



west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Thursday, August 17, 2023  
WELL WORK PLUGGING PERMIT  
Vertical Plugging

DIVERSIFIED PRODUCTION LLC  
101 MCQUISTON DRIVE

JACKSON CENTER, PA 16133

Re: Permit approval for 2533  
47-023-00018-00-00

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: EVANS, RUTH  
U.S. WELL NUMBER: 47-023-00018-00-00  
Vertical Plugging  
Date Issued: 8/17/2023

# 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

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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.

08/25/2023

1) Date July 14, 2023  
2) Operator's  
Well No. Ruth Evans 1-2533  
3) API Well No. 47-023-00018

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  / Liquid injection  / Waste disposal  /  
(If "Gas, Production  or Underground storage  ) Deep  / Shallow

5) Location: Elevation 2290 Watershed Lunice Creek  
District Union County Grant Quadrangle Blackbird Knob

6) Well Operator Diversified Production, LLC 7) Designated Agent Chris Veazey  
Address 414 Summers Street Address 414 Summers St.  
Charleston, WV 25301 Charleston, WV 25301

8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
Name Gayne Knitowski Name Next LVL Energy (Diversified Owned)  
Address 21 Energy Way Address 104 Helliport Loop Rd  
Gormanian, WV 26720 Bridgeport, WV 25330

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

**See Attached**

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: 2023.07.17 09:33:04 -0400 Date 7-17-2023

08/25/2023

MR-35

14-Apr-88  
API # 47- 23-00018

State of West Virginia  
DEPARTMENT OF ENERGY  
Division of Oil and Gas

REC'D  
OFF  
327  
Clerk

Well Operator's Report of Well Work

Form name: EVANS, RUTH Operator Well No.: 2533

LOCATION: Elevation: 2290.00 Quadrangle: BLACKBIRD KNOB

District: UNION County: GRANT  
Latitude: 5550 Feet South of 39 Dem. 5 Min. 0 Sec.  
Longitude: 3350 Feet West of 79 Dem. 15 Min. 0 Sec.

Company: EQUITABLE RESOURCES EXPLORATION, INC.

P. O. DRAWER 40  
BUCKHANNON, WV

Agent: Douglas P. Terry

Inspector: PHILLIP TRACY  
Permit Issued: 04/15/88  
Well work Commenced: 10-4-88  
Well work Completed: 11-3-88  
Verbal Plugging  
Permission granted on:  
Rotary Cable Rim  
Total Depth (feet) 8602'  
Fresh water depths (ft) 60' 1307'  
Salt water depths (ft) None  
Is coal being mined in area (Y/N)?  
Coal Depths (ft):

Size	Casings Used in Tubing	Used in Drilling	Left in Well	Cement Fill Cu. Ft.
13 3/8"	28		28	
8 5/8"	1510.35'	1510.35'	761 CF	
5 1/2"	8559.03'	8559.03'	949.75 CF	
2 3/8"		8049		

OPEN FLOW DATA

Producing formation: Oriskany Pay zone depth (ft) 8010  
 Gas: Initial open flow 582 MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
 Final open flow 5855 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
 Time of open flow between initial and final tests 6 Hours  
 Static rock Pressure 2100 psid (surface pressure) after 72 Hours

Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
 Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
 Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
 Time of open flow between initial and final tests \_\_\_\_\_ Hours  
 Static rock Pressure \_\_\_\_\_ psid (surface pressure) after \_\_\_\_\_ 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 WELLSBore.

For: EQUITABLE RESOURCES EXPLORATION, INC.

By: Douglas P. Terry *Douglas P. Terry*  
Date: APRIL 10, 1988

GRANT 2018  
08/25/2023

11/12/88 - Halliburton acidized with 2000 gallons 5% Fe Acid, RTTS Factor set @ 7659'.

2/1/89 - Halliburton fractured with 200,000 lbs. 20/40 sand, 13,200 lbs. 80/100 sand and 210,000 Scft N2.

Perforations: 7929' - 8010', Oriskany Sandstone.

Harrell Shale	6714'
Upper Marcellus	7526'
Purcell	7547'
Lower Marcellus	7615'
Tioga Metabentonite	7661'
Needmore	7683'
Oriskany Sandstone	7795'
Helderberg L.S.	8016'
Shriver Chert	8196'
Mandata Shale	8243'
Corriganville	8262'
Keyser Group	8346 to TD 8602'

12629

08/25/2023

# Ruth Evans 1-2533

## Plug & Abandon

County/State: GRANT, WV Township: UNION  
Latitude: 39.0682297146 Longitude: -79.2615516829 (NAD 83)  
API: 4702300018

### Summary

The RUTH EVANS 1-2533 will be plugged and abandoned. The well is located in GRANT County, WV and was spud on 10-05-1988 by UNKNOWN, targeting the Oriskany as a Vertical well. The last known production date for this well was December of 2012 where it averaged 45 MCF, 0 BO, and 0 BW.

