



---

west virginia department of environmental protection

---

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://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 3H  
47-103-03432

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".

James A. Martin  
Chief

Operator's Well Number: BIG464 3H  
Farm Name: EQT Production Company  
U.S. WELL NUMBER: 47-103-03432  
New Drill Modification/Lateral Extension  
Date Modification Issued: 01/27/2022

Promoting a healthy environment.

02/11/2022



January 21, 2022

Via FedEx Overnight

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

RE: Well Work Permit Modification  
BIG464 3H Well  
Permit Number 47-103-03432  
Grant District, Wetzel County, WV

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](mailto:jzavatchan@eqt.com)  
724-746-9073

chk#  
0000590919  
2500<sup>00</sup>  
chk#  
0000591358  
\$2500<sup>00</sup>

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: 3H 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  Oil \_\_\_\_\_ Underground Storage \_\_\_\_\_

Other \_\_\_\_\_

(b) If Gas Shallow  Deep \_\_\_\_\_

Horizontal

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: 23833'

11) Proposed Horizontal Leg Length: 15394'

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

(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 <sup>3</sup> / CTS
Fresh Water	13 3/8	New	J-55	54.5	1019	1019 ✓	1000 ft <sup>3</sup> / CTS
Coal							
Intermediate	9 5/8	New	J-55	36	2441	2441 ✓	1000 ft <sup>3</sup> / CTS
Production	5 1/2	New	P-110	20	23833	23833 ✓	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 AVH	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.

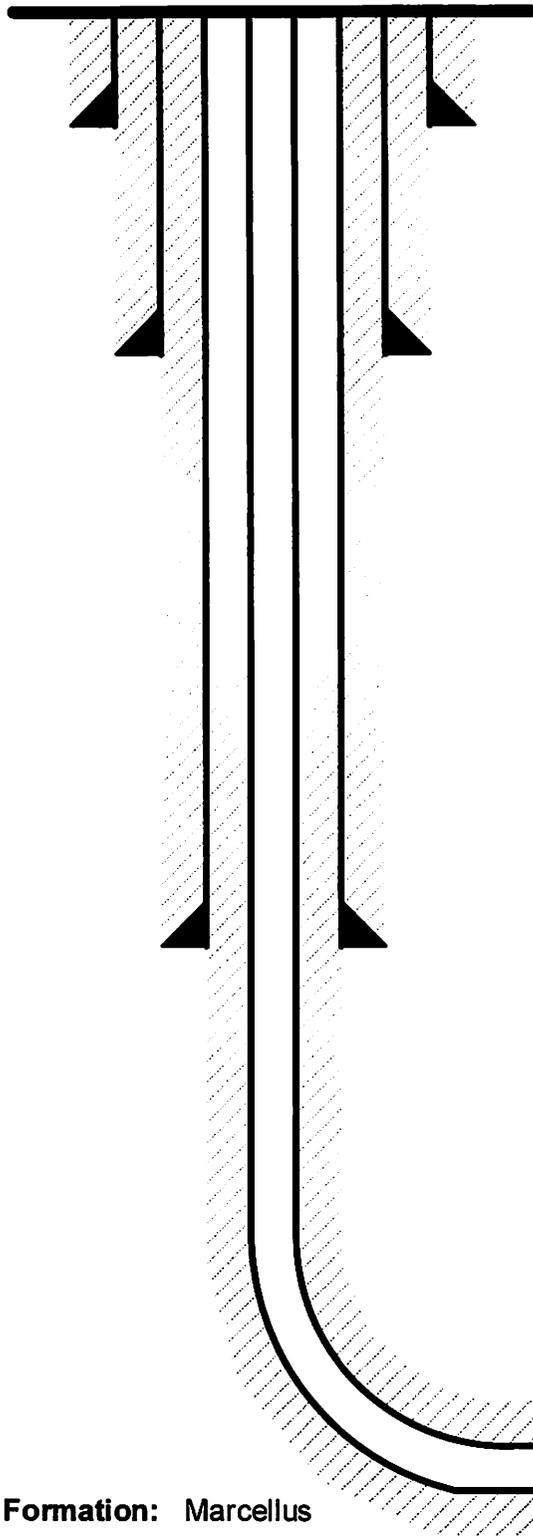
\*Note: Attach additional sheets as needed.

**EQT Production**

**Wellbore Diagram**

Well: BIG 464 3H  
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 @ 23,833' MD / 7,394' TVD**  
5-1/2", 20#, P-110, cement to 500' inside 9-5/8" w/ Class A/H

**Formation: Marcellus**

**WEST VIRGINIA GEOLOGICAL PROGNOSIS**

Finalized for Top Hole

Horizontal Well  
**BIG464**  
S-000124

**Drilling Objectives:** Marcellus  
**County:** Wetzel  
**Quad:** Big Run  
**Elevation:** 1259 KB 1246 GL

**Recommended Azimuth:** TBD  
TBD Degrees  
**Recommended LP to TD:** TBD

**Proposed Logging Suite:** Pilot Logging Not needed

ESTIMATED FORMATION TOPS		From pilots on BIG57 and BIG182		Comments	Top RR	Base RR
Formation	Top (TVD)	Base (TVD)	Lithology			
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			
<b>-Lateral Zone</b>	<b>7394</b>					
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**

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

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 30CSR85.11, 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

