



west virginia department of environmental protection

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

Jim Justice , Governor
Austin Caperton , Cabinet Secretary
www.dep.wv.gov

Friday, March 03, 2017
WELL WORK PERMIT
Horizontal 6A / Horizontal 6A Well - 1

EQT PRODUCTION COMPANY (A)
120 PROFESSIONAL PLACE
BUILDING II
BRIDGEPORT, WV 26330

Re: Permit approval for 516214
47-085-10260-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

Operator's Well Number: 516214
Farm Name: SMITH, CHRISTA J.
U.S. WELL NUMBER: 47-085-10260-00-00
Horizontal 6A / Horizontal 6A Well - 1
Date Issued: 3/3/2017

Promoting a healthy environment.

03/03/2017

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. The operator shall install noise barriers during drilling and completion activities.
3. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
4. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
5. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
6. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
7. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
8. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
9. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
10. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
11. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

PERMIT CONDITIONS

12. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.



west virginia department of environmental protection

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

Jim Justice, Governor
Austin Caperton, Cabinet Secretary
www.dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: EQT Production Company
115 Professional Place P.O. Box 280
Bridgeport WV, 26330

DATE: March 2, 2017
ORDER NO.: 2017-W-2

INTRODUCTION

This Order (hereinafter “Order”) is issued by the Office of Oil and Gas (hereinafter “OOG”), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to EQT Production Company (hereinafter “EQT” or “Operator”), collectively the “Parties.”

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. EQT is a “person” as defined by W. Va. Code §22-6-1(n), with a corporate address as 115 Professional Place, P.O. Box 280, Bridgeport, West Virginia.
3. On October 2, 2015, EQT submitted well work permit applications identified as API#s 47-085-10258, 47-085-10259, 47-085-10260, 47-085-10261, 47-085-10262, 47-085-10263 and 47-085-10264. The proposed wells are to be located on the PUL 97 Pad in Clay District of Ritchie County, West Virginia.
4. On October 2, 2015, EQT requested a waiver for Wetland WL-1 and Wetland WL-3 outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API# 47-085-10258, 47-085-10259, 47-085-10260, 47-085-10261, 47-085-10262, 47-085-10263 and 47-085-10264.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “[i]n addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the Office of Oil and Gas shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The Office of Oil and Gas may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary.”

ORDER

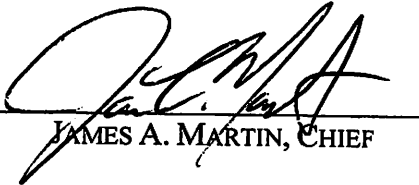
West Virginia Code §22-6A-12(b) requires, in part, that “[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for Wetland WL-1 and Wetland WL-3 from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API#s 47-085-10258, 47-085-10259, 47-085-10260, 47-085-10261, 47-085-10262, 47-085-10263 and 47-085-10264. The Office of Oil and Gas hereby **ORDERS** that EQT shall meet the following site construction and operational requirements for the PUL 97 well pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least a twenty four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetland WL-1 shall have a compost sock sediment trap (three socks stacked in pyramidal form) that will prevent any sediment from reaching the wetland or stream from the well pad and adjacent tank pad.
- d. Wetland WL-3 shall have both a layer of 32” compost filter sock and a layer of 18” compost filter sock that will prevent any sediment from reaching the wetland or stream from the well pad and adjacent tank pad.
- e. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- f. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- g. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- h. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- i. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- j. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- k. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- l. All records from inspections shall be maintained on site for the life of the project and be available upon request.

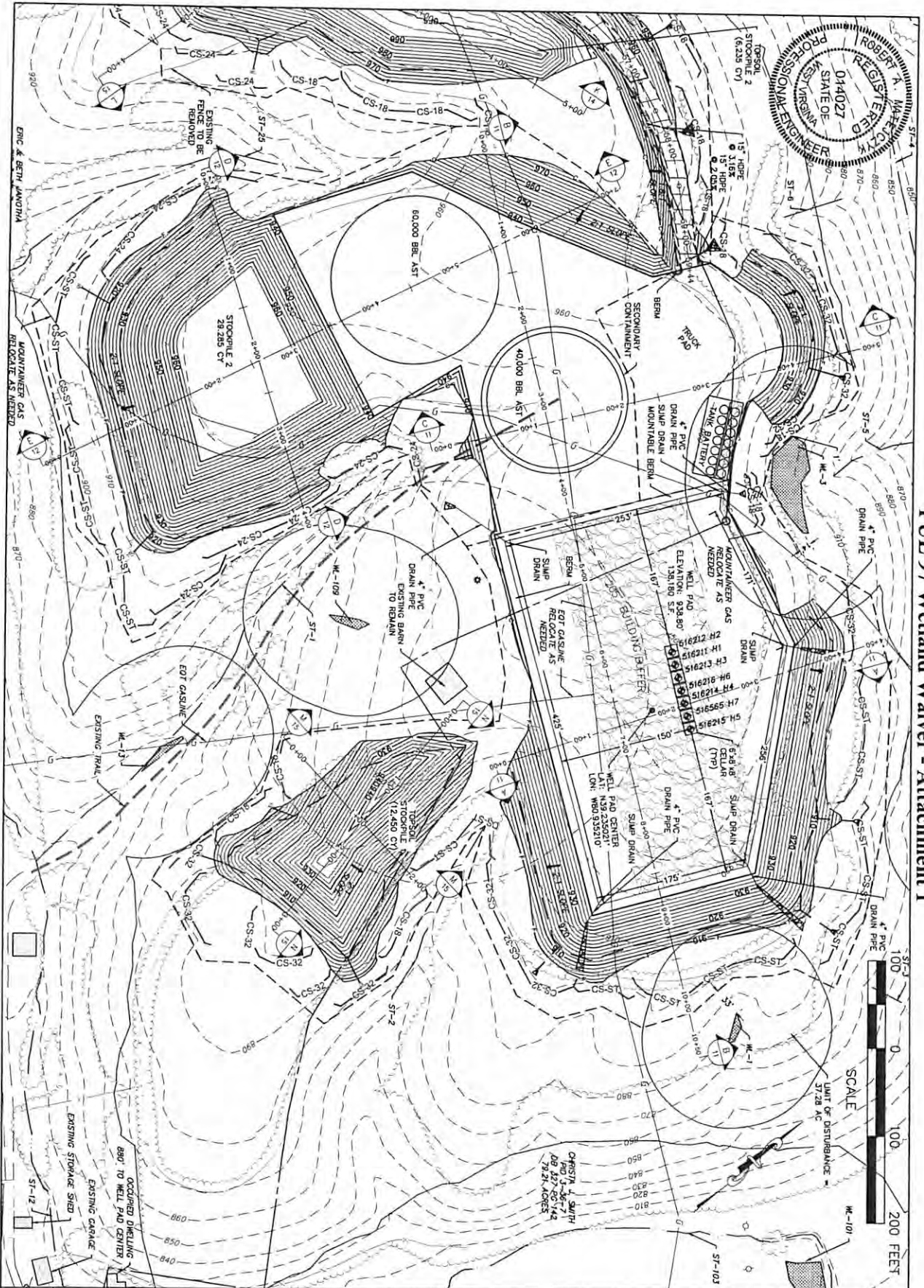
Thus ORDERED, the 2nd day of March, 2017.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: 
JAMES A. MARTIN, CHIEF

PUL 97 Welland Waiver - Attachment 1



<p>SHEET NO. 9 OF 41</p> <p>PROJECT NO. 7936-002</p>		<p>SITE LAYOUT</p> <p>EOT PUL 97 WELL SITE</p> <p>CLAY DISTRICT, FITCHE COUNTY, WEST VIRGINIA</p>		<p>Larson Design Group • Architects Engineers Surveyors</p> <p>2502 Cranberry Square Morgantown, WV 26508 PHONE 304.777.2940 TOLL FREE 877.323.6603 FAX 570.323.6603 • www.larsondesigngroup.com</p>		<p>DATE ISSUE / REVISIONS BY CHK</p> <p>5/11/25/15 REPLACE PITS WITH AST JWO RAM</p> <p>4/8/24/2015 FINAL SITE DESIGN JWO RAM</p> <p>3/5/1/2015 FINAL SITE DESIGN JWO RAM</p> <p>2/8/31/2015 FINAL SITE DESIGN JWO RAM</p> <p>1/6/8/2015 FINAL SITE DESIGN JWO BWP</p> <p>NO DATE COMMENTS BY CHK</p>		<p>CHRISTINA SMITH 08.527.00144 79.24 ACRES</p> <p>SCALE UNIT OF DISTURBANCE - 5728 AC</p> <p>Larson Design Group</p>	
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03/03/2017

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

1) Well Operator: EQT Production Company 306686 Ritchie Clay Pullman
Operator ID County District Quadrangle

2) Operator's Well Number: 516214 Well Pad Name: PUL97

3) Farm Name/Surface Owner: Christa J. Smith Public Road Access: ST RT 74

4) Elevation, current ground: 945.0 Elevation, proposed post-construction: 938.8

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

(b) If Gas Shallow Deep _____
Horizontal _____

Michael Goff
1/24/17

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 6203, 50, 2190, Top of Marcellus 6183

8) Proposed Total Vertical Depth: 6203

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 14069

11) Proposed Horizontal Leg Length: 6973

12) Approximate Fresh Water Strata Depths: 46, 74, 177, 273

13) Method to Determine Fresh Water Depths: By offset wells

14) Approximate Saltwater Depths: N/A

15) Approximate Coal Seam Depths: 248, 550

16) Approximate Depth to Possible Void (coal mine, karst, other): None reported

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: _____

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Environmental Protection
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WW-6B
(04/15)

API NO. 47-85 - 10260
 OPERATOR WELL NO. 516214
 Well Pad Name: PUL97

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	20	New	A-500	78.6	40	40	60 ft ³ /CTS
Fresh Water	13 3/8	New	J-55	54.5	605	605	581 ft ³ /CTS
Coal	-	-	-	-	-	-	
Intermediate	9 5/8	New	A-500	40	2250	2250	888 ft ³ /CTS
Production	5 1/2	New	P-110	20	14069	14069	500' above top producing zona
Tubing	2 3/8		J-55	4.6			May not be run, if set 100' from TD.
Liners							

*MBC
1/22/17*

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	20	26	.375	-	18	Class A	1.18
Fresh Water	13 3/8	17 1/2	.38	2730	2184	See Variance 2014-17	1.19
Coal							
Intermediate	9 5/8	12 3/8	.395	3950	3160	See Variance 2014-17	1.19
Production	5 1/2	8 1/2	.361	12640	10112	-	1.07/1.86
Tubing							
Liners							

PACKERS

Kind:	N/A			
Sizes:	N/A			
Depths Set:	N/A			

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Environmental Protection

03/03/2017

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 to an approximate depth of 3863'. 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:

*MDC
1/24/17*

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 0.3%) of chemicals (including 15% Hydrochloric acid, gelling agent, gel breaker, 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 10000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 200,000 barrels of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 200,000 pounds of sand per stage.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 37.28

22) Area to be disturbed for well pad only, less access road (acres): 14.82

23) Describe centralizer placement for each casing string:

- Surface: Bow spring centralizers – One at the shoe and one spaced every 500'.
- Intermediate: Bow spring centralizers– One cent at the shoe and one spaced every 500'.
- Production: One solid body cent 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 (Type 1 Cement): 0-3% Calcium Chloride Used to speed the setting of cement slurries, .25% Flake Loss Circulation Material (LCM) is used to combat the loss of the cement slurry to a thief zone.
 Intermediate (Type 1 Cement): 0-3% Calcium Chloride. Salt is used in shallow, low temperature formations to speed the setting of cement slurries. 0.25% flake, Loss Circulation Material (LCM) is used to combat the loss of whole drilling fluid or cement slurry (not filtrate) to a thief zone.
 Production:
 Lead (Type H Cement): 0.2% CD-20 (dispersant makes cement easier to mix). .15% SuperFL-300 (fluid loss/lengthens thickening time) .15% SEC-10 (fluid loss) 50:50 POZ (extender)
 Tail (Type H Cement): 0.2% Super CR-1 (Retarder). Lengthens thickening time. .3% Super FL-200 (fluid loss) .2% SEC-10 (Fluid loss). .2% SuperFL-350 (fluid loss) Reduces amount of water lost to formation.
 60 % Calcium Carbonate. Acid solubility.

