



COTERRA

**COTERRA ENERGY INC.
OPERATIONS MONITORING PLAN:
BUSIK J P1**

December 5, 2025

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1.0 BACKGROUND AND PLANNED DEVELOPMENT

Coterra Energy Inc. (“Coterra”) and the Pennsylvania Department of Environmental Protection (the “Department”) entered into a Consent Order and Agreement on November 29th, 2022 (the “COA”). Section 4 of the COA imposes certain plugging and monitoring obligations for any new wells that will traverse under the Dimock/Carter Road Area, as defined in the COA, from surface hole locations outside the Dimock/Carter Road Area.

Coterra will submit unconventional new well permit applications for five (5) wells on the Busik J P1 (the “Busik Pad”). The Busik Pad is located at 1274 Bare Valley Road Montrose, PA 18801 (41.77045° -75.914653°) in Susquehanna County. The new wells will be identified as follows:

- BUSIK J 007
- BUSIK J 009
- BUSIK J 011
- BUSIK J 013
- BUSIK J 015

Plugged and existing, active unconventional wells identified on Exhibit G of the COA, located within 2,000 feet measured horizontally from any of the new Coterra vertical wellbores or 2,000 feet measured from the surface above the entire length of the new Coterra horizontal wellbores are listed below in Table 1.1 (the “Monitored Gas Wells”).

Table 1.1 Monitored Gas Wells

| Well Name | API Number | Proximity |
|--------------------|-------------------|---------------------------------------|
| Costello, J. 1v | 3711520036 | Less than 1,000 ft |
| Costello, J. 2v | 3711520043 | Less than 1,000 ft |
| Gesford, K. 1v | 3711520040 | Less than 1,000 ft |
| Gesford, K. 2v | 3711520033 | Less than 1,000 ft |
| Gesford, K. 4v | 3711520091 | Less than 1,000 ft |
| Gesford, K. 5h-nw | 3711520201 | Less than 1,000 ft |
| Gesford, K. 7h-nw | 3711520163 | Less than 1,000 ft |
| Teel, C. 2v | 3711520010 | Less than 1,000 ft |
| Ely, K. 5h-nw | 3711520054 | Less than 1,000 ft |
| Ely, K. 2v | 3711520015 | More than 1,000ft; Less than 2,000 ft |
| Ely, K. 4h-nw*(4V) | 3711520034 | More than 1,000ft; Less than 2,000 ft |
| Ely, K. 6h-se | 3711520041 | More than 1,000ft; Less than 2,000 ft |
| Lewis, H. 2v | 3711520030 | More than 1,000ft; Less than 2,000 ft |
| Teel, C. 1v | 3711520007 | More than 1,000ft; Less than 2,000 ft |

2.0 OPERATIONS MONITORING PLAN

Pursuant to Section 4.c of the COA, Coterra shall:

- utilize isolation mechanisms and continuous monitoring in real-time by Coterra's 24-hour Operations Control Center ("Control Center") for gas wells identified on Exhibit G of the COA in the Dimock/Carter Road Area within 2,000 feet measured horizontally from the vertical wellbores and 2,000 feet measured from the surface above the entire length of the new Coterra horizontal wellbores;
- monitor all drinking water wells within 3,000 feet of Coterra's surface locations for the new wellbores, subject to landowner consent, by conducting pre-drill and post-completion water sampling for dissolved methane;
- plug and abandon the wells identified on Exhibit G of the COA drilled by Cabot within 1,000 feet measured horizontally from the vertical wellbores and 1,000 feet measured from the surface above the entire length of the new Coterra horizontal wellbores in accordance with Paragraph 4.b of the COA; and
- report monitoring results to the Department.

2.1 Monitored Gas Wells

While not required by the COA, in order to understand the current status of Monitored Gas Wells, Coterra implemented an evaluation plan. The evaluation plan involved conducting a thorough assessment of the wellbore integrity for all Monitored Gas Wells. This assessment included various tests and evaluations, such as pressure build-up testing, annular flow rate testing, and modern cement bond logs, results of which may be shared with the Department. Based on the results of these evaluations, Coterra conducted remedial operations on Monitored Gas Wells in advance of drilling and/or completions work on associated new gas wells, as was deemed appropriate by Coterra engineers.

In order to address scenarios specific to each gas well pad to be drilled, Coterra has developed a number of monitoring plans that allow Coterra to comply with its monitoring obligations under Sections 4.b.iv and 4.c.i of the COA. All monitoring plans incorporate monitoring thresholds applicable to each well. In the event that a threshold is triggered, the process outlined in each monitoring plan will be activated to promptly alert the Control Center. Subsequently, the Control Center will immediately contact responsible personnel who will deploy appropriate measures to investigate and respond to the threshold notification.

