

02/23/2023



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

Thursday, January 26, 2023
WELL WORK PLUGGING PERMIT
Vertical Plugging

BOONE EAST DEVELOPMENT CO., LLC
PO BOX 261

JULIAN, WV 25529

Re: Permit approval for Y & O 135
47-005-00972-00-00

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: Y & O 135
Farm Name: WESTERN POCAHONTAS
U.S. WELL NUMBER: 47-005-00972-00-00
Vertical Plugging
Date Issued: 01/26/2023

Promoting a healthy environment.

02/03/2023

PERMIT CONDITIONS

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

CONDITIONS

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.

1) Date 11/17, 2022
2) Operator's Well No. Y & O 135 **02/23/2023**
3) API Well No. 47-005 - 00972

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

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

5) Location: Elevation 1484.77' Watershed Browns Branch of West Fork of Pond Creek
District Crook County Boone Quadrangle Bald Knob Wharton 7.5' Quad.

6) Well Operator Boon East Development Co. LLC 7) Designated Agent Timothy McGrady
Address 300 Running Right Way Address 300 Running Right Way
Julian, WV 25529 Julian, WV 25529

8) Oil and Gas Inspector to be notified Name Terry Urban
Address P.O. Box 1207
Clendenin, WV 25045
9) Plugging Contractor Name CJ's Well Service, Inc.
Address P.O. Box 133
Rowe, VA 24646

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

**Plug API Well No. 47-005-00972 per MSHA approved 101(c) Petition.
See attached MSHA approved 101(c) Petition.
A Monument will be installed with API No. stating solid plug.**

THE PLUGGING PROCEDURE FOLLOWS THE PLUGGING PROGNOSIS.

gwm

RECEIVED
Office of Oil and Gas
DEC 19 2022
WV Department of
Environmental Protection

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

Work order approved by inspector *[Signature]* Date 12-16-22
02/03/2023

Plugging Prognosis

1/10/2023

Well # Y&O 135
API# 47-005-00972
Crook District, Boone County WV

Current Well StatusWell type: GasSurface Elevation: 1484.77'Total Depth of well: 3212' (Per Well Record)Active: YesPlugged: NoCasing Left in Well (Per Well Record): 9 5/8" - 33'5 1/2" - 2108'2 7/8" - 3201'

Lowest mineable coal seam between: (Depth ~735' - 740') (Elev. ~749' - 744') Eagle Seam

Mineable coal seams are >20 inches or currently being mined (Eagle Seam).

The well record indicates 250 - 327 mcf of natural gas was encountered at a depth of 2137 ft. There was also a show of natural gas at 3050 ft. and 30 mcf of natural gas at TD of 3212 ft.

The record also reflects that 2100' of 2 7/8" tubing was cemented, which would reflect that the TOC (top of cement) should be about 1100 feet from surface.

Mineable coal was found at depths of 306', 565' and 735'.

The 2 7/8 inch tubing was the production string. It was perforated from 3168' to 3162' and 2870' to 2864'.

JNM

Plugging Procedure for the Y & O 135 well follows on next page.

Procedure for Plugging of Y & O 135

- 1) Notify state inspector, Terry Urban @ (304) 549-5915 , Terry.W.Urban@wv.gov before starting.
- 2) Clean out well bore to original total depth ~ 3212'. Spot 3 bbls of gel.
- 3) Set Class A cement plug from TD to 2800' covering the perforations.
- 4) Freepoint 2 7/8 " casing, estimated to be ~ 1100'. Cement with expanding cement from 2800' to 1100'.
- 5) Cut and remove 2 7/8 " casing.
- 6) Freepoint 5 1/2" casing, cut and POOH (pull out of hole). No record of 5 1/2" being cemented.
- 7) Set an expanding cement plug from 1100' to the surface.
- 8) Erect permanent monument per WV State Code with the API number.
- 9) Reclaim site and access road.
- 10) If the 5 1/2" casing can not be removed, then proceed as follows:
- 11) 5 1/2" casing must be cut, milled, perforated or ripped per MSHA 101C exemption at all mineable coal seam levels to facilitate the removal of any remaining casing in the coal seam by mining equipment. All remaining casing at mineable coal seam levels shall be perforated or ripped at least every 5 feet from 10 feet below the coal seam to 10 feet above the coal seam.
- 12) Set a 940.77 ft. expanding cement plug from 200' below the lowest mineable coal seam to surface, depth of 940 to 0 ft (elevation of 544' to 1484.77').
- 13) All plugging procedures and changes will be noted in the plugging affidavit.
- 14) Erect permanent monument with API number per WV State Code.
- 15) Reclaim the site and access road.

NOTE: All plugging procedures must follow the MSHA 101C exemption for a mine-through, as well as the requirements of WV Code 22-6-11.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Quadrangle Bald Knob

Drilled by Rotary

WELL RECORD

Permit No. 800-972

Oil or Gas Well Gas
(MIND)

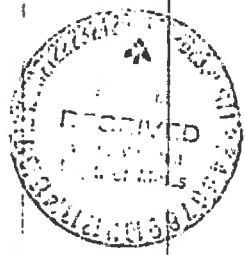
Company Peuke Petroleum Company
 Address Kanawha Valley Bldg., Chas., W. Va.
 Farm W.P.C. Y&O Lands Acres 7,590.98
 Location (waters) Peter Cave Pk. of Brown's Cr. Size
 Well No. 9-135 Elev. 1491.53
 District Crook County Boone
 The surface of tract is owned in W. Va. by Western
Pocahontas Corp. Pocahontas, W. Va.
 Mineral rights are owned by Same as above.
 Address _____
 Drilling commenced 12-19-64
 Drilling completed 1-16-65
 Date Shot From _____ To _____
 With _____
 Open Flow _____ / 10ths Water in _____ Inch
 _____ / 10ths Merc. in _____ Inch
 Volume 30 M _____ Cu. Ft.
 Rock Pressure _____ lbs. _____ hrs.
 Oil _____ bbls. 1st 24 hrs.
 WELL ACIDIZED See Reverse Side
 WELL FRACTURED 1-21-65 w/3000# 20/40 Sand, 8000# 10/20 Sand, 10,878 gals. water,
50 lbs. WAC-8, 70,000 SFC Nitrogen.
 RESULT AFTER TREATMENT 73 MCF
 ROCK PRESSURE AFTER TREATMENT 645# - 10 hrs.
 Fresh Water _____ Feet Salt Water _____ Feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
16			Kind of Packer _____
18			<u>None</u>
10			Size of _____
9 5/8	33	33	
5 1/2	2108	2108	Depth set _____
3			Perf. top <u>3162</u>
2 7/8	3201	3201	Perf. bottom <u>3168</u>
			Perf. top <u>2864</u>
			Perf. bottom <u>2870</u>

CASING CEMENTED 2-7/8" SIZE 2100 No. Ft. 1-17-65 Date

COAL WAS ENCOUNTERED AT 306 FEET 48 INCHES
565 FEET 96 INCHES 630 FEET 60 INCHES
735 FEET 60 INCHES FEET _____ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Sand			0	155	Water	82'	
Shale			155	160			
Sand			160	195			
Sand & Shale			195	210			
Sand			210	306			
Coal			306	310			
Sand & Shale			310	565			
Coal			565	573			
Sand & Shale			573	630			
Coal			630	635			
Sand & Shale			635	735			
Coal			735	740			
Sand			740	770			
Sand & Shale			770	920			
Shale			920	1230			
Sand			1230	1415			
Shale			1415	1455			
Sand			1455	1785			
Shale			1785	1815			
Sand			1815	2000			
Shale			2000	2045			
Red Rock			2045	2063			
Lime			2063	2091			
Red Rock			2091	2137	Gas		250-327 MCF
Sand			2137	2196			
Sand & Shale			2196	2266			
Red Rock			2266	2298			
MAXON			2298	2374			
Red Rock & Shale			2374	2454			



