



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, June 15, 2026

WELL WORK PLUGGING PERMIT
Vertical Plugging

EXPAND OPERATING LLC
6100 N WESTERN AVE.

OKLAHOMA CITY, OK 73118

Re: Permit approval for 2042
47-023-00008-00-00

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.

H. Jason Harmon
Chief

Operator's Well Number: 2042
Farm Name: SHREVE, DOROTHY E.
U.S. WELL NUMBER: 47-023-00008-00-00
Vertical Plugging
Date Issued: 06/15/2026

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.

4702300008P
1) Date , 2026
2) Operator's
Well No. Dorothy Shreve 2042
3) API Well No. 47-023 - 00008

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 X or Underground storage) Deep / Shallow
- 5) Location: Elevation 2611' Watershed North Fork of Lunice Creek
District Union County Grant Quadrangle Greenland Gap
- 6) Well Operator Expand Operating LLC 7) Designated Agent Brittany Woody
Address 1300 Fort Pierpont Dr., Suite 201 Address 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508 Morgantown, WV 26508
- 8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Gayne J. Knitowski Name NA
Address 601 57th Street SE Address
Charleston WV 25304

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

See Attachment

RECEIVED
Office of Oil and Gas
MAY 27 2026
WV Department of
Environmental Protection

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

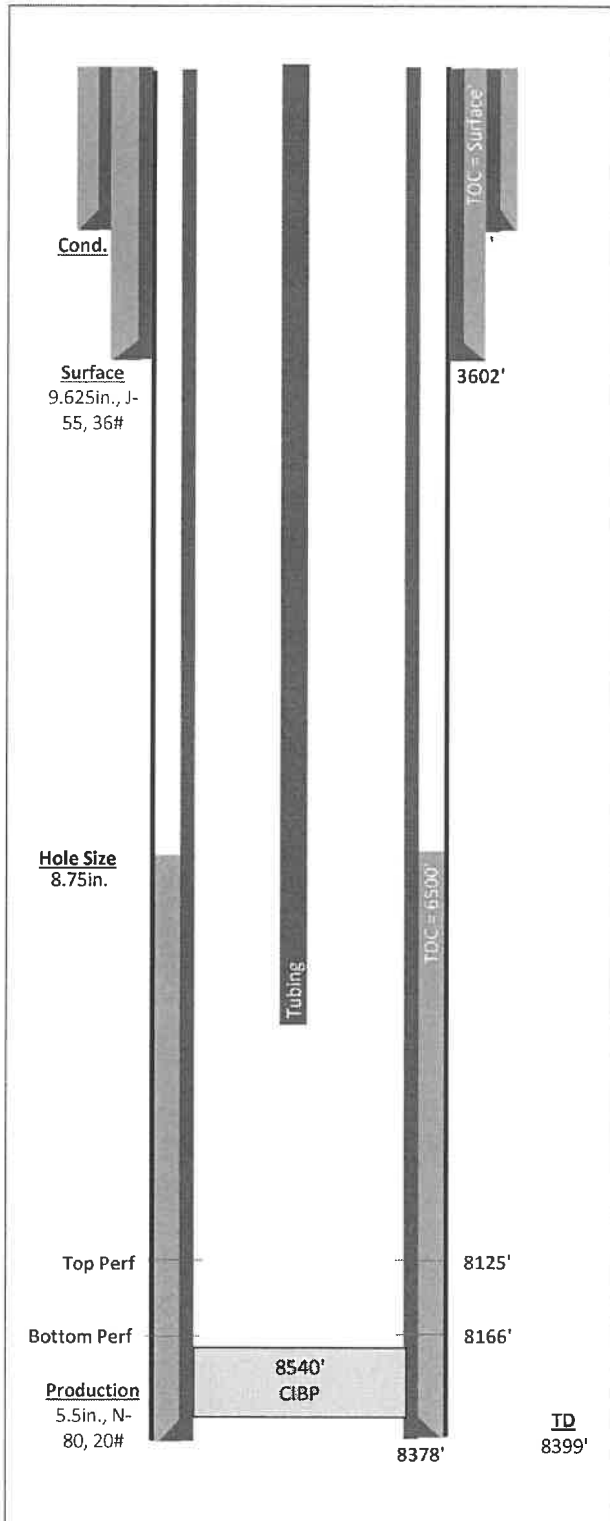
Work order approved by inspector Gayne Knitowski Date 5-20-2026
Digitally signed by Gayne Knitowski
Date: 2026.05.20 10:39:28 -0400

06/19/2026

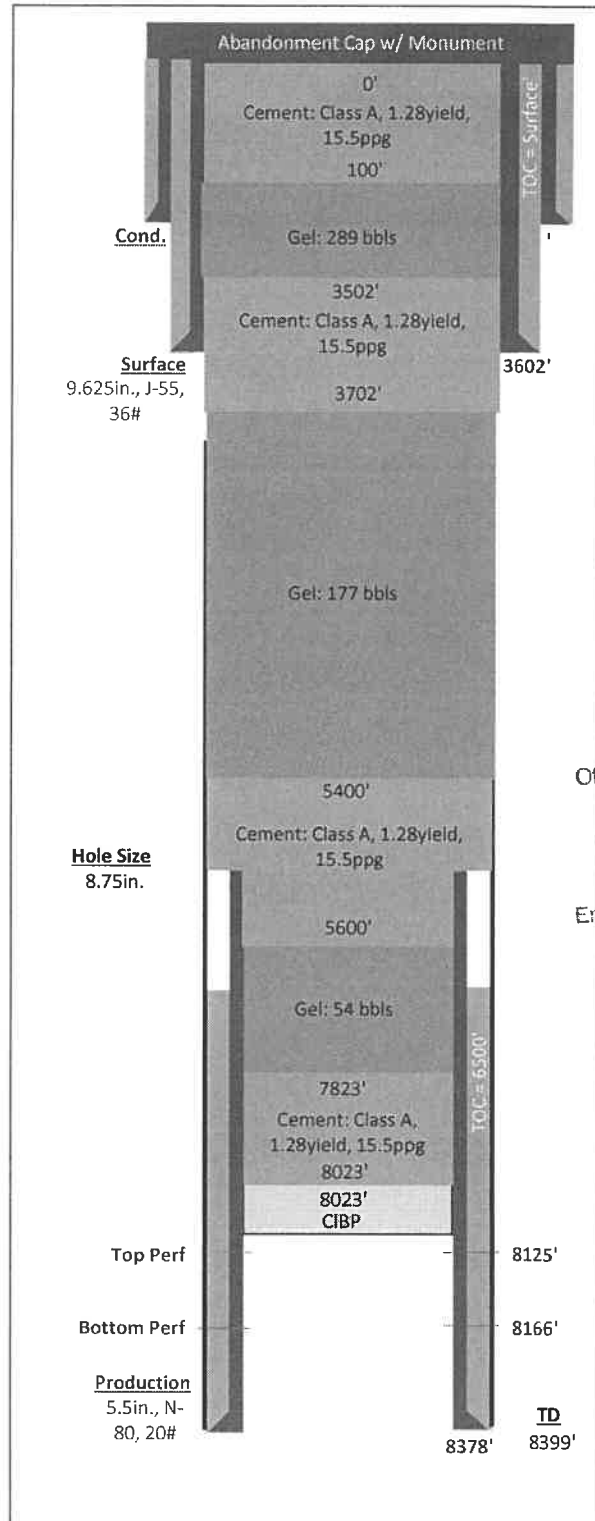
DOROTHY SHREVE 2042 (PN: 821157)

expand

Current Wellbore Schematic



Proposed Wellbore Schematic



RECEIVED
Office of Oil and Gas
MAY 27 2026
WV Department of
Environmental Protection

