The PIOGA Press

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CTG RACT VOC rule for existing oil & gas operations anticipated in 2020

By Roy Rakiewicz
ALL4 Inc.

On December 13, 2018, the Pennsylvania Department of Environmental Protection unveiled a draft rule "Control of VOC Emissions from Oil and Natural Gas Sources" to the Pennsylvania Air Quality Technical Advisory Committee (AQTAC). A revised draft version of the rule is now progressing through the regulatory process.

The draft rule, commonly referred to as the CTG RACT rule, was approved by AQTAC, the Small Business Compliance Advisory Council and the Citizens Advisory Council during 2019 as part of the rulemaking process. A revised draft rule was most recently (December 17, 2019) presented to the Environmental Quality Board (EQB) for approval prior to formal proposal, which is anticipated to occur in the first quarter of 2020. If finalized in its current form, the rule will impact most existing oil and gas operations across the state. The current version of the CTG RACT rule is relatively unchanged from the original draft presented to AQTAQ in December 2018.

The rule will regulate emissions of volatile organic compounds (VOC) that are associated with "existing" oil and gas operations in Pennsylvania. Existing operations are generally those that exist at the time of final rule promulgation or as defined in the rule. The rule will reflect what the U.S. EPA has determined is reasonably available control technology (RACT) for the control of VOC emissions from affected sources.

RACT is defined as *"the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility."* For RACT, the U.S. Environmental Protection Agency issues guidance in the form of a control technique guideline (CTG). The CTG takes the place of regulation and is viewed as "substantially as effective as regulation" in reducing VOC emissions from source categories located in in ozone nonattainment areas.

State regulators typically use the suggested RACT levels provided in applicable CTG documents but can also include rule provisions that are more stringent than the CTG in a state rule. Pennsylvania and other states with ozone nonattainment areas are required to revise their state implementation plans to implement RACT for existing sources of VOC under section 172(c)(1) of the Clean Air Act. Because Pennsylvania is in the Northeast Ozone Transport Region, the entire state is managed as nonattainment with the ozone national ambient air quality standard. Consequently, the CTG RACT rule, when finalized, will impact existing oil and gas operations across Pennsylvania because oil and gas operations as existing sources of VOC emissions.

On October 27, 2016, the U.S. EPA issued a CTG for emissions of VOC from existing oil and gas sources which provides states with RACT recommendations for such operations. The basis for the various RACT recommendations identified in the 2016 CTG are derived primarily from the technical and supporting information used by U.S. EPA during the development of 40 CFR Part

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60 Subpart OOOOa. As a result, the level of VOC control expressed in the CTG reflects many of the limits of Subpart OOOOa.

The CTG RACT rule will be proposed as 25 Pa Code §§129.121 – 130 and like Subpart OOOOa will regulate VOC emissions associated with storage vessels, pneumatic controllers, natural gas-driven diaphragm pumps, compressors and other fugitive components at well sites, boosting stations, and processing plants. The rule includes extensive provisions for covers, closed systems and air pollution control devices.

The CTG RACT rule, if finalized in its current form, does not distinguish between conventional and unconventional operations and does not provide specific rule exemptions based on well type. This is an important distinction that is missing because existing conventional operators would be required to assess the applicability and potential application of the CTG RACT rule for existing equipment. Such an evaluation could be extensive, along with the potential difficulty of applying the CTG to existing equipment.

The draft CTG RACT rule includes provisions that are similar to Subpart OOOOa including general provisions and applicability, definitions, requirements for affected sources along with monitoring, recordkeeping, testing and reporting provisions. The draft rule excludes units in the transportation and storage sector, and because the rule is for existing sources as of the date of the rule, there are no requirements for well completions or new installations.

The CTG RACT rule requirements are briefly summarized below. Operators are advised to refer to the draft rule to gain a full understanding of rule requirements and obligations. The proposed rule can be found under the EQB's December 17, 2019, meeting agenda at www.dep.pa.gov/PublicParticipation/EnvironmentalQuality/Pages/2019-Meetings.aspx.

- **Storage vessels.** Affected storage vessels at conventional well sites with potential to emit (PTE) of greater than 6 tons per year (tpy) of VOC, unconventional well sites pre-September 10, 2013, with PTE of greater than 6 tpy of VOC, and unconventional well site post-September 10, 2013, gathering and boosting stations, and natural gas processing sites each with PTE of greater than 2.7 tpy of VOC. The requirement for affected sources is to reduce VOC emissions by 95 percent or limit actual VOC emissions to less than 4 tpy (for 6 tpy sources) or to less than 2.7 tpy.
- **Natural gas-driven pneumatic controllers.** Devices located prior to the point of custody transfer of oil to an oil pipeline or of natural gas to the natural gas transmission and storage segment are limited to a natural gas bleed rate of less than 6 standard cubic feet (scf) per hour. Units at processing plants limited to a bleed rate of zero scf per hour. Devices must be tagged for tracking purposes.
- **Natural gas-driven pneumatic controllers.** Devices located at a well site or natural gas processing plant must connect to a 95-percent air pollution control device or process using a cover/closed vent system. Devices at a processing plant limited to a bleed rate of zero scf per hour. Exceptions need documentation including statement by professional engineer or in-house engineer regarding infeasibility.
- **Reciprocating Compressors.** Units between wellhead and custody transfer point, replace rod packing every 26,000 hours or 36 months or route VOC emissions to a process using covered operations or closed vent and air pollution control device.
- **Centrifugal compressors.** Wet seal units between wellhead and custody transfer point, reduce VOC emissions by 95 percent by weight or greater using a cover, closed vent system and air pollution control device or process.
- **Fugitive emission components.** Well sites with a well that produces greater than 15 barrels of oil equivalent (BOE) per day, natural gas gathering and boosting stations, and natural gas processing plants. Requirements include monthly audio, visual, olfactory (AVO) inspections, quarterly leak detection and repair (LDAR) inspections and preparation of LDAR site monitoring plans. Note that DEP anticipates that approximately 300 conventional wells will be affected by the fugitive emissions component requirements.

In addition to the requirements for the affected units identified above, there are lengthy technical requirements associated with covers, closed vent systems and air pollution control devices. Administrative requirements include monitoring, recordkeeping, testing and reporting provisions which includes preparation, certification and submittal of semi-annual compliance reports to DEP.

One final note: On March 9, 2018, the U.S. EPA published a "Notice of Proposed Withdrawal of the Control Techniques Guidelines for the Oil and Gas Industry." Even though the U.S. EPA has proposed to withdraw the CTG for oil and gas operations, DEP has apparently decided to move ahead with the CTG RACT rulemaking, using the CTG as a template.

The CTG RACT rule is anticipated to be proposed during the first quarter of 2020 with a 60-day comment period. Public hearings are expected during the second quarter of 2020, with a final CTG RACT rule anticipated in the fourth quarter of 2020. ■

Editor's note: PIOGA, through the Environmental Committee's Air Quality/Emissions Subcommittee, is carefully reviewing the proposed rule and will take the opportunity to provide feedback as part of the public comment process.