Fwd. -

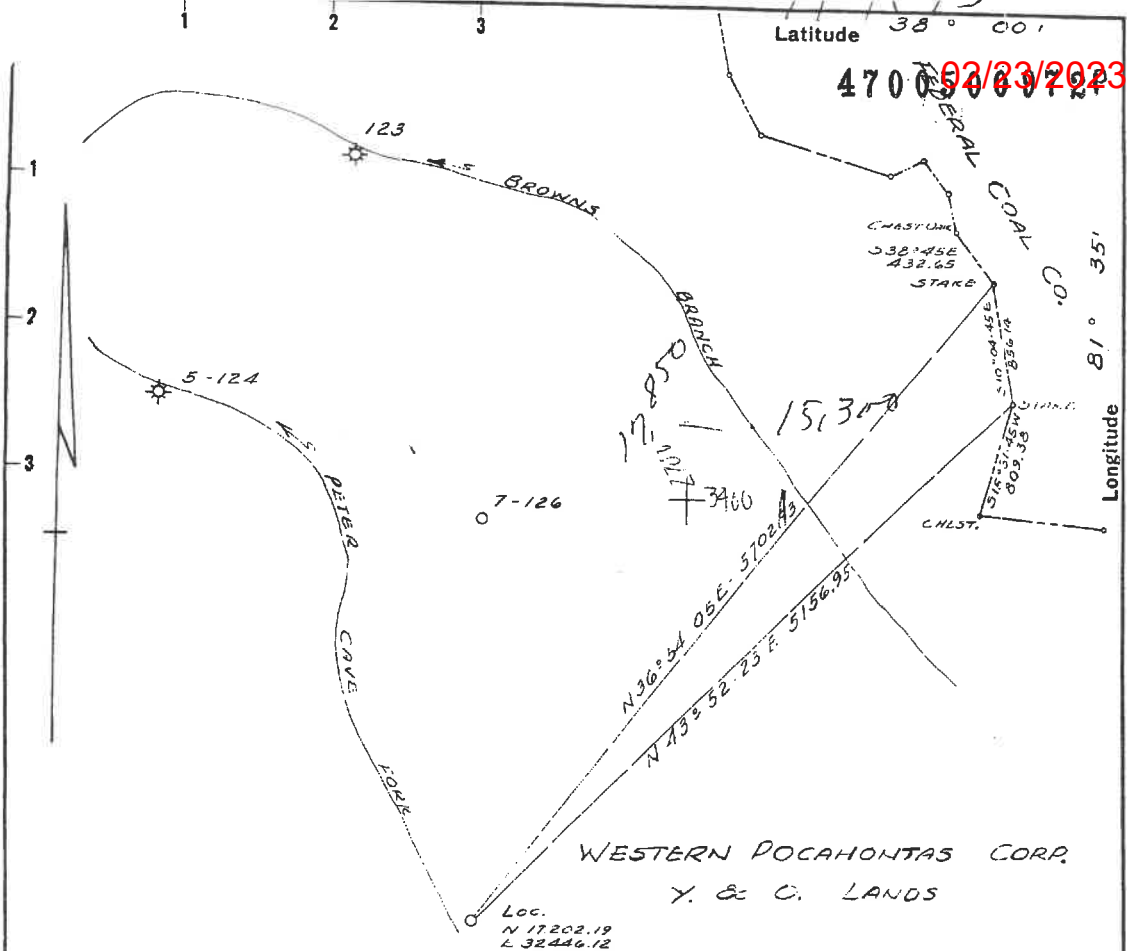
(over)

Formation	Color	Hard or Soft	Top <u>2</u>	Bottom	Oil, Gas or Water	Depth Found	Remarks
Lime & Shale			2454	2522			
Little Lime			2522	2662			
BIG LIME			2662	2852			
White Injun			2852	2875			Gas Checked at following depths:
Red Injun			2875	2898			
Sand & Shale			2898	2981			
WEIR			2981	3168			
Shale			3168				
		TOTAL DEPTH		3212			
ACIDIZED	2-4-65:						
	1st Stage	- 750 gals. 15% HCl w/Iron Seques. Agent and Shale Swelling Agent added - Matrix Treatment.					
	2nd Stage	- 2250 gals. 15%		Same as above.			
LOGS RUN:							
	Density	- 2100 - 3201					
	Induction	- 0 - 3199					
	Temperature	- 1990 - 3204					
	Caliper	- 2100 - 3201					
	Gamma Ray	- 1300 - 2295					

Date 2/24, 1965

APPROVED E. Peck, Petroleum Co Owner

By GEB Jett Mgr (Title)



WESTERN POCAHONTAS CORP.
Y. & C. LANDS

NOTE: ELEVATION TAKEN FROM U.S.G.S. ELEV. OF 809' NEAR MOUTH OF WEST FORK OPPOSITE TOWN OF VAN.
THE ACCURACY OF THIS SURVEY IS WITHIN THE LIMITS PRESCRIBED BY THE O. & G. DIV. OF THE DEPT. OF MINES.

RECEIVED
Office of Oil and Gas
DEC 19 2022

I, THE UNDERSIGNED HEREBY CERTIFY THAT THE MAP IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY PARA. 6 OF THE RULES AND REGULATIONS OF THE OIL AND GAS SECTION OF THE MINING LAWS OF WEST VIRGINIA.

New Location...
Drill Deeper...
Abandonment...

Company PEAKE PETROLEUM CO.
 Address CHARLESTON, W.VA.
 Farm W. P. C. Y. & O. LANDS
 Tract _____ Acres 7590.98 Lease No. _____
 Well (Farm) No. 9 Serial No. 135
 Elevation (Spirit Level) 1491.53
 Quadrangle BALD KNOB
 County BOONE District CROOK
 Engineer _____
 Engineer's Registration No. _____
 File No. _____ Drawing No. _____
 Date 8-25-64 Scale 1" = 1000'

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
CHARLESTON

WELL LOCATION MAP
FILE NO. Doc-972

+ Denotes location of well on United States Topographic Maps, scale 1 to _____ latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.



"Pipeline"

Select County: (005) Boone

Enter Permit #: 00972

Get Data

Reset

Select datatypes: (Check All)

Location

Production

Owner/Completion

Stratigraphy

Logs

Plugging

Sample

Btm Hole Loc

Table Descriptions

County Code Transactions

Permit Number Series

Lease Notes

Disposal Information

WVGES Main

Trainers-Plus

Geological & Economic Survey:

View Map

COUNTY PERMIT TAX DISTRICT QUAD 75 QUAD 15 LAT DD LON DD UTIME UTMN

4700500972 Boone 972 Cook Wharton Bald Knob 31.652637 -81.63656 444075.5 420075.1

Well: County = 5 Permit = 00972 [Link to all digital records for well](#)

Report Time: Monday, January 23, 2023 10:10:31 AM

There is no Bottom Hole Location data for this well

Owner Information:

API	CMP_DT	SURF/FX	STATUS	SURFACE_OWNER	WELL_NUM	CO_NUM	LEASE	LEASE_NUM	MINERAL	OWNR_OPERATOR	AT_COMPLETION	PROP_VD	PROP_TRGT_FIM	FIM_EST_PR
4700500972	1/1/1985	7-7	1492	Ground Level	Hdkn Fl-Jhd V	Weir				Peake Operating Co.				

