



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Monday, July 28, 2025

WELL WORK PLUGGING PERMIT
Vertical Plugging

EXPAND OPERATING LLC
6100 N WESTERN AVE.

OKLAHOMA CITY, OK 73118

Re: Permit approval for 626360
47-057-00109-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

Operator's Well Number:
Farm Name: BROADWATER, IRENE & OP
U.S. WELL NUMBER: 47-057-00109-00-00
Vertical Plugging
Date Issued: 7/28/2025

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.
4. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing.

1) Date MAY 7, 2025
2) Operator's
Well No. IRENE & ORVILLE BROADWATER 1
3) API Well No. 47 - 057 00109

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ____/ Gas X/ Liquid injection ____/ Waste disposal ____/
(If "Gas, Production ____ or Underground storage ____) Deep ____/ Shallow ____

5) Location: Elevation 1,813 Watershed STONY RUN
District NEW CREEK County MINERAL Quadrangle WESTERNPORT

6) Well Operator EXPAND OPERATING LLC 7) Designated Agent Brittany Woody
Address PO BOX 18496 Address 1300 Fest Pleasant Dr. Suite 20
OKLAHOMA CITY, OK 73154-0496 Morgantown WV 26508

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name GAYNE J KNITOWSKI Name PLANTS AND GOODWIN
Address 601 57TH STREET SE Address 360 HIGH STREET
CHARLESTON, WV 25304 BRADFORD, PA 16701

10) Work Order: The work order for the manner of plugging this well is as follows:

SEE ATTACHED

RECEIVED
Office of Oil and Gas
JUN 23 2025
WV Department of
Environmental Protection

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector Gayne Knitowski Digitally signed by Gayne Knitowski Date: 2025.06.03 08:00:12 -04'00' Date 6-3-2025

08/01/2025

RENE & ORVILLE BROADWATER 1 (PN: 6265)**Plug & Abandon**

County/State: MINERAL, WV Township: NEW CREEK BLM: NO
 Latitude: 39.435648797 Longitude: -79.0153620621 (NAD 83)
 Property Number: 626360 API: 4705700109
 AFE: 1013265 WO: 4000790319

Summary

The IRENE & ORVILLE BROADWATER 1 will be plugged and abandoned. The well is located in MINERAL County, WV and was spud on 07-17-2008 by CHESAPEAKE APPALACHIA LLC, targeting the MARCELLUS SHALE as a DIRECTIONAL well. The last know production date for this well was 01-00-1900 where it produced MCF, BO, and BW.

Pull 8,290' of 2.375" Production Tubing

Run CBL

Cut and pull ~6,776' of 4.5" 11.6# Production Casing

4 Cement Plungs: detail on Page 10

Gel Volumes on Page 11

Guideline

| Step | Operation |
|------|--|
| | <p>To align with the intended barrier design and designation in this procedure, on-site supervision is expected to review the relevant well history and parameters that could impact the efficacy of a barrier, or present mechanical issues with the wellbore.</p> <p>Per the Well Control Standard (OGB-CHK-STD-001): If any of the required minimum barriers fail or otherwise become non-operational, the well shall be immediately secured and operations suspended until a procedure to re-establish the minimum number of barriers is approved.</p> <p>Preferred Well Control Method – Bullhead Method. The goal will be to apply a volume of fluid with sufficient density to exceed reservoir pressure.</p> |
| 1 | Hold safety meeting and PJSA prior to each significant operation. Review critical parameters and objectives as well as emergency action plans. Everyone on location has stop work authority. If work is stopped or course needs altered contact COI. |
| 2 | Observe condition of location before moving equipment onto location. Notify superintendent of any spills, trash, or tanks/equipment left on location. Clean and dress location. |
| 3 | Record and report all casing pressures in Wellview. |
| 4 | Negative pressure test all valves. Grease valves if necessary. |

| Barriers | Flow Path | |
|-----------|----------------------------|--------|
| | Production Casing X Tubing | Tubing |
| Primary | | |
| Secondary | | |
| Tertiary | | |

08/01/2025

Pump KWF at Start of Job

| Step | Operation |
|------|--|
| 5 | MIRU pump truck to production wing valve off. Prepare to leave rigged up until CIBP with cement is set in production casing. |
| 6 | Pump fluid down production casing until a Qualified Hydrostatic Barrier (QHB) is established and maintained, per Section 4.2 of Well Control Standard (OGB-CHK-STD-001). |
| 7 | Perform flow check to ensure QHB is established. a. Contact supervisor and OKC engineer if higher weight kill fluid is required. |
| 8 | Complete Well Control Standard (OGB-CHK-STD-001) Exception to remove casing wing needle valve and install 2" ball valve. |

| | Flow Path | |
|-----------|----------------------------|--------------|
| Barriers | Production Casing X Tubing | Tubing |
| Primary | Tubing Hanger Seals | QHB |
| Secondary | Master Valve | Master Valve |
| Tertiary | | |

Set Tubing Plug in Tubing

| Step | Operation |
|---|--|
| Note: For slickline work detailing barrier envelope, barrier testing, surface equipment specs for this operation refer to the " Marcellus Production Wireline, Slickline, Braided Line Barrier Template. " | |
| 9 | Close master valve, ND tree cap and necessary well head equipment downstream of upper master valve, NU |

| | Flow Path | |
|-----------|-----------------------------------|-----------------------|
| Barriers | Production Casing X Tubing | Tubing |
| Primary | Tubing Head Adapter / Casing Gate | QHB |
| Secondary | Casing 2" Ball Valve | Vertical Master Valve |
| Tertiary | | |

| | |
|----|--|
| 10 | Round trip 1.90" OD gauge ring to 8,283'. |
| 11 | Make up and RIH w/ tubing pump through plug to 2,000' and set in tubing. RIH w/ pump through plug and set at |
| 12 | Negative pressure test tubing pump through plug. |

Nipple Up WOR BOPs (Test against Master Valve)

| Step | Operation |
|------|--|
| 13 | ND master valves and NU 7-1/16" 10K master valve to tubing head and close. |

| | Flow Path | |
|-----------|----------------------------|-------------------|
| Barriers | Production Casing X Tubing | Tubing |
| Primary | QHB | QHB |
| Secondary | Tubing Hanger Seals | Pump through plug |
| Tertiary | | TWC |

| | |
|----|---|
| 14 | Pressure test 7-1/16" 10K master valve against TWC to 250 / 4,500 psi. |
| a. | If unable to install TWC in tubing hanger, NU wireline lubricator, wireline rams, primary pressure control, set test plug with wireline ~100'-200'. Test 7-1/16" 10K flange against test plug to 250 / 4,500 psi. |
| 15 | NU 7-1/16" WOR BOPs and 2-3/8" Annular. Function and pressure test each ram. (T to B) |
| a. | Annular - Test against closed 7-1/16" master valve to 250 / 2,500 psi. |
| b. | Pipe Ram - Test against closed 7-1/16" master valve to 250 / 4,500 psi. |
| c. | Blind Ram - Test through kill port against closed 7-1/16" master valve to 250 / 4,500 psi. |

| | Flow Path | |
|-----------|----------------------------|--------------------|
| Barriers | Production Casing X Tubing | Tubing |
| Primary | QHB | QHB |
| Secondary | Tubing Hanger Seals | Pump Through Plug |
| Tertiary | Master Valve | TWC / Master Valve |