06/19/2026

DOROTHY SHREVE 2042 (PN: 821157)**Well Information**

Surface Location	
County/State	GRANT, WV
Township	UNION
Latitude*	39.12739957
Longitude*	-79.24646406

*NAD 83

CHK 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	12	Top Perf	8,125	Perf Interval (ft)	41	PBTD	8,378
KOP	N/A	Btm Perf	8,166	TD	8,399	Elevation	2,611

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											
Surface	9.625" 36# J-55	8.921	8.765	12	3,602	1,414	2,464	276	0.0773	278	12.25
Intermediate											
Production	5.5" 20# N-80	4.778	4.653	12	8,378	6,181	6,433	300	0.0222	186	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	8,065	12	8,077	6,480	6,160	72,000	0.0039	31

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	8,040	12	8,052	9,424	8,960	83,440	0.0039	31

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](#)RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection
06/19/2026

DOROTHY SHREVE 2042 (PN: 821157)**expand****Plug & Abandon**

County/State: GRANT, WV Township: UNION BLM: NO
 Latitude: 39.1273995674 Longitude: -79.2464640568 (NAD 83)
 Property Number: 821157 API: 4702300008
 AFE: WO:

Summary

The DOROTHY SHREVE 2042 will be plugged and abandoned. The well is located in GRANT County, WV and was spud on 03-19-1984 by Columbia Natural Resource, targeting the Oriskany as a Vertical well. The last know production date for this well was 01-00-1900 where it produced MCF, BO, and BW.

LAST PRODUCTION
 WAS 2012. JMM

RECEIVED
 Office of Oil and Gas

Pull 8,000' of Production Tubing

Run CBL

Cut and Pull ~5,500' of 5.5" 20# Production Casing

(3) 200' & (1) 100' Cement Plugs. See detail on Page 9

Get detail on Page 10

MAY 27 2026

WV Department of
 Environmental Protection

Guideline

Step	Operation
	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. Per the Well Control Standard (OGB-EXE-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. Preferred Well Control Method – Bullhead Method. The goal will be to apply a volume of fluid with sufficient density to exceed reservoir pressure.
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		

Pump Cement and Spacer	
Step	Operation
1	Prep 5400' of 2-3/8" 4.7# L-80 workstring.
2	Change out pipe rams to handle 2-3/8" 4.7# L-80 workstring.
3	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

4	Plug Details - Plug #4 - Cement - Inter Csg Shoe Plug (Inside Csg) 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.
5	Tag top of cement. Record depth.
6	TIH w/ workstring to bottom of spacer #3 and pump spacer as defined in Spacer Details.
7	POOH w/ workstring.

Pump Surface Cement Plug	
Step	Operation
8	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.
9	Plug Details - Plug #5 - Cement - Surface Plug Pump balanced cement plug as directed in Plug Details, displace tubing with specified volume. Close pipe ram.
10	ND WOR BOPs. RDMO Workover rig and all associated equipment.

Flow Path	
Barriers	Surface Casing
Primary	Cement
Secondary	Cement
Tertiary	QHB

11	Monitor well for a minimum of 24 hrs or until state allows well to have abandonment cap installed.
12	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.

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

06/19/2026

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."	
5	Close master valve, ND tree cap and necessary well head equipment downstream of upper 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. NU wireline lubricator

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

6	Round trip 1.90" OD gauge ring to 8000'.
---	--

7	Make up and RIH w/ tubing pump through plug to 2,000' and set in tubing. RIH w/ pump through plug and set at
8	Negative pressure test tubing pump through plug.

Pump KWF at Start of Job	
Step	Operation
9	MIRU pump truck to production wing valve off. Prepare to leave rigged up until CIBP with cement is set in production casing.
10	Pump fluid down production casing until a Qualified Hydrostatic Barrier (QHB) is established and maintained, per Section 4.2 of Well Control Standard (OGB-EXE-STD-001).
11	Perform flow check to ensure QHB is established.
a.	Contact supervisor and engineer if higher weight kill fluid is required.

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

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

06/19/2026

Nipple Up WOR BOPs (Test against Master Valve)

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

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

13	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.
14	NU 7-1/16" WOR BOPs and 7-1/16" 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.

Barriers	Flow Path	
	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
15	If applicable, release packer and let elastomers relax for 20 min.

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

16	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.
17	Close 7-1/16" Master valve and Blind Ram	

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

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

06/19/2026

4702300008P

Set CIBP	
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."	
18	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.
19	Round trip 4.60" OD gauge ring to 8100'.
20	Plug Details - Plug #1 - 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.
21	Pressure test CIBP to 1,500 psi or 80% of casing burst pressure accounting for hydrostatic to CIBP depth, which ever is less.
22	Run pressurized CBL log from CIBP to surface. Reported estimated TOC at 6,882'.
23	ND wireline lubricator, wireline rams, primary pressure control.

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

Pump Cement and Spacer and Tac Weld Slips	
Step	Operation
24	Prep 8000' of 2-3/8" 4.7# L-80 workstring.
25	Change out pipe rams to handle 2-3/8" 4.7# L-80 workstring.
26	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.

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

27	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.
28	Tag top of cement. Record depth.
29	TIH w/ workstring to bottom of spacer #1 and pump spacer as defined in Spacer Details.
30	POOH w/ workstring.
31	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 5.5" casing slips to 5.5" casing.

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

06/19/2026

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

Nipple Up WOR BOPs (Test against CIBP)	
Step	Operation
32	NU 11" WOR BOPs and annular. Torque all bolts/nuts to spec.

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

33	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.

Barriers	Flow Path	
	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."	

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

34	Using TOC from CBL, Round trip 4.60" gauge ring to desired depth.
35	Make up 4.60" OD jet cutter and RIH to desired depth. Pressure up on 5.5" casing to 500 psi and fire cutter. Record all pressure changes at time of cut.
36	RD wireline. Circulate down 5.5" 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.

RECEIVED
Office of Oil and Gas

MAY 27 2026 06/19/2026
WV Department of
Environmental Protection

4702300008P

Pull Casing	
Step	Operation
37	MU casing spear, spear 5.5" casing. TOOH laying down 5.5" 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	

38	Once out of hole with casing shut Blind Ram.
----	--

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

Pump Cement and Spacer	
Step	Operation
1	Prep 5600' of 2-3/8" 4.7# L-80 workstring.
2	Change out pipe rams to handle 2-3/8" 4.7# L-80 workstring.
3	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

4	Plug Details - Plug #3 - Cement - Prod Csg Stub Plug (Open Hole) 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.
5	Tag top of cement. Record depth.
6	TIH w/ workstring to bottom of spacer #2 and pump spacer as defined in Spacer Details.
7	POOH w/ workstring.