Completion Information:

API	CMP_DT	SPUD_DT	ELEV DATUM	FIELD	DEEPEST_FIM	DEEPEST_FMT	INITIAL_CLASS	FINAL_CLASS	TYPE	RIG	CMP_MTHD	TVD	TMD	NEW_FTG	KOD	G_BEF	G_AFT	O_BEF	O_AFT	NGL_BEF	NGL_AFT	P_BEF	P_AFT	TL_AFT	BH
4700500972	1/1/1985			Weir			Development Well	Development Well	Rollery	AcidFrnc	3212		3212			0	73	0	0	0	0	0	0	0	0

Pay/Show/Water Information:

API	CMP_DT	ACTIVITY	PRODUCT	SECTION	DEPTH_TOP	FIM_TOP	DEPTH_BOT	FIM_BOT	G_BEF	G_AFT	O_BEF	O_AFT	WATER_QNTY
4700500972	1/1/1985	Pay	Unknown Water	Vertical									0
4700500972	1/1/1985	Pay	Gas	Vertical									0

Production Gas Information: (Volumes in Mcf)

API	PRODUCING_OPERATOR	PRD_YEAR	ANN_GAS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4700500972	Consolidated Gas Supply Corp.	1979	2,536	242	182	186	171	186	219	217	233	246	239	204	211
4700500972	Consolidated Gas Supply Corp.	1980	1,115	202	87	0	0	0	0	0	0	0	0	288	286
4700500972	Consolidated Gas Supply Corp.	1981	2,155	203	247	188	199	210	178	42	144	150	194	250	150
4700500972	Consolidated Gas Supply Corp.	1982	4,039	0	0	0	0	0	684	707	645	624	524	474	381
4700500972	Peake Petroleum Company	1983	4,550	410	420	410	410	360	440	250	360	290	530	420	350
4700500972	Peake Petroleum Company	1984	3,632	268	274	424	317	211	46	447	453	490	355	347	200
4700500972	Consolidated Gas Supply Corp.	1985	5,502	400	428	474	0	0	600	289	725	606	681	770	519
4700500972	Consolidated Gas Transmission Corp.	1986	6,007	730	616	222	233	703	486	406	138	607	723	546	597
4700500972	Consolidated Gas Transmission Corp.	1987	3,022	223	244	310	280	343	91	321	63	287	320	276	264
4700500972	Consolidated Gas Transmission Corp.	1988	5,648	347	488	348	373	330	483	597	140	705	703	492	642
4700500972	Consolidated Gas Transmission Corp.	1989	3,913	341	411	245	409	305	354	311	248	372	272	245	400
4700500972	Consolidated Gas Transmission Corp.	1990	6,011	412	383	411	564	548	424	459	758	531	582	428	511
4700500972	Consolidated Gas Transmission Corp.	1991	6,092	484	469	466	492	459	574	679	489	550	551	467	412
4700500972	Consolidated Gas Transmission Corp.	1992	3,235	280	341	225	303	244	257	254	115	255	341	285	345
4700500972	Consolidated Gas Transmission Corp.	1993	5,056	457	406	437	346	388	418	401	447	300	488	456	512
4700500972	Consolidated Gas Transmission Corp.	1994	3,956	367	349	317	108	671	234	341	364	351	290	269	326
4700500972	Consolidated Gas Transmission Corp.	1995	4,434	307	103	125	349	380	346	373	0	15	32	10	120
4700500972	Consolidated Gas Transmission Corp.	1996	601	178	95	87	58	6	0	0	0	0	0	0	0
4700500972	Consolidated Gas Transmission Corp.	1997	743	3	50	67	98	65	50	87	0	22	21	0	282
4700500972	Consolidated Gas Transmission Corp.	1998	3,050	273	255	308	268	256	214	238	264	250	302	236	186
4700500972	Consolidated Gas Transmission Corp.	1999	7,883	730	617	701	644	759	486	461	877	745	607	628	628
4700500972	Consolidated Gas Transmission Corp.	2000	1,512	131	153	166	135	52	100	278	310	239	292	371	325
4700500972	Consolidated Gas Transmission Corp.	2001	3,849	318	443	436	369	308	436	310	440	310	289	282	310
4700500972	Consolidated Gas Transmission Corp.	2002	6,293	545	616	543	372	243	420	548	0	25	395	345	508
4700500972	Consolidated Gas Transmission Corp.	2003	3,415	333	319	313	291	354	288	0	25	395	345	354	398
4700500972	Peake Operating Co.	2004	2,733	280	250	240	246	249	266	213	0	317	252	181	229
4700500972	Peake Operating Co.	2005	2,339	289	255	301	253	252	259	18	394	88	99	81	50
4700500972	Peake Operating Co.	2006	1,055	66	56	95	88	57	110	96	104	104	118	77	86
4700500972	Peake Operating Co.	2007	2,949	86	115	116	243	229	231	279	221	327	347	377	378
4700500972	Peake Operating Co.	2008	1,381	367	338	271	251	297	0	140	125	69	68	161	158
4700500972	Peake Operating Co.	2009	2,381	113	128	102	127	124	126	168	90	99	88	82	91
4700500972	Peake Operating Co.	2010	9,520	983	856	933	954	643	775	871	885	814	578	604	544
4700500972	Peake Operating Co.	2011	2,940	245	245	245	245	245	245	245	245	245	245	245	245
4700500972	Peake Operating Co.	2012	6,500	50	53	69	68	69	51	70	55	65	68	57	77
4700500972	Peake Operating Co.	2013	303	55	47	51	22	5	16	19	18	16	16	20	17
4700500972	Peake Operating Co.	2014	1,019	79	60	29	77	80	101	79	87	85	7	161	183
4700500972	Peake Operating Co.	2015	337	38	18	32	35	47	38	36	40	40	21	15	0
4700500972	Peake Operating Co.	2016	658	56	41	65	63	90	59	48	57	53	27	52	67
4700500972	Peake Operating Co.	2017	677	23	29	34	32	29	29	73	73	85	35	93	84
4700500972	Peake Operating Co.	2018	390	21	26	30	20	17	48	40	45	45	36	40	38
4700500972	Peake Operating Co.	2019	1,245	75	67	91	127	109	100	122	112	116	106	111	89
4700500972	Peake Operating Co.	2020	970	97	102	85	97	110	106	131	24	0	95	81	42
4700500972	Peake Operating Co.	2021	972	55	81	76	88	90	73	98	92	75	72	82	90
4700500972	Peake Operating Co.	2022	1,272	92	98	116	131	104	0	128	145	155	149	155	155
4700500972	Peake Operating Co.	2023	10,284	982	855	812	914	911	1,014	924	959	1,030	953	910	0
4700500972	Peake Operating Co.	2024	6,969	331	408	378	341	424	406	431	430	434	1,040	1,217	1,107
4700500972	Peake Operating Co.	2025	4,228	0	0	0	0	0	410	392	429	425	518	402	406
4700500972	Peake Operating Co.	2026	5,340	0	0	0	0	0	760	712	208	816	802	714	660
4700500972	Peake Operating Co.	2027	3,261	342	0	0	0	0	197	204	116	198	317	217	216
4700500972	Peake Operating Co.	2028	2,838	306	273	307	283	542	178	139	209	170	239	190	0
4700500972	Peake Operating Co.	2029	1,862	244	166	213	173	0	145	226	195	0	0	0	0
4700500972	Peake Operating Co.	2030	2,568	212	194	225	214	220	250	279	271	258	263	91	87