Pull Tubing

| Step | Operation |
|------|--|
| 16 | If applicable, release packer and let elastomers relax for 20 min. |

| | Flow Path | |
|-----------|----------------------------|-------------------|
| Barriers | Production Casing X Tubing | Tubing |
| Primary | QHB | QHB |
| Secondary | Annular | Pump Through Plug |
| Tertiary | Pipe Ram | TIW |

| | |
|----|--|
| 17 | TOOH laying down tubing |
| a. | Ensure appropriate TIW valve (in open position) w/ operating key is always on the rig floor. |
| b. | To continuously maintain QHB, should utilize trickle fluid method or monitor fluid level. |
| c. | If pulling packer, ensure pulling speeds are low enough to prevent swabbing. |

| | |
|----|--|
| 18 | Close 7-1/16" Master valve and Blind Ram |
|----|--|

| Pump Cement and Spacer | |
|------------------------|---|
| Step | Operation |
| 19 | Prep 8,540' of 2-3/8" 4.7# L-80 workstring. |
| 20 | Change out pipe rams to handle 2-3/8" 4.7# L-80 workstring. |
| 21 | TIH w/ 2-3/8" workstring and tag TOC/CIBP. |
| | a. Ensure appropriate TIW valve with the operating key always on the rig floor. TIW valve must be in open |
| | b. To continuously maintain QHB, should utilize trickle fluid method or monitor fluid level. |

| Flow Path | | |
|-----------|--------------------------------|------------|
| Barriers | Production Casing X Workstring | Workstring |
| Primary | CIBP | CIBP |
| Secondary | QHB | QHB |
| Tertiary | Annular / Pipe Ram | TIW |

| | |
|----|---|
| 22 | Plug Details - Plug #2 - Cement - Cement Perf Isolation Pump balanced cement plug as directed in Plug Details, displace tubing with specified volume. POOH 1,500' above estimated TOC. Close pipe ram. WOC for at least 8 hours. |
| 23 | Tag top of cement. Record depth. |
| 24 | TIH w/ workstring to bottom of spacer #1 and pump spacer as defined in Spacer Details. |
| 25 | POOH w/ workstring. |

| Set CIBPs | |
|--|--|
| Step | Operation |
| Note: For slickline work detailing barrier envelope, barrier testing, surface equipment specs for this operation refer to the "Marcellus Production Wireline, Slickline, Braided Line Barrier Template." | |
| 26 | Close master valve, NU wireline lubricator, wireline rams, primary pressure control, and test against upper master valve to 250 psi low / and a high pressure to a minimum of well's SICP pre-job. |

| Flow Path | |
|-----------|-------------------|
| Barriers | Production Casing |
| Primary | QHB |
| Secondary | Master Valve |
| Tertiary | Blind Ram |

| | |
|----|---|
| 27 | Round trip 3.70" OD gauge ring to 8,180'. |
|----|---|

| | |
|----|---|
| 28 | Plug Details - Plug #3 - CIBP - CIBP Perf Isolation Make up and RIH with CIBP and set at depth defined in Plug Details. Using CCL do not place CIBP across collar. |
| 29 | Pressure test CIBP to 1,500 psi or 80% of casing burst pressure accounting for hydrostatic to CIBP depth, which ever is less. |

| | |
|----|---|
| 30 | Run pressurized CBL log from CIBP to surface. Reported estimated TOC at 6,826'. |
| 31 | ND wireline lubricator, wireline rams, primary pressure control. |

| Pump Cement and Spacer and Tac Weld Slips | |
|---|---|
| Step | Operation |
| 32 | Prep 8,180' of 2-3/8" 4.7# L-80 workstring. |
| 33 | Change out pipe rams to handle 2-3/8" 4.7# L-80 workstring. |
| 34 | TIH w/ 2-3/8" workstring and tag TOC/CIBP. |
| | a. Ensure appropriate TIW valve with the operating key always on the rig floor. TIW valve must be in open |
| | b. To continuously maintain QHB, should utilize trickle fluid method or monitor fluid level. |

| Flow Path | | |
|-----------|--------------------------------|------------|
| Barriers | Production Casing X Workstring | Workstring |
| Primary | CIBP | CIBP |
| Secondary | QHB | QHB |
| Tertiary | Annular / Pipe Ram | TIW |

| | |
|----|---|
| 35 | Plug Details - Plug #4 - Cement - Cement Perf Isolation Pump balanced cement plug as directed in Plug Details, displace tubing with specified volume. POOH 1,500' above estimated TOC. Close pipe ram. WOC for at least 8 hours. |
| 36 | Tag top of cement. Record depth. |
| 37 | TIH w/ workstring to bottom of spacer #2 and pump spacer as defined in Spacer Details. |
| 38 | POOH w/ workstring. |
| 39 | Establish hot work permit. Perform LEL assessment of well head and ensure LEL monitoring remains in place. Make sure well is static. Place fire extinguishers near wellhead and ensure fire watch is designated as outlined by hot work permit. ND Tubing Head, 7-1/16" Master Valve, 7-1/16" WOR BOPs and tac weld 4.5" casing slips to 4.5" casing. |

| Flow Path | | |
|-----------|----------------------------------|-------------------|
| Barriers | Production X Intermediate Casing | Production Casing |
| Primary | Casing Packoff | CIBP |
| Secondary | QHB | Cement |
| Tertiary | | QHB |

Nipple Up WOR BOPs (Test against CIBP)

| Step | Operation |
|------|---|
| 39 | NU 11" WOR BOPs and annular. Torque all bolts/nuts to spec. |

| Flow Path | | |
|-----------|----------------------------|-------------------|
| Barriers | Production Casing X Tubing | Tubing |
| Primary | QHB | QHB |
| Secondary | Tubing Hanger Seals | Pump through plug |
| Tertiary | | TWC |

| | | |
|----|--|--|
| 40 | NU 11" WOR BOPs and 11" Annular. Function and pressure test each ram. (T to B) | |
| | a. | Annular - Test against CIBP to 250 low / 1,500 psi or 80% of casing burst pressure accounting for hydrostatic to CIBP depth, which ever is less. |
| | b. | Pipe Ram - Test against CIBP to 250 low / 1,500 psi or 80% of casing burst pressure accounting for hydrostatic to CIBP depth, which ever is less. |
| | c. | Blind Ram - Test through kill port against CIBP to 250 low / 1,500 psi or 80% of casing burst pressure accounting for hydrostatic to CIBP depth, which ever is less. |

| Flow Path | | |
|-----------|----------------------------|--------|
| Barriers | Production Casing X Tubing | Tubing |
| Primary | Casing Packoff | CIBP |
| Secondary | QHB | Cement |
| Tertiary | | QHB |

Cut Casing

| Step | Operation |
|---|---|
| Note: For slickline work detailing barrier envelope, barrier testing, surface equipment specs for this operation refer to the "Marcellus Production Wireline, Slickline, Braided Line Barrier Template." | |
| 41 | Shut 7-1/16" Master Valve. NU wireline lubricator, wireline rams, primary pressure control, and test against upper master valve to 250 psi low / and a high pressure to a minimum of well's SICP pre-job. |

| Flow Path | | |
|-----------|--------------------------|--|
| Barriers | Production Casing | |
| Primary | CIBP | |
| Secondary | QHB | |
| Tertiary | Master Valve / Blind Ram | |

| | | |
|----|--|--|
| 42 | Using TOC from CBL, Round trip 3.87" gauge ring to desired depth. | |
| 43 | Make up 3.80" OD jet cutter and RIH to desired depth. Pressure up on 4.5" casing to 500 psi and fire cutter. Record all pressure changes at time of cut. | |
| 44 | RD wireline. Circulate down 4.5" casing and out 9.625" casing to establish successful cut was made. | |
| | a. | Do not exceed a 0.8 psi/ft gradient when establishing circulation against open hole accounting for hydrostatic pressure. |