25) Proposed borehole conditioning procedures:

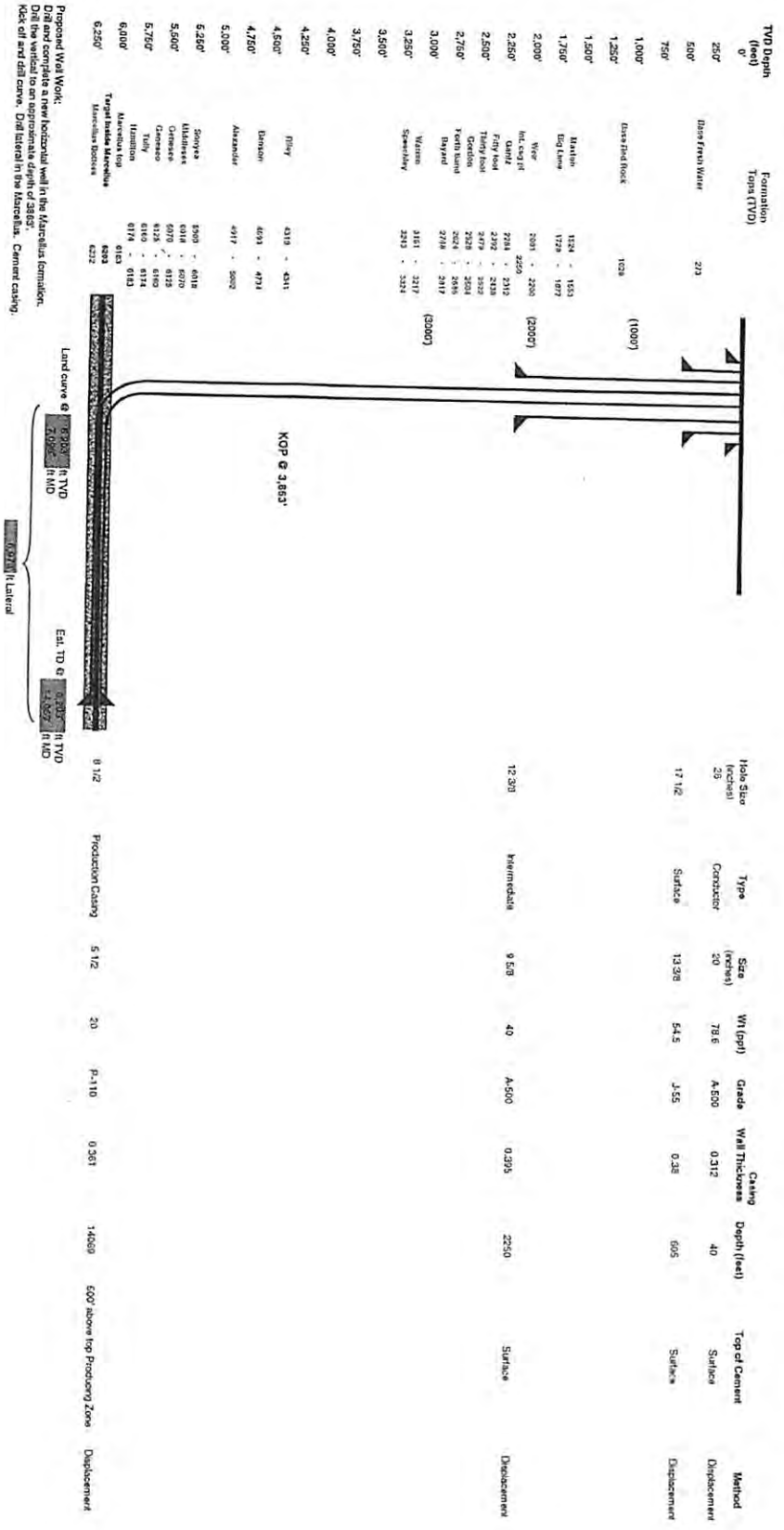
Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
 Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
 Production: Pump marker sweep with nut plug to determine actual hole washout. Calculate a gauge holes bottoms up volume. Perform a cleanup cycle by pumping 3-5 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.

470 85 10 2 6 0

Well: 510234 (PUL974)
 ECI Production
 Miller
 West Virginia

Pad Name
 Aerial
 Vertical Section



L/1/18/1
 GAW
 MAC

03/03/2017

470 85.10260

EQT Production
Hydraulic Fracturing Monitoring Plan
Pad ID: PUL97
Ritchie County, WV

1/9/17

470 85.10260

EQT Production
Hydraulic Fracturing Monitoring Plan
Pad ID: PUL97
Ritchie County, WV

1/9/17

Purpose

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operators near EQT hydraulic fracturing in Ritchie County, WV prior to hydraulic fracturing at the following EQT wells on PUL97 pad: 516211, 516212, 516213, 516214, 516215, 516216, 516565.

Due to the requirements under 35CSR8 5.11, the permittee is required to review the area surrounding the proposed well pad so as to identify and evaluate potential conduits for unintended fracture propagation. A report is required to be submitted along with a well work permit application.

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

1. Communications with Well Operators

EQT, using available data (WV Geological Survey, WVDEP website, and IHS data service), has identified all known wells and well operators within 1,500 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**.

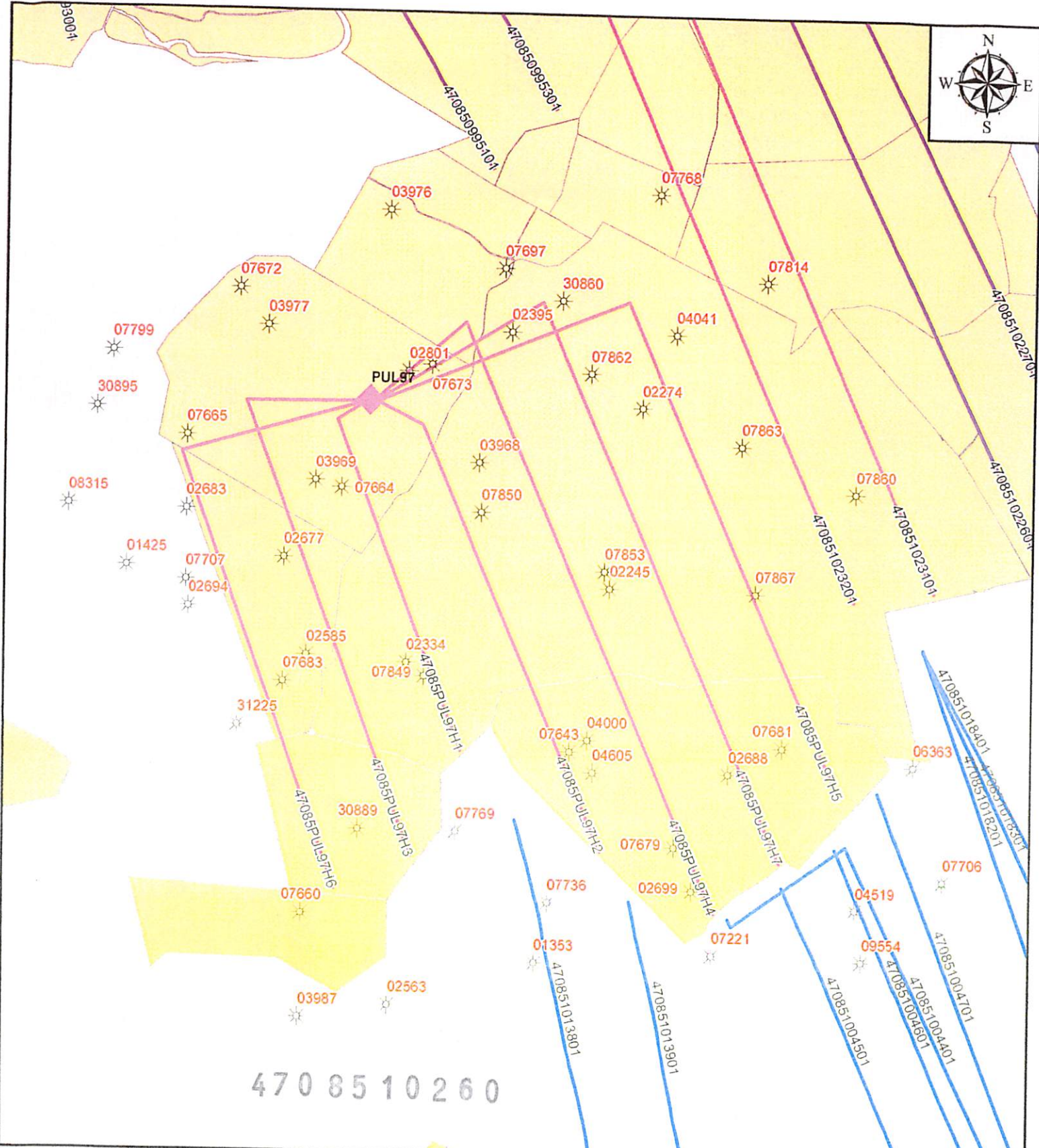
EQT will notify these operators of the hydraulic fracturing schedule for these wells, and coordinate with them throughout the fracturing process.

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.



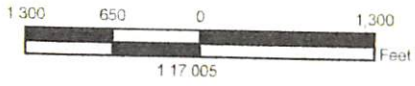
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EQT EQT Corporation
625 Liberty Avenue
Pittsburgh, PA 15222

PUL97 Offset Wells

Vertical Offsets and
Foreign Laterals
within 500'

- Legend
- PUL97 Offset Well
 - Concession Bound
 - Major Run Pipe
 - Midline Pipe
 - U-tube Pipe
 - GEHEBRO
 - MARCELLUS
 - WICKLEBORG
 - POINTS EASTMAN
 - UTICA
 - Active Status (Enerthal)
 - Active



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.



Attachment A (i)

4700510260

WellID	WellStatus	date	FmatTD	Permit	Operator	Longitude	Latitude	TargetElev	DatumEleva	SS Depth	TD	Distance form Pad to
4708501353	GAS-P	10/16/1951		01353	GUS MILLER	80 9289	39 2183		1104.0000	998.0000	2102.0000	6368.67
4708501425	DRY	9/30/1952		01425	G L DUDLEY	80 9449	39 2300		993.0000	-1029.0000	2022.0000	3229.28
4708502245	GAS	10/26/1960		02245	T F HODGE	80 9261	39 2295		1149.0000	-896.0000	2045.0000	3335.74
4708502274	GAS	1/22/1961	LOWER HURON SHALE	02274	T F HODGE	80 9249	39 2349		872.0000	-1532.0000	2404.0000	3001.81
4708502334	GAS	5/10/1961		02334	T F HODGE	80 9340	39 2272		838.0000	-1455.0000	2293.0000	2879.38
4708502395	GAS-P	8/11/1961		02395	T F HODGE	80 9300	39 2371		908.0000	-1056.0000	1964.0000	1731.40
4708502563	DRY	8/31/1962		02563	REBEL HILL OIL & GAS	80 9346	39 2170		1010.0000	-1005.0000	2015.0000	6566.49
4708502585	GAS	10/16/1962		02585	OIL STATES SALES	80 9379	39 2274		828.0000	-1040.0000	1868.0000	2857.07
4708502677	GAS	1/6/1963		02677	PETROLEUM DRILLING	80 9388	39 2303		821.0000	-1048.0000	1869.0000	1956.75
4708502683	GAS	2/15/1963		02683	PETROLEUM DRILLING	80 9426	39 2317		890.0000	-1015.0000	1905.0000	2346.24
4708502688	GAS	3/2/1963		02688	OIL STATES SALES	80 9214	39 2240		953.0000	-1101.0000	2054.0000	5660.97
4708502694	GAS	4/19/1963		02694	PETROLEUM DRILLING	80 9425	39 2288		960.0000	-1027.0000	1987.0000	3010.13
4708502699	GAS	5/1/1963		02699	OIL STATES SALES	80 9228	39 2205		953.0000	-1034.0000	1987.0000	6394.50
4708502801	GAS	10/3/1963		02801	MOUNTAIN STATE	80 9340	39 2359		820.0000	1020.0000	1840.0000	531.59
4708503968	UNK	3/20/1916		03968	MOUNTAIN ST (OLD EQU	80 9312	39 2332		951.0000	-99999.0000	100950.0000	1386.58
4708503969	UNK	6/9/1916		03969	MOUNTAIN ST (OLD EQU	80 9376	39 2326		931.0000	-99999.0000	100930.0000	1063.58
4708503976	P&A	10/14/1917		03976	EQUITRANS	80 9348	39 2407		775.0000	-99999.0000	100774.0000	2076.76
4708503977	GAS	3/8/1918		03977	EPC	80 9395	39 2372		905.0000	-993.0000	1898.0000	1382.62
4708503987	P&A	10/22/1919		03987	EQUITRANS	80 9381	39 2166		947.0000	-99999.0000	100946.0000	6747.47
4708504000	SWD-P	6/3/1926		04000	EPC	80 9269	39 2250		1138.0000	-99999.0000	101137.0000	4398.66
4708504041	GAS	10/5/1978		04041	MURVIN OIL	80 9236	39 2371		950.0000	1556.0000	2506.0000	3453.43
4708504519	GAS	2/24/1980	RHINESTREET SHALE	04519	HAUGHT	80 9164	39 2200		1066.0000	-4840.0000	5906.0000	7692.16
4708504605	UNK	10/17/1980		04605	PETROLEUM DRILLING	80 9267	39 2240		1140.0000	-99999.0000	101139.0000	4723.74
4708506363	O&G	12/7/1984		06363	BIG A OIL	80 9142	39 2243		890.0000	-4313.0000	5203.0000	7184.76
4708507221	GAS	8/5/1985		07221	STALNAKER ENERGY	80 9220	39 2186		978.0000	-4357.0000	5335.0000	7096.79
4708507643	GAS	5/28/1987	RHINESTREET SHALE	07643	ECA	80 9276	39 2246		1097.0000	-4523.0000	5620.0000	4404.87
4708507660	GAS	7/24/1987		07660	ECA	80 9380	39 2197		961.0000	-4220.0000	5181.0000	5623.26
4708507664	GAS	8/17/1987		07664	E A E	80 9366	39 2324		922.0000	-4291.0000	5213.0000	1004.16
4708507665	GAS	8/22/1987		07665	ECA	80 9426	39 2339		1043.0000	-4203.0000	5246.0000	2051.52
4708507672	GAS	11/23/1988		07672	ECA	80 9406	39 2383		1015.0000	-4187.0000	5202.0000	1873.43
4708507673	GAS	9/15/1987		07673	ECA	80 9331	39 2361		894.0000	-4197.0000	5091.0000	784.77
4708507679	GAS	9/20/1987		07679	ECA	80 9235	39 2218		1052.0000	-4286.0000	5338.0000	5892.52
4708507681	GAS	10/31/1988		07681	ECA	80 9194	39 2248		1063.0000	-4278.0000	5341.0000	5907.29
4708507683	GAS	9/29/1987		07683	ECA	80 9388	39 2266		954.0000	-5722.0000	6676.0000	3205.56
4708507697	GAS	10/11/1987		07697	E A E	80 9303	39 2390		787.0000	-4298.0000	5085.0000	2065.33
4708507706	GAS	10/30/1987		07706	BET RO	80 9130	39 2209		1083.0000	-4224.0000	5307.0000	8187.47
4708507707	GAS	8/19/1988		07707	ECA	80 9426	39 2296		1045.0000	-4205.0000	5250.0000	2817.64
4708507736	GAS	11/5/1988		07736	ECA	80 9284	39 2201		918.0000	-4282.0000	5200.0000	5793.00
4708507768	GAS	6/12/1988		07768	ECA	80 9243	39 2413		1042.0000	-3562.0000	4604.0000	3909.13
4708507769	GAS	8/27/1988		07769	ECA	80 9320	39 2222		1121.0000	-4254.0000	5375.0000	4772.36
4708507799	GAS	8/16/1988		07799	BEACON	80 9455	39 2364		1020.0000	3614.0000	4634.0000	2875.66
4708507849	GAS	7/30/1989		07849	E A E	80 9333	39 2268		923.0000	-4217.0000	5140.0000	3057.65
4708507850	GAS	7/12/1989		07850	ECA	80 9311	39 2317		984.0000	4216.0000	5200.0000	1736.43
4708507853	GAS	7/22/1989		07853	ECA	80 9263	39 2300		1082.0000	-4239.0000	5321.0000	3182.76
4708507862	GAS	8/27/1989		07862	ECA	80 9269	39 2359		935.0000	3873.0000	4808.0000	2456.04