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

API	PRODUCING_OPERATOR	PRD_YEAR	ANN_OIL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4700500972	Consolidated Gas Supply Corp.	1979	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Consolidated Gas Supply Corp.	1980	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Peake Operating Co.	1981	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Consolidated Gas Supply Corp.	1982	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Peake Petroleum Company	1982	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Peake Operating Co.	1983	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Consolidated Gas Supply Corp.	1983	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Consolidated Gas Transmission Corp.	1984	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Consolidated Gas Transmission Corp.	1985	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Consolidated Gas Transmission Corp.	1986	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Consolidated Gas Transmission Corp.	1987	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Consolidated Gas Transmission Corp.	1988	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Peake Operating Co.	1989	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Consolidated Gas Transmission Corp.	1990	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Consolidated Gas Transmission Corp.	1991	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Consolidated Gas Transmission Corp.	1992	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Peake Operating Co.	1993	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Consolidated Gas Transmission Corp.	1994	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Cabot Oil & Gas Corp.	1994	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Peake Operating Co.	1995	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Peake Operating Co.	1996	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Peake Operating Co.	1997	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Peake Operating Co.	1998	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Peake Operating Co.	2001	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2002	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2003	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2004	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2005	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2006	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2007	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2008	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2008	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2009	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2010	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2011	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2012	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2013	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2014	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2015	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2016	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2017	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2018	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2019	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Quality Natural Gas, LLC	2020	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Quality Natural Gas, LLC	2021	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Quality Natural Gas, LLC	2022	0	0	0	0	0	0	0	0	0	0	0	0	0

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

API	PRODUCING_OPERATOR	PRD_YEAR	ANN_NGL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4700500972	New River Energy	2013	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2014	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2015	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2016	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2017	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2018	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2019	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Quality Natural Gas, LLC	2020	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Quality Natural Gas, LLC	2021	0	0	0	0	0	0	0	0	0	0	0	0	0

Production Water Information: (Volumes in Gallons)

API	PRODUCING_OPERATOR	PRD_YEAR	ANN_WTR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4700500972	New River Energy	2018	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	New River Energy	2019	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Quality Natural Gas, LLC	2020	0	0	0	0	0	0	0	0	0	0	0	0	0
4700500972	Quality Natural Gas, LLC	2021	0	0	0	0	0	0	0	0	0	0	0	0	0

Stratigraphy Information:

API	SUFFIX	FM	FM_QUALITY	DEPTH	TOP_DEPTH	QUALITY	THICKNESS	THICKNESS	QUALITY	ELEV	DATUM
4700500972	Original Loc	undidentified coal	Well Record		306	Reasonable	4	Reasonable		1492	Ground Level
4700500972	Original Loc	undidentified coal	Well Record		585	Reasonable	4	Reasonable		1492	Ground Level
4700500972	Original Loc	undidentified coal	Well Record		630	Reasonable	5	Reasonable		1492	Ground Level
4700500972	Original Loc	undidentified coal	Well Record		735	Reasonable	5	Reasonable		1492	Ground Level
4700500972	Original Loc	Maxton	Well Record		2298	Reasonable	78	Reasonable		1492	Ground Level
4700500972	Original Loc	Little Lime	Well Record		2522	Reasonable	140	Reasonable		1492	Ground Level
4700500972	Original Loc	Big Lime	Well Record		2662	Reasonable	130	Reasonable		1492	Ground Level
4700500972	Original Loc	Big Injun (Priced&eq)	Past WWGES Staff Geologist		2852	Reasonable	23	Reasonable		1492	Ground Level
4700500972	Original Loc	Maccrazy	Past WWGES Staff Geologist		2875	Reasonable	187	Reasonable		1492	Ground Level
4700500972	Original Loc	Weir	Well Record		2981	Reasonable				1492	Ground Level

There is no Wireline (E-Log) data for this well

There is no Plugging data for this well



April 1, 2021

In the matter of:
Marfork Coal Company, LLC
Black Eagle
I.D. No. 46-09550

MSHA
101C Exemption

Petition for Modification

Docket No. M-2019-057-C

PROPOSED DECISION AND ORDER

On November 4, 2019, a petition was filed seeking a modification of the application of 30 C.F.R. § 75.1700 to Marfork Coal Company, LLC's Black Eagle mine located in Raleigh County, West Virginia. The Petitioner filed the petition to permit an alternative method of compliance with the standard with respect to vertical oil and gas shale wells into the underground coal seams. 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:

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§ 75.1700 Oil and gas wells.

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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.

On January 22, 2020, MSHA personnel conducted an investigation of the petition and filed a report of their findings with the Administrator for Mine Safety and Health Enforcement.

The miners at Black Eagle mine are not represented by a labor union. After a careful review of the entire record, including the petition, MSHA's investigative report this Proposed Decision and Order is issued.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Mr. Mitchell Kalos, PE Chief Engineer for Marfork Coal Company, LLC indicated the main purpose for the proposed 101(c) Petition for Modification seeking to modify the application of 30 CFR 75.1700, is just in case the projections can't be changed to mine around a gas well or a safety barrier left around the well is not large enough as required by the District Manager. According to Mr. Kalos, they have no plans at this time to mine through any gas wells in the mine.

The mine is located in Raleigh County on Marsh Fork of Big Coal River near Whitesville, West Virginia and was started on December 21, 2018. The coal seam being mined is the Eagle seam with a predicted coal reserve height of 54-60 inches while the predicted mining height for the reserve is 60-72 inches. The mine has six (6) drift openings at the portal and has developed approximately 8700 feet underground with seven (7) entries. The operation consists of one super-section operating 2 shifts per day, 5 ½ days per week on day and evening shifts. They also have one maintenance crew operating 5 ½ days per week on the midnight shift. All shifts are scheduled for 9 hours. The mine currently employs 56 underground miners and 5 office/surface miners.

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The mine currently has 28 gas wells identified within/near the mining projections. Some of these wells are active while other have been abandoned. The mine operator has not identified any gas wells at this time which will be mined through. Also, the operator is not aware of any oil wells located within the proposed mining area.

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The typical natural gas formations for this area are located in the Big Injun sandstone formation, the Weir sandstone formation, and the Berea sandstone formation. The depth of the formations range from approximately 2800 feet deep down to approximately 3500 feet deep, which is approximately 1600 feet to 2300 feet below the Eagle coal seam.

The mine operator is not aware of any natural gas and/ or condensate produced and/ or flared from this reservoir or any sour gas (hydrogen sulfide, H₂S) encountered in any well. Also, the mine operator does not have any knowledge of the typical flow rates and pressures of the natural gas produced. Likewise, the mine operator does not have any of the wells abandonment pressures or the recharge potential of the reservoir. According to the mine operator, there are no known unconsolidated formations, karstic formations and/or lost circulation zones in this area.

All of the mines located above in which the wells penetrate their coal seams are abandoned and all of those mines have mined around the wells leaving a barrier to protect it from subsidence according to the operator.

In addition to the Eagle coal seam, the No. 5 Block, the Coalburg, the Upper Winifrede, the Lower Winifrede, the Upper Cedar Grove, the Lower Cedar Grove, the Peerless, and the Powellton coal seams have been mined or are mineable above within the mine's reserve. There is no known mining or mineable coal seams identified below the Eagle coal seam. The No. 5 Block coal seam is approximately 1050 feet above the Eagle coal seam and has been mined in areas overlying the mine workings/mine reserves. All of the mine workings in the No. 5 Block coal seam are abandoned. The Coalburg coal seam is located approximately 830 feet above the Eagle coal seam and has been mined in areas overlying the mine workings/mine reserves. All of the mine workings in the Coalburg coal seam are abandoned. The Upper Winifrede coal seam is located approximately 740 feet above the Eagle coal seam and has been mined in areas overlying the mine workings/mine reserves. All of the mine workings in the Upper Winifrede coal seam are abandoned. The Lower Winifrede coal seam is located approximately 720 feet above the Eagle coal seam and has been mined in areas overlying the mine workings/mine reserves. All of the mine workings in the Lower Winifrede coal seam are abandoned. The Upper Cedar Gove coal seam is located approximately 460 feet above the Eagle coal seam and has been mined in areas overlying the mine workings/mine reserves. All of the mine workings in the Upper Cedar Grove coal seam are abandoned. The Lower Cedar Grove coal seam is located approximately 360 feet above the Eagle coal seam and has been mined in areas overlying the mine workings/mine reserves. All of the mine workings in the Lower Cedar Grove coal seam are abandoned. The Peerless coal seam is located approximately 295 feet above the Eagle coal seam and has been mined in areas overlying the mine workings/mine reserves. All of the mine workings in the Peerless coal seam are abandoned. The Powellton coal seam is located approximately 180 feet above the Eagle coal seam and has been mined in areas overlying the mine workings/mine reserves. All of the mine workings in the Powellton coal seam are abandoned.