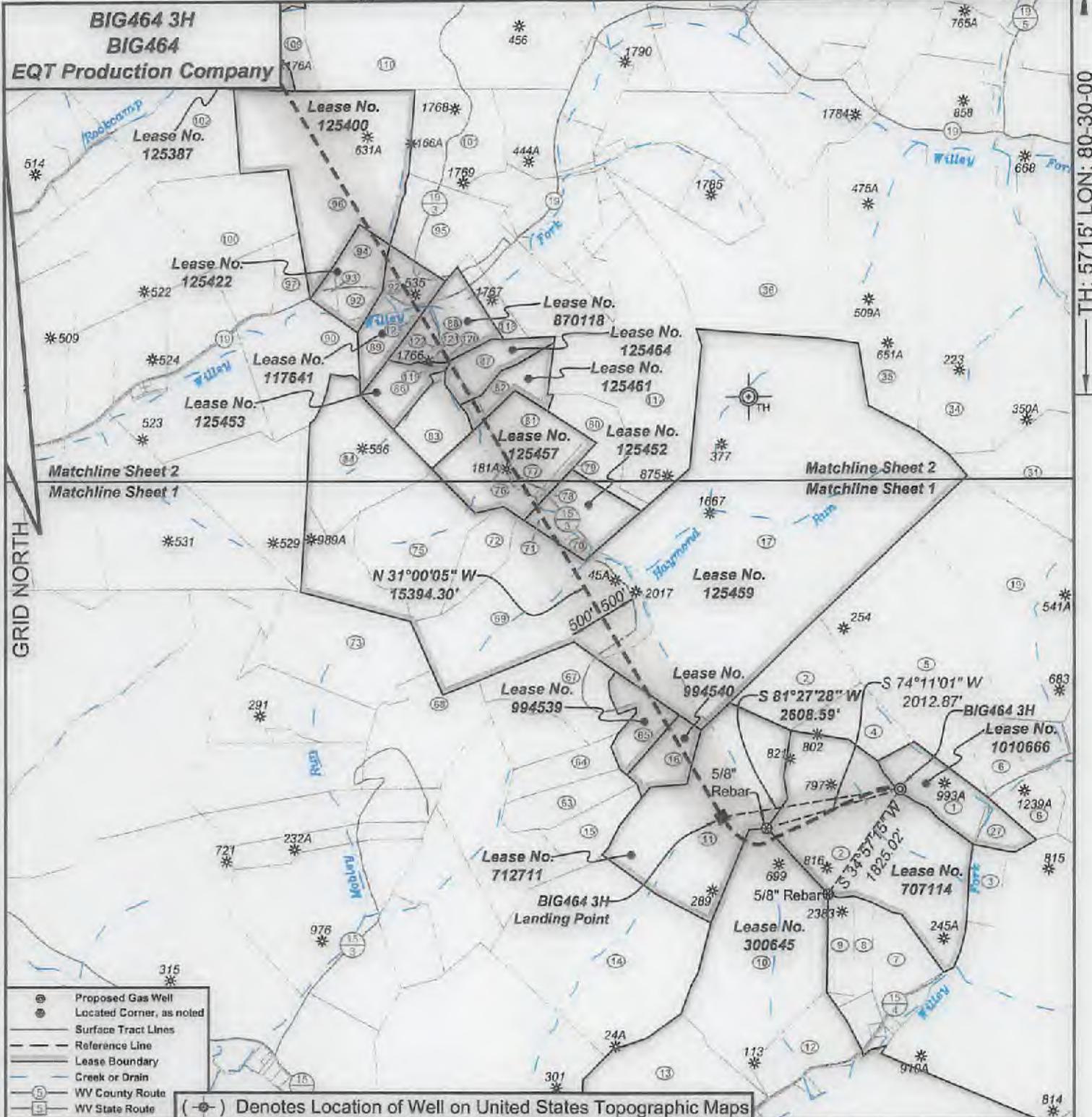
EQT will provide information relating to the hydraulic fracturing schedule, communication with other operators, and ongoing monitoring of the work upon request of OOG or immediately in the event of any noted abnormalities.