The Ruth Evans 1-2533 is a vertical well that was drilled and completed in the Oriskany with perforations from 7,929' to 8,010'. Unknown information includes: casing/tubing weight and grades, drilled hole sizes, and top of cement. All information pertaining to these unknown parameters in the proceeding P&A packet are assumed and/or estimated values.

### Guideline

Step	Operation
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The content of this guideline are recommendations based on expected conditions, current equipment, and existing design. Should actual conditions vary from expected, discuss with your supervisor and all necessary personnel on how to proceed.

#### Pre-Job Safety Meeting

- a. Safety is the highest priority.
- b. 2 active barriers must be maintained at all times in accordance with OGB-CHK-STD-001 Barrier Standard.
- c. Ensure gas monitoring equipment is being utilized on location.
- d. Remind all personnel that everyone has Stop Work Authority.
- e. Before each shift/day or new scope of work:
  - Hold well-site safety meetings covering the scope of work with all personnel on location.
  - Review guideline and discuss critical parameters (pressures, volumes, contingency plans, etc.).
  - Verify that all personnel understand and are prepared for the operation.
  - Review emergency action plans for the operation.

Glossary: QHB = Qualified Hydrostatic Barrier, BPV = Back Pressure Valve, TIW = Full Open Safety Valve (Equal ID to Work String), TWC = Two Way Check

1	Prior to rig arriving on site: <ol style="list-style-type: none"><li>a. Make sure all casing valves are readily accessible and remove water from cellar.</li><li>b. Perform 72-hour pressure build up test on all annuli.</li><li>c. Perform negative pressure test on master valve(s) in accordance with APP Master Valve Operational Guideline - PROD-APP-002.</li><li>c. Make sure A, B, and C section flanges are properly identified.</li><li>d. Verify regulatory permit and approval to plug and abandon.</li><li>e. Notify WVDEP, BLM, municipality and surface landowner 1 week prior to commencing operations.</li></ol>
2	RU Containment.
3	MIRU WOR, pump, and surface equipment.
4	Pump FW until a Qualified Hydrostatic Barrier (QHB) is established. Ensure pump is rigged up and ready to pump kill weight fluid for duration of job. <ol style="list-style-type: none"><li>a. Contact supervisor and OKC engineer if higher weight kill fluid is required.</li></ol>

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	<ul style="list-style-type: none"> <li>Occurs when pumped FW volume equals or exceeds casing + tubing (if applicable) volume to top perf depth and well pressure exceeds 0 psi and/or well does not pass a flow check.</li> </ul>
5	<p>SKIP TO STEP 11 IF WELL DOES NOT HAVE TUBING - Contact supervisor and OKC engineer if well does not have a tubing hanger. NU lubricator to closed master valve and pressure test.</p> <p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = Master Valve</li> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Master Valve</li> </ul>
6	<p>Bleed off test pressure, open master valve, and install BPV in tubing hanger. Contact engineer and prepare to set pump through plug in tubing with SL, if BPV cannot be installed in hanger.</p> <p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>Tubing – 1st Barrier = QHB, 2nd Barrier = Lubricator</li> <li>Casing – 1st Barrier = QHB, 2nd Barrier = Tubing Hanger</li> </ul>
7	<p>ND lubricator, ND wellhead, NU 7.0625" master valve and NU double 7.0625" BOPs (Top to Bottom: 2.375" Pipe Ram and Blind Ram). Stab landing joint in tubing hanger. Close pipe ram and pressure test stack against tubing hanger in accordance with CHK Workover and Completions BOP Manual (outlined in section 2.6). LD landing joint, close master valve and blind ram. Pressure test blind ram against master valve in accordance with CHK Workover and Completions BOP Manual (outlined in section 2.6).</p> <p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = BPV</li> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Tubing Hanger</li> </ul>
8	<p>NU lubricator and pressure test against master valve. Bleed off test pressure, open master valve and pull BPV.</p> <p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = BPV (NU), 2nd Barrier = Lubricator (Pull BPV)</li> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Tubing Hanger</li> </ul>
9	<p>Close Blind Ram and ND lubricator</p> <p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = Blind Ram</li> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Tubing Hanger</li> </ul>
10	<p>MU lifting sub into tubing hanger. Unscrew tubing lockdown pins and LD tubing hanger. POOH with tubing while standing back.</p> <p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = TIW</li> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Pipe Ram</li> </ul>
11	<p>SKIP TO THIS STEP IF WELL DID NOT HAVE TUBING - Close master valve. NU WL packoff and pressure test against master valve. RU WL.</p> <p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Master Valve</li> <li>8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips, 3rd Barrier = Master Valve</li> </ul>
12	<p>Plug #1 (CIBP Perf Isolation) - TIH with WL and set CIBP as specified under Plug Details table in accordance with Plug 1. Use a CCL to ensure the CIBP is not set in a collar. TOO with WL. Pressure test CIBP to 1,500 psi or 80% of casing burst pressure accounting for hydrostatic to CIBP depth, which ever is less.</p> <p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = WL Packoff</li> <li>8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips, 3rd Barrier = WL Packoff</li> </ul>
13	<p>ND WL packoff. RD and release WL.</p> <p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP</li> <li>8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips</li> </ul>
14	<p>ND double 7.0625" BOPs (if applicable), master valve, and necessary wellhead equipment to expose casing slips. Establish hot work permit and tac weld casing slips to casing. Ensure thorough LEL monitoring is in place, fire extinguishers are near wellhead, and fire watch is designated as outlined by hot work permit.</p> <p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP</li> <li>8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips</li> </ul>
15	<p>NU double 11" BOPs (Top to Bottom: 2.375" Pipe Ram and Blind Ram) and 11" annular BOP. Test each ram against the CIBP in accordance with CHK Workover and Completions BOP Manual (outlined in section 2.6).</p>

