

west virginia department of environmental protection

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

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

Monday, February 28, 2022 PERMIT MODIFICATION APPROVAL Horizontal 6A / New Drill

EQT PRODUCTION COMPANY 625 LIBERTY AVE., SUITE 1700 PITTSBURGH, PA 15222

Re: Permit Modification Approval for BIG245 112H

47-103-03445-00-00

Lateral Extension and WMP approval

EOT PRODUCTION COMPANY

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926-0450.

Operator's Well Number: BIG245 112H

Farm Name: ET BLUE GRASS LLC

U.S. WELL NUMBER: 47-103-03445-00-00

Horizontal 6A New Drill Date Modification Issued: 02/28/2022

Promoting a healthy environment.

API NO. 47- 103 - 03445	
OPERATOR WELL NO	O. 112H
Well Pad Name: BIG	245

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL WORK PERMIT APPLICATION

1) Well Operator: EQT Produ	iction Company	306686	Wetzel ,	Grant _	Big Run ,
A second a business of the second		Operator ID	County	District	Quadrangle
2) Operator's Well Number: 11	2H	Well P	ad Name: BIG	245	
3) Farm Name/Surface Owner:	ET Blue Grass LI	C Public R	oad Access: C	R 19/2	
4) Elevation, current ground:	1,430' E	Elevation, propose	d post-constru	ction: 1,430	
5) Well Type (a) Gas X Other	Oil	Un	derground Sto	rage	
(b)If Gas Sha	allow X	Deep			-
Но	rizontal X				
6) Existing Pad: Yes or No Yes	S				
 Proposed Target Formation(s Marcellus, 7549', 51', 2,620 		cipated Thickness	s and Expected	Pressure(s):	
8) Proposed Total Vertical Dept	th: 7,549'				
9) Formation at Total Vertical D	The state of the s	r			
10) Proposed Total Measured D	epth: 20,488'	1			
11) Proposed Horizontal Leg Le	ength: 12,289'	*			
12) Approximate Fresh Water S	Strata Depths:	243', 521', 676',	766', 1,025' -		
13) Method to Determine Fresh	Water Depths:	Offset Wells - 47-1	103-00376 & 47-	-103-00380	•
14) Approximate Saltwater Dep	oths: None				
15) Approximate Coal Seam De	epths: 939'-940',	1,038'-1,047', 1,13	7'-1,143'		
16) Approximate Depth to Possi	ible Void (coal m	nine, karst, other):	300'		
17) Does Proposed well location	n contain coal sec	ime			
directly overlying or adjacent to			1	No	
(a) If Yes, provide Mine Info:	Name: Harri	son Co. Mine			
And the second s	Depth: 300'				
	the latest the second	burgh			
	Owner: ACN	R Resources, Inc.			
	Office of	CEIVED of Oil and Gas			
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Wy Department of Environmental Protection

API NO. 47-103 - 03445	
OPERATOR WELL NO.	112H
Well Pad Name: BIG245	

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	26	New	A-500	85.6	40	40	50 ft^3 / CTS
Fresh Water	13 3/8	New	J-55	54.5	1193	1193	1000 ft^3 / CTS
Coal							
Intermediate	9 5/8	New	J-55	36	2651	2651	1000 ft^3 / CTS
Production	5 1/2	New	P-110	20	20488	20488	500' above intermediate casing
Tubing							
Liners							

Bryan Harris 1/31/22

ТҮРЕ	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	26	30	0.312	1050	18	Class A	1.18
Fresh Water	13 3/8	17 1/2	0.380	2730	2184	Class A / Type 1	1.13 - 1.19
Coal							
Intermediate	9 5/8	12 3/8	0.352	3520	2816	Class A / Type 1	1.13 - 1.19
Production	5 1/2	8 1/2	0.361	14360	11488	Class A/H	1.04 - 2.10
Tubing							
Liners							

PACKERS

Kind:		
Sizes:		
Depths Set:		

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WV Department of Environmental Protection

WW-6B
(10/14)

API NO. 47-103 - 0	3445
OPERATOR WELL	NO. 112H
Well Pad Name:	BIG245

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill and complete a new horizontal well in the Marcellus Formation. Drill the vertical, kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.1%) of chemicals (including 15% Hydrochloric acid, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 10,000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 350,000 gallons of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 200,000-600,000 pounds of proppant per stage.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 44.22
- 22) Area to be disturbed for well pad only, less access road (acres): 43.58
- 23) Describe centralizer placement for each casing string:
- Surface: Bow spring centralizers One centralizer at the shoe and one spaced every 500'.
- Intermediate: Bow spring centralizers— One centralizer at the shoe and one spaced every 500'.
- Production: One solid body centralizer spaced every joint from production casing shoe to KOP.

24) Describe all cement additives associated with each cement type:

Conductor: Class A no additives

Surface: Calcium Chloride. Used to speed the setting of cement slurries Intermediate: Calcium Chloride. Used to speed the setting of cement slurries.

Production: Calcium Carbonate, Fluid Loss, Extender, Dispersent, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder,

Anti-Settling/Suspension Agent

25) Proposed borehole conditioning procedures:

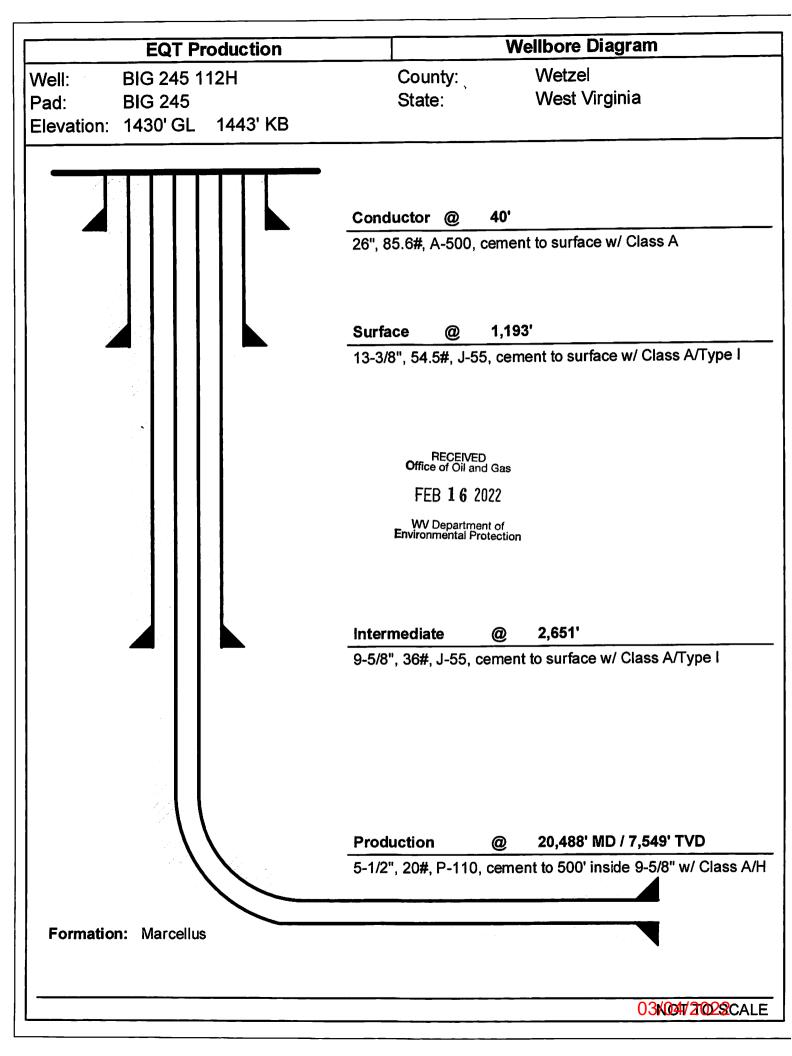
Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.

Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.

Production: Perform a cleanup cycle by pumping 3-8 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 high teas

*Note: Attach additional sheets as needed.

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EQT Production

Hydraulic Fracturing Monitoring Plan

Pad ID: BIG245

County: Wetzel

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February 15, 2022

Purpose

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operators near EQT hydraulic fracturing in Wetzel County, WV prior to hydraulic fracturing at the following EQT wells on the BIG245 well pad: 102H, 104H, 106H, 108H, 110H, 112H, 114H.

Due to the requirements under 35CSR8 5.11, the permittee is required to review the area surrounding the proposed well pad so as to identify and evaluate potential conduits for unintended fracture propagation.

A report is required to be submitted along with a well work permit application.

The plan is being implemented as an additional safety measure to be utilized in conjunction with existing best management practices and emergency action plans for the site. These additional measures include coordination with well operators of the timing and location of the hydraulic fracturing, establishment of measures well operators should implement, and assurance that the OOG is notified of the timeline, as well as any issues that may arise during fracturing.

1. Communications with Well Operators

EQT, using available data (WV Geological Survey, WVDEP website, and IHS data service), has identified all known wells and well operators within 500 feet of this pad and the lateral sections that are known or could reasonably be expected to be within range of the fracture propagation. A map showing these wells along with a list of the wells and operators is included in **Attachment A**.

EQT will notify these operators of the hydraulic fracturing schedule for these wells, and coordinate with them throughout the fracturing process.

Office of Oil and Gas

EQT will recommend to these operators at a minimum to:

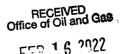
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- 1. Inspect their surface equipment prior to fracturing to establish integrity and establish prefrac well conditions
- 2. Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas or pressure
- 3. Inspect or install master valves or other necessary equipment for wellhead integrity capable of a pressure recommended by EQT
- 4. Notify the OOG and EQT if any changes in water, gas production, pressure, or other anomalies are identified

2. Reporting

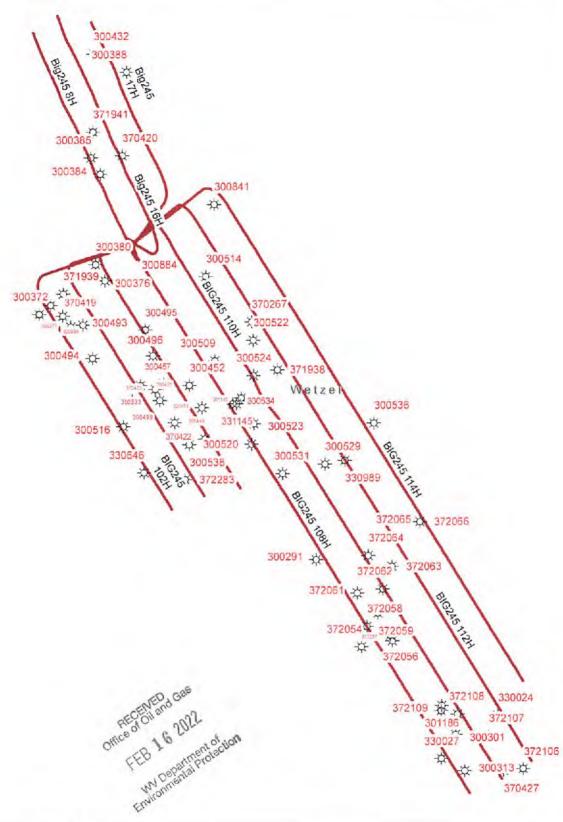
EQT will provide information relating to the hydraulic fracturing schedule, communication with other operators, and ongoing monitoring of the work upon request of OOG or immediately in the event of any noted abnormalities.