UWI	ACT_STATUS	CURR_OPER	FNL_CLASS	INIT_CLASS	LATITUDE	LONGITUDE	OPER_NAME	DATUM	ELEVATION	TOT_DEPTH	TVD		
372080	Completed Wells	CARNEGIE NATURAL GAS CORP	UNCLASSIFIED	UNCLASSIFIED	39.56969000	-80.50730600	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00		
300817	Completed Wells	EQT PRODUCTION CO	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.55445100	-80.50224800	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00		
371936	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.59640100	-80.55553000	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00		
300821	Completed Wells	CARNEGIE NATURAL GAS CORP	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.56649700	-80.52510300	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00		
300875	Completed Wells	DIVERSIFIED PRODUCTION LLC	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.58057000	-80.52922500	PHILADELPHIA OIL	NAD27	0.00	0.00	0.00		
301167	Completed Wells/WHCS	ANIA RESOURCES	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.57919010	-80.52717940	UNKNOW	NAD27	1066.00	0.00	0.00		
372071	Completed Wells	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	39.58973100	-80.52210600	UNKNOW	NAD27	0.00	0.00	0.00		
372086	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.56548100	-80.53034900	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00		
371932	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.60308400	-80.54046500	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00		
370310	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.57868900	-80.52060700	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00		
370635	Completed Wells	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	39.54646800	-80.49617600	UNKNOW	NAD27	0.00	0.00	0.00		
330444	Completed Wells	HOPE NATURAL GAS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.59308100	-80.53622100	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00		
372068	Completed Wells	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	39.58436100	-80.53315900	UNKNOW	NAD27	0.00	0.00	0.00		
372089	Completed Wells	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	39.56417500	-80.51573600	UNKNOW	NAD27	0.00	0.00	0.00		
300243	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	DEVELOPMENT WELL	39.57738300	-80.51180200	HOPE NATURAL GAS	NAD27	1272.00	1018.00	0.00		
372093	Completed Wells	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	39.56112700	-80.51423800	UNKNOW	NAD27	0.00	0.00	0.00		
300815	Completed Wells	DIVERSIFIED PRODUCTION LLC	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.56461000	-80.50805000	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00		
301798	Completed Wells/WHCS	DAC CORP	DEVELOPMENT WELL-DRY (INCLUDING TEMPORARILY ABANDONED WELL)	DEVELOPMENT WELL	39.40613980	-80.53690870	DAC CORP	NAD27	1525.00	2923.00	0.00		
370220	Completed Wells	HOPE NATURAL GAS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.57907000	-80.52641500	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00		
300377	Completed Wells/WHCS	ANIA RESOURCES	DEVELOPMENT WELL-DRY (INCLUDING TEMPORARILY ABANDONED WELL)	DEVELOPMENT WELL	39.58260830	-80.52548590	EAGON ROBINSON OIL & GAS	NAD27	1035.00	3197.00	0.00		
300683	Completed Wells	CONSOLIDATED GAS SUPPLY CORP	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.57157700	-80.50936700	CONSOLIDATED GAS SUPPLY CORP	NAD27	0.00	0.00	0.00		
300797	Completed Wells	EQT PRODUCTION CO	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.56780300	-80.52004500	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00		
372084	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.56881900	-80.52510300	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00		
331239	Completed Wells	CONSOLIDATED GAS SUPPLY CORP	UNCLASSIFIED	UNCLASSIFIED	39.56765800	-80.51011600	CONSOLIDATED GAS SUPPLY CORP	NAD27	0.00	0.00	0.00		
372081	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.57027100	-80.51573600	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00		
330119	Completed Wells	CARNEGIE NATURAL GAS CORP	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.59771400	-80.55590400	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00		
371929	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.60419700	-80.53164000	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00		
372083	Completed Wells	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	39.57157700	-80.52510300	UNKNOW	NAD27	0.00	0.00	0.00		
371933	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.59365000	-80.53540700	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00		
300814	Completed Wells	EQUITABLE PRODUCTION CO	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.55532200	-80.50954000	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00		
370700	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.58755400	-80.52566500	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00		
300286	Completed Wells	UNKNOW	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.55053200	-80.50056200	UNKNOW	NAD27	1171.00	3066.00	0.00		
301766	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.58529700	-80.54121730	DAC CORP	NAD27	871.00	2302.00	0.00		
301961	Completed Wells/WHCS	XTO ENERGY INC	DEVELOPMENT WELL-OIL	DEVELOPMENT WELL	39.60512390	-80.54241940	EXCEL ENERGY INC	NAD27	1380.00	3696.00	0.00		
301789	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59641480	-80.54597870	DAC CORP	NAD27	1420.00	3584.00	0.00		
