production, pipeline construction, water supply and groundwater quality. His key accomplishments include developing and managing the first community-based groundwater quality monitoring program within Ohio's Utica Shale region and establishing the Natural Gas and Water Resources Consortium at YSU. The Consortium identifies best practices and helps to create public policy related to natural gas exploration and production.

Jay Hammond joins Babst Calland

The law firm of Babst Calland has announced the addition of corporate attorney Jay Hammond as a shareholder in its Energy and Natural Resources and Business Services groups. Hammond is a former vice president and general counsel of Atlas Energy and former supervising counsel for Chevron North America Exploration and Production's Appalachian/Michigan business unit. Previously, he also held key legal positions with CNX Gas Corporation and CONSOL Energy. He is admitted to practice in Pennsylvania, Massachusetts and the District of Columbia and is a graduate of Cornell Law School, Oxford University and Harvard College. ■

CNG at New Stanton. *Traveling the Pennsylvania Turnpike in your compressed natural gas vehicle? Now you can fuel up at the New Stanton travel plaza.*

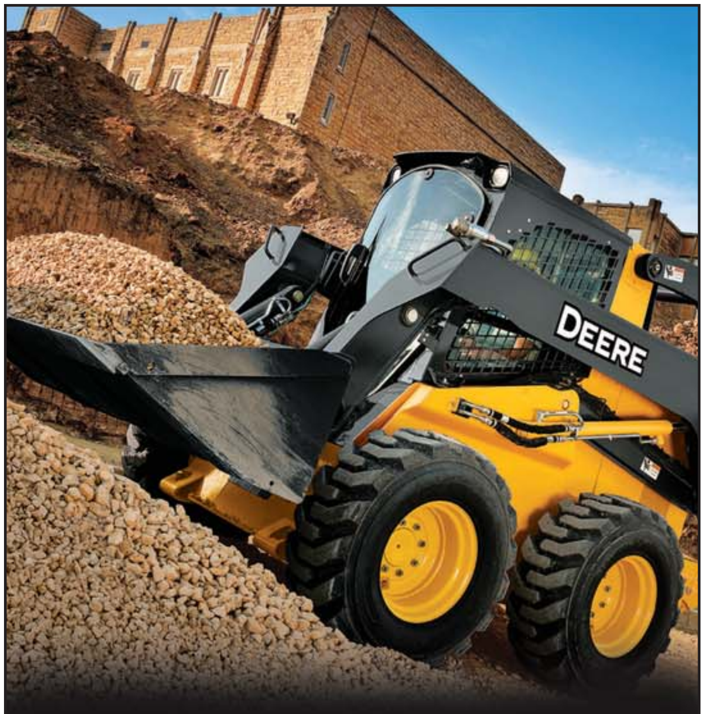
Spud Report: April

The data show below comes from the Department of Environmental Protection. A variety of interactive reports are available at www.portal.state.pa.us/portal/server.pt/community/oil_and_gas_reports/20297.

The table is sorted by operator and lists the total wells reported as drilled last month. **Spud** is the date drilling began at a well site. The **API number** is the drilling permit number issued to the well operator. An asterisk (*) after the API number indicates an unconventional well.