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	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP</li> <li>8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips</li> </ul>
16	<p>Plug #2 (Cement Perf Isolation) - TIH with work string to bottom depth of Plug 2 as specified under the Plug Details table. Pump Spacer 1 as detailed under the Spacer Details table. Pump balanced cement plug in accordance with Plug 2. Displace tubing with volume specified on Plug Details table. POOH with WS. WOC 8 hours.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = CIBP, 3rd Barrier = TIW</li> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP, 3rd Barrier = Pipe Rams</li> </ul>
17	<p>NU WL packoff. RU WL.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP, 3rd Barrier = Cement Plug</li> <li>8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips</li> </ul>
18	<p>RIH with CBL, POOH with WL and discuss results with key stakeholders.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP, 3rd Barrier = Cement Plug, 4th Barrier = WL Packoff (untested)</li> <li>8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips, 3rd Barrier = WL Packoff (untested)</li> </ul>
19	<p>Pressure test WL Packoff against cement plug to 500 psi. Ok testing against cement due to CIBP below. RIH with jet cutter and cut csg at TOC as determined by CBL. POOH with WL.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = WL Packoff</li> <li>8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips, 3rd Barrier = WL Packoff</li> </ul>
20	<p>Close blind ram. RD WL. Verify good cut before releasing WL by attempting to establish circulation.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Blind Ram</li> <li>8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips, 3rd Barrier = Blind Ram</li> </ul>
21	<p>NU casing jacks (if applicable), MU casing spear, and open blind ram. Spear casing, LD slips and spear.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = TIW</li> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Blind Ram (Csg Jack NU), 2nd Barrier = Pipe Ram (Spear)</li> <li>8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips (Csg Jack NU), 2nd Barrier = Pipe Ram (Spear)</li> </ul>
22	<p>POOH with production casing.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>5.5 Casing -- 1st Barrier = QHB, 2nd Barrier = Swage Nipple w/ Ball Valve</li> <li>8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Annular</li> </ul>
23	<p>Plug #3 (Prod Csg Stub Plug) - TIH with work string to bottom depth of Plug 3 as specified under the Plug Details table. Pump Spacer 2 as detailed under the Spacer Details table. Pump balanced cement plug in accordance with Plug 3. Displace tubing with volume specified on Plug Details table. POOH 1,500' above estimated TOC. Close pipe ram. WOC 8 hours.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = TIW</li> <li>8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Pipe Rams</li> </ul>
25	<p>Plug #5 (Inter Csg Shoe Plug) - TIH with work string and tag TOC. PU to bottom depth of Plug 5 as specified under the Plug Details table. Pump Spacer 4 as detailed under the Spacer Details table. Pump balanced cement plug in accordance with Plug 5. Displace tubing with volume specified on Plug Details table. PU a minimum of 500' above estimated TOC. Close pipe ram and WOC 8 hrs.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = TIW</li> <li>8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Pipe Rams</li> </ul>
26	<p>Plug #6 (Surface Plug) - TIH with work string and tag TOC. PU to bottom depth of Plug 6 as specified under the Plug Details table. Pump balanced cement plug in accordance with Plug 6. Displace tubing with volume specified on Plug Details table. POOH. Close blind ram. WOC 8 hours.</p>
	<p>a. Flow Paths:</p>



	<ul style="list-style-type: none"> <li>• Tubing – 1st Barrier = QHB, 2nd Barrier = TIW</li> <li>• KOP Casing – 1st Barrier = QHB, 2nd Barrier = Pipe Ram</li> </ul>
27	RDMO.
28	Monitor well for 24 hrs minimum.
29	Establish hot work permit. Perform LEL assessment of well head and ensure LEL monitoring remains in place. Contact supervisor and OKC engineer if LELs are registered. 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.