08/01/2025

| Pull Casing | |
|-------------|---|
| Step | Operation |
| 45 | MU casing spear, spear 4.5" casing. TOOH laying down 4.5" casing. |
| | a. Ensure appropriate TIW or swage to TIW valve with the operating key always on the rig floor. TIW valve must be in open position when not in use. |
| | b. To continuously maintain QHB, should utilize trickle fluid method or monitor fluid level. |
| | c. NU casing jacks if necessary or unable to pull casing. |

| Flow Path | | |
|-----------|----------------------------------|-------------------|
| Barriers | Production X Intermediate Casing | Production Casing |
| Primary | QHB | QHB |
| Secondary | Pipe Ram | TIW |
| Tertiary | Annular | |

| | |
|----|---|
| 46 | Once out of hole with casing shut 7-1/16" Master Valve and Blind Ram. |
|----|---|

| Flow Path | |
|-----------|---------------------|
| Barriers | Intermediate Casing |
| Primary | QHB |
| Secondary | Master Valve |
| Tertiary | Blind Ram |

| Pump Cement and Spacer | |
|------------------------|---|
| Step | Operation |
| 47 | Prep 6,830' of 2-3/8" 4.7# L-80 workstring. |
| 48 | Change out pipe rams to handle 2-3/8" 4.7# L-80 workstring. |
| 49 | TIH w/ 2-3/8" workstring and tag TOC/CIBP. |
| | a. Ensure appropriate TIW valve with the operating key always on the rig floor. TIW valve must be in open |
| | b. To continuously maintain QHB, should utilize trickle fluid method or monitor fluid level. |

| Flow Path | | |
|-----------|--------------------------------|------------|
| Barriers | Production Casing X Workstring | Workstring |
| Primary | CIBP | CIBP |
| Secondary | QHB | QHB |
| Tertiary | Annular / Pipe Ram | TIW |

| | |
|----|--|
| 50 | Plug Details - Plug #3 - Cement - Prod Csg Stub Plug |
| 50 | Pump balanced cement plug as directed in Plug Details, displace tubing with specified volume. POOH 1,500' above estimated TOC. Close pipe ram. WOC for at least 8 hours. |
| 51 | Tag top of cement. Record depth. |
| 52 | TIH w/ workstring to bottom of spacer #3 and pump spacer as defined in Spacer Details. |
| 53 | POOH w/ workstring. |

| Flow Path | | |
|-----------|----------------------------------|-------------------|
| Barriers | Production X Intermediate Casing | Production Casing |
| Primary | Casing Packoff | CIBP |
| Secondary | QHB | Cement |
| Tertiary | | QHB |

08/01/2025

| Pump Cement and Spacer | |
|------------------------|--|
| Step | Operation |
| 54 | Prep 3,260' of 2-3/8" 4.7# L-80 workstring. |
| 55 | Change out pipe rams to handle 2-3/8" 4.7# L-80 workstring. |
| 56 | TIH w/ 2-3/8" workstring and tag TOC/CIBP. |
| a. | Ensure appropriate TIW valve with the operating key always on the rig floor. TIW valve must be in open |
| b. | To continuously maintain QHB, should utilize trickle fluid method or monitor fluid level. |

| Flow Path | | |
|-----------|--------------------------------|------------|
| Barriers | Production Casing X Workstring | Workstring |
| Primary | CIBP | CIBP |
| Secondary | QHB | QHB |
| Tertiary | Annular / Pipe Ram | TIW |

| | |
|----|--|
| 57 | Plug Details - Plug #4 - Cement - Inter Csg Shoe Plug Pump balanced cement plug as directed in Plug Details, displace tubing with specified volume. POOH to surface. Close blind ram. WOC for at least 8 hours. |
| 58 | Tag top of cement. Record depth. |
| 59 | TIH w/ workstring to bottom of spacer #4 and pump spacer as defined in Spacer Details. |
| 60 | POOH w/ workstring. |

| Flow Path | | |
|-----------|----------------------------------|-------------------|
| Barriers | Production X Intermediate Casing | Production Casing |
| Primary | Casing Packoff | CIBP |
| Secondary | QHB | Cement |
| Tertiary | | QHB |

| Pump Surface Cement Plug | |
|--------------------------|---|
| Step | Operation |
| 61 | TIH w/ 2-3/8" workstring and tag TOC/CIBP. |
| a. | Ensure appropriate TIW valve with the operating key always on the rig floor. TIW valve must be in open |
| b. | To continuously maintain QHB, should utilize trickle fluid method or monitor fluid level. |
| 62 | Plug Details - Plug #7 - Cement - Surface Plug Pump balanced cement plug as directed in Plug Details, displace tubing with specified volume. Close pipe ram. |
| 63 | ND WOR BOPs. RDMO Workover rig and all associated equipment. |

| Flow Path | |
|-----------|----------------|
| Barriers | Surface Casing |
| Primary | Cement |
| Secondary | Cement |
| Tertiary | QHB |

| | |
|----|---|
| 64 | Monitor well for a minimum of 24 hrs or until state allows well to have abandonment cap installed. |
| 65 | Establish hot work permit. Perform LEL assessment of well head and ensure LEL monitoring remains in place. Visually check wellbore and cellar for signs of bubbling. Contact supervisor and OKC engineer if LELs or bubbling are present. Place fire extinguishers near wellhead and ensure fire watch is designated as outlined by hot work permit. Cut casing and weld abandonment cap with monument as specified by WVDEP. |

IRENE & ORVILLE BROADWATER 1 (PN: 626360)



Well Information

| Surface Location | |
|------------------|--------------|
| County/State | MINERAL, WV |
| Township | NEW CREEK |
| Latitude* | 39.4356488 |
| Longitude* | -79.01536206 |

*NAD 83

| EXE Contacts | | |
|----------------------------|-----------------|--------------|
| Title | Name | Mobile |
| Workover Foreman | Heath Pottmeyer | 740-525-3445 |
| Completions Superintendent | Nick Flesher | 304-669-3777 |
| Production Superintendent | Donny McHenry | 304-884-1624 |
| Production Engineer | Eddie Watson | 740-336-4199 |
| Production Manager | Brandon Yaw | 713-417-8537 |
| Completions Manager | Matt Briggs | 501-428-6630 |
| Regulatory Manager | Eric Haskins | 607-242-3839 |

Driving Directions

Not Available

General Well Data

| | | | | | | | |
|-----|-----|----------|-------|--------------------|-------|-----------|-------|
| KB | 15 | Top Perf | 8,280 | Perf Interval (ft) | 333 | PBTD | 8,746 |
| KOP | N/A | Btm Perf | 8,613 | TD | 8,815 | Elevation | 1,813 |

Casing Details

| String | Casing Type | ID | Drift | Top (ftKB) | Bottom (ftKB) | Collapse 70% (PSI) | Burst 70% (PSI) | Yield 70% (klb) | Capacity (bbl/ft) | Tot. Cap. (bbl) | Hole Size |
|--------------|--------------------|--------|--------|------------|---------------|--------------------|-----------------|-----------------|-------------------|-----------------|-----------|
| Conductor | | | | 15 | 26 | | | | | | |
| Surface | 13.375" 54.5# J-55 | 12.615 | 12.459 | 15 | 1,418 | 791 | 1,911 | 360 | 0.1546 | 217 | 17.5 |
| Intermediate | 9.625" 40# J-55 | 8.835 | 8.679 | 15 | 3,154 | 1,799 | 2,765 | 316 | 0.0758 | 238 | 12.25 |
| Production | 4.5" 11.6# P-110 | 4 | 3.875 | 15 | 8,792 | 5,306 | 7,483 | 195 | 0.0155 | 136 | 8.75 |
| Production | | | | | | | | | | | |
| DV Tool | | | | | | | | | | | |