OPERATOR	WELLS	SPUD	API #	COUNTY	MUNICIPALITY
Bearcat Oil Co LLC	2	4/15/15	123-47578	Warren	Mead Twp
		4/22/15	123-47579	Warren	Mead Twp
Branch John D	1	4/27/15	123-47795	Warren	Warren City
Cabot Oil & Gas Corp	2	4/21/15	115-21878*	Susquehanna	Dimock Twp
		4/21/15	115-21880*	Susquehanna	Dimock Twp
Cameron Energy Co	2	4/22/15	053-30728	Forest	Howe Twp
		4/28/15	123-47827	Warren	Sheffield Twp
CNX Gas Co LLC	1	4/16/15	059-26728*	Greene	Center Twp
D&M Energy LLC	1	4/2/15	053-30697	Forest	Jenks Twp
Energy Corp Of America	4	4/7/15	059-26575*	Greene	Whiteley Twp
		4/8/15	059-26576*	Greene	Whiteley Twp
		4/9/15	059-26577*	Greene	Whiteley Twp
		4/10/15	059-26578*	Greene	Whiteley Twp
EQT Production Co	20	4/8/15	005-31216*	Armstrong	Kittanning Twp
		4/8/15	005-31175*	Armstrong	Kittanning Twp
		4/8/15	005-31222*	Armstrong	Kittanning Twp
		4/8/15	005-31218*	Armstrong	Kittanning Twp
		4/8/15	005-31176*	Armstrong	Kittanning Twp
		4/8/15	005-31131*	Armstrong	Kittanning Twp
		4/8/15	005-31217*	Armstrong	Kittanning Twp
		4/19/15	059-26753*	Greene	Morgan Twp
		4/19/15	059-26752*	Greene	Morgan Twp
		4/19/15	059-26754*	Greene	Morgan Twp
		4/9/15	059-26862*	Greene	Washington Twp
		4/25/15	125-27412*	Washington	Amwell Twp
		4/25/15	125-27413*	Washington	Amwell Twp
		4/25/15	125-27414*	Washington	Amwell Twp
		4/19/15	125-27579*	Washington	Carroll Twp
		4/19/15	125-27515*	Washington	Carroll Twp
		4/19/15	125-27516*	Washington	Carroll Twp
		4/19/15	125-27517*	Washington	Carroll Twp
		4/8/15	125-27491*	Washington	Nottingham Twp
		4/8/15	125-27495*	Washington	Nottingham Twp
Gas & Oil Mgmt Assoc Inc	2	4/1/15	123-47664	Warren	Pleasant Twp
		4/9/15	123-47665	Warren	Pleasant Twp
Hilcorp Energy Co	7	4/23/15	085-24728*	Mercer	Lackawannock
		4/24/15	085-24729*	Mercer	Lackawannock
		4/25/15	085-24691*	Mercer	Lackawannock
		4/26/15	085-24727*	Mercer	Lackawannock
		4/27/15	085-24726*	Mercer	Lackawannock
		4/28/15	085-24733*	Mercer	Lackawannock
		4/30/15	085-24731*	Mercer	Lackawannock
NTS Energy LLC	1	4/27/15	021-21205	Cambria	West Carroll Twp
PL Resources LLC	2	4/29/15	059-26820*	Greene	Franklin Twp
		4/29/15	059-26819*	Greene	Franklin Twp
Range Resources Appalachia	9	4/18/15	019-22267*	Butler	Clinton Twp
		4/18/15	019-22417*	Butler	Clinton Twp
		4/18/15	019-22418*	Butler	Clinton Twp
		4/19/15	019-22419*	Butler	Clinton Twp
		4/19/15	019-22420*	Butler	Clinton Twp
		4/24/15	125-27624*	Washington	Nottingham Twp
		4/24/15	125-27625*	Washington	Nottingham Twp
		4/24/15	125-27626*	Washington	Nottingham Twp
		4/24/15	125-27627*	Washington	Nottingham Twp
RE Gas Dev LLC	7	4/16/15	019-22398*	Butler	Center Twp
		4/17/15	019-22397*	Butler	Center Twp
		4/18/15	019-22381*	Butler	Center Twp
		4/19/15	019-22396*	Butler	Center Twp
		4/6/15	019-22304*	Butler	Muddycreek Twp
		4/7/15	019-22303*	Butler	Muddycreek Twp
		4/8/15	019-22302*	Butler	Muddycreek Twp
Rice Drilling B LLC	3	4/13/15	125-27642*	Washington	Fallowfield Twp

OPERATOR	WELLS	SPUD	API #	COUNTY	MUNICIPALITY
		4/13/15	125-27640*	Washington	Fallowfield Twp
		4/13/15	125-27641*	Washington	Fallowfield Twp
Seneca Resources Corp	8	4/14/15	083-56688*	McKean	Norwich Twp
		4/14/15	083-56682*	McKean	Norwich Twp
		4/15/15	083-56681*	McKean	Norwich Twp
		4/15/15	083-56685*	McKean	Norwich Twp
		4/17/15	083-56687*	McKean	Norwich Twp
		4/19/15	083-56683*	McKean	Norwich Twp
		4/21/15	083-56686*	McKean	Norwich Twp
		4/21/15	083-56684*	McKean	Norwich Twp
Southwestern Energy Prod Co	10	4/22/15	115-21941*	Susquehanna	Jackson Twp
		4/23/15	115-21028*	Susquehanna	Jackson Twp
		4/24/15	115-21566*	Susquehanna	Jackson Twp
		4/25/15	115-21565*	Susquehanna	Jackson Twp
		4/26/15	115-21567*	Susquehanna	Jackson Twp
		4/28/15	115-21903*	Susquehanna	New Milford Boro
		4/29/15	115-21904*	Susquehanna	New Milford Boro
		4/29/15	115-21905*	Susquehanna	New Milford Boro
		4/6/15	115-21873*	Susquehanna	Oakland Twp
		4/7/15	115-21872*	Susquehanna	Oakland Twp
Talisman Energy USA Inc	8	4/19/15	015-21893*	Bradford	Stevens Twp
		4/15/15	115-21980*	Susquehanna	Middletown Twp
		4/15/15	115-21981*	Susquehanna	Middletown Twp
		4/16/15	115-21982*	Susquehanna	Middletown Twp
		4/16/15	115-21983*	Susquehanna	Middletown Twp
		4/16/15	115-21984*	Susquehanna	Middletown Twp
		4/17/15	115-21985*	Susquehanna	Middletown Twp
		4/24/15	115-21986*	Susquehanna	Middletown Twp



