

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 www.dep.wv.gov

July 26, 2016

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-8510289, issued to EQT PRODUCTION COMPANY, 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 all 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 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.

Operator's Well No: 515966

Farm Name: WILSON, JAMES H & WILMA J

James Martin

API Well Number: 47-8510289

Permit Type: Horizontal 6A Well

Date Issued: 07/26/2016

API Number: 85-10289

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. <u>Failure to adhere to the specified permit</u> conditions may result in enforcement action.

CONDITIONS

- 1. Operator shall take additional measures with this permitted activity to avoid communication with offset wells. Such additional measures are described in the attached addendum. This addendum is part of the terms of the well work permit, and includes a description of depth and completed formations of offset wells. Also included is a description of monitoring activities that will take place during fracturing operations of the permitted well work.
- 2. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACOE). Through this permit, you are hereby being advised to consult with USACOE regarding this proposed activity.
- 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.

A	P	I	N	lum	ber:		

PERMIT CONDITIONS

- 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. 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.
- 9. 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.
- 10. 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.

EQT Production

Hydraulic Fracturing Monitoring Plan

Pad ID: PUL96

Ritchie County, WV

3/15/16

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Office of Oil and Gas

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WV Department of Environmental Protection 29/2016

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 well(s) on the PUL96 pad: 515966

Due to the apparent presence of unique geological conditions, the potential for communication between deep geologic zones exists in this area. This potential communication, via natural gas, water, or both, may occur between hydraulically fractured wells in the Marcellus formation (approximately 6,400' TVD) and existing conventional natural gas wells in the partially-depleted, relatively high permeability Alexander formation (approximately 5,200' TVD).

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 pre-notification of conventional well operators of the timing and location of the hydraulic fracturing, establishment of measures conventional 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 Conventional Well Operators

EQT, using available data (WV Geological Survey, WVDEP website, and IHS data service), has identified all known conventional wells and well operators within 1,500 feet of this pad and the lateral sections. A map showing these wells along with a list of the wells and operators is included in **Attachment A**.

Upon approval of this plan, EQT will notify these operators, via letter, of the hydraulic fracturing schedule for these wells. A copy of this letter is included in **Attachment B**.

The letter provides recommendations to these conventional operators to 1) increase their monitoring of their wells during that time period, 2) ensure that their well head equipment is sound, and 3) provide immediate notification to EQT and the OOG in the event of any changes in their well conditions.

Specifically, the letter recommends that conventional well operators conduct the following activities during and after fracturing operations:

- 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 rated to 3,000 psi or other necessary equipment for wellhead integrity
- 4. Notify the OOG and EQT if any changes in water, gas production, pressure, or other anomalies are identified

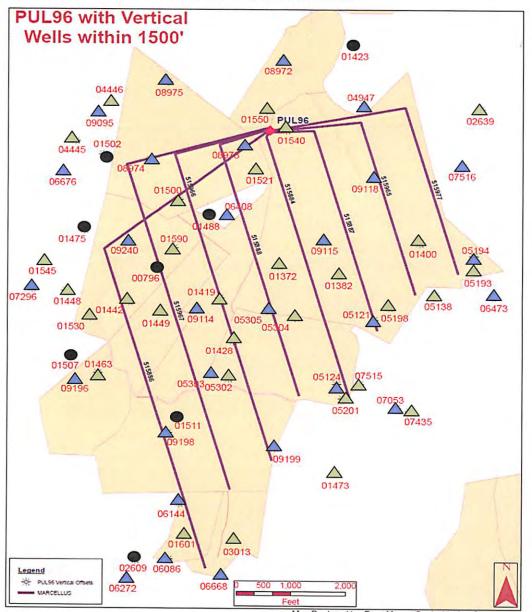
2. Reporting

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

RECEIVED
Office of Oil and Gas

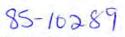
MAY 0 6 2016 Page 2 of 2

PUL96 Vertical Offsets



Δ	Landed dec	eper than 4,0	00'	io	-
\triangle	Landed sha	llower than 4	,000'	00	
	Plugged	OO	9	nt	_
		RECEIVE Office of Oil ar	MAY 0 6 20	WV Departme Environmental Pr	

Note: Vertical wells are only displayed if within 1500' (lateral distance) of the new/planned horizontal PUL96 wells.



