



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

Wednesday, March 5, 2025
WELL WORK PLUGGING PERMIT
Vertical Plugging

WEST VIRGINIA LAND RESOURCES, INC.
46226 NATIONAL ROAD WEST

ST. CLAIRSVILLE, OH 43950

Re: Permit approval for 3-3674
47-061-00150-00-00

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: HENDERSON, NOAH
U.S. WELL NUMBER: 47-061-00150-00-00
Vertical Plugging
Date Issued: 3/5/2025

PERMIT CONDITIONS

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

CONDITIONS

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

1) Date JANUARY 7, 20 25
2) Operator's Well No. 8145
3) API Well No. 47-061-00150

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 1079.74' Watershed WHISLER RUN OF NORTH FORK OF WEST VIRGINIA FORK OF DUNKARD CREEK
District BATTELLE County MONONGALIA Quadrangle HUNDRED W.VA, PA

6) Well Operator WEST VIRGINIA LAND RESOURCES INC. 7) Designated Agent DAVID RODDY
Address 1 BRIDGE STREET Address 1 BRIDGE STREET
MONONGAH, WV 26554 MONONGAH, WV 26554

8) Oil and Gas Inspector to be notified Name GAYNE KNITOWSKI
Address P.O. BOX 108
GORMANIA, WV 26720
9) Plugging Contractor Name
Address

10) Work Order: The work order for the manner of plugging this well is as follows:
See Exhibit No. 1 and MSHA 101-C Exemption

Marion County Mine (MSHA ID# 46-01433)
MSHA 101-C Docket No. M-2016-017-C

Approximate Surface Elevation = 1079.74'
Approximate Bottom of Coal = 178.00'
Approximate Depth = 901.74'

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

Work order approved by inspector Gayne Knitowski Digitally signed by Gayne Knitowski Date: 2025.02.04 07:51:33 -05'00' Date 2-4-2025

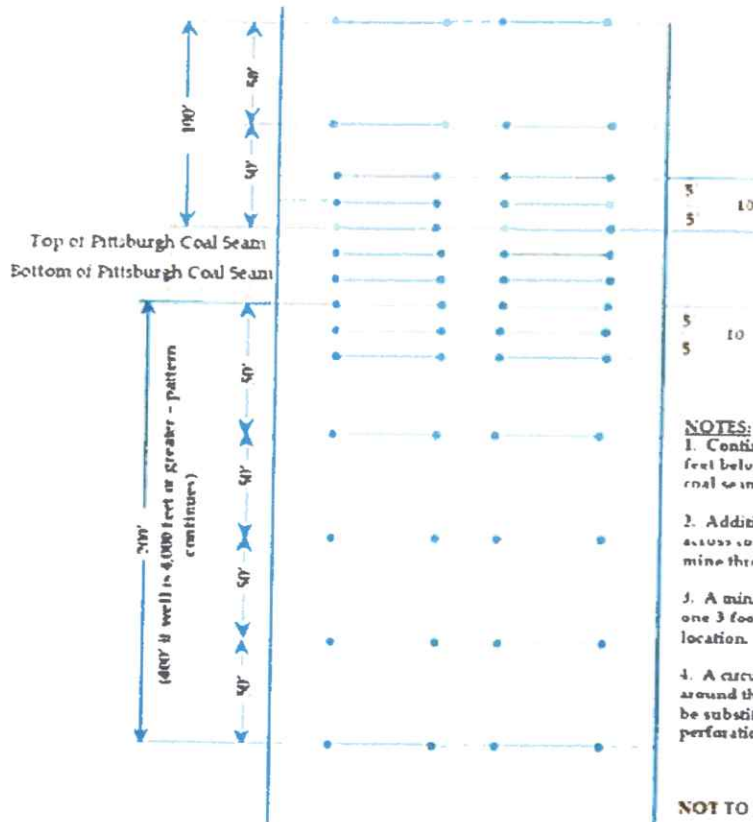
EXHIBIT NO. 1

From the experience and technology developed since 1970 in plugging oil and gas wells for mining through, Consolidation Coal Northern West Virginia Operations will utilize the following method to plug all future wells.

SOLID PLUG METHOD

- (a) If active well: clean out to total depth and set solid cement plug from TD back to minimum of 200 feet below lowest minable coal seam
- (b) If abandoned well: Entire wellbore will be loaded with Gel and will clean out to at least 200 feet below lowest minable coal seam.
- (c) A diligent attempt will be made by pulling 150% of the calculated string weight to remove casing.
- (d) If all diligent attempts fail, the casing will be cut, ripped or perforated according to Appendix A below
- (c) Circulate through tubing or drill steel an expanding Class A cement plug from a minimum of 200 feet below lowest minable coal seam to 100' above coal seam.
- (d) Tag previous cement plug, cement from 100' above coal seam to surface.

Appendix A



NOTES:

- 1. Continuous rip from 10 feet below to 10 feet above coal seam or like sketch
- 2. Additional rips made across coal seam to facilitate mine through
- 3. A minimum of 4 shots or one 3 foot rip at each location.
- 4. A circumferential cut around the entire casing may be substituted for the perforation or ripping.

NOT TO SCALE

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Stephen
Mccoy

Digitally signed by
Stephen Mccoy
03/07/2025 08:16:21
-05'00'

Leather w/d 08, Inc.
Noah Henderson #2
APW 47-067-00150
Case of E...
1-800-...
BY Contact

03/07/2025

OIL & GAS DIVISION
W E L L R E C O R D

Permit No. Mon 150
Mannington N.W.Quad.
Company
Address
Farm
Location
Well No
District
Surface
Mineral

Commenced
Completed
Date shot
Open flow
Volume
Rock Pressure

The Manf. Light & Heat Co.
800 Union Trust Bldg., Pittsburgh, Pa.
Noah Henderson Acres 215

3- 3674 Elev. 1069
Battelle Monongalia County
M. G. Henderson, Burton, W.Va.
The Mfrs. Light & Heat Co.
800 Union Trust Bldg., Pittsburgh, Pa.
9-26-42
11-16-42
12-8-42 Depth 3088 to 3098 with gly.
16/10ths W in 2"
109,000 G.F.
600 lbs. 48 hrs.

Gas Well
CASING & TUBING

10 198'0
8 1/2 1422'5
6 5/8 2149'3 Same

Packer
?

Coal at 884' 72"

Clay, Sand, Slate	0	104	Gordon Sand	2963	2993
Sand	104	140	Shells	2993	3027
Lime	140	160	Sand	3027	3075
Red Rock	160	195	Slate & Shells	3075	3085
Slate & Lime	195	510	4th Sand	3085	3125
Sand	510	525	Slate & Limo	3125	3144
Slate & Lime	525	580	5th Sand	3144	3155
Sand	580	615	Slate & Shells	3165	3394
Slate	615	625	TOTAL DEPTH		3394
Lime	625	884			
— Pittsburgh Coal	884	890	Gas at 3088-3098		
Sand	890	928			
Lime	928	1000			
Sand	1000	1035			
Slate, Rock, Lime	1035	1308			
Slate & Shell	1308	1333			
Lime & Slate	1333	1393			
Big Dunkard Sand	1393	1468	<i>Mohaning + upper Fr. report ss</i>		
Slate	1468	1470			
Sand	1470	1489			
Slate & Lime	1489	1515			
Sand	1515	1535			
Slate	1535	1545			
Sand	1545	1640			
Slate & Lime	1640	1682			
Sand	1682	1692			
Slate, Shell, Lime	1692	1727			
Sand	1727	1740			
Slate, Shell, Lime	1740	1875			
Sand	1875	1900			
Slate, Shell, Rock, Lime	1900	2050			
Little Lime	2050	2060			
Pencil Cave	2060	2070			
Big Lime	2070	2173	S.L.M. 2125'		
Big Injun 2 1/2	2173	2360			
Slate	2360	2365			
Sand	2365	2379			
Lime Shells	2379	2470			
Gantz Sand	2470	2515			
Shells	2515	2680			
Sand	2680	2695			
Shells	2695	2818			
50' Sand	2818	2872	Gas at 2823' S.L.		
Slate	2872	2876			
30' Sand	2876	2902			
Slate	2902	2918			
Gordon Stray Sand	2918	2944			
Slate	2944	2955			
Sand	2955	2960			
Pink Rock	2960	2963			

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Select County: (061) Monongalia

Enter Permit #: 150

Select data types: (Check All)

- Location
- Production
- Plugging
- Owner/Completion
- Stratigraphy
- Sample
- Pay/Show/Water
- Logs
- Birn Hole Loc

[Get Data](#) [Reset](#)

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Report Time: Tuesday, January 07 2025 6:08:52 AM

Location Information: Ven Map
 4706100150 Monongalia 150 Permit Tax District QUAD_75 QUAD_15 LAT_DD LON_DD UTIME UTIME
 4706100150 Monongalia 150 Berrima Hundred Marlington 39.652182 -80.378583 553304.6 4390444.3

There is no Bottom Hole Location data for this well

Owner Information:

API 4706100150 SURFAC STATUS SURFACE OWNER WELL_NUM CO NUM LEASE LEASE_NUM MINERAL_OWN
 4706100150 11/16/1942 Original Loc Completed M.G.Henderson 3 3074 North Henderson 2005 Manufacturers Light & Heat Co. Manufacturers Light & Heat Co.