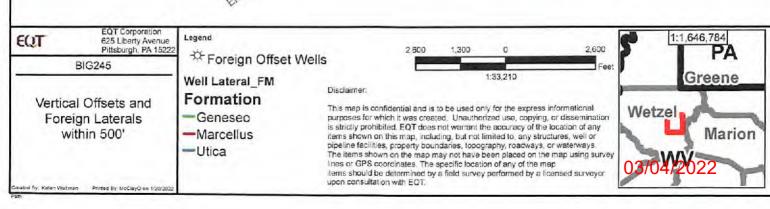




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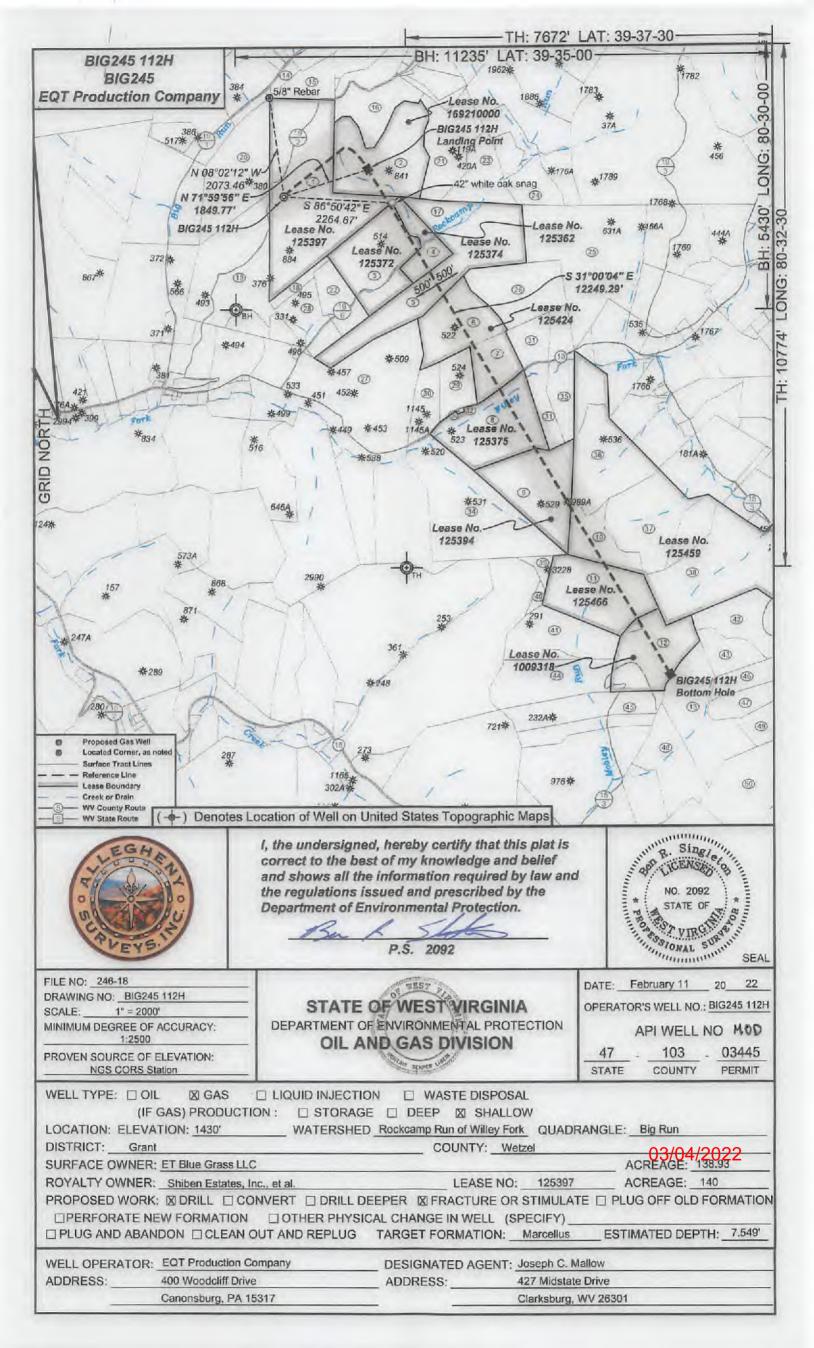




