



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
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Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Thursday January 27, 2022
PERMIT MODIFICATION APPROVAL
New Drill / Modification/Lateral Extension

EQT Production Company
400 Woodcliff Drive
Cannonsburg, PA 15317

Re: Permit Modification Approval for BIG464 5H
47-103-03433

Extending Lateral

EQT 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.

A handwritten signature in blue ink, appearing to read 'James A. Martin', is written over a printed name and title.

James A. Martin
Chief

Operator's Well Number: BIG464 5H
Farm Name: EQT Production Company
U.S. WELL NUMBER: 47-103-03433
New Drill Modification/Lateral Extension
Date Modification Issued: 01/27/2022

Promoting a healthy environment.

02/11/2022

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

1) Well Operator: EQT Production Company 306686 Wetzel Grant Big Run
Operator ID County District Quadrangle

2) Operator's Well Number: 5H Well Pad Name: BIG464

3) Farm Name/Surface Owner: EQT Production Company Public Road Access: CR1

4) Elevation, current ground: 1246.8' (built) Elevation, proposed post-construction: 1246.8' (built)

5) Well Type (a) Gas X Oil _____ Underground Storage _____

Other _____

(b) If Gas Shallow X Deep _____

Horizontal X

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 7,394', 51', 2,620 PSI

8) Proposed Total Vertical Depth: 7394'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 23446'

11) Proposed Horizontal Leg Length: 15465'

12) Approximate Fresh Water Strata Depths: 109', 184', 432'

13) Method to Determine Fresh Water Depths: Offset Wells - 47-103-30593, 47-103-30910

14) Approximate Saltwater Depths: 1724', 1848'

15) Approximate Coal Seam Depths: 556'-559', 795'-797', 897'-899', 912'-919'

16) Approximate Depth to Possible Void (coal mine, karst, other): N/A

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No X

(a) If Yes, provide Mine Info: Name: _____

Depth: _____

Seam: _____

Owner: _____

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	1019	1019 ✓	1000 ft ³ / CTS
Coal							
Intermediate	9 5/8	New	J-55	36	2441	2441 ✓	1000 ft ³ / CTS
Production	5 1/2	New	P-110	20	23446	23446 ✓	500' above intermediate casing
Tubing							
Liners							

Bryan Harris 12/28/21

TYPE	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:				

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): N/A - Site Built

22) Area to be disturbed for well pad only, less access road (acres): N/A - Site Built

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:

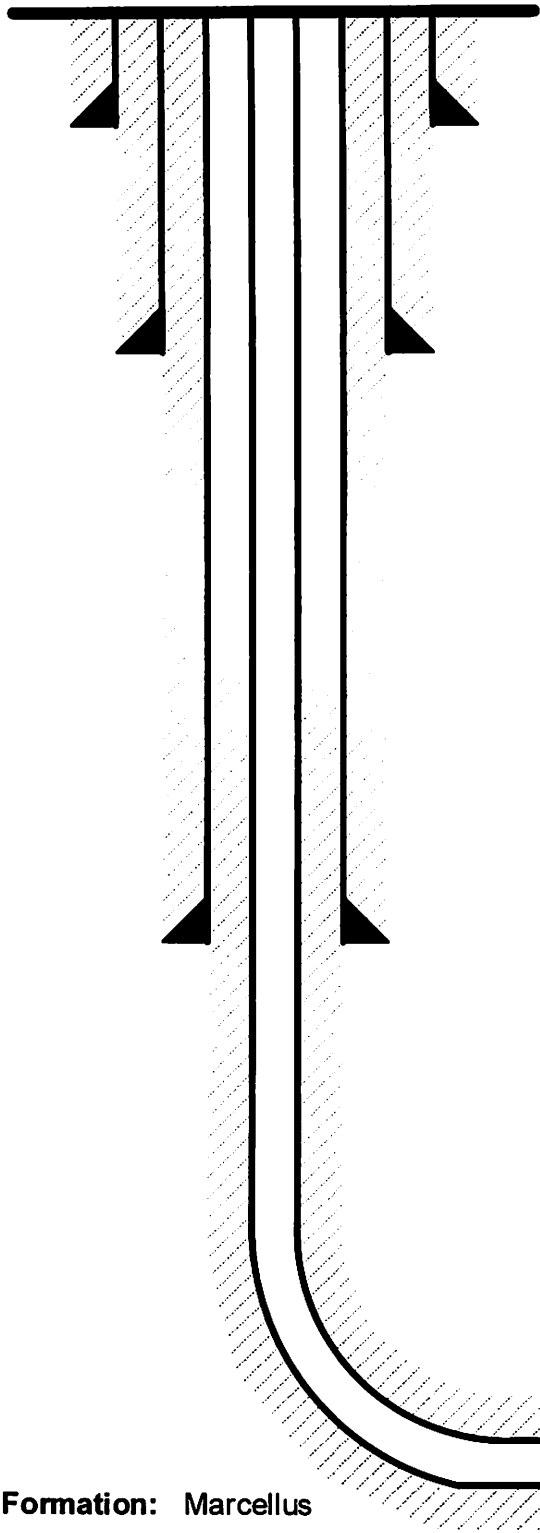
Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Production: Perform a cleanup cycle by pumping 3-8 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

*Note: Attach additional sheets as needed.

EQT Production**Wellbore Diagram**

Well: BIG 464 5H
Pad: BIG 464
Elevation: 1246' GL 1259' KB

County: Wetzel
State: West Virginia



Conductor @ 40'

26", 85.6#, A-500, cement to surface w/ Class A

Surface @ 1,019'

13-3/8", 54.5#, J-55, cement to surface w/ Class A/Type I

Intermediate @ 2,441'