Attachment A (2)

470 85 10 200

4708507863 GAS	9/8/1989	07863	ECA	80.9210	39.2338	922.0000	-3612.0000	4534.0000	4129.87
4708507867 GAS	10/14/1989	07867	ECA	80.9204	39.2294	879.0000	-4317.0000	5196.0000	4740.54
4708508315 GAS	4/29/1994	08315	E A E	80.9472	39.2318	1022.0000	-4178.0000	5200.0000	3514.58
4708509554 GAS	8/25/2008	09554	KEY OIL	80.9161	39.2185	1150.0000	-4310.0000	5460.0000	8149.81
4708530860 GAS	2/8/1917	30860	PGH & WV GAS	80.9280	39.2381	790.0000	-1026.0000	1816.0000	2381.88
4708530889 GAS	8/5/1920	30889	PGH & WV GAS	80.9358	39.2222	1.0000	-1984.0000	1985.0000	4662.01
4708530895 GAS	10/7/1924	30895	PGH & WV GAS	80.9461	39.2347	1.0000	-2000.0000	2001.0000	3006.33
4708531225 GAS	11/12/1917	31225	EPC	80.9406	39.2253	988.0000	-1027.0000	2015.0000	3825.41
4708507814 GAS	10/22/1988	07814	ECA	80.9201	39.2387			4452.0000	4571.26
4708507860 GAS	9/15/1989	07860	ECA	80.9165	39.2324			4452.0000	5456.40

Attachment A (3)

03/03/2017

470 85 10 260



west virginia department of environmental protection

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

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
dep.wv.gov

March 18, 2014

Nabors Completion & Production Services Company
1380 Route 286 Hwy E #121
Indiana PA 15701

Re: Cement Variance Request

Dear Sir or Madam,

This agency is approving a variance request for the cement blend listed below to be used on surface and coal protection strings for the drilling of oil and gas wells in the state of West Virginia. The variance cannot be used without requesting its use on a permit application and approval by this agency:

- Type 1 (2% Calcium Chloride-Accelerator, 0.25% Super Flake-Lost Circulation, 5.2% Water, 94% Type "I" Cement)

If you have any questions regarding this matter feel free to contact me at 304-926-0499, ext. 1653.

Sincerely,

James Peterson
Environmental Resources Specialist / Permitting

Promoting a healthy environment.

03/03/2017

470 85 10260



west virginia department of environmental protection

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

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
dep.wv.gov

**BEFORE THE OFFICE OF OIL AND GAS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OF WEST VIRGINIA**

IN THE MATTER OF A VARIANCE FROM) ORDER NO. 2014 - 17
REGULATION 35 CSR § 4-11.4/11.5/14.1)
AND 35 CSR § 8-9.2.h, 4/5/6/8 OF THE)
THE OPERATIONAL)
REGULATIONS OF CEMENTING OIL)
AND GAS WELLS)

REPORT OF THE OFFICE

Nabors Completion & Production Services Co. requests approval of a different cement blend for use in cementing surface and coal protection casing of oil and gas wells.

FINDINGS OF FACT

- 1.) Nabors Completion & Production Services Co. proposes the following cement blend:
 - 2% Calcium Chloride (Accelerator)
 - 0.25 % Super Flake (Lost Circulation)
 - 94% Type "1" Cement
 - 5.20 % Water

- 2.) Laboratory testing results indicate that the blend listed in Fact No.1 will achieve a 500 psi compressive strength within 6 hours and a 2,435 psi compressive strength within 24 hours.

Promoting a healthy environment.

03/03/2017

4708510260

CONCLUSIONS OF LAW

Pursuant to Articles 6 and 6A, Chapter 22 of the Code of West Virginia, the Office of Oil and Gas has jurisdiction over the subject matter embraced in said notice, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

Pursuant to 35 CSR § 4-11.5 and 35 CSR § 8-9.2.h.8 the Chief of the Office of Oil and Gas may approve different cement blends upon the well operator providing satisfactory proof that different cement types are adequate.

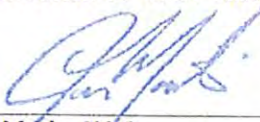
ORDER

It is ordered that Nabors Completion & Production Services Co. may use the cement blend listed in Findings of Fact No.1 for the cementing of surface and coal protection casing of oil and gas wells in the State as may be requested by oil and gas operators. The waiting time on the cement blend shall be 8 hours. The cement blend shall be mixed in strict accordance with the specifications for each blend and weight measurements made on-site to assure the cement slurries meet the minimum weight specifications. A sample shall be collected and, if after 8 hours the cement is not set up, additional time will be required. Nabors Completion & Production Services Co. shall keep a record of cement blend jobs in which the cement blend approved under this order is to be used and made available to the Office of Oil and Gas upon request.

Dated this, the 18th day of March, 2014.

IN THE NAME OF THE STATE OF WEST VIRGINIA

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



James Martin, Chief
Office of Oil and Gas

03/03/2017

WW-9
(2/15)

API Number 47 - 85 - 10260
Operator's Well No. 518214

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EQT Production Company OP Code 306686

Watershed (HUC 10) North Fork Hughes River Quadrangle Pennsboro

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: n/a

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number 0014, 8462, 4037)
- Reuse (at API Number Various)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? If so, describe: Yes, The closed loop system will remove drill cuttings from the drilling fluid. The drill cuttings are then prepared for transportation to an off-site disposal facility.

*MDC
2/24/17*

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

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

Additives to be used in drilling medium? See Attached

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

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

-Landfill or offsite name/permit number? See Attached List

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature *Victoria J. Roark*

Company Official (Typed Name) Victoria J. Roark

Company Official Title Permitting Supervisor

Subscribed and sworn before me this 24th day of February

Misty S. Christie

My commission expires 2/20/18

RECEIVED
Office of Oil and Gas
OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Misty S. Christie
1207 Briarcliff Rd
Bridgetown, WV 26330
My Commission Expires February 20, 2018

Environmental Protection
03/03/2017

Operator's Well No. 516214

Proposed Revegetation Treatment: Acres Disturbed 45.38 Prevegetation pH 6.2

Lime 3 Tons/acre or to correct to pH 6.5

Fertilize type Granular 10-20-20

4708510260

Fertilizer Amount 13 lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	<u>40</u>	Orchard Grass	<u>15</u>
Alsike Clover	<u>5</u>	Alsike Clover	<u>5</u>
Annual Rye	<u>15</u>		

Attach:
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *David W. Cannon* *Michael Goff*

Comments: *Remove & mulch all cut area / maintain all C&S during operation. Sound dissipating walls need to be constructed around pad.*

Title: *oil & gas inspector* Date: *10-5-15* *1/24/17*

Field Reviewed? () Yes () No

4708510260

WW-9

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

- Air is used to drill the top-hole sections of the wellbore (surface, intermediate, and pilot). Water based mud may be necessary depending on hole conditions to stabilize and drill the intermediate section. The pilot hole, curve, and lateral sections will be drilled with either air, water based mud, or oil based mud.

Additives to be used in drilling medium?

- Air - biodegradable oil lubricant, detergent, defoaming, water. Water based mud – Barite, viscosifer, alkalinity control, lime, filtration control, deflocculates, biodegradable oil lubricant, defoaming, walnut shell, salt, x-cide, carbonates. Oil based mud – synthetic base oil, emulsifier, salt, lime, viscosifer, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant, defoaming, carbonates.

03/03/2017

EQT Production Water plan
Offsite disposals for Marcellus wells

470 85 10260

CWS TRUCKING INC.

P.O. Box 391
Williamstown, WV 26187
740-516-3586
Noble County/Noble Township
Permit # 3390

BROAD STREET ENERGY LLC

37 West Broad Street
Suite 1100
Columbus, Ohio 43215
740-516-5381
Washington County/Belpre Twp.
Permit # 8462

LAD LIQUID ASSETS DISPOSAL INC.

226 Rankin Road
Washington, PA 15301
724-350-2760
724-222-6080
724-229-7034 fax
Ohio County/Wheeling
Permit # USEPA WV 0014

TRIAD ENERGY

P.O. Box 430
Reno, OH 45773
740-516-6021 Well
740-374-2940 Reno Office Jennifer
Nobel County/Jackson Township
Permit # 4037

TRI COUNTY WASTE WATER MANAGEMENT, INC.

1487 Toms Run Road
Holbrook, PA 15341
724-627-7178 Plant
724-499-5647 Office
Greene County/Waynesburg
Permit # TC-1009

KING EXCAVATING CO.

Advanced Waste Services
101 River Park Drive
New Castle, Pa. 16101
Facility Permit# PAR000029132

Waste Management - Meadowfill Landfill

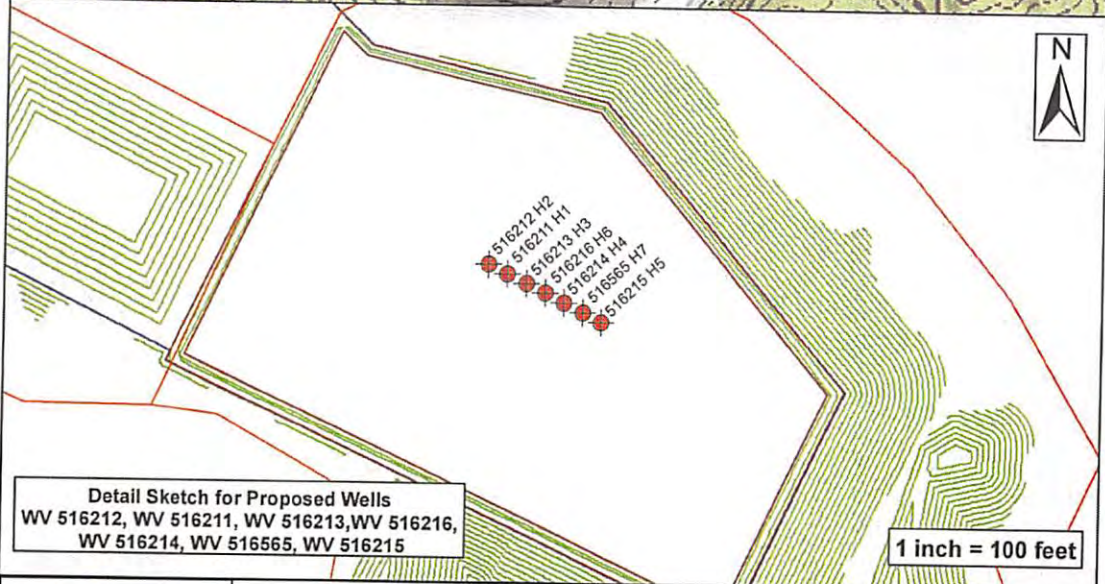
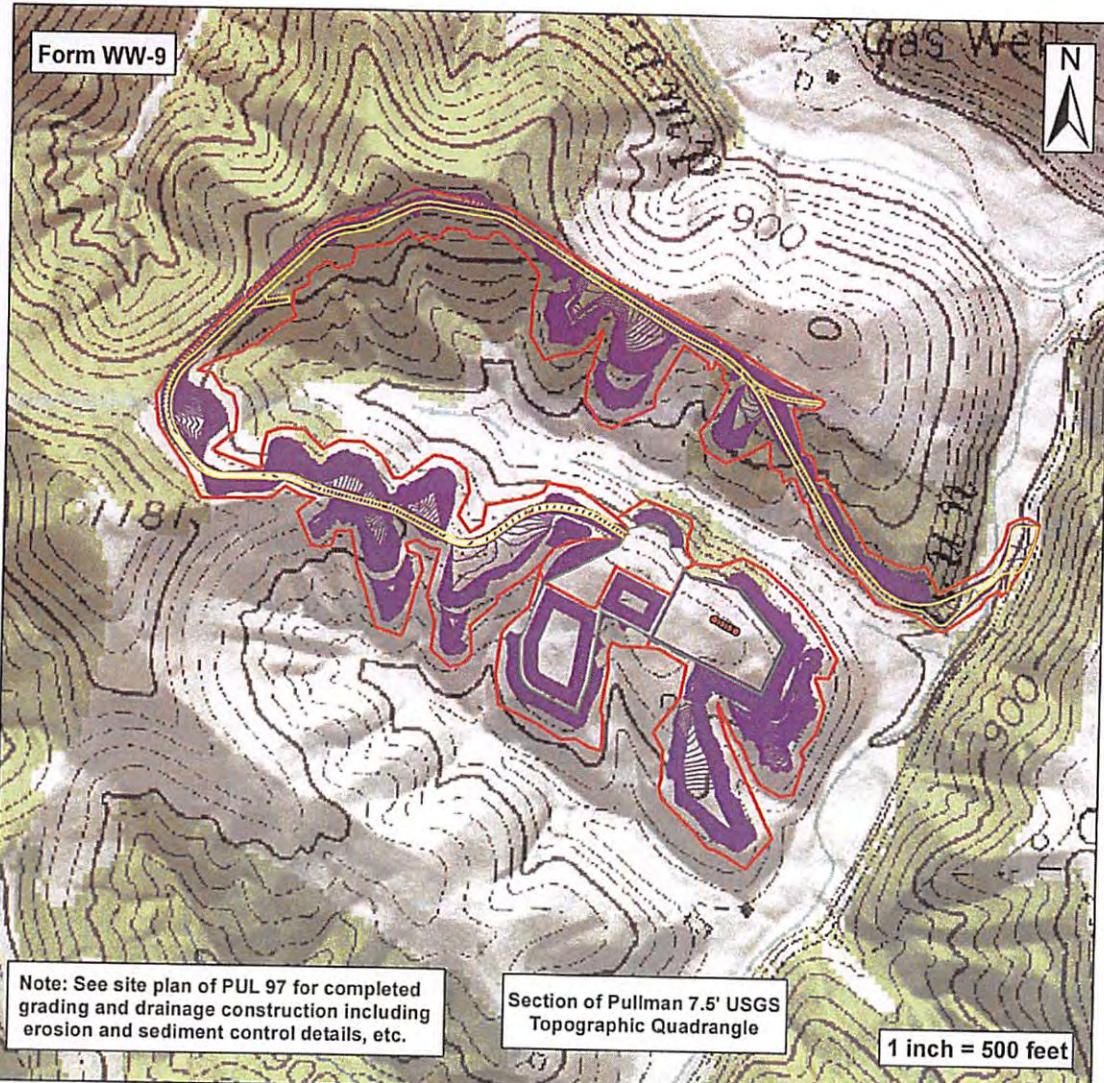
Rt. 2, Box 68 Dawson Drive
Bridgeport, WV 26330
304-326-6027
Permit #SWF-1032-98
Approval #100785WV

