



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

Friday, April 19, 2024
WELL WORK PLUGGING PERMIT
Vertical Plugging

CHESAPEAKE APPALACHIA, L.L.C.
6100 N. WESTERN AVE.

OKLAHOMA CITY, OK 73118

Re: Permit approval for 623925
47-023-00033-00-00

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: GARDNER, TIMOTHY & THOMAS
U.S. WELL NUMBER: 47-023-00033-00-00
Vertical Plugging
Date Issued: 4/19/2024

PERMIT CONDITIONS

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

CONDITIONS

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

1) Date MAY 18, 2024
2) Operator's
Well No. 623925
3) API Well No. 47-23 - 00033

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

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

5) Location: Elevation 2181 Watershed SOUTH FORK SOUTH BRANCH POTOMAC
District UNION County GRANT Quadrangle BLACKBIRD KNOB

6) Well Operator CHESAPEAKE APPALACHIA LLC 7) Designated Agent ERIC HASKINS - MANAGER REG OPS
Address PO BOX 18496 Address 14 CHESAPEAKE LANE
OKLAHOMA CITY, OK 73154-0496 SAYRE, PA 18840

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

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

SEE ATTACHED

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Environmental Control Group

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, Inspector Date 3-20-2024

Digitally signed by Gayne Knitowski, Inspector
Date: 2024.03.20 11:56:48 -0400

04/19/2024

WR-35
APR 26 2000
West Virginia
Division of Environmental Protection

DATE: 01-Nov-99
API #: 47-23-00033

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Reviewed ALB

Well Operator's Report of Well Work

Farm name: GARDNER, TIMOTHY & THOMAS Operator Well No.: 623925

LOCATION: Elevation: 2,181.00 Quadrangle: BLACKBIRD KNOB

District: UNION County: Grant
Latitude: 7875 Feet South of 39 Deg. 7 Min. 30 Sec.
Longitude 3250 Feet West of 79 Deg. 15 Min. 0 Sec.

Company: COLUMBIA NATURAL RESOURCES

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: Rt. 1, Box 107-10	11-3/4	295	295	CTS
Buckhannon, WV 26201	8-5/8	3321	3321	CTS
Agent: R. Mark Hackett	4-1/2	8192	8192	176 SXS
Inspector: Phil Tracy				
Date Permit Issued: 11/01/99				
Date Well Work Commenced: 11/29/99				
Date Well Work Completed:				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Depth (feet): 8248				
Fresh Water depths (ft): 434				
Salt water depths (ft): None				
Is coal being mined in area (Y/N)? N				
Coal Depths (ft): None				

OPEN FLOW DATA

Producing formation Oriskany Pay zone depth (ft) 7930.5 - 7990
Gas: Initial open flow 223 MCF/d Oil: Initial open flow n/a Bbl/d
Final open flow 516 MCF/d Final open flow n/a Bbl/d
Time of open flow between initial and final tests 4 Hours
Static rock Pressure 1450 psig (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 _____ psig (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 WELLBORE.

Signed: COLUMBIA NATURAL RESOURCES, INC.
By: R. Mark Hackett
Date: 4/20/2000

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West Virginia Department of
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GRANT 0033

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TIMOTHY GARDNER ETAL 1



Plug & Abandon

County/State: GRANT, WV Township: UNION
 Latitude: 39.1035936495 Longitude: -79.2611055692 (NAD 83)
 API: 4702300033

Summary

The TIMOTHY GARDNER ETAL 1 will be plugged and abandoned. The well is located in GRANT County, WV and was spud on 11-29-1999 by CNR, INC, targeting the Oriskany as a Vertical well. The last know production date for this well was 12-15-2012 where it produced 18 MCF, 0 BO, and 0 BW.

Casings weights and grades unknown, values are assumed. Vertical well targeting the Oriskany. No tubing shown in well, tubing listed here is for the work string to be used in the P&A.

Guideline

Step	Operation
	<p>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.</p> <p>Pre-Job Safety Meeting</p> <ol style="list-style-type: none"> 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: <ul style="list-style-type: none"> · 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. <p>Glossary: QHB = Qualified Hydrostatic Barrier, BPV = Back Pressure Valve, TIW = Full Open Safety Valve (Equal ID to Work String), TWC = Two Way Check</p>
1	<p>Prior to rig arriving on site:</p> <ol style="list-style-type: none"> a. Make sure all casing valves are readily accessible and remove water from cellar. b. Perform 72-hour pressure build up test on all annuli. c. Perform negative pressure test on master valve(s) in accordance with APP Master Valve Operational Guideline - PROD-APP-002. c. Make sure A, B, and C section flanges are properly identified. d. Verify regulatory permit and approval to plug and abandon. e. Notify WVDEP, BLM, municipality and surface landowner 1 week prior to commencing operations.