9-5/8", 36#, J-55, cement to surface w/ Class A/Type I

Production @ 23,446' MD / 7,394' TVD

5-1/2", 20#, P-110, cement to 500' inside 9-5/8" w/ Class A/H

Formation: Marcellus

NOT TO SCALE
02/11/2022

WEST VIRGINIA GEOLOGICAL PROGNOSIS

Finalized for Top Hole

Horizontal Well

BIG464

S-000124

Drilling Objectives: Marcellus
County: Wetzel
Quad: Big Run

1259 KB

1246 GL

Recommended Azimuth: TBD
 TBD Degrees

Recommended I.P. to TD: TBD

Proposed Logging Suite: Pilot Logging Not needed

ESTIMATED FORMATION TOPS

From pilots on BIG57 and BIG182

Formation	Top (TVD)	Base (TVD)	Lithology	Comments	Top RR	Base RR
Fresh Water Zone	1	432		FW @ 109,184,252,278,432,	69	73
Waynesburg Coal	556	559 Coal		No known past/present/and or future mining within the area	76	80
Coal	795	797 Coal			96	114
Sewickley Coal	897	899 Coal			125	132
Pittsburgh Coal	912	919 Coal			Base of Red	
Maxton	1792	1971 Sandstone		SW @ 1724,1848,		
Big Lime	2234	2310 Limestone				
Big Injun	2322	2391 Sandstone				
Int. csg pt	2441					
Weir	2520	2670 Sandstone				
Top Devonian	2735					
Gantz	2735	2771 Silty Sand				
Fifty foot	2876	2932 Silty Sand		Storage is NOT of concern		
Thirty foot	2971	2998 Silty Sand				
Gordon	3027	3072 Silty Sand				
Forth Sand	3097	3110 Silty Sand		Base of Offset Well Perforations at 3129' TVD		
Fifth Sand	3169	3188 Silty Sand				
Bayard	3222	3240 Silty Sand				
Warren	3645	3669 Silty Sand				
Speechley	3765	3813 Silty Sand				
Balltown A	4123	4138 Silty Sand				
Riley	4608	4650 Silty Sand				
Benson	5237	5286 Silty Sand				
Alexander	5651	5718 Silty Sand				
Elks	5718	6917 Gray Shales and Silts				
Sonyea	6917	7080 Gray shale				
Middlesex	7080	7136 Shale				
Genesee	7136	7223 Gray shale interbedded				
Genesee	7223	7255 Black Shale				
Tully	7255	7280 Limestone				
Hamilton	7280	7378 Gray shale with some				
Marcellus	7378	7429 Black Shale				
Purcell	7393	7396 Limestone				
-Lateral Zone	7394					
Cherry Valley	7409	7413 Limestone				
Onondaga	7429	Limestone				

Target Thickness 51 feet

Comments:
 Intermediate casing point is recommended beneath the Big Injun to shut off any water production from the Upper Devonian sands. Intermediate casing should be cemented into the surface string, per WV regulations.

RECOMMENDED CASING POINTS

Fresh Water/Coal	CSG OD	13 3/8	CSG DEPTH:	1019	Beneath Pittsburgh Coal
Intermediate 1:	CSG OD	9 5/8	CSG DEPTH:	2441	Beneath the Big Injun formation
Production:	CSG OD	5 1/2	CSG DEPTH:	@ TD	

02/11/2022

EQT Production
Hydraulic Fracturing Monitoring Plan
Pad ID: BIG464
County: Wetzel

January 21, 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 BIG464 well pad: 1H, 3H, 5H, 7H, 9H, 11H & 113H.

Due to the requirements under 3SCSR8 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.

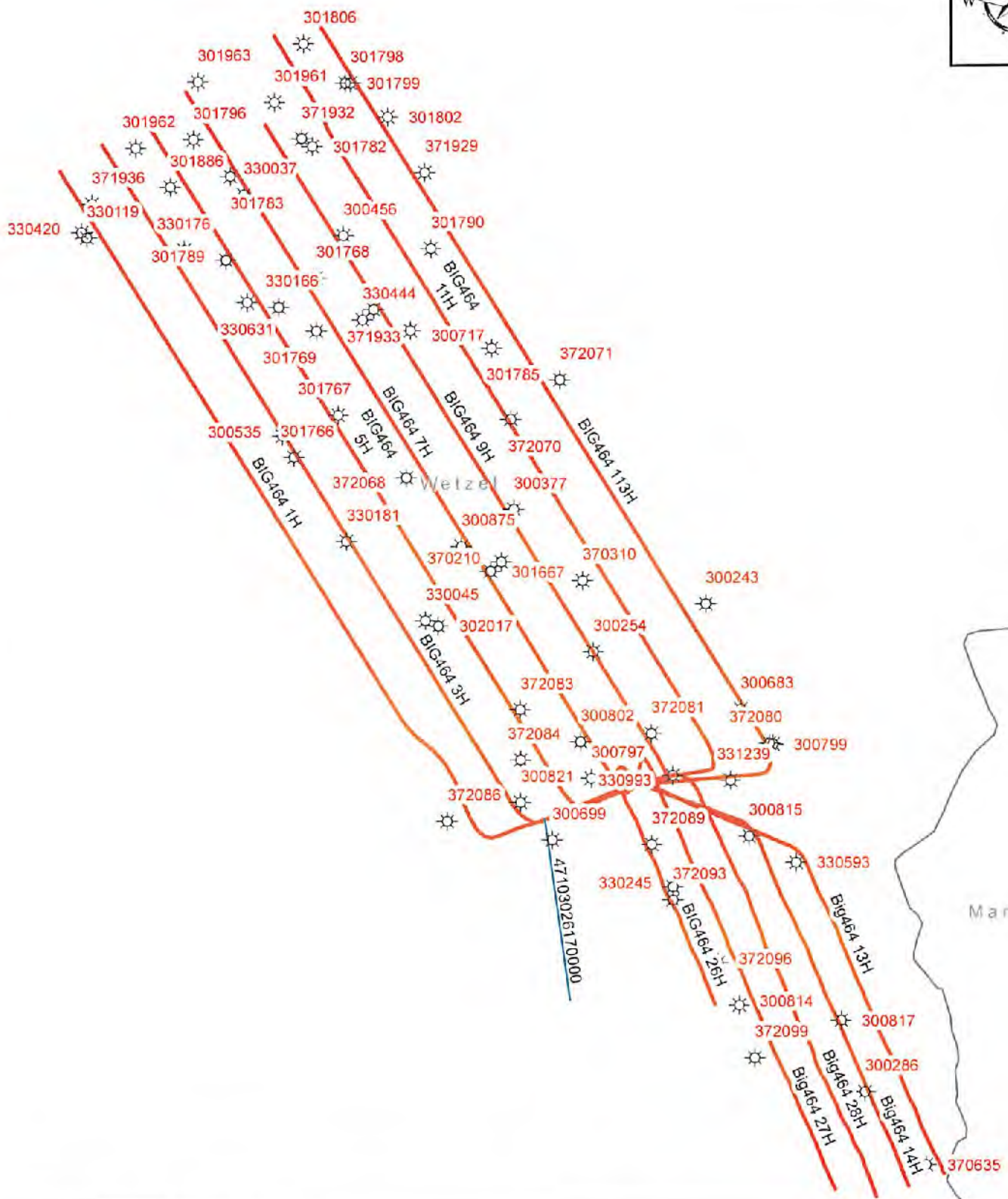
EQT will notify these operators of the hydraulic fracturing schedule for these wells, and coordinate with them throughout the fracturing process.

EQT will recommend to these operators at a minimum to:

1. Inspect their surface equipment prior to fracturing to establish integrity and establish pre frac 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.



Marion

EQT
 EQT Corporation
 625 Liberty Avenue
 Pittsburgh, PA 15222

BIG464

Vertical Offsets and Foreign Laterals within 500'

Created By: Kelen Walbran Printed By: McClayD on 12/22/2021

Legend

- Foreign Offset Well
- Foreign Offset Laterals
- Well Lateral_FM Formation**
- Genesee
- Marcellus
- Utica

Disclaimer:

This map is confidential and is to be used only for the express informational purposes for which it was created. Unauthorized use, copying, or dissemination is strictly prohibited. EQT does not warrant the accuracy of the location of any items shown on this map, including, but not limited to, any structures, well or pipeline facilities, property boundaries, topography, roadways, or waterways. The items shown on the map may not have been placed on the map using survey lines or GPS coordinates. The specific location of any of the map items should be determined by a field survey performed by a licensed surveyor upon consultation with EQT.