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

06/19/2026

Classification: DCL-Internal

DOROTHY SHREVE 2042 (PN: 821157)

expand

Spacer Details										
#	Fluid Type	Description	Set ID	Spacer Height	Bottom of Spacer (ftKB)	Top of Spacer (ftKB)	Spacer Density (ppg)	Spacer Viscosity (cp)	Excess Spacer (%)	Spacer Volume (bbls)
1	Gel	Perf Isolation Plug to Prod Csg Stub Plug	4.778	2,223	7,823	5,600	9	-	10	54.2
2	Gel	Prod Csg Stub Plug to Inter Csg Shoe Plug	8.75	1,698	5,400	3,702	9	-	40	176.8
3	Gel	Inter Csg Shoe Plug to Surface Plug	8.921	3,402	3,502	100	9	-	10	289.3
4										
5										
6										
7										
8										
9										
10										

Estimated Casing Cuts	
String	Est. Cut Depth (ftKB)
Intermediate	
Production	5,500

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

06/19/2026

47023000089

Classification: DCL Internal

DOROTHY SHREVE 2042 (PN: 821157)

expand

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	4.778	2	8,025	8,023	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Cement	Cement Perf Isolation	4.778	200	8,023	7,823	Class A	1.28	15.5	20	5.3	23.3	29.0
3	Cement	Prod Csg Shoe Plug	4.778	100	5,600	5,500	Class A	1.28	15.5	20	2.7	11.7	
3	Cement	Prod Csg Shoe Plug	8.75	100	5,500	5,400	Class A	1.28	15.5	50	11.2	48.9	19.3
4	Cement	Inter Csg Shoe Plug (Open Hole)	8.75	100	3,702	3,602	Class A	1.28	15.5	50	11.2	48.9	
4	Cement	Inter Csg Shoe Plug (Inside Csg)	8.921	100	3,602	3,502	Class A	1.28	15.5	20	9.3	40.7	11.9
5	Cement	Surface Plug	8.921	100	100	0	Class A	1.28	15.5	20	9.3	40.7	0.0

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

06/19/2026



RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

IV-35
(Rev 8-81)

RECEIVED
OCT 24 1984

OIL & GAS DIVISION
DEPT. OF MINES



State of West Virginia

Department of Mines
Oil and Gas Division

4702300008P

Date August 20, 1984

Operator's

Well No. 2042

Farm Dorothy Shreve #1

API No. 47 - 023 - 0008

(CONFIDENTIAL WELL)

WELL OPERATOR'S REPORT

OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

Till
5-20-84

WELL TYPE: Oil / Gas x / Liquid Injection / Waste Disposal /
(If "Gas," Production x / Underground Storage / Deep x / Shallow /)

LOCATION: Elevation: 2611.21 Watershed North Fork of Lunice Creek
District: Union County Grant Quadrangle Greenland Gap

COMPANY Union Drilling, Inc.

ADDRESS P. O. Drawer 40, Buckhannon, WV 26201

DESIGNATED AGENT Joseph C. Vanzant, Jr.

ADDRESS P. O. Drawer 40, Buckhannon, WV 26201

SURFACE OWNER Dorothy E. Shreve

ADDRESS Rt. #3, Box 240, Maysville, WV 26833

MINERAL RIGHTS OWNER Dorothy E. Shreve

ADDRESS Rt. #3, Box 240, Maysville, WV 26833

OIL AND GAS INSPECTOR FOR THIS WORK
Forest Festival Ter. #24
Phillip Tracy ADDRESS Elkins, WV 26241

PERMIT ISSUED Feb. 23, 1984

DRILLING COMMENCED 03/19/84

DRILLING COMPLETED 05/20/84

IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cord.			
13-10"	38'	38'	
9 5/8	3602.45'	3602.45'	1950 cf.
8 5/8			
7			
5 1/2		8399.85'	670 cf.
4 1/2			
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Oriskany Depth 8392 feet

Depth of completed well 8392 feet Rotary x / Cable Tools

Water strata depth: Fresh 110' feet; Salt feet

Coal seam depths: None Is coal being mined in the area?

OPEN FLOW DATA

Producing formation Oriskany Pay zone depth 8125/8166 feet

Gas: Initial open flow show Mcf/d Oil: Initial open flow None Bbl/d

Final open flow 1,205 Mcf/d Final open flow Bbl/d

Time of open flow between initial and final tests ? hours

Static rock pressure 3200 psig (surface measurement) after 10 hours shut in
(If applicable due to multiple completion--)

Second producing formation Pay zone depth feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d

Final open flow Mcf/d Oil: Final open flow Bbl/d

Time of open flow between initial and final tests hours

Static rock pressure psig (surface measurement) after hours shut in

(Continue on reverse side) 06/19/2026

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Well perforated only at 8125/26, 8141/44, 8152/54, 8159/61, 8163/66 for a total of 16 holes.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Sands and Shale			0	7763	Wet at 110'
Purcell Limestone			7763	7830	
Lower Marcellus			7830	7881	
Tioga Bentonite			7881	7890	
Needmore Shale			7890	8031	
Oriskany Sandstone			8031	8226	
Helderberg Limestone			8226	8392	Total Depth

(Attach separate sheets as necessary)

UNION DRILLING, INC.

Well Operator

By: Joseph C. Petty
Date: 08/20/84 Vice President of Production

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

06/19/2026



API	PRODUCING_OPERATOR	PRD_YEAR	ANN_NGL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
-----	--------------------	----------	---------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

06/19/2026

4702300008	Chesapeake Appalachia, LLC	2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	Chesapeake Appalachia, LLC	2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	Chesapeake Appalachia, LLC	2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	Chesapeake Appalachia, LLC	2016	0																	
4702300008	Chesapeake Appalachia, LLC	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	Chesapeake Appalachia, LLC	2019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	Chesapeake Appalachia, LLC	2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	Chesapeake Appalachia, LLC	2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	Chesapeake Appalachia, LLC	2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	Chesapeake Appalachia, LLC	2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	Chesapeake Appalachia, LLC	2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	WV Mineral Group, LLC	2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4702300008P

Production Water Information: (Volumes in Gallons) * 2025 data for H6A wells only. Other wells are incomplete at this time.