Waste Management - Northwestern Landfill

512 E. Dry Road
Parkersburg, WV 26104
304-428-0602
Permit #SWF-1025 WV-0109400
Approval #100833WV

03/03/2017

4708510260



PUL 97 Well Pad
 Well No. WV 516212, WV 516211,
 WV 516213, WV 516216, WV 516214,
 WV 516565, WV 516215
 Clay District, Ritchie County, WV

Date	9/25/2015
Designer	KLS
Project No.	7936-002
Sheet:	1 of 1

Path: P:\793617936-002\DATA\WETLANDS\Reclamation Exhibit\Reclamationmap UPDATED - CopyNew.mxd

03/03/2017



4708510260

Where energy meets innovation.™


Site Specific Safety Plan

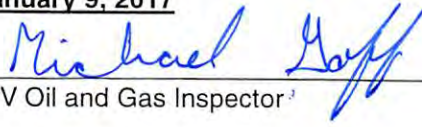
EQT
PUL97 Unit Pad
Pullman
Ritchie County, WV

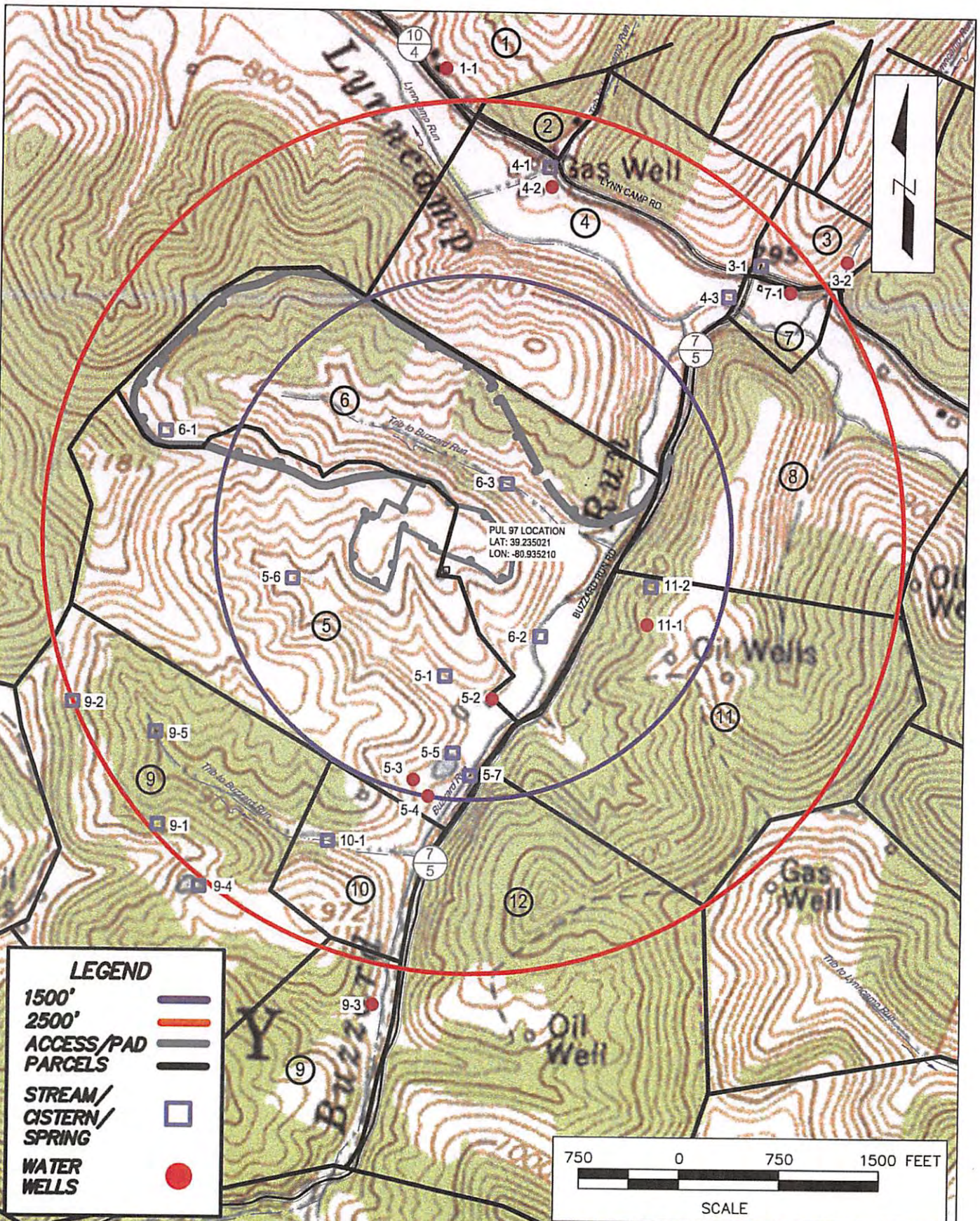
For Wells:

516211 516212 516213 516214 516215 516216 516565

Date Prepared: January 9, 2017


 EQT Production
 Permitting Supervisor
 Title
 1-17-17
 Date


 WV Oil and Gas Inspector
 Title
 1/24/17
 Date



LDG Architects Engineers Surveyors
 2502 CRANBERRY SQUARE •
 MORGANTOWN, WV 26508
 PHONE 304.777.2940
 TOLL FREE 877.323.6603
 FAX 570.323.9902
 www.larsondesigngroup.com

PUL97 WATER PURVEYOR MAP
 PULLMAN QUAD CLAY DISTRICT, FITCHIE COUNTY, WV
EQT CORPORATION
 115 Professional Place, PO Box 280, Bridgeport, WV

DATE: 4/13/2015
 SHEET NO.: 1 of 1
 PROJECT NO.: 7936-002
 SCALE: 1"=750'

03/03/2017

470 85 10 260

EQT PRODUCTION COMPANY
WELL NO. 516214 - Ashley E. Ness, Jr. et al
PAGE 1 OF 2

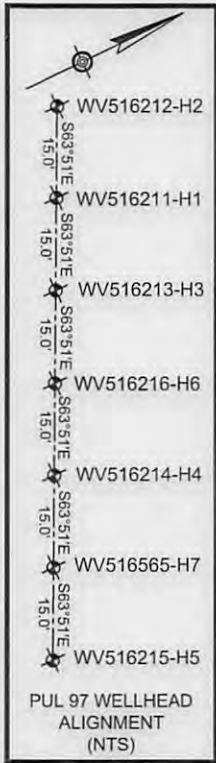
MINERAL OWNERS table with columns: MINERAL OWNERS, AREA (Ac±), LEASE #

PROPERTY TIES table with columns: L1, L2, S32°39'W, N70°29'E, 1529.4', 1158.3'

HORIZONTAL BORE GEOMETRY table with columns: TH - LP, LP - BH, AZ 050.2899°, AZ 157.3458°, 1316.9', 6973.0'

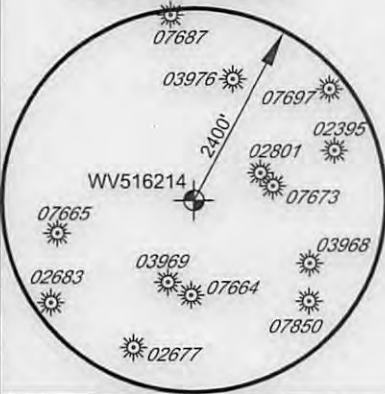
TOTAL HORIZONTAL LENGTH - 9,045'

UTM NAD83 ZONE 17N (METERS) and NAD27 SPC FEET NORTH ZONE and NAD27 GEO LAT(N) LONG(W) tables with columns: TOPHOLE, LANDING PT, BOT HOLE, coordinates



PROPERTIES CROSSED BY BORE table with columns: TAB, OWNER, DISTRICT, TAX MAP #, PARCEL #, ACREAGE

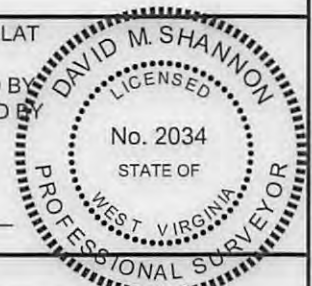
PROPERTIES ADJOINING THOSE CROSSED BY BORE (ABOVE) table with columns: TAB, OWNER, DISTRICT, TAX MAP #, PARCEL #, ACREAGE



FILE NO. 7936-002
DRAWN BY DMS
SCALE 1 INCH = 2000 FEET
MIN DEGREE OF ACCURACY 1 IN 2500
PROVEN SOURCE OF ELEVATION SURVEY GRADE GPS

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 DIVISION OF ENVIRONMENTAL PROTECTION

David M. Shannon
P.S. #2034



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS



OFFICE OF OIL AND GAS
601 57TH STREET
CHARLESTON, WV 25304

DATE 1-5-2017

OPERATORS WELL NO. WV516214
API WELL NO.

47 STATE 085 COUNTY

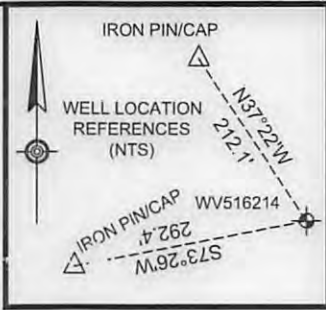
10260 PERMIT #6A

WELL TYPE: OIL [] GAS [x] LIQUID INJECTION [] WASTE DISPOSAL []
IF "GAS", PRODUCTION [x] STORAGE [] DEEP [] SHALLOW [x]
LOCATION: WATERSHED BUZZARD RUN - NORTH FORK HUGHES RIVER ELEVATION (EXIST) 945.0 (PROP) 938.8
COUNTY/DISTRICT RITCHIE COUNTY - CLAY DISTRICT QUADRANGLE PULLMAN - SEC. 2
SURFACE OWNER CHRISTA J. SMITH ACREAGE 69.88 AC (DEED) LEASE# 105410
OIL & GAS ROYALTY OWNER ASHLEY E. NESS JR., ET AL ACREAGE 150 AC
PROPOSED WORK: DRILL [x] CONVERT [] DRILL DEEPER [] REDRILL [] FRACTURE OR STIMULATE [x]
PLUG OFF OLD FORMATION [] PERFORATE NEW FORMATION [] PLUG & ABANDON []
CLEAN OUT & REPLUG [] OTHER CHANGE [] (SPECIFY)
TARGET FORMATION: MARCELLUS ESTIMATED DEPTH 6183
WELL OPERATOR: EQT PRODUCTION COMPANY DESIGNATED AGENT REX C. RAY
ADDRESS 115 PROFESSIONAL PLACE, PO BOX 280 BRIDGEPORT, WV 26330