330631	Completed Wells	HOPE NATURAL GAS	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59409700	-80.54447900	HOPE NATURAL GAS	NAD27	1356.00	3294.00	0.00		
300699	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.56446500	-80.52285500	CONSOLIDATED GAS SUPPLY CORP	NAD27	0.00	3154.00	0.00		
301782	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60265680	-80.53971940	DAC CORP	NAD27	1424.00	3823.00	0.00		
300799	Completed Wells	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.56963390	-80.50705510	CARNEGIE NATURAL GAS CORP	NAD27	1090.00	2086.00	0.00		
330176	Completed Wells	PITTSBURGH & W VA GAS	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59688800	-80.54897300	PITTSBURGH & W VA GAS	NAD27	1078.00	3135.00	0.00		
300456	Completed Wells	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59772600	-80.53753500	UNKNOW	NAD27	1295.00	2505.00	0.00		
301806	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60831680	-80.54028070	DAC CORP	NAD27	1209.00	3365.00	0.00		
300699	Completed Wells	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.56446500	-80.52285500	CONSOLIDATED GAS SUPPLY CORP	NAD27	0.00	1747.00	0.00		
301767	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.58785160	-80.53803360	DAC CORP	NAD27	868.00	3264.00	0.00		
330593	Completed Wells	CARNEGIE NATURAL GAS CORP	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.56315900	-80.50543300	CARNEGIE NATURAL GAS CORP	NAD27	1527.00	1887.00	0.00		
301886	Completed Wells/WHCS	XTO ENERGY INC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60047900	-80.54991380	EXCEL ENERGY INC	NAD27	981.00	3310.00	0.00		
330245	Completed Wells	CARNEGIE NATURAL GAS CORP	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.56185300	-80.51423800	CARNEGIE NATURAL GAS CORP	NAD27	1040.00	2908.00	0.00		
330181	Completed Wells	PITTSBURGH & W VA GAS	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.58086600	-80.53746800	PITTSBURGH & W VA GAS	NAD27	906.00	2936.00	0.00		
301963	Completed Wells/WHCS	XTO ENERGY INC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60628400	-80.54785220	EXCEL ENERGY INC	NAD27	1224.00	3350.00	0.00		
330045	Completed Wells	HOPE NATURAL GAS	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.57651200	-80.53184700	HOPE NATURAL GAS	NAD27	0.00	2146.00	0.00		
300802	Completed Wells	EQT PRODUCTION CO	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.56983500	-80.52079400	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00		
301790	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59698800	-80.53128500	DAC CORP	NAD27	904.00	3126.00	0.00		
330037	Completed Wells	PITTSBURGH & W VA GAS	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60003600	-80.54466400	PITTSBURGH & W VA GAS	NAD27	869.00	1966.00	0.00		
330993	Completed Wells	CARNEGIE NATURAL GAS CORP	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60409190	-80.54822700	CARNEGIE NATURAL GAS CORP	NAD27	1131.00	3004.00	0.00		
301796	Completed Wells/WHCS	XTO ENERGY INC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.56315900	-80.50543300	UNKNOW	NAD27	1009.00	3337.00	0.00		
330593	Completed Wells	UNKNOW	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.56315900	-80.50543300	UNKNOW	NAD27	1527.00	3438.00	0.00		
301799	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60611200	-80.53728000	DAC CORP	NAD27	1525.00	3629.00	0.00		
301768	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59539970	-80.53953300	DAC CORP	NAD27	1285.00	3679.00	0.00		
300254	Completed Wells	EQT PRODUCTION CO	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.57477000	-80.51985800	CARNEGIE NATURAL GAS CORP	NAD27	1464.00	3449.00	0.00		
301785	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59148150	-80.52698040	DAC CORP	NAD27	1186.00	3554.00	0.00		
301802	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60425370	-80.53402680	DAC CORP	NAD27	1401.00	3594.00	0.00		
301769	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59249570	-80.53953180	DAC CORP	NAD27	1326.00	3692.00	0.00		
300535	Completed Wells	EQUITABLE GAS CO	UNCLASSIFIED	UNCLASSIFIED	39.58669500	-80.54203900	EQUITABLE GAS CO	NAD27	1008.00	3057.00	0.00		
372096	Completed Wells	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	39.55764400	-80.51105300	UNKNOW	NAD27	0.00	0.00	0.00		
330420	Completed Wells	UNKNOW	DEVELOPMENT WELL-OIL	DEVELOPMENT WELL	39.59801600	-80.55630300	UNKNOW	NAD27	1310.00	3226.00	0.00		
300717	Completed Wells	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59248900	-80.53278400	CONSOLIDATED GAS SUPPLY CORP	NAD27	880.00	1927.00	0.00		
301962	Completed Wells/WHCS	XTO ENERGY INC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60265600	-80.55234980	EXCEL ENERGY INC	NAD27	1325.00	3633.00	0.00		
302017	Completed Wells/WHCS	DYNATEC ENERGY INC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.57622940	-80.53091330	DYNATEC ENERGY INC	NAD27	948.00	711.00	0.00		
330166	Completed Wells	HOPE NATURAL GAS	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59379500	-80.54222900	HOPE NATURAL GAS	NAD27	1012.00	2215.00	0.00		
372099	Completed Wells	UNKNOW	UNCLASSIFIED	UNCLASSIFIED	39.55241900	-80.50843000	UNKNOW	NAD27	0.00	0.00	0.00		
301783	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60105200	-80.54560100	DAC CORP	NAD27	1376.00	3555.00	0.00		
Lateral													
UWI	ACT_STATUS	CURR_OPER	FNL_CLASS	INIT_CLASS	LATITUDE	LONGITUDE	OPER_NAME	DATUM	ELEVATION	TOT_DEPTH	TVD	WELL_NAME	WELL_NUM
47103026170000	Completed Wells	EQT PRODUCTION CO	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.55562000	-80.52162000	EQT PRODUCTION CO	NAD27	941.00	10761.00	7117.00	WW 511423 ALLEN J M	WW 511423