Tubing Details

| Size / Weight | Grade | ID | Drift | Total (ft) | Top (ftKB) | Bottom (ftKB) | Collapse 80% (PSI) | Burst 80% (PSI) | Yield 80% (lb) | Capacity (bbl/ft) | Tot. Cap. (bbl) |
|---------------|-------|-------|-------|------------|------------|---------------|--------------------|-----------------|----------------|-------------------|-----------------|
| 2.375" 4.7# | J-55 | 1.995 | 1.901 | 8,272 | 15 | 8,287 | 6,480 | 6,160 | 72,000 | 0.0039 | 32 |
| 2.375" 4.7# | J-55 | | 1.901 | 0.820 | 8,287 | 8,288 | | 0 | 0 | | |
| 2.375" 12.95# | P-110 | | | 2.130 | 8,288 | 8,290 | | 0 | 0 | | |
| 2.375" 4.7# | J-55 | | 1.901 | 1.000 | 8,290 | 8,291 | | 0 | 0 | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Workstring Details

| Size / Weight | Grade | ID | Drift | Total (ft) | Top (ftKB) | Bottom (ftKB) | Collapse 80% (PSI) | Burst 80% (PSI) | Yield 80% (lb) | Capacity (bbl/ft) | Tot. Cap. (bbl) |
|---------------|-------|-------|-------|------------|------------|---------------|--------------------|-----------------|----------------|-------------------|-----------------|
| 2.375" 4.7# | L-80 | 1.995 | 1.901 | 8,180 | 15 | 8,195 | 9,424 | 8,960 | 83,440 | 0.0039 | 32 |

Reference Documents:

Live Locations for Barrier Templates:

[Policies and Controlled Documents Portal](#)[Teams: App Field Operations > Engineering > Barrier Templates](#)

Technical Documents:

[Well Control Standard](#)[Completion and Workover BOP Technical Bulletin](#)[Tubing Pull and Run Barrier Template](#)[Blanket Wellhead Lubricator Exception](#)[Wireline, Slickline, Braided Line Barrier Template](#)

08/01/2025

IRENE & ORVILLE BROADWATER 1 (PN: 626360)



Plugging Proposal

| Plug Details | | | | | | | | | | | | | |
|--------------|--------|---------------------------------|--------|------------------|-----------------------|--------------------|-------------|--------------|----------------------|-------------------|---------------------|-----------------------|-----------------------------------|
| # | Type | Description | Set ID | Plug Height (ft) | Bottom of Plug (ftKB) | Top of Plug (ftKB) | Cement Type | Cement Yield | Cement Density (ppg) | Excess Cement (%) | Cement Volume (bbl) | Cement Volume (sacks) | Tubing Displacement Volume (bbls) |
| 1 | CIBP | CIBP Perf Isolation | 4 | 2 | 8,542 | 8,540 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 2 | Cement | Cement Perf Isolation | 4 | 180 | 8,540 | 8,360 | Class A | 1.28 | 15.5 | 0 | 2.8 | 12.3 | 31.0 |
| 3 | CIBP | CIBP Perf Isolation | 4 | 2 | 8,180 | 8,178 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 4 | Cement | Cement Perf Isolation | 4 | 50 | 8,178 | 8,128 | Class A | 1.28 | 15.5 | 100 | 1.6 | 6.8 | 29.6 |
| 5 | Cement | Prod Csg Stub Plug (Inside Csg) | 4 | 150 | 6,876 | 6,726 | Class A | 1.28 | 15.5 | 100 | 4.7 | 20.5 | |
| 5 | Cement | Prod Csg Stub Plug (Open Hole) | 8.75 | 100 | 6,726 | 6,626 | Class A | 1.28 | 15.5 | 0 | 7.4 | 32.6 | 24.0 |
| 6 | Cement | Inner Csg Stub Plug | 8.75 | 100 | 3,254 | 3,154 | Class A | 1.28 | 15.5 | 0 | 7.4 | 32.6 | 0.0 |
| 6 | Cement | Inner Csg Stub Plug | 8.835 | 100 | 3,154 | 3,054 | Class A | 1.28 | 15.5 | 0 | 7.6 | 33.3 | 0.0 |
| 7 | Cement | Surface Plug | 8.835 | 100 | 100 | 0 | Class A | 1.28 | 15.5 | 0 | 7.6 | 33.3 | 0.0 |

08/01/2025

IRENE & ORVILLE BROADWATER 1 (PN: 626360)

[illegible]

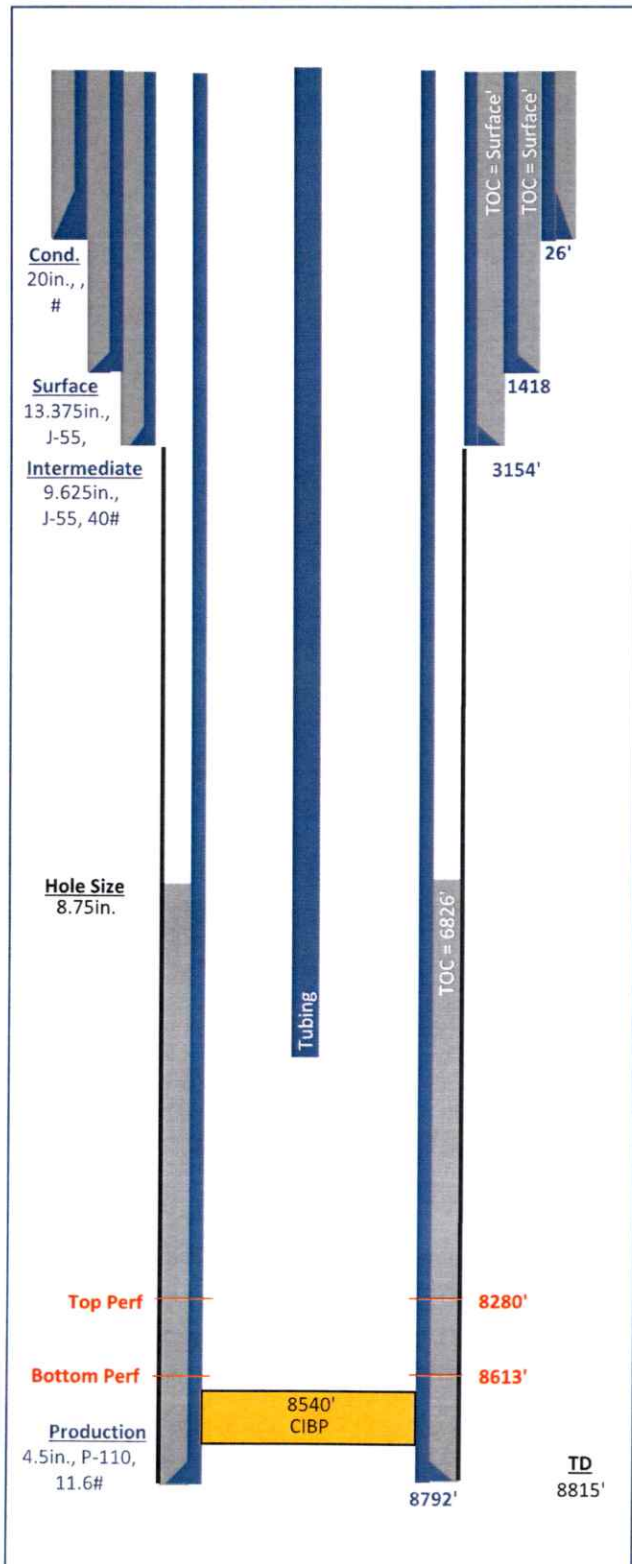
| Estimated Casing Cuts | |
|-----------------------|-----------------------|
| String | Est. Cut Depth (ftKB) |
| Intermediate | |
| Production | 6,776 |