Digitally signed by  
 Gayne Knitowski  
 Date: 2023.07.17  
 09:31:35 -04'00'

08/25/2023

# Ruth Evans 1-2533

## 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 (bbl)
1	CIBP	CIBP Perforation	406	2	7,829	7,827	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Cement	Cement Perforation	405	200	7,827	7,827	Class A	1.18	15.6	0	4.8	22.7	29.3
3	Cement	Prod Csg Shoe Plug (Inside Csg)	406	50	4,850	4,800	Class A	1.18	15.6	0	1.2	5.7	17.8
3 (cont.)	Cement	Prod Csg Shoe Plug (Open Hole)	875	150	4,900	4,650	Class A	1.18	15.6	20	13.4	63.7	0.0
4	Cement	Elevation Plug (Open Hole)	875	200	2,408	2,208	Class A	1.18	15.6	20	17.9	84.9	8.3
5	Cement	Inter Csg Shoe Plug (Open Hole)	875	100	1,510	1,510	Class A	1.18	15.6	20	8.9	42.5	5.2
5 (cont.)	Cement	Surf Csg Shoe Plug (Inside Csg)	8097	100	1,510	1,410	Class A	1.18	15.6	0	6.4	30.3	0.0
5	Cement	Surface Plug	8097	100	100	0	Class A	1.18	15.6	0	6.4	30.3	0.4

Spacer Details								
#	Fluid Type	Description	Set ID	Spacer Height	Spacer Density (ppg)	Spacer Viscosity (cp)	Excess Spacer (%)	Spacer Volume (bbl)
1	Gel	Port Isolation to Prod Csg Shoe Plug	405	2,777	9	-	5	89.4
2	Gel	Prod Csg Shoe Plug to Elevation Plug	875	2,242	9	-	20	200.1
3	Gel	Elevation Plug to Inter Csg Shoe Plug	875	598	9	-	20	53.4
4	Gel	Inter Csg Shoe Plug to Surface Plug	8097	1,310	9	-	5	87.6

Estimated Casing Cuts	
String	Est. Cut Depth (ftKB)
Intermediate	
Production	4,900

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Ruth Evans 1-2533

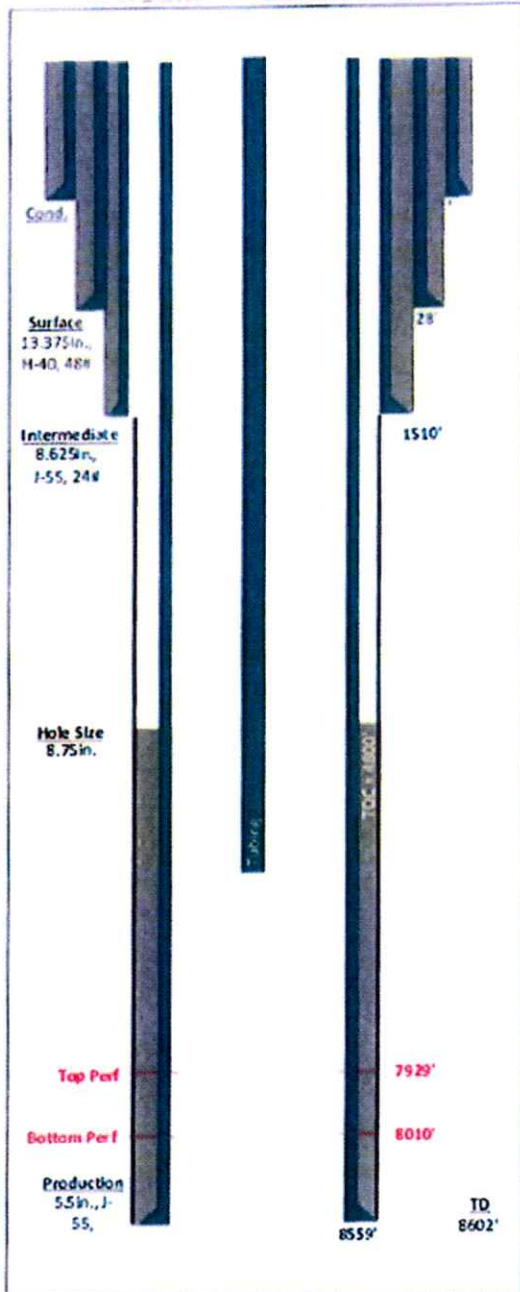
General Well Data							
KB:	10	Top Perf:	7,929	Perf Interval Length:	81	PBTD:	8,559
KOP:	N/A	Bottom Perf:	8,010	ID:	8,602	Elevation:	2,308