TH: 4704' LAT: 39-35-00

TH: 5715' LON: 80-30-00



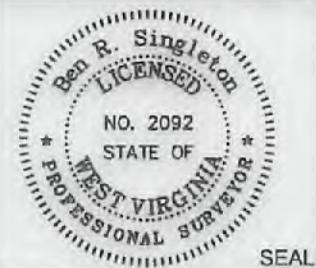
- ⊙ Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- - - Reference Line
- Lease Boundary
- Creek or Drain
- ⑤ WV County Route
- ⑬ WV State Route

(⊙) 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



FILE NO: 125-16  
DRAWING NO: BIG464 3H  
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

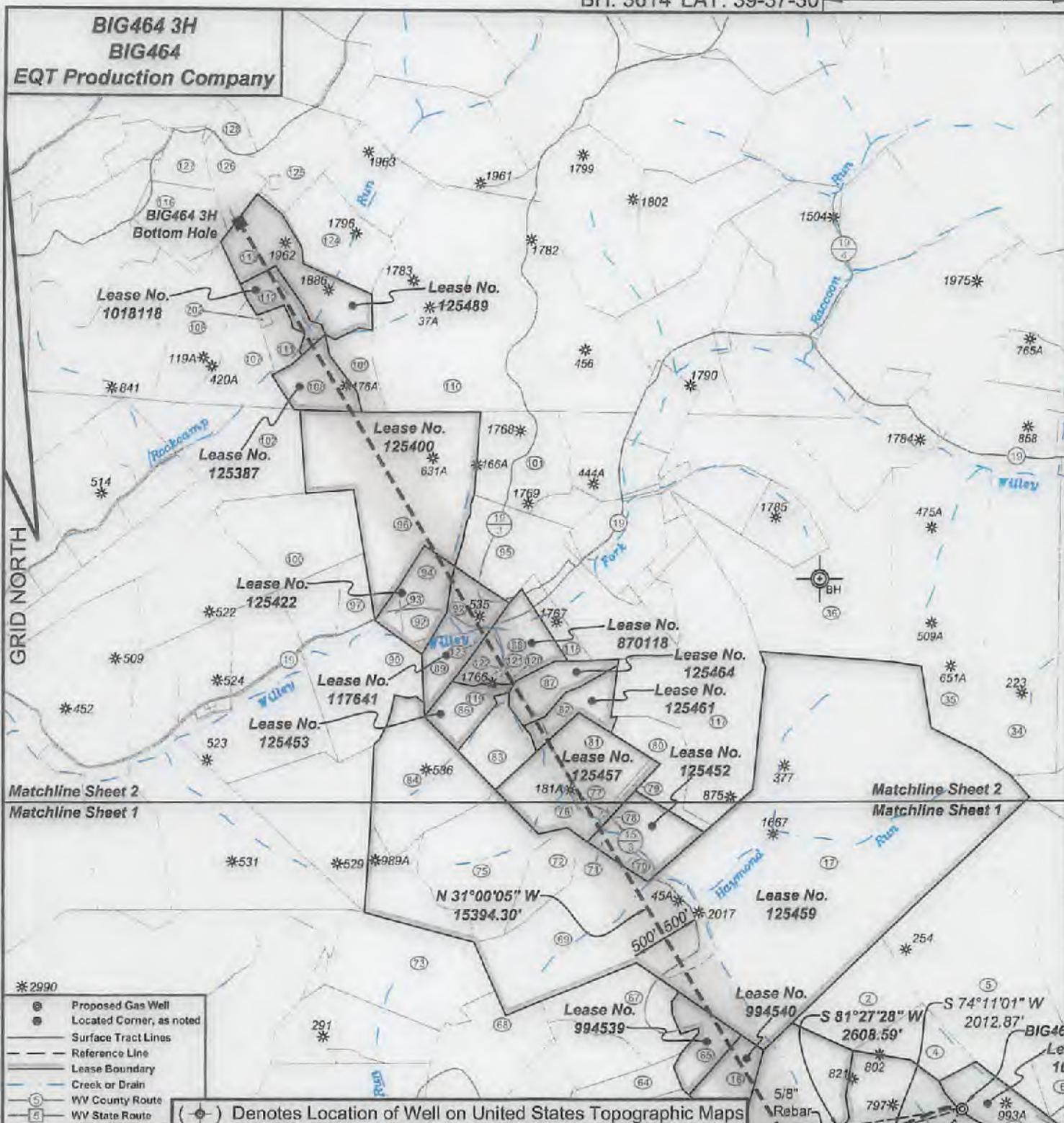
DATE: January 19 20 22  
OPERATOR'S WELL NO.: BIG464 3H  
API WELL NO. **M09**  
47 - 103 - 03432  
STATE COUNTY PERMIT

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 3H**  
**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 3H  
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 3H  
API WELL NO **MD**  
47 - 103 - 03432  
STATE COUNTY PERMIT

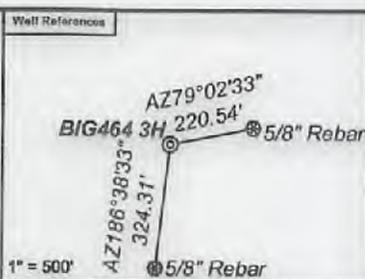
WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: 1248.8' WATERSHED Wiley Fork QUADRANGLE: Big Run  
DISTRICT: Grant COUNTY: Wetzel  
SURFACE OWNER: EQT Production Company ACREAGE: 29.25  
ROYALTY OWNER: Ridgetop Royalties, LLC, 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

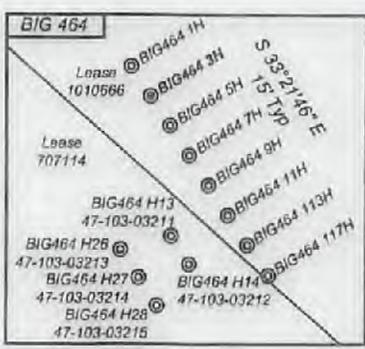
WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow  
ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280  
Canonsburg, PA 15317 Bridgeport, WV 26330