Completion Information:

API CAMP_DT SPUD_DT ELEV DATUM FIELD DEEPEST_FM DEEPEST_FMT INITIAL_CLASS FINAL_CLASS TYPE RIG
 4706100150 11/16/1942 9/28/1942 1066 Ground Level Maple-Wadestown US Devonian UP Devonian Development Well Development Well Gas Unknown Strat

Pay/Show/Water Information:

API CAMP_DT ACTIVITY PRODUCT SECTION DEPTH_TOP FM TOP DEPTH_BOT FM BOT G_BEFF G_AFT G_BEFF G_AFT WATER_QNTRY
 4706100150 11/16/1942 Pay Gas Vertical Vertical 2823 Fifty-foot 0 0 0 0 0 0

Production Gas Information: (Volumes in Mcf)

API	PRDUCING_OPERATOR	PRD_YEAR	ANM_GAS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCIM
4706100150	Columbia Gas Transmission Corp.	1980	2,080	179	239	171	190	189	83	7	8	201	299	269	227
4706100150	Columbia Gas Transmission Corp.	1981	1,870	171	146	233	244	40	15	0	0	0	0	3	45
4706100150	Columbia Gas Transmission Corp.	1982	3,152	306	286	243	273	50	165	0	0	0	0	0	0
4706100150	Columbia Gas Transmission Corp.	1983	1,145	185	403	172	290	91	0	0	0	0	0	0	0
4706100150	Columbia Gas Transmission Corp.	1984	1,825	341	363	312	361	220	0	0	0	0	0	0	0
4706100150	Columbia Gas Transmission Corp.	1985	593	0	148	69	226	73	148	229	190	115	12	0	30
4706100150	Columbia Gas Transmission Corp.	1986	550	19	28	77	0	0	0	0	0	0	0	0	23
4706100150	Columbia Gas Transmission Corp.	1987	814	0	0	0	0	2	65	165	207	183	152	93	4
4706100150	Columbia Gas Transmission Corp.	1988	1,594	31	6	7	29	248	217	155	113	482	239	60	53
4706100150	Columbia Gas Transmission Corp.	1989	1,016	88	71	49	177	154	83	24	56	87	129	68	57
4706100150	Columbia Gas Transmission Corp.	1991	725	27	0	8	12	110	62	134	99	40	111	64	38
4706100150	Columbia Natural Resources, Inc. (CNR)	1992	1,464	146	92	31	42	0	208	273	120	155	33	179	184
4706100150	Columbia Natural Resources, Inc. (CNR)	1993	2,089	272	152	120	151	148	142	120	110	199	179	194	282
4706100150	Columbia Natural Resources, Inc. (CNR)	1994	838	157	0	0	0	27	117	188	167	61	38	51	30
4706100150	Traffen & Hesterman Oil & Gas, LLC	1995	1,838	47	112	106	170	155	170	114	138	277	202	211	137
4706100150	Traffen & Hesterman Oil & Gas, LLC	1996	400	88	26	0	0	0	32	180	94	0	0	0	0
4706100150	TH-County Oil & Gas, Inc.	1997	917	42	86	53	68	98	69	76	99	46	98	81	98
4706100150	TH-County Oil & Gas, Inc.	1998	1,582	127	135	150	117	96	142	105	144	164	136	140	124
4706100150	TH-County Oil & Gas, Inc.	2000	3,208	287	267	267	267	267	267	267	268	268	268	268	268
4706100150	TH-County Oil & Gas, Inc.	2001	2,685	210	220	174	178	237	222	242	269	256	214	217	216
4706100150	TH-County Oil & Gas, Inc.	2002	2,617	180	332	202	190	182	206	448	152	181	152	110	302
4706100150	TH-County Oil & Gas, Inc.	2003	2,381	198	205	214	197	175	123	224	204	227	207	208	206
4706100150	TH-County Oil & Gas, Inc.	2004	2,135	171	237	131	172	192	303	91	113	191	174	202	181
4706100150	TH-County Oil & Gas, Inc.	2005	2,059	201	184	153	135	147	150	161	194	182	189	182	181
4706100150	TH-County Oil & Gas, Inc.	2006	1,029	159	193	190	142	202	182	146	113	95	73	78	56
4706100150	Leatherwood, Inc.	2007	475	0	0	0	0	0	0	0	0	0	158	158	159
4706100150	Leatherwood, Inc.	2008	1,878	157	167	157	157	157	157	157	157	157	157	157	151
4706100150	Leatherwood, Inc.	2009	1,987	168	168	166	166	166	166	166	166	166	166	166	171
4706100150	Leatherwood, Inc.	2010	1,342	111	111	111	111	111	111	111	111	111	111	111	121
4706100150	Leatherwood, Inc.	2011	1,209	82	82	82	82	82	82	82	82	82	82	82	82
4706100150	Leatherwood, Inc.	2012	1,128	94	94	94	94	94	94	94	94	94	94	94	94
4706100150	Leatherwood, Inc.	2013	889	81	81	81	81	81	81	81	81	81	81	81	98
4706100150	Leatherwood, Inc.	2014	860	50	50	50	50	50	50	50	50	50	50	50	80
4706100150	Leatherwood, Inc.	2015	360	30	30	30	30	30	30	30	30	30	30	30	50
4706100150	Leatherwood, Inc.	2016	252	21	21	21	21	21	21	21	21	21	21	21	30
4706100150	Leatherwood, Inc.	2017	336	28	28	28	28	28	28	28	28	28	28	28	30
4706100150	Leatherwood, Inc.	2018	506	54	54	54	54	54	54	54	54	54	54	54	28
4706100150	Leatherwood, Inc.	2019	258	43	43	43	43	43	43	43	43	43	43	43	19
4706100150	Leatherwood, Inc.	2020	1,156	118	113	132	112	98	113	114	116	45	0	67	75
4706100150	Leatherwood, Inc.	2021	788	90	65	85	85	85	85	85	85	85	85	85	73
4706100150	Leatherwood, Inc.	2022	602	42	59	66	58	47	54	33	31	31	31	31	49

Production Oil Information: (Volumes in Bbl) ** some operators may have reported NGL under Oil

API	PRDUCING_OPERATOR	PRD_YEAR	ANM_OIL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCIM
4706100150	Columbia Gas Transmission Corp.	1980	0	0	0	0	0	0	0	0	0	0	0	0	0
4706100150	Columbia Gas Transmission Corp.	1981	0	0	0	0	0	0	0	0	0	0	0	0	0
4706100150	Columbia Gas Transmission Corp.	1982	0	0	0	0	0	0	0	0	0	0	0	0	0
4706100150	Columbia Gas Transmission Corp.	1983	0	0	0	0	0	0	0	0	0	0	0	0	0
4706100150	Columbia Gas Transmission Corp.	1984	0	0	0	0	0	0	0	0	0	0	0	0	0
4706100150	Columbia Gas Transmission Corp.	1985	0	0	0	0	0	0	0	0	0	0	0	0	0
4706100150	Columbia Gas Transmission Corp.	1986	0	0	0	0	0	0	0	0	0	0	0	0	0
4706100150	Columbia Gas Transmission Corp.	1987	0	0	0	0	0	0	0	0	0	0	0	0	0
4706100150	Columbia Gas Transmission Corp.	1988	0	0	0	0	0	0	0	0	0	0	0	0	0
4706100150	Columbia Gas Transmission Corp.	1989	0	0	0	0	0	0	0	0	0	0	0	0	0

03/07/2025



03/07/2025

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

Permit No. MON 150

Oil or Gas Well Gas
(also)

Company The Manufacturers Light & Heat Co.
 Address 800 Union Trust Bldg., Pittsburgh, Pa.
 Farm Noah Henderson Acres 215
 Location (waters)
 Well No. 3 - 3674 Elev. 1069 ft.
 District Battelle County Monongalia
 The surface of tract is owned in fee by M. G. Henderson
 Address Burton, W.Va.
 Mineral rights are owned by The M'rs Light & Heat Co.
800 Union Trust Bldg. Address: Pittsburgh, Pa.
 Drilling commenced 9/26/12
 Drilling completed 11/16/12
 Date Shot 12/8/12 From 3088 To 3098
 With Glycerine
 Open Flow 16/10ths Water in 2 Inch
/10ths More in Inch
 Volume 109,000 Cu. Ft.
 Rock Pressure 600 lbs. 18 hrs.
 Oil bbls., 1st 24 hrs.
 Fresh water feet
 Salt water feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer
12			
10	198'0"	-	Size of
8 1/2	1422'5"	-	
6 1/2	219'3"	219'3"	Depth set
5 1/2			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED SIZE No. Ft. Date