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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.
	<ul style="list-style-type: none"> a. Contact supervisor and OKC engineer if higher weight kill fluid is required. <ul style="list-style-type: none"> · 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.
5	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.
	<ul style="list-style-type: none"> a. Flow Paths: <ul style="list-style-type: none"> · 2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = Master Valve · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = Master Valve
6	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.
	<ul style="list-style-type: none"> a. Flow Paths: <ul style="list-style-type: none"> · Tubing – 1st Barrier = QHB, 2nd Barrier = Lubricator · Casing – 1st Barrier = QHB, 2nd Barrier = Tubing Hanger
7	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).
	<ul style="list-style-type: none"> a. Flow Paths: <ul style="list-style-type: none"> · 2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = BPV · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = Tubing Hanger
8	NU lubricator and pressure test against master valve. Bleed off test pressure, open master valve and pull BPV.
	<ul style="list-style-type: none"> a. Flow Paths: <ul style="list-style-type: none"> · 2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = BPV (NU), 2nd Barrier = Lubricator (Pull BPV) · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = Tubing Hanger
9	Close Blind Ram and ND lubricator
	<ul style="list-style-type: none"> a. Flow Paths: <ul style="list-style-type: none"> · 2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = Blind Ram · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = Tubing Hanger
10	MU lifting sub into tubing hanger. Unscrew tubing lockdown pins and LD tubing hanger. POOH with tubing while standing back.
	<ul style="list-style-type: none"> a. Flow Paths: <ul style="list-style-type: none"> · 2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = TIW · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = Pipe Ram
11	SKIP TO THIS STEP IF WELL DID NOT HAVE TUBING - Close master valve. NU WL packoff and pressure test against master valve. RU WL.
	<ul style="list-style-type: none"> a. Flow Paths: <ul style="list-style-type: none"> · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = Master Valve · 8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips, 3rd Barrier = Master Valve
12	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. TOOH 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.
	<ul style="list-style-type: none"> a. Flow Paths: <ul style="list-style-type: none"> · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = WL Packoff · 8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips, 3rd Barrier = WL Packoff

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13	ND WL packoff. RD and release WL.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP · 8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips
14	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>a. Flow Paths:</p> <ul style="list-style-type: none"> · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP · 8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips
15	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>a. Flow Paths:</p> <ul style="list-style-type: none"> · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP · 8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips
16	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>a. Flow Paths:</p> <ul style="list-style-type: none"> · 2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = CIBP, 3rd Barrier = TIW · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP, 3rd Barrier = Pipe Rams
17	NU WL packoff. RU WL.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP, 3rd Barrier = Cement Plug · 8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips
18	RIH with CBL, POOH with WL and discuss results with key stakeholders.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP, 3rd Barrier = Cement Plug, 4th Barrier = WL Packoff (untested) · 8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips, 3rd Barrier = WL Packoff (untested)
19	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>a. Flow Paths:</p> <ul style="list-style-type: none"> · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = WL Packoff · 8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips, 3rd Barrier = WL Packoff
20	Close blind ram. RD WL. Verify good cut before releasing WL by attempting to establish circulation. Do not exceed a 0.8 psi/ft gradient when establishing circulation against open hole accounting for hydrostatic pressure. Example: casing cut at 5,000' with 9 ppg fluid in well --> Max pressure at cut = 5,000' x 0.8 psi/ft = 4,000 psi. Hydrostatic pressure = 0.052 x 9 ppg x 5,000' = 2,340 psi. Max surface circulating pressure = 1,660 psi.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = Blind Ram · 8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips, 3rd Barrier = Blind Ram
21	NU casing jacks (if applicable), MU casing spear, and open blind ram. Spear casing, LD slips and spear.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> · 2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = TIW · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = Blind Ram (Csg Jack NU), 2nd Barrier = Pipe Ram (Spear) · 8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips (Csg Jack NU), 2nd Barrier = Pipe Ram (Spear)

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22	POOH with production casing.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> · 4.5 Casing – 1st Barrier = QHB, 2nd Barrier = Swage Nipple w/ Ball Valve · 8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Annular
23	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>a. Flow Paths:</p> <ul style="list-style-type: none"> · 2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = TIW · 8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Pipe Rams
24	Plug #4 (Inter Csg Shoe and Elevation Plug) - TIH with work string and tag TOC. PU to bottom depth of Plug 4 as specified under the Plug Details table. Pump Spacer 3 as detailed under the Spacer Details table. Pump balanced cement plug in accordance with Plug 4. 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>a. Flow Paths:</p> <ul style="list-style-type: none"> · 2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = TIW · 8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Pipe Rams
25	Plug #5 (Surface Plug) - TIH with work string and tag TOC. PU to bottom depth of Plug 5 as specified under the Plug Details table. Pump balanced cement plug in accordance with Plug 5. Displace tubing with volume specified on Plug Details table. POOH. Close blind ram. WOC 8 hours.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> · 2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = TIW · 8.625 Casing – 1st Barrier = QHB, 2nd Barrier = Pipe Ram
26	RDMO.
27	Monitor well for 24 hrs minimum.
28	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.