API	PRODUCING OPERATOR	PRD_YEAR	ANN_WTR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4702300008	Chesapeake Appalachia, LLC	2016	0												
4702300008	Chesapeake Appalachia, LLC	2018	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	Chesapeake Appalachia, LLC	2019	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	Chesapeake Appalachia, LLC	2020	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	Chesapeake Appalachia, LLC	2021	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	Chesapeake Appalachia, LLC	2022	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	Chesapeake Appalachia, LLC	2023	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	WV Mineral Group, LLC	2024	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300008	Chesapeake Appalachia, LLC	2024	0	0	0	0	0	0	0	0	0	0	0	0	0

Stratigraphy Information:

API	SUFFIX	FM	FM_QUALITY	DEPTH_TOP	DEPTH_QUALITY	THICKNESS	THICKNESS_QUALITY	ELEV	DATUM
4702300008	Original Loc	Burket Sh Mbr	Electric Log: RI35 Dvn Sh	7210	Qstnbl Strctr	75	Qstnbl Strctr	2622	Log Datum
4702300008	Original Loc	Tully Ls	Electric Log: RI35 Dvn Sh	7285	Qstnbl Strctr	7	Qstnbl Strctr	2622	Log Datum
4702300008	Original Loc	Mahantango Fm	Electric Log: RI35 Dvn Sh	7292	Qstnbl Strctr	339	Qstnbl Strctr	2622	Log Datum
4702300008	Original Loc	Hamilton Grp	Electric Log: RI35 Dvn Sh	7292	Qstnbl Strctr	599	Qstnbl Strctr	2622	Log Datum
4702300008	Original Loc	Marcellus Fm	Electric Log: RI35 Dvn Sh	7631	Qstnbl Strctr	260	Qstnbl Strctr	2622	Log Datum
4702300008	Original Loc	Oatka Creek Mbr	Electric Log: RI35 Dvn Sh	7631	Qstnbl Strctr	129	Qstnbl Strctr	2622	Log Datum
4702300008	Original Loc	Uppr Oatka Crk Mbr	Electric Log: RI35 Dvn Sh	7631	Qstnbl Strctr	60	Qstnbl Strctr	2622	Log Datum
4702300008	Original Loc	Lower Oatka Crk Mbr	Electric Log: RI35 Dvn Sh	7691	Qstnbl Strctr	69	Qstnbl Strctr	2622	Log Datum
4702300008	Original Loc	Cherry Vly Mbr	Electric Log: RI35 Dvn Sh	7760	Qstnbl Strctr	70	Qstnbl Strctr	2622	Log Datum
4702300008	Original Loc	Purcell Ls Mbr	Well Record	7763	Reasonable	67	Reasonable	2611	Ground Level
4702300008	Original Loc	Marcellus Fm	Well Record	7830	Reasonable	51	Reasonable	2611	Ground Level
4702300008	Original Loc	Union Springs Mbr	Electric Log: RI35 Dvn Sh	7830	Qstnbl Strctr	61	Qstnbl Strctr	2622	Log Datum
4702300008	Original Loc	Needmore Sh	Well Record	7890	Reasonable	141	Reasonable	2611	Ground Level
4702300008	Original Loc	Needmore Sh	Electric Log: RI35 Dvn Sh	7891	Qstnbl Strctr			2622	Log Datum
4702300008	Original Loc	Oriskany	Well Record	8031	Reasonable	195	Reasonable	2611	Ground Level
4702300008	Original Loc	Helderberg	Well Record	8392	Reasonable	0	Reasonable	2611	Ground Level

Wireline (E-Log) Information:

* Scanned/Raster Log Information:

API	STATUS	LOG_TOP	LOG_BOT	DEEPEST_FML	LOGS_AVAIL	SCAN	GR_TOP	GR_BOT	D_TOP	D_BOT	N_TOP	N_BOT	I_TOP	I_BOT	T_TOP	T_BOT	S_TOP	S_BOT	O_TOP	O_BOT	INCH2	INI
4702300008	Regular Entry	300	8390		G.D.N.I.S.*	Y	300	8390	300	8390	300	8390	300	8390					300	8390	Y	Y

Scanned/Raster Comment: *logs: caliper, PE, laterolog, cyberlk; diff scale on #146A

* There is no Digitized/LAS Log data for this well

Downloadable Log Images/Data: We advise you to save the scanned log or digitized log file(s) to your PC for viewing. To do so, right-click the file of interest and select the save option. Then you can direct the file to a location of your choice. Please note the scanned log images vary in size and some may take several minutes to download.

Quick Reference Guide for Log File Names For more info about WVGES scanned logs click [here](#)

geologic log types:

- d density (includes bulk density, compensated density, density, density porosity, grain density, matrix density, etc.)
- e photoelectric adsorption (PE or Pe, etc.)
- g gamma ray
- i Induction (includes dual induction, medium induction, deep induction, etc.)
- l laterolog
- m dipmeter
- n neutron (includes neutron porosity, sidewall neutron--SWN, etc.)
- o other¹
- s sonic or velocity
- t temperature (includes borehole temperature, BHT, differential temperature, etc.)
- z spontaneous potential or potential

mechanical log types:

- b cement bond
- c caliper
- o other¹
- p perforation depth control or perforate

¹other logs may include, but are not limited to, such curves as audio, bit size, CCL--casing collar locator, continuous meter, directional survey, gas detector, guard, NCTL--Nuclear Cement Top Locator, radioactive tracer, tension

There is no Plugging data for this well

Sample Information:

API	CUT1_TOP	CUT1_BOT	CUT2_TOP	CUT2_BOT	CORE1_TOP	CORE1_BOT	FM1_TOP	FM1_BOT	CORE2_TOP	CORE2_BOT	FM2_TOP	FM2_BOT	SMPL	THN_SEC1	SCAN1	SLAB1	PERM1	THN_SEC
4702300008		0		8392														

06/19/2026

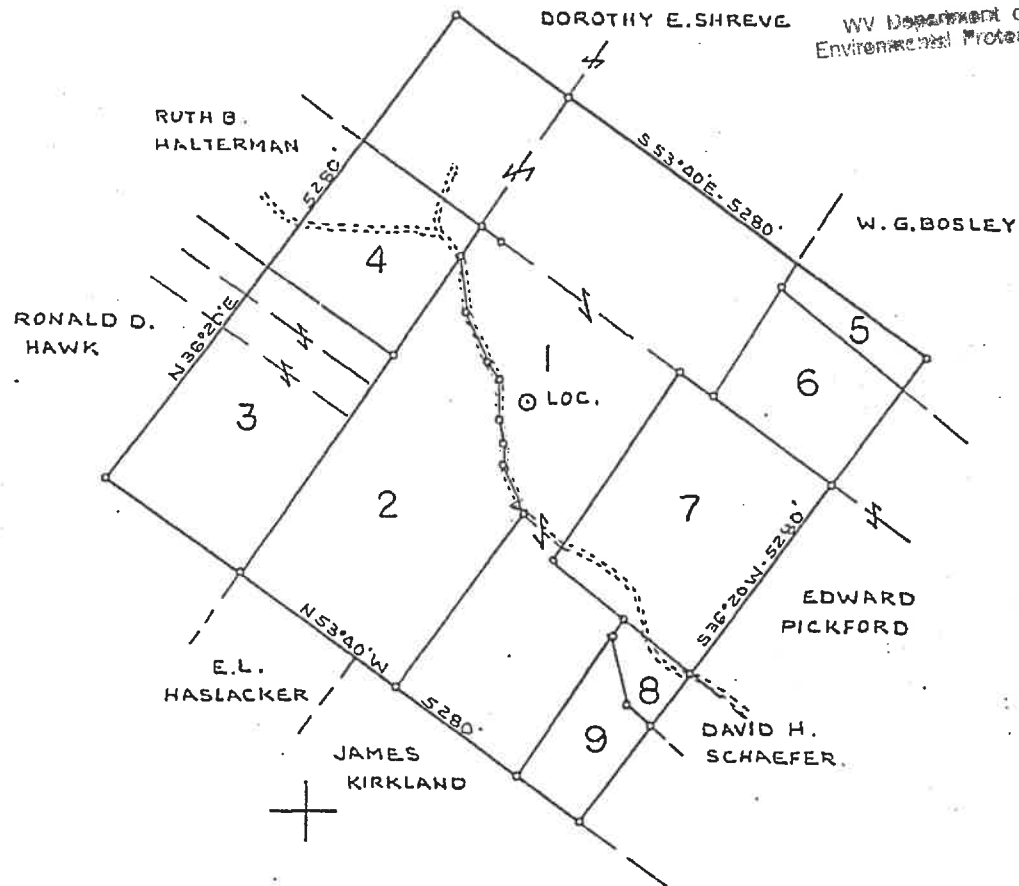
10,800'