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On January 29, 2020, additional investigation meetings were conducted, to discuss the proposed petition with the employees of the mine. Meetings were held with the day shift crew employees (18 hourly, 4 management), midnight shift crew employees (8 hourly, 2 management), and the evening shift crew employees (13 hourly, 3 management), discussing the proposed petition with them during their safety meetings. In total, the proposed petition was reviewed with 48 employees and no questions or comments were received from any of them.

The miners at the Black Eagle mine are not represented by a labor union; and do not have a miner's representative.

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 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 PDO addresses these concerns as they affect the Black Eagle mine. There are several differences between the petitioner’s proposal and the amended terms and conditions set forth by MSHA. The essential changes include:

1. Making a diligent effort to clean out the well bore to the original total depth. MSHA believes that cleaning wells to the original total depth provides miners with a higher degree of safety by ensuring all gas producing zones have been effectively sealed.
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.
3. Cement is specified to be used as a plugging material instead of an unapproved “approved equivalent.”

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Wells vary in depth. The petitioner’s proposed alternate method does not specify the depths of wells to be plugged, only that the operator will plug wells to 200 feet below the lowest mineable coal seam. The terms and conditions required by MSHA will prepare these wells for safe intersection by making a diligent effort to clean the wells to the original total depth, removing all casing and plugging to the total depth by pumping expanding cement slurry and pressurizing to at least 200 psi. If the total depth cannot be reached and casing cannot be removed, these alternative methods included in this proposed decision and order have proven safe and effective when properly implemented.

Therefore, the terms and conditions as amended by MSHA will at all times guarantee no less than the same measure of protection afforded the miners under 30 CFR 75.1700 for wells at least 2,000 to 4,000 feet or greater in depth. On the basis of the petition, comments received, and the findings of MSHA’s investigation, Marfork Coal Company, LLC is granted a modification of the application of 30 C.F.R. § 75.1700 to its Black Eagle mine.

ORDER

Under the authority delegated by the Secretary of Labor to the Administrator for Mine Safety and Health Enforcement, 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 Marfork Coal Company, LLC's Black Eagle 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, windcat wells or dry holes) are classified as oil or gas wells by MSHA.

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- 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 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 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. In the event an uncharted well is inadvertently mined into, mining shall cease immediately on the section, electrical power shall be deenergized in the affected area, and MSHA shall be notified immediately via the emergency phone number posted on MSHA’s website for reporting of this hazardous condition. In addition to its potential for liberating methane, the well may also be an open connection from the mine to the surface that presents a hazard to the mine and the environment. The District will respond with a timely investigation, issue a K Order if needed, and allow resumption of mining once a suitable action plan is in place.

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

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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 gas is being produced.

- (1) A diligent effort shall be made to clean the well to the original total depth. The mine operator shall contact the District Manager prior to stopping the operation to pull casing or clean out the total depth of the well.

If this depth cannot be reached, and 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 base of the lowest mineable coal seam, 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 base of the lowest mineable coal seam. Wells of this greater depth are under greater pressure, so the 400 feet requirement provides greater protection for miners. The operator shall 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.

- (2) The operator shall prepare down-hole logs for each well. Logs shall consist of a caliper survey, a gamma log, a bond log and a deviation survey for determining the top, bottom, and thickness of all coal seams down to the lowest minable coal seam, 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. After the well is completely cleaned out and all the casing removed, the well should be plugged to the total depth 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 all mineable coal seam levels 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 mineable coal seam levels 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. 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.

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 in lieu of ripping or perforating multiple strings.

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- (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 carbon producing strata.
- (5) If the upper-most hydrocarbon-producing stratum is within 300 feet of the base of the lowest minable coal seam, 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 lowest mineable coal seam, 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 lowest mineable coal seam (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.

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- (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.

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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

lowest mineable coal seam, 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 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.

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 lowest mineable coal seam, 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 lowest mineable coal seam 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 lowest mineable coal seam 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

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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 gamma log, a bond log and a deviation survey for determining the top, bottom, and thickness of all coal seams down to the lowest minable coal seam, 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 of 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.

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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 heading 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 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.

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- 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 located on the working section 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.

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- 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 middle of the panel or a gate section misses the anticipated intersection, mining shall cease and the District Manager shall be notified.
- 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 covered by the 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.

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Department of
Environmental Protection

- 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.

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Any party to this action desiring a hearing on this matter must file in accordance with 30 C.F.R. § 44.14, within 30 days. The request for hearing must be filed with the Administrator for Mine Safety and Health Enforcement, 201 12th Street South, Suite 401, Arlington, Virginia 22202-5452.

If a hearing is requested, the request shall contain a concise summary of position on the issues of fact or law desired to be raised by the party requesting the hearing, including specific objections to the proposed decision.

A party other than Petitioner who has requested a hearing shall also comment upon all issues of fact or law presented in the petition, and any party to this action requesting a hearing may indicate a desired hearing site. If no request for a hearing is filed within 30 days after service thereof, the Decision and Order will become final and must be posted by the operator on the mine bulletin board at the mine.

**TIMOTHY
 WATKINS**

Digitally signed by TIMOTHY
 WATKINS
 Date: 2021.04.01 15:00:50 -04'00'

Timothy R. Watkins
 Administrator for
 Mine Safety and Health Enforcement

Certificate of Service

I hereby certify that a copy of this proposed decision was served personally or mailed, postage prepaid, or provided by other electronic means this 1st day of April 2021, to:

Mr. Mitchell Kalos, PE
Chief Engineer
Marfork Coal Company, LLC
P. O. Box 457
Whitesville, WV 25209

