



Testimony of Deputy Secretary Kurt Klapkowski
Office of Oil and Gas Management
Department of Environmental Protection
Senate Republican Policy Committee
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Good morning, Chairman Laughlin and members of the Senate Republican Policy Committee. On behalf of the Department of Environmental Protection (“Department” or “DEP”), thank you for the opportunity to provide information about abandoned and orphan wells and “Understanding the Identification, Inventory and Governing of Wells.” My comments this morning will focus on this topic, but I will remain available to address issues that arise on your other topics this morning.

Pennsylvania has a long history of oil and gas development with the first commercial oil well drilled in 1859 near Titusville, Pennsylvania. Since then, it has been estimated that as many as 300,000 to 760,000 oil and gas wells have been drilled in the state. A significant number of wells were drilled and abandoned prior to enactment of Pennsylvania’s 1984 Oil and Gas Act. The 1984 Oil and Gas Act required an operator to plug a well that was not in production for over one year or from which production equipment was removed. Since that time, other wells have been abandoned by operators who declare bankruptcy or move operations out of Pennsylvania, leaving their wells unplugged and posing a potential threat to public health, public safety and the environment.

Act 78 of 1992 added a definition for “orphan wells” – wells that were abandoned prior to April 18, 1985 and that have not been affected or operated by the present owner or operator and from which the present owner, operator or lessee has received no economic benefit other than as a landowner or recipient of a royalty interest from the well. Act 78 released the owners and

operators of such wells from plugging liability, so a determination that a particular well qualifies as an “orphan” well carries a significant legal consequence.¹

DEP’s Well Plugging Program was established to plug oil and gas wells when there is no identifiable responsible party. Since the Well Plugging Program began in 1989, the Department has documented over 27,000 abandoned wells and plugged more than 3,000 wells. Plugging priority is determined through site investigations that assign a numeric score based on the abandoned well’s risk. Risks associated with abandoned wells that are considered in the prioritization process include oil leakage into water resources, health and safety issues like methane migrating into homes and private water wells, and fugitive methane emissions being released into the atmosphere. Higher risk wells are generally plugged before lower risk wells.

However, despite over 30 years of activity by the Department, more than 27,000 identified wells without an identified responsible owner and/or operator still require plugging in Pennsylvania. The Department also estimates there are an additional 200,000 abandoned wells throughout Pennsylvania that have not been located or identified yet.

Identification, Inventory and Governing of Wells

When a well is abandoned, the Responsible Party (“RP”) (owner or operator) is required to plug the well unless the Department has granted inactive status for the well or the well has been approved by the Department as an orphan well. *See* 58 Pa.C.S. §§ 3203, 3220(a), 3220(f). However, in some cases it is not possible to identify a viable . When the Department determines that it cannot identify a viable RP, the Department will:

- Change the well’s status in eFACTS to “DEP Abandoned” or “DEP Orphan”; and
- Add the well to the Abandoned and Orphan Well Database (“AO Database”).

It is important to note that the DEP’s change of a well status in eFACTS has no legal effect. The change of a well status in eFACTS is not a final determination of the DEP appealable to the Pennsylvania Environmental Hearing Board and is meant only to aid the DEP for internal tracking and management purposes.

The AO Database, which is maintained by Central Office staff, is sometimes referred to as the “Plugging List.” It is a list of abandoned wells that currently have no known viable RP. The Department has statutory authority to conduct plugging for all orphan wells, wells abandoned without plugging, and wells being operated that are not registered. *See* 58 Pa.C.S. § 3220(e) as a reference.

The law requires that a RP address their abandoned wells. *See* 58 Pa.C.S. § 3220(a). Due to insufficient funding and thousands of wells already documented in the AO Database, every

¹ It should be noted that section 3220(a) of the 2012 Oil and Gas Act does state that, “If the department determines that a prior owner or operator received economic benefit, other than economic benefit derived only as a landowner or from a royalty interest, after April 18, 1979, from an orphan well or an unregistered well, the owner or operator shall be responsible for plugging the well.”

reasonable effort is made to identify a RP and require the RP to comply with the applicable plugging requirements. This is simply sound public policy and it also conserves the Department's limited plugging resources.