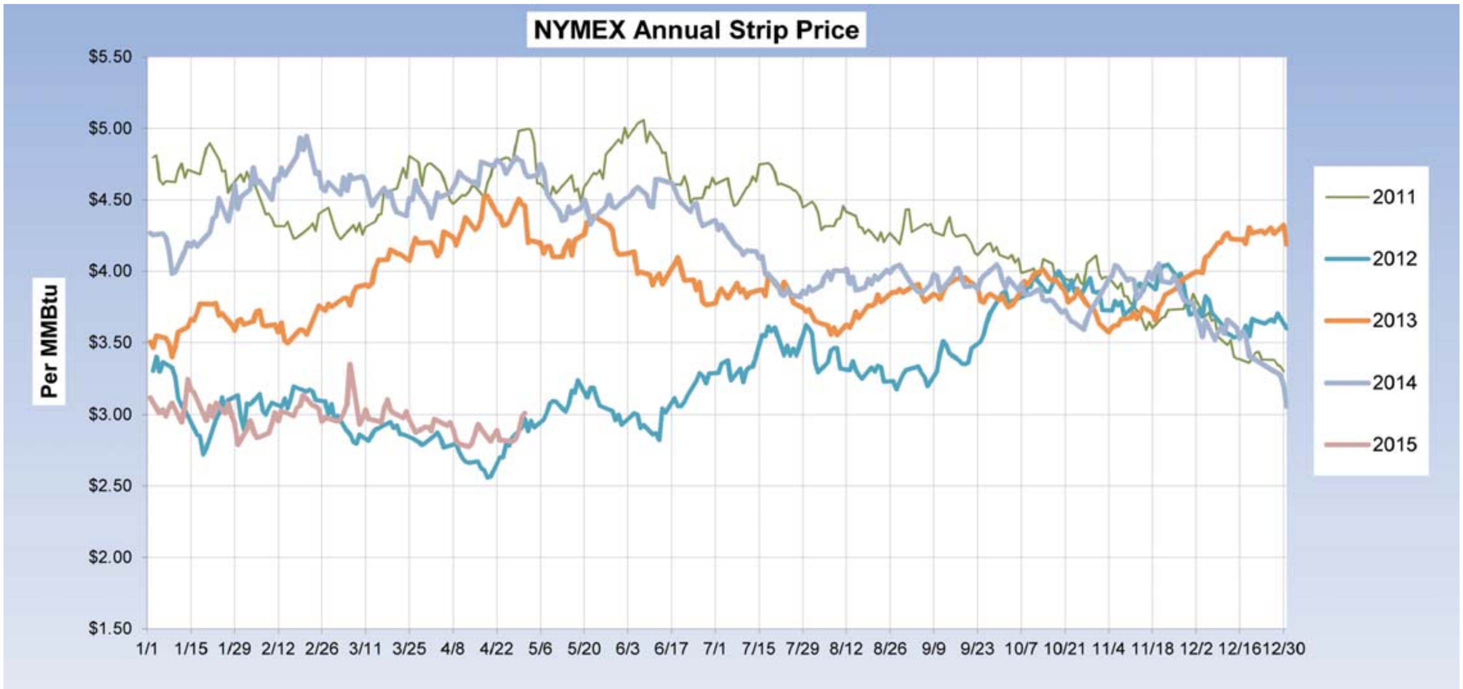
Penn Grade Crude Prices

Oil & Gas Trends

Natural Gas Futures Closing Prices

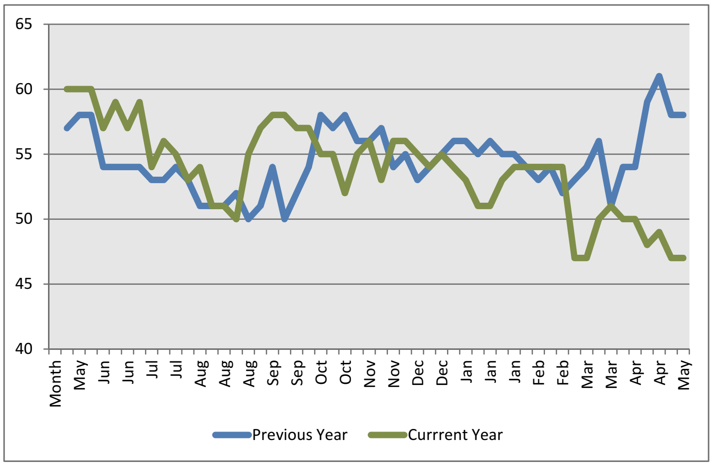
As of May 8

Month	Price
June 2015	2.749
July	2.798
August	2.822
September	2.823
October	2.868
November	2.991
December	3.170
January 2016	3.282
February	3.272
March	3.214
April	3.070
May	3.077