COUNTY NAME PERMIT

EQT PRODUCTION COMPANY
WELL NO. 516214 - Ashley E. Ness, Jr. et al
PAGE 2 OF 2

- NOTES
1. THERE ARE NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' OF THE PROPOSED WELL.
 2. PERENNIAL STREAM, WETLAND, POND, RESERVOIR OR LAKE - THERE ARE WETLANDS LOCATED WITHIN 100 FEET OF THE PROPOSED PAD, LOD, OR E&S CONTROL. REFER TO WETLAND WAIVER REQUEST ASSOCIATED WITH THIS PERMIT APPLICATION FOR MORE DETAIL.
 3. THERE ARE NO NATIVE TROUT STREAMS WITHIN 300' OF PROPOSED PAD, LOD, OR E&S CONTROL FEATURE.
 4. PROPOSED PAD, LOD, OR E&S CONTROL FEATURE IS GREATER THAN 1000' FROM SURFACE OR GROUND-WATER INTAKE OF PUBLIC WATER SUPPLY.
 5. CENTER OF PAD IS 625 FEET FROM OCCUPIED DWELLING STRUCTURE AND AGRICULTURAL BUILDINGS LARGER THAN 2500 SQUARE FEET.
 6. IT IS NOT THE INTENTION OF THIS PLAT TO REPRESENT A COMPLETE BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON. BOUNDARIES AS SHOWN TAKEN FROM RECORD DEED DESCRIPTIONS, TAX MAPS, AND SUPPLEMENTAL FIELD SURVEY.
 7. OWNERSHIP DATA GATHERED FROM COUNTY PUBLIC TAX AND DEED RECORDS.
 8. LATERAL GEOMETRY BASED ON WEST VIRGINIA SPC NORTH, NAD 27 DATUM



LATITUDE 39°32'30" TH 5271'
LATITUDE 39°32'30" BH 1487'

LEGEND

- OUTER LEASE BOUNDARY
- LEASE BOUNDARY
- SURFACE TRACT LINES
- WELL REFERENCE LINES
- ⊙ - COUNTY ROADS
- PUBLIC ROADS
- BLUE-LINE STREAMS
- ⊗ - PROPOSED WELL
- ☀ - EXISTING WELL
- ▲ - LANDING POINT
- ⊗ - BOTTOM HOLE
- 1 - PROPERTY CROSSED BY BORE
- A - ADJOINER PROPERTY TAB



FILE NO. 7936-002
DRAWN BY DMS
SCALE 1 INCH = 2000 FEET
MIN DEGREE OF ACCURACY 1 IN 2500
PROVEN SOURCE OF ELEVATION SURVEY GRADE GPS

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 DIVISION OF ENVIRONMENTAL PROTECTION

David M. Shannon
P.S. #2034

DAVID M. SHANNON
LICENSED
No. 2034
STATE OF WEST VIRGINIA
PROFESSIONAL SURVEYOR

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

LDG

W.V.D.E.P. OFFICE OF OIL AND GAS
601 57TH STREET
CHARLESTON, WV 25304

DATE 1-5-2017

OPERATORS WELL NO. WV516214
API WELL NO. 47 085 10260H6A
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
IF "GAS", PRODUCTION STORAGE DEEP SHALLOW

LOCATION: WATERSHED BUZZARD RUN - NORTH FORK HUGHES RIVER ELEVATION (EXIST) 945.0 (PROP) 938.8
COUNTY/DISTRICT RITCHIE COUNTY - CLAY DISTRICT QUADRANGLE PULLMAN - SEC. 2
SURFACE OWNER CHRISTA J. SMITH ACREAGE 69.88 AC (DEED) 03/03/2017
OIL & GAS ROYALTY OWNER ASHLEY E. NESS JR., ET AL ACREAGE 150 AC LEASE# 105410

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH 6183

WELL OPERATOR: EQT PRODUCTION COMPANY DESIGNATED AGENT REX C. RAY

ADDRESS 115 PROFESSIONAL PLACE, PO BOX 280 BRIDGEPORT, WV 26330 ADDRESS 115 PROFESSIONAL PLACE, PO BOX 280 BRIDGEPORT, WV 26330

WW-6A1
(5/13)

Operator's Well No. 516214

**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
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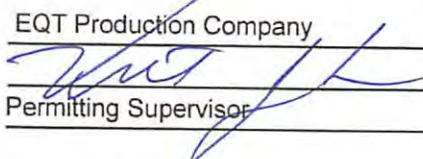
See Attached

**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: 
 Its: Permitting Supervisor

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
105410	<u>Ashley E. Ness Jr., et al (current royalty owner)</u>		**	
	Sarah Wilson, et al (original lessor)	W.A. Flanagan		LB30/176
	W.A. Flanagan	J. L. Newman		LB58/362
	J. L. Newman	The Philadelphia Company of West Virginia		LB58/363
	The Philadelphia Company of West Virginia	Pittsburgh and West Virginia Gas Company		DB55/362
	Pittsburgh and West Virginia Gas Company	Equitable Gas Company		DB 126/473
	Equitable Gas Company	Equitrans, Inc.		LB 201/253
	Equitrans, Inc.	Equitrans, LP.		AB269/182
	Equitrans, LP	Equitable Production/Eastern States, Inc.		DB234/830
	Equitable Production/Eastern States, Inc.	Equitable Production Company		CB6/443
	Equitable Production Company	EQT Production Company		CB6/443
105408	<u>David A. Dorward, et al (current royalty owner)</u>		**	
	W. C. Broadwater & Kate Broadwater, his wife	W.A. Flanagan		LB29/276
	W.A. Flanagan	J. L. Newman		LB58/362
	J. L. Newman	The Philadelphia Company of West Virginia		LB58/363
	The Philadelphia Company of West Virginia	Pittsburgh and West Virginia Gas Company		DB55/362
	Pittsburgh and West Virginia Gas Company	Equitable Gas Company		DB 126/473
	Equitable Gas Company	Equitrans, Inc.		LB 201/253
	Equitrans, Inc.	Equitrans, LP.		AB269/182
	Equitrans, LP	Equitable Production/Eastern States, Inc.		DB234/830
	Equitable Production/Eastern States, Inc.	Equitable Production Company		CB6/443
	Equitable Production Company	EQT Production Company		CB6/443
105675	<u>Orma M. Johnson, et al (current royalty owner)</u>		**	
	E. J. Taylor & Laura Taylor, his wife (original lessor)	J. L. Newman		LB30/149
	J. L. Newman	The Philadelphia Company of West Virginia		LB91/265
	The Philadelphia Company of West Virginia	Pittsburgh and West Virginia Gas Company		DB55/362
	Pittsburgh and West Virginia Gas Company	Equitable Gas Company		DB 126/473
	Equitable Gas Company	Equitrans, Inc.		LB 201/253
	Equitrans, Inc.	Equitrans, LP.		AB269/182
	Equitrans, LP	Equitable Production/Eastern States, Inc.		DB234/830
	Equitable Production/Eastern States, Inc.	Equitable Production Company		CB6/443
	Equitable Production Company	EQT Production Company		CB6/443
118340	<u>Richard Barnard, et al (current royalty owner)</u>		**	
	S. L. Hall & E. P. Hall, his wife (original lessor)	Pittsburgh and West Virginia Gas Company		LB45/421
	Pittsburgh and West Virginia Gas Company	Equitable Gas Company		DB 126/473
	Equitable Gas Company	Equitrans, Inc.		LB 201/253
	Equitrans, Inc.	Equitrans, LP.		AB269/182
	Equitrans, LP	Equitable Production/Eastern States, Inc.		DB234/830
	Equitable Production/Eastern States, Inc.	Equitable Production Company		CB6/443
	Equitable Production Company	EQT Production Company		CB6/443

** We will pay a minimum one-eighth of the total amount paid to or received by or allowed to the owner of the working interest at the wellhead for the oil or gas so extracted, produced, or marketed before deducting the amount to be paid to or set aside for the owner of the oil or gas in place, on all such oil or gas to be extracted, produced, or marketed from the well.



470 85 10 260

February 11, 2016

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

Re: PUL97 well pad
Well numbers 516211, 516212, 516213, 516214, 516215, 516216, 516565
Clay District, Ritchie County

Dear Mr. Martin,

EQT Production Company is submitting an application for a new well work permit for the above well number. Upon information and belief, Operator's lease and/ or other real property rights permit it to conduct drilling operations for the subject well in the location shown on the plat, including under any public roads that the well lateral crosses.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Vicki Roark'.

Vicki Roark
Permitting Supervisor-WV

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION

4708510260

Date of Notice Certification: OCT 01 2015

API No. 47 - 085 - 0
Operator's Well No. 516214
Well Pad Name: PUL97

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	<u>WV</u>	UTM NAD 83 Easting:	<u>505,596.94</u>
County:	<u>Ritchie</u>	UTM NAD 83 Northing:	<u>4,342,869.73</u>
District:	<u>Clay</u>	Public Road Access:	<u>ST RT 74</u>
Quadrangle:	<u>Pullman</u>	Generally used farm name:	<u>Christa J. Smith</u>
Watershed:	<u>North Fork of Hughes River</u>		

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following: *PLEASE CHECK ALL THAT APPLY <input type="checkbox"/> NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED <input checked="" type="checkbox"/> NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED <input type="checkbox"/> NOTICE OF INTENT TO DRILL or <input checked="" type="checkbox"/> NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED OR <input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH) <input checked="" type="checkbox"/> NOTICE OF PLANNED OPERATION <input checked="" type="checkbox"/> PUBLIC NOTICE <input checked="" type="checkbox"/> NOTICE OF APPLICATION		<p align="center">OOG OFFICE USE ONLY</p> <input type="checkbox"/> RECEIVED/NOT REQUIRED <input type="checkbox"/> RECEIVED <input type="checkbox"/> RECEIVED/NOT REQUIRED <input type="checkbox"/> RECEIVED <input type="checkbox"/> RECEIVED <input type="checkbox"/> RECEIVED
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Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

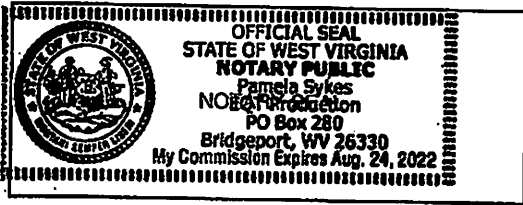
03/03/2017

Certification of Notice is hereby given:

THEREFORE, I [Signature], have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: EQT Production Company
By: Victoria J. Roark
Its: Permitting Supervisor
Telephone: 304-848-0076

Address: P.O. Box 280
Bridgeport, WV 26330
Facsimile: 304-848-0040
Email: vroark@eqt.com



Subscribed and sworn before me this 1 day of Oct, 2015
[Signature] Notary Public
My Commission Expires 8-24-22

Oil and Gas Privacy Notice:

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

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 10/1/15 Date Permit Application Filed: 10/1/15

Notice of:

- PERMIT FOR ANY WELL WORK CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE REGISTERED MAIL METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)

Name: see attached
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: see attached
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: see attached
Address: _____

COAL OWNER OR LESSEE

Name: see attached
Address: _____

COAL OPERATOR

Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: see attached
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
Address: _____

*Please attach additional forms if necessary



4708510280

Table 1 - Water Source Identification

EQT Well Pad Name: PUL 97

Submittal Date: _____

EQT Well Number: _____

Survey / Engineering Company:



Larson Design Group®

Site Number: 1 Distance from Gas Well (feet): 2,852' +_

Surface Owner / Occupant: Dale W Moore III

Address: 1977 Lynn Camp Rd Phone #: 304-659-2734
Pennsboro, WV 26415

Field Located Date: 3-11-15 Owner home during survey (yes/no): No

Coordinates: 1-1 39.242436, -80.936131 (decimal degrees -- NAD 83)

Contact Attempts (Date): 1st: 3-11-15 2nd: _____ Date Door Hanger Left: _____

Comments: His water well is out side of 2500 ft.

- Landowner Requested Sampling
- Landowner Decline Sampling
- Unable to Contact
(Further contact attempts to be made by EQT's third party pre-drill sampling lab)

Owner Signature: Per Phone Conversation

Site Number: 2, 4 Distance from Gas Well (feet): 4-2 2,240' 4-3 2,173'
4-1 2,347' +_

Surface Owner / Occupant: Fouss Farms LLC (Robert)

Address: 4200 Grand Central Ave Phone #: 304-483-5528
Vienna, WV 26105

Field Located Date: 3-11-15 Owner home during survey (yes/no): No

Coordinates: 4-2 39.240642, -80.933894 (decimal degrees -- NAD 83)

Contact Attempts (Date): 1st: 3-11-15 2nd: _____ Date Door Hanger Left: No

Comments: There are cattle on this property. Spoke with Robert on phone and was given permission to locate.

- Landowner Requested Sampling
- Landowner Decline Sampling
- Unable to Contact
(Further contact attempts to be made by EQT's third party pre-drill sampling lab)

Owner's Signature: Per Phone Conversation 4-1 39.240947, -80.933947
4-3 39.238992, -80.930206

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Larson Design Group®

Site Number: 3 Distance from Gas Well (feet): 3-1 2,417'
3-2 2,794' +

Surface Owner / Occupant: Randall Lamm

Address: 2597 Lynn Camp Rd Phone #: 304-659-3075
Pennsboro, WV 26415

Field Located Date: 3-9-15 Owner home during survey (yes/no): Yes

Coordinates: 3-1 39.239497, -80.929569 (decimal degrees - NAD 83)

Contact Attempts (Date): 1st: 3-9-15 2nd: _____ Date Door Hanger Left: _____

Comments: Located stream on property, not in use for drinking water. Water well is outside of 2500'.

<input checked="" type="checkbox"/>	Landowner Requested Sampling
<input type="checkbox"/>	Landowner Decline Sampling
<input type="checkbox"/>	Unable to Contact <small>(Further contact attempts to be made by EQT's third party pre-drill sampling lab)</small>

Owner Signature: *Randall D. Lamm* 3-2 39.239589, -80.927806 (OUT)

Site Number: 6 Distance from Gas Well (feet): 6-1 2,098'
6-3 390'
6-2 1,021'

Surface Owner / Occupant: Christa & James Smith

Address: Buzzard Run Phone #: _____
Pennsboro, WV 26415

Field Located Date: _____ Owner home during survey (yes/no): _____

Coordinates: 6-1 39.23665, -80.941642 (decimal degrees - NAD 83)

Contact Attempts (Date): 1st: 3-11-15 2nd: _____ Date Door Hanger Left: _____

Comments: Eric Janotha's sister. All sources located by direction of Eric. She does not live on property. Contact Eric.