**BIG464 3H**  
**BIG464**  
**EQT Production Company**

Tract ID	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	14	24	Wetzel	Grant	EQT Production Company	25.29
2	20	1	Wetzel	Grant	Coastal Forest Resources Company	620.00
3	15	27	Wetzel	Grant	Beverly Lynn Beer Life Estate	10.00
4	14	27	Wetzel	Grant	EQT Production Company	22.00
5	14	20	Wetzel	Grant	EQT Production Company	120.50
6	15	16	Wetzel	Grant	Donald J. D'Luisky	25.00
7	14	46	Wetzel	Grant	Coastal Forest Resources Company	11.00
8	14	44	Wetzel	Grant	Mabel F. Barr	11.00
9	14	43	Wetzel	Grant	Mabel F. Barr	11.01
10	14	42	Wetzel	Grant	Donald J. D'Luisky	111.00
11	14	33	Wetzel	Grant	Alma H. & Elda B. Coroway	108.00
12	19	0	Wetzel	Grant	Donald J. D'Luisky	28.88
13	19	2	Wetzel	Grant	Donald J. D'Luisky, Jr.	71.88
14	14	80	Wetzel	Grant	Donald J. D'Luisky, Jr.	131.00
15	14	31	Wetzel	Grant	Donald J. D'Luisky, Jr.	13.00
16	14	32	Wetzel	Grant	Donald J. D'Luisky, Jr.	10.00
17	54	6	Wetzel	Grant	Mary Jane Byard	13.00
18	15	12	Wetzel	Grant	Coastal Forest Resources Company	322.90
19	15	12	Wetzel	Grant	William Bowers & Donald J. D'Luisky	147.50
20	15	12	Wetzel	Grant	No Tax Map & Parcel Information	
21	15	5	Wetzel	Grant	William Bowers, et al	43.26
22	10	25	Wetzel	Grant	Coastal Forest Resources Company	107.00
23	9	30	Wetzel	Grant	Coastal Forest Resources Company	128.00
24	9	36	Wetzel	Grant	Terry L. & Carolyn M. Fry	155.08
25	14	30	Wetzel	Grant	Equihans LP	28.90
26	14	25	Wetzel	Grant	ET Blue Grass, LLC	17.80
27	14	25	Wetzel	Grant	Mary Jane Byard	14.52
28	14	25	Wetzel	Grant	ET Blue Grass, LLC	35.80
29	14	23	Wetzel	Grant	Equihans LP	51.80
30	14	10	Wetzel	Grant	Coastal Forest Resources Company	138.68
31	14	13	Wetzel	Grant	Coastal Forest Resources Company	2.80
32	14	14	Wetzel	Grant	Gary L. Elser	21.40
33	14	10.1	Wetzel	Grant	Thomas J. Parks, et al.	16.82
34	14	15	Wetzel	Grant	John W. Wycoff	98.70
35	14	11	Wetzel	Grant	Thomas J. Parks, et al.	54.44
36	14	12	Wetzel	Grant	Thomas J. Parks, et al.	16.00
37	14	3.1	Wetzel	Grant	Ronald L. & Anne P. Elser	7.45
38	14	11.1	Wetzel	Grant	James W. & Mary E. Yost	0.36
39	14	4	Wetzel	Grant	Thelma C. Willey	3.80
40	14	5	Wetzel	Grant	Dale K. & Sherry Colanney	21.50
41	14	3	Wetzel	Grant	Thelma C. Willey	34.55
42	9	80	Wetzel	Grant	Jeffery Willey Life Estate	10.50
43	14	1	Wetzel	Grant	Leonard E. & Edwin C. Rice	71.85
44	14	2	Wetzel	Grant	Leonard E. & Edwin C. Rice	55.80
45	9	50	Wetzel	Grant	Leonard E. & Edwin C. Rice	15.50
46	9	59.1	Wetzel	Grant	Clyde R. & Bonnie L. Fordyce	15.70
47	9	60	Wetzel	Grant	Donald Allen Kennedy	25.80
48	9	45	Wetzel	Grant	Dawson & Patricia L. Morris	10.88
49	9	55	Wetzel	Grant	Jack L. & Leanna C. Barnette	15.40
50	9	43	Wetzel	Grant	Horman R. & Virgin L. Derby	14.40
51	9	42	Wetzel	Grant	Jack L. & Leanna C. Barnette	2.00
52	9	44	Wetzel	Grant	Billy L. & Barbara L. Brewer	12.55
53	9	20	Wetzel	Grant	John D. Parks, et al.	75.88
54	9	23	Wetzel	Grant	Stephen B. & Carolyn M. Gantz	118.09
55	9	41	Wetzel	Grant	William Schlicher	11.55
56	9	29	Wetzel	Grant	William & Margaret Schlicher	47.80
57	9	24	Wetzel	Grant	John D. Parks, et al.	40.80
58	8	32	Wetzel	Grant	Joe Willis Pigg Heirs	82.40
59	9	03	Wetzel	Grant	Mary Wright, et al.	80.80
60	9	13	Wetzel	Grant	James A. Yoho	27.80
61	9	17	Wetzel	Grant	Wanda K. Willey	20.80
62	9	18	Wetzel	Grant	W. K. Willey Estate	13.40
63	9	10	Wetzel	Grant	William D. & Pamela Franck	233.57
64	9	15	Wetzel	Grant	Opal Donahue Estate	8.82
65	9	8	Wetzel	Grant	Louise Wilton	11.20
66	9	8	Wetzel	Grant	James A. Yoho	45.88
67	8	8	Wetzel	Grant	Mary Wright, et al.	24.80
68	9	81	Wetzel	Grant	Jozeph Coal Mountain Petrol	114.10
69	9	40	Wetzel	Grant	Donald A. Kennedy Life Estate	8.73
70	9	57	Wetzel	Grant	Leonard E. & Edwin C. Rice	0.25
71	9	58	Wetzel	Grant	Leonard E. & Edwin C. Rice	0.25
72	9	47	Wetzel	Grant	Roger L. & Sharon G. Hinerman	
73	9	40	Wetzel	Grant	Beneficial Homeowning Association	