Casing Details										
String	Grade	OD	ID	Weight	Drift	Top (ftKB)	Bottom (ftKB)	Capacity (bb/ft)	Tot. Cap. (bbl)	Hole Size
Conductor										
Surface	H-40	13.375	12.715	48	12.559	0	28	0.157053842	4.4	
Intermediate	J-55	8.625	8.097	24	7.972	0	1,510	0.063688954	96.2	
Production	J-55	5.5	4.95	15.5	4.825	0	8,559	0.023802701	208.7	8.75
Production										
DV Tool										

Tubing Details										
Component	Grade	Weight	OD	ID	Length (ft)	Top (ftKB)	Bottom (ftKB)	Burst 80% (PSI)	Capacity (bb/ft)	Tot. Cap. (bbl)
Tubing	J-55	5	2.375	1.995	8,019	10	8,059			31

# Ruth Evans 1-2533

## Current Wellbore Schematic



## Proposed Wellbore Schematic



Schematics are not to scale



WW-4A  
Revised 6-07

1) Date: 7/14/2023  
2) Operator's Well Number Ruth Evans 1-2533

3) API Well No.: 47 - 023 - 00018

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

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Golden E. Evans</u>	Name _____
Address <u>2143 Jordan Run Rd.</u>	Address _____
<u>Maysville, WV 26833</u>	
(b) Name <u>USA Forest Service</u>	(b) Coal Owner(s) with Declaration
Address <u>PO Box 1548</u>	Name <u>Golden E. Evans</u>
<u>Elkins, WV 26241</u>	Address <u>2143 Jordan Run Rd.</u>
	<u>Maysville, WV 26833</u>
(c) Name _____	Name <u>USA Forest Service</u>
Address _____	Address <u>PO Box 1548</u>
	<u>Elkins, WV 26241</u>
6) Inspector <u>Gayne Knitowski</u>	(c) Coal Lessee with Declaration
Address <u>21 Energy Way</u>	Name _____
<u>Gormaniam, WV 26720</u>	Address _____
Telephone <u>(304) 546-8171</u>	

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

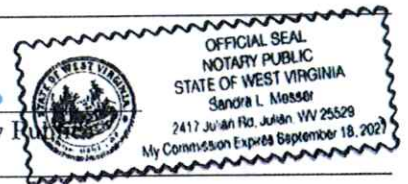
- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

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 Diversified Production, LLC  
 By: Chris Veazey *CV*  
 Its: Permitting Supervisor  
 Address 414 Summers Street  
Charleston, WV 25301  
 Telephone 304-590-7707

Subscribed and sworn before me this 14th day of July 2023  
*Sandra L. Messer* Notary Public  
 My Commission Expires Sept 18, 2027



**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 [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

08/25/2023



**DIVERSIFIED**  
energy

Date: 7/14/2023

James Martin  
Office of Oil and Gas  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
(304)926-0450

Mr. Martin,

Due to our cement provider, LaFarge Holcem, discontinuing the manufacturing of Class A cement, DGOC will be utilizing Class L cement to plug the following well:

API Number 47-023-00018 Well Name Ruth Evans 1-2533

Attached is the approved variance order for use of Class L cement.

Sincerely,

Chris Veazey  
Permitting Supervisor  
304-590-7707



west virginia department of environmental protection

Office of Oil and Gas  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Phone (304) 926-0450

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

**BEFORE THE OFFICE OF OIL AND GAS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STATE OF WEST VIRGINIA**

**IN THE MATTER OF A VARIANCE FROM )  
LEGISLATIVE RULE 35CSR4 ) ORDER NO. 2022-13  
SECTION 14.1. AND LEGISLATIVE RULE )  
35CSR8 SECTION 20.1, )  
RELATING TO THE CEMENTING )  
OF OIL AND GAS WELLS )**

**REPORT OF THE OFFICE**

In response to industry requests, the West Virginia Department of Environmental Protection, Office of Oil and Gas has reviewed the proposed use of American Petroleum Institute (API) Class L cement to be used in place of API Class A cement for well plugging.

**FINDINGS OF FACT**

1. On July 28, 2022, Diversified Gas & Oil Co. (DGO) submitted a variance request from Legislative Rule 35CSR4 for the use of API Class L cement in place of API Class A cement, relating to the plugging of conventional wells.
2. Laboratory analysis submitted by DGO on July 28, 2022, indicates API Class L cement is comparable to API Class A cement and thereby satisfies the requirements of the West Virginia Code.
3. Contemporaneously, the Chief of the Office of Oil and Gas also chose to consider a variance to Legislative Rule 35CSR8 Section 20.1., for the use of API Class L cement in place of API Class A cement, relating to the plugging of horizontal wells.

Promoting a healthy environment.