1 3	ACT_STATUS	CURR OPER	DATUM	FNL_CLASS	INIT_CLASS	LATITUDE	ONGITUDE OPER_NAME	SPUD_DATE E	LEVATION T	OT_DEPTH T	VD
	Completed Wells	HOPE NATURAL GAS	NAD27	UNCLASSIFIED	UNCLASSIFIED	39.57665700	-80,56396000 HOPE NATURAL GAS	18010101	0.00	0.00	0
	Completed Wells	EQUITABLE GAS CO	NAD27	UNCLASSIFIED	UNCLASSIFIED	39.57941500	-80.56350700 EQUITABLE GAS CO	18010101	835.00	1850.00	D.
	Completed Wells	UNKNOWN	NAD27	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-DRIGINAL WELL - UNKNOWN CLASS	39.59829400	-80.56077500 PHILADELPHIA OIL	18010101	0.00	0.00	0.
5	Completed Wells	UNKNOWN	NAD27	UNCLASSIFIED	UNCLASSIFIED	39.57701200	-80.54447700 UNKNOWN	18010101	0.00	0.00	0
,	Completed Wells	UNKNOWN	NAD27	DEVELOPMENT WELL-DRY (INCLUDING TEMPORARILY ABANDONED WELL)	DEVELOPMENT WELL	39,59366200	80.57300600 UNKNOWN	4/1/1952	1267.00	1185.00	0
	Completed Wells	I A & M OIL & GAS	NAD27	GAS STORAGE WELL	GAS STORAGE WELL	39.59263000	-80.56168100 EQUITABLE GAS CO	4/1/1962	1107.00	0.00	0
	Completed Wells	PHILADELPHIA CHE	NAD27	UNCLASSIFIED	UNCLASSIFIED	39.60410000	-80,57313900 PHILADELPHIA CIL	18010101	0.00	0.00	0
	Completed Wells	PHILADELPHIA DIL	NAD27	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.60221300	-80.57014200 FHILADELPHIA OIL	18010101	0.00	0.00	0
4	Completed Wells	EQUITABLE GAS CO	NAD27	GAS STORAGE WELL	GAS STORAGE WELL	39.58526000	-80.57338100 EQUITABLE GAS CO	18010101	1086.00	2088.00	0
5	Completed Wells	EQUITABLE GAS CO	NAD27	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL UNKNOWN CLASS	39.58260800	80,55863700 EQUITABLE GAS CO	18010101	0.00	0.00	0
22	Completed Wells	HOPE NATURAL GAS	NAD27	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS DEVELOPMENT WELL-DRY INCLUDING	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.57985000	-80.56189900 HOPE NATURAL GAS	18010101	0.00	0.00	0
5	Completed Wells	PITTSBURGH & W VA GAS	NAD27	TEMPORARILY ABANDONED WELL)	DEVELOPMENT WELL	39.58843700	-80.56793800 PITTSBURGH & W VA GAS	5/20/1946	1109.00	2285 00	
16	Completed Wells	I A & M OIL & GAS	NAD27	UNCLASSIFIED	UNCLASSIFIED	39.58086600	-80.57025200 EQUITABLE GAS CO	18010101	1034.00	2090.00	0
	Completed Wells	PHILADELPHIA OIL	NAD27	PSEUDO ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-DRIGINAL WELL - UNKNOWN CLASS	39.58378100	-80.56695700 PHILADELPHIA OIL	18010101	0.00	0.00	
	Completed Wells	UNKNOWN	NAD27	UNCLASSIFIED	UNCLASSIFIED	39.57056100	80.54522600 UNKNOWN	18010101	0.00	0.00	
	Completed Wells	UNKNOWN	NAD27	UNCLASSIFIED	UNCLASSIFIED	39.55372500	-80.52941200 UNKNOWN	18010101	0.00	0.00	
	Completed Wells	UNKNOWN	NAD27	UNCLASSIFIED	UNCLASSIFIED	39.55807900	-80.53615600 UNKNOWN	18010101	0.00	0.00	C
	Completed Wells	UNKNOWN	NAD27	UNCLASSIFIED	UNCLASSIFIED	39.59132800	-80.57632400 UNKNOWN	18010101	0.00	0.00	0
	Completed Wells	UNKNOWN	NAD27	GAS STORAGE WELL	GAS STORAGE WELL	39,59219900	-80.56825900 EQUITABLE GAS CO	18010101	1167.00	0.00	(
	Completed Wells	HOPE NATURAL GAS	NAD27	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO ORIGINAL WELL UNKNOWN CLASS	39.59045700	80.57763500 HOPE NATURAL GAS	18010101	0.00	0.00	
	Completed Wells	EQUITABLE GAS CO	NAD27	GAS STORAGE WELL DEVELOPMENT WELL-DRY (INCLUDING	GAS STORAGE WELL	39.57781500	B0.54960300 EQUITABLE GAS CO	4/1/1963	1200.00	3228.00	(
	Completed Wells	UNKNOWN	NAD27	TEMPORARILY ABANDONED WELL)	DEVELOPMENT WELL	39.58422800	-80.56606200 UNKNOWN	12/2/1957	1108.00	859.00	-
	Completed Wells	UNKNOWN	NAD27	UNCLASSIFIED	DEVELOPMENT WELL	39,61020800	-80.57300600 UNKNOWN	5/2/1956	994.00	1495.00	9
	Completed Wells	EQUITRANS INC	NAD27	UNCLASSIFIED	DEVELOPMENT WELL	39,59219900	-80.56826900 EQUITRANS INC	11/1/1989	1167.00	2211.00	
	Completed Wells Completed Wells	UNKNOWN	NAD27 NAD27	UNCLASSIFIED	UNCLASSIFIED	39.56969000	-80.54279100 UNKNOWN	18010101	0.00	2963.00	(
	Completed Wells	EQUITABLE GAS CO UNKNOWN	NAD27	UNCLASSIFIED	UNCLASSIFIED	39,58101100	-80.54458600 EQUITABLE GAS CO	18010101	1207.00	0.00	
	Completed Wells	UNKNOWN	NAD27	UNCLASSIFIED UNCLASSIFIED	UNCLASSIFIED	39,56504600	-80.54541300 UNKNOWN	18010101	0.00	0.00	-
	Completed Wells	UNKNOWN	NAD27	UNCLASSIFIED	UNCLASSIFIED UNCLASSIFIED	39,55633700 39,56606200	-80.53297100 UNKNOWN -80.54428900 UNKNOWN	18010101	0.00	0.00	
	Completed Wells	UNKNOWN	NAD27	UNCLASSIFIED	UNCLASSIFIED	39.56388500	80.54279100 UNKNOWN	18010101	0.00	0.00	
	Completed Wells	UNKNOWN	NAD27	UNCLASSIFIED	DEVELOPMENT WELL	39.58231700	-80,56219500 UNKNOWN	9/1/1957	979.00	725.00	i
	Completed Wells	UNKNOWN	NAD27	UNCLASSIFIED	UNCLASSIFIED	39.56344900	-80.54597500 UNKNOWN	18010101	0.00	0.00	(
	Completed Wells	UNKNOWN	NAD27	UNCLASSIFICE	UNCLASSIFIED	39.55836900	-80,53784200 UNKNOWN	18010101	0.00	0.00	1
	Completed Wells	HOPE NATURAL GAS	NAD27	UNCLASSIFIED	UNCLASSIFIED	39 58523200	-80 55440600 HOPE NATURAL GAS	18010101	0.00	0.00	
	Completed Wells	EQUITABLE GAS CO	NAD27	PSEUDO ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.57709200	-80.55395300 EQUITABLE GAS CO	18010101	1098.00	0.00	(