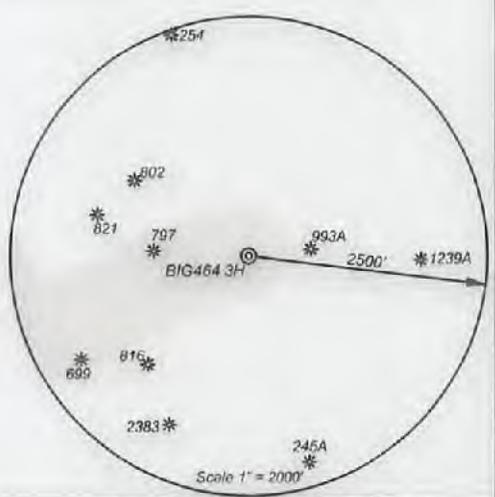


**Notes:**  
BIG464 3H coordinates are  
NAD 27 N: 390,481.01 E: 1,713,389.73  
NAD 27 Lat: 39.567646 Long: -80.516685  
NAD 83 UTM N: 4,379,692.85 E: 541,530.97  
BIG464 3H Landing Point coordinates are  
NAD 27 N: 390,093.54 E: 1,710,810.08  
NAD 27 Lat: 39.568501 Long: -80.525819  
NAD 83 UTM N: 4,379,761.66 E: 540,747.00  
BIG464 3H Bottom Hole coordinates are  
NAD 27 N: 403,288.85 E: 1,702,881.13  
NAD 27 Lat: 39.602475 Long: -80.554492  
NAD 83 UTM N: 4,383,741.40 E: 538,264.37  
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
300645	Carman Lee Allen, et al.	858
712711	Barbara Lynne Matherly, et al.	108
994540	Dan Coleman, et al.	13
994539	Dan Coleman, et al.	14
125459	Randel J. Hartman, et al.	693
125452	Laveta Jane Higginbotham	25
125457	Kenneth M. Wayman, et al.	55
125481	Ervin Willey and Thomas Willey, et al.	17
125464	Dara J. Cottrell, et al.	19
125453	Bounty Minerals, LLC	17
870118	AMP Fund III, L.P., et al.	26
117641	Frank W. Watson, Jr., et al.	30
125422	Ridgetop Appalachia, LLC, et al.	23
125400	Robert Barry Myers, Jr., et al.	119
125387	Wanda K. Willey, et al.	21
1018118	Wanda K. Willey, et al.	11.31
125489	Shiben Estates, Inc., et al.	46

Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
120	9	45.1	Wetzel	Grant	Dewey & Mary L. Taylor	0.34
124	9	7	Wetzel	Grant	James D. & Collette J. Swets	34.00
125	4	7	Wetzel	Grant	Erl Stonking	45.50
126	4	13	Wetzel	Grant	Oliver M. Utz	15.17
127	9	6	Wetzel	Grant	Mary Wright, et al.	18.60
128	4	11	Wetzel	Grant	Oliver M. Utz	7.80
202	9	14	Wetzel	Grant	Willow Cemetery	0.80



*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. Shuler*

P.S. 2092



FILE NO: 125-16  
DRAWING NO: BIG464 3H  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: January 19 20 22  
OPERATOR'S WELL NO.: BIG464 3H  
API WELL NO. MID  
47 - 103 - 03432  
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'

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



January 21, 2022

Mr. Taylor Brewer  
West Virginia Department of Environmental Protection  
Office of Oil and Gas  
601 57th Street SE  
Charleston, WV 25304

Re: BIG464 3H 6A1 Addendum

Dear Mr. Brewer,

This letter and supporting documentation serve as EQT Production Company's addendum to the WW-6A1 form associated with this well. The lease included on this addendum is a lease in which EQT "claims the right to extract, produce or market the oil or gas", but does not propose to encounter the lease with the proposed wellbore. EQT would like to report this lease as part of our Well Work Permit Application, as it is located within 50' of our proposed permitted wellbore.

If EQT does encounter this lease, an application for a permit modification will be filed with the West Virginia DEP, Office of Oil and Gas.

If you have any questions, please do not hesitate to contact me at 724-746-9073.

Sincerely,

A handwritten signature in blue ink, appearing to read 'John Zavatchan'.

John Zavatchan  
Project Specialist - Permitting

Enc.

02/11/2022

WW-6A1 attachment

Operator's Well No.

Big464 3H

<u>Lease No.</u>	<u>Grantor, Lessor, etc.</u>		<u>Grantee, Lessee, etc.</u>	<u>Royalty</u>	<u>Book/Page</u>
<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>300645</u>	<u>Carman Lee Allen, et al.</u> J. M. Allen & Eliza Allen, his wife  Z. T. Francis Clinton D. Greenlee and Clara M. Greenlee, his wife, and Bernard Forst and Jennie Forst, his wife Joseph Hartman, Joseph Hartman, Jr., and Patrick Gallagher, individually and dba Hartman Oil Company South Penn Oil Company Hope Natural Gas Company Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Eastern States Oil & Gas, Inc. Blazer Energy Corp. Eastern States Oil & Gas, Inc. Eastern States, Inc. Equitable Production-Eastern States, Inc. Equitable Production Company	858 ac	Z. T. Francis C. D. Greenlee, Joseph Hartman, B. Forst, Joseph Hartman, Jr., and Patrick Gallagher Joseph Hartman, Joseph Hartman, Jr., and Patrick Gallagher  South Penn Oil Company Hope Natural Gas Company Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Eastern States Oil & Gas, Inc. Blazer Energy Corp. Eastern States Oil & Gas, Inc. Eastern States, Inc. Equitable Production-Eastern States, Inc. Equitable Production Company EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 39/222  DB 39/248 DB 47/112  DB 79/216 DB 91/8 DB 233/387 OG 66A/69 Corp. Book 13/151 OG 76A/232 Corp. Book 12/253 Corp. Book 12/259 WV SOS WV SOS WV SOS Corp. Book 13/14
	<u>Barbara Lynne Metheny, et al.</u>			"at least 1/8th per WV Code 22-6-8"	