The Department maintains a document titled "DEP Abandoned or DEP Orphan Well Investigation Operational Process Reference," which establishes a standard procedure for DEP staff to follow to determine whether there are any potential RPs in advance of a well's status being changed to "DEP Abandoned" or "DEP Orphan" in eFACTS and entering the well in the AO Database. Alongside the document, the Department maintains a well plugging prioritization spreadsheet that inspectors use to characterize the abandoned well for well plugging prioritization. The spreadsheet takes into account human and ecological receptors in the vicinity of the abandoned well, well site hazards, well integrity, coal/mining status, and setbacks in the surrounding area (for example, within 100 feet of a stream or within 300 feet of a wetland >1 acre in size). In evaluating wells for plugging under the 2021 Infrastructure Investment and Jobs Act (IIJA), DEP has also added environmental justice location and methane emission quantification as factors for prioritization. This analysis develops a score that ranks the abandoned well, with highest scores posing the greatest risk and the highest priority for plugging.

The document details what information and paperwork must be gathered in order to add the well to the AO Database in cases when no viable RP is found. Not all recommendations may be appropriate in all instances when an abandoned well has been discovered, so DEP staff apply best professional judgment on a case-by-case basis. "DEP Orphan" indicates that DEP has acknowledged the well meets the definition of Orphan in the 2012 Oil and Gas Act and that there is no viable owner or operator with plugging obligations for the well. If a well in the AO Database is later determined not to be abandoned for ANY reason (that is, the well is active or plugged, the well is adopted, etc.), the eFACTS owner/operator (that is, permit holder in the case of operator) and well status is updated to reflect actual current conditions, and Central Office staff are notified to remove the well from the AO Database. Enforcement actions, such as consent orders to plug the well(s), are pursued as appropriate.

At times, an abandoned well will be identified that is posing a significant threat to public health or safety or the environment. Often, the Department will act to plug these wells before an RP investigation can be concluded. The Department still carries out the investigation post-plugging, and if an RP is identified, the Department will seek recovery for the plugging costs.

Notification regarding possible abandoned wells can be communicated from various sources and received in multiple formats, for example, direct communications, phone calls, emails, and letters. A detailed review of all orphan well applications submitted to DEP is critical. The "DEP Orphan" status is only appropriate when the Department approves an orphan well application submitted to the DEP pursuant to 58 Pa.C.S. § 3213(a.1) and, further, DEP determines that no viable RP exists. Additionally, under no circumstances will a previously registered or permitted well status be changed to "DEP Orphan." The "DEP Abandoned" status may still be appropriate in those cases.

DEP personnel utilize many sources when attempting to determine if an abandoned well and utilize the following resources to identify wells located proximal to the abandoned well. The abandoned well may be owned or operated by the same party or may be a previously identified well, as locational discrepancies are common.

Resources to check include:

- (1) **DEP's Oil and Gas Mapping Tool**
- (2) **eFACTS**
- (3) **EDWIN**
- (4) **DEP's OnBase**

DEP staff also review any other available DEP records regarding well ownership and other historical records and maps.

If there is any evidence of a potential RP, the Office of Chief Counsel and the Bureau of Investigation (BOI) are contacted and engaged to see if additional resources available to them can be used to identify potential RPs. The Office of Chief Counsel and BOI should also be notified if criminal activity is suspected.

Search activities require a significant investment of time and resources but are nonetheless important to limit the financial liability of the Plugging Program and the Commonwealth of Pennsylvania. All RP search/inspection activities completed are documented in the appropriate District and Central Office files and formal DEP communications utilized, when deemed appropriate.

- Check with the surface landowner and/or nearby residents:
- Conduct a deed, lease, assignment search at the associated county courthouse
- Check Farmland maps for a historic landowner's name
- Determine adjacent owners or operators by querying completion reports in EDWIN and check with other oil and gas operators and coal operators with active holdings near the abandoned well. Contact larger unconventional companies developing the same areas where the well has been found to inquire if they have any knowledge about the RP.
- Oil and gas companies with assets in the area may have insight regarding abandoned wells and do have reporting obligations under the law.
- Additionally, existing laws also require coordination between coal and gas operators, and so coal companies with nearby mine workings may also be able to identify a RP.
- It is not uncommon for companies targeting the Marcellus/Utica shales to purchase the assets of companies with shallow interests in the area.

State Funding for Well Plugging

Funding to plug Pennsylvania's abandoned oil and gas wells was established by the 1984 Oil and Gas Act via permit surcharges of \$150 and \$250 per oil and gas well, respectively. These surcharge amounts have remained the same for the past 32 years since the passage of Act 78 of

1992. Over the past five fiscal years (FY2019-20 to FY2024-25), the Department received on average around \$450,000 per year from these permit surcharges. These funds pay for contractors, often small businesses, to plug wells and remediate and restore well sites. The Department does not use this state funding to administer the Oil and Gas Program, purchase supplies and equipment or address overhead costs outside of small amounts for our Fiscal Management office to administer the contracts.