COAL WAS ENCOUNTERED AT 884 FEET 72 INCHES
 FEET INCHES FEET INCHES
 FEET INCHES FEET INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Clay, Sand, slate			0	104			
Sand			104	140			
Lime			140	160			
Red Rock			160	195			
Slate & Lime			195	510			
Sand			510	525			
Slate & Lime			525	580			
Sand			580	615			
Slate			615	625			
Lime			625	884			
Pittsburgh Coal			884	890			
Sand			890	928			
Lime			928	1000			
Sand			1000	1035			
Slate, Rock, Lime			1035	1308			
Slate & Shell			1308	1333			
Lime & Slate			1333	1393			
Big Dunkard Sand			1393	1468			
Slate			1468	1470			
Sand			1470	1489			
Slate & Lime			1489	1515			
Sand			1515	1535			
Slate			1535	1545			
Sand			1545	1610			
Slate & Lime			1610	1682			
Sand			1682	1692			
Slate, Shell	Lime		1692	1727			
Sand			1727	1740			
Slate, Shell	Lime		1740	1875			
Sand			1875	1900			
Slate, Shell	Rock, Lime		1900	2050			
Little Lime			2050	2060			
Pencil Cave			2060	2070			
Big Lime			2070	2173			
Big Injun			2173	2360			
Slate			2360	2365			
Sand			2365	2379			
Lime Shells			2379	2470			
Gantz Sand			2470	2515			
Shells			2515	2600			
Sand			2600	2695			

*Concave casing
(10" - 8 1/2") are left
at bottom*



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Steel line at 2125 ft.

In the matter of:
The Marion County Coal Company
Marion County Mine
I.D. No. 46-01433

Petition for modification

Docket No. M-2016-017-C

MSHA 101 C
EXEMPTION

DECISION AND ORDER

On May 31, 2016, a petition was filed seeking a modification of the application of 30 C.F.R. § 75.1700 to The Marion County Coal Company's Marion County Mine located in Marion County, West Virginia. The Petitioner filed the petition to permit an alternative method of compliance with the standard with respect to vertical to horizontal oil and gas wells into the underground coal seams. The petitioner request to amend their current Proposed Decision Order (PDO) grant by MSHA on June 4, 1991, under Docket M-1990-156-C formerly known as Consolidation Coal Company, Loveridge No. 22 Mine to the alternate method stipulated in the April 29, 2013 PDO granted to ACI Tygart Valley, Leer Mine.

The Petitioner alleges that the proposed alternative method will at all times guarantee no less than the same measure of protection afforded miners under 30 C.F.R. § 75.1700 as that provided by the standard, which states:

§ 75.1700 Oil and gas wells.

Each operator of a coal mine shall take reasonable measures to locate oil and gas wells penetrating coalbeds or any underground area of a coal mine. When located, such operator shall establish and maintain barriers around such oil and gas wells in accordance with State laws and regulations, except that such barriers shall not be less than 300 feet in diameter, unless the Secretary or his authorized representative permits a lesser barrier consistent with the applicable State laws and regulations where such lesser barrier will be adequate to protect against hazards from such wells to the miners in such mine, or unless the Secretary or his authorized representative requires a greater barrier where the depth of the mine, other geologic conditions, or other factors warrant such a greater barrier.

The Petition addresses items for which District Manager approval is required, procedures for cleaning out and preparing oil and gas wells prior to plugging or re-plugging, procedures for plugging or re-plugging oil or gas wells to the surface, procedures for plugging or re-plugging oil or gas wells for use as degasification boreholes, alternative procedures for preparing and plugging or re-plugging oil or gas wells, and procedures after approval has been granted to mine through a plugged or re-plugged well.

03/07/2025

Between July 20, 2016 and August 3, 2016, MSHA personnel conducted an investigation of the petition and filed a report of their findings with the Administrator for Coal Mine Safety and Health. The modification granted under Docket No. M-1990-156-C will be superseded and replaced by this amended modification granted under Docket No. M-2016-017-C after this Proposed Amended Decision and Order becomes final.

The mine is represented by United Mine Workers of America (UMWA), AFL-CIO, CLC-1638 with miners' representatives and did not file any questions or comments on behalf of the miners.

After review of the parties' submissions and Joint Motion for Settlement, the following Decision and Order is issued.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

The Marion County Mine employs approximately 712 miners and produces approximately 50,000 tons of bituminous coal per day from the Pittsburgh #8 coal seam with an average mine height of 66 inches. At this time, there are no coal seams being mined below (i.e., stratigraphically down section from) the Pittsburgh seam. The mine is accessed through 2 slope and 12 air shafts. The mine operates 3 production shifts per day, 5 days per week, on five working sections, two longwall and three advancing gate sections utilizing continuous mining machines. The mine liberates 11,659,131 cubic feet of methane on a daily basis.

Although MSHA has granted modifications of this standard at different mines over the years, changing circumstances in oil and gas drilling technology and practices compels MSHA to reconsider the safest approach to mining around or through such wells. In recent years, changes in hydraulic fracturing (fracking) technology, marketplace and resource conditions have led to an increase in the number and depth of oil and gas wells penetrating the Pittsburgh #8 and other coal seams. Since deeper wells are usually associated with higher well pressures, modifications of § 75.1700 must include appropriate measures to better protect miners. In addition to the risks associated with higher well pressures, MSHA is concerned that operators may be preparing and plugging wells to inadequate depths for convenience or to lower costs, which may result in reduced safety for miners.

This Decision and Order reflects the settlement between the Petitioner's proposal and the amended terms and conditions first set forth by MSHA, under the terms set forth below. The major points of compromise include the following:

1. *Making a diligent effort to remove the casing to the original total depth. If all of the casing can be removed, or if the well contains no casing, the operator shall*

prepare the well for plugging, and use seals described below, for wells less than 4,000' depth to seal to 200 feet below the coal seam to be mined, or the lowest mineable seam, whichever is lower, or for wells 4,000' deep or greater, seal 400 feet below the coal seam to be mined, or lowest mineable seam, whichever is lower. MSHA retains the right to review and direct the operator's sealing protocol, in the event geologic or well conditions require further measures. As used in this Proposed Amended Decision and Order, in order to make a diligent effort to remove the casing, the operator shall pull a minimum of 150% of casing string weight and/or have made at least three attempts to spear or overshot to grip the casing for the required minimum pull effort. Where casing string length is unknown, a 3,000' casing string will be assumed. The operator shall keep a record of these efforts, including casing length and weights, and make available for MSHA review. The District Manager reserves the right to require additional measures in efforts to remove casing, as appropriate.

2. *Unknown total depth.* If the total depth of the well is unknown the operator must contact the District Manager before proceeding. MSHA believes, by including this step in the process, that miner safety will be better served because the Petitioner and the District Manager can work together to evaluate the conditions of the well to be plugged as well as the safest way to accomplish the plugging. MSHA and the operator will work cooperatively to establish a communications protocol, so that the operator may contact the District Manager while working outside normal working hours.
3. *Cement.* Cement is specified to be used as a plugging material, instead of an unnamed "approved equivalent," as requested by Petitioner.
4. *Wells vary in depth.* The terms and conditions required by MSHA will require operator to prepare these wells for safe intersection by making a diligent effort to remove casing to the total depth if possible, then: cleaning to and setting a plug at least 200' below the coal seam to be mined or lowest mineable seam, whichever is lower; or for wells 4,000' or greater, to at least 400 feet below the coal seam to be mined, or lowest mineable seam, whichever is lower. The operator will then plug from either the attainable bottom or the newly installed plug, as applicable, by pumping expanding cement slurry and pressurizing to at least 200 psi. If the total depth is not reached and casing cannot be removed, these alternative methods included in this proposed decision and order have proven to be safe and effective when properly implemented.
5. *Notification* - Where the operator is required to notify the District Manager pursuant to the terms of this Proposed Decision and Order, the method of notification will be set forth in the cut-through procedures for each well. The

District Manager agrees to provide a number wherein he or his designee is available at all times.

Therefore, the terms and conditions as amended will at all times guarantee no less than the same measure of protection afforded the miners under 30 C.F.R.

§ 75.1700 for all wells regardless of depth. On the basis of the Petition, comments received, the findings of MSHA's investigation, and the Joint Motion for Settlement by the parties, the Marion County Coal Company is granted a modification of the application of 30 C.F.R. § 75.1700 to its Marion County Mine.