IRENE & ORVILLE BROADWATER 1 (PN: 626360)

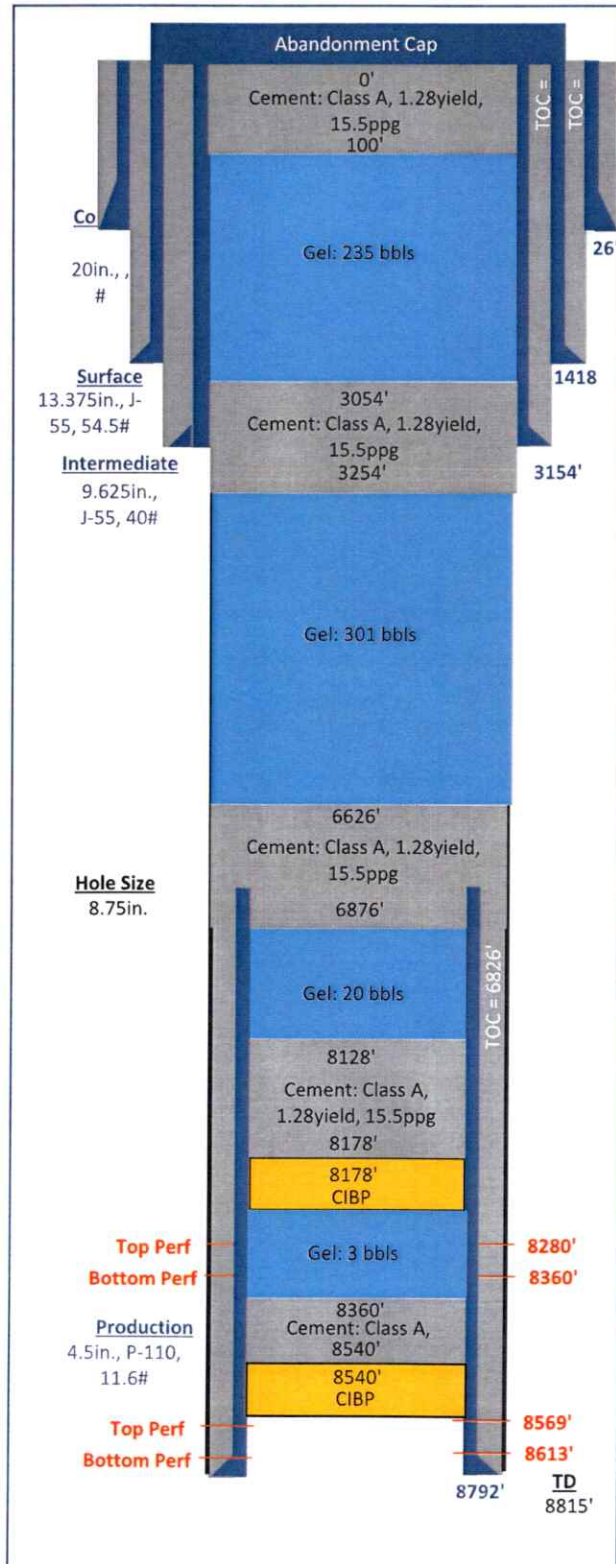


Proposed Wellbore Schematic

Current Wellbore Schematic



Irene & Broadwater



Schematics are note to scale

08/01/2025

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm Name: Irene & Orville BroadwaterOperator Well No.: 626360

LOCATION Elevation: 1813'
District: New
Creek

Quadrangle: Westernport
County: Mineral

Top Hole Latitude: Ft 4450 South of °39 '27 "30
Top Hole Longitude: Ft 8230 West of °79 '00 "00
Btm Hole Latitude: Ft 4475 South of °39 '27 "30
Btm Hole Longitude: Ft 8130 West of °79 '00 "00

Company: Chesapeake Appalachia LLC
P.O. Box 6070
Charleston, WV 25362-0070

| Casing & Tubing | Used in Drilling | Left in Well | Cement Fill-Up Cu.Ft. |
|-----------------|------------------|--------------|-----------------------|
| 20" | 26 | 26 | Driven |
| 13 3/8" | 1419 | 1419 | CTS |
| 9 5/8" | 3155 | 3155 | CTS/ 813 Sks. |
| 4 1/2" | 8,815 | 8,815 | 560 Sks. |
| | | | |
| | | | |

Agent: James E. Grey
Inspector: Bill Hatfield
Date Permit Issued: 02/19/2008
Date Well work commenced: 07/17/2008
Date Well Work completed: 01/12/2009
Verbal Plugging Permission
Granted on / /
Rotary ☒ Cable ☐ Rig
Total Depth (ft): DTD: 8,815 LTD: 8,795
Fresh Water Depth (ft): 430
Salt Water Depth (ft.): NA
Is coal being mined in area (Yes ☐ No ☒)
Coal Depths (ft):

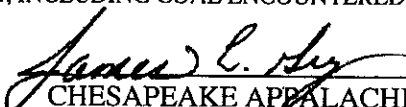
Open Flow Data

1st Producing Formation Oriskany Pay Zone Depth 8569' to 8574' 8603' to 8613'
Gas: Initial Open Flow Mcf/day Oil: Initial Open Flow bbl/day
Final Open Flow 15 Mcf/day Final Open Flow bbl/day
Time of Open Flow between Initial and Final Tests 4 hours
Static Rock Pressure 950 PSI 72 hours
Static Rock Pressure psig after hours

2nd Producing Formation Marcellus Pay Zone Depth 8280' to 8360'
Gas: Initial Open Flow Mcf/day Oil: Initial Open Flow bbl/day
Final Open Flow 130 Mcf/day Final Open Flow bbl/day
Time of Open Flow between Initial and Final Tests 4 hours
Static Rock Pressure 2200 PSI 120 hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed:


CHESAPEAKE APPALACHIA, LLC

By: James E. GreyDate: 5/5/09

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Chesapeake Energy
Well No.: 626360

Perforated Intervals

1st Stage Oriskany 60 holes from 8569' to 8613'
 2nd Stage Marcellus 184 holes from 8280' to 8360'
 Plug Cast Iron 8540'

Fracturing / Stimulation

1st Stage Oriskany Type of Treatment Crosslink
 Total Acid 3200 Gal of 15% HCl Breakdown Pressure 4860 psi
 Average Rate 39 scf/min ☐ or bpm ☒ ATP 6133 psi MTP psi
 Total Fluid 3293bbl Total Nitrogen scf Total Sand 46,777 lb of 100 M
 Total Sand 67,448 lb of 40/70

2nd Stage ISIP 4349 psi 5 min 4082 psi
 Marcellus Type of Treatment Slickwater
 Total Acid 4242 Gal of 15% HCl Breakdown Pressure 5280 psi
 Average Rate 73 scf/min ☐ or bpm ☒ ATP 7602 psi MTP psi
 Total Fluid 11,831 bbl Total Nitrogen scf Total Sand 252,440 lb of 100 M
 Total Sand 252,780 lb of 40/70