The cost to plug an abandoned well depends on multiple variables, including the condition of the well to be plugged, the location of the well and the level of complexity to remove potential debris, repair the casing and set the plug. The cost can range from tens of thousands to well over one hundred thousand dollars for complex plugging projects. Using a variety of funding sources, the Department has plugged 255 wells since January 2023, more than the previous nine years combined. The average cost to plug those 255 wells is around \$105,000. Given the current number of documented abandoned wells (that is, more than 27,000), the projected cost to plug the existing number of documented abandoned wells in Pennsylvania is about \$2.8 billion. As more abandoned wells are documented, this number will only grow.

Infrastructure Investment and Jobs Act

On November 15, 2021, President Biden signed into law the 2021 Infrastructure Investment and Jobs Act (IIJA). Included within IIJA is \$4.7 billion specifically allocated to create a federal program to plug, remediate and reclaim abandoned oil and gas wells. In it, Pennsylvania qualifies for approximately \$400 million in abandoned well plugging funding. For context, the Department spent \$37 million plugging approximately 3,000 wells from 1989 through 2022. Accordingly, this federal infrastructure funding represents a monumental opportunity to address the Commonwealth's backlog of unplugged abandoned oil and gas wells.

Specifically, the funding under IIJA related to plugging, remediating and reclaiming abandoned oil and gas wells that Pennsylvania is eligible for includes the following separate funding sources:

- Initial Grant: \$25 million awarded to Pennsylvania in October 2022. Ninety percent of the funds had to be used to issue new contracts or amend existing contracts or issue grants for plugging/remediation work within 90 days (by December 31, 2022). Ten percent of the funds were used for covering administrative costs, primarily staffing to administer the contracts, develop the IIJA programs and conduct field oversight of the well plugging work. DEP issued 13 contracts to plug 224 abandoned wells; 204 wells have been plugged and the remained will be plugged by the end of the year.

There has been a great deal of concern expressed regarding the Initial Grant well plugging costs. It is important to note that the federally funded projects require payment of prevailing wages for well plugging work for the first time in Pennsylvania's history. In addition, under IIJA, the Initial Grant required 90% obligation of funds within 90 days of Pennsylvania's Initial Grant award. The obligation schedule of the Initial Grant funds prevented DEP's ability to hold funds back for change orders. Because of this and the minimal state funds available for plugging, DEP structured our contracts to be "Lump

Sum” and required contractors to bid on the work with the expectation that change orders would only be granted in extreme circumstances. Because DEP placed this level of risk on contractors, the well plugging bids came in higher.

For the Formula Grant Phase 1 award, the obligation period is much longer – all funds must be obligated within five years of award – so the Department will be able to utilize time and materials contracts. This means that contractors will not need to assume risk of “worst case scenarios” when preparing their bids. The expectation is that wells with minimal problems will likely be cheaper to plug (although wells with significant downhole issues may be more expensive to plug). The Formula Grant Phase 1 award also includes new requirements such as pre- and post-plugging methane emission quantification and federal oversight of Endangered Species Act and National Historic Preservation Act compliance. These new federal requirements will likely add costs to the next round of well plugging contracts.

One final note regarding well plugging costs relates to bonding under the Procurement Code. Currently, bidders must post 100% of the contract amount in a performance bond (that is, that the contracted work will be done as required) and 100% of the contract amount in a payment bond (that is, a bond guaranteeing payment of subcontractors and employees on a well plugging project). As of today, the Department has not needed to forfeit any of the performance or payment bonds provided on the thirteen Initial Grant contracts issued in 2022 and 2023.

- Formula Grant: \$305,625,896 in total is available to Pennsylvania. The Commonwealth successfully submitted a Notice of Intent to the Department of Interior by the December 30, 2021, deadline to qualify for the formula grant. State allocations were based on the number of oil and gas job losses in each state from March 2020 through November 2021; the number of documented abandoned oil and gas wells in each state; and the estimated cost of cleaning up abandoned wells in each state. This money can be spent over a ten-year period if obligated by five years after receipt. Funding unobligated after 5 years must be returned.