Legislative outlook: 2020

As we begin the second half of Pennsylvania's two-year legislative session, we thought you might be interested in some of what PIOGA's Harrisburg government relations firm anticipates in the coming year on matters important to the industry.

With the first year of the 2019-2020 legislative session ending, we look to 2020 as a year of politics with the 2020 presidential election right around the corner. While 2019 saw fewer days in which the General Assembly was in voting session than in prior years, and few instances in which the House of Representatives and Senate were in Harrisburg at the same time, 115 general legislative proposals were enacted, 15 appropriations-related legislative proposals were enacted, and Governor Wolf vetoed four legislative proposals.

The Pennsylvania General Assembly must return to Harrisburg on January 7, as per the Pennsylvania Constitution, but it will not return to Harrisburg until mid-January (the House of Representatives) and late January (Senate) for voting session. The first few months of the 2020 legislative year will be focused on the fiscal year 2020-2021 budget as Governor Wolf will present his proposed spending plan to the General Assembly on February 4, which will then result in a roughly four-week legislative recess for the Appropriations committees in the House of Representatives and Senate to hold hearings on the components of the governor's proposed spending plan.

Legislative issues that will remain in 2020

Unresolved in the limited fall legislative session, the following issues carried forward and will remain a significant part of the political discussion during the 2020 election cycle and the budget debate next year

Limiting greenhouse gas emissions/climate change. Absent a lack of interest in engaging in a dialogue on the issue since the budget debate, Governor's Wolf signed Executive Order 2019-07, directing the Department of Environmental Protection to develop a regulation by July 31, 2020, to establish a process to move Pennsylvania toward participation in the Regional Greenhouse Gas Initiative (RGGI).

RGGI is a regional cap-and-trade program to limit carbon dioxide from the power sector. RGGI requires fossil fuel power plants with a capacity greater than 25 megawatts to obtain an allowance for each ton of CO2 emitted annually. Currently, participating states in this program are Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island and Vermont. The newest addition to RGGI is New Jersey, which will join the program in 2020.

The governor's action has gotten the attention of the Republican majority, who have been joined by a few Democrats representing areas of the Commonwealth with large coal mining operations, to introduce House Bill 2025 (Struzzi, R-Indiana) and Senate Bill 950 (Pittman, R-Indianan), which prohibit the Wolf administration and any future governor from taking any action or joining any regional initiative that would result in the taxing of carbon.

The proposed legislation would require legislative authorization before Pennsylvania could impose a carbon tax or enter into a cap-and-trade system. The rationale behind the legislation is that taxation and establishing user fees is a legislative action and the proposed legislation seeks to reassert the legislature's authority over the issue knowing there is little that can be done to block Governor Wolf from joining regional environmental initiatives and that the legislature cannot block a regulation that would add Pennsylvania to RGGI as long as Governor Wolf remains in office.

This will, once again, become a budget issue, as any legislation that the Republicans would try to force through the legislature to block Governor Wolf's priority would likely be vetoed without an agreement. And, the Republicans would not authorize Governor Wolf to join RGGI unless there was some agreement that would set parameters on Pennsylvania's involvement in RGGI. The leverage of the legislative Republicans to stop Pennsylvania's transition to RGGI would likely come in the form of statutorily prohibiting Governor Wolf from spending any Commonwealth funds to support Pennsylvania's efforts to join RGGI.

Restore Pennsylvania. Restore PA is Governor Wolf's $4 billion-plus plan to address critical infrastructure needs across Pennsylvania. The plan consists of various initiatives including storm preparedness and disaster recovery, providing high-speed internet access, combating blight, green infrastructure, contaminant remediation and brownfield cleanup, transportation capital projects, downstream manufacturing, business development, and energy infrastructure. The plan would be funded by the creation of a severance tax on natural gas.

Restore PA has not received any serious consideration as a result of the odd political combination of Republicans who oppose the imposition of a severance tax and legislative Democrats who have backed away from their early support since the financing of Restore PA relies on revenues from a severance tax and, therefore, continued natural gas drilling during the term of the bonds. For the most environmentally focused legislators, halting new natural gas drilling and banning current drilling methodologies is the ultimate policy goal, as it will require the fastest transition to renewable energy sources.

While the funding source of Restore PA may be a non-starter, many of goals of Restore PA have broad political support and it has been proposed that the governor's Regional Greenhouse Gas Initiative could help to fund some of these initiatives.

Conventional Oil & Gas Act. The House Energy and Environmental Committee announced on January 9 that it would meet on the 13th to consider Senate Bill 790, creating the Conventional Oil and Gas Act. Watch for a report in the February issue. ■

Senate bill would provide for expedited review of Chapter 102 and 105 permits by third-party consultants

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Pennsylvania State Senator Gene Yaw, a Republican representing Lycoming County, introduced Senate Bill 891 to allow third-party consultants to review Chapter 102 erosion and sedimentation control permit applications and Chapter 105 dam safety and waterway management permit applications. The "Advanced Permit Review Program" is intended to "provide an expedited method, through the use of qualified licensed professionals, of reviewing applications for permits." This bill is different from past attempts to implement third-party review because it focuses only on Chapter 102 and Chapter 105 permit applications. It is currently in the Senate Appropriations Committee (re-referred on November 19).

Under the current bill, applicants may submit a Chapter 102 or Chapter 105 permit application for review under the program. The program establishes a general application procedure with specific requirements for Chapter 102 and Chapter 105 applications. If an applicant elects to have the permit application reviewed under the program, the Department of Environmental Protection performs an initial review to determine if the application is complete. If DEP determines the application is not complete, the applicant cannot utilize the program for that permit application.

If it is complete, DEP refers the application to a qualified licensed professional who is approved by DEP to conduct advanced permit review on behalf of the agency. The qualified licensed professional will undertake technical review, note deficiencies and allow the applicant one opportunity to correct. The licensed professional may then forward a recommendation to DEP on the application. DEP maintains ultimate approval authority of the application.

The program would be funded by fees paid by applicants to use the expedited path. DEP will collect fees provided in Chapters 102 and 105 but transfer 50 percent of the fee collected to a fund established within the program. The bill states that the qualified licensed professional will invoice DEP. The amount of the invoice will be determined by a fee schedule established by DEP. The bill also has a conflict of interest provision to ensure the third party has not worked for the applicant in the past three years.

The purpose of the program is to expedite review.

The bill provides a 30-day period for DEP to conduct the initial completeness review after receipt of the application and refer to a qualified licensed professional. The qualified licensed professional must issue a technical deficiency letter or submit its recommendation within 15 business days of referral from DEP. The qualified licensed professional has 10 days to review and submit a recommendation after the applicant responds to the technical deficiency letter. DEP has 10 days to act on the application after receiving the recommendation. If DEP decides to conduct a public hearing on the technical merits of the application, DEP has until 30 days after the hearing to make its decision.