<b>712711</b>	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	OG 20A/493 OG 78A/513 WV SOS
				*at least 1/8th per WV Code 22-6-8"
<b>994540</b>	<b><u>Dan Coleman, et al.</u></b> Dan Coleman, in his own right	13 ac	EQT Production Company	OG 144A/5
				*at least 1/8th per WV Code 22-6-8"
<b>994539</b>	<b><u>Dan Coleman, et al.</u></b> Dan Coleman, in his own right	14 ac	EQT Production Company	OG 144A/1
				*at least 1/8th per WV Code 22-6-8"
<b>125459</b>	<b><u>Randel J. Hartman, et al.</u></b> 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. Statoil 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	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. 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 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 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"
<b>125452</b>	<b><u>Lavena Jane Higginbotham</u></b> 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.	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	OG 52A/435 OG 64A/442 OG 72A/368 Corp. 12/622 DB 402/446 OG 97A/578 WV SOS OG 157A/540

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

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

OG 158A/801  
Corp. 13/296  
OG 177A/533  
OG 177A/738  
Corp. 13/311  
OG 228A/1 & 231A/158

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

**125457**

**Kenneth M. Wayman, et al.**

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\*

**125461**

**Ervin Willey and Thelmas Willey, et al.**

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

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

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

<b>870118</b>	Glen Kiger, a widower Drilling Appalachian Corporation Grenadier Energy Partners, LLC Drilling Appalachian Corporation Statoil USA Onshore Properties, Inc., et al	26 ac	Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties, Inc. Statoil USA Onshore Properties, Inc. EQT Production Company	OG 77A/445 OG 118A/108 & 136A/538 OG 138A/1 OG 138A/54 OG 175A/707
---------------	--	-------	--	--

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

<b><u>Frank W. Watson, Jr., et al.</u></b>				
<b>117641</b>	Roxie Brookover, widow: et al Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC and EQT Corporation Equitrans, LP	30 ac	Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC Equitrans, LP EQT Production Company	47A/145 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\*

<b><u>Ridgetop Appalachia, LLC, et al.</u></b>				
<b>125422</b>	Mildred M. Hunt, widow, et al Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC and EQT Corporation Equitrans, LP	23 ac	Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC Equitrans, LP EQT Production Company	OG 52A/377 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\*

<b><u>Robert Barry Myers, Jr., et al.</u></b>				
<b>125400</b>	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

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

**Wanda K. Willey, et al.**

Antero Resources Corporation

EQT Production Company

OG 269A/533

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

**Dara J. Cottrell, et al.**

**125464**

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

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

**Bounty Minerals, LLC**

**125453**

Adda M. Sole, widow  
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 52A/428  
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"

**AMP Fund III, L.P., et al.**

<b><u>125387</u></b>	Hursel Willey and Anna L. Willey, his wife, et al Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC and EQT Corporation Equitrans, LP	21 ac	Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC Equitrans, LP EQT Production Company	OG 52A/185 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"
<b><u>1018118</u></b>	<b><u>Wanda K. Willey, et al.</u></b> Hursel Lee Willey, in his own right	11.31 ac	EQT Production Company	OG 185A/368
				*at least 1/8th per WV Code 22-6-8"
<b><u>125489</u></b>	<b><u>Shiben Estates, Inc., et al.</u></b> 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

WW-6A1 addendum attachment

Operator's Well No.

BIG464 3H

<u>Lease No.</u>	<u>Grantor, Lessor, etc.</u>		<u>Grantee, Lessee, etc.</u>	<u>Royalty</u>	<u>Book/Page</u>
<u>125494</u>	<u>Melinda Debner, et al.</u> Ethel U. Haught Ott, widow, et al. Equitable Gas Company Equitrans, Inc. EQT Capital Corporation Equitable Resources, Inc. Equitable Gas Company, LLC and EQT Corporation Equitrans, LP	8 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 53A/458 OG 71A/453 Corp. 13/213 Corp. 13/213 Corp. 13/230 Misc. 105/908 OG 131A/81

**BIG464 3H**  
**EQT Production Company**  
**"Detail of 3H Proposed Well Bore"**



Lease No.  
1018118

Lease No.  
125494

1.10'

*Proposed Well Bore*



Scale: 1 Inch = 100 Feet

Birch River Office  
 Phone: (304) 649-8606  
 Fax: (304) 649-8608



237 Birch River Road  
 Birch River, WV 26610  
 www.allegheynysurveys.com

PARTY CHIEF: NA

DRAWING NO: 3H Well Bore Detail.dwg

RESEARCH: NA

PROJECT NO: 125-34-G-16

SURVEYED: NA

PREPARED: December 17, 2021

FIELD CREW: NA

Sheet 1 of 1

DRAWN BY: Tim Rutledge



Stansberry, Wade A &lt;wade.a.stansberry@wv.gov&gt;

**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 &lt;JZavatchan@eqt.com&gt;, Todd &lt;tklaner@eqt.com&gt;, "Shrum, Becky" &lt;bshrum@eqt.com&gt;, Olivia Pishioneri &lt;opishioneri@eqt.com&gt;, Erin Spine &lt;espine@eqt.com&gt;, "Harris, Bryan O" &lt;bryan.o.harris@wv.gov&gt;, Scott Lemley &lt;slemley@wvassessor.com&gt;

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](mailto: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**  
1655K
-  **47-103-03436 - mod.pdf**  
1664K
-  **47-103-03437 - Copy.pdf**  
1556K
-  **47-103-03432 - mod.pdf**  
1664K

**02/11/2022**