In Phase 1 of the Formula Grant, the Department was eligible to apply for \$76,406,474. DEP submitted its Phase 1 application in December 2023 and the Department of the Interior awarded the funds to Pennsylvania effective September 1, 2024.

Formula Grant Phase 1 funds:

DEP projects to plug approximately 650 abandoned wells within Phase I of the Formula Grant via Commonwealth-administered contracts and through the Orphan Well Plugging Grant Program (OWPGP) created by Acts 96 and 136 of 2022 (codified at 58 Pa.C.S. Chapter 28) – up to 310 through well plugging contracts and around 340 under the OWPGP.

- Traditional Request for Bid (RFB) contracts – 65 wells in 5 contracts ready for bid announcement in the near future – these contracts will be time and material

instead of lump sum/low bid (as was done under the IIIA Initial Grant due to time constraints)

- Requests for Proposal (RFP) contracts – Hazardous Sites Cleanup Act (HSCA) contractor model being used
 - 2 Types of RFPs being developed:
 - Plugging RFP – Hope to have 10+ plugging contractors on list available for the Department to deploy to plug high-priority abandoned wells
 - Multi Service RFP – Multi Service contractor for engineering/permitting, methane quantification, environmental remediation and undocumented well location services
 - Schedule for RFPs:
 - Currently with DEP Office of Chief Counsel then reviewed by the Department of General Services
 - Late 2024/early 2025 to be released
- Orphan Well Plugging Grant Program
 - It is estimated that 340 orphan wells will be plugged under the OWPGP Plugging Grant assuming 290 wells will be 3000’ or less or “shallow” wells and 50 wells would be greater than 3000’ or “deep” wells. Under Chapter 28, qualified well pluggers can be reimbursed up to \$40,000 for plugging shallow orphan wells and up to \$70,000 for plugging deep wells. The maximum number of orphan wells permitted to be included in an individual grant application is five. The total number of grant awards will therefore range between 43 (if every grant application proposed plugging five deep wells – \$350,000 each) to 378 (if every grant application proposed plugging one shallow well – \$40,000 each).

In August 2024, Interior released the Formula Grant Phase 2 guidance; the Phase 2 grant application window is open until December 13, 2024. Pennsylvania is eligible to apply for \$114,609,711 in Phase 2 of the Formula Grant funding. As of this time, it appears that the remaining \$114,609,711 will be available for Pennsylvania to apply for in Phase 3 and Phase 4 of the Formula Grant funding.

- Performance Grant – Regulatory Improvement: Two \$20 million grants available to Pennsylvania. The first \$20 million grant is available to states that have strengthened plugging standards and procedures designed to ensure that wells located in the State are plugged in an effective manner that protects groundwater and other natural resources, public health and safety, and the environment. The second \$20 million grant is available to states that make improvements to State programs designed to reduce future orphaned well burdens, such as financial assurance reform, alternative funding mechanisms for orphaned well programs, and reforms to programs relating to well transfer or temporary abandonment. Interior is currently developing the guidance for states to qualify for these two \$20 million grants in the future.

- Performance Grant – Matching Grant: Up to \$30 million available to Pennsylvania matching every dollar Pennsylvania spends annually in excess of average annual plugging expenditures from 2010-2019. Pennsylvania can apply for this grant annually on a fiscal year basis over a period of 10 years. Interior released the Matching Grant guidance in May 2024 and this grant window is currently open on a rolling basis. Based on the Matching Grant guidance, DEP has calculated that the Commonwealth’s average annual plugging expenditures from 2010-2019 was approximately \$1.3 million. Therefore, any additional state funding for abandoned well plugging above this \$1.3 million annual average will qualify Pennsylvania for additional IJA Matching Grant funds.

It is important to note that under Chapter 28, at least 20% of any IJA Grant awards will be dedicated to the OWPGP. Within 60 days of any IJA award, the Department is required to open an additional well plugging grant window. Therefore, an additional \$60 million will be made available through the OWPGP if Pennsylvania qualifies for the maximum IJA well plugging funding.

In conclusion, the federal Infrastructure Investment and Jobs Act funds represent a historic investment in addressing Pennsylvania’s legacy abandoned oil and gas well problem and present a unique opportunity to fund the plugging of Pennsylvania’s more than 27,000 documented abandoned wells. To successfully utilize this funding within the law’s specified timeframes, the Department will continue to identify internal improvements and collaborate with external stakeholders while waiting for additional federal guidance.

Thank you again for the opportunity to provide comment for today’s hearing.