	Completed Wells	SOUTH PENN OIL	NAD27	UNCLASSIFIED	UNCLASSIFIED	39,56432000	-80.54297800 SOUTH PENN OIL	18010101	0.00	0.00	- (
	Completed Wells	UNKNOWN	NAD27	UNCLASSIFIED	UNCLASSIFIED	39,56794900	-80.54372700 UNKNOWN	18010101	0.00	0.00	
3 (Completed Wells	EQUITABLE GAS CO	NADZV	GAS STORAGE WELL	GAS STORAGE WELL	39.58103500	-80.55686600 EQUITABLE GAS CO	12/2/1962	845.00	0.00	1
4 10	Completed Wells	EQUITABLE GAS CO	NAD27	GAS STORAGE WELL	GAS STORAGE WELL	39.58260800	-80 55901100 EQUITABLE GAS CO	18010101	1067.00	2880.00	(
26	Completed Wells	UNKNOWN	NAD27	UNCLASSIFIED	UNCLASSIFIED	39.58756600	-80.55686600 EQUITABLE GAS CO	18010101	1214.00	3154.00	
7 (Completed Wells	SOUTH PENN OIL	WAD27	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL UNKNOWN CLASS	39.55358000	80.53147300 SOUTH PENN OIL	18010101	0.00	0.00	- (
9 1	Completed Wells	EQUITABLE GAS CO	NAD27	GAS STORAGE WELL	GAS STORAGE WELL	39.58289800	-80.56931500 EQUITABLE GAS CO	18010101	923.00	2712.00	1
	Completed Wells	UNKNOWN	NAD27	UNCLASSIFIED	UNCLASSIFIED	39.57317400	-80.53990300 UNKNOWN	18010101	0.00	0.00	- 1
	Completed Wells	EQUITABLE GAS CO	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELET	39 58480800	-80 55686600 EQUITABLE GAS ED	1/22/1919	972.00	2882,00	- 13
	Completed Wells	JCR PETROLEUM INC	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELE.	39.60077800	-80.57244000 MCKENZIE P C CO	4/1/1953	855.00	585.00	
	Completed Wells	CARNEGIE NATURAL GAS CORP	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELD \$ 7 \$	39.57810800	-80.54758400 CARNEGIE NATURAL GAS CORP	10/19/1916	1200.00	3221.00	-
	Completed Wells	JCR PETROLEUM INC	NAD27	DEVELOPMENT WELL-GAS	Detterment med - 111 0	39.58871500	-80.57557500 FOSTER-MCKENZIE CO	1/2/1951	825.00	530.00	7
	Completed Wells	UNKNOWN	NAD27	UNCLASSIFIED	DINCHOSIFIED DO CO	39.30763600	-80.54635000 UNKNOWN	18010101	0.00	0.00	
	Completed Wells	PHTSBURGH & W VA GAS	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELD	39.58407100	-80.56845600 PITT5BURGH & W VA GAS	10/27/1902	829.00	1928 00	
	Completed Wells	EQUITABLE GAS CD	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.58887200	-80.57431900 EQUITABLE GAS CO	11/15/1915	1163.00	2234.00	
	Completed Wells	NORTH FORK DEVELOPMENT	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELD 2 2 2 2	39.58115600	80.56500600 NORTH FORK DEVELOPMENT	6/2/1957	827.00	537,00 2784.00	
	Completed Wells Completed Wells	UNKNOWN	NAD27	DEVELOPMENT WELL-OIL	DEVELOPMENT WEED N	39.55459600	-80.53784200 UNKNOWN	1/17/1917	890,00 1155,00	3243.00	
	Completed Wells	DUNN-MAR OIL & GAS CO HOPE NATURAL GAS	NAD27 NAD27	DEVELOPMENT WELL-GAS			-80.56083500 DUNN-MAR OIL & GAS CO	12/23/1918 6/24/1944	911.00	627.00	
	Completed Wells	NORTH FORK DEVELOPMENT	NAD27	DEVELOPMENT WELL-GAS DEVELOPMENT WELL-GAS	DEVELOPMENT METER	39.33338000	-80.53540700 HOPE NATURAL GAS	6/1/1967	817.00	529.00	
	Completed Wells	UNKNOWN	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT TOTAL	39.58289800 39.58974300	-80.56650500 NORTH FORK DEVELOPMENT -80.57882400 UNKNOWN	1/30/1951	842.00	523,00	
	Completed Wells	JCR PETROLEUM INC	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59735600		3/2/1952	1265.00	1008.00	
	Completed Wells	JCR PETROLEUM INC	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39,60875600	-80,56962700 MCKENZIE P C CO	9/1/1953	938.00	666.00	
	Completed Wells	DUNN-MAR OIL & GAS CO	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39,57723700	-80.56819100 DUNN-MAR OIL & GAS CO	1/25/1915	1197.00	3339.00	
	Completed Wells	JCR PETROLEUM INC	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.58959800	-B0.5763B400 FOSTER-MCKENZII CO	17/2/1964	880.00	548.00	
	Completed Wells	CARNEGIE NATURAL GAS CORP	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.57027100	-80.55058100 CARNEGIE NATURAL GAS CORP	4/1/1949	1305.00	3334.00	
	Completed Wells	MEADOW RIDGE DEVELOPMENT ILC	NAD27	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.58304300	-80.55815200 QUAKER STATE OIL REFINING CO		0.00	0.00	
	Completed Wells	DIVERSIFIED RESOURCES INC	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.55878040	-80.53778600 M & F OIL & GAS CO	18010101	1381.00	2500.00	
	Completed Wells	HOPE NATURAL GAS	NAD27	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39,58900600	-80.55702800 HOPE NATURAL GAS	18010101	0.00	0.00	
	Completed Wells	NORTH FORK DEVELOPMENT	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.58407200	-80.56345900 NORTH FORK DEVELOPMENT	7/2/1957	885.00	514.00	
	Completed Wells	HOPE NATURAL GAS	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.5579.1400	-BD 53203500 HOPE NATURAL GAS	18010101	1229.00	2330.00	
	Completed Wells	PITTSBURGH & W VA GAS	NAD27	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39.58640500	-80 56718800 PITTSBURGH & W VA GAS	6/20/1902	844.00	2785.00	
5 (Completed Wells	JCR PETROLEUM INC	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39,60208000	-80,57338100 MCKENZIE P C CO	7/2/1953	905.00	647.00	