The bill is the latest attempt to reduce permit review times and clear out the backlog of applications in DEP's queue. With Chapter 102 permit applications recently averaging over 200 days of review time, these legislative efforts to streamline the process are warranted. Some features of the bill, however, may lessen its impact on current delays. Permit applications returned as administratively incomplete in the initial completeness review cannot utilize the program until they are resubmitted and deemed complete. Because a significant percentage of applications are initially rejected as incomplete, most permit applications will be barred from proceeding down the expedited path until they are revised, resubmitted and deemed complete by DEP. Furthermore, while applications involving multiple individual permits or general permit authorizations for single projects may be reviewed through the program, the expedited timelines for review, public comment, and final decision may be too short for the needs of complex, multi-permit or multi-county projects. ■

EQB to give final consideration to well permit fee increase

As this issue of *The PIOGA Press* was being finalized, we learned that final consideration of the Department of Environmental Protection's proposed increase in well permit fees was on the agenda for the January 21 meeting of the Environmental Quality Board (EQB).

Under the proposal, permit fees for unconventional wells would increase to $12,500 from $5,000 for non-vertical wells and $4,200 for vertical wells. The fee for conventional wells would remain unchanged.

DEP's oil and gas program is funded almost entirely by permit fees and fines and penalties. Because drilling has not occurred at the level anticipated last time the permit fee was increased, DEP has complained it does not have the revenue to adequately administer the oil and gas program—despite staff cutbacks and increased efficiencies.

Look for a report on the EQB's action in the February issue.

An invitation to become a 2020 PIOGA Partner

We are pleased to announce the 2020 PIOGA Partners program. The program was launched in 2018 in response to member requests for a "one stop" yearlong event sponsorship option for budgetary purposes. The program also offers unique opportunities—like the Committee Partner—to both support the association's work and make your company stand out.

The various Partner levels and their benefits are shown below. If you have questions or are ready to sign on now for 2020, contact Debbie Oyler at debbie@pioga.org or 724-933-7306 ext. 22.

We also continue to offer traditional event-by-event sponsorship opportunities. ■

2020 PIOGA Partner Levels	Yearly Sponsorship Amount	Networking Events (5-7/yr.) Comp Tickets	Golf Events (3/yr.) Comp Golfers	Spring Conference Comp Tickets	Fall Conference Comp Tickets	Marcellus to Manufacturing Conference Comp Tickets	PIOGATech Seminars (5-7/yr.) Comp Tickets	Advertising Discount*	Logo Recognition (Website, Newsletter, Signage)
Keystone	$10,000	2	2	2	2	2	2	30%	Yes
Executive	$7,500	2		2	2	2		20%	Yes
Meetings	$5,000			2	2	2		10%	Yes
Golf	$4,000		4						Yes
Committee	$3,000								Logo recognition at all PIOGA Committee Meetings only
Engineer	$2,500								Logo recognition at Spring and Fall Conferences only
Driller	$1,500								Logo recognition at Spring and Fall Conferences only

*The PIOGA Press and PIOGA eWeekly only

Pennsylvania Supreme Court establishes requirements for easements by necessity

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The modern oil and gas industry is a complex and multifaceted operation involving significant upstream, midstream and downstream infrastructure. Well pads located on the surface are necessary to extract the oil and gas from the subsurface. A constantly expanding network of pipelines are required to transport the produced oil and gas from the well pad to places of market or refinement. This complexity requires a constant balance of property rights between surface owners and mineral owners and operators.

One mechanism by which the parties balance property rights is through the use of easements. Easements can be created in several different ways, including through an implied easement by necessity which was recently addressed by the Supreme Court of Pennsylvania in *Bartkowski v. Ramondo,* No. 60 MAP 2018, 2019 Pa. LEXIS 6100 (October 31, 2019).

Implied easement by necessity

Before discussing *Bartkowski,* it is helpful to understand the elements of an implied easement by necessity. In Pennsylvania, for an implied easement by necessity to exist, three elements must be met:

1. Title to the dominant and servient properties were once held by one person;
2. This unity of title must have been severed by a conveyance of one of the tracts; and
3. The easement must be necessary for the dominant owner to use the land, with the necessity existing both at the time of the severance of title and at the time of the exercise of the easement.[1]

An easement by necessity is always of ***strict necessity*** and not a mere matter of convenience.[2]

Claiming an easement by necessity involves inherent risks. By definition, there is no document of record creating the easement or defining its scope. Therefore, it is not uncommon for the servient and dominant landowners to disagree as to whether the easement exists. Further, it can be very difficult to determine whether the strict necessity requirement has been met.

Bartkowski strict necessity analysis

In its *Bartkowski* decision rendered on October 31, the Pennsylvania Supreme Court offered useful guidance on determining whether the need for the easement by necessity is one of strict necessity.

In *Bartkowski*, the Supreme Court reversed an order of the Superior Court which denied the Ramondos an easement by necessity over the Bartkowskis' property and remanded the matter for further proceedings. The court granted allowance of appeal to consider "whether a landowner must prove impossibility of alternative access…in order to establish an easement by necessity." The majority opinion issued by the court held that a landowner need only show that that alternative access to their property is "manifestly impracticable," but absolute impossibility is not required.

By way of background, the pertinent facts of the case were as follows. In 1991, the Ramondos purchased approximately 5.62 acres known as a "flag lot," named as such because the shape of the lot incudes a narrow strip of land (the "pole") that connects the larger "flag" portion of the lot to a public road, in this case Garrett Mill Road. In 2012, the Bartkowskis purchased a neighboring lot, containing approximately 5.25 acres, which is also considered a "flag lot" due to its shape. The Bartkowski pole and the Ramondo pole run parallel to one another. At issue in this case is a portion of the Ramondos' driveway, leading from Garrett Mill Road to their home constructed on the flag portion of the property. The Ramondos' driveway begins on the Bartkowski pole at Garrett Mill Road and extends approximately 300 feet on the Bartkowski pole until it crosses onto the Ramondo pole and continues on the Ramondo pole the remaining distance to the flag portion of the Ramondo property.

On July 16, 2015, the Bartkowskis filed an action in ejectment and trespass because of the portion of the Ramondos' driveway encroaching on their property. At the trial, both the Bartkowskis and the Ramondos submitted their expert reports to the lower court. According to the Ramondos' expert, "the current location of the Ramondo driveway is the only method to reach their home." The Ramondos' expert concluded that constructing a new driveway was not a viable option due to various prohibitive factors, including the topography of the Ramondos' pole and the existence of environmental and zoning regulatory issues that would be difficult to overcome. The Bartkowskis' expert, however, concluded that constructing a new driveway was "feasible" and that it was reasonable to expect that the Ramondos "could obtain the necessary environmental and zoning relief."