ISIP 4542 psi 5 min NA psi

Well Log

| Formation Name | Top | Bottom | Comments |
|-----------------|------|--------|--------------------|
| Sand/Shale | 0 | 1410 | |
| Shales | 1410 | 1750 | |
| Foreknobs | 1750 | 1859 | |
| Pound | 1859 | 2103 | |
| Shales | 2103 | 2590 | |
| Briery Gap | 2590 | 2830 | |
| Sand/Shale | 2830 | 3818 | |
| Scherr | 3818 | 5896 | |
| Sycamore Grit | 5896 | 6050 | |
| Braillier | 6050 | 7042 | |
| Harrell | 7042 | 7150 | |
| Geneseo | 7150 | 7158 | |
| Tully | 7158 | 7189 | |
| Hamilton | 7189 | 8076 | |
| Marcellus 1 | 8076 | 8107 | |
| Purcell | 8107 | 8166 | (FAULT) |
| Marcellus 2 | 8166 | 8182 | |
| Purcell 2 | 8182 | 8258 | |
| Lower Marcellus | 8258 | 8342 | |
| Needmore | 8342 | 8463 | |
| Oriskany | 8463 | 8740 | |
| Helderberg | 8740 | NR | DTD 8815, LTD 8795 |

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 WV Department of
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WW-4A
Revised 6-07

1) Date: 5/7/2025
2) Operator's Well Number
EXPAND OPERATING LLC
3) API Well No.: 47 - 057 - 00109

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

| | |
|--|--|
| <p>4) Surface Owner(s) to be served:</p> <p>(a) Name <u>RICHARD A. BROADWATER</u> Address <u>1339 GREEN MOUNTAIN ROAD</u> <u>KEYSER, WV 26726</u></p> <p>(b) Name _____ Address _____</p> <p>(c) Name _____ Address _____</p> <p>6) Inspector <u>GAYNE J KNITOWSKI</u> Address <u>601 57TH STREET SE</u> <u>CHARLESTON WV 25304</u> Telephone <u>304546-8171</u></p> | <p>5) (a) Coal Operator</p> <p>Name _____ Address _____</p> <p>(b) Coal Owner(s) with Declaration</p> <p>Name <u>RICHARD A. BROADWATER</u> Address <u>1339 GREEN MOUNTAIN ROAD</u> <u>KEYSER, WV 26726</u></p> <p>(c) Coal Lessee with Declaration</p> <p>Name _____ Address _____</p> |
|--|--|

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

| | | |
|---------------|--|---|
| Well Operator | <u>EXPAND OPERATING LLC</u> | <div style="border: 1px solid black; padding: 5px; display: inline-block;">RECEIVED Office of Oil and Gas JUN 23 2025 WV Department of Environmental Protection</div> |
| By: | <u>KERI FIENO</u> | |
| Its: | <u>REGULATORY SPECIALIST</u> | |
| Address | <u>PO BOX 18496</u> <u>OKLAHOMA CITY, OK 73154-0496</u> | |
| Telephone | <u>405-766-8791</u> | |

Subscribed and sworn before me this 17th day of June 2025

My Commission Expires October 22, 2026

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyoffier@wv.gov.

08/01/2025

Keri Fieno

From: UPS <pkginfo@ups.com>
Sent: Wednesday, June 18, 2025 11:27 AM
To: Keri Fieno
Subject: [EXTERNAL] UPS Delivery Notification, Tracking Number 1ZV3127X0297369464

Follow Up Flag: Follow up
Flag Status: Flagged

This Message Is From an External Sender

This message came from outside your organization.

Report Suspicious



Hello, your package has been delivered.

Delivery Date: Wednesday, 06/18/2025

Delivery Time: 11:24 AM

Left At: FRONT DOOR

Experience UPS My Choice® Premium Today

Be in total control of how, when and where
your packages are delivered.

Upgrade to Premium Now



Set Delivery
Instructions

Manage Preferences

View My Packages

EXPAND ENERGY CORPORATION

IRENE & ORVILLE BROADWATER 1 P&A LANDOWNER NOTIFICATION

Tracking Number: 1ZV3127X0297369464

Ship To: RICHARD A BROADWATER
1175 GREEN MOUNTAIN RD

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JUN 23 2025

WV Department of
Environmental Protection

| | |
|----------------------------|----------------------------------|
| | KEYSER, WV 26726 US |
| Number of Packages: | 1 |
| UPS Service: | UPS 2nd Day Air® |
| Package Weight: | 0.0 LBS |
| Reference Number: | IRENE & ORVILLE BROADWATER 1 P&A |

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WW-9
(5/16)

API Number 47 - 057 - 00109
Operator's Well No. IRENE & ORVILLE BROADWATER 1

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EXPAND OPERATING LLC OP Code

Watershed (HUC 10) STONY RUN Quadrangle WESTERNPORT

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes ☒ No ☐

Will a pit be used? Yes ☐ No ☒

If so, please describe anticipated pit waste:

Will a synthetic liner be used in the pit? Yes ☐ No ☐ If so, what ml.?

Proposed Disposal Method For Treated Pit Wastes:

- ☐ Land Application (if selected provide a completed form WW-9-GPP)
- ☐ Underground Injection (UIC Permit Number)
- ☐ Reuse (at API Number)
- ☐ Off Site Disposal (Supply form WW-9 for disposal location)
- ☐ Other (Explain)

Will closed loop system be used? If so, describe: DRILL CUTTINGS WILL BE CIRCULATED BACK INTO AN OPEN TANK

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. FRESH WATER

-If oil based, what type? Synthetic, petroleum, etc. N/A

Additives to be used in drilling medium? NONE

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. LANDFILL

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) SAWDUST AND CITRIC ACID

-Landfill or offsite name/permit number? KIMBLE SANITARY LANDFILL OR MUD MASTERS

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature *Keri Fiengo*

Company Official (Typed Name) KERI FIENO

Company Official Title REGULATORY SPECIALIST

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Subscribed and sworn before me this 17th day of June, 2025

Carla M. Harris

Notary Public

My commission expires October 22, 2026

Commonwealth of Pennsylvania - Notary Seal
Carla M. Harris, Notary Public
Bradford County
My commission expires October 22, 2026
Commission number 1286242
Association of Notaries

Proposed Revegetation Treatment: Acres Disturbed 10 Prevegetation pH _____Lime 3.90 Tons/acre or to correct to pH 7Fertilizer type 8-16-16Fertilizer amount 968 lbs/acreMulch 3 Tons/acre**Seed Mixtures****Temporary****Permanent**

Seed Type lbs/acre

OATS/ANNUAL RYE 40LBS/ACREHAY/STRAW MULCH 3 TONS/ACRE

Seed Type lbs/acre

BIRDSFOOT TREFOIL 8LBS/ACRETALL FESCUE 40LBS/ACRE**Attach:**

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Gayne Knitowski
Digitally signed by Gayne Knitowski
Date: 2025.06.03 07:57:24 -0400

Comments: _____

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WV Department of
Environmental ProtectionTitle: Inspector Date: 6-3-2025Field Reviewed? (✓) Yes () No

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**RECOMMENDED PERMANENT SEEDING MIXTURE
FOR ALL DISTURBED AREAS**

| MIXTURE NUMBER | SEASON | SPECIES | SEEDING RATE (lb/ac) |
|----------------|--------|----------------------------------|----------------------|
| 2 | COOL | BIRDSFOOT TREFOIL TALL FESCUE | 8 / 40 |

MULCHING

MATERIAL SHALL BE HAY OR STRAW WHICH IS FREE OF WEED AND SEEDS, NOT MOLDY, ROTTEN, AND SHALL BE APPLY TO ALL SLOPES FATTER THAN 3:1 AT A RATE OF 140 LBS/1,000 SF. (APPROXIMATELY TWO BALES PER 1,000 SF OR 3 TON PER AC)

HYDROSEEDING SPECIFICATION

| MATERIAL | DESCRIPTION | APPLICATION RATE (PER 1,000 SY) |
|----------------------------------|---|---------------------------------|
| (1) SEE MIXTURE (% BY WEIGHT) | REDTOP - 10% PENNLAWN FESCUE - 45% KENTUCKY BLUEGRASS - 45% | 27 LBS |
| (2) 8-16-16 | COMMERCIAL FERTILIZER | 200 LBS |
| (3) LIME | GROUND COMMERCIAL LIMESTONE | 1,650 LBS |
| (4) MULCH | WOOD CELLULOSE FIBER | 750 LBS |

APPROXIMATE TACK COAT

PROCEDURE: SURFACE TO BE HYDROSEEDDED SHALL BE CLEANED OF ALL DEBRIS AND OTHER MATTER HARMFUL TO UNIFORM GERMINATION. A WATER-SURRY MIXTURE COMPOSED OF THE ABOVE "MATERIALS". ITEMS (1) THROUGH (3) INCLUSIVE, SHALL BE SPRAYED UNIFORMLY OVER THE AREAS TO BE HYDROSEEDDED. IMMEDIATELY, THEREAFTER, ITEM (4) "MULCH" SHALL BE BLOWN ON THE SAME AREA AND TACK-COATED. RATES AND TYPE OF MATERIALS SHALL BE SPECIFIED.