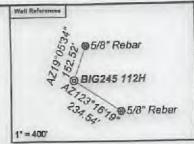
300495	Completed Wells	THE PHILADELPHIA CO	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.58843700	-80.56793800 THE PHILADELPHIA CO	9/28/1903	1109.00	2100.00	0.00
300301	Completed Wells	ROSS & WHARTON GAS CO	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.55648300	-80.53634400 HOPE NATURAL GAS	12/2/1943	933.00	651.00	0.00
300520	Completed Wells	HOPE NATURAL GAS	NAD27	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.57941500	-80.55713800 HOPE NATURAL GAS	7/3/1919	937.00	2025.00	0.00





BIG245 112H **BIG245 EQT Production Company**

EW	FIO	Juci	OII C	omp		-
Tract LD.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres.
3	B	22	Westerl	Grant	ET Blue Grass LLC	138,93
2	8	15	Wetner	Grant.	John Mishael Byard	71,60
3	à	28	Websel	Grand	James A. Yoho	61.00
4	0	29	Watzel	Grant	Mary Jime Byard	15,00
5	8	32	Wetzel	Grant	Joe Pigg	82.40
6	u-	28	Wetzel	Grani	Shetilya Snidar	55.52
7	0	40	Wetzel	Grant	Sherilyn Snider	24.00
8	0	52	Wetzet	Grant	Norman Derby	61.51
9	14	5	Weitzel	Grant	Esther R. Cosn	59 50
10	1.4	10	Weize	Grant	John W. Wyeett & Caretyn S. McCill	29.00
11	14	1.6	Wetzel	Drant	John W. Wyoulf & Carolyn S. McGill	66.70
12	14	23	VViitzel	Grant	Equitrans LP	51.00
13	14	38	Weiget	Drant	Date C. Eastham, et al.	57.00
14		13.1	Weizel	Grant	Duane M. Goodrich	3,55
15	18	7	Wetzel	Grant	James E. & Martin A. Stoneling	19.12
16	8	8	Wetze	Grant	Wanda L. Byard	50.18
17	9	22	Wetze	Grant	James A. Yoho	17.60
in	8	25	Westzer	Grant	James A. Yoho	6.25
10	8	23	Wettel	Grant	Dalle K. Dulantey, et al.	70.81
20	8	11	Westzel	Grant	Bossie M. Henthome	63,50
21	0	53	Wetzel	Crant	Many E. Winght, et al.	48.00
22	8	27	Wetzel	Grant	James A. Yoho	21.75
22	0	13	Wetzel	Grant	James A. Yoho	27.00
24	0	17	Wetzel	Grant	Lossie Watson	20.06
25	0	23	Watzai	Grant	Stephen B. & Camiyn M. Gantz	119 00
25	0	20	Wetzel	Grant	William & Margaret Schleicher	47.90
27	5	53	Wetzet	Grant	H. Dom Higginbotham	108.21
28	В	26	Weizel	Grant	James A. Yoho	23.25
29	B	40	Wetzei	Grani	Sherilyn Smider	24.00
30		54	Weind	Grant	Sherilyn Snider	20.00
31	9	53	Wetzel	Grant	Norman R. & Vivian L. Derby	32.90
32	9	52.1	Wetter	Grant	Norman R. & Vivian L. Derby	1.00
33	0	ds	Wetzel	Grant	Terri L. S. Jason D. Beaty	0.61
34	14	7	Wetzel	Grant	Norman Durby	83.00
_	9	54	Westel	Grant	Jack L. & Leanna C. Barrette	17.40
35	-	0	Wetzel	Grant.	Leonard Rice	55.00
35	14	11	Wetzel	Grant	Thomas J. Parks, et al.	54.44
-37	14	10	Wetzel	Grant.	Gastal Forest Resources Company	135.63
38	_	_	-	Grant	John W. Wycoff & Cwolyn S. McGill	6.20
30	14	17	Wetzel	Grant	John W. Wyceff & Careryn S. McGill	1.50
40	14	16	Weizel		John W. Wycoff & Carelyn S. McGit	48.00
41	14	22	Wetzel	Grant Grant	Clara Snodgrass	16.80
42	14	25	-	-	EQT Production Company	19.20
43	14	24	Wetzel	Grant	EQT Production Company	50.50
44	14	28	Wintered	Grant		_
46	14	37	Wetzel	Grant	EQT Production Company	26.50
+16	14	29	Wetzel	Grant	ET Blue Grass, LLC	17.00
47	14	30	Wetzal	Grant	Equitrens LP	20.50
48	14	39.3	Wetzel	Grant	Date C. Easthorn, et al.	38.09
49	1.4	35	Wetzel	Geant	Donald D'Lusky Jr.	19.00
50	1.4	40	Weizel	Grant	Donald D'Eusky Jr.	131.00

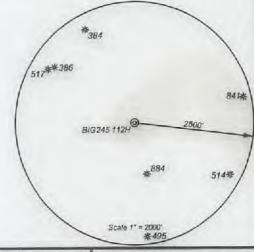


BIG245 112H coordinates are NAD 27 N: 400,767.94 E: 1,698,793.49 NAD 27 Lat: 39.595421 Long -80.568891 NAD 83 UTM N: 4,382,952.55 E: 537,031.80 NAD 83 UTM N: 4,382,952.55 E: 537,031,80 BIC245 112H Landing Point coordinates are NAD 27 N: 401,339.59 E: 1,700,552.72 NAD 27 Lat: 39,597048 Long: -80,562673 NAD 83 UTM N: 4,383,135.67 E: 537,564.88 BIG245 112H Bottom Hole coordinates are NAD 27 N: 399,840.01 E: 1,706,861.76 NAD 27 Lat: 39,568426 Long: -80,539854 NAD 83 UTM N: 4,379,968.98 E: 539,540.29 West Virginla Coordinate system of 1927 (North Zone) based upon Differential GPS Measurements. Plat orientation, comer and well lies are based upon the grid north meridian.