Both the trial court and the Superior Court concluded that the Ramondos did not establish an easement by necessity since they did not "demonstrate impossibility and thus necessity." The lower courts focused on the fact that while the Ramondos demonstrated that relocating the driveway would be difficult and costly, they did not prove that it would be impossible.

The first two elements of an easement by necessity described above were not in dispute on appeal. The only issue that remained for the Supreme Court to consider was whether the third element to establish an easement by necessity requires the landowner to prove impossibility of alternative access.

The majority held that it does not, stating that "to require a party to prove utter impossibility of alternative access is to stretch 'strict necessity' beyond its intended meaning." The court reasoned that in this day and age with modern technology and unlimited resources at a party's disposal, most obstacles to alternative access could be overcome and therefore never truly impossible. As a result, requiring impossibility to prove "strict necessity" would be an "unworkable standard."

Determining whether "strict necessity" has been established is a fact-specific inquiry. Pennsylvania courts require that a landowner demonstrate more than "mere convenience" to claim an easement by necessity. However, Pennsylvania jurisprudence does not provide any express definition or formulation of the "strict necessity" standard. The court was persuaded by other jurisdictions' interpretations of "strict necessity" which focus on the reasonableness and practicability of the alternative access, rather than impossibility.

The court also found parallels in Pennsylvania's Private Roads Act.[3] The act allows a landowner to petition the court to establish a private road over a neighboring property in order to access their property and requires a finding of "strict necessity." In examining the case law surrounding the "strict necessity" standard under the Private Roads Act, the court concluded that Pennsylvania has "rejected the proposition that necessity only exists where access to the property is literally impossible."

Focusing on reasonableness and practicability, the court provided a non-exclusive list of factors to be considered when evaluating the necessity of the easement under the "strict necessity" standard, including, but not limited to:

1. The existence of zoning restrictions and the likelihood that the party can obtain the necessary variances or exceptions;
2. The existence of state or federal regulations that prohibit certain uses of the land in question, the topography of the land and the practicability of constructing alternative access;
3. The environmental consequences of construction;
4. The costs involved; and, of course,
5. Whether and to what extent these impediments existed at the time of severance.

The court emphasized that these factors are not meant to be a bright-line rule and that the existence of these factors in any case is not a guarantee that an easement by necessity has been established, but they should be useful in navigating the gray area of "necessity" going forward.

Broad scope of *Bartkowski* analysis

The analysis in the *Bartkowski* case provides oil and gas operators with a useful framework in determining whether, in the absence of an express easement in writing, their actions are strictly necessary. The strict necessity framework set forth in *Bartkowski* could also be applied to other legal constructs used to determine whether an operator's actions are appropriate and permissive.

In laying out a non-exhaustive list of factors for evaluating an asserted necessity, the *Bartkowski* case can be applied to issues involving the prudent operator standard or accommodation doctrine, for example. Although *Bartkowski* does not specifically address such principles, it does provide an operator with possible guidance as to how a Pennsylvania court may attempt to balance a conflict between the rights of adverse property owners, including surface owners, mineral owners and operators. ■

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1 *Graff v. Scanlan,* 673 A.2d 1028 (Pa. Comwlth. 1996).

2 *Phillippi v. Knotter,* 2000 PA Super 71, 748 A.2d 757 (2000).

3 36 P.S. § 2732

Add value to your membership: Participate in a PIOGA committee

There may be no better way of getting returns from your PIOGA membership than participating in our committees. Not only can you stay on top of the issues and lend your expertise to finding solutions that will benefit Pennsylvania's oil and gas industry, but demonstrating your ability as a subject-matter expert could also bring you more clients and customers.

PIOGA has five committees: Environmental, Market Development, Legislative, Safety and Tax. Below you will find descriptions of what each committee does along with what the group is concentrating on.

Sandy Spencer and David Marks lead January's Market Development Committee meeting.

Environmental Committee

Who, when & where: Committee chairs are Paul Hart of Diversified Gas & Oil and Ken Fleeman of ABARTA Energy. The group meets on the second Wednesday of each month at 10 a.m. in the PIOGA office in Wexford. Participants may also join by webinar/conference call.

The committee is divided into four active subcommittees: Erosion & Sedimentation, Waterways and Threatened & Endangered Species; Air Quality and Emissions; Water and Waste Management; and Well Construction. Workgroups are created to address specific matters of concern, such as one that currently provides support to the association's representatives on the PA Grade Crude Development Advisory Commission (CDAC).

The Environmental Committee stays informed on a huge array environmental and regulatory issues and engages directly with government regulators on public policy development and implementation on issues ranging from legacy wells and water treatment/disposal to emissions and radiation protection. That's no small task as the committee deals with issues involving Pennsylvania state government entities including the Department of Environmental Protection, Fish and Boat Commission, Game Commission, Department of Conservation and Natural Resources, and on the federal level the U.S. Environmental Protection Agency, Fish and Wildlife Service, Army Corps of Engineers, as well as the Susquehanna and Delaware River Basin Commissions.

The committee also organizes several PIOGATech seminars each year that provide training on the sorts of environmental matters members deal with daily. Some of the topics addressed include air quality compliance, endangered species issues, water and waste, compliance risk management, and more.

Market Development Committee

Who, when & where: Chairs are David Marks of Dominion Energy Field Services and Sandy Spencer of Appellation Construction Services. Meetings are the second Thursday of the month at 10 a.m. in the PIOGA office, with occasional field trips and meetings at other locations. Conference call capabilities are not always available at these other locations, but participants may call in when PIOGA hosts the meetings.

As Pennsylvania's oil and gas industry has evolved, so has this committee. Before the advent of the shale-gas revolution, this committee was responsible for monitoring developments at the Pennsylvania Public Utility Commission and Federal Energy Regulatory Commission, as well as reviewing pipeline and LDC tariffs and pipeline open seasons, recommending and managing interventions in rate cases, and developing producer policy positions on natural gas marketing matters.

Today, the Market Development Committee works actively to accelerate greater use of Pennsylvania-produced natural gas in electric generation, alternative-fuel vehicles, commercial applications, exports, industrial demand, distribution demand, and natural gas conversions from other fuels throughout Pennsylvania and surrounding states. The group also tackles misconceptions about the role of natural gas as a fuel and petrochemical applications and provides support to pipeline expansion and other infrastructure projects.

To help educate members about opportunities and trends, the committee organizes field trips to facilities that utilize natural gas in manufacturing and other operations and that provide equipment and services to support the industry. The committee organizes the annual Marcellus to Manufacturing conference that focuses on a range of end-use topics.

Legislative Committee

Who, when & where: The committee is chaired by Ben Wallace of Penneco Oil Company. Meetings are by conference call on the first Thursday of the month at 1:30 p.m.