In addition to the findings of the evaluation plan referenced above, existing wellbore construction, the existing layout (including proximity of each Monitored Gas Well to the Busik Pad development), and history of each Monitored Gas Well will be considered in developing the monitoring plan assigned during the offset drilling and completion of each new Busik Pad well. Below are various monitoring components which may be utilized to assist in monitoring efforts depending on Coterra's evaluation:

- Setting and configuring pressure alarms on the tubing and casing;
- Installing flow meters to measure the annular flow rates on accessible annuli;
- Installing inline orifice plates with upstream transducers on annular piping;
- Replacing 5,000 psi production wellheads with two 10,000 psi 5 1/8” valves;
- Installing two retrievable bridge plugs in the production tubing;
- Installing a temporary 500-hundred-barrel gas buster tank with a diffuser;
- Installing a cast iron bridge plug inside the casing of a Monitored Gas Well;
- Having 24-hour manned coverage on location to actively monitor the Monitored Gas Wells.
- Performing any additional monitoring or remedial measures as may be dictated by circumstances realized in the field.

Based on currently available information, two different monitoring plans will be utilized to monitor the fourteen Monitored Gas Wells associated with the new Busik Pad development.

A comprehensive assessment of the layouts of each Monitored Gas Well in relation to the Busik Pad drilling and completion activity will be conducted. Specifically, the Busik Pad completions plan will be reviewed, and an assessment will be conducted to identify the stages that may impact the Monitored Gas Wells.

2.1a Monitoring Plan 1

Table 2.1a Monitored Gas Wells in Exhibit G

| Well Name | API Number | Proximity |
|--------------------|-------------------|---------------------------------------|
| Ely, K. 2v | 3711520015 | More than 1,000ft; Less than 2,000 ft |
| Ely, K. 4h-nw*(4V) | 3711520034 | More than 1,000ft; Less than 2,000 ft |
| Ely, K. 6h-se | 3711520041 | More than 1,000ft; Less than 2,000 ft |
| Lewis, H. 2v | 3711520030 | More than 1,000ft; Less than 2,000 ft |
| Teel, C. 1v | 3711520007 | More than 1,000ft; Less than 2,000 ft |

Monitoring Plan 1 is appropriate for Monitored Gas Wells identified in our comprehensive assessment that will have minimal communication with the Busik Pad development shown in Table 2.1a. This encompasses existing gas wells that are more than 1,000 feet away from the planned Busik wells or wells that have minimal risk of communication with the Busik Pad development. The implementation of Monitoring Plan 1 typically involves configuring remote pressure alarms on both the tubing and casing of the Monitored Gas Wells to facilitate real-time notification to the Control Center in the event that pressure exceeds 90% of the maximum allowable working pressure. Thus, if this threshold is exceeded, the Control Center would notify appropriate personnel to suspend the nearby offset drilling or completion activity on the current

stage and the Department would be notified in accordance with the AOR Guidelines¹ and as outlined in section 2.4. There are 5 wells included in Table 2.1a, of which all 5 are currently plugged and abandoned and will not have alarms set for monitoring. These wells were previously plugged in coordination with earlier development in this area. These wells will have visual monitoring employed during the offset hydraulic fracturing to these wells on close approaches and will not follow Monitoring Plan 1.

2.1b Monitoring Plan 2

Table 2.1b Monitored Gas Wells in Exhibit G

| Well Name | API Number | Proximity |
|-------------------|-------------------|--------------------|
| Costello, J. 1v | 3711520036 | Less than 1,000 ft |
| Costello, J. 2v | 3711520043 | Less than 1,000 ft |
| Gesford, K. 1v | 3711520040 | Less than 1,000 ft |
| Gesford, K. 2v | 3711520033 | Less than 1,000 ft |
| Gesford, K. 4v | 3711520091 | Less than 1,000 ft |
| Gesford, K. 5h-nw | 3711520201 | Less than 1,000 ft |
| Gesford, K. 7h-nw | 3711520163 | Less than 1,000 ft |
| Teel, C. 2v | 3711520010 | Less than 1,000 ft |
| Ely, K. 5h-nw | 3711520054 | Less than 1,000 ft |

Monitoring Plan 2 is appropriate for Monitored Gas Wells identified in our comprehensive assessment that have future plugging plans shown in Table 2.1b. A bridge plug will be set inside such Monitored Gas Wells. A flow meter or an inline orifice plate with an upstream transducer will be installed on the backside vent header, precisely between the wellhead and the vent storage tank. A flow meter or a differential pressure alarm will be configured to promptly notify the Control Center should the flow rate or differential pressure have significant increases or otherwise anomalous changes beyond that which would be typically expected between proximal gas wells during drilling and completions activities. If the flow rate or differential pressure has a significant increase or change, the Control Center will notify appropriate personnel to suspend the nearby offset drilling or completion activity on the current stage and the Department will be notified in accordance with the AOR Guidelines¹ and as outlined in section 2.4. There are several wells identified on this list that are already plugged and abandoned or are in the process of being plugged and abandoned in accordance with previous operations monitoring plans for drilling and completions activity in the Dimock/Carter Road Area. Such monitored gas wells will not have metering or pressure alarms set for notification through the Control Center; rather, visual monitoring will be employed for these gas wells as the offset hydraulic fracturing in the new gas wells approaches.