ORDER

Under the authority delegated by the Secretary of Labor to the Administrator for Coal Mine Safety and Health, and under § 101(c) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 811(c), and 30 C.F.R. Part 44, a modification of the application of 30 C.F.R. § 75.1700 at The Marion County Coal Company's Marion County Mine is hereby:

GRANTED, subject to the following terms and conditions:

1. DISTRICT MANAGER APPROVAL REQUIRED

- a. The type of oil or gas well that will be considered under this Petition includes wells that have been depleted of oil or gas production or have not produced oil or gas and may have been plugged, or active conventional vertical wells which are not producing gas or oil, subject to the provisions below. Unconventional wells in the Marcellus, Utica, and all other unconventional shale oil and gas wells are not subject to this modification. Nothing in these provisions is meant to lessen, diminish, or substitute any provision found in applicable state laws or regulations.
- b. A safety barrier of 300 feet in diameter (150 feet between any mined area and a well) shall be maintained around all oil and gas wells (defined herein to include all active, inactive, abandoned, shut-in, previously plugged wells, water injection wells, and carbon dioxide sequestration wells) until approval to proceed with mining has been obtained from the District Manager. Wells that were drilled into potential oil or gas producing formations that did not produce commercial quantities of either gas or oil (exploratory wells, wildcat wells or dry holes) are classified as oil or gas wells by MSHA.
- c. Prior to mining within the safety barrier around any well that the mine plans to intersect, the mine operator shall provide to the District Manager a sworn affidavit or declaration executed by a company official, the person at the mine

who is in charge of health and safety at the mine, stating that all mandatory procedures for cleaning out, preparing, and plugging each gas or oil well have been completed as described by the terms and conditions of this order.

The affidavit or declaration must be accompanied by all logs, electronic or otherwise, described in subparagraphs 2(a)(2) and 2(a)(3) below and any other records described in those subparagraphs which the District Manager may request. The District Manager will review the affidavit or declaration, the logs and any other records that have been requested, and may inspect the well itself, and will then determine if the operator has complied with the procedures for cleaning out, preparing, and plugging each well as described by the terms and conditions of this Order. If the District Manager determines that the procedures have been complied with, he will provide his approval, and the mine operator may then mine within the safety barrier of the well, subject to the terms of this Order.

If well intersection is not planned, the mine operator may request a permit to reduce the 300 foot diameter of the safety barrier that does not include intersection of the well. The District Manager may require documents and information that help verify the accuracy of the location of the well in respect to the mine maps and mining projections. This information may include survey closure data, down-hole well deviation logs, historical well intersection location data and any additional data required by the District Manager. If the District Manager determines that the proposed barrier reduction is reasonable, he will provide his approval, and the mine operator may then mine within the safety barrier of the well.

d. The terms and conditions of this Order apply to all types of underground coal mining.

2. **MANDATORY PROCEDURES FOR CLEANING OUT, PREPARING, PLUGGING, AND RE-PLUGGING OIL OR GAS WELLS**

a. **MANDATORY PROCEDURES FOR CLEANING OUT AND PREPARING VERTICAL OIL AND GAS WELLS PRIOR TO PLUGGING OR RE-PLUGGING**

The mine operator shall test for gas emissions inside the hole before cleaning out, preparing, plugging, and re-plugging oil and gas wells. The District Manager shall be contacted if the well is actively producing gas.

(1) A diligent effort shall be made to remove all the casing in the well and clean the well to 200' below the coal seam to be mined, or the lowest

mineable coal seam, whichever is lower, or for wells 4,000' or greater, clean the well to 400' below the coal seam to be mined, or the lowest mineable coal seam, whichever is lower.

If the total depth of the well is less than 4,000 feet, the operator shall completely clean out the well from the surface to at least 200 feet below the coal seam to be mined, unless the District Manager requires cleaning to a greater depth based on his judgment as to what is required due to the geological strata, or due to the pressure within the well. The operator shall provide the District Manager with all information it possesses concerning the geological nature of the strata and the pressure of the well. If the total depth of the well is 4,000 feet, or greater, the operator shall completely clean out the well from the surface to at least 400 feet below the coal seam to be mined. Wells of this greater depth are under greater pressure, so the 400 feet requirement provides greater protection for miners. The operator shall make a diligent effort to remove all material from the entire diameter of the well, wall to wall. If the total depth of the well is unknown and there is no historical information, the mine operator must contact the District Manager before proceeding.

Where active wells which are no longer producing are being cleaned and prepared subject to this order, the operator must: 1) attempt to remove all of the casing using a diligent effort, and comply with all other applicable provisions in this order, or 2) if the casing cannot be removed from the total depth, must be filled with cement from the lowest possible depth to 200 feet below the seam to be mined or lowest mineable coal seam, whichever is lower for wells less than 4,000', or 400 feet below the seam to be mined or lowest mineable coal seam, whichever is lower, for wells 4,000' or greater, and the other applicable provisions in this order still apply, or 3) if the casing cannot be removed it shall be perforated from 200 feet below the coal seam to be mined, or lowest mineable seam, whichever is lower, or 400 feet below the seam to be mined or lowest mineable coal seam, whichever is lower, for wells 4,000' or greater, and the annuli shall be cemented or otherwise filled, and the other applicable provisions in this order still apply.

- (2) The operator shall prepare down-hole logs for each well. Logs shall consist of a caliper survey, a bond log if appropriate, a deviation survey, and a gamma survey for determining the top, bottom, and thickness of all coal seams down to the coal seam to be mined, or the lowest mineable coal seam, whichever is lower, potential hydrocarbon producing strata and the location of any existing bridge plug. In addition, a journal shall be maintained describing the depth of each material encountered; the nature

of each material encountered; bit size and type used to drill each portion of the hole; length and type of each material used to plug the well; length of casing(s) removed, perforated or ripped or left in place; any sections where casing was cut or milled; and other pertinent information concerning cleaning and sealing the well. Invoices, work-orders, and other records relating to all work on the well shall be maintained as part of this journal and provided to MSHA upon request.

- (3) When cleaning out the well as provided for in subparagraph (a)(1), the operator shall make a diligent effort to remove all of the casing in the well. Thereafter, the well should be plugged to the attainable bottom, at least 200 feet below the coal seam to be mined or lowest mineable seam, whichever is lower, by pumping expanding cement slurry and pressurizing to at least 200 psi. If the casing cannot be removed, it must be cut, milled, perforated or ripped at sufficient intervals to facilitate the removal of any remaining casing in the coal seam by the mining equipment. Any casing which remains shall be perforated or ripped to permit the injection of cement into voids within and around the well. All casing remaining at the coal seam to be mined shall be perforated or ripped at least every 5 feet from 10 feet below the coal seam to 10 feet above the coal seam.

Perforations or rips are required at least every 50 feet from 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the lowest mineable coal seam up to 100 feet above the uppermost mineable coal seam. For perforations in the Pittsburgh Seam, see Appendix A. The mine operator must take appropriate steps to ensure that the annulus between the casing and the well walls are filled with expanding (minimum 0.5% expansion upon setting) cement and contain no voids.

Jet/sand cutting is one method for ripping or perforating casing with three or more strings of casing in the Pittsburgh coal seam in preparation for mining. This method uses compressed nitrogen gas and sand to cut the well casings as outlined in Appendix A. On active wells cuts start at 200' above the bottom of the casing at 200' intervals, to 200' below the bottom of the Pittsburgh coal seam where Appendix A outlines cut interval minimums.

If it is not possible to remove all of the casing, the operator shall notify the District Manager before any other work is performed. **If the well cannot be cleaned out or the casing removed, the operator shall prepare the well as described from the surface to at least 200 feet below the base of the lowest mineable coal seam for wells less than 4000 feet in depth and**

400 feet below the lowest mineable coal seam for wells 4000 feet or greater, unless the District Manager requires cleaning out and removal of casing to a greater depth based on his judgement as to what is required due to geological strata, or due to the pressure within the well.

If the operator, using a casing bond log, can demonstrate to the satisfaction of the District Manager that all annuli in the well are already adequately sealed with cement, then the operator will not be required to perforate or rip the casing for that particular well. When multiple casing and tubing strings are present in the coal horizon(s), any casing which remains shall be ripped or perforated and filled with expanding cement as indicated above. An acceptable casing bond log for each casing and tubing string is needed if used in lieu of ripping or perforating multiple strings.

- (4) If the District Manager concludes that the completely cleaned-out well is emitting excessive amounts of gas, the operator must place a mechanical bridge plug in the well.

It must be placed in a competent stratum at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the lowest mineable coal seam, but above the top of the uppermost hydrocarbon-producing stratum, unless the District Manager requires a greater distance based on his judgment that it is required due to the geological strata, or due to the pressure within the well. The operator shall provide the District Manager with all information it possesses concerning the geological nature of the strata and the pressure of the well. If it is not possible to set a mechanical bridge plug, an appropriately sized packer may be used. The mine operator shall document what has been done to "kill the well" and plug the hydrocarbon producing strata.