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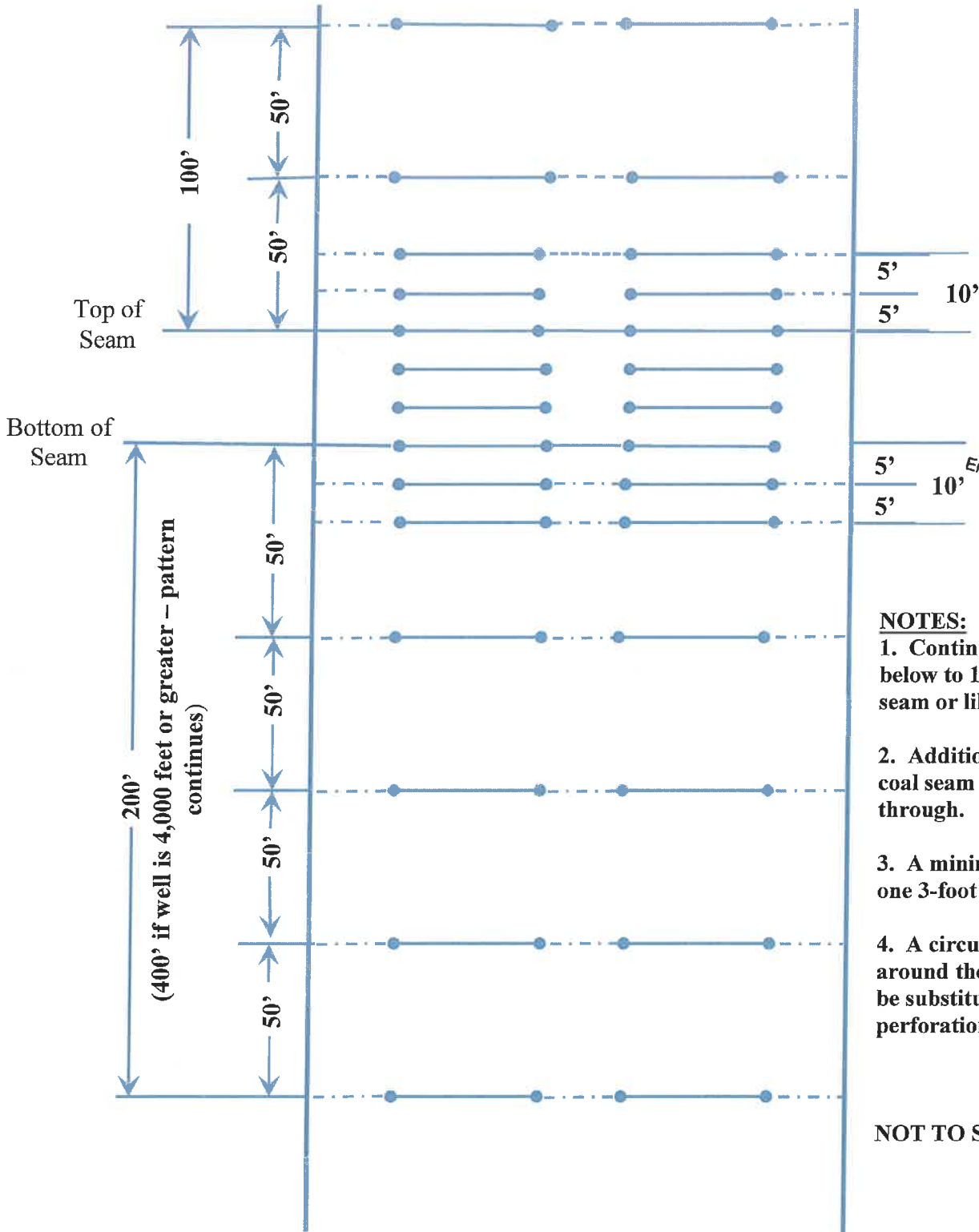
Don Braenovich
for

Digitally signed by Don Braenovich for
Date: 2021.04.01 15:25:27 -04'00'

Don Vickers
Safety and Health Specialist

cc: Eugene White, Director Office of Miners' Health Safety & Training #7 Players Club
Dr. Suite 2, Charleston WV 25311
Eugene.E.White@wv.gov

Appendix A



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- 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

4700500972P

02/23/2023

WW-4A
Revised 6-07

1) Date: 11/29/2022
2) Operator's Well Number
Y & O 135
3) API Well No.: 47 - 005 - 00972

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: Western Pocahontas Property LP (NRP)	Name: Marfork Coal Company
Address: 5260 Irwin Rd. Huntington, WV 25705	Address: P.O. Box 457 Whitesville, WV 25209
(b) Name: _____	(b) Coal Owner(s) with Declaration
Address: _____	Name: WPP, LLC
	Address: 5260 Irwin Rd. Huntington, WV 25705
(c) Name: _____	Name: _____
Address: _____	Address: _____
6) Inspector: Terry Urban	(c) Coal Lessee with Declaration
Address: P.O. Box 1207 Clendenin, WV 25045	Name: Boone East Development Co., LLC
Telephone: 304-549-5915	Address: 300 Running Right Way Julian, WV 25529

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.

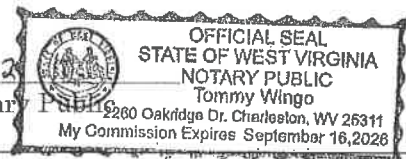
The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

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.

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Well Operator	Boone East Development Co., LLC
By:	Timothy Ryan McGrady
Its:	Designated Agent
Address	300 Running Right Way Julian, WV 25529
Telephone	304-369-8670

Subscribed and sworn before me this 29 day of November 2022
My Commission Expires 09/16/2026



Oil and Gas Privacy Notice

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

02/03/2023

SURFACE OWNER WAIVER

4700500972P
02/23/2023

Operator's Well
Number

Y&O 135 (47-005-00972)

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

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

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

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

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

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

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

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

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

VOLUNTARY STATEMENT OF NO OBJECTION

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

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

FOR EXECUTION BY A NATURAL PERSON
ETC.

FOR EXECUTION BY A CORPORATION,


Signature

Date 11/29/2022

Name Western Pocahontas Proprties Limited Partnership
By Gregory F. Wooten
Its Senior Vice President and Chief Engineer Date 11/29/2022

Signature

02/03/2023

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Environmental Protection

WW-4B

API No. 47-005-00972
Farm Name Western Pocahontas
Well No. Y&O 135

**INSTRUCTIONS TO COAL OPERATORS
OWNERS AND LESSEE**

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

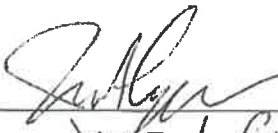
This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24,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

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

WAIVER

The undersigned coal operator ___ / owner ___ / lessee X / 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: 11/22/2022


By: JAMES A. CARMUCCI
Its President

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4700500972P

02/23/2023

WW-4B

API No.

47-005-00972

Farm Name

Western Pocahontas

Well No.

Y&D 135

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.

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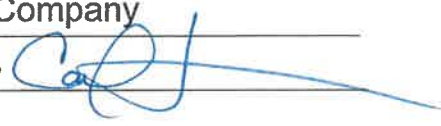
WAIVER

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

Date: 11/22/22

Marfork Coal Company

By: Carl Lucas



Its President

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02/03/2023

WW-4B

4700500972P

API No. 47-005-00972/2023

Farm Name Western Pocahontas

Well No. Y&O 135

INSTRUCTIONS TO COAL OPERATORS OWNERS AND LESSEE

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


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

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

WAIVER

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

Date: 11/29/2022


By: Gregory F. Wooten
Its Senior Vice President and Chief Engineer

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02/03/2023

WW-9
(5/16)

4700500972

API Number 47 - 005
Operator's Well No. Y80 135 02/23/2023

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

Operator Name Boone East Development Co., LLC OP Code _____

Watershed (HUC 10) Peter Cave Fork of Browns Branch of West Fork of Pond Creek Quadrangle Bald Knob Wharton - 7.5' Quad

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

TU

If so, please describe anticipated pit waste: Cement, drilling water, and residual material

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

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: No

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

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

Additives to be used in drilling medium? none

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

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

-Landfill or offsite name/permit number? _____

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 Nathan Woodrum

Company Official (Typed Name) Nathan Woodrum

Company Official Title Engineer

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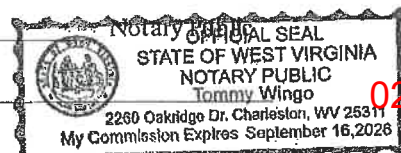
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Subscribed and sworn before me this 14 day of December, 2022

Tommy Wingo Jenny Wingo

My commission expires 09/16/2026



02/03/2023

Proposed Revegetation Treatment: Acres Disturbed 1-2 Prevegetation pH 4.3 - 5.3

Lime 2 Tons/acre or to correct to pH Min 5.0 to Max 7.5

Fertilizer type 10-20-10 or equivalent

Fertilizer amount 200 - 300 lbs/acre

Mulch Straw or 1000 lbs hydroseed mulch Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

- Perennial Rye Grass 10 lbs/acre
- White Clover 3 lbs/acre
- Winter Wheat or Oats 10 lbs/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: [Signature]

Comments: _____

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Office of Oil and Gas
DEC 19 2022
WV Department of
Environmental Protection

Title: Inspector Williams

Date: 12/16/20

Field Reviewed? () Yes () No

4700500972P

02/23/2023

WW-9- GPP
Rev. 5/16

Page 2 of 2
API Number 47 - 005 - 00972
Operator's Well No. Y80135

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JAN 24 2023

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

WV Department of Environmental Protection
Operator Name: Boone East Development Co., LLC

Watershed (HUC 10): Peter Cave Fork of Browns Branch of West Fork of Pond Creek Quad: Bald Knob Wharton - 7.5' Quad

Farm Name: Western Pocahontas Property LP

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

Plugging of an active gas well (plug to 101c standards to mine through the well). Water used during the plugging is pumped through a pipe and discharged into a lined pit. The pit is designed to hold approximately 110% of the anticipated drilling water. The pit contents (drilling water and residual materials) in the pit will be allowed to solidify and any remaining water will be sampled before the pit is reclaimed. Brine water is not expected to be encountered while plugging the well.