<input checked="" type="checkbox"/>	Landowner Requested Sampling
<input type="checkbox"/>	Landowner Decline Sampling
<input type="checkbox"/>	Unable to Contact <small>(Further contact attempts to be made by EQT's third party pre-drill sampling lab)</small>

Owner's Signature: _____
6-2 39.233572, -80.933847
6-3 39.231267, -80.936358



Site Number: 5 Distance from Gas Well (feet): 5-1 765' +

Surface Owner / Occupant: Michael L. Davis

Address: 19 Davis Ridge Road Phone #: 304-481-5899

Pennsboro, WV 26415

Field Located Date: 3-11-15 Owner home during survey (yes/no): Yes

Coordinates: 5-1 39.232564, -80.934794 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 3-11-15 2nd: _____ Date Door Hanger Left: No Need

Comments: All water sources were previously located by our environmental group. All sources on this property are used by cattle. Mr. Janotha had requested that we sample everything.

- | | |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | Landowner Requested Sampling |
| <input type="checkbox"/> | Landowner Decline Sampling |
| <input type="checkbox"/> | Unable to Contact
(Further contact attempts to be made by EQT's third party pre-drill sampling lab) |

Owner Signature: Per Conversation

5-2 39.231011, -80.936047 1498'

5-3 39.232908, -80.935769 803'

5-4 39.235936, -80.9346 364'

5-5 39.2317, -80.935561 1235'

5-6 39.234378, -80.938956 1403'

5-7 39.231347, -80.935203 1360'

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Larson Design Group®

Site Number: 7 Distance from Gas Well (feet): 2307' +_

Surface Owner / Occupant: Joseph & Virginia Means

Address: 2518 Lynn Camp Rd Phone #: 304-659-2783
Pennsboro, WV 26415

Field Located Date: _____ Owner home during survey (yes/no): _____

Coordinates: 7-1 39.239078, -80.928953 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 3-9-15 2nd: 3-11-15 Date Door Hanger Left: Yes

Comments: Contacted us at a later date by phone. Has one water well beside barn.

- Landowner Requested Sampling
- Landowner Decline Sampling
- Unable to Contact
(Further contact attempts to be made by EQT's third party pre-drill sampling lab)

Owner Signature:

Site Number: 8 Distance from Gas Well (feet): N/A +_

Surface Owner / Occupant: Faith Cottrill

Address: 2782 Lynn Camp Rd Phone #: 304-480-1570
Pennsboro, WV 26415

Field Located Date: _____ Owner home during survey (yes/no): _____

Coordinates: _____ (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 3-9-15 2nd: 3-11-15 Date Door Hanger Left: Yes

Comments: She contacted us by phone and no sources on her property within the radius.

Her home, well and pond are outside of the radius.

- Landowner Requested Sampling
- Landowner Decline Sampling
- Unable to Contact
(Further contact attempts to be made by EQT's third party pre-drill sampling lab)

Owner's Signature: Per phone Conversation

03/03/2017

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Site Number: 9 Distance from Gas Well (feet): 9-1 2449' 9-2 2518'
9-3 2824' 9-4 2532' 9-5 2313'

Surface Owner / Occupant: Brian & Michael Taylor

Address: 268 Buzzard Run Rd Phone #: 304-266-5835
Pennsboro, WV 26415

Field Located Date: 3-9-15 Owner home during survey (yes/no): Yes

Coordinates: 9-1 39.230461, -80.941572 (decimal degrees - NAD 83)

Contact Attempts (Date): 1st: 3-9-15 2nd: _____ Date Door Hanger Left: No

Comments: Spring feed Cattle. concerned about direction of laterals near his water well. Even though his well his outside of radius, he prefers it to be tested.

Owner Signature: *Michael Taylor* 9-2 39.232364, -80.943386 9-4 39.229511, -80.940694
9-3 39.227711, -80.937067 9-5 39.231919, -80.941675

Combine with Eric Janotha

Site Number: 10 Distance from Gas Well (feet): 1897' +_

Surface Owner / Occupant: Suzanne Janotha (Not Living) left to Eric

Address: 1873 Buzzard Run Rd Phone #: _____

Field Located Date: _____ Owner home during survey (yes/no): _____

Coordinates: 10-1 39.230275, -80.938072 (decimal degrees - NAD 83)

Contact Attempts (Date): 1st: _____ 2nd: _____ Date Door Hanger Left: _____

Comments: Now owned by Eric Janotha. See him for Sampling.

Owner's Signature: _____

- Landowner Requested Sampling
- Landowner Decline Sampling
- Unable to Contact
(Further contact attempts to be made by EQT's third party pre-drill sampling lab)

- Landowner Requested Sampling
- Landowner Decline Sampling
- Unable to Contact
(Further contact attempts to be made by EQT's third party pre-drill sampling lab)

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Larson Design Group®

Site Number: 11 Distance from Gas Well (feet): 11-1 1402'
11-2 1366' +

Surface Owner / Occupant: John & Rose Marie Sudol

Address: 2064 Buzzard Run Rd Phone #: 304-659-3945
Pennsboro, WV 26415

Field Located Date: 3-9-15 Owner home during survey (yes/no): _____

Coordinates: 11-1 39.233803, -80.931675 (decimal degrees - NAD 83)

Contact Attempts (Date): 1st: 3-9-15 2nd: _____ Date Door Hanger Left: _____

Comments: Filtering System. Water goes to cistern (pull sample from here) Frank Sudol,
brother, will
be staying here while she is done until mid June.

<input checked="" type="checkbox"/>	Landowner Requested Sampling
<input type="checkbox"/>	Landowner Decline Sampling
<input type="checkbox"/>	Unable to Contact <small>(Further contact attempts to be made by EQT's third party pre-drill sampling lab)</small>

Owner Signature: Rose Sudol 11-2 39.234394, -80.931614

Site Number: 12 Distance from Gas Well (feet): _____ +

Surface Owner / Occupant: Frank Ostrowsky

Address: 26 McDermott Street Phone #: 732-462-4339
Freehold, NJ 07728

Field Located Date: _____ Owner home during survey (yes/no): _____

Coordinates: _____ (decimal degrees - NAD 83)

Contact Attempts (Date): 1st: _____ 2nd: _____ Date Door Hanger Left: _____

Comments: Frank will not be back in town till Mid May. Eric Janotha seems to think the water
is right in the 2500' radius. Gate Locked to home. Have tried calling back, No voicemail.

<input type="checkbox"/>	Landowner Requested Sampling
<input type="checkbox"/>	Landowner Decline Sampling
<input checked="" type="checkbox"/>	Unable to Contact <small>(Further contact attempts to be made by EQT's third party pre-drill sampling lab)</small>

Owner's Signature: _____

WW-6A

470 85 10260

Surface Owner

Christa J. Smith
204 E. Myles Ave.
Penssboro, WV 26415

Eric H & Beth S. Janotha (Previous owner notice 10/1/2015)
1873 Buzzard Run Rd.
Penssboro, WV 26415

Michael L. Davis (Current Owner)
19 Davis Ridge Rd.
Penssboro, WV 26415

03/03/2017

4708510260

Surface Owner (Road and/or Other Distrubance)

Christa J. Smith
204 E. Myles Ave.
Pennsboro, WV 26415

Eric H & Beth S. Janotha (Previous owner notice 10/1/2015)
1873 Buzzard Run Rd.
Pennsboro, WV 26415

Michael L. Davis (Current Owner)
19 Davis Ridge Rd.
Pennsboro, WV 26415

03/03/2017

4708510260

Surface Owner (Impoundments or Pits)

Eric H & Beth S. Janotha (Previous owner notice 10/1/2015)
1873 Buzzard Run Rd.
Pennsboro, WV 26415

Michael L. Davis (Current Owner)
19 Davis Ridge Rd.
Pennsboro, WV 26415

03/03/2017

Additional Coal Owners:

470 85 10260

Ashley E. Ness Jr.
2479 Oxford Rd.
Pullman, WC 26421

Nellie Pitzer Heirs
5157 Lochwood Ct.
Naples FL 34112

Jessie J Simms Heirs
33 Harris Ferry Rd
Washington WV 26181

4708510260

Additional Owners of Water Wells

Christa J. Smith & James Smith
204 E. Myles Ave.
Pennsboro, WV 26415

Eric H & Beth S. Janotha (Previous owner notice 10/1/2015)
1873 Buzzard Run Rd.
Pennsboro, WV 26415

Michael L. Davis (Current Owner)
19 Davis Ridge Rpad
Pennsboro, WV 26415

John & Rose Marie Sudol
2064 Buzzard Run Rd
Pennsboro WV 26415

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

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

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

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

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

WW-6A
(8-13)

API NO. 47- 085 - 10260
OPERATOR WELL NO. 516214
Well Pad Name: PUL97

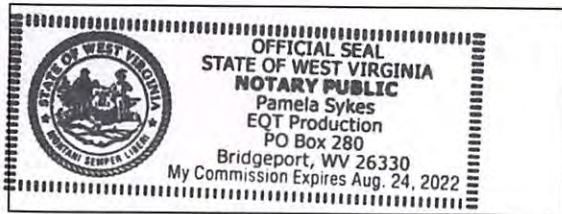
Notice is hereby given by:

Well Operator: EQT Production Company
Telephone: 304-848-0076
Email: vroark@eqt.com

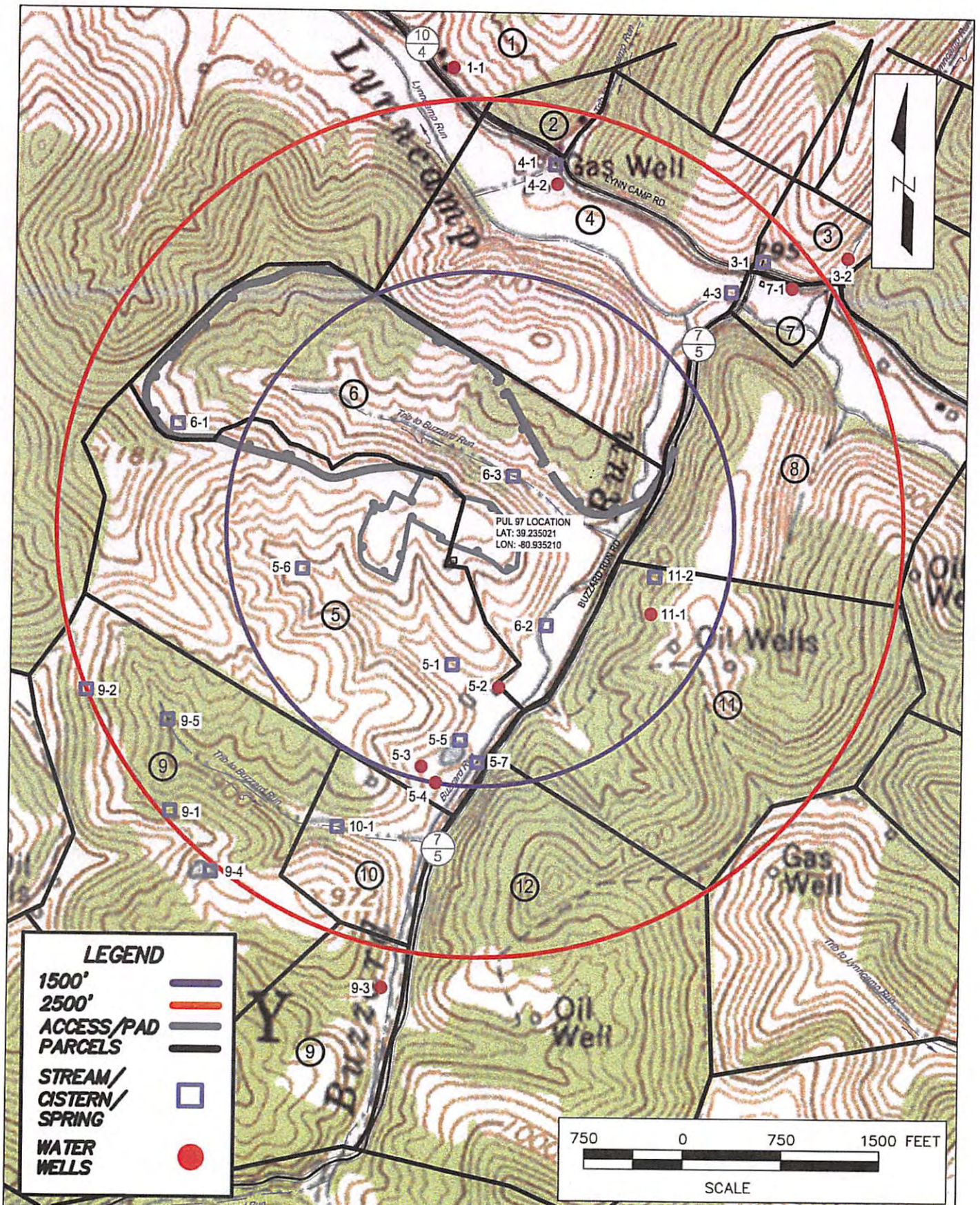
Address: 115 Professional Place
Bridgeport, WV 26385
Facsimile: 304-848-0040

Oil and Gas Privacy Notice:

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

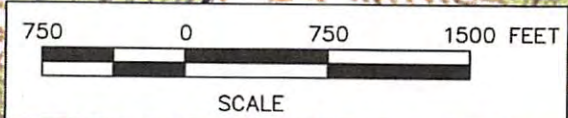


[Signature]
Subscribed and sworn before me this 9 day of Jan, 2017.
[Signature] Notary Public
My Commission Expires 8-24-22