These days, energy is a hot topic and it's not unusual for PIOGA and its government relations firm to track more than 150 pieces of legislation during a session of the Pennsylvania General Assembly. The Legislative Committee reviews legislation, helps guide the association's position on bills, provides input on suggested amendments, and helps to plan lobby days and other direct contact with lawmakers.

New committee meeting location

If you already belong to a PIOGA committee, please note that meetings previously held at the Regional Learning Alliance in Cranberry Township are now taking place at PIOGA's Wexford offices. This has been done as a cost-saving measure. PIOGA's conference room can accommodate the typically sized committee meeting, and call-in/webinar capabilities are still available.

Safety Committee

Who, when & where: Wayne Vanderhoof of RETTEW chairs the committee. The group meets every other month on the second Wednesday at PIOGA's office, beginning at 8:30 a.m. (immediately before the Environmental Committee). Members may also join by conference call.

The mission of the Safety Committee is to serve as a forum to improve Pennsylvania oil and gas industry safety performance through the exchange and communication of best practices, education and training, incident review and sharing, and to identify and communicate industry trends. The committee organizes PIOGATech training sessions on important safety topics, invites subject-matter experts to present at committee meetings, coordinates a regular safety article in *The PIOGA Press,* and discusses and analyzes safety-related incidents, best practices, regulatory matters and other issues impacting industry safety.

Tax Committee

Who, when & where: Bill Phillips of Arnett Carbis Toothman is the chairman. The committee meets quarterly on the third Thursday at 1:30 p.m. Meetings typically are by conference call, although plans are to hold them occasionally in person at the PIOGA office.

Phillips' goal is to make this group more active than it has been in the past. The committee is responsible for monitoring and reporting on federal, state and local tax developments impacting the industry. The Tax Committee also hosts PIOGA's Annual Oil & Gas Accounting and Tax Seminar.

Get involved!

PIOGA's committees welcome and need your participation. As a member-driven organization, we rely on members to tell us what is important to the success of their business and then helping us to find ways to address those issues. The committees are the perfect tool to make all this happen, and they depend on the active involvement of members who want to make a difference.

Anyone interested in joining a committee should contact Deana McMahan at 724-933-7306 ext. 23 or deana@pioga.org to be placed on the committee's roster and receive access to the committee portal in PIOGA's Members Only website. ■

Final PIOGATech of 2019 addresses air quality compliance

On December 17, the Environmental Committee hosted its final PIOGATech training of the year, focusing on air quality compliance. This training was the fifth technical session over the past four years to address air issues and the ever-changing regulations that our industry must comply with. Now more than ever, air quality compliance is a major focus federally and at the state level, and the oil and gas industry must be prepared.

Over 75 people participated in this six-hour training that provided them with an overview of the air quality regulations affecting the oil and gas industry and, in addition, were able to learn about emission inventory basics, VOC measurement considerations for compliance testing, moving beyond the permit and managing the air program, an update on next-generation emissions measurement approaches, a review of the draft/proposed Pennsylvania CTG RACT rule, federal Subpart OOOOa proposed revisions, monitoring considerations for emergency response, and other air quality concerns to know about. The day ended with a panel discussion that included an operators' perspective of their air quality compliance programs.

Thank you to Babst Calland, ALL4 Inc., Civil and Environmental Consultants, Inc. and CleanAir Engineering for putting together a very relevant program and for providing their expertise on this important topic for our members. Come join us on February 27 for our next Environmental PIOGATech. More information and registration coming soon! ■


Amanda Black from CEC, Inc. discusses managing your compliance program.

Thanks for helping make a difference

Last month we told you about PIOGA's participation with member company Print King in a Christmas toy drive benefitting The Lighthouse Foundation. The following is an email we received since then from Print King.

All of us at Print King would like to say thank you to all of our amazing customers that helped make this year's toy drive the biggest we've ever had! With your donations we were able to help the Lighthouse Mission create an amazing gift shopping event for our neighbors that needed a little help this year. The parents were able to provide multiple gifts for their children to make sure that Christmas was truly a special day for their families. Your support has truly made a difference this holiday season. From our hearts we want to wish you a Happy New Year!

Tim Graff
Print King

Members gather to 'Mix, Mingle & Jingle'

Approximately 200 PIOGA members turned out on December 17 for our annual holiday mixer. Not only did everyone have a fine time, but we also helped spread some cheer to those in need. A Chinese auction of 25 donated gift baskets raised $750 for Animal Friends, and many participants brought along food donations for the North Hills Community Outreach Food Bank. Thank you for your generosity! Check out the Photo Galleries section at pioga.org for more scenes from the evening.

New Chamber analysis quantifies economic risks of proposed fracking ban

Over the past decade, the shale revolution in America has transformed our economy and reduced our emissions. Now, a new study from the U.S. Chamber of Commerce Global Energy Institute quantifies just how much America stands to lose if some candidates succeed in ending it.

The study comes as presidential candidates and activist groups have called for a ban on hydraulic fracturing—the technology that has made this energy revolution possible. Several major candidates have promised to pursue such a ban if elected, and the results would deliver a staggering blow to the economy.

The analysis found that a ban on fracking would eliminate 19 million jobs between 2021 and 2025, while reducing U.S. Gross Domestic Product by $7.1 trillion over the same period. Energy prices would skyrocket, with natural gas prices rising by 324 percent, causing household energy bills to quadruple and the cost of living to increase by $5,661 for the average American. By 2025, the price of gasoline would double and government revenues would plummet by almost $1.9 trillion.

In addition to the economic boon, the rise of fracking has helped improve the environment. The report notes that carbon dioxide emissions have been reduced by more than 2.8 billion metric tons since 2005—roughly the equivalent of annual emissions from Australia, Brazil, Canada, France, Germany and the United Kingdom combined.

“Increased oil and gas production driven by hydraulic fracturing has been fueling America’s sustained period of growth over the past decade, while making us both cleaner and stronger,” said Marty Durbin, president of the U.S. Chamber’s Global Energy Institute (GEI). “Our study shows that banning fracking would have a catastrophic effect on our economy, inducing the equivalent of a major recession and raising the cost of living for everyone across the country. This bad idea should be abandoned.”

The impact on Pennsylvania

The U.S. Chamber’s analysis predicts the following cumulative impact by 2025 of a hydraulic fracturing ban on Pennsylvania:

- Loss of jobs – 609,000
- Loss in GDP – $261 billion
- Impact on households – $14 billion
- Loss of state and local tax revenue – $23.4 billion
- Loss of federal tax revenue – $50.3 billion
- Per capita cost of living increase – $4,654

The report is the first in the 2020 edition of GEI’s Energy Accountability Series, which takes a substantive look at what could happen if energy proposals from candidates and interest groups were actually adopted. The study is titled “What If Hydraulic Fracturing Was Banned? The Economic Benefits of the Shale Revolution and the Consequences of Ending It.” The 2020 edition updates a study first done in 2016 with new data and analysis, and several new states.