Gayne
Knitowski,
Inspector

Digitally signed by
Gayne Knitowski,
Inspector
Date: 2024.03.20
11:53:28 -04'00'

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TIMOTHY GARDNER ETAL 1



Well Information

Surface Location	
County/State	GRANT, WV
Township	UNION
Latitude*	39.10359365
Longitude*	-79.26110557

*NAD 83

CHK Contacts			
Title	Name	Office	Mobile
Production Superin.	Nick Krut	-	570-886-0256
Completions Fore.	Lucas Welch	-	570-423-4236
Production Manager	John Van Gels	405-766-8012	636-448-1104
Production Supervisor	Keeley Bergman	405-766-8438	918-991-5520
Production Engineer	Jordan Lucas	-	740-629-2091
Regulatory Manager	Eric Haskins	-	607-242-3839

Driving Directions
0

General Well Data							
KB	10	Top Perf	7,931	Perf Interval Length	60	PBTD	0
KOP	0	Bottom Perf	7,990	TD	8,248	Elevation	2,181

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Casing Details										
String	Grade	OD	ID	Weight	Drift	Top (ftKB)	Bottom (ftKB)	Capacity (bbl/ft)	Tot. Cap. (bbl)	Hole Size
Conductor										
Surface	H-40	11.75	11.084	42	10.928	-	295	0.119346	35.2	15
Intermediate	J-55	8.625	7.921	32	7.796	-	3,321	0.06095	202.4	11
Production	J-55	4.5	4.052	10.5	3.927	-	8,192	0.01595	130.7	7.785
Production										
DV Tool										

Tubing Details										
Component	Grade	Weight	OD	ID	Length (ft)	Top (ftKB)	Bottom (ftKB)	Burst 80% (PSI)	Capacity (bbl/ft)	Tot. Cap. (bbl)
Tubing BHA	L-80	4.7	2.375	1.995	7,900	10	7,910	8,960	0.003866	31

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TIMOTHY GARDNER ETAL 1



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	4.052	2	7,831	7,829	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Cement	Cement Perf Isolation	4.052	200	7,829	7,629	Class A	1.28	15.5	0	3.2	14.0	29.3
3	Cement	Prod Csg Stub Plug (Inside Csg)	4.052	50	7,170	7,120	Class A	1.28	15.5	0	0.8	3.5	26.7
3 (con.)	Cement	Prod Csg Stub Plug (Open Hole)	7.785	150	7,120	6,970	Class A	1.28	15.5	50	13.2	58.1	0.0
4	Cement	Inter Csg Shoe and Elevation Plug (Open Hole)	7.785	100	3,421	3,321	Class A	1.28	15.5	50	8.8	38.7	12.2
4 (con.)	Cement	Inter Csg Shoe and Elevation Plug (Inside Csg)	7.921	161	3,321	3,160	Class A	1.28	15.5	0	9.8	43.0	0.0
5	Cement	Surface Plug	11.084	100	100	0	Class A	1.28	15.5	0	11.9	52.4	0.4

Spacer Details								
#	Fluid Type	Description	Set ID	Spacer Height	Spacer Density (ppg)	Spacer Viscosity (cp)	Excess Spacer (%)	Spacer Volume (bbls)
1	Gel	Perf Isolation to Prod Csg Stub Plug	4.052	459	9	-	5	7.7
2	Gel	Prod Csg Stub Plug to Inter Csg Shoe and Elevation Plug	7.785	3,549	9	-	40	292.5
3	Gel	Inter Csg Shoe and Elevation Plug to Surface Plug	11.084	3,060	9	-	5	383.5
4								

Estimated Casing Cuts	
String	Est. Cut Depth (ftKB)
Intermediate	
Production	7,120