08/25/2023

4. On August 18, 2022, the Office of Oil and Gas provided public notice of acceptance of public comments on the variance consideration. During the 20-day public comment period, no comments were received.

### CONCLUSIONS OF LAW

Pursuant to Article 6 and Article 6A, Chapter 22 of the Code of West Virginia, the Office of Oil and Gas has jurisdiction over the subject matter, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

Pursuant to Legislative Rule 35CSR4, Section 18 and Legislative Rule 35CSR8, Section 14, the Chief of the Office of Oil and Gas may grant a variance from any requirement of these rules.

### ORDER

It is ordered that the Class L cement product approved and monogrammed by API is approved for use in place of API Class A cement for well plugging subject to the provisions of Legislative Rule 35CSR4 and Legislative Rule 35CSR8.

Dated this, the 13th day of September, 2022.

IN THE NAME OF THE STATE OF WEST VIRGINIA

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



James Martin, Chief  
Office of Oil and Gas

08/25/2023



WW-9  
(5/16)

API Number 47 - 023 - 00018  
Operator's Well No. Ruth Evans 1-2533

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

Operator Name: Diversified Production, LLC OP Code 494524121

Watershed (HUC 10) Lunice Creek Quadrangle Blackbird Knob

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: Production fluid and cement returns.

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.? 20

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- \* Underground Injection ( UIC Permit Number 2D03902327 002 )
- 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: N/A

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. N/A

-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. N/A

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? N/A

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 [Signature]  
Company Official (Typed Name) Chris Veazey  
Company Official Title Permitting Supervisor

Subscribed and sworn before me this 14th day of July, 2023  
Sandra L. Messer  
My commission expires Sept. 18, 2027



08/25/2023

Proposed Revegetation Treatment: Acres Disturbed +/- 1 ac. Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20 or Equivalent

Fertilizer amount TBD lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Red Fescue	40	Red Fescue	15
Alsike	5	Alsike Clover	5
Annual Rye	15		

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.

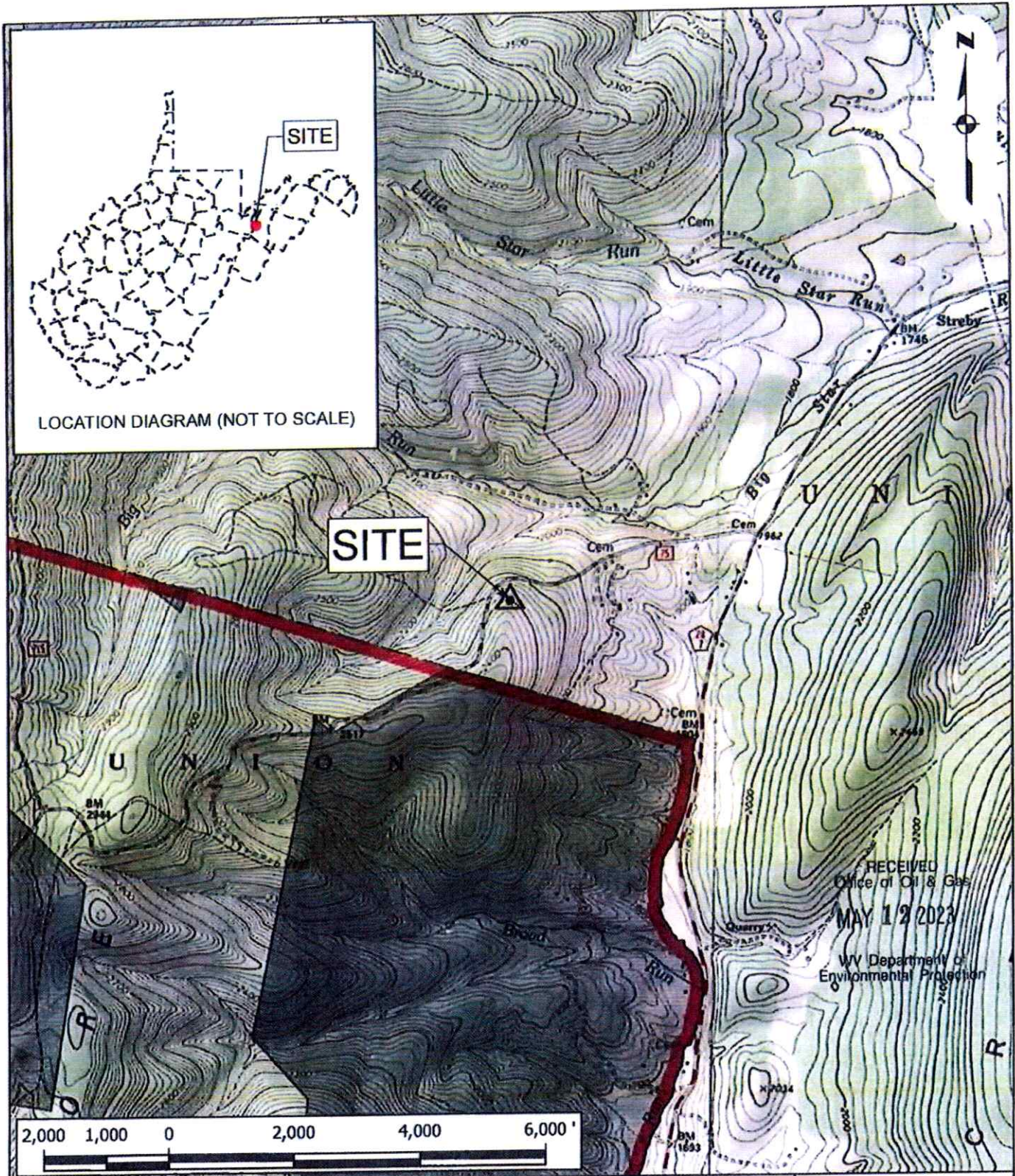
Plan Approved by: Gayne Knitowski  
Digitally signed by Gayne Knitowski  
Date: 2023.07.17 09:32:33 -0400