¹ In addition, in accordance with best management practices, Coterra will follow the Department’s “Guidelines for Implementing Area of Review (“AOR”) Regulatory Requirements for Unconventional Wells 800-0810-001” (“AOR Guidelines”) for monitoring of any additional existing gas wells within 2000’ of the new Busik Pad gas wells.

Coterra’s monitoring plan assignments are based on currently available data, as described above. The results of the evaluation plan and other circumstances, such as real-time monitoring, may provide information indicating that a different monitoring plan would be more appropriate for a given Monitored Gas Well. Should this occur, Coterra will communicate any changes to the Department as part of its reporting obligations in Section 4.c of the COA.

2.2 Monitoring Drinking Water Wells

COA Section 4.c.ii outlines Coterra’s obligations regarding monitoring of drinking water wells within 3,000 feet of the surface locations of each new wellbore. Beyond the requirements specified in the COA, Coterra has elected to conduct multiple rounds of pre-drill sampling, subject to landowner consent, at all drinking water supplies within a 3,000-foot radius of the surface locations of the new Busik Pad wellbores and analyze each sample for Coterra’s full, standard pre-drill suite of parameters (see minimum parameter list in Table 2.2 for reference). In addition, pursuant to COA Section 4.c.ii., Coterra will collect dissolved methane samples from each drinking water supply within the 3,000-foot radius of the surface locations of the new Busik Pad wellbores post-completion, subject to landowner consent. All results will be shared with the Department pursuant to Paragraph 4.c.iv of the COA.

| Dissolved Gases | VOCs | Wet Chemistry/Miscellaneous |
|------------------------|--------------------------|------------------------------------|
| Ethane | Benzene | Oil & Grease |
| Isobutane | n-Butylbenzene | Alkalinity (as CaCO ₃) |
| Methane | sec Butylbenzene | Bromide |
| n butane | Ethylbenzene | Chloride |
| Propane | Isopropyl Benzene | Ethylene Glycol |
| Metals | p-Isopropyltoluene | Hardness |
| Aluminum | Naphthalene | MBAS |
| Arsenic | n-Propylbenzene | Total Nitrite/Nitrate Nitrogen |
| Barium | Toluene | Sulfate |
| Cadmium | Xylenes (Total) | Sulfide |
| Calcium | 1, 2, 4 Trimethylbenzene | TDS |
| Chromium | 1, 3, 5 Trimethylbenzene | TSS |
| Iron | Field Parameters | Turbidity |
| Lead | Conductivity | |
| Lithium | Dissolved Oxygen | |
| Magnesium | ORP | |
| Manganese | pH | |
| Potassium | | |
| Selenium | | |
| Sodium | | |
| Strontium | | |
| Vanadium | | |
| Zinc | | |

2.3 Plugging of COA Exhibit G Wells Associated with the Busik Pad

Section 4.b of the COA imposes plugging obligations for existing gas wells listed in Exhibit G of the COA. Table 2.3 lists the Monitored Gas Wells identified in Exhibit G that will be plugged in connection with development of the Busik Pad as outlined in Section 4.c.iii of the COA.

Table 2.3 Monitored Gas Wells in Exhibit G To Be Plugged

| Well Name | API Number | Proximity |
|-------------------|-------------------|--------------------|
| Costello, J. 1v | 3711520036 | Less than 1,000 ft |
| Costello, J. 2v | 3711520043 | Less than 1,000 ft |
| Gesford, K. 1v | 3711520040 | Less than 1,000 ft |
| Gesford, K. 2v | 3711520033 | Less than 1,000 ft |
| Gesford, K. 4v | 3711520091 | Less than 1,000 ft |
| Gesford, K. 5h-nw | 3711520201 | Less than 1,000 ft |
| Gesford, K. 7h-nw | 3711520163 | Less than 1,000 ft |
| Teel, C. 2v | 3711520010 | Less than 1,000 ft |
| Ely, K. 5h-nw | 3711520054 | Less than 1,000 ft |

It should be noted that the Costello 1V, Costello 2V, Gesford 4V, Teel 2V, and Ely 5H have already been plugged and abandoned with previous development in the area. Prior to completions operations at the Busik Pad the remaining Gesford 1V, Gesford 2V, Gesford 5H, and Gesford 7H may already be plugged and abandoned in coordination with development of another pad in the area.

2.4 Reporting Monitoring Results to the Department

Coterra will report gas well and drinking water well monitoring results to the Department in accordance with its obligations in Section 4.c.iv of the COA.

Specifically, for monitoring results associated with the Monitored Gas Wells, annular pressure and/or flow data and associated time series graphs will be submitted when available following the drilling and/or completion of all new Busik Pad gas wells or as otherwise requested by the Department. If any AOR thresholds are exceeded, Coterra will follow the recommendations specified in the AOR Guidelines. Additionally, any other diagnostic logs, tests, or evaluations conducted pursuant to Section 2.1 above will be made available to the Department as requested.

Regarding drinking water supply monitoring results, copies of all analytical data packages will be provided to the Department following receipt of the final reports from the respective laboratories.