2,750 1,375 0 2,750
 Feet
 1:35,110

1:1,646,784
PA

Wetzel
WV
Marion

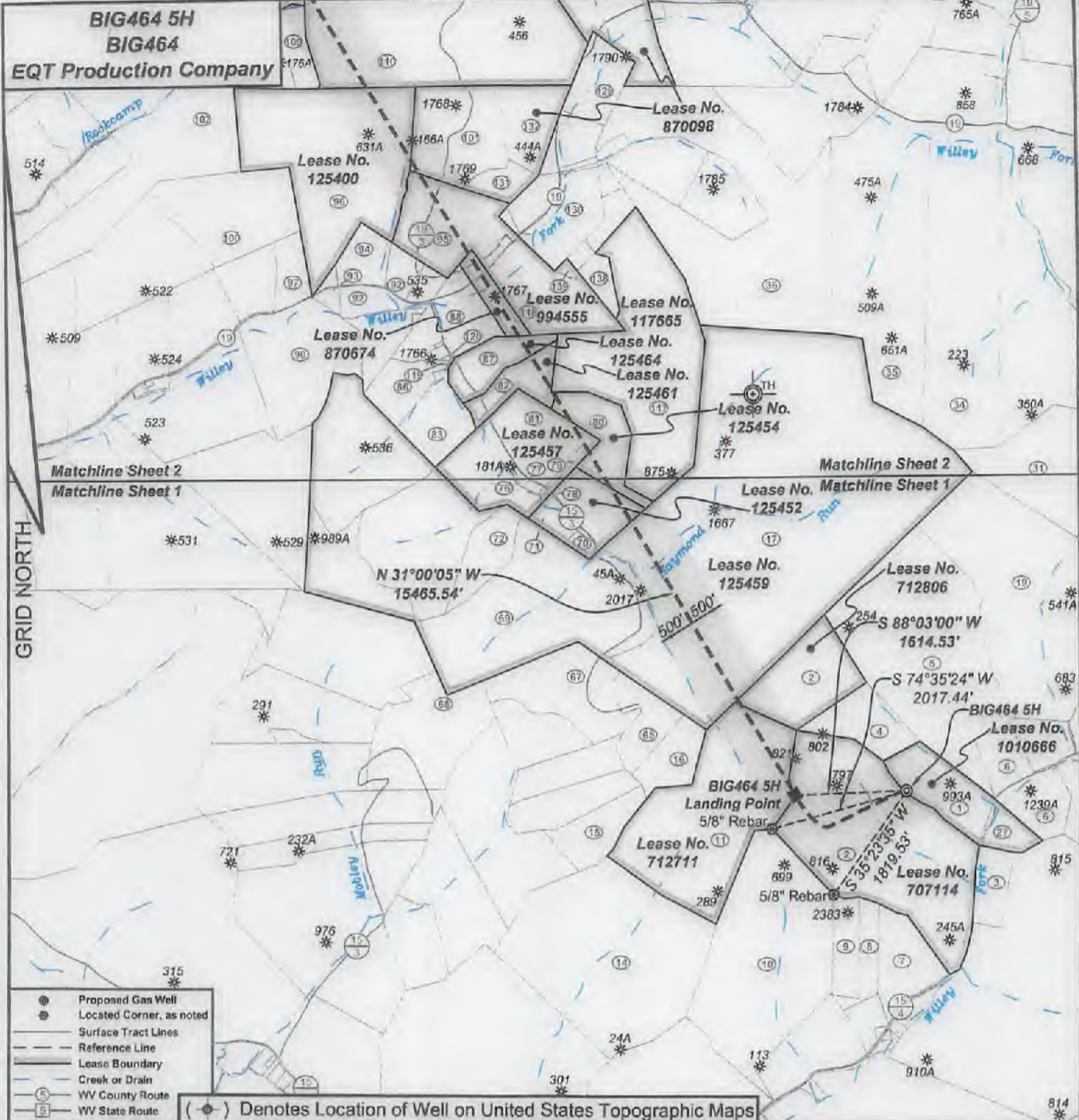
02/11/2022

UWI	ACT_STATUS	CURR_OPER	TPL_CLASS	INIT_CLASS	LATITUDE	LONGITUDE	OPER_NAME	DATUM	ELEVATION	TOT_DEPTH	FWD
474289	Completed Well	CARNEGIE NATURAL GAS CORP	UNCLASSIFIED	UNCLASSIFIED	39 5676000	-80 5023800	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
484817	Completed Well	EQT PRODUCTION CO	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39 5544500	-80 5022400	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
471996	Completed Well	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39 5966000	-80 5955000	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
403821	Completed Well	CARNEGIE NATURAL GAS CORP	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39 5664900	-80 5254000	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
403875	Completed Well	DIVERSIFIED PRODUCTION LLC	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39 5805700	-80 5292500	PHILADELPHIA OIL	NAD27	0.00	0.00	0.00
401567	Completed Well	ANIA RESOURCES	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39 5299100	-80 5271750	UNKNOW	NAD27	1066.00	0.00	0.00
472071	Completed Well	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	39 5897300	-80 5221000	UNKNOW	NAD27	0.00	0.00	0.00
472086	Completed Well	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39 5654800	-80 5303400	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
472152	Completed Well	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39 6010600	-80 5004600	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
420810	Completed Well	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39 5286800	-80 5206200	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
430635	Completed Well	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	39 5464600	-80 4961700	UNKNOW	NAD27	0.00	0.00	0.00
430444	Completed Well	HOPE NATURAL GAS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39 5533080	-80 5362200	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
432068	Completed Well	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	39 5843600	-80 5311500	UNKNOW	NAD27	0.00	0.00	0.00
432283	Completed Well	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	39 5641700	-80 5352500	UNKNOW	NAD27	0.00	0.00	0.00
430243	Completed Well	HOPE NATURAL GAS	UNCLASSIFIED	DEVELOPMENT WELL	39 5773800	-80 5313020	HOPE NATURAL GAS	NAD27	1272.00	1718.00	0.00
432093	Completed Well	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	39 5611200	-80 5342300	UNKNOW	NAD27	0.00	0.00	0.00
400815	Completed Well	DIVERSIFIED PRODUCTION LLC	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39 5646100	-80 5088000	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
401298	Completed Well	DAC CORP	DEVELOPMENT WELL DRY (INCLUDING TEMPORARILY ABANDONED WELL)	DEVELOPMENT WELL	39 6261300	-80 5360800	DAC CORP	NAD27	1525.00	2323.00	0.00
470210	Completed Well	HOPE NATURAL GAS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39 5292000	-80 5264500	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
300377	Completed Well	ANIA RESOURCES	DEVELOPMENT WELL DRY (INCLUDING TEMPORARILY ABANDONED WELL)	DEVELOPMENT WELL	39 5826000	-80 5294800	LAGON ROBINSON OIL & GAS	NAD27	1095.00	1967.00	0.00
300683	Completed Well	CONSOLIDATED GAS SUPPLY CORP	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39 5215700	-80 5093600	CONSOLIDATED GAS SUPPLY CORP	NAD27	0.00	0.00	0.00
300792	Completed Well	EQT PRODUCTION CO	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39 5676000	-80 5205400	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
372084	Completed Well	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39 5680900	-80 5253000	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
331289	Completed Well	CONSOLIDATED GAS SUPPLY CORP	UNCLASSIFIED	UNCLASSIFIED	39 5676500	-80 5001100	CONSOLIDATED GAS SUPPLY CORP	NAD27	0.00	0.00	0.00
372081	Completed Well	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39 5200700	-80 5352300	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
330119	Completed Well	CARNEGIE NATURAL GAS CORP	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39 5771400	-80 5259000	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
372022	Completed Well	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39 6211900	-80 5316600	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
372043	Completed Well	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	39 5215700	-80 5251000	UNKNOW	NAD27	0.00	0.00	0.00
372093	Completed Well	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39 5036500	-80 5354000	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
300814	Completed Well	EQUITABLE PRODUCTION CO	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39 5553200	-80 5095000	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
472070	Completed Well	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39 5878500	-80 5256600	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
400284	Completed Well	UNKNOW	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5805300	-80 5006200	UNKNOW	NAD27	1171.00	4060.00	0.00
401766	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5855200	-80 5412100	DAC CORP	NAD27	871.00	2802.00	0.00