LEGEND

- 1500'
- 2500'
- ACCESS/PAD
- PARCELS
- STREAM/
CISTERN/
SPRING
- WATER WELLS



LDG Architects Engineers Surveyors
 2502 CRANBERRY SQUARE
 MORGANTOWN, WV 26508
 PHONE 304.777.2940
 TOLL FREE 877.323.6603
 FAX 570.323.9902
 www.larsondesigngroup.com

PUL97 WATER PURVEYOR MAP
 PULLMAN QUAD CLAY DISTRICT, FITCHIE COUNTY, WV
EQT CORPORATION
 115 Professional Place, PO Box 280, Bridgeport, WV

DATE: 4/13/2015
 SHEET NO.: 1 of 1
 PROJECT NO.: 7936-002
 SCALE: 1"=750'

470 85 10 260

03/03/2017

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 10/01/2015 **Date Permit Application Filed:** 10/01/2015

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL RETURN RECEIPT REQUESTED
- HAND DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)

(at the address listed in the records of the sheriff at the time of notice):

Name: see attached
Address: _____

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	<u>WV</u>	UTM NAD 83	Easting:	<u>505,596.94</u>
County:	<u>Ritchie</u>		Northing:	<u>4,342,869.73</u>
District:	<u>Clay</u>	Public Road Access:	<u>St Rt. 74</u>	
Quadrangle:	<u>Pullman</u>	Generally used farm name:	<u>Christa J. Smith</u>	
Watershed:	<u>North Fork of Hughes River</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: EQT Production Company
Telephone: 304-848-0082
Email: wroark@eqt.com

Address: 115 Professional Place, P.O. Box 280
Bridgeport, WV 26330
Facsimile: 304-848-0040

Oil and Gas Privacy Notice:

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

WW-6A

470 85 10 260

Surface Owner

Christa J. Smith
204 E. Myles Ave.
Pennsboro, WV 26415

Eric H & Beth S. Janotha (Previous owner notice 10/1/2015)
1873 Buzzard Run Rd.
Pennsboro, WV 26415

Michael L. Davis (Current Owner)
19 Davis Ridge Rd.
Pennsboro, WV 26415

03/03/2017

Surface Owner (Road and/or Other Disturbance)

4708510260

Christa J. Smith
204 E. Myles Ave.
Pennsboro, WV 26415

Eric H & Beth S. Janotha (Previous owner notice 10/1/2015)
1873 Buzzard Run Rd.
Pennsboro, WV 26415

Michael L. Davis (Current Owner)
19 Davis Ridge Rd.
Pennsboro, WV 26415

Surface Owner (Impoundments or Pits)

470 85 10 260

Eric H & Beth S. Janotha (Previous owner notice 10/1/2015)
1873 Buzzard Run Rd.
Pennsboro, WV 26415

Michael L. Davis (Current Owner)
19 Davis Ridge Rd.
Pennsboro, WV 26415



470 851 0260

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Earl Ray Tomblin
Governor

Paul A. Mattox, Jr., P. E.
Secretary of Transportation/
Commissioner of Highways

Reissued January 9, 2017

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the PUL 97 Pad Site, Ritchie County

516211 PUL97H1

516212 PUL97H2

516213 PUL97H3

516214 PUL97H4

516215 PUL97H5

516216 PUL97H6

516565 PUL97H7

Dear Mr. Martin,

This well site will be accessed from Permit #03-2015-0400 issued to EQT Production Company for access to the State Road. The well site is located off of Ritchie County Route 7/5 SLS. Approved permit must be received before the start of construction.

The operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office O&G Coordinator

Cc: Nick Bumgardner
EQT Production Company
CH, OM, D-3, File

03/03/2017

Anticipated Frac Additives
Chemical Names and CAS numbers

<u>Material</u>	<u>Ingredient</u>	<u>CAS Number</u>
Water		
Sand	Hydrotreated light petroleum distillate	14808-60-7
Friction Reducer	Tributyl tetradecyl phosphonium chloride	64742-47-8
Biocide	Ammonium chloride	81741-28-8
Scale Inhibitor	Hydrochloric Acid	12125-02-9
15% Hydrochloric Acid	Propargyl Alcohol	7647-01-0
Corrosion Inhibitor	Methanol	107-19-7
Corrosion Inhibitor	Guar Gum	67-56-1
Gelling Agent	Sodium Persulfate	9000-30-0
Oxidizing Breaker	Potassium Carbonate	7775-27-1
Buffering Agent		584-08-7



Office of Oil and Gas

4708510260

West Virginia Department of
Environmental Protection
Office of Oil & Gas
601 57th Street SE
Charleston, WV 25304-2345

DEP Office Use only
Date Received by Oil & Gas:
Assigned Impoundment ID #:

Permit Associated Impoundment / Pit Registration

Instruction: This form is to be used to register impoundments or waste pits, greater than 5,000 bbls, that are associated with a WVDEP, Office of Oil and Gas, well drilling permit. An **associated impoundment or pit** means it has been designed and included in the well drilling permit application, will follow the reclamation time frame of well work permit, and will be approved in conjunction with the well work permit. An impoundment ID number will be assigned by WVDEP, Office of Oil and Gas, to all impoundments and pits. This impoundment ID number will be sent to the applicant following receipt of this form by WVDEP. Please reference this impoundment ID number with all future correspondence and reference to this impoundment. Conditions as described in W.Va. State Rule §35-4-21 will be followed as it relates to impoundments and pits.

Section 1 – Operator Information

Operator Name:	EQT Production Company		
Operator ID:	306686		
Address: Street	P.O. Box 280		
City:	Bridgeport	State:	WV Zip: 26330
Contact Name:	Columbus Michael Jarvis	Contact Title:	
Contact Phone:	304-848-0013	Contact Email:	CJarvis@eqt.com

Section 2 – Engineering / Design Contractor Information

Design will be contracted <input checked="" type="checkbox"/> Designed in-house <input type="checkbox"/>			
Company Name:	Larson Design Group		
Address: Street	2502 Cranberry Square		
City:	Morgantown	State:	wv Zip: 26508
Contact Name:	Timothy Kinder	Contact Title:	Director of Operations - Energy Group
Contact Phone:	877-323-8603 Ext. 453	Contact Email:	TKinder@larsondesigngroup.com
Certifying Professional Engineer:	Robert A. Matejczyk, PE		
Professional Engineer Registration Number:	014027		



Section 4 - Associated Well Numbers and API Numbers. List associated well numbers and API number. API numbers may not be assigned at time of registering this impoundment, if so list as pending.

Well Number(s):	API Number(s) – If issued:
516212 H2	Pending
516211 H1	Pending
516213 H3	Pending
516216 H6	Pending
516214 H4	Pending
516565 H7	Pending
516215 H5	Pending

Section 5 - Required Information Checklist To Register Permit Associated Impoundments or Pits. Include the following information and plans with application.

- Engineered Construction Plans, certified by WV Registered P.E.
- Erosion and Sediment Control Plan, certified by WV Registered P.E.
- Reclamation Plan, certified by WV Registered P.E.

Section 6 – Dam Standard Qualifying Evaluation

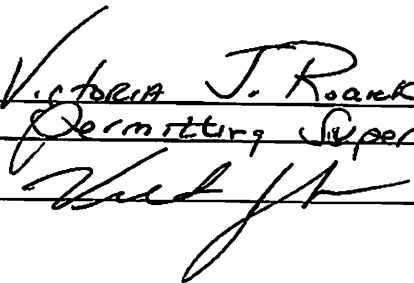
- The design of this structure has been evaluated by the applicant to determine it does NOT qualify to be defined as a dam, under W.Va Rule §47-34. If the design of this structure qualifies it to be defined as a dam, all permits regulating dams will be required prior to registering the structure with the Office of Oil and Gas. The dam standard, from the WVDEP, Div. Of Water and Waste, is available for review at: <http://www.dep.wv.gov/WWE/ee/ds/Pages/default.aspx>

Section 7 –Comments – Provide any additional comments concerning this project


4708510260

Section 8 - Application Certification

I hereby certify that the information listed above is true and accurate. I understand that this pit/impoundment is to be constructed only in a location appropriate for the storage of water, including wastewater, and will be constructed in accordance with plans designed and certified by a West Virginia registered professional engineer. I further recognize that all required plans have been submitted to the Office of Oil and Gas. I understand that after construction, and prior to any fluid being placed in the pit/impoundment, it shall be inspected by a West Virginia registered professional engineer to ensure compliance with the certified design and construction plan, and that the professional engineer shall certify that this structure was constructed in accordance with design and construction plans. I understand that such certification shall be in writing to the Chief and that no fluids may be placed in the pit/impoundment until the certification has been filed with the chief. I agree that this pit/impoundment shall be constructed, maintained, operated and closed in accordance with all applicable laws and rules, including the requirements of W. Va. Code R § 35-4-2.

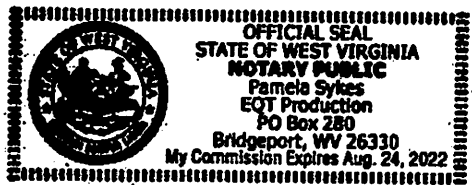
Name: Victoria J. Roark
Title: Permitting Supervisor
Signature: 

Taken, subscribed and sworn to before me this, 30 Day of Sept 20 15

Notary Public: 

My commission expires: 8-24-22

Notary Seal:



Section 9. Submittal Instructions

Submit original paper copy of application to:
West Virginia Department of Environmental Protection
Office of Oil and Gas
Impoundment Registration
601 57th Street, SE
Charleston WV 25304

Email PDF file format of this application and all related engineering Plans to :
Depimpoundments@wv.gov



Office of Oil and Gas

West Virginia Department of
Environmental Protection
Office of Oil & Gas
601 57th Street SE
Charleston, WV 25304-2345

470 85 10260

DEP Office Use only
Date Received by Oil & Gas:
Assigned Impoundment ID #:

Permit Associated Impoundment / Pit Registration

Instruction: This form is to be used to register impoundments or waste pits, greater than 5,000 bbls, that are associated with a WVDEP, Office of Oil and Gas, well drilling permit. An associated impoundment or pit means it has been designed and included in the well drilling permit application, will follow the reclamation time frame of well work permit, and will be approved in conjunction with the well work permit. An impoundment ID number will be assigned by WVDEP, Office of Oil and Gas, to all impoundments and pits. This impoundment ID number will be sent to the applicant following receipt of this form by WVDEP. Please reference this impoundment ID number with all future correspondence and reference to this impoundment. Conditions as described in W.Va. State Rule §35-4-21 will be followed as it relates to impoundments and pits.

Section 1 – Operator Information

Operator Name:	EQT Production Company		
Operator ID:	306686		
Address: Street	P.O. Box 280		
City:	Bridgeport	State:	WV Zip: 26330
Contact Name:	Columbus Michael Jervis	Contact Title:	
Contact Phone:	304-848-0013	Contact Email:	CJervis@eqt.com

Section 2 – Engineering / Design Contractor Information

Design will be contracted <input checked="" type="checkbox"/> Designed in-house <input type="checkbox"/>			
Company Name:	Larson Design Group		
Address: Street	2502 Cranberry Square		
City:	Morgantown	State:	WV Zip: 26508
Contact Name:	Timothy Kinder	Contact Title:	Director of Operations - Energy Group
Contact Phone:	877-323-6603 Ext. 453	Contact Email:	TKinder@larsondesigngroup.com
Certifying Professional Engineer:	Robert A. Matejczyk, PE		
Professional Engineer Registration Number:	014027		



Office of Oil and Gas

470 85 10260

Section 3 - Impoundment / Pit Information

Type of Structure. <u>Check one of two choices below:</u>		
<input type="checkbox"/> Freshwater Impoundment	<input checked="" type="checkbox"/> Waste Pit	
Note: <u>Any</u> waste in a pit will make it a waste pit.		
Name of Structure (Company Name :) <u>Completion Pit</u>		
County: <u>Ritchie</u>	District: <u>Clay</u>	
USGS 7.5' Quad Map Name: <u>Pullman</u>		
Farm Name: <u>Janotha</u>		
Pad Name: <u>PUL 97</u>		
Surface Owner Name: <u>Eric & Beth Janotha</u>		
Physical Description of Location: <u>West side of CR 7/5 (Buzzard Run Road) approximately 2.19 miles North of the intersection of CR 7/5 and CR 74 (Pullman Drive)</u>		
(Note: Give general location, example: 2 miles south of Smalltown, WV on Rt. 22, left on Buffalo Creek)		
Watershed (nearest perennial): <u>Buzzard Run</u>		
Distance (Drainage Distance) to nearest perennial stream: <u>1,390 ft.</u>		
Location Coordinates (NAD83, Decimal Degrees (xx.xxxx, -xx.xxxx))		
Latitude: <u>39.234863</u>	Longitude (Use negative sign): <u>-80.937277</u>	
UTM Coordinates : <u>1561402.00</u>	<u>E</u>	<u>270913.97</u> <u>N</u>
Access Road Coordinates (junction of state highway access)		
Latitude: <u>39.236281</u>	Longitude (Use negative sign): <u>-80.931290</u>	
UTM Coordinates : <u>1563088.16</u>	<u>E</u>	<u>271306.47</u> <u>N</u>
Approximate Dimensions		
Length: <u>238 ft.</u>	Width: <u>198 ft.</u>	Height: <u>14 ft.</u>
Note: If irregularly shaped, give approximate dimensions of long axis.		
Total Capacity – Provide all units of measure below:		
Barrels: <u>142,485</u>	Gallons: <u>5,984,371</u>	Acre-Feet: <u>18.37</u>
Capacity with 2' Freeboard – Provide all units of measure below:		
Barrels: <u>117,700</u>	Gallons: <u>4,943,417</u>	Acre-Feet: <u>15.17</u>
Incised volume:		
Barrels: <u>39,964</u>	Gallons: <u>1,678,296</u>	Acre-Feet: <u>5.14</u>
Net impounded volume: (Total volume less incised volume.)		
Barrels: <u>102,521</u>	Gallons: <u>4,306,075</u>	Acre-Feet: <u>13.23</u>
Anticipated Construction Start Date (estimation, non-binding): <u>Fall 2015</u>		
Note: No construction may begin on Associated impoundment until WVDEP issues the drilling permit. At least 7 calendar days prior to confirmed construction start date, notify the Office of Oil & Gas, and the local Oil and Gas inspector of construction start date. Use form IMP-2, "Notification of Impoundment / Pit Construction."		