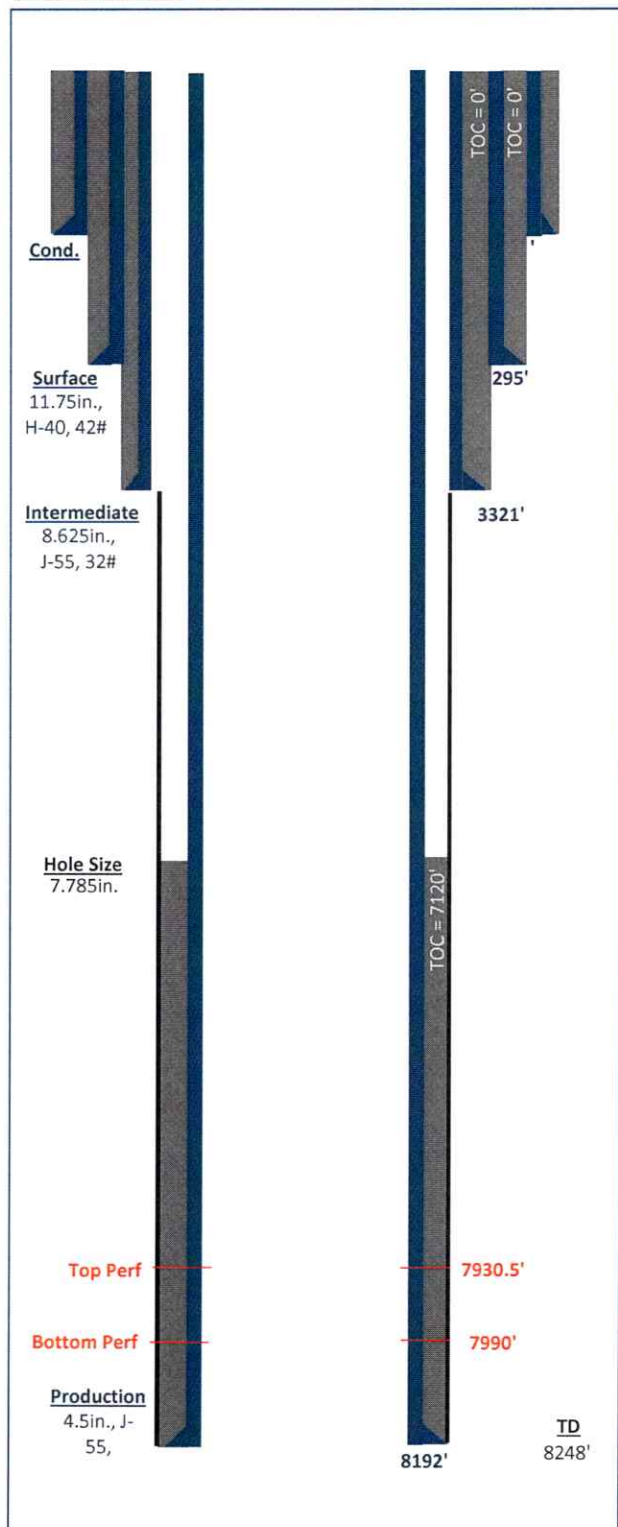
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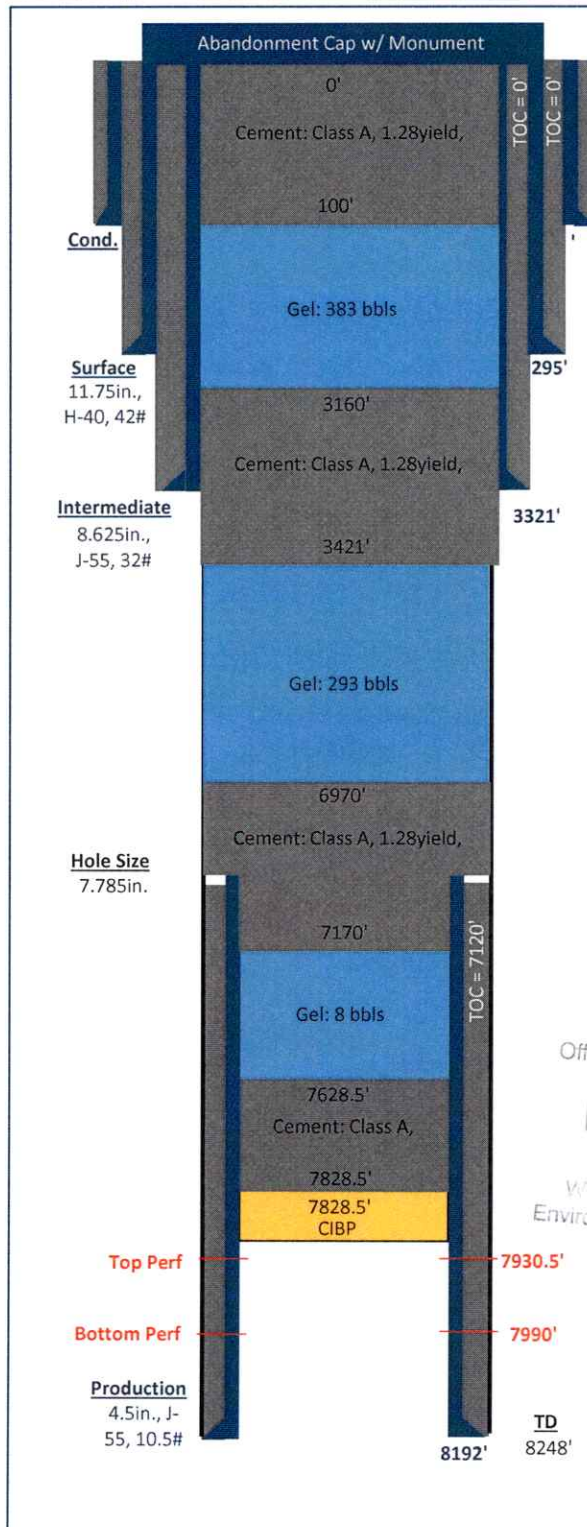
TIMOTHY GARDNER ETAL 1