- (5) If the upper-most hydrocarbon-producing stratum is within 300 feet of the base of the coal seam to be mined, or lowest mineable seam, whichever is lower, the operator shall properly place mechanical bridge plugs as described in subparagraph (a)(4) to isolate the hydrocarbon-producing stratum from the expanding cement plug. **Nevertheless, the operator shall place a minimum of 200 feet (400 feet if the total well depth is 4,000 feet or greater) of expanding cement below the coal seam to be mined, or lowest mineable seam, whichever is lower, unless the District Manager requires a greater distance based on his judgment that it is required due to the geological strata, or due to the pressure within the well.**

b. MANDATORY PROCEDURES FOR PLUGGING OR RE-PLUGGING OIL OR GAS WELLS TO THE SURFACE

After completely cleaning out the well as specified in paragraph 2(a) above, the following procedures shall be used to plug or re-plug wells:

- (1) **The operator shall pump expanding cement slurry down the well to form a plug which runs from at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the coal seam to be mined, or lowest mineable seam, whichever is lower, (or lower if required by the District Manager based on his judgment that a lower depth is required due to the geological strata, or due to the pressure within the well) to the surface.** The expanding cement will be placed in the well under a pressure of at least 200 pounds per square inch. Portland cement or a lightweight cement mixture may be used to fill the area from 100 feet above the top of the uppermost mineable coal seam (or higher if required by the District Manager based on his judgment that a higher distance is required due to the geological strata, or due to the pressure within the well) to the surface.
- (2) The operator shall embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic monument of the well. In the alternative, a 4-inch or larger diameter casing, set in cement, shall extend at least 36 inches above the ground level with the API well number engraved or welded on the casing. When the hole cannot be marked with a physical monument (e.g. prime farmland), high-resolution GPS coordinates (one-half meter resolution) are required.

c. MANDATORY PROCEDURES FOR PLUGGING OR RE-PLUGGING OIL AND GAS WELLS FOR USE AS DEGASIFICATION WELLS

After completely cleaning out the well as specified in paragraph 2(a) above, the following procedures shall be utilized when plugging or re-plugging wells that are to be used as degasification wells:

- (1) **The operator shall set a cement plug in the well by pumping an expanding cement slurry down the tubing to provide at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) of expanding cement below the coal seam to be mined, or lowest mineable seam, whichever is lower, unless the District Manager requires a greater depth based on his judgment that a greater depth is required due to the geological strata, or due to the pressure within the well.** The expanding cement will be placed in the well under a pressure of at least 200 pounds

per square inch. The top of the expanding cement shall extend at least 50 feet above the top of the coal seam being mined, unless the District Manager requires a greater distance based on his judgment that a greater distance is required due to the geological strata, or due to the pressure within the well.

- (2) The operator shall securely grout into the bedrock of the upper portion of the degasification well a suitable casing in order to protect it. The remainder of this well may be cased or uncased.
- (3) The operator shall fit the top of the degasification casing with a wellhead equipped as required by the District Manager in the approved ventilation plan. Such equipment may include check valves, shut-in valves, sampling ports, flame arrestor equipment, and security fencing.
- (4) Operation of the degasification well shall be addressed in the approved ventilation plan. This may include periodic tests of methane levels and limits on the minimum methane concentrations that may be extracted.
- (5) After the area of the coal mine that is degassed by a well is sealed or the coal mine is abandoned, the operator must plug all degasification wells using the following procedures:
 - (i) The operator shall insert a tube to the bottom of the well or, if not possible, to within 100 feet above the coal seam being mined. Any blockage must be removed to ensure that the tube can be inserted to this depth.
 - (ii) The operator shall set a cement plug in the well by pumping Portland cement or a lightweight cement mixture down the tubing until the well is filled to the surface.
 - (iii) The operator shall embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic monument of the well. In the alternative, a 4-inch or larger casing, set in cement, shall extend at least 36 inches above the ground level with the API well number engraved or welded on the casing.
 - (iv) This provision does not apply to traditional degasification holes which have not intersected the seam to be mined, have not commercially produced gas and have no API number.

d. MANDATORY ALTERNATIVE PROCEDURES FOR PREPARING AND PLUGGING OR RE-PLUGGING OIL OR GAS WELLS

The following provisions apply to all wells which the operator determines, and with which the MSHA District Manager agrees, cannot be completely cleaned out due to damage to the well caused by subsidence, caving, or other factors.

- (1) **The operator shall drill a hole adjacent and parallel to the well, to a depth of at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the coal seam to be mined, or lowest mineable seam, whichever is lower, unless the District Manager requires a greater depth based on his judgment that a greater depth is required due to the geological strata, or due to the pressure within the well.**
- (2) The operator shall use a geophysical sensing device to locate any casing which may remain in the well.
- (3) If the well contains casing(s), the operator shall drill into the well from the parallel hole. From 10 feet below the coal seam to 10 feet above the coal seam, the operator shall perforate or rip all casings at least every 5 feet. **Beyond this distance, the operator shall perforate or rip at least every 50 feet from at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the coal seam to be mined, or lowest mineable seam, whichever is lower, up to 100 feet above the seam being mined, unless the District Manager requires a greater distance based on his judgment that a greater distance is required due to the geological strata, or due to the pressure within the well.** The diagram shown in Appendix A is representative of the locations of the perforations or ripping that must be done.

The operator shall fill the annulus between the casings and between the casings and the well wall with expanding (minimum 0.5% expansion upon setting) cement, and shall ensure that these areas contain no voids. If the operator, using a casing bond log, can demonstrate to the satisfaction of the District Manager that the annulus of the well is adequately sealed with cement, then the operator will not be required to perforate or rip the casing for that particular well, or fill these areas with cement. When multiple casing and tubing strings are present in the coal horizon(s), any casing which remains shall be ripped or perforated and filled with expanding cement as indicated above. An acceptable casing bond log for each casing and tubing string is needed if used in lieu of

ripping or perforating multiple strings.

- (4) Where the operator determines, and the District Manager agrees, that there is insufficient casing in the well to allow the method outlined in subparagraph (d)(3) to be used, then the operator shall use a horizontal hydraulic fracturing technique to intercept the original well. **From at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the coal seam to be mined, or lowest mineable seam, whichever is lower, to a point at least 50 feet above the seam being mined, the operator shall fracture in at least six places at intervals to be agreed upon by the operator and the District Manager after considering the geological strata and the pressure within the well.** The operator shall then pump expanding cement into the fractured well in sufficient quantities and in a manner which fills all intercepted voids.
- (5) The operator shall prepare down-hole logs for each well. Logs shall consist of a caliper survey, a bond log if applicable, a deviation survey, and a gamma log for determining the top, bottom, and thickness of all coal seams down to the coal seam to be mined, **or lowest mineable seam, whichever is lower,** potential hydrocarbon producing strata and the location of any existing bridge plug. The operator may obtain the logs from the adjacent hole rather than the well if the condition of the well makes it impractical to insert the equipment necessary to obtain the log.
- (6) A journal shall be maintained describing the depth of each material encountered; the nature of each material encountered; bit size and type used to drill each portion of the hole; length and type of each material used to plug the well; length of casing(s) removed, perforated or ripped or left in place; any sections where casing was cut or milled; and other pertinent information concerning sealing the well. Invoices, work-orders, and other records relating to all work on the well shall be maintained as part of this journal and provided to MSHA upon request.
- (7) After the operator has plugged the well as described in subparagraphs (d)(3) and/or (d)(4), the operator shall plug the adjacent hole, from the bottom to the surface, with Portland cement or a lightweight cement mixture.

The operator shall embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic monument of the well. In the alternative, a 4-inch or larger casing, set in cement, shall extend at least 36 inches above the ground level.

A combination of the methods outlined in subparagraphs (d)(3) and (d)(4) may have to be used in a single well, depending upon the conditions of the hole and the presence of casings. The operator and the District Manager shall discuss the nature of each hole. The District Manager may require that more than one method be utilized. The mine operator may submit an alternative plan to the District Manager for approval to use different methods to address wells that cannot be completely cleaned out. The District Manager may require additional documentation and certification by a registered petroleum engineer to support the proposed alternative methods.

3. MANDATORY PROCEDURES WHEN MINING WITHIN A 100-FOOT DIAMETER BARRIER AROUND WELL

- a. A representative of the operator, a representative of the miners, the appropriate State agency, or the MSHA District Manager may request that a conference be conducted prior to intersecting any plugged or re-plugged well. Upon receipt of any such request, the District Manager shall schedule such a conference. The party requesting the conference shall notify all other parties listed above within a reasonable time prior to the conference to provide opportunity for participation. The purpose of the conference shall be to review, evaluate, and accommodate any abnormal or unusual circumstance related to the condition of the well or surrounding strata when such conditions are encountered.
- b. The operator shall intersect a well on a shift approved by the District Manager. The operator shall notify the District Manager and the miners' representative in sufficient time prior to intersecting a well in order to provide an opportunity to have representatives present.
- c. When using continuous mining methods, the operator shall install drivage sights at the last open crosscut near the place to be mined to ensure intersection of the well. The drivage sites shall not be more than 50 feet from the well. When using longwall-mining methods, distance markers shall be installed on 5-foot centers for a distance of 50 feet in advance of the well in the headgate entry and in the tailgate entry.
- d. The operator shall ensure that fire-fighting equipment including fire extinguishers, rock dust, and sufficient fire hose to reach the working face area of the well intersection (when either the conventional or continuous mining method is used) is available and operable during all well intersections. The fire hose shall be located in the last open crosscut of the entry or room. The operator shall maintain the water line to the belt

conveyor tailpiece along with a sufficient amount of fire hose to reach the farthest point of penetration on the section. When the longwall mining method is used, a hose to the longwall water supply is sufficient.