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

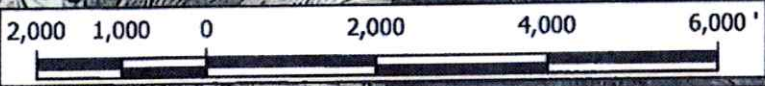
Title: \_\_\_\_\_ Date: 7-17-2023

Field Reviewed? (  ) Yes (  ) No





RECEIVED  
Office of Oil & Gas  
MAY 12 2023  
WV Department of  
Environmental Protection



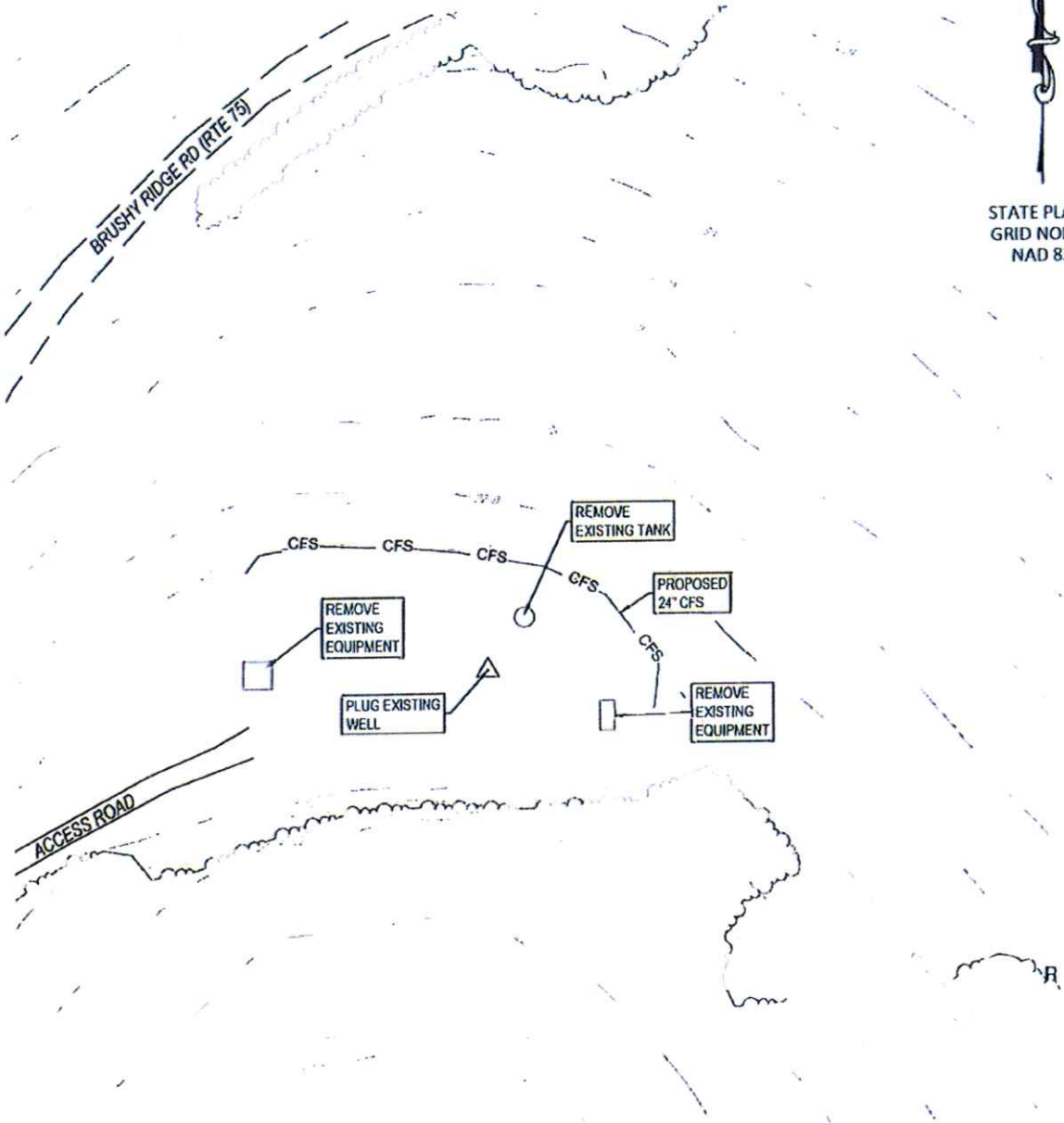
USGS LOCATION MAP  
PREPARED FOR  
Ruth Evans 1-2533 Site  
GRANT COUNTY, WEST VIRGINIA  
BLACKBIRD KNOB USGS QUAD