401961	Completed Well	XTO ENERGY INC	DEVELOPMENT WELL OIL	DEVELOPMENT WELL	39 6251700	-80 5427400	EXTEL ENERGY INC	NAD27	1380.00	3696.00	0.00
401769	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5064400	-80 5459700	DAC CORP	NAD27	1620.00	4584.00	0.00
400631	Completed Well	HOPE NATURAL GAS	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5840900	-80 5444700	HOPE NATURAL GAS	NAD27	1356.00	3204.00	0.00
400929	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5044000	-80 5228500	CONSOLIDATED GAS SUPPLY CORP	NAD27	0.00	1514.00	0.00
400782	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 6029500	-80 5397900	DAC CORP	NAD27	1424.00	3823.00	0.00
400799	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5096300	-80 5020500	CARNEGIE NATURAL GAS CORP	NAD27	1090.00	3086.00	0.00
400456	Completed Well	PITTSBURGH & W VA GAS	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5968800	-80 5489700	PITTSBURGH & W VA GAS	NAD27	1078.00	3155.00	0.00
400176	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5972700	-80 5325500	UNKNOW	NAD27	1285.00	2505.00	0.00
400459	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 6281100	-80 5407800	DAC CORP	NAD27	1203.00	3385.00	0.00
400929	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5948600	-80 5228500	CONSOLIDATED GAS SUPPLY CORP	NAD27	2.00	1767.00	0.00
401767	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5879500	-80 5403300	DAC CORP	NAD27	868.00	3264.00	2.00
400933	Completed Well	CARNEGIE NATURAL GAS CORP	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5931500	-80 5054500	CARNEGIE NATURAL GAS CORP	NAD27	1527.00	1887.00	0.00
401880	Completed Well	XTO ENERGY INC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 6047900	-80 5499100	EXCEL ENERGY INC	NAD27	981.00	3310.00	0.00
400245	Completed Well	CARNEGIE NATURAL GAS CORP	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5213500	-80 5147900	CARNEGIE NATURAL GAS CORP	NAD27	1040.00	2908.00	0.00
400281	Completed Well	PITTSBURGH & W VA GAS	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5808600	-80 5346800	PITTSBURGH & W VA GAS	NAD27	906.00	2946.00	0.00
401268	Completed Well	XTO ENERGY INC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 6067800	-80 5428700	EXCEL ENERGY INC	NAD27	1224.00	3360.00	0.00
400445	Completed Well	HOPE NATURAL GAS	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5765100	-80 5316700	HOPE NATURAL GAS	NAD27	0.00	2146.00	0.00
400902	Completed Well	EQT PRODUCTION CO	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39 5991300	-80 5379800	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
401790	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5968800	-80 5339500	DAC CORP	NAD27	304.00	1138.00	0.00
400231	Completed Well	PITTSBURGH & W VA GAS	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 6001300	-80 5466400	PITTSBURGH & W VA GAS	NAD27	869.00	1966.00	0.00
400994	Completed Well	CARNEGIE NATURAL GAS CORP	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5979400	-80 5147300	CARNEGIE NATURAL GAS CORP	NAD27	1211.00	4054.00	0.00
400593	Completed Well	XTO ENERGY INC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 6030900	-80 5482700	EXCEL ENERGY INC	NAD27	1099.00	3317.00	0.00
401792	Completed Well	UNKNOW	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5031500	-80 5054100	UNKNOW	NAD27	1527.00	3438.00	0.00
401791	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 6061300	-80 5378000	DAC CORP	NAD27	1525.00	3629.00	0.00
401748	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	NEW POOL WILDCAT	39 5953900	-80 5351100	DAC CORP	NAD27	1285.00	3629.00	0.00
406454	Completed Well	EQT PRODUCTION CO	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5747700	-80 5198500	CARNEGIE NATURAL GAS CORP	NAD27	1844.00	3499.00	0.00
401785	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5918850	-80 5298800	DAC CORP	NAD27	1186.00	3554.00	0.00
401800	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 6025300	-80 5342600	DAC CORP	NAD27	1401.00	3544.00	0.00
401789	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	NEW POOL WILDCAT	39 5924950	-80 5353100	DAC CORP	NAD27	1326.00	3692.00	0.00
400585	Completed Well	EQUITABLE GAS CO	UNCLASSIFIED	UNCLASSIFIED	39 5866900	-80 5420900	EQUITABLE GAS CO	NAD27	1008.00	3057.00	0.00
472096	Completed Well	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	33 5576400	-80 5105100	UNKNOW	NAD77	0.00	0.00	0.00
400420	Completed Well	UNKNOW	DEVELOPMENT WELL OIL	DEVELOPMENT WELL	39 5901000	-80 5503300	UNKNOW	NAD77	1310.00	3226.00	0.00
400117	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5924000	-80 5327800	CONSOLIDATED GAS SUPPLY CORP	NAD27	860.00	1927.00	0.00
400952	Completed Well	XTO ENERGY INC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 6029500	-80 5323400	EXCEL ENERGY INC	NAD27	1325.00	3663.00	0.00
400201	Completed Well	DYNATEC ENERGY INC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5762200	-80 5391100	DYNATEC ENERGY INC	NAD27	948.00	711.00	0.00
400158	Completed Well	HOPE NATURAL GAS	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5937500	-80 5422900	HOPE NATURAL GAS	NAD27	1012.00	1215.00	0.00
472092	Completed Well	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	39 5924100	-80 5084300	UNKNOW	NAD77	0.00	0.00	0.00
401743	Completed Well	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 6005200	-80 5466100	DAC CORP	NAD77	1326.00	3556.00	0.00