LAT 39°10'00"

4702300008

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

LONG 79°12'30"

14,200'

PARCEL	OWNER		LEASE	ACRES
1	DOROTHY E. SHREVE	COL. GAS	178966	253.29
2	CHARLES L. SHREVE	COL. GAS	180825	110.00
3	RONALD D. HAWK	COL. GAS	180817	82.35
4	RUTH B. HALTERMAN	COL. GAS	180812	44.78
5	WILLIAM G. BOSLEY	COL. GAS	178970	9.28
6	EDWARD PICKFORD	COL. GAS	180905	35.50
7	RUTH B. HALTERMAN	COL. GAS	180833	75.58
8	DAVID H. SCHAEFER	U.D.I.	2065	6.77
9	GARY C. RUCKLE	COL. GAS	178977	22.45
				640.00

MAP SHOWING 640 ACRE DRILLING UNIT

NORTH FORK OF LUNICE CREEK
UNION DISTRICT GRANT CO. WVA
SCALE 1"=320' FEB 4, 1984

WW-4A
Revised 6-07

1) Date: 5/22/26
2) Operator's Well Number
Dorothy Shreve 2042

3) API Well No.: 47 - 023 - 00008

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

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

4) Surface Owner(s) to be served:

(a) Name Donald R. Shreve + Deborah Shreve
Address 58 Chesnut Ridge Road
Augusta WV 26704

(b) Name Derek Shreve, Danette Richman, Dena Lowe
Address 58 Chesnut Ridge Road
Augusta WV 26704

(c) Name _____
Address _____

5) (a) Coal Operator

Name Alliance Resources GP, LLC
Address 2596 Battle Run Road
Triadelphia, WV 26059

(b) Coal Owner(s) with Declaration

Name Donald R. Shreve + Deborah Shreve
Address 58 Chesnut Ridge Road
Augusta WV 26704
Name Derek Shreve, Danette Richman, Dena Lowe
Address 58 Chesnut Ridge Road
Augusta WV 26704

6) Inspector Gayne J Knitowski
Address 601 57th Street, SE
Charleston, WV 25304
Telephone 304-993-6188

(c) Coal Lessee with Declaration
Name _____
Address _____

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 Expand Operating LLC

By: Brittany Woody

Its: Senior Regulatory Analyst

Address 1300 Fort Pierpont Dr., Suite 201

Morgantown, WV 26508

Telephone 304-209-5688



Subscribed and sworn before me this 20 day of May 2026
Elizabeth Blankenship Notary Public

My Commission Expires 6/23/2029

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.

06/19/2026

4702300008 P



65 CUMBG

CBEA 26704
WV-US PIT

TRK# 8720 5028 0190

0201

WED - 27 MAY 5:00P

EXPRESS SAVER

ASR



FedEx Express

J261026012001uv

PO: DEPT: REF: SHREVE PLUGGING PERMIT

AUGUSTA WV 26704 (000) 000-0000

TO D. SHREVE, D. RICHMAN, & D. LOWE
DONALD & DEBORAH SHREVE
58 CHESNUT RIDGE ROAD

ORIGIN ID:MGWA (304) 884-1628
BRITTANY WOODY
EXPAND ENERGY CORPORATION
1300 FORT PIERPONT DR.
SUITE 201
MORGANTOWN, WV/ 26508
UNITED STATES US

SHIP DATE: 21MAY26
ACTWG1: 0.05 LB
CAD: 25932746/INET14535
BILL SENDER

58KJ3/A906/484B

After printing this label:
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1. Fold the printed page along the horizontal line.
2. Place label in shipping pouch and affix it to your shipment.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

RECEIVED
Office of Oil and Gas
MAY 27 2026
WV Department of
Environmental Protection

06/19/2026

SURFACE OWNER WAIVER

4702300008P

Operator's Well
Number

Dorothy Shreve 2042

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

**NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.
WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:**

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIVE (5) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON
ETC.

FOR EXECUTION BY A CORPORATION,

NOT SURFACE OWNER (no waiver)
gaw

~~Expand Operating LLC~~

Name
By
Its

~~Brittany Woody~~

~~Senior Regulatory Analyst~~

Date 5/27/26

~~Signature~~

Brittany Woody

Date

06/19/2026

Signature

Date

WW-4B

4702300008

API No. 47-023-00008

Farm Name

Well No. Dorothy Shreve 2042

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

INSTRUCTIONS TO COAL OPERATORS OWNERS AND LESSEE

The well operator named on the obverse side of WW-4 (b) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

WAIVER

The undersigned coal operator _____ / owner X / lessee _____ / of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date:

5/22/26

~~Expand Operating LLC.~~

By: Brittany Woody

Its Senior Regulatory Analyst

NOT COAL OWNER

NO WAIVER

JWM

06/19/2026

WW-9
(5/16)

4702300008 P
API Number 47 - 023 - 00008
Operator's Well No. _____

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

RECEIVED
Office of Oil and Gas

MAY 27 2026

Operator Name Expand Operating LLC OP Code 494494833 WV Department of Environmental Protection

Watershed (HUC 10) North Fork of Lunice Creek Quadrangle Greenland Gap

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 ☒ Any well effluent will be contained in tanks before disposing off-site