- e. The operator shall ensure that sufficient supplies of roof support and ventilation materials shall be available and located at the last open crosscut. In addition, emergency plugs and suitable sealing materials shall be available in the immediate area of the well intersection.
- f. On the shift prior to intersecting the well, the operator shall service all equipment and check it for permissibility. Water sprays, water pressures, and water flow rates used for dust and spark suppression shall be examined and any deficiencies corrected.
- g. The operator shall calibrate the methane monitor(s) on the longwall, continuous mining machine, or cutting machine and loading machine on the shift prior to intersecting the well.
- h. When mining is in progress, the operator shall perform tests for methane with a handheld methane detector at least every 10 minutes from the time that mining with the continuous mining machine or longwall face is within 30 feet of the well until the well is intersected. During the actual cutting process, no individual shall be allowed on the return side until the well intersection has been completed, and the area has been examined and declared safe. All workplace examinations on the return side of the shearer will be conducted while the shearer is idle. The operator's most current Approved Ventilation Plan will be followed at all times unless the District Manager deems a greater air velocity for the intersect is necessary.
- i. When using continuous or conventional mining methods, the working place shall be free from accumulations of coal dust and coal spillages, and rock dust shall be placed on the roof, rib, and floor to within 20 feet of the face when intersecting the well. On longwall sections, rock dusting shall be conducted and placed on the roof, rib, and floor up to both the headgate and tailgate gob.
- j. When the well is intersected, the operator shall de-energize all equipment, and thoroughly examine and determine the area to be safe before permitting mining to resume.
- k. After a well has been intersected and the working place determined to be safe, mining shall continue in by the well a sufficient distance to permit adequate ventilation around the area of the well.

- l. If the casing is cut or milled at the coal seam level, the use of torches should not be necessary. However, in rare instances, torches may be used for inadequately or inaccurately cut or milled casings. No open flame shall be permitted in the area until adequate ventilation has been established around the well bore and methane levels of less than 1.0% are present in all areas that will be exposed to flames and sparks from the torch. The operator shall apply a thick layer of rock dust to the roof, face, floor, ribs and any exposed coal within 20 feet of the casing prior to the use of torches.
- m. Non-sparking (brass) tools will be available and will be used exclusively to expose and examine cased wells.
- n. No person shall be permitted in the area of the well intersection except those actually engaged in the operation, including company personnel, representatives of the miners, personnel from MSHA, and personnel from the appropriate State agency.
- o. The operator shall alert all personnel in the mine to the planned intersection of the well prior to their going underground if the planned intersection is to occur during their shift. This warning shall be repeated for all shifts until the well has been mined through.
- p. The well intersection shall be under the direct supervision of a certified individual. Instructions concerning the well intersection shall be issued only by the certified individual in charge.
- q. If the mine operator cannot find the well in the longwall panel or if a development section misses the anticipated intersection, the operator shall cease mining to examine for hazardous conditions at the projected location of the well, notify the District Manager, and take reasonable measures to locate the well, including visual observation/inspection or through survey data. Mining may resume if the well is located and no hazardous conditions exist. If the well cannot be located, the mine operator shall work with District Manager to resolve any issues before mining resumes.
- r. The provisions of this Order do not impair the authority of representatives of MSHA to interrupt or halt the well intersection, and to issue a withdrawal order, when they deem it necessary for the safety of the miners. MSHA may order an interruption or cessation of the well

intersection and/or a withdrawal of personnel by issuing either a verbal or written order to that effect to a representative of the operator, which order shall include the basis for the order. Operations in the affected area of the mine may not resume until a representative of MSHA permits resumption. The mine operator and miners shall comply with verbal or written MSHA orders immediately. All verbal orders shall be committed to writing within a reasonable time as conditions permit.

- s. A copy of this Order shall be maintained at the mine and be available to the miners.
- t. If the well is not plugged to the total depth of all minable coal seams identified in the core hole logs, any coal seams beneath the lowest plug will remain subject to the barrier requirements of 30 C.F.R. § 75.1700, should those coal seams be developed in the future.
- u. All necessary safety precautions and safe practices according to Industry Standards, required by MSHA regulations and State regulatory agencies having jurisdiction over the plugging site will be followed to provide the upmost protection to the miners involved in the process.
- v. All miners involved in the plugging or re-plugging operations will be trained on the contents of this Petition prior to starting the process and a copy of this Petition will be posted at the well site until the plugging or re-plugging has been completed.
- w. Mechanical bridge plugs should incorporate the best available technologies that are either required or recognized by the State regulatory agency and/or oil and gas industry.
- x. Within 30 days after this Order becomes final, the operator shall submit proposed revisions for its approved 30 C.F.R. Part 48 training plan to the District Manager. These proposed revisions shall include initial and refresher training on compliance with the terms and conditions stated in the Order. The operator shall provide all miners involved in well intersection with training on the requirements of this Order prior to mining within 150 feet of the next well intended to be mined through.
- y. The responsible person required under 30 C.F.R. § 75.1501 Emergency Evacuations, is responsible for well intersection emergencies. The well intersection procedures should be reviewed by the responsible person prior to any planned intersection.

- z. Within 30 days after this Order becomes final, the operator shall submit proposed revisions for its approved mine emergency evacuation and firefighting program of instruction required under 30 C.F.R § 75.1502. The operator will revise the program of instruction to include the hazards and evacuation procedures to be used for well intersections. All underground miners will be trained in this revised plan within 30 days of submittal.

SUBJECT TO THE ABOVE TERMS AND CONDITIONS, and under the authority delegated by the Secretary of Labor to the Administrator for Coal Mine Safety and Health, and under § 101(c) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 811(c), and 30 C.F.R. Part 44, a modification of the application of 30 C.F.R. § 75.1700 at The Marion County Coal Company's Marion County Mine is hereby **GRANTED**.

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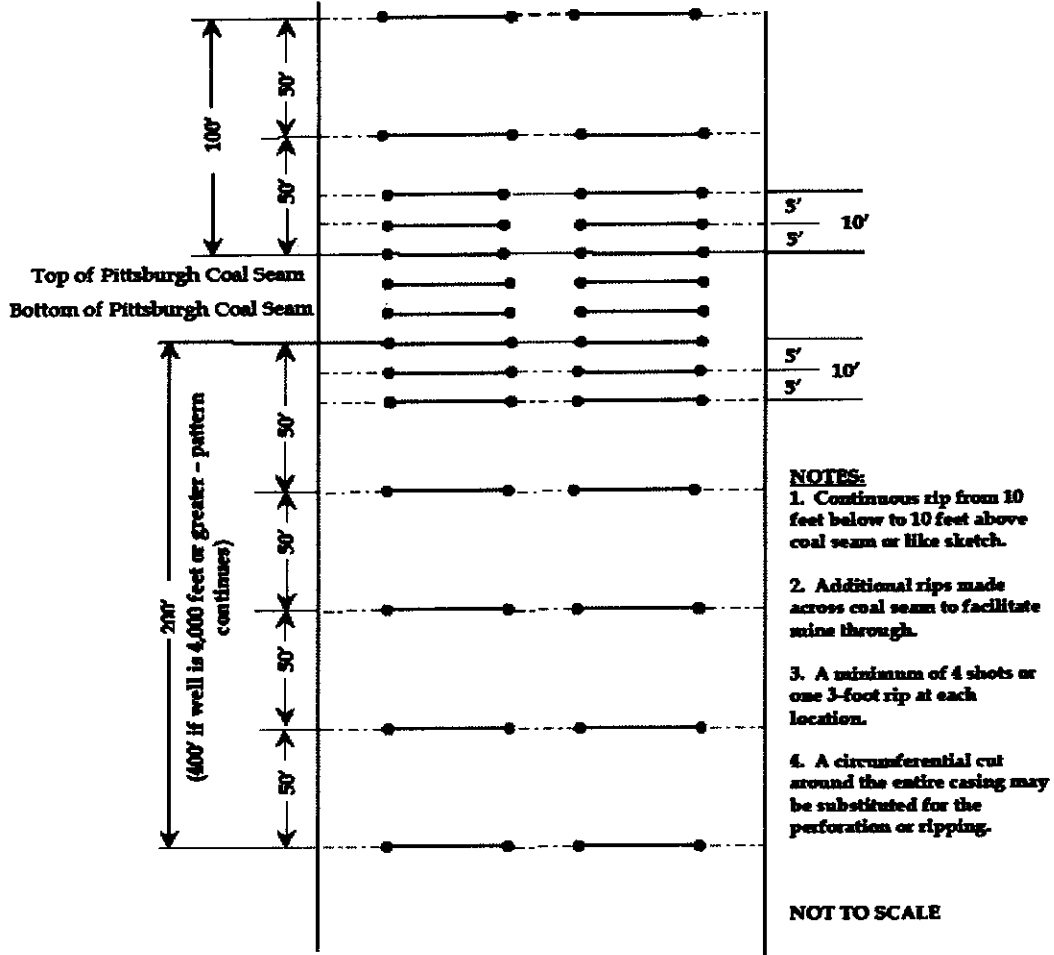
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Appendix A



- NOTES:**
1. Continuous rip from 10 feet below to 10 feet above coal seam or like sketch.
 2. Additional rips made across coal seam to facilitate mine through.
 3. A minimum of 4 shots or one 3-foot rip at each location.
 4. A circumferential cut around the entire casing may be substituted for the perforation or ripping.