UWI	ACT_STATUS	CURR_OPER	TPL_CLASS	INIT_CLASS	LATITUDE	LONGITUDE	OPER_NAME	DATUM	ELEVATION	TOT_DEPTH	FWD	WELL_NAME	WELL_NUM
4703024170000	Completed Well	EQT PRODUCTION CO	DEVELOPMENT WELL GAS	DEVELOPMENT WELL	39 5556500	-80 5216200	EQT PRODUCTION CO	NAD77	941.00	1075.00	717.00	WW 51143 ALLEN I M	WW 51423

TH: 4695' LAT: 39-35-00

TH: 5727' LON: 80-30-00



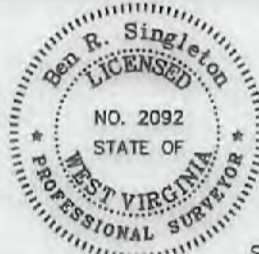
- ⊙ Proposed Gas Well
- ⊙ Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- Ⓢ WV County Route
- Ⓠ WV State Route

(⊙) Denotes Location of Well on United States Topographic Maps



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.

Ben R. Singleton
 P.S. 2092



SEAL

FILE NO: 125-16
 DRAWING NO: BIG464 5H
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1:2500
 PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

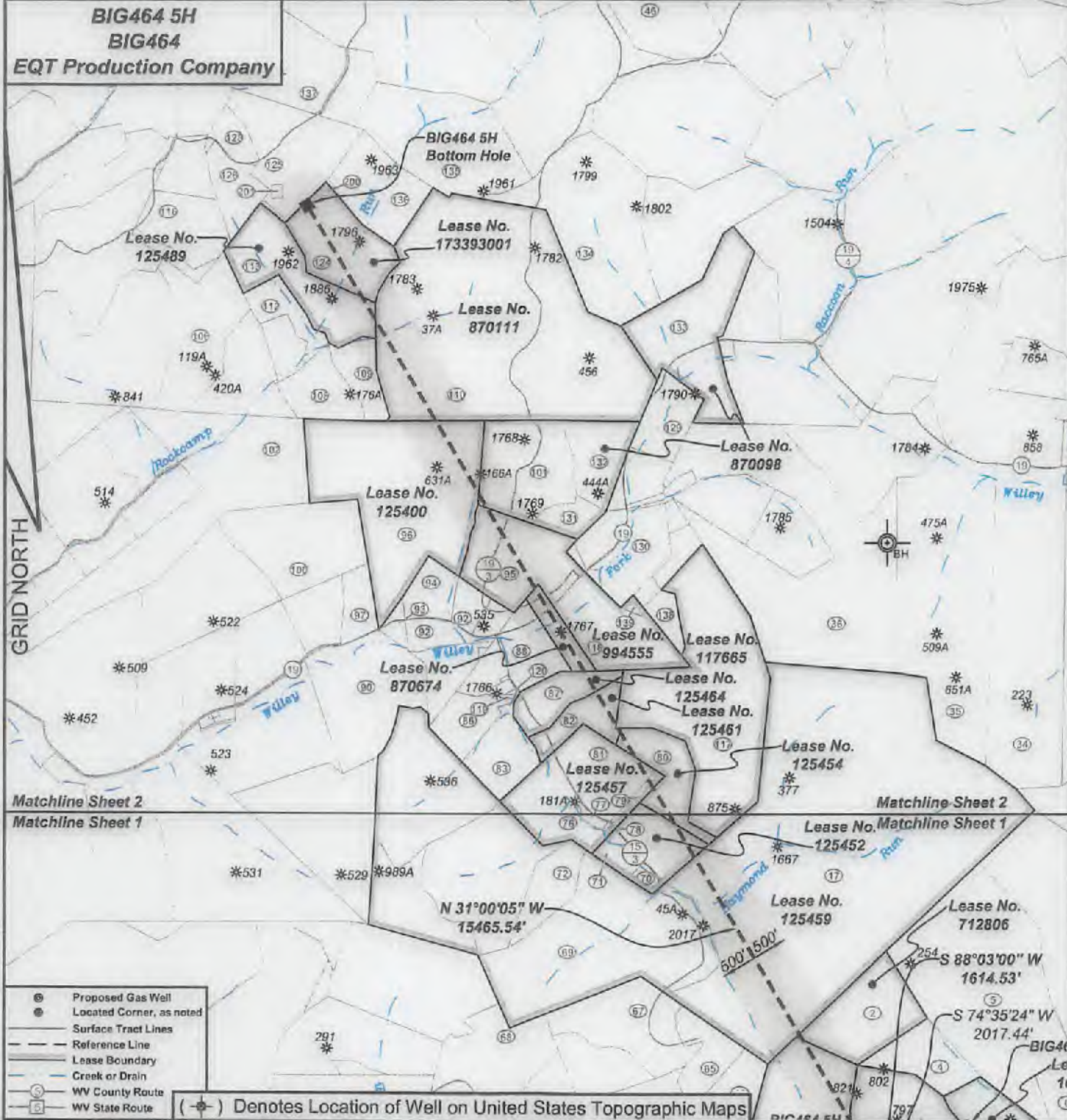
DATE: January 19 20 22
 OPERATOR'S WELL NO.: BIG464 5H
 API WELL NO **M1D**
 47 - 103 - 03433
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: 1246.8' WATERSHED Wiley Fork QUADRANGLE: Big Run
 DISTRICT: Grant COUNTY: Wetzel
 SURFACE OWNER: EQT Production Company ACREAGE: 25.25
 ROYALTY OWNER: Ridgetop Royalties, LLC, et al. LEASE NO.: 1010666 ACREAGE: 32
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,394'

02/11/2022

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow
 ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280
 Canonsburg, PA 15317 Bridgeport, WV 26330

BIG464 5H
BIG464
EQT Production Company



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.

Ben R. Singleton
P.S. 2092



SEAL

FILE NO: 125-16
DRAWING NO: BIG464 5H
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: January 19 20 22
OPERATOR'S WELL NO.: BIG464 5H
API WELL NO 1109
47 103 03433
STATE COUNTY PERMIT

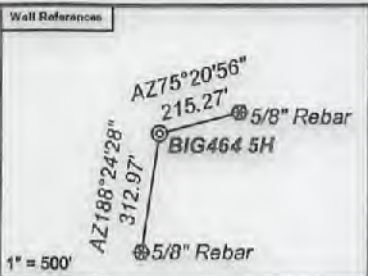
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1246.8' WATERSHED Wiley Fork QUADRANGLE: Big Run
DISTRICT: Grant COUNTY: Wetzel
SURFACE OWNER: EQT Production Company ACREAGE: 25.25
ROYALTY OWNER: Ridgetop Royalties, LLC, et al. LEASE NO: 1010666 ACREAGE: 32
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7.394'