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Section 4 - Associated Well Numbers and API Numbers. List associated well numbers and API number. API numbers may not be assigned at time of registering this impoundment, if so list as pending.

Well Number(s):	API Number(s) – If issued:
516212 H2	Pending
516211 H1	Pending
516213 H3	Pending
516216 H6	Pending
516214 H4	Pending
516565 H7	Pending
516215 H5	Pending

Section 5 - Required Information Checklist To Register Permit Associated Impoundments or Pits. Include the following information and plans with application.

- Engineered Construction Plans, certified by WV Registered P.E.
- Erosion and Sediment Control Plan, certified by WV Registered P.E.
- Reclamation Plan, certified by WV Registered P.E.

Section 6 – Dam Standard Qualifying Evaluation

- The design of this structure has been evaluated by the applicant to determine it does NOT qualify to be defined as a dam, under W.Va Rule §47-34. If the design of this structure qualifies it to be defined as a dam, all permits regulating dams will be required prior to registering the structure with the Office of Oil and Gas. The dam standard, from the WVDEP, Div. Of Water and Waste, is available for review at: <http://www.dep.wv.gov/WWE/ee/ds/Pages/default.aspx>

Section 7 –Comments – Provide any additional comments concerning this project



470 85 10260

Section 8 - Application Certification

I hereby certify that the information listed above is true and accurate. I understand that this pit/impoundment is to be constructed only in a location appropriate for the storage of water, including wastewater, and will be constructed in accordance with plans designed and certified by a West Virginia registered professional engineer. I further recognize that all required plans have been submitted to the Office of Oil and Gas. I understand that after construction, and prior to any fluid being placed in the pit/impoundment, it shall be inspected by a West Virginia registered professional engineer to ensure compliance with the certified design and construction plan, and that the professional engineer shall certify that this structure was constructed in accordance with design and construction plans. I understand that such certification shall be in writing to the Chief and that no fluids may be placed in the pit/impoundment until the certification has been filed with the chief. I agree that this pit/impoundment shall be constructed, maintained, operated and closed in accordance with all applicable laws and rules, including the requirements of W. Va. Code R § 35-4-2.

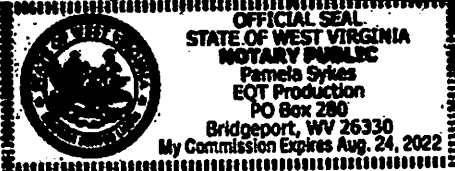
Name: Victoria J. Rank
 Title: Permitting Supervisor
 Signature: [Handwritten Signature]

Taken, subscribed and sworn to before me this, 30 Day of Sept 20 15

Notary Public: [Handwritten Signature]

My commission expires: 8-24-22

Notary Seal: _____



Section 9. Submittal Instructions

Submit original paper copy of application to:
 West Virginia Department of Environmental Protection
 Office of Oil and Gas
 Impoundment Registration
 601 57th Street, SE
 Charleston WV 25304

Email PDF file format of this application and all related engineering Plans to :
Depimpoundments@wv.gov

PROJECT INFORMATION
 PROJECT NAME: EOT PUL 97
 TAX PARCEL:
 CLAY DISTRICT, RITCHIE COUNTY, WV
 DISTRICT 3 MAP 36 PARCELS 4, 7
 SURFACE OWNER:
 CHRISTA J. SMITH
 PID 3-35-7
 TOTAL PROPERTY AREA: 69.88 ACRES
 TOTAL DISTURBED AREA: 26.55 ACRES
 IMPACTED FORESTED AREA: 13.20 ACRES
 ERIC & BETH JANOTHA
 PID 3-35-7
 TOTAL PROPERTY AREA: 79.21 ACRES
 TOTAL DISTURBED AREA: 18.83 ACRES
 IMPACTED FORESTED AREA: 1.93 ACRES

OPERATOR
 EOT PRODUCTION COMPANY
 OPERATOR ID: 106886
 P.O. BOX 280
 BRIDGEPORT, WV 26330
 PHONE: (304) 348-3870

ENGINEER
 LARSON DESIGN GROUP
 2502 CRANBERRY SQUARE
 MORGANTOWN, WV 26508
 PHONE: (304) 777-2940



GENERAL DESCRIPTION
 THE ACCESS ROAD(S), WELL PAD, FLOW BACK PIT, AND COMPLETIONS PIT ARE BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL SHALE GAS WELLS.

MISS UTILITY STATEMENT
 EOT WILL NOTIFY MISS UTILITY OF WEST VIRGINIA FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT DESIGN. TICKET #1435093538, AND #1435093569.

IN ADDITION, MISS UTILITY WILL BE CONTACTED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION FOR THIS PROJECT.

MISS UTILITY OF West Virginia
 1-800-243-4848
 West Virginia State Law
 (Section XIV, Chapter 24-C)
 Requires that you call two business days before you dig in the state of West Virginia.
 IT'S THE LAW!

EOT PUL 97 SITE PLAN

EOT PRODUCTION COMPANY



SCALE: 1" = 2000'
 PULLMAN QUADRANGLE
 WEST VIRGINIA

PROPOSED WELL NAME	WV NORTH MAID 83	NAD 83 LAT & LONG	WV NORTH MAID 83	NAD 83 LAT & LONG
H2-516212	N 271021.17 E 1561052.15	LAT 39.235182 LON -80.935161	N 271021.17 E 1561052.15	LAT 39.235182 LON -80.935161
H1-516211	N 271014.76 E 1561965.81	LAT 39.235165 LON -80.935293	N 271014.76 E 1561965.81	LAT 39.235165 LON -80.935293
H3-516213	N 271008.15 E 1561979.28	LAT 39.235174 LON -80.935245	N 271008.15 E 1561979.28	LAT 39.235174 LON -80.935245
H6-516216	N 271001.54 E 1561992.74	LAT 39.235129 LON -80.935197	N 271001.54 E 1561992.74	LAT 39.235129 LON -80.935197
H4-516214	N 270994.93 E 1562008.21	LAT 39.235094 LON -80.935149	N 270994.93 E 1562008.21	LAT 39.235094 LON -80.935149
H7-516565	N 270988.31 E 1562019.67	LAT 39.235077 LON -80.935101	N 270988.31 E 1562019.67	LAT 39.235077 LON -80.935101
H5-516215	N 270991.69 E 1562033.14	LAT 39.235077 LON -80.935053	N 270991.69 E 1562033.14	LAT 39.235077 LON -80.935053
WELL PAD ELEVATION	938.80			

- RESTRICTIONS NOTES:**
1. THERE ARE TWO WETLANDS WITHIN 100 FEET OF THE WELL PAD LOD.
 2. THERE ARE NO PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE WELL PAD AND LOD.
 3. THERE ARE NO NATURALLY PRODUCING TROUT STREAMS WITHIN 300 FEET OF THE WELL PAD AND LOD.
 4. THERE ARE NO NATURALLY PRODUCING TROUT STREAMS WITHIN 1000 FEET OF THE WELL PAD AND LOD.
 5. THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEET OF THE WELL PAD AND LOD.
 6. THERE ARE NO APPARENT EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF THE WELL(S) BEING DRILLED.
 7. THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 625 FEET OF THE CENTER OF THE WELL PAD.
 8. THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2300 SQUARE FEET WITHIN 625 FEET OF THE CENTER OF THE WELL PAD.

LOCATION COORDINATES
 ACCESS ROAD ENTRANCE
 LATITUDE: 39.236018 LONGITUDE: -80.931364 (NAD 83)
 N 271307.66 E 1563083.29 (WV NORTH MAID 83)

CENTER OF WELL PAD
 LATITUDE: 39.235021 LONGITUDE: -80.935210 (NAD 83)
 N 270962.12 E 1561988.38 (WV NORTH MAID 83)
 CENTER OF 60,000 BBL TANK
 LATITUDE: 39.235277 LONGITUDE: -80.937146 (NAD 83)
 N 271064.14 E 1561441.45 (WV NORTH MAID 83)

CENTER OF 40,000 BBL TANK
 LATITUDE: 39.234853 LONGITUDE: -80.937277 (NAD 83)
 N 270913.97 E 1561402.00 (WV NORTH MAID 83)

ENTRANCE BEHIND
 EOT WILL OBTAIN AN ENCROACHMENT PERMIT (FORM MW-109) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

ENVIRONMENTAL NOTES
 WETLAND DELINEATIONS WERE PERFORMED BETWEEN DECEMBER 11, 2014 THROUGH JANUARY 29, 2015 BY LARSON DESIGN GROUP. REVIEW OF THE SITE FOR WATERS AND WETLANDS THAT ARE OF CONCERN TO THE REGULATOR PURVIEW OF THE U.S. ARMY CORPS OF ENGINEERS (USACE) AND/OR THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WDEP). THE APRIL 24, 2015 EOT PUL 97 JURISDICTIONAL SCREENING AND WETLANDS MAPS WERE PREPARED BY LARSON DESIGN GROUP AND SUMMARIZE THE RESULTS OF THE FIELD DELINEATION. THE MAPS DO NOT, OF THE HAND, PRESENT THE RESULTS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE OR THE WDEP. IT IS STRONGLY RECOMMENDED THAT THE AFOREMENTIONED AGENCIES BE CONSULTED IN AN EFFORT TO GAIN WRITTEN CONFIRMATION OF THE DELINEATION SHOWN ON THIS EXHIBIT PRIOR TO ENGAGING CONSTRUCTION ON THE PROPERTY DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATERS OF THE U.S., INCLUDING WETLAND FILLS AND STREAM CROSSINGS.

GEOTECHNICAL NOTE
 A GEOTECHNICAL INVESTIGATION HAS NOT COMPLETED FOR THIS SITE. CONSEQUENTLY, THE DESIGN OF THE SITE IMPROVEMENTS DEICED ON THESE DRAWINGS WAS PREPARED BY LDG WITHOUT DETAILED GEOTECHNICAL INFORMATION AND LDG DOES NOT GUARANTEE THE EFFICACY OF THIS DESIGN.

LDG RECOMMENDS COMPLETION OF A DETAILED GEOTECHNICAL INVESTIGATION AND EVALUATION/REVISION OF THE SITE IMPROVEMENTS PRIOR TO CONSTRUCTION. THE OWNER ASSUMES ALL RISK IN THE USE OF THESE DRAWINGS TO CONSTRUCTION IMPROVEMENTS ON THIS SITE.

- SHEET INDEX**
- | | |
|-------|---------------------------------------|
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| 4 | OVERALL PLAN SHEET INDEX |
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| 10-11 | ROAD PROFILE |
| 12 | WELL PAD CROSS SECTIONS |
| 13-15 | WELL PAD AND STOCKPILE CROSS SECTIONS |
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| 25-29 | RECLAMATION PLANS |
| 30-40 | EROSION CONTROL DETAILS |
| 41 | CONSTRUCTION QUANTITIES |

COVER SHEET
EOT PUL 97 WELL SITE
 CLAY DISTRICT, RITCHIE COUNTY, WEST VIRGINIA

EQT Corporation
 120 PROFESSIONAL PL
 BRIDGEPORT, WV 26330
 PHONE 304.848.0000

Larson Design Group • Architects Engineers Surveyors
 2502 Cranberry Square
 Morgantown, WV 26508
 PHONE 304 777 2940 TOLL FREE 877 323 6603
 FAX 570 323 6603 • www.larsondesigngroup.com

NO	DATE	COMMENTS	ISSUE / REVISIONS
5	11/25/15	REPLACE PITS WITH AST	JMO RSM
4	9/24/2015	FINAL SITE DESIGN	JMO RSM
3	9/3/2015	FINAL SITE DESIGN	JMO RSM
2	8/31/2015	FINAL SITE DESIGN	JMO RSM
1	6/8/2015	FINAL SITE DESIGN	JMO EMP
		COMMENTS	BY CHK



03/03/2017

SHEET NO:
1 OF 41
 PROJECT NO:
 7936-002



APPROVED
WVDEP OOG
3/3/2017



SITE LAYOUT		EQT PUL 97 WELL SITE		CLAY DISTRICT, FITCHE COUNTY, WEST VIRGINIA	
SHEET NO.:	9 OF 41	PROJECT NO.:	7936-002		
EQT Corporation 120 PROFESSIONAL PL BRIDGEPORT, WV 26330 PHONE 304.848.0000		Larson Design Group • Architects Engineers Surveyors 2502 Cranberry Square Morgantown, WV 26508 PHONE 304.777.2940 TOLL FREE 877.323.6603 FAX 570.323.6603 • www.larsondesigngroup.com			
NO.	DATE	ISSUE / REVISIONS	BY	CHK	APP
5	11/25/15	REPLACE PITS WITH AST	JWD	RAM	
4	9/24/2015	FINAL SITE DESIGN	JWD	RAM	
3	9/7/2015	FINAL SITE DESIGN	JWD	RAM	
2	8/31/2015	FINAL SITE DESIGN	JWD	RAM	
1	8/8/2015	FINAL SITE DESIGN	JWD	BMP	
		COMMENTS			

03/03/2017