Current Wellbore Schematic



Proposed Wellbore Schematic



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Schematics are note to scale

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WW-4A
Revised 6-07

1) Date: 3/18/2024
2) Operator's Well Number
CHESAPEAKE APPALACHIA LLC
3) API Well No.: 47 - 023 - 00033

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

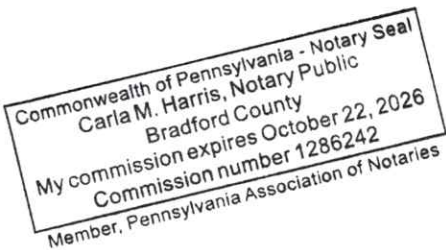
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>CARROLL B COOK AND DONNA T COOK</u>	Name _____
Address <u>3504 TILTON VALLEY DRIVE</u>	Address _____
<u>FAIRFAX, VA 22033</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>CARROLL B COOK AND DONNA T COOK</u>
_____	Address <u>3504 TILTON VALLEY DRIVE</u>
(c) Name _____	<u>FAIRFAX, VA 22033</u>
Address _____	Name _____
_____	Address _____
6) Inspector <u>GAYNE J KNITOWSKI</u>	(c) Coal Lessee with Declaration
Address <u>601 57TH STREET SE</u>	Name _____
<u>CHARLESTON WV 25304</u>	Address _____
Telephone <u>304546-8171</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 CHESAPEAKE APPALACHIA LLC
 By: KERI FIENO
 Its: REGULATORY SPECIALIST
 Address PO BOX 18496
OKLAHOMA CITY, OK 73154-0496
 Telephone 405-766-8791

RECEIVED
Office of Oil and Gas
MAR 29 2024

Subscribed and sworn before me this 21st day of March 2024
Carla M Harris Notary Public
 My Commission Expires October 22, 2026

WV Department of Environmental Protection

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.

04/19/2024

[EXTERNAL] UPS Delivery Notification, Tracking Number 1ZV3127X0398527851

UPS <pkginfo@ups.com>

Wed 3/20/2024 3:50 PM

To:Keri Fieno <KERI.FIENO@CHK.COM>

This Message Is From an External Sender

This message came from outside your organization.

Report Suspicious

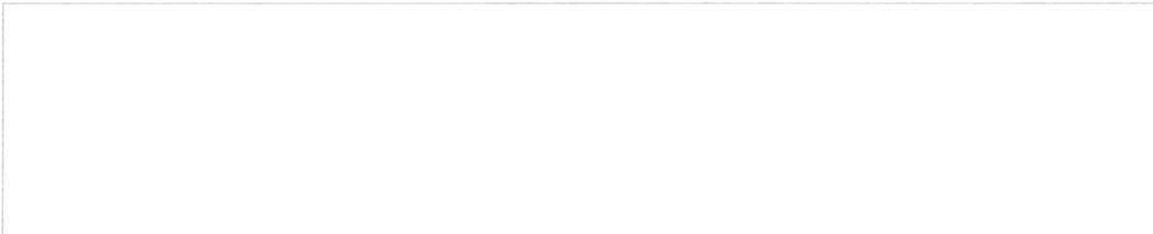


Hello, your package has been delivered.

Delivery Date: Wednesday, 03/20/2024

Delivery Time: 3:49 PM

Left At: OTHER-RELEAS



[Set Delivery Instructions](#)

[Manage Preferences](#)

[View My Packages](#)

SAYRECHK

WC HALTERMAN ESTATE 1 AND TIMOTHY GARDNER ETAL 1 LANDOWNER NOTIFICATIONS

Tracking Number:	1ZV3127X0398527851
Ship To:	CARROLL B COOK AND DONNA T COOK 3504 TILTON VALLEY DRIVE FAIRFAX, VA 220331807 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	0.2 LBS
Reference Number:	WC HALTERMAN ESTATE 1 P&A
Reference Number:	TIMOTHY GARDNER ETAL 1 P&A

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Office of Oil and Gas
MAR 29 2024
U.S. DEPARTMENT OF
Environmental Protection

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04/19/2024

WW-9
(5/16)

API Number 47 - 023 00033
Operator's Well No. ERG 623925

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

Operator Name CHESAPEAKE APPALACHIA LLC OP Code 2528

Watershed (HUC 10) SOUTH FORK SOUTH BRANCH POTOMAC 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 used? Yes No

If so, please describe anticipated pit waste: ANY WELL EFFLUENT WILL BE CONTAINED IN TANKS AND DISPOSED OFFSITE