02/11/2022

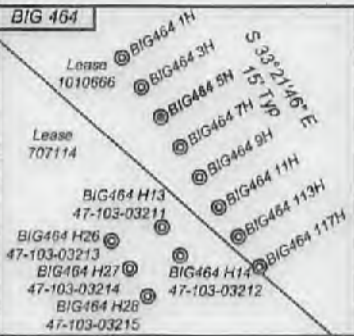
WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow
ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280
Canonsburg, PA 15317 Bridgeport, WV 28330

BIG464 5H
BIG464
EQT Production Company

Tract ID	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	14	34	Wetzel	Grant	EQT Production Company	25.26
2	20	1	Wetzel	Grant	Coastal Forest Resources Company	520.00
3	15	27	Wetzel	Grant	Bowery Lynn Barr Life Estate	10.00
4	14	27	Wetzel	Grant	EQT Production Company	22.00
5	18	20	Wetzel	Grant	EQT Production Company	122.80
6	15	16	Wetzel	Grant	Donald J. D'Lusky	25.00
7	18	45	Wetzel	Grant	Coastal Forest Resources Company	110.00
8	18	44	Wetzel	Grant	Mabel F. Barr	11.90
9	14	43	Wetzel	Grant	Mabel F. Barr	11.01
10	14	42	Wetzel	Grant	Donald J. D'Lusky	111.00
11	18	33	Wetzel	Grant	Ailee H. & Hilis B. Conway	108.00
14	14	40	Wetzel	Grant	Donald J. D'Lusky, Jr.	131.00
15	18	31	Wetzel	Grant	Donald J. D'Lusky, Jr.	19.00
16	18	32	Wetzel	Grant	Mary Jane Byard	13.30
17	14	6	Wetzel	Grant	Coastal Forest Resources Company	302.90
19	15	12	Wetzel	Grant	William Bowers & Donald J. D'Lusky	147.50
27			Wetzel	Grant	No Tax Map & Parcel Information	
31	16	6	Wetzel	Grant	William Bowers, et al.	43.20
34	10	26	Wetzel	Grant	Coastal Forest Resources Company	107.00
35	9	20	Wetzel	Grant	Coastal Forest Resources Company	128.00
36	9	38	Wetzel	Grant	Terry L. & Carolyn M. Fry	155.08
65	14	10	Wetzel	Grant	Mary Jane Byard	14.50
67	14	25	Wetzel	Grant	ET Blue Grass, LLC	35.88
68	14	23	Wetzel	Grant	Equilans LP	51.00
69	14	19	Wetzel	Grant	Coastal Forest Resources Company	138.68
70	14	13	Wetzel	Grant	Coastal Forest Resources Company	2.80
71	14	14	Wetzel	Grant	Gary L. Elaw	21.40
72	14	19.1	Wetzel	Grant	Thomas J. Parks, et al.	16.02
76	14	12	Wetzel	Grant	Thomas J. Parks, et al.	16.00
77	14	3.1	Wetzel	Grant	Ronald L. & Anna P. Elaw	1.45
78	14	11.1	Wetzel	Grant	James W. & Mary E. Yost	0.38
79	14	3	Wetzel	Grant	Thelma C. Willey	3.00
80	14	5	Wetzel	Grant	Dale K. & Sherry Dulaney	21.50
81	14	3	Wetzel	Grant	Thelma C. Willey	34.55
82	9	50	Wetzel	Grant	Jeffery Willey Life Estate	16.50
83	14	1	Wetzel	Grant	Leonard E. & Edwin C. Rice	21.65
86	9	56	Wetzel	Grant	Leonard E. & Edwin C. Rice	16.50
87	9	50.1	Wetzel	Grant	Clyde R. & Connie L. Fordyce	16.70
88	9	48	Wetzel	Grant	Donald Allen Kennedy	25.60
90	9	55	Wetzel	Grant	Jack L. & Leanna C. Barnette	16.40
92	9	43	Wetzel	Grant	Monroe R. & Vivian L. Derby	14.40
93	9	42	Wetzel	Grant	Jack L. & Leanna C. Barnette	2.60
94	9	44	Wetzel	Grant	Billy L. & Barbara L. Brewer	12.55
95	9	50	Wetzel	Grant	John D. Parks, et al.	73.65
96	9	22	Wetzel	Grant	Stephen B. & Carolyn M. Gantz	110.00
97	9	41	Wetzel	Grant	William Schleicher	11.56
100	9	29	Wetzel	Grant	William & Margaret Schleicher	47.90
101	9	24	Wetzel	Grant	John D. Parks, et al.	40.00
102	9	32	Wetzel	Grant	Joe Willis Pigg Hols	82.40
106	9	63	Wetzel	Grant	Mary Wright, et al.	46.00
108	9	17	Wetzel	Grant	Wanda K. Willey	20.08
109	9	16	Wetzel	Grant	W. K. Willey Estate	13.40
110	9	10	Wetzel	Grant	William B. & Pamela S. Franok	233.37
112	9	9	Wetzel	Grant	Loisie Watson	11.30
113	9	6	Wetzel	Grant	James A. Yoho	45.08
116	8	9	Wetzel	Grant	Mary Wright, et al.	24.09
117	9	61	Wetzel	Grant	Jimbaba Quiet Mountain Retreat	114.10
118	9	49	Wetzel	Grant	Donald A. Kennedy Life Estate	6.73
119	9	57	Wetzel	Grant	Leonard E. & Edwin C. Rice	9.28
120	9	56	Wetzel	Grant	Leonard E. & Edwin C. Rice	0.25
124	9	7	Wetzel	Grant	James D. & Collette J. Stoves	34.00
125	4	7	Wetzel	Grant	Carl Stenking	45.50
126	4	10	Wetzel	Grant	Olive M. UE	15.17
128	4	14	Wetzel	Grant	Olive M. UE	7.60
129	9	62	Wetzel	Grant	William B. & Pamela S. Franok	30.90
130	9	32	Wetzel	Grant	Terry L. & Carolyn M. Fry	23.05

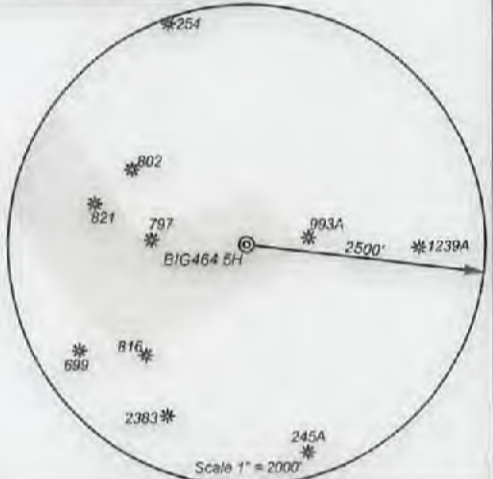


Notes:
BIG464 5H coordinates are
NAD 27 N: 390,468.48 E: 1,713,397.98
NAD 83 UTM N: 4,379,889.08 E: 541,533.55
BIG464 5H Landing Point coordinates are
NAD 27 N: 390,413.55 E: 1,711,784.38
NAD 27 Lat: 39.567410 Long: -80.522376
NAD 83 UTM N: 4,379,864.12 E: 541,042.22
BIG464 5H Bottom Hole coordinates are
NAD 27 N: 403,569.93 E: 1,703,818.74
NAD 27 Lat: 39.503551 Long: -80.551180
NAD 83 UTM N: 4,383,862.27 E: 538,548.10
West Virginia Coordinate system of 1927 (North Zone)
based upon Differential GPS Measurements.
Plat orientation, corner and well ties are based upon
the grid north meridian.
Well location references are based upon the grid north
meridian.
UTM coordinates are NAD83, Zone 17, Meters.