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

Water used during the plugging is pumped through a pipe and discharged into a lined pit. The pit is designed to hold approximately 110% of the anticipated drilling water. The pit contents (drilling water and residual materials) in the pit will be allowed to solidify and any remaining water will be sampled before the pit is reclaimed. Straw bales, oil absorption pads, and silt fencing will be available on the mine property in case of spills or contaminations.

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

The closest body of water is West Fork of Pond Fork approximately 2 miles away from the well site and anticipated pit.

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

Mining operations-storage tanks regulated under a GPP plan.

02/03/2023

None for West Fork of Pond Fork. Adjacent watersheds are sampled bimonthly for the mining operations. The results of the bimonthly samplings are submitted to the WVDEP.

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

No waste material will be used for deicing or fill material.

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.

Each employee and contractor involved in plugging the well will be trained on the proper environmental procedures of the job. The pit and area around the pit will be visually examined daily for leaks and tears. If a leak or tear is observed, discharge to the pit will cease until proper repairs can be made to the pit or liner. Drilling equipment will be inspected each day before work begins to ensure there are no fluid leaks. Straw bales, oil absorption pads, and silt fencing will be available on the mine property in case of spills. Any contaminated materials will be properly disposed of in specially marked containers. If there is any remaining water in the pit once plugging is complete, it will be analyzed before the pit is reclaimed.

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

The pit and area around the pit will be visually examined daily for leaks and tears. If a leak or tear is observed, discharge to the pit will cease until proper repairs can be made to the pit or liner. Drilling equipment will be inspected each day before work begins to ensure there are no fluid leaks. Straw bales, oil absorption pads, and silt fencing will be available on the mine property in case of spills. Any contaminated materials will be properly disposed of in specially marked containers. If there is any remaining water in the pit once plugging is complete, it will be analyzed before the pit is reclaimed.

Signature: _____

Date: _____

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Note: Slopes along location and roads to be sealed when construction is finished. Will install culverts, waterbars, rock and silt fence if needed.

Inlets and outlets will be protected by crushed stone. Straw bales and or silt fence will be utilized to control sediment and run-off.

047-005-00972 (9-13

1484.77'

Peter Cave Fork of Browns Branch








Proposed Lined Pit
Dim: 18'L x 7'W x 5'H

31671 Sq. Feet
0.7271 Acres

Any remaining pit water will be tested by a certified lab and treated if necessary. Pit water to be sprayed on the hillside and hatched area after being deemed safe to do so by the lab.

1445

ACTIVE

-  ACTIVE GAS WELL
-  INTERMITTENT STREAM
-  POWER LINES
-  ROADS
-  TOPO CONTOURS
-  PROPOSED PIT
-  LAND APPLICATION AREA

DRAWN	
12/05/22	NDW
REVISED	
APPROVED	
DATE	NAME



MARFORK COAL COMPANY

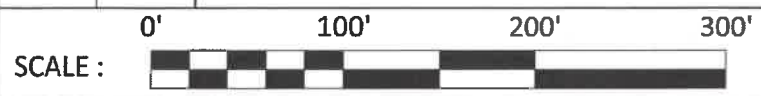
BLACK EAGLE MINE
MSHA ID# 46-09550 / STATE ID # U-3001-18

API 47-005-00972
PIT LOCATION MAP - FORM WW-9

CONFIDENTIALITY STATEMENT

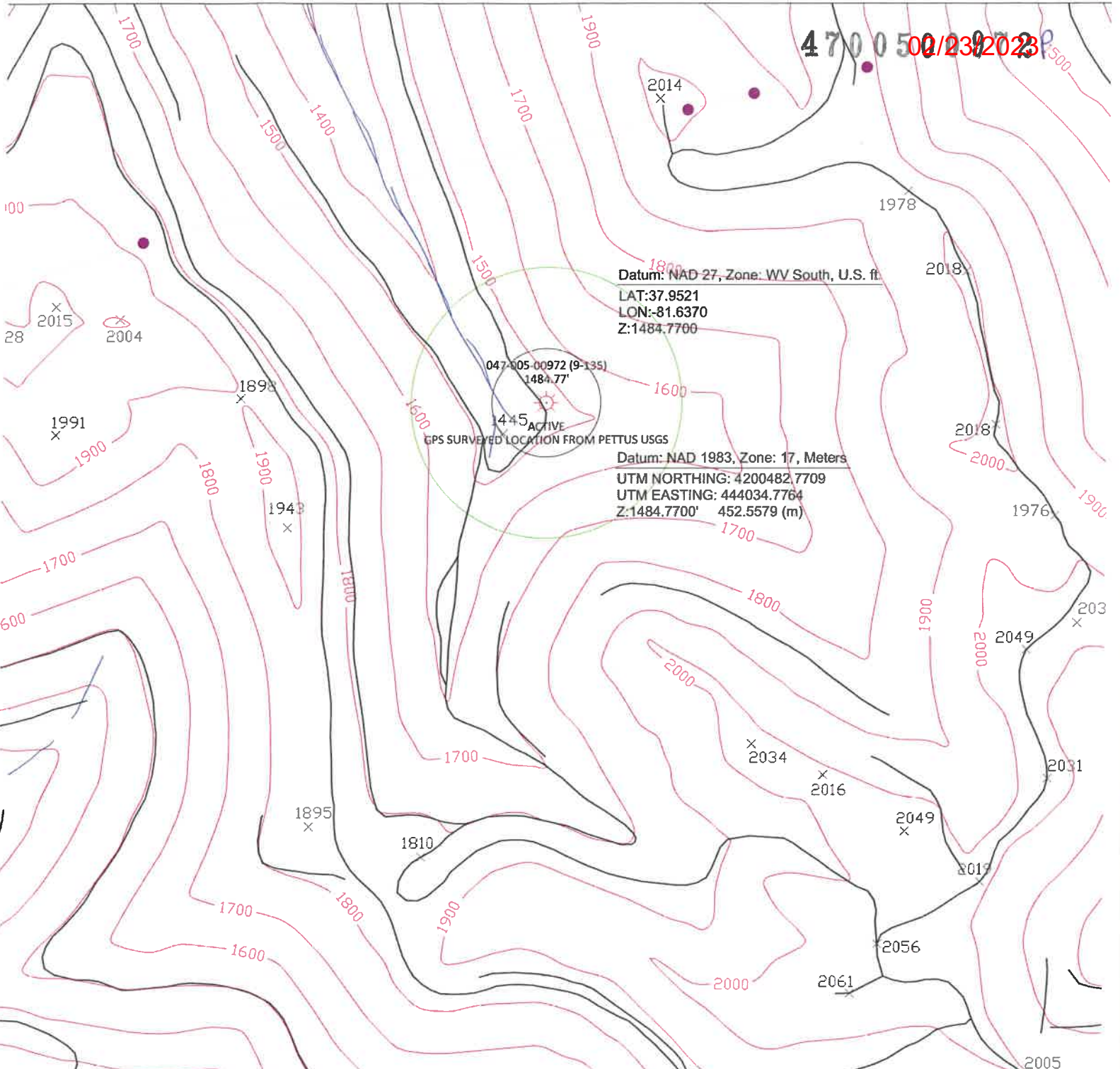
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02/03/2023
DRAWING NO: 1 of 1