The report provides national impacts of a fracking ban, as well as state-specific impacts for five energy-producing states—Colorado, New Mexico, Ohio, Pennsylvania, and Texas, and two states with limited

"When we are in the White House we are going to ban fracking nationwide..."
Senator Bernie Sanders

"On my first day as president, I will sign an executive order that puts a total moratorium on all new fossil fuel leases for drilling offshore and on public lands. And I will ban fracking — everywhere."
Senator Elizabeth Warren

energy production, Michigan and Wisconsin.

Of particular note, due to the devastating economy-wide impacts of a fracking ban, residents in Michigan and Wisconsin would experience similar levels of hardship as those in energy-producing states. For instance, the cumulative cost of living increases for a residential consumer from 2021-2025 is almost as great in Michigan ($5,170) and Wisconsin ($4,777), as it is in Ohio ($5,625), Pennsylvania ($4,654), Colorado ($6,490), Texas ($7,280), and New Mexico ($5,790), demonstrating the impact of a fracking ban on manufacturing and the overall U.S. economy.

The complete results of the report, including a detailed explanation of the methodology, are available at www.globalenergyinstitute.org. ■

Impact fee revenue expected to drop by 21 percent for 2019

Pennsylvania's unconventional well impact fee is projected to generate $53.6 million less for the 2019 calendar year due to low natural gas prices and a decline in new wells, according to the Independent Fiscal Office (IFO). The per-well tax should yield $198.2 million, compared to a record $251.8 million collected for 2018.

The IFO said the decrease is largely due to the average annual price of natural gas on the New York Mercantile Exchange dropping below $3, which triggered a $5,000 per-well decrease in fees. Additionally, 616 new wells were spud in 2019, the second-lowest total in a decade other than 2016, when the average annual price also dropped below $3. The record total for 2018 also included $9 million in one-time payments that had been in dispute over the interpretation of a stripper well in the section of Act 13 dealing with the impact fee.

The effective tax rate of the fee fell slightly, from 2.2 percent for 2018 to 2.1 percent last year.

Impact fees are paid by producers in April and distributed by the Pennsylvania Public Utility Commission to local governments and state programs in July. ■

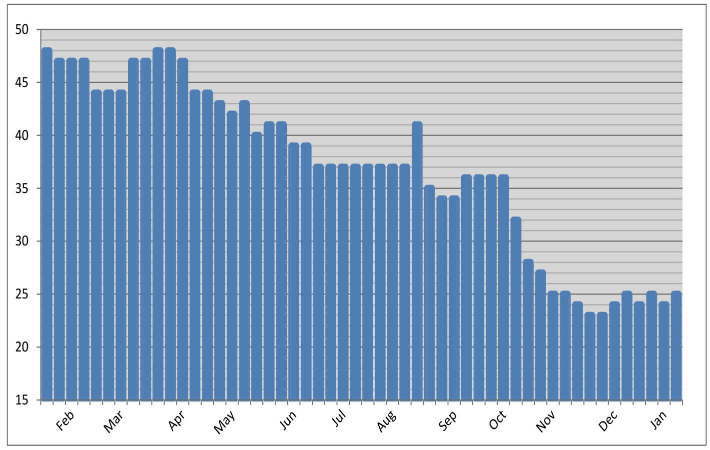
New PIOGA members — *welcome!*

McKissick Trucking, Inc.
699 Pinegrove School Road, PO Box 62, Venus, PA 16364
814-354-2934 • www.mckissicktrucking.com
Allies & Providers—water hauling services

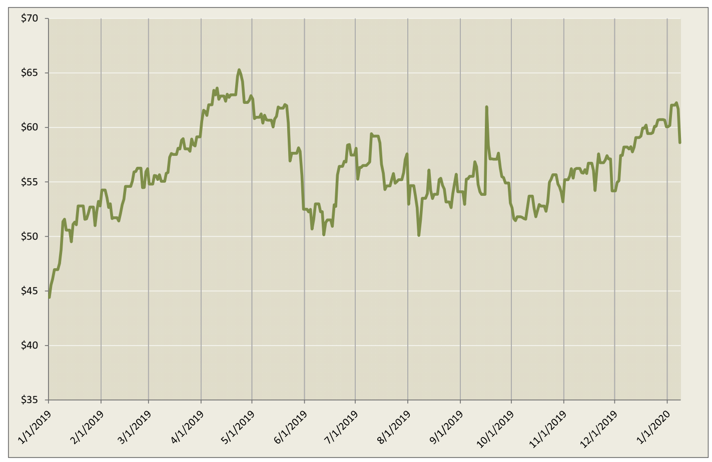
RJW & Associates, Inc.
262 Leech Road, Greenville, PA 16125
724-813-4798
Royalty Owner

Oil & Gas Dashboard

Pennsylvania Rig Count



Penn Grade Crude Oil Prices



Natural Gas Futures Closing Prices

Month	Price
February	$2.164
March	2.143
April	2.147
May	2.187
June	2.250
July	2.309
August	2.324
September	2.312
October	2.339
November	2.418
December	2.600
January 2021	2.711

Prices as of January 9

Sources
American Refining Group: www.amref.com/Crude-Prices-New.aspx
Ergon Oil Purchasing: www.ergon.com/prices.php
Gas futures: quotes.ino.com/exchanges/?r=NYMEX_NG
Baker Hughes rig count: phx.corporate-ir.net/phoenix.zhtml?c=79687&p=irol-reportsother
NYMEX strip chart: Nucomer Energy, LLC, emkeyenergy.com

Northeast Pricing Report — January 2020

Pricing for the front-month term has not been typical. Algonquin and Transco Z6 increased the most at $1.68 and $0.67 per MMBtu respectively. Strong increases, but nothing too significant for winter. Dominion South was flat. TETCO M3 and Transco Leidy only increased $0.03 per MMBtu each. For one-year term pricing, nearly every point was down. TETCO M3 and Transco Z6 decreased $0.36 and $.40 per MMBtu respectively. Dominion South and Transco Leidy had only slight increases of $0.02 per MMBtu each. Long-term trading was the most surprising of the trading terms. Transco Leidy was flat. Transco Z6 and Algonquin decreased $0.15 and $0.10 per MMBtu respectively. A decrease of $0.10 or more over the entire trading period during a winter month is rare.