Lease No.	Owner	Acres
707114	Ridgetop Royalties, LLC, et al.	78
712711	Barbara Lynne Metheny, et al.	108
712806	Ridgetop Royalties, LLC, et al.	42
125459	Randel J. Hartman, et al.	693
125452	Lavenna Jane Higginbotham	25
125454	Dale K. Dulaney and Sherry Dulaney	25
125457	Kenneth M. Wayman, et al.	55
125461	Ervin Willey and Thelma Willey, et al.	17
117665	AMP Fund III, L.P., et al.	150
125464	Dara J. Cottrell, et al.	19
870674	Anna M. Wolford and David A. Wolford, et al.	8.73
894555	Sherman Hill, et al.	40.5
125400	Robert Barry Myers, Jr., et al.	119
870111	Three Rivers Royalty II, LLC, et al.	234
125489	Shiben Estates, Inc., et al.	46
173393001	Shiben Estates, Inc., et al.	35
870098	David L. Hostuller, et al.	197

Tract ID	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
131	9	25	Wetzel	Grant	Deborah Fronczek & John Patis	8.88
132	9	25.1	Wetzel	Grant	William B. & Pamela S. Franok	23.20
133	9	11	Wetzel	Grant	Elizabeth Amundson, et al.	53.37
134	9	2	Wetzel	Grant	Uberty Holding Company	74.50
135	4	8	Wetzel	Grant	James A. Yoho	83.02
136	4	16	Wetzel	Grant	James A. Yoho	30.00
137	4	4	Wetzel	Grant	Ralph D. Thadler	53.50
138	9	51	Wetzel	Grant	H. J. Zimmerman	6.10
139	9	50	Wetzel	Grant	Terry L. & Carolyn M. Fry	1.30
200	9	7.1	Wetzel	Grant	Barry L. Long	1.00
201	9	1	Wetzel	Grant	Andruso Cemetery	



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.

Ben R. Singleton
P.S. 2092



FILE NO: 125-16
DRAWING NO: BIG464 5H
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: January 19 20 22
OPERATOR'S WELL NO.: BIG464 5H
API WELL NO M00
47 - 103 - 03433
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1246.8' WATERSHED: Wiley Fork QUADRANGLE: Big Run
DISTRICT: Grant COUNTY: Wetzel
SURFACE OWNER: EQT Production Company ACREAGE: 25.26
ROYALTY OWNER: Ridgetop Royalties, LLC, et al. LEASE NO: 1010666 ACREAGE: 32
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,394'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow
ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280
Canonsburg, PA 15317 Bridgeport, WV 26330

**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 *John F. Zavatchan Jr.*
 Its: Project Specialist - Permitting

Lease No.	Grantor, Lessor, etc.	Acres	Grantee, Lessee, etc.	Royalty	Book/Page
<u>1010666</u>	<u>Ridgetop Royalties, LLC, et al.</u> Ridgetop Royalties, LLC	32 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 166A/638
<u>707114</u>	<u>Ridgetop Royalties, LLC, et al.</u> W. S. Furbee and Mary Furbee, his wife Carnegie Natural Gas Company Carnegie Production Company	78 ac	Carnegie Natural Gas Company Carnegie Production Company EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 2A/182 OG 78A/513 WV SOS
<u>712711</u>	<u>Barbara Lynne Metheny, et al.</u> Lee Glover and Bertha Glover, his wife Carnegie Natural Gas Company Carnegie Production Company	108 ac	Carnegie Natural Gas Company Carnegie Production Company EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 20A/493 OG 78A/513 WV SOS
<u>712806</u>	<u>Ridgetop Royalties, LLC, et al.</u> W. S. Furbee and Mary Furbee, his wife Carnegie Natural Gas Company Carnegie Production Company	42 ac	Carnegie Natural Gas Company Carnegie Production Company EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 21A/84 OG 78A/513 WV SOS
<u>125459</u>	<u>Randel J. Hartman, et al.</u> 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.	693 ac	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.	"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

Statoilhydro USA Onshore Properties Inc.
Chesapeake Appalachia, L.L.C.
Statoil USA Onshore Properties, Inc.
SWN Exchange Titleholder, LLC
SWN Production Company, LLC
Statoil USA Onshore Properties, Inc.
Antero Exchange Properties LLC
Antero Resources Corporation

Statoil USA Onshore Properties, Inc.
SWN Production Company, LLC
SWN Exchange Titleholder, LLC
SWN Production Company, LLC
Antero Exchange Properties LLC
Antero Exchange Properties LLC
Antero Resources Corporation
EQT Production Company

WV SOS
OG 157A/540
OG 158A/801
Corp. 13/296
OG 177A/533
OG 177A/738
Corp. 13/311
OG 227A/932

125452

Lavena Jane Higginbotham

Etta Haught Beckley, widow, 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.
SWN Exchange Titleholder, LLC
SWN Production Company, LLC
Statoil USA Onshore Properties, Inc.
Antero Exchange Properties LLC
Antero Resources Corporation

25 ac

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
SWN Production Company, LLC
Antero Exchange Properties LLC
Antero Exchange Properties LLC
Antero Resources Corporation
EQT Production Company

*at least 1/8th per
WV Code 22-6-8"

OG 52A/435
OG 64A/442
OG 72A/368
Corp. 12/622
DB 402/446
OG 97A/578
WV SOS
OG 157A/540
OG 158A/801
Corp. 13/296
OG 177A/533
OG 177A/738
Corp. 13/311
OG 228A/1 & 231A/158

125454

Dale K. Dulaney and Sherry Dulaney

Adda M. Sole, widow
Equitable Gas Company
Equitrans, Inc.
EQT Capital Corporation
Equitable Resources, Inc.
Equitable Gas Company, LLC and EQT Corporation
Equitrans, LP

25 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/425
OG 71A/453
Corp. 13/213
Corp. 13/213
Corp. 13/230
Misc. 105/908
OG 131A/81

			*at least 1/8th per WV Code 22-6-8'	
<u>125457</u>	<u>Kenneth M. Wayman, et al.</u> F. M. Tuttle and Mary E. Tuttle, his wife, 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. SWN Exchange Titleholder, LLC SWN Production Company, LLC Statoil USA Onshore Properties, Inc. Antero Exchange Properties LLC Antero Resources Corporation	55 ac	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 SWN Production Company, LLC Antero Exchange Properties LLC Antero Exchange Properties LLC Antero Resources Corporation EQT Production Company	OG 52A/437 OG 64A/442 OG 72A/368 Corp. 12/622 DB 402/446 OG 97A/578 WV SOS OG 157A/540 OG 158A/801 Corp. 13/296 OG 177A/533 OG 177A/738 Corp. 13/311 OG 231A/59