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? N/A

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 Brittany Woody

Company Official (Typed Name) Brittany Woody

Company Official Title Senior Regulatory Analyst

Subscribed and sworn before me this 20 day of May, 20 26

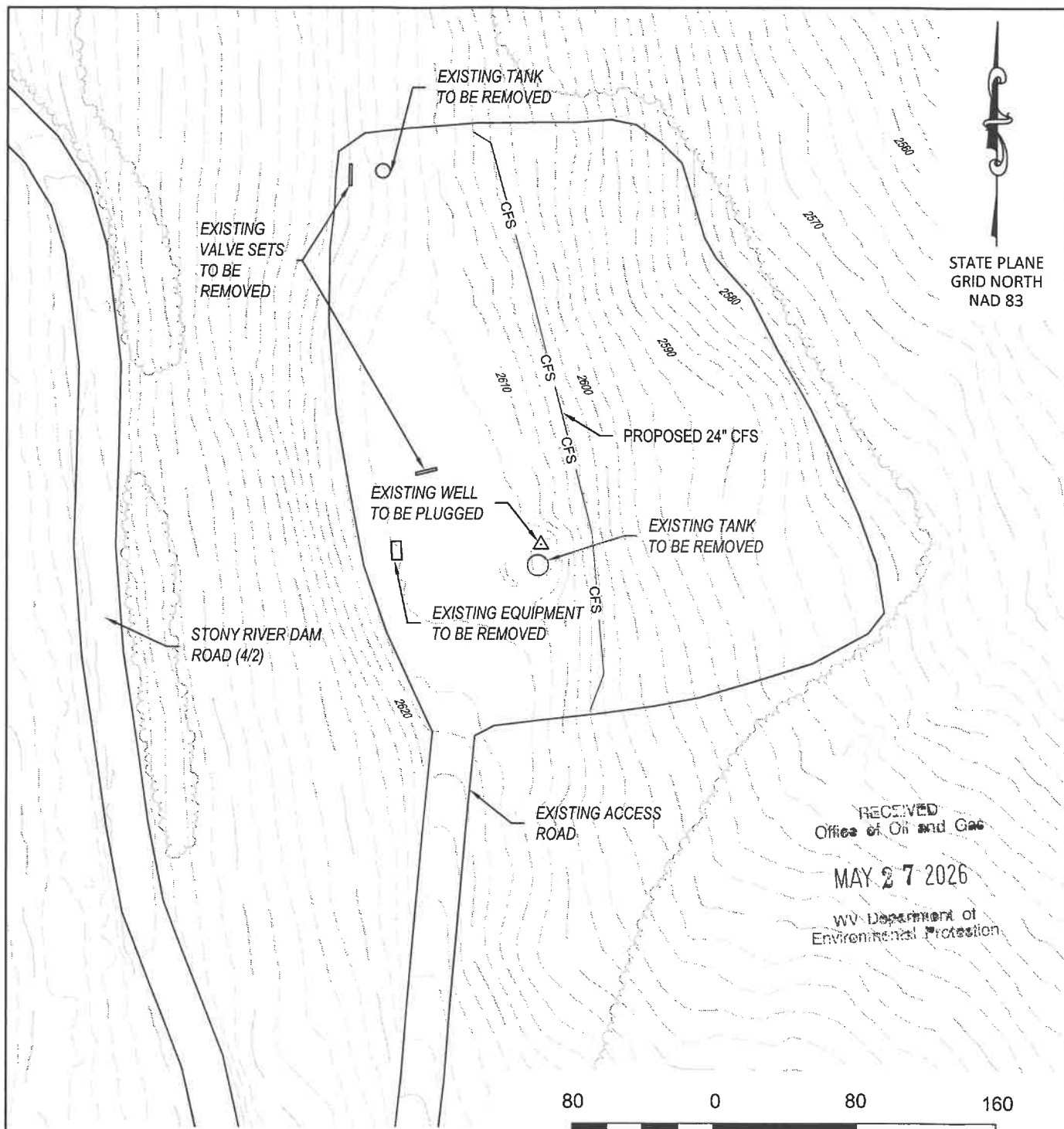
Elizabeth Blankenship

Notary Public

My commission expires 6/23/2029



4702300008P



RECEIVED
Office of Oil and Gas
MAY 27 2026
WV Department of
Environmental Protection



SCALE IN FEET

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

**DOROTHY SHREVE 2042
SITE RECLAMATION
API# 4702300008**
FOR
EXPAND OPERATING, LLC
LOCATED IN
GRANT COUNTY, WEST VIRGINIA

SITE PLAN

LEGEND

- EXISTING CONTOUR
- EXISTING TREE LINE
- EXISTING ROAD EDGE
- WELLHEAD
- COMPOSITE FILTER SOCK
- CFS



844-542-4757

466 SOUTH MAIN STREET
MONTROSE, PA 18801
PA • OH • NY • WV • VA • MD

PLAN SHEET	FINAL	DATE	03/25/2026	NO.	1
------------	-------	------	------------	-----	---

06/19/2026

Proposed Revegetation Treatment: Acres Disturbed 10 Prevegetation pH 5.5Lime 3.90 Tons/acre or to correct to pH 7Fertilizer type 8-16-16Fertilizer amount 968 lbs/acreMulch 3 Tons/acreSeed MixturesTemporary

Seed Type lbs/acre

OATS/ANNUAL RYE 40LBS/ACREHAY/STRAW MULCH 3 TONSPermanent

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
KnitowskiDigitally signed by Gayne
Knitowski
Date: 2026.05.20 10:36:24
+0400

Comments: _____

May 27, 2026Title: Inspector

Date: _____

Field Reviewed? () Yes () No

06/19/2026

4702300008P

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 HYDROSEEDED 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 HYDROSEEDED. 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 RESEEDED 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.

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

06/19/2026

4702300008P

WW-9- GPP
Rev. 5/16

Page 1 of 2
API Number 47 - 023 - 00008
Operator's Well No. Delmer L Schell 1

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

Operator Name: Expand Operating LLC
Watershed (HUC 10): North Fork of Lunice Creek Quad: Greenland Gap
Farm Name: Dorothy Shreve 2042

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

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

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.

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

06/19/2026

4702300008P

WW-9- GPP
Rev. 5/16

Page 2 of 2
API Number 47 - 023 - 00008
Operator's Well No. Dorothy Shreve 2042

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.