Transportation Value Market Indicator

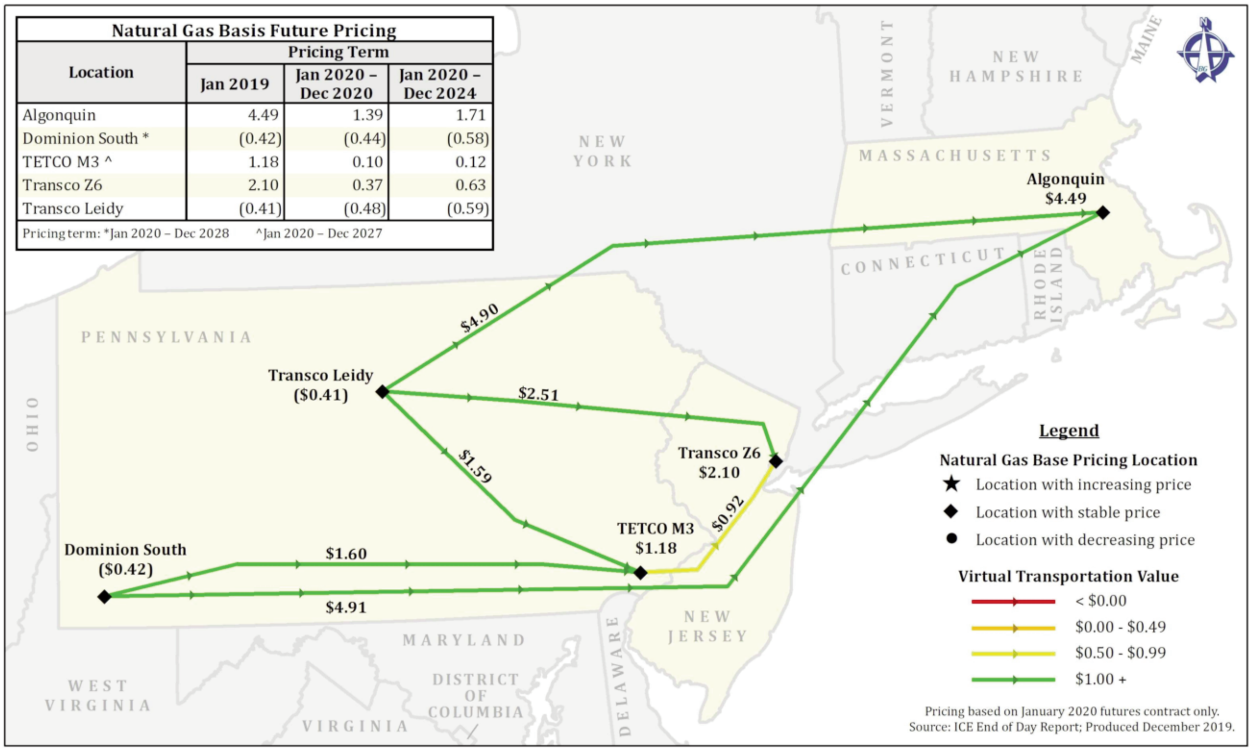
Provided by Bertison-George, LLC
www.bertison-george.com

Transportation values continue to increase. TETCO M3 to Transco Z6 had the smallest increase of $0.92 per MMBtu. The two major routes to Algonquin increased significantly by $4.91 and $4.90 per MMBtu. Transco Leidy to Transco Z6 also had a sizable increase of $2.51 per MMBtu. The two routes to TETCO M3 had almost identical increases of $1.60 and$1.59 per MMBtu.

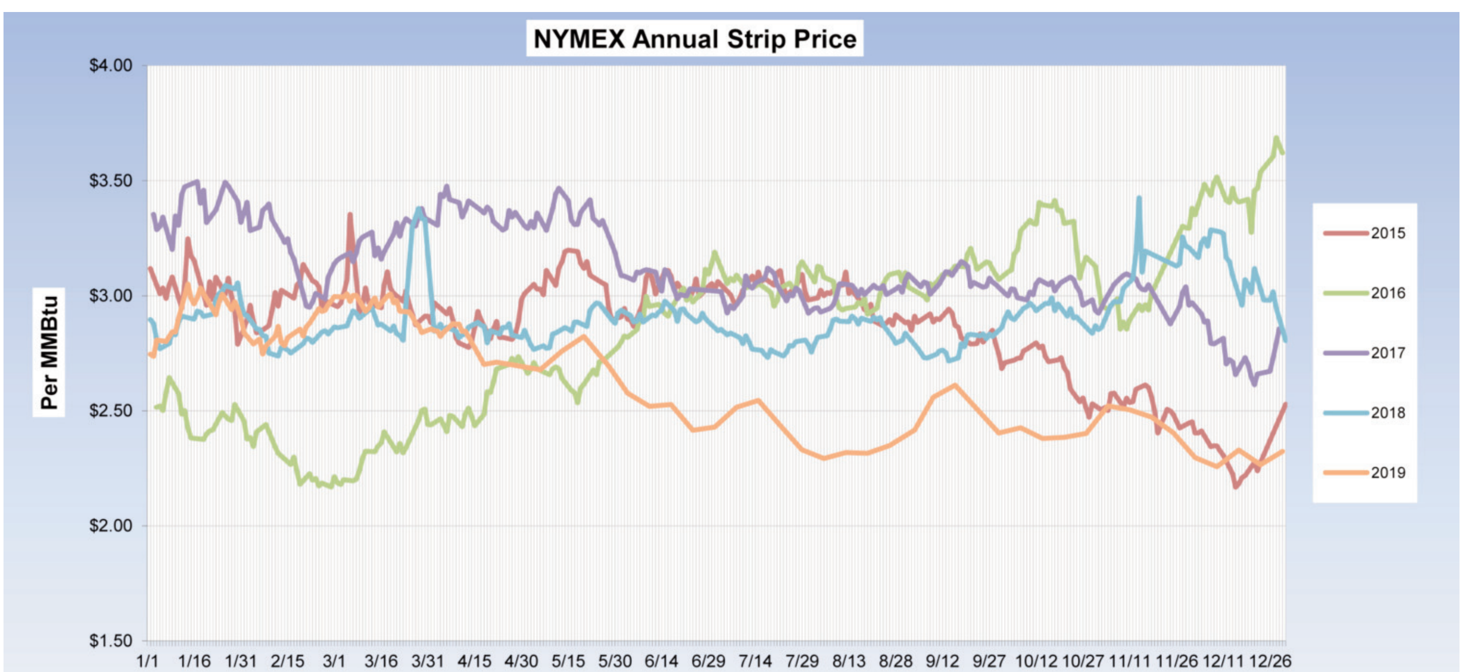
Natural Gas Basis Future Pricing

Location	Pricing Term: Jan 2019	Jan 2020 – Dec 2020	Jan 2020 – Dec 2024
Algonquin	4.49	1.39	1.71
Dominion South *	(0.42)	(0.44)	(0.58)
TETCO M3 ^	1.18	0.10	0.12
Transco Z6	2.10	0.37	0.63
Transco Leidy	(0.41)	(0.48)	(0.59)

Pricing term: *Jan 2020 – Dec 2028 ^Jan 2020 – Dec 2027



All values are per MMBtu



Spud Report: December 2019

The data show below comes from the Department of Environmental Protection. A variety of interactive reports are available at www.dep.pa.gov/DataandTools/Reports/Oil and Gas Reports.