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

Proposed Disposal Method For Treated Pit Wastes:

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

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

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

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

Additives to be used in drilling medium? NONE

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

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) NO PIT

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

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

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

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

Company Official Signature *Keri Fieno*

Company Official (Typed Name) KERI FIENO

Company Official Title REGULATORY SPECIALIST

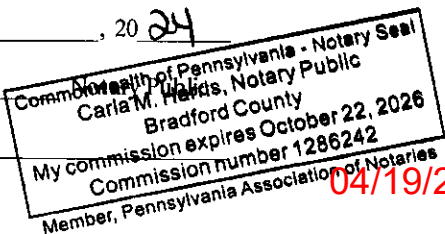
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MAR 22 2021

WV Department of Environmental Protection

Subscribed and sworn before me this 21st day of March, 2021

Carla M. Harris
My commission expires October 22, 2026



04/19/2024

Proposed Revegetation Treatment: Acres Disturbed 10 Prevegetation pH _____

Lime 3.90 Tons/acre or to correct to pH 7

Fertilizer type 8-16-16

Fertilizer amount 968 lbs/acre

Mulch 3 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

OATS/ANNUAL RYE 40LBS/ACRE

BIRDSFOOT TREFOIL 8LBS/ACRE

HAY/STRAW MULCH 3 TONS/ACRE

TALL FESCUE 40LBS/ACRE

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Gayne Knitowski, Inspector Digitally signed by Gayne Knitowski, Inspector
Date: 2024.03.20 11:54:50 -0400

Comments: _____

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MAR 29 2024

Mississippi Department of
Environmental Protection

Title: Inspector Date: 3-20-2024

Field Reviewed? () Yes () No

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

Operator Name: CHESAPEAKE APPALACHIA LLC
Watershed (HUC 10): SOUTH FORK SOUTH BRANCH POTOMAC Quad: BLACKBIRD KNOB
Farm Name: TIMOTHY GARDNER ETAL 1

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

SEE ATTACHED

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

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

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MAR 28 2014

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

Environment

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

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

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

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

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Environmental

Signature: Yeri Liens

Date: 3/21/24

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.

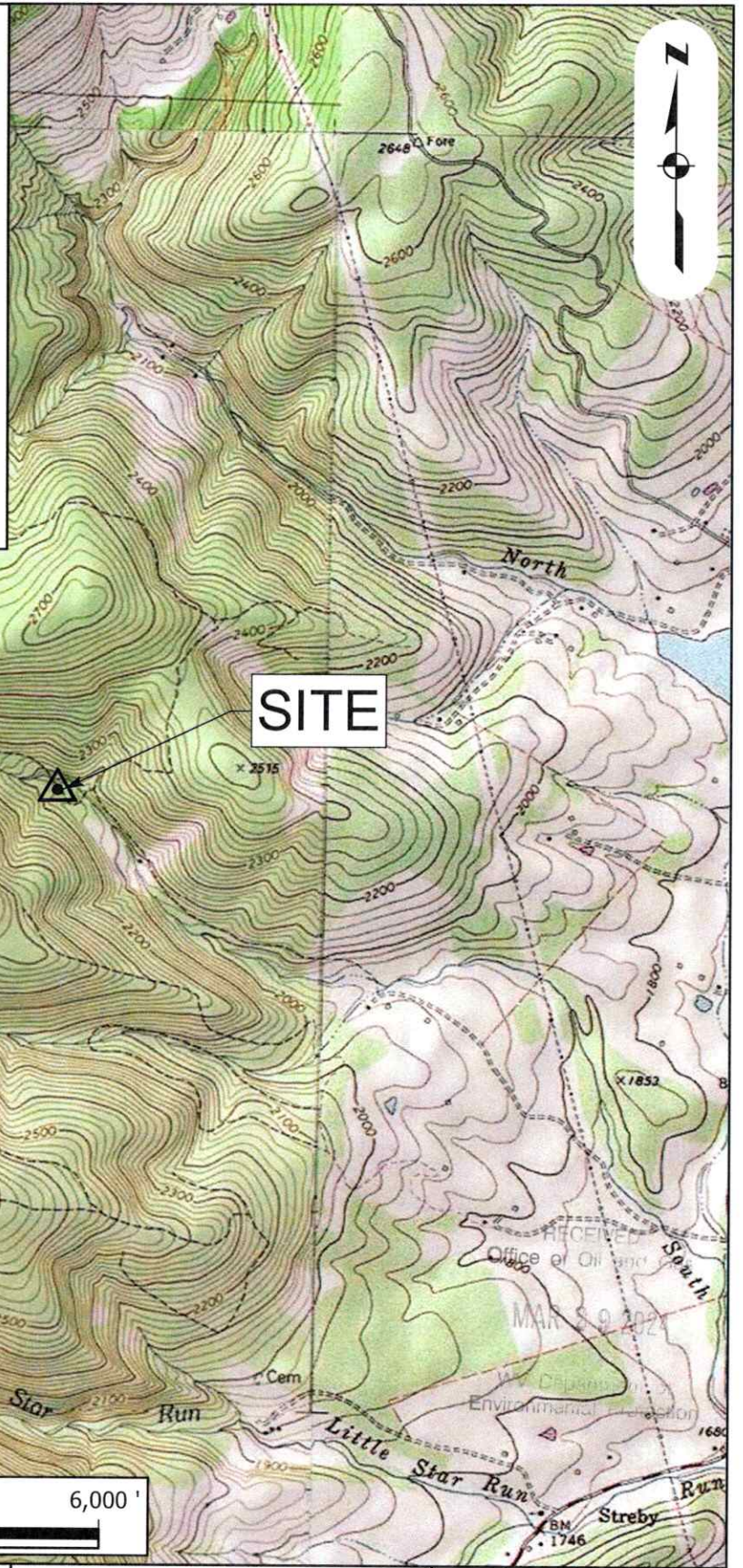
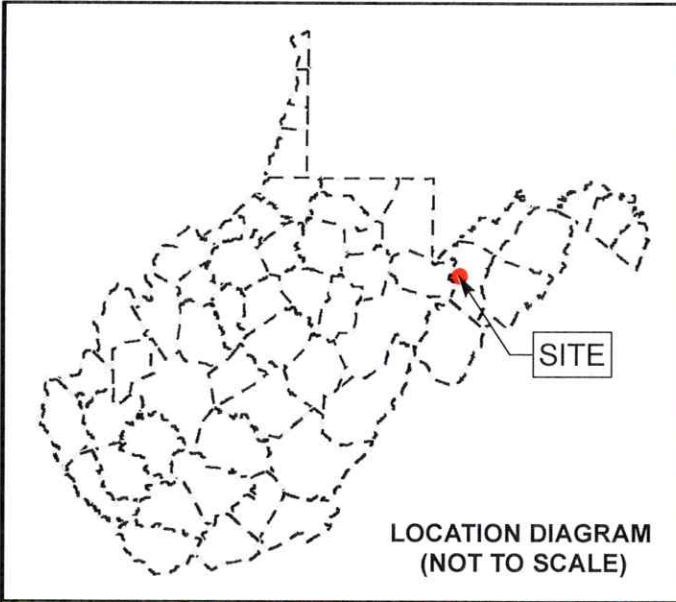
MAINTENANCE AND GUARANTEE