PROJECT -	2023-0409 Ruth Evans 1-2533
DATE -	3/8/2023
SCALE -	1" = 2,000'
DRAWN -	JCOOK
FILE -	RUTH EVANS_USGS_LOCATION_MAP.mxd

**JHA** ENGINEERS  
SURVEYORS  
ENVIRONMENTAL  
GIS-MAPPING  
www.jhacompanies.com  
(844) 542-4757

08/25/2023





STATE PLANE  
GRID NORTH  
NAD 83



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

SCALE IN FEET

RUTH EVANS 1-2533  
SITE RECLAMATION  
API# 47-023-00018  
FOR  
CHESAPEAKE ENERGY  
LOCATED IN  
GRANT COUNTY, WEST VIRGINIA

SITE PLAN

LEGEND

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

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

PLAN NUMBER	DATE	REV
FINAL	03/08/2022	1

08/25/2023



WW-7  
8-30-06



West Virginia Department of Environmental Protection  
Office of Oil and Gas  
**WELL LOCATION FORM: GPS**

API: 47-023-00018 WELL NO.: Ruth Evans 1-2533  
FARM NAME: Ruth Evans  
RESPONSIBLE PARTY NAME: Diversified Production, LLC  
COUNTY: Grant DISTRICT: Union  
QUADRANGLE: Blackbird Knob  
SURFACE OWNER: Golden E. Evans  
ROYALTY OWNER: Golden E. Evans  
UTM GPS NORTHING: 4325786.379  
UTM GPS EASTING: 650395.403 GPS ELEVATION: 2290'

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  : Post Processed Differential

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.

  
Signature

Chris Veazey - Permitting Supervisor

Title

07/13/23  
Date

08/25/2023

WW-4B

API No.	<u>47-023-00018</u>
Farm Name	<u>Ruth Evans</u>
Well No.	<u>Ruth Evans 1-2533</u>

**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  / 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: \_\_\_\_\_

By: \_\_\_\_\_  
Its \_\_\_\_\_

08/25/2023

**SURFACE OWNER WAIVER**

Operator's Well  
Number

Ruth Evans 1-2533

**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 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

**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,

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name  
By  
Its

\_\_\_\_\_  
Date

Signature

Date

08/25/2023



11/10/2016

PLUGGING PERMIT CHECKLIST  
47-023-00018

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

08/25/2023



**DIVERSIFIED**  
energy

July 14, 2023

Gayne Knitowski  
21 Energy Way  
Gormanian, WV 26720

Mr. Knitowski,  
Please find enclosed a Permit Application to plug API# 47-023-00018, in Grant County, WV.

If you have any questions, comments, or if you require additional information, please feel free to contact me at 304-590-7707.

Thank You,

*Chris Veazey*  
**Chris Veazey**  
Permitting Supervisor

**Diversified Energy Company**  
414 Summers St.  
Charleston, WV 25301  
(304) 590-7707  
Email: [cveazey@dgoc.com](mailto:cveazey@dgoc.com)

414 Summers Street  
Charleston, WV 25301

08/25/2023



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

---

## plugging permit issued 4702300018

1 message

---

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

Thu, Aug 17, 2023 at 9:55 AM


To: Chris Veazey <CVeazey@dgoc.com>, "journ@assessor.state.wv.us" <journ@assessor.state.wv.us>, Gayne J Knitowski <gayne.j.knitowski@wv.gov>, Austin Sutler <asutler@nextvlenergy.com>, Phyllis Copley <pcopley@dgoc.com>

To whom it may concern, a plugging permit has been issued for 4702300018.

James Kennedy

WVDEP OOG

---

 **4702300018.pdf**  
3482K

08/25/2023