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 a conventional well.

OPERATOR	WELLS	SPUD	API #	COUNTY	MUNICIPALITY
ARD Opr LLC	8	12/2/19	081-21833	Lycoming	Cummings Twp
		12/2/19	081-21834	Lycoming	Cummings Twp
		12/2/19	081-21835	Lycoming	Cummings Twp
		12/2/19	081-21836	Lycoming	Cummings Twp
		12/2/19	081-21837	Lycoming	Cummings Twp
		12/2/19	081-21838	Lycoming	Cummings Twp
		12/8/19	081-21841	Lycoming	McIntyre Twp
		12/8/19	081-21840	Lycoming	McIntyre Twp
Cabot Oil & Gas Corp	4	12/2/19	115-22691	Susquehanna	Harford Twp
		12/2/19	115-22690	Susquehanna	Harford Twp
		12/2/19	115-22692	Susquehanna	Harford Twp
		12/2/19	115-22693	Susquehanna	Harford Twp
Cameron Energy Co	2	12/4/19	053-30899*	Forest	Howe Twp
		12/20/19	053-30898*	Forest	Howe Twp
Chesapeake Appalachia LLC	7	12/12/19	015-23493	Bradford	Wilmot Twp
		12/12/19	015-23492	Bradford	Wilmot Twp
		12/13/19	015-23490	Bradford	Wilmot Twp
		12/13/19	015-23491	Bradford	Wilmot Twp
		12/21/19	115-22620	Susquehanna	Auburn Twp
		12/21/19	115-22619	Susquehanna	Auburn Twp
		12/21/19	115-22621	Susquehanna	Auburn Twp
EQT Prod Co	6	12/6/19	125-28800	Washington	East Finley Twp
		12/6/19	125-28801	Washington	East Finley Twp
		12/6/19	125-28796	Washington	East Finley Twp
		12/6/19	125-28797	Washington	East Finley Twp
		12/6/19	125-28798	Washington	East Finley Twp
		12/6/19	125-28799	Washington	East Finley Twp
KCS Energy Inc	1	12/24/19	123-48267*	Warren	Watson Twp
MSL Oil & Gas Corp	2	12/3/19	083-57154*	McKean	Lafayette Twp
		12/9/19	083-57156*	McKean	Lafayette Twp
Pennhills Resources LLC	1	12/23/19	083-57167*	McKean	Wetmore Twp
Pierce & Petersen	3	12/12/19	123-48433*	Warren	Glade Twp
		12/20/19	123-48432*	Warren	Glade Twp
		12/30/19	123-48434*	Warren	Glade Twp
Range Resources Appalachia	3	12/18/19	125-28560	Washington	Donegal Twp
		12/18/19	125-28561	Washington	Donegal Twp
		12/19/19	125-28562	Washington	Donegal Twp
Rice Drilling B LLC	5	12/4/19	125-28764	Washington	N Bethlehem Twp
		12/4/19	125-28761	Washington	N Bethlehem Twp
		12/4/19	125-28760	Washington	N Bethlehem Twp
		12/4/19	125-28762	Washington	N Bethlehem Twp
		12/4/19	125-28763	Washington	N Bethlehem Twp
Seneca Resources Co LLC	10	12/5/19	047-25077	Elk	Saint Marys City
		12/5/19	047-25078	Elk	Saint Marys City
		12/5/19	047-25081	Elk	Saint Marys City
		12/5/19	047-25079	Elk	Saint Marys City
		12/6/19	047-25075	Elk	Saint Marys City
		12/6/19	047-25082	Elk	Saint Marys City
		12/6/19	047-25076	Elk	Saint Marys City
		12/7/19	047-25083	Elk	Saint Marys City
		12/7/19	047-25080	Elk	Saint Marys City
		12/9/19	047-25074	Elk	Saint Marys City
SWN Prod Co LLC	8	12/11/19	015-23485	Bradford	Stevens Twp
		12/12/19	015-23486	Bradford	Stevens Twp
		12/13/19	015-23552	Bradford	Stevens Twp
		12/14/19	015-23551	Bradford	Stevens Twp
		12/15/19	015-23565	Bradford	Stevens Twp
		12/22/19	115-22700	Susquehanna	Great Bend Twp
		12/23/19	115-22702	Susquehanna	Great Bend Twp
		12/24/19	115-22701	Susquehanna	Great Bend Twp

	December	November	October	September	August	July
Total wells	**60**	**30**	**57**	**77**	**42**	**96**
Unconventional Gas	51	23	43	46	21	73
Conventional Gas	0	0	1	0	0	0
Oil	5	6	13	29	20	22
Combination Oil/Gas	4	0	0	2	1	0

Calendar of Events

PIOGA events

Information: pioga.org > PIOGA Events

Pins & Pints Networking Event
January 23, Zone 28, Harmarville *(note location change)*

Cigar Dinner Networking Event
February 20, BURN by Rocky Patel, Pittsburgh

PIOGATech: Environmental Topic
February 27, TBA

Axes & Ales Networking Event
March 11, Lumberjaxes, Pittsburgh (Millvale)

PIOGATech: Safety Topic
March 17, TBA

2020 Spring Meeting
April 1, Rivers Casino, Pittsburgh

PIOGA PAC Pittsburgh Pirates Home Opener
April 2, PNC Park, Pittsburgh

PIOGATech: Environmental Topic
April 23, TBA

Networking Event
May 7, TBA

Ted Cranmer Memorial Golf Outing & Steak Fry
June 1, Wanango Country Club, Reno

Networking Event
July 10, TBA

23rd Annual Divot Diggers Golf Outing & Steak Fry
August 20, Tam O'Shanter Golf Course, Hermitage

PIOGATech: Environmental Topic
August 25, TBA

Fall Conference
September 22, Seven Springs Mountain Resort, Champion

Fall Golf Outing and Sporting Clays Shoot
September 23, Seven Springs Mountain Resort, Champion

PIOGATech: Safety Topic
October 22, TBA

Annual Oil & Gas Tax and Accounting Seminar
November 18, Holiday Inn Express, Canonsburg/Southpointe

Marcellus to Manufacturing Conference
November TBA

PIOGATech: Environmental Topic / Holiday Membership Mixer
December 15, The Chadwick, Wexford

Other association & industry events

IOGAWV Winter Meeting
January 22-23, Charleston, WV
iogawv.com

OOGA 2020 Annual Meeting
March 4, Columbus, OH
www.ooga.org/events

Pennsylvania Independent Oil & Gas Association

115 VIP Drive, Suite 210, Wexford, PA 15090-7906
724-933-7306 • fax 724-933-7310 • www.pioga.org

Harrisburg Office (Kevin Moody)
212 Locust Street, Suite 300, Harrisburg, PA 17101
717-234-8525

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

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