4700500972 02/03/2023



Datum: NAD 27, Zone: WV South, U.S. ft.
 LAT: 37.9521
 LON: -81.6370
 Z: 1484.7700

Datum: NAD 1983, Zone: 17, Meters
 UTM NORTHING: 4200482.7709
 UTM EASTING: 444034.7764
 Z: 1484.7700' 452.5579 (m)

047-005-00972 (9-135)
 1484.77'
 1445 ACTIVE
 GPS SURVEYED LOCATION FROM PETTUS USGS

- ACTIVE GAS WELL
- INTERMITTENT STREAM
- POWER LINES
- ROADS
- TOPO CONTOURS

DRAWN	
11/28/22	NDW
REVISED	
APPROVED	
DATE	NAME

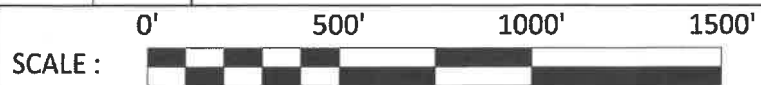


MARFORK COAL COMPANY
 BLACK EAGLE MINE
 MSHA ID# 46-09550 / STATE ID # U-3001-18
 API 47-005-00972
 GENERAL LOCATION MAP

CONFIDENTIALITY STATEMENT

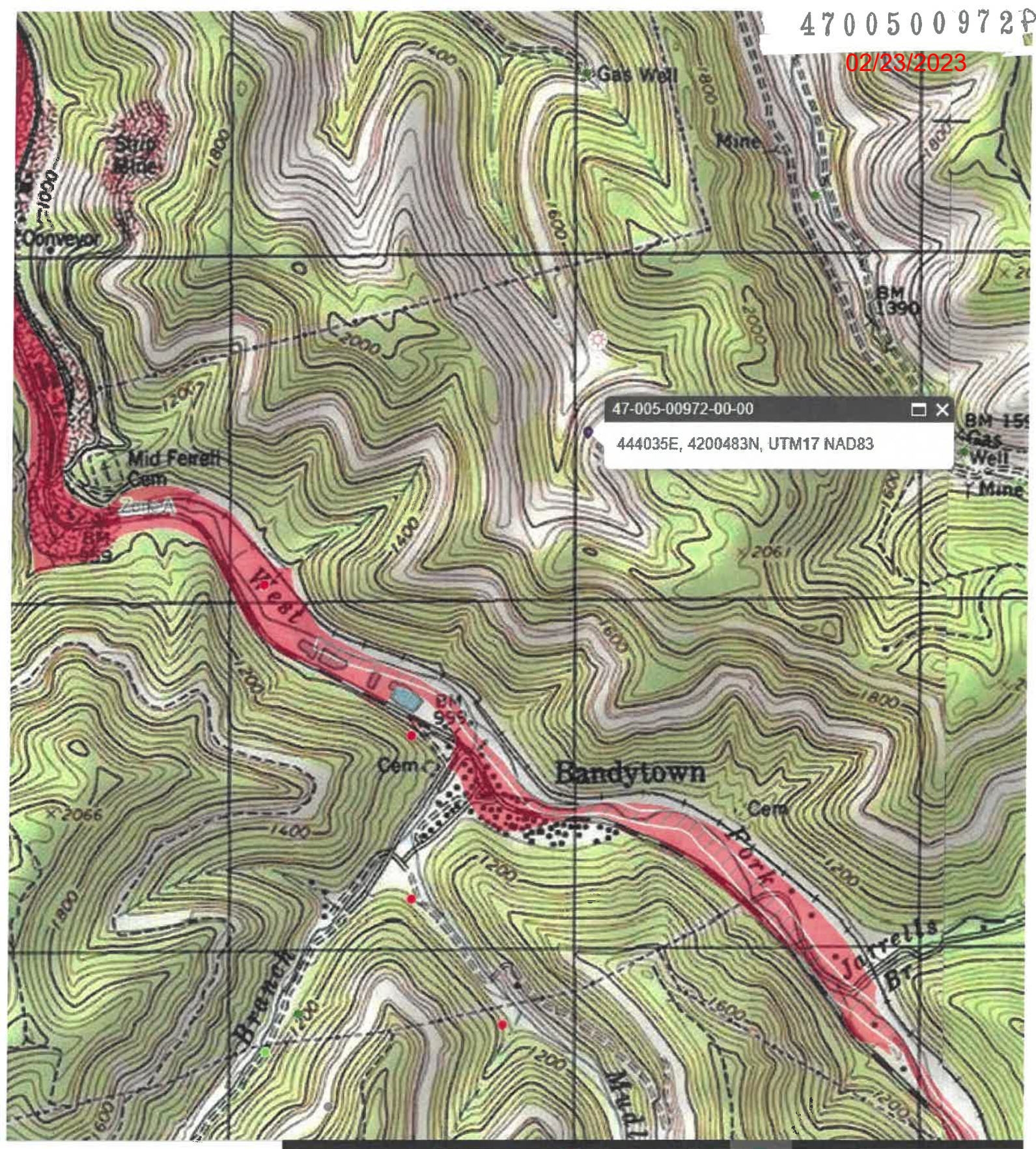
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02/03/2023
 DRAWING NO: 1 of 1

02/23/2023



02/03/2023

WW-7
8-30-06



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

API: 47-005-00972 WELL NO.: Y & O 135
 FARM NAME: Western Pocahontas Property LP
 RESPONSIBLE PARTY NAME: Boone East Development Co., LLC
 COUNTY: Boone DISTRICT: Crook
 QUADRANGLE: Bald Knob Wharton - 7.5' Quad
 SURFACE OWNER: Western Pocahontas Property LP
 ROYALTY OWNER: WPP, LLC
 UTM GPS NORTHING: 4200482.7709m
 UTM GPS EASTING: 444034.7764m GPS ELEVATION: 1484.77' 452.5579(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.

Matthew D. Warden
Signature

Engineer
Title

11/29/2022
Date

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WV Department of
Environmental Protection

02/03/2023

4700500972 P



December 13, 2022

WV DEP
Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304-2345

Re: Well Work Permit
Vertical / Plugging
101c Exemption
Well API: 47-005-00972

CK# 33685
#100

Dear Sir:

Please find for your review and approval, a well plugging permit. This attached well plugging permit proposes to plug gas well API: 47-005-00972 per the approved MSHA 101c exemption. A copy of the approved MSHA 101c exemption has also been attached to this permit.

If you have any questions or concerns on this matter, please feel free to contact me at your convenience at (304)854-3070 or NWoodrum@alphametresources.com.

3025
Respectfully Submitted,
Marfork Coal Company, Inc.

Nathan D. Woodrum
Mine Engineer

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Office of Oil and Gas
DEC 19 2022
WV Department of
Environmental Protection

MARFORK COAL COMPANY, LLC

P. O. Box 457, Whitesville, WV 25209
(304) 854-1852 | AlphaMetResources.com

02/03/2023

02/23/2023



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

plugging permit issued 4700500972

1 message

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

Mon, Jan 30, 2023 at 8:45 AM


To: Terry W Urban <terry.w.urban@wv.gov>, Nathan Woodrum <nwoodrum@alphametresources.com>, scook@wvassessor.com


To whom it may concern, a plugging permit has been issued for 4700500972.

James Kennedy

WVDEP OOG

2 attachments

 **4700500972.pdf**
3238K

 **IR-8 4700500972.pdf**
72K

02/03/2023