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 RESEDED AND REMULCHED AT THE CONTRACTORS EXPENSE WITH THE SAME MIXTURE ORIGINALLY USED THEREON. ERODED AREAS SHALL BE REPAIRED AND RESTORED TO FINISHED GRADE PRIOR TO RESEEDING AND REMULCHING. ALL SUCH REPAIRING OF EROSION, RESEEDING, AND REMULCHING SHALL BE REPEATED UNTIL ALL EFFECTED AREAS ARE COVERED WITH GRASS.

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MAR 23 2024

STATE OF TEXAS
ELECTRONIC RECORDS



USGS LOCATION MAP
 PREPARED FOR
 TIMOTHY GARDNER ETAL 1
 GRANT COUNTY, WEST VIRGINIA
 BLACKBIRD KNOB USGS QUAD

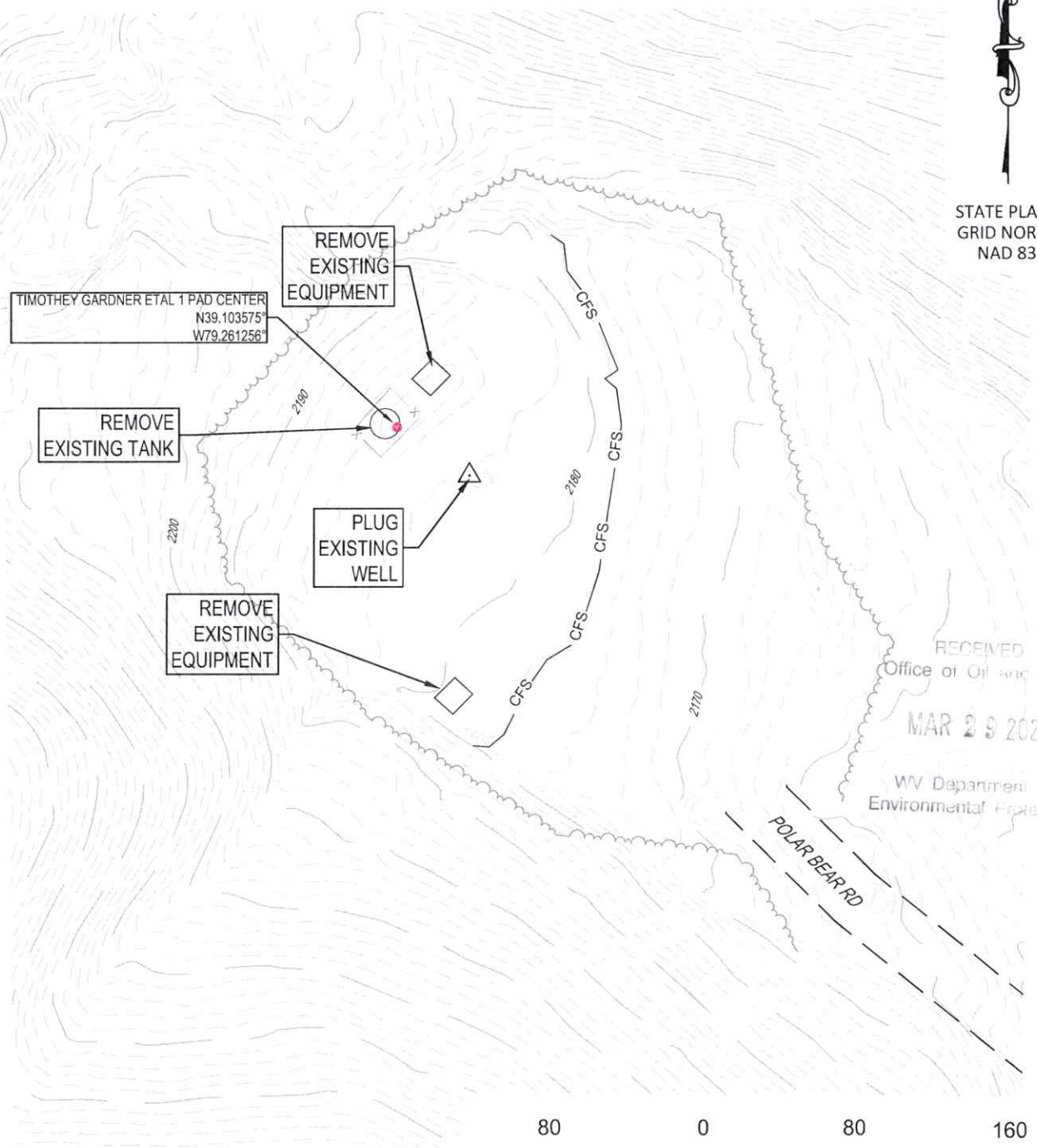
PROJECT -	Timothy Gardner ETAL
DATE -	1/23/2024
SCALE -	1" = 2,000'
DRAWN -	JKANE
FILE -	TIMOTHY_GARDNER_USGS_LOCATION_MAP.mxd



(844) 542-4757
 04/19/2024



STATE PLANE
GRID NORTH
NAD 83



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



TIMOTHEY GARDNER ETAL 1
SITE RECLAMATION API#47-023-00033
FOR
CHESAPEAKE ENERGY
LOCATED IN
GRANT COUNTY, WEST VIRGINIA
UNION DISTRICT
SOUTH BRANCH POTOMAC (2070001) WATERSHED

SITE PLAN

LEGEND	
EXISTING CONTOUR	
EXISTING TREE LINE	
EXISTING PRIVATE ROAD EDGE	
WELLHEAD	
COMPOSITE FILTER SOCK	



WWW.JHACOMPANIES.COM
844-542-4757
466 SOUTH MAIN STREET
MONTROSE, PA 18801
PA • OH • NY • WV • VA • MD

PLN 0000 FINAL DATE 01/23/2024 NO. 1

04/19/2024



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

API: 47-023-00033 WELL NO.: 623925

FARM NAME: TIMOTHY GARDNER

RESPONSIBLE PARTY NAME: CHESAPEAKE APPALACHIA LLC

COUNTY: GRANT DISTRICT: UNION

QUADRANGLE: BLACKBIRD KNOB

SURFACE OWNER: CARROLL B COOK AND DONNA T COOK

ROYALTY OWNER: CARROLL B COOK AND DONNA T COOK

UTM GPS NORTHING: 4329711.924

UTM GPS EASTING: 650358.876 GPS ELEVATION: 2181'

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.

Keri Luino
Signature

REGULATORY SPECIALIST
Title

3/21/24
Date

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MAR 29 2024

Environmental Services



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

plugging permits issued 4702300013 02300023 02300033

1 message

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

Fri, Apr 19, 2024 at 9:41 AM

To: Gayne J Knitowski <gayne.j.knitowski@wv.gov>, Eric Haskins <eric.haskins@chk.com>, jours@assessor.state.wv.us


To whom it may concern, plugging permits have been issued for 4702300013 02300023 02300033.


James Kennedy

WVDEP OOG

3 attachments

 **4702300013.pdf**
2172K

 **4702300033.pdf**
2334K

 **4702300023.pdf**
2764K

04/19/2024