meridian.
UTM coordinates are NAD83, Zone 17, Mete

BIG245 **⊚**BIG245 114H @ BIG245 112H @ BIG245 110H **⊗**BIG245 108H **⊘**BIG245 106H @ BIG245 104H **⊘**BIG245 102H @ 47-103-03235 47-103-03234@ @ 47-103-03236

Lease No.	Owner	Acres
169210000	Liberty Holding Company, Inc.	71.5
125372	Rvan C. Radtka, et al.	61
125362	Mary Jane Wright, et al.	15
125374	Jordan Zachary Pigg. et al.	100
125424	Sherilyn Snider	80
125375	Jacob Francis Shreve III aka Jacob F. Shreve, et al.	62
125394	Esther R. Coen, et al.	60
125459	Randel J. Hartman, et al.	693
125466	Bounty Minerals LLC	67
1009318	Thomas L. Lewis, et al.	51





Canonsburg, PA 15317

SCALE:

I, the undersigned, hereby certify that this plat 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 Department of Environmental Protection.

P.S. 2092

NO. 2092
STATE OF VIRGINIAN SE SEAL

FILE NO: 246-18 O VEST DRAWING NO: BIG245 112H STATE OF WEST VIRGINIA 1" = 2000' DEPARTMENT OF ENVIRONMENTAL PROTECTION MINIMUM DEGREE OF ACCURACY: 1:2500

DATE: February 11 OPERATOR'S WELL NO .: BIG245 112H API WELL NO MAD

Clarksburg, WV 26301

PROVEN SOURCE OF E NGS CORS Sta	LEVATION:	OIL AND GAS DIVISION	47	47 - 103 COUNTY		
(IF G	AS) PRODUCTION: ION: 1430' WAT	INJECTION WASTE DISPOSE STORAGE DEEP SHALL FERSHED Rockcamp Run of Willey For COUNTY: W.	OW	03/04/20		
ROYALTY OWNER: _ PROPOSED WORK: PERFORATE NEW	Shiben Estates, Inc., et al. DRILL CONVERT UV FORMATION COTHEI	LEASE NO DRILL DEEPER IN FRACTURE OF R PHYSICAL CHANGE IN WELL (S EPLUG TARGET FORMATION: _	DECIEVA	LUG OFF OLD FO	ORMATION	
WELL OPERATOR:	QT Production Company 00 Woodcliff Drive		Joseph C. Mallow			

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that -

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number

Grantor, Lessor, etc.

Grantee, Lessee, etc.

Royalty

Book/Page

See Attachment

Acknowledgement of Possible Permitting/Approval In Addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- · U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: EQT Production Company

By:

John Zavatchan

Its:

Project Specialist Permitting

Page 1 of 5

ase No.	Grantor, Lessor, etc.	Acres	Grantee, Lessee, etc.	Royalty	Book/Page
				"at least 1/8th per WV Code 22-6-8"	
<u> 125397</u>	Shiben Estates, Inc., et al. Joseph Shiben and Minnie Shiben, his wife, et al.	140 ac	Equitable Gas Company		OG 44A/224
		110 40	Equitrans, Inc.		OG 71A/453
	Equitable Gas Company		EQT Capital Corporation		Corp. 13/213
	Equitrans, Inc.		Equitable Resources, Inc.		Corp. 13/213
	EQT Capital Corporation		Equitable Gas Company, LLC		Corp. 13/230
	Equitable Resources, Inc. Equitable Gas Company, LLC and EQT Corporation		Equitrans, LP		Misc. 105/908
	Equitable Gas Company, ELC and EQT Corporation Equitrans, LP		EQT Production Company		OG 131A/81
169210000	Liberty Holding Company, Inc.			"at least 1/8th per WV Code 22-6-8"	
	Liberty Holding Company, Inc.	71.5 ac	EQT Production Company		OG 262A/145
125372	Ryan C. Radtka, et al.			"at least 1/8th per WV Code 22-6-8"	
120012	C. Amos Long and L. G. Long, his wife	61 ac	Equitable Gas Company		OG 44A/36
	Equitable Gas Company		Equitrans, Inc.		OG 71A/453
	Equitrans, Inc.		EQT Capital Corporation		Corp. 13/213
	EQT Capital Corporation		Equitable Resources, Inc.		Corp. 13/213
	Equitable Resources, Inc.		Equitable Gas Company, LLC Equitrans, LP		Corp. 13/230 Misc. 105/908
	Equitable Gas Company, LLC and EQT Corporation Equitrans, LP		EQT Production Company		OG 131A/81
F== 1 6 2922	Wy Department of Environmental Protection Environmental Protection Environmental Protection RECEIVED RECEIVED RECEIVED	RECEIVED Gas office of Oil and Gas			

125362	Mary Jane Wright, et al. Alphia E. Byard and Mary Jane Byard, his wife, et al Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC and EQT Corporation Equitrans, LP	15 ac	Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC Equitrans, LP EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 52A/468 OG 71A/453 Corp. 13/213 Corp. 13/213 Corp. 13/230 Misc. 105/908 OG 131A/81
<u>/ 125374</u>	Jordan Zachary Pigg, et al. Josephine J. Pigg and Joe W. Pigg, her husband Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC and EQT Corporation Equitrans, LP	100 ac	Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC Equitrans, LP EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 52A/165 OG 71A/453 Corp. 13/213 Corp. 13/213 Corp. 13/230 Misc. 105/908 OG 131A/81
125424	Sherilyn Snider Francis Shreve and Anna G. Shreve, his wife, et al Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC and EQT Corporation Equitrans, LP Environmental Protection Environmental Protection	80 ac	Equitable Gas Company Equitans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC Equitrans, LP EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 45A/106 OG 71A/453 Corp. 13/213 Corp. 13/230 Misc. 105/908 OG 131A/81