Sources
American Refining Group: www.amref.com/Crude-Prices-New.aspx
Ergon Oil Purchasing: www.ergon.com/prices.php
Gas futures: http://quotes.ino.com/exchanges/?r=NYMEX_NG
Baker Hughes rig count: http://gis.bakerhughesdirect.com/Reports
NYMEX strip chart: Emkey Energy LLC emkeyenergy.com

Pennsylvania Rig Count



New PIOGA members — *welcome!*

Blackeagle Energy Services
230 Commerce Drive, Berthoud, CO 80513
970-344-6185
www.blackegl.com
Service Provider

HalenHardy, LLC
421 Main Street, Bellwood, PA 16617
814-822-2004
www.halenhardy.com
Service Provider

Highway Equipment Company
22035 Perry Highway, Zelienople, PA 16063
724-452-7800
www.highway-equipment.com
Service Provider

Noise Solutions, Inc.
420 Vine Avenue, Sharon, PA 16146
724-301-6901
www.noisesolutions.com
Service Provider

USIC Locating Services
450 South Henderson Road, Unit B, King of Prussia, PA 19406
240-712-2857
www.usicllc.com
Service Provider

Calendar of Events

PIOGA Events

PIOGA Summer Picnic & Golf Outing
June 1, Wanango Golf Club, Reno
Info: www.pioga.org/events/category/pioga-events

PIOGA Pig Roast, Equipment Show & Seminar
July 28-29, Seven Springs Mountain Resort, Champion
Info: www.pioga.org/events/category/pioga-events

18th Annual Divot Diggers Golf Outing
August 26, Tam O'Shanter of Pennsylvania, Hermitage
Info: www.pioga.org/events/category/pioga-events

Eastern Oil & Gas Conference and Trade Show
October 27-28, Monroeville Convention Center, Monroeville
Info: www.pioga.org/events/category/pioga-events

Industry Events

North American Coalbed Methane Forum Spring Session
May 20-21, Hilton Garden Inn Southpointe/Pittsburgh, Canonsburg
Info: www.nacbmforum.com/conference.html

U.S. Energy Information Administration 2015 Conference
June 15-16, Renaissance Washington, DC Downtown Hotel
Info: /www.fbcinc.com/e/eia

IPAA Midyear Meeting
June 24-26, Eldorado Hotel & Spa, Santa Fe, NM
Info: hwww.ipaa.org/meetings-events

KOGA Annual Meeting
July 14-16, Hyatt Regency Lexington, KY
Info: koga.memberclicks.net/2015-annual-meeting

IOGANY Summer Meeting
July 8-9, Peek'n Peak Resort & Conference Center, Findley Lake, NY
Info: www.iogany.org/events.php

IOGAWV Summer Meeting
August 2-4, The Greenbrier, White Sulphur Springs, WV
Info: events.iogawv.com

IOGANY 35th Annual Meeting
October 21-22, Buffalo Marriott Niagara, Amherst, NY
Info: www.iogany.org/events.php

IPAA Annual Meeting
November 9-10, The Ritz-Carlton, New Orleans, LA
Info: hwww.ipaa.org/meetings-events

➤ More events: www.pioga.org

Staff

Lou D'Amico (lou@pioga.org), President & Executive Director
Kevin Moody (kevin@pioga.org), Vice President & General Counsel
Debbie Oyler (debbie@pioga.org), Director of Member Services
Matt Benson (matt@pioga.org), Director of Internal Communications (also newsletter advertising & editorial contact)
Joyce Turkaly (joyce@pioga.org), Director of Natural Gas Market Development
Dan Weaver (dan@pioga.org), Public Outreach Director
Danielle Boston (danielle@pioga.org), Director of Administration
Chris Lisle (chris@pioga.org), Manager of Finance
Tracy Zink (tracy@pioga.org), Administrative Assistant

Pennsylvania Independent Oil & Gas Association
115 VIP Drive, Suite 210 • Wexford, PA 15090-7906
724-933-7306 • fax 724-933-7310 • www.pioga.org

Northern Tier Office (Matt Benson)
167 Wolf Farm Road, Kane, PA 16735
Phone/fax 814-778-2291

PIOGA®
Pennsylvania Independent Oil & Gas Association
115 VIP Drive, Suite 210
Wexford, PA 15090-7906

Address Service Requested

PRESORTED
STANDARD
U.S. POSTAGE PAID
PITTSBURGH, PA
15290
PERMIT NO. 1211