MAINTENANCE AND GUARANTEE

THE CONTRACTOR SHALL GUARANTEE A GOOD STAND OF GRASS IN THE SWALES AND ON BANKS. THE MEANS OF GUARANTEE SHALL BE BY WATERING, MOWING, REGRADING, REMULCHING, AND RESEEDING TO THE SATISFACTION OF THE OWNER UNTIL FINAL ACCEPTANCE. ANY AREAS WHICH FAIL TO SHOW A UNIFORM STAND WITHIN ONE YEAR SHALL BE RESEEDDED AND REMULCHED AT THE CONTRACTORS EXPENSE WITH THE SAME MIXTURE ORIGINALLY USED THEREON. ERODED AREAS SHALL BE REPAIRED AND RESTORED TO FINISHED GRADE PRIOR TO RESEEDING AND REMULCHING. ALL SUCH REPAIRING OF EROSION, RESEEDING, AND REMULCHING SHALL BE REPEATED UNTIL ALL EFFECTED AREAS ARE COVERED WITH GRASS.

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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
GROUNDWATER PROTECTION PLAN

Operator Name: EXPAND OPERATING LLC

Watershed (HUC 10): STONY RUN

Quad: WESTERNPORT

Farm Name: IRENE & ORVILLE BROADWATER 1

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

SEE ATTACHED

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

4. Summarize all activities at your facility that are already regulated for groundwater protection.

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5. Discuss any existing groundwater quality data for your facility or an adjacent property.

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6. Provide a statement that no waste material will be used for deicing or fill material on the property.

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

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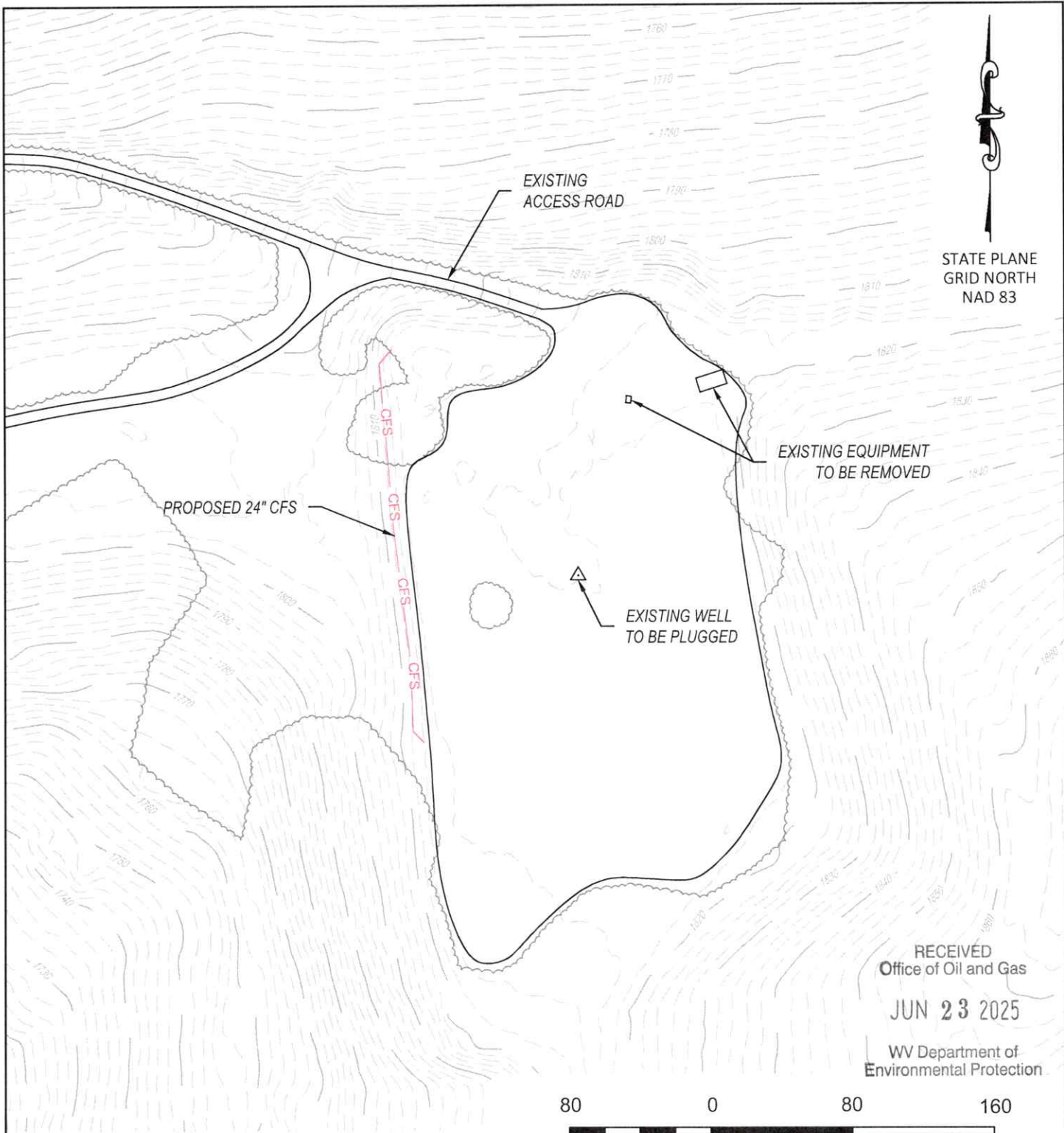
Signature:

Leitchiano







Date:

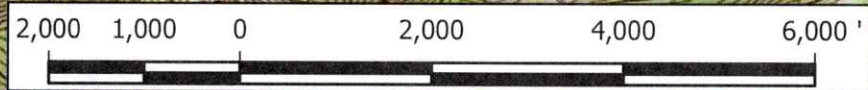
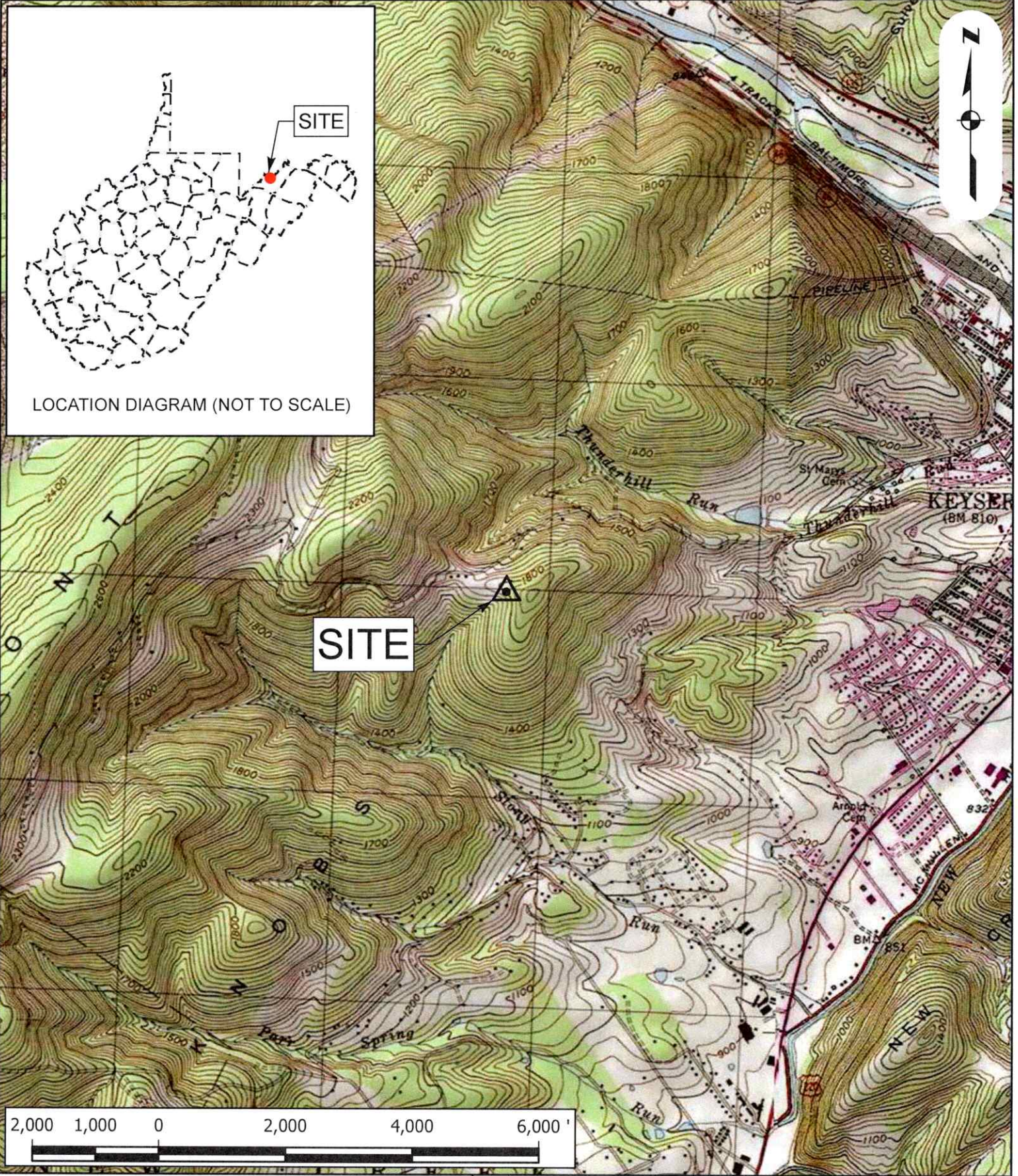
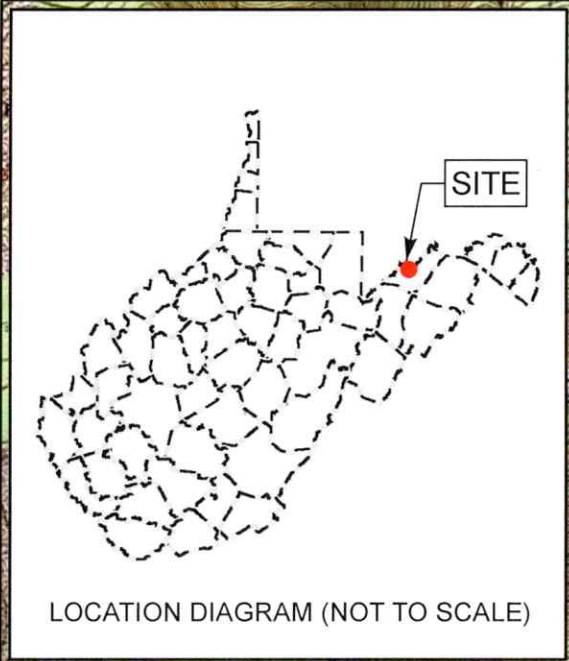
6/17/25

08/01/2025



NOTE: ALL PRODUCTION FACILITIES
WILL BE REMOVED UPON COMPLETION
OF THE PLUGGING OPERATIONS.

| | | | | | |
|--|-------------------------------|----------------------|---------------------------|---|--|
| IRENE & ORVILLE BROADWATER 1 SITE RECLAMATION API# 47-057-00109 FOR EXPAND OPERATING, LLC LOCATED IN MINERAL COUNTY, WEST VIRGINIA | | | LEGEND | |  <small>SURVEYING ENGINEERING ENVIRONMENTAL ARCHITECTURE</small> 844-542-4757 466 SOUTH MAIN STREET MONTROSE, PA 18801 <small>PA • OH • NY • WV • VA • MD</small> 08/01/2025 |
| SITE PLAN | | | EXISTING CONTOUR |  | |
| <small>PURPOSE</small> FINAL | <small>DATE</small> 5/21/2025 | <small>REV</small> 1 | EXISTING TREE LINE |  | |
| | | | EXISTING ACCESS ROAD EDGE |  | |
| | | | WELLHEAD |  | |
| | | | COMPOSITE FILTER SOCK |  | |



USGS LOCATION MAP

PREPARED FOR
IRENE & ORVILLE BROADWATER 1
MINERAL COUNTY, WEST VIRGINIA
WESTERNPORT USGS QUAD

| | |
|-----------|------------------------------|
| PROJECT - | IRENE & ORVILLE BROADWATER 1 |
| DATE - | 5/30/2025 |
| SCALE - | 1" = 2,000' |
| DRAWN - | MWS |
| FILE - | USGS_LOCATION_MAP.mxd |



08/01/2025
(844) 542-4737

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-057-00109 WELL NO.: 1
FARM NAME: IRENE & ORVILLE BROADWATER
RESPONSIBLE PARTY NAME: EXPAND OPERATING LLC
COUNTY: MINERAL DISTRICT: NEW CREEK
QUADRANGLE: WESTERNPORT
SURFACE OWNER: Richard A Broadwater
ROYALTY OWNER: " "
UTM GPS NORTHING: 4,367,002.272
UTM GPS EASTING: 670,801.126 GPS ELEVATION: 1813'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:
Survey grade GPS X: Post Processed Differential X

Real-Time Differential _____

Mapping Grade GPS _____: Post Processed Differential _____

Real-Time Differential _____

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Keri Diener
Signature

REGULATORY SPECIALIST
Title

6/17/25
Date

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**Kennedy, James P** <james.p.kennedy@wv.gov>

plugging permit issued for 4705700109

1 message

Kennedy, James P <james.p.kennedy@wv.gov>

Mon, Jul 28, 2025 at 3:47 PM

To: Eric Haskins <eric.haskins@expandenergy.com>, Gayne J Knitowski <gayne.j.knitowski@wv.gov>, Keri Fieno <keri.fieno@expandenergy.com>, jcosner@wvassessor.com

To whom it may concern, a plugging permit has been issued for 4705700109.

--

James Kennedy

Environmental Resource Specialist III / Permitting

WVDEP Office of Oil and Gas

601 57th Street, SE

Charleston, WV 25304

304-926-0499 ext. 45025

james.p.kennedy@wv.gov**4705700109.pdf**

4542K

08/01/2025