NOT TO SCALE

WW-4A
Revised 6-07

1) Date: JANUARY 7, 2025
2) Operator's Well Number 8145

3) API Well No.: 47 - 081 - 00150

**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>GEORGE D. & WANDA J. SIX</u>	Name <u>WEST VIRGINIA LAND RESOURCES INC</u>
Address <u>11023 MASON DIXON HWY</u>	Address <u>1 BRIDGE STREET</u>
<u>BURTON, WV 26562</u>	<u>MONONGAH, WV 26554</u>
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
	Address _____
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>GAYNE KNITOWSKI</u>	(c) Coal Lessee with Declaration
Address <u>P.O. BOX 108</u>	Name _____
<u>GORMANIA, WV 26720</u>	Address _____
Telephone <u>(304) 546-8171</u>	

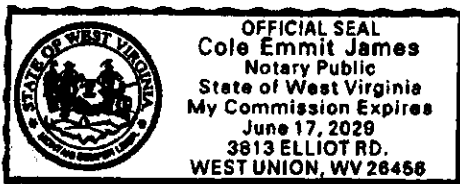
TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (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 reverse 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.

[Signature]



Well Operator	<u>WEST VIRGINIA LAND RESOURCES INC.</u>	<u>RECEIVED</u>
By:	<u>DAVID RODDY</u>	<u>Office of Oil and Gas</u>
Its:	<u>PROJECT ENGINEER</u>	
Address	<u>1 BRIDGE STREET</u>	<u>FEB 10 2025</u>
	<u>MONONGAH, WV 26554</u>	
Telephone	<u>(304) 534-4748</u>	<u>WV Department of Environmental Protection</u>

Subscribed and sworn before me this 8 day of January, 2025
Cole James Notary Public
My Commission Expires June 17, 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 depprivacyofficer@wv.gov.

03/07/2025

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

- Return Receipt (hardcopy) \$
- Return Receipt (electronic) \$
- Certified Mail Restricted Delivery \$
- Adult Signature Required \$
- Adult Signature Restricted Delivery \$

Postage

\$

Total Postage and Fees

\$

Sent To

Street and Apt. No., or PO Box No.

City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions



Dawn Perry

7019 0160 0001 0702 6673
6202 0702 0000 0410 6102

RECEIVED
Office of Oil and Gas
FEB 10 2025
WV Department of
Environmental Protection

03/07/2025

WW-4B

API No. 47-061-00150
Farm Name _____
Well No. 8145

**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 R / 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: 2/3/25

By: [Signature]
Its Agent

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Office of Oil and Gas
FEB 10 2025
WV Department of
Environmental Protection

03/07/2025

WW-9
(5/16)

API Number 47 - 061 00150
Operator's Well No. ~~322~~ 8145

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

Operator Name WEST VIRGINIA LAND RESOURCES INC OP Code _____

Watershed (HUC 10) WHEELER RUN OF NORTH FORK OF WEST VIRGINIA FORK OF CUNYARD CREEK Quadrange HUNDRED WVA,PA

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

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

Proposed Disposal Method For Treated Pit Wastes:

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

Will closed loop system be used? If so, describe: Yes. Gel circulated from tank thru well bore and returned to tank

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Gel or Cement

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

Additives to be used in drilling medium? Bentonite, Bicarbonate of Soda

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Shaker cutting buried on site

-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 David Roddy

Company Official (Typed Name) David Roddy

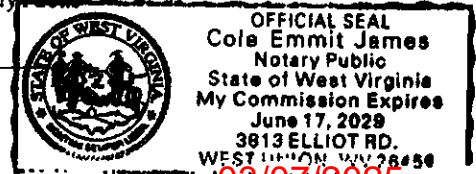
Company Official Title Project Engineer

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Office of Oil and Gas
FEB 10 2025
WV Department of
Environmental Protection

Subscribed and sworn before me this 8 day of January, 2025

Cole James Notary Public

My commission expires June 17, 2029



03/07/2025

Proposed Revegetation Treatment: Acres Disturbed 1 Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.0

Fertilizer type 10-20-20 or equivalent

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
<u>See Attachment</u>	<u>100</u>	<u>See Attachment</u>	<u>100</u>

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Gayne Knitowski Digitally signed by Gayne Knitowski Date: 2025.02.04 09:10:06 -0500

Comments: _____

RECEIVED
Office of Oil and Gas

FEB 10 2025

WV Department of
Environmental Protection

Title: Inspector

Date: 2-4-2025

Field Reviewed? () Yes () No

Well# 8145

HUNDRED WV, PA 7.5' Quad

Scale: 1" = 500'



1400

1200

7

1100

Well# 8145

Virginia Fork

1200

1400

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Office of Oil and Gas

FEB 10 2015

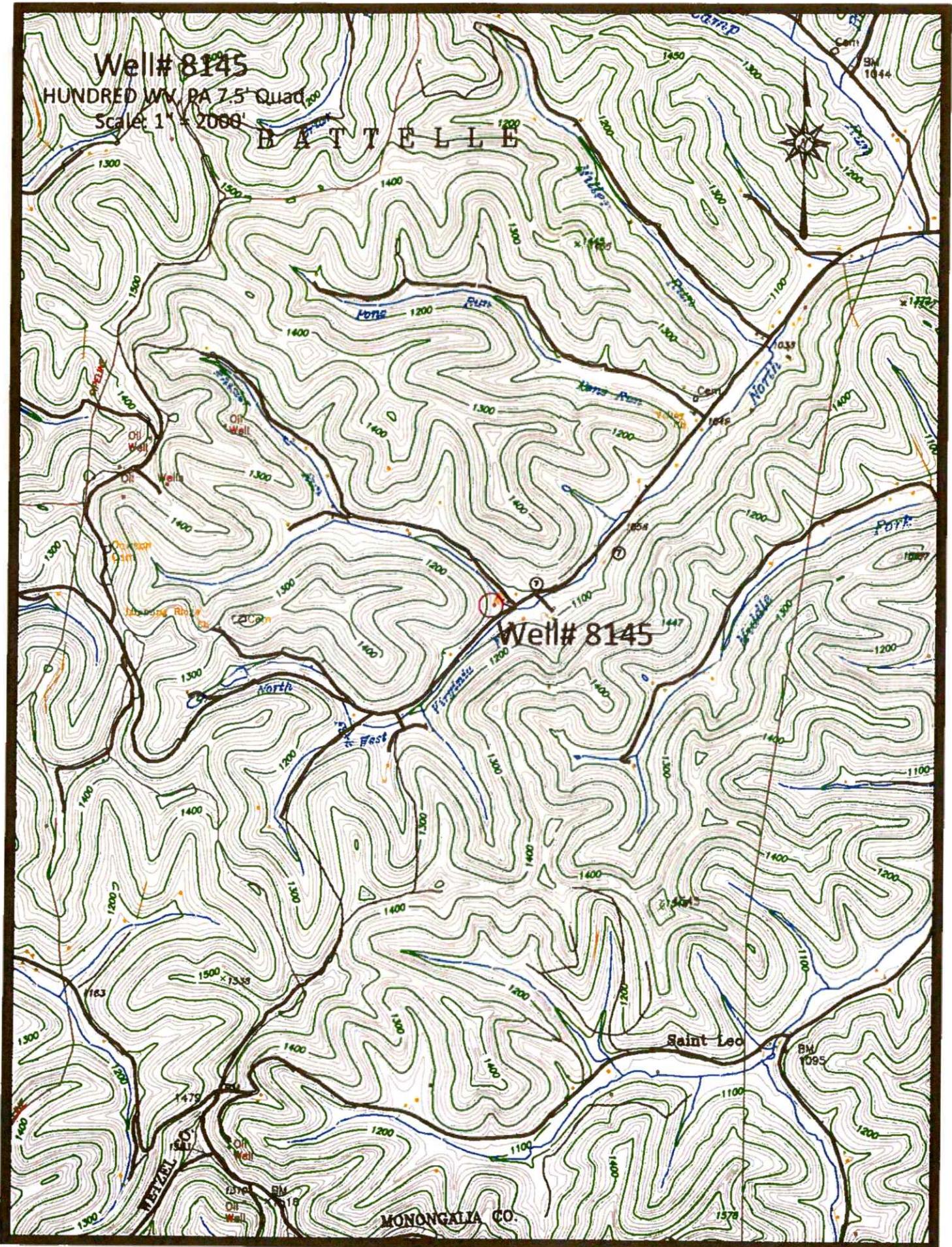
WV Department of
Environmental Protection