			*at least 1/8th per WV Code 22-6-8'	
<u>125461</u>	<u>Ervin Willey and Thelmas Willey, et al.</u> Dorothy Williams, widow, 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. SWN Exchange Titleholder, LLC SWN Production Company, LLC Statoil USA Onshore Properties, Inc. Antero Exchange Properties LLC Antero Resources Corporation	17 ac	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 SWN Production Company, LLC Antero Exchange Properties LLC Antero Exchange Properties LLC Antero Resources Corporation EQT Production Company	OG 53A/108 OG 64A/442 OG 72A/368 Corp. 12/622 DB 402/446 OG 97A/578 WV SOS OG 157A/540 OG 158A/801 Corp. 13/296 OG 177A/533 OG 177A/738 Corp. 13/311 OG 269A/533

			at least 1/8th per WV Code 22-6-8	
<u>117665</u>	<u>AMP Fund III, L.P., et al.</u> Sarah J. Kiger and E. C. Kiger, her husband Pittsburgh & West Virginia Gas Company 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. SWN Exchange Titleholder, LLC SWN Production Company, LLC Statoil USA Onshore Properties, Inc. Antero Exchange Properties LLC Antero Resources Corporation	150 ac	Pittsburgh & West Virginia Gas Company 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 SWN Production Company, LLC Antero Exchange Properties LLC Antero Exchange Properties LLC Antero Resources Corporation EQT Production Company	OG 13A/285 DB 187/321 OG 64A/442 OG 72A/368 Corp. 12/622 DB 402/446 OG 97A/578 WV SOS OG 157A/540 OG 158A/801 Corp. 13/296 OG 177A/533 OG 177A/738 Corp. 13/311 OG 227A/932

			at least 1/8th per WV Code 22-6-8	
<u>125464</u>	<u>Dara J. Cottrell, et al.</u> Dorothy Williams, widow, 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. SWN Exchange Titleholder, LLC SWN Production Company, LLC Statoil USA Onshore Properties, Inc. Antero Exchange Properties LLC Antero Resources Corporation	19 ac	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 SWN Production Company, LLC Antero Exchange Properties LLC Antero Exchange Properties LLC Antero Resources Corporation EQT Production Company	OG 53A/364 OG 64A/442 OG 72A/368 Corp. 12/622 DB 402/446 OG 97A/578 WV SOS OG 157A/540 OG 158A/801 Corp. 13/296 OG 177A/533 OG 177A/738 Corp. 13/311 OG 231A/59

	<u>Anna M. Wolford and David A. Wolford, et al.</u>				"at least 1/8th per WV Code 22-6-8"
<u>870674</u>	Carol Sue Kennedy and Donald F. Kennedy, wife and husband Drilling Appalachian Corporation Grenadier Energy Partners, LLC Drilling Appalachian Corporation Statoil USA Onshore Properties, Inc., et al	8.73 ac	Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties, Inc. Statoil USA Onshore Properties, Inc. EQT Production Company	OG 77A/391 OG 118A/108 & 136A/538 OG 138A/1 OG 138A/54 OG 175A/707	
	<u>Sherman Hill, et al.</u>				"at least 1/8th per WV Code 22-6-8"
<u>994555</u>	Sherman H. Hill and Marlas L. Hill, husband and wife	40.5 ac	EQT Production Company	OG 145A/275	
	<u>Robert Barry Myers, Jr., et al.</u>				"at least 1/8th per WV Code 22-6-8"
<u>125400</u>	Ingrim Myers Jr. and Rosalie Myers, his wife, et al Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC and EQT Corporation Equitrans, LP	119 ac	Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC Equitrans, LP EQT Production Company	OG 52A/284 OG 71A/453 Corp. 13/213 Corp. 13/213 Corp. 13/230 Misc. 105/908 OG 131A/81	
	<u>Three Rivers Royalty II, LLC, et al.</u>				"at least 1/8th per WV Code 22-6-8"
<u>870111</u>	Harry W. Taylor and Myrtle Taylor, his wife M. P. Wells W. D. Brookover, Jr., (lawful successor-in-interest to W. D. Brookover) Drilling Appalachian Corporation Grenadier Energy Partners, LLC Drilling Appalachian Corporation Statoil USA Onshore Properties, Inc., et al	234 ac	M. P. Wells W. D. Brookover Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties, Inc. Statoil USA Onshore Properties, Inc. EQT Production Company	OG 42A/213 OG 42A/216 OG 77A/638 OG 118A/108 & 136A/538 OG 138A/1 OG 138A/54 OG 175A/707	
	<u>Shiben Estates, Inc., et al.</u>				"at least 1/8th per WV Code 22-6-8"

<u>125489</u>	Esther Peters, et al Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC and EQT Corporation Equitrans, LP	46 ac	Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC Equitrans, LP EQT Production Company	OG 53A/395 OG 71A/453 Corp. 13/213 Corp. 13/213 Corp. 13/230 Misc. 105/908 OG 131A/81
<u>173393001</u>	<u>Shiben Estates, Inc., et al.</u> Shiben Estates, Inc.	35 ac	EQT Production Company	*at least 1/8th per WV Code 22-6-8* OG 268A/472
<u>870098</u>	<u>David L. Hostutler, et al.</u> Pershing R. Taylor, widower, et al Drilling Appalachian Corporation Grenadier Energy Partners, LLC Drilling Appalachian Corporation Statoil USA Onshore Properties, Inc., et al	197 ac	Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties, Inc. Statoil USA Onshore Properties, Inc. EQT Production Company	*at least 1/8th per WV Code 22-6-8* OG 77A/86 OG 118A/108 & 136A/538 OG 138A/1 OG 138A/54 OG 175A/707



January 21, 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
BIG464 5H Well
Permit Number 47-103-03433
Grant District, Wetzel County, WV

Ch#
0000590920
~~571397~~
\$2500

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
- Check in the amount of \$2,500 for the expedited 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

EQT is proposing to extend the lateral from the previously permitted length.

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

02/11/2022



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

Modification Horizontal H6A Well Work Permit (API: 47-103-03431, 03432, 03433, 03434, 03435, 03436, 03437)

1 message

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

Thu, Feb 3, 2022 at 12:00 PM

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

I have attached a copy of the newly issued well [permit](#) number. This will serve as your copy.








47-103-03431 - BIG 464 1H
47-103-03432 - BIG 464 3H
47-103-03433 - BIG 464 5H
47-103-03434 - BIG 464 7H
47-103-03435 - BIG 464 9H
47-103-03436 - BIG 464 11H
47-103-03437 - BIG 464 113H

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

7 attachments

-  **47-103-03434 - mod.pdf**
1369K
-  **47-103-03433 - mod.pdf**
1512K
-  **47-103-03435 - mod.pdf**
1538K
-  **47-103-03431 - mod.pdf**
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1664K

02/11/2022