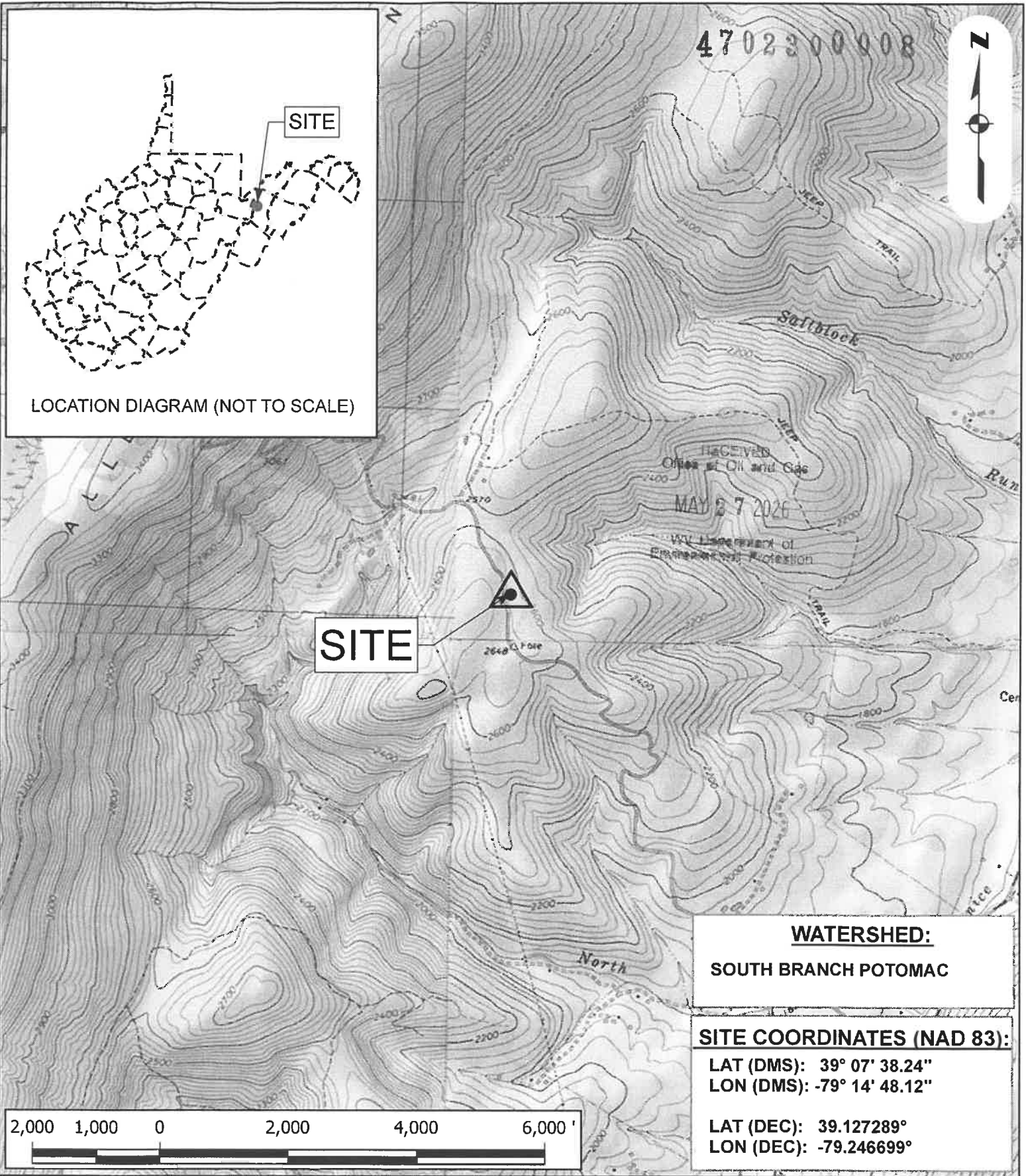
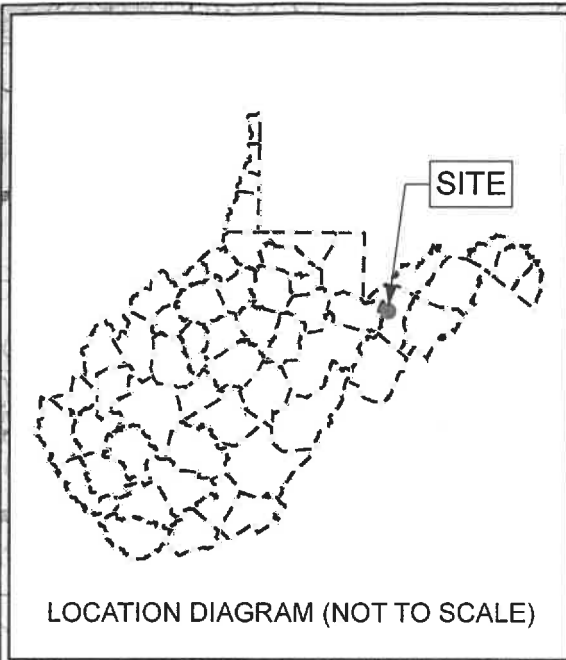
RECEIVED
Office of Oil and Gas
MAY 27 2026
WV Department of
Environmental Protection

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

Signature: Brittany Waddy

Date: 5/22/26

06/19/2026



WATERSHED:
SOUTH BRANCH POTOMAC

SITE COORDINATES (NAD 83):
LAT (DMS): 39° 07' 38.24"
LON (DMS): -79° 14' 48.12"
LAT (DEC): 39.127289°
LON (DEC): -79.246699°