st

1300

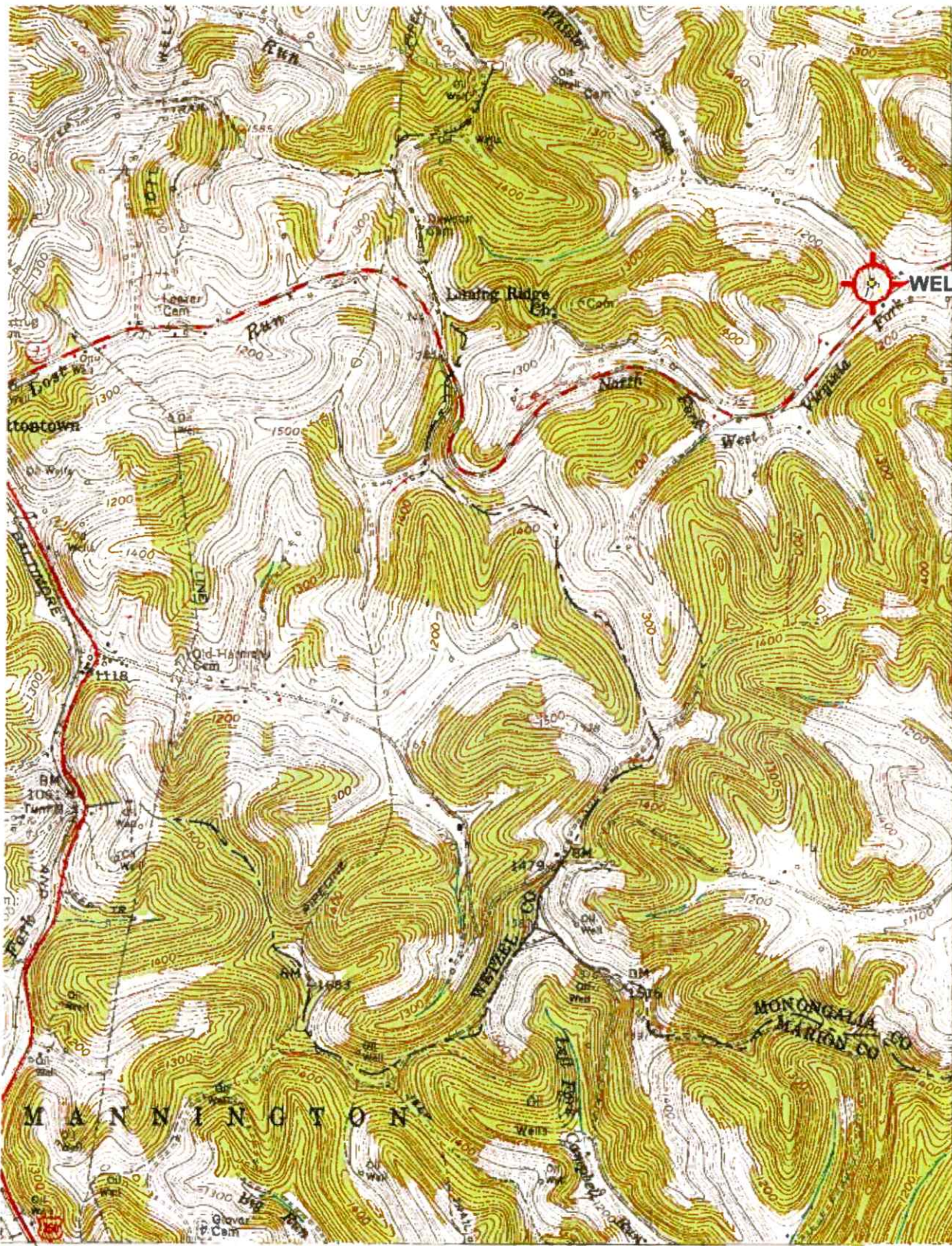
 Access Road

03/07/2025



 Access Road

03/07/2025



4291
40'
WELL #8145

4289
4288

120 000 FEET
(PA.)

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Office of Oil and Gas
FEB 10 2025
WV Department of
Environmental Protection

39°37'30"
80°22'30"

(MANNINGTON)
2985 III SE

5 MI. 25' : 1 250 000 FEET (PA.) 51

● INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1977
852 8520000E



ROAD CLASSIFICATION

- Heavy duty
- Medium duty
- Light duty
- Un-improved dirt
- U. S. Route
- State Route



HUNDRED, W. VA.—PA.
NW/4 MANNINGTON 15' QUADRANGLE
N 3937.5—W 8022.5/7.5

03/07/2025

"Hundred; WV, PA" Scale: 1" = 0.379Mi 610Mt 2,000Ft, 1 Mi = 2.640" . 1 cm = 240Mt

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-061-00150 WELL NO.: 8145

FARM NAME: NOAH HENDERSON

RESPONSIBLE PARTY NAME: WEST VIRGINIA LAND RESOURCES INC.

COUNTY: MONONGALIA DISTRICT: BATTELLE

QUADRANGLE: HUNDRED W.VA,PA

SURFACE OWNER: GEORGE D. & WANDA J. SIX

ROYALTY OWNER: _____

UTM GPS NORTHING: 4,390,452 m

UTM GPS EASTING: 553,290 m GPS ELEVATION: 329 m

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

P.S. 2002

Title

JANUARY 7, 2025

Date

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Office of Oil and Gas
FEB 10 2025
WV Department of
Environmental Protection

03/07/2025

OP-77 (04/19)

Record No. _____

State of West Virginia
Department of Environmental Protection
Charleston, WV 25301

This is to acknowledge that the well: API no. 47-061-00150

District Battelle

Well No 8145 / 3-3674 Farm name Noah Henderson

Is hereby transferred from:

The transferor Company: Leatherwood, LLC

Code # 494523160 Address 275 Technology Drive, Suite 101, Canonsburg, PA 15317

To:

The transferee Company: West Virginia Land Resources, Inc.

Code # 494525178 Address 1 Bridge Street, Monongah, WV 26554

Pursuant to the requirement in 35 CSR 4 - 10.3.a.2., execution of this OP-77 form by the transferor and transferee below, shall serve as certification of the assignment or the transfer identified in 35 CSR 4 - 10.3.a.1.

Transfer approval shall be subject to the provisions in W. Va. Code §§ 22-6-26, 22-10-7 and 35 CSR 4 - 10.5, or as otherwise set forth by agreement with the Chief.

The transferee has registered and designated an agent on form OP-1, which is on file with the Office of Oil and Gas. The agent is:

Designated agent (name) David Roddy

Address: 1 Bridge Street, Monongah, WV 26554

The transferee has bonded the said well by (check one)

Securities Cash Surety bond Letter of credit

Identified by:

Amount	<u>\$50,000</u>	Effective date:	<u>10/5/2020</u>
Issuing authority	<u>Indemnity National Insurance Company</u>	Id No	<u>N-6000917</u>

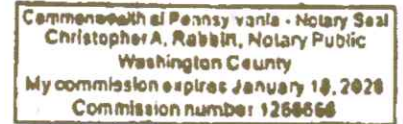
Transferor: Leatherwood, LLC

By [Signature]
Its VICE PRESIDENT

Taken, subscribed and sworn before me this 14 day of MAY 2024

Notary Public Christopher A. Rabblitt

My Commission Expires 11/18/2028



Transferee: West Virginia Land Resources, Inc.

By [Signature]
Its _____

RECEIVED
Office of Oil and Gas

FEB 10 2025

Taken, subscribed and sworn before me this 17 day of May 2024

Notary Public [Signature]

My Commission Expires Oct 24, 2027



WV Department of Environmental Protection
Notary Public
State of Ohio
My Comm. Expires
October 24, 2027

03/07/2025



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

Plugging permits issued 4706100150 06101980

1 message

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

Wed, Mar 5, 2025 at 3:03 PM


To: Gayne J Knitowski <gayne.j.knitowski@wv.gov>, mmusick@assessor.org, "Roddy, David" <DavidRoddy@acnrinc.com>


To whom it may concern, plugging permits have been issued for 4706100150 06101980.

James Kennedy

WVDEP OOG

2 attachments

 **4706101980.pdf**
3667K

 **4706100150.pdf**
3967K

03/07/2025