/105075	Jacob Francis Shreve III aka Jacob F. Shreve, et al.			"at least 1/8th per WV Code 22-6-8"	
125375	Francis Shreve and Anna G. Shreve, his wife, et al Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC and EQT Corporation Equitrans, LP	62 ac	Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC Equitrans, LP EQT Production Company	"at least 1/8th per	OG 44A/41 OG 71A/453 Corp. 13/213 Corp. 13/213 Corp. 13/230 Misc. 105/908 OG 131A/81
/125394	Esther R. Coen, et al.			WV Code 22-6-8"	
	Roxie H. Brookover and Bruce Brookover, her husband, et al Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC and EQT Corporation Equitrans, LP	60 ac	Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC Equitrans, LP EQT Production Company		OG 44A/158 OG 71A/453 Corp. 13/213 Corp. 13/213 Corp. 13/230 Misc. 105/908 OG 131A/81
<u>/125459</u>	Randel J. Hartman, et al. Virginia Myers and William S. Myers, her husband, et al Equitable Gas Company Columbia Gas Transmission Corporation Columbia Natural Resources, Inc. Columbia Natural Resources, LLC Chesapeake Appalachia, L.L.C. Statoilhydro USA Onshore Properties Inc. Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties, Inc.	693 Office of Oil and Gas	Equitable Gas Company Columbia Gas Transmission Corporation Columbia Natural Resources, Inc. Columbia Natural Resources, LLC Chesapeake Appalachia, L.L.C. Statoilhydro USA Onshore Properties Inc. Statoil USA Onshore Properties, Inc. SWN Production Company, LLC SWN Exchange Titleholder, LLC	"at least 1/8th per WV Code 22-6-8"	OG 47A/16 OG 64A/442 OG 72A/368 Corp. 12/622 DB 402/446 OG 97A/578 WV SOS OG 157A/540 OG 158A/801

	SWN Exchange Titleholder, LLC SWN Production Company, LLC Statoil USA Onshore Properties, Inc. Antero Exchange Properties LLC Antero Resources Corporation		SWN Production Company, LLC Antero Exchange Properties LLC Antero Exchange Properties LLC Antero Resources Corporation EQT Production Company		Corp. 13/296 OG 177A/533 OG 177A/738 Corp. 13/311 OG 227A/932
125466	Bounty Minerals LLC W. A. Wycoff and Grace Wycoff, his wife Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC and EQT Corporation Equitrans, LP	67 ac	Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC Equitrans, LP EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 52A/465 OG 71A/453 Corp. 13/213 Corp. 13/213 Corp. 13/230 Misc. 105/908 OG 131A/81
1009318	Thomas L. Lewis, et al. Thomas L. Lewis, a widower	51 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 174A/163





February 15, 2022

Via FedEx Overnight

West Virginia Department of Environmental Protection Office of Oil and Gas 601 57th Street, S.E. Charleston, WV 25304

RE:

Well Work Permit Modification BIG245 112H Well Permit Number 47-103-03445 Grant District, Wetzel County, WV CNECK# 591354

CNECK# 591354

1/19/2022

\$ 3,500.60

WVDEP Recipient,

Attached please find following information to modify the existing Well Work Permit for this well:

- Check in the amount of \$2,500 for the permit fee
- Completed Form WW-6B and supporting documents, approved by the Oil and Gas Inspector
- Revised Well Bore Diagram
- Well Location Plat
- Completed Form WW-6A1 and supporting documentation
- Hydraulic Fracturing Monitoring Plan
- Disk containing a modification to the Water Management Plan and site drawings to change the size of the AST associated with this site.

EQT is proposing to extend the lateral from the previously permitted length, add a water source to the Water Management Plan and modify the size of the approved AST. .

EQT Production trusts that if any portion of the submitted documentation is found to be inadequate for processing the permit, notification will be made to our Permitting department at your earliest convenience. It is EQT Production's intent to cooperate fully to provide any additional requested documentation and clarification in a timely manner such that permitting proceeds in a predictable and logical manner.

Best Regards,

John Zavatchan

Project Specialist - Permitting

jzavatchan@eqt.com

724-746-9073

Office of Oil and Gas

FEB 16 2022

VM Detertment of Environmental Protection



Stansberry, Wade A <wade.a.stansberry@wv.gov>

Modification Horizontal H6A Well Work Permit API: 47-103-03441, 03443, 03445, 03446)

1 message

Stansberry, Wade A <wade.a.stansberry@wv.gov>

Mon, Feb 28, 2022 at 12:45 PM

To: Branden.Weimer@eqt.com, John <JZavatchan@eqt.com>, Todd <tklaner@eqt.com>, Erin Spine <espine@eqt.com>, "Shrum, Becky" <bshrum@eqt.com>, Olivia Pishioneri <opishioneri@eqt.com>, Scott Lemley <slemley@wvassessor.com>, "Harris, Bryan O"

bryan.o.harris@wv.gov>

I have attached a copy of the newly issued well permit number. This will serve as your copy.

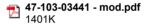
47-103-03441 - BIG 245 104H 47-103-03443 - BIG 245 108H 47-103-03445 - BIG 245 112H 47-103-03446 - BIG 245 114H

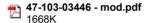
If you have any questions, then please contact us here at the Office of Oil and Gas.

Thank you,

Wade A. Stansberry
Environmental Resource Specialist 3
West Virginia Department of Environmental Protection
Office of Oil & Gas
601 57th St. SE
Charleston, WV 25304
(304) 926-0499 ext. 41115
(304) 926-0452 fax
Wade.A.Stansberry@wv.gov

4 attachments





47-103-03443 - mod.pdf 1605K

7-103-03445 - mod.pdf