USGS LOCATION MAP
PREPARED FOR
DOROTHY SHREVE 2042
API# 47-023-00008

UNION DISTRICT, GRANT COUNTY, WEST VIRGINIA
GREENLAND GAP USGS QUAD

PROJECT -	DOROTHY SHREVE 2042
DATE -	3/25/2026
SCALE -	1" = 2,000'
DRAWN -	JCOOK
FILE -	2026-0362_USGS_Loc_Map.mxd



06/19/2026
(844) 542-4757

- Permit
- Application
- Plugged
- <all other values>

Wetlands

National Wetland Inventory

Wetland Type

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Other

Karst

Known Caverns



Avis Limestone Outcrop



Greenbrier Outcrop

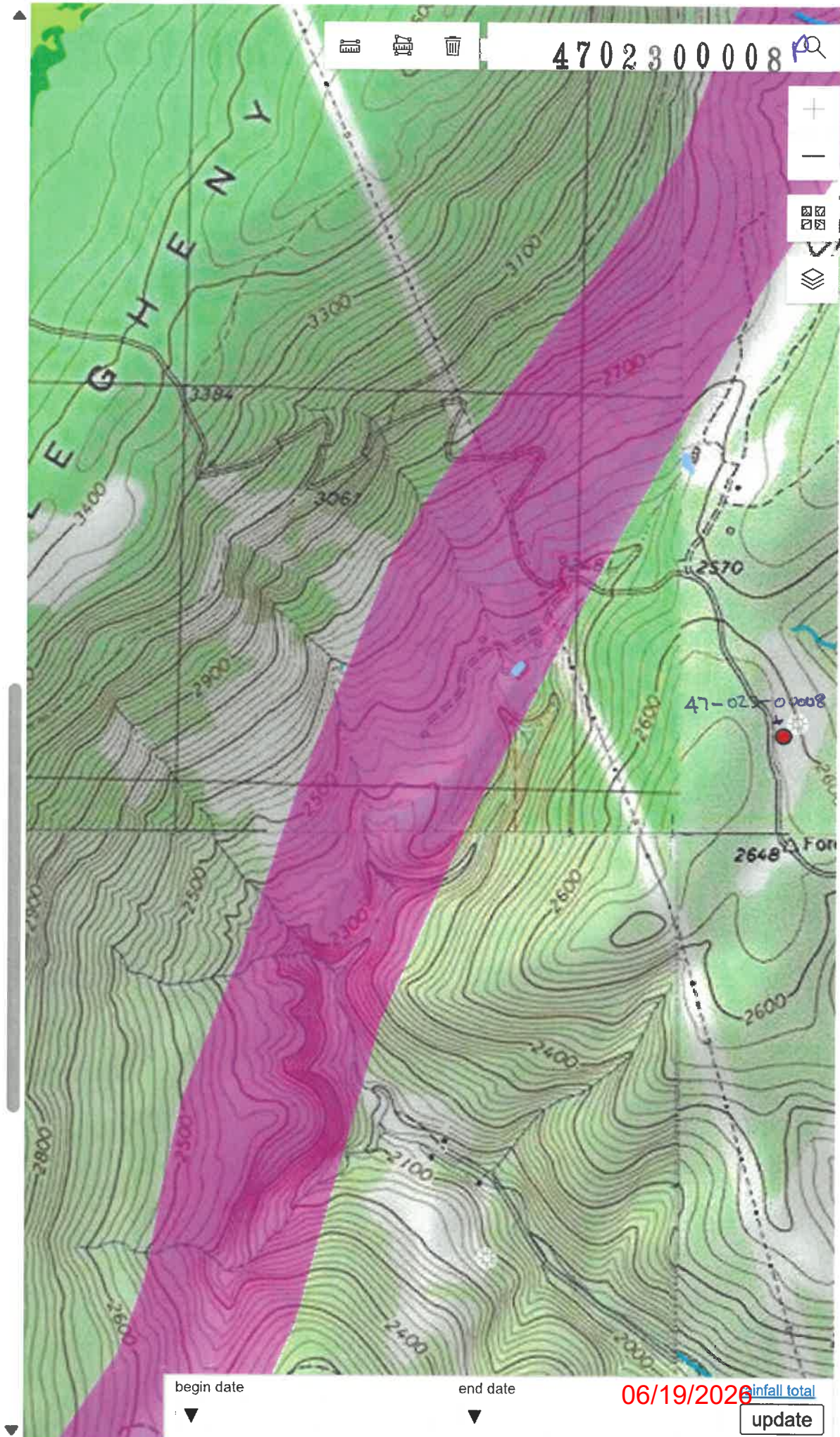


Other Carbonate Rocks Outcrop



ZCC/ZPC

zpc



WW-7
8-30-06

4702300008 P



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-023-00008 WELL NO.: 2042
FARM NAME: Dorothy Shreve
RESPONSIBLE PARTY NAME: Expand Operating LLC
COUNTY: Grant DISTRICT: Union
QUADRANGLE: Greenland Gap
SURFACE OWNER: Donald & Deborah Shreve, and Derek Shreve, Danette Richman, and Dena Lowe
ROYALTY OWNER: Dorothy E. Shreve
UTM GPS NORTHING: 4,332,365.68
UTM GPS EASTING: 651,553.88 GPS ELEVATION: 2611'

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.

Brittany Moody
Signature

Senior Regulatory Analyst
Title

5/22/26
Date

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

06/19/2026

4702300008P

DEPT. OF MINES

State of West Virginia

Department of Mines
Oil and Gas DivisionDate: August 1984
Operator's
Well No. 2042
Farm Dorothy Shreve #1
API No. 47-023-000

(CONFIDENTIAL WELL)

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

S.C.

WELL TYPE: Oil / Gas ☒ / Liquid Injection / Waste Disposal /
If "Gas," Production ☒ / Underground Storage / Deep ☒ / ShallowLOCATION: Elevation: 2611.21 Watershed North Fork of Lumice Creek
District: Union County Grant Quadrangle Greenland Gap

COMPANY Union Drilling, Inc.

ADDRESS P. O. Drawer 40, Buckhannon, WV 26201

DESIGNATED AGENT Joseph C. Vanzant, Jr.

ADDRESS P. O. Drawer 40, Buckhannon, WV 26201

SURFACE OWNER Dorothy E. Shreve

ADDRESS Rt. #1, Box 240, Maysville, WV 26833

MINERAL RIGHTS OWNER Dorothy E. Shreve

ADDRESS Rt. #1, Box 240, Maysville, WV 26833

OIL AND GAS INSPECTOR FOR THIS WORK
Forest Festival Hwy. #74

PHILLIP TRACY ADDRESS Martinsburg, WV 26041

PERMIT ISSUED 10/23/1984

DRILLING COMPLETED 07/19/84

DRILLING OBSERVED 05/20/84

IF APPLICABLE: PREVENTION OF DRILLING ON
CONTRACTOR'S PROTECTION FROM DRILLING ON
REWORKING. VESSEL PROTECTION OBSERVED
ON

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft
Size 20-16 Cord.			
13-10"	38'	38'	
9 5/8	3602.45'	3602.45'	1950 cf
8 5/8			
7			*
5 1/2		8399.85'	670 cf
4 1/2			
3			Office of Oil and Gas
2			MA 27 2026
Liners used			WV Department of Environmental Protection

GEOLOGICAL TARGET INFORMATION Oriskany Depth 8392 f

Depth of completion well 8392 feet Rotary ☒ / Cable Tools

Water strata Depth Fresh 110' feet Salt feet

Coal seam depths: None Is coal being mined in the area?

OPEN FLOW DATA

Producing formation Oriskany Pay zone depth 8125/8165

Initial open flow 1.205 Mcf/d Oil Initial open flow

Final open flow 1.205 Mcf/d Final open flow

Time of open flow between initial and final tests 7 hours

Surface well pressure 1200 psig (surface measurement) after 10 hours and

multiple completion--)

Producing formation Oriskany Pay zone depth

Initial open flow 1.205 Mcf/d Oil Initial open flow

Final open flow 1.205 Mcf/d Oil Final open flow

Time of open flow between initial and final tests 7 hours

Surface well pressure 1200 psig (surface measurement) after 10 hours and

multiple completion--)

06/19/2026

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of a) and salt water, coal, oil
Sands and Gravel			0	7763	Wet at 110'
Purcell Limestone			7763	7830	
Lower Marcellus			7830	7881	
Tioga Bentonite			7881	7890	
Needmore Shale			7890	8031	
Oriskany Sandstone			8031	8226	
Halderberg Limestone			8226	8392	Total Depth

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

(Attach separate sheets as necessary)

UNION DRILLING, INC.

Well Operator

By: *Joseph O. Pettey*
Date: 08/10/84
Joseph O. Pettey, Vice President of Production

Notes as follows:
This well was a systematic
well formation, including
the top of a well.

06/19/2026

4702300008P
Dorothy Shreve 2042

11/10/2016

PLUGGING PERMIT CHECKLIST

RECEIVED
Office of Oil and Gas

MAY 27 2026

WV Department of
Environmental Protection

Plugging Permit

- ☒ WW-4B
- ☒ WW-4B signed by inspector
- ☒ WW-4A
- ☒ SURFACE OWNER WAIVER or PROOF THAT APPLICATION WAS SENT BY REGISTERED OR CERTIFIED MAIL
- ☒ COAL OWNER/COAL OPERATOR/COAL LESSEE WAIVERS or PROOF THAT APPLICATION WAS SENT BY REGISTERED OR CERTIFIED MAIL
- ☒ WW-9 PAGE 1 (NOTARIZED)
- ☒ WW-9 PAGE 2 with attached drawing of road, location, pit and proposed area for land application
- ☒ WW-9 GPP PAGE 1 and 2 if well effluent will be land applied
- ☒ RECENT MYLAR PLAT OR WW-7
- ☒ WELL RECORDS/COMPLETION REPORT
- ☒ TOPOGRAPHIC MAP OF WELL, SHOWING PIT IF PIT IS USED
- ☒ MUST HAVE VALID BOND IN OPERATOR'S NAME
- ☒ CHECK FOR \$100 IF PIT IS USED

06/19/2026