625 Liberty Ave, Suite 1700 Pittsburgh PA 15222 www.eqt.com

TEL: (412) 395-3305 FAX: (412) 395-2156

John Centofanti Corporate Director, Environmental Affairs



(date)

[Conventional Well Operator] [address] [state]

RE: Ritchie County Hydraulic Fracturing Notice

Dear Sir/Madam,

EQT has developed a Marcellus pad (Pullman 96 pad) located in Ritchie County, WV. As an owner or operator of conventional natural gas wells in this area, we are requesting your assistance in this matter.

Due to the apparent presence of unique geological conditions, the potential for communication between deep geologic zones exists in this area. This potential communication, via natural gas, water, or both, may occur between hydraulically fractured wells in the Marcellus formation (approximately 6,400' TVD) and existing conventional natural gas wells in the partially-depleted, relatively high permeability, Alexander formation (approximately 5,200' TVD).

EQT anticipates conducting hydraulic fracturing at the Pullman 96 pad during the [first,second, third,fourth] quarter of [year]. We have identified conventional natural gas wells operated by your company within 1,500' (lateral distance) of our new/planned laterals. Plats for each well on this pad are attached.

We recommend that conventional well operators conduct the following activities before, during, and after fracturing operations:

- Inspect surface equipment, prior to fracturing, to establish integrity and establish 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 rated to 3,000 psi or other necessary equipment for wellhead integrity.
- Notify the OOG and EQT if any changes in water, gas production, pressure, or other anomalies are identified.

Please feel free to contact me at 412-395-3305 with any questions or comments. You may also contact the West Virginia Office of Oil and Gas at 304-926-0440.

Sincerely, EQT Production

John Centofanti Corporate Director, Environmental Affairs

cc: James Martin, WV Office of Oil and Gas

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A Hachment - 15

581	Well ID	Prior Operator on Record	Operator-DEP*	Status	Latitude	Longitude	Vertical TD	Closest Distance from PUL96 Lateral Map View	PUL96 Horizontal TVD minus Offset Vertical TD	Hypotenuse Distance	Producing Formation	Gas Show/Pay Zone Depths	Notes
0	4708500796	J L DAVIS	JL Davis	DRY-P	39.2034	-80.9934	2054	46		5342.530955		1925-2012	Plugged 5/7/1940
2		RICHARDS ENERGY		GAS	39.2035	-80.9855	1874	363				1800	Completed 1951
, ,	4708501382		Richards, Connard W & James E	GAS	39.203	-80.9816	1850	375		5336.201364		1817	Completed 1951
S	4708501400	J E & C W RICHARDS		DRY	39.2048	-80.9763	1948				2nd Salt Sand	1582-1587	Completed 1951
Š	4708501419	TWIN FORKS GAS	Richards, Connard W & James E	GAS	39.2017	-80.9893	1542			5288.485322		1539	Completed 1952
	4708501423	HECK & WOODFORD	Heck & Woodford	GAS-P	39.2159	-80.9807	2220	1439		5346.158995		2189	Plugged 12/11/1961
	4708501428	TWIN FORKS GAS	Richards, Connard W & James E	GAS	39.1993	-80.9884	1919			5343.479391		1865	Completed 1952
	4708501442	HARTMAN & RICHARDS	HARTMAN & RICHARDS	GAS	39.2015	-80.9952	1930	145				1886	Completed 1953
	4708501448	JOHN LOWTHER		GAS	39.2021	-80.9993	1804	908		5297.516871		1779-1800	Completed 1953
	4708501449	C W & J E RICHARDS		GAS	39.2009	-80.9932	1908	245				1850	Completed 1953
	4708501463	LOW GAP GAS		GAS	39.1975	-80.9972		804		5349.264622		2000	Completed 1953
	4708501473	P O BURGY		GAS	39.1919	-80.9817	1638	1210				1634	Completed 1953
	4708501475	BELL OIL & GAS	Richards, Connard W & James E	GAS-P	39.2055	-80.9981	2115					2062	Plugged 5/3/1963
	4708501488	STARKEY FARM GAS	1	GAS-P	39.2063	-80.9899	1860					1772	Plugged 4/19/1963
	4708501500	OHIO & WV OIL & GAS	Not available	DRY	39.2072	-80.992	1861				Maxton, Keener, Big Injun	1560-1776	Completed 1953
	4708501502	ELDER FARM GAS	Richards, Connard W & James E	DRY-P	39.2097	-80.9969	1870					1870	Plugged 11/17/1953
	4708501507	OHIO & WV OIL & GAS	OHIO & WV OIL & GAS	DRY-P	39.1984	-80.9989	2083					2083	Plugged 12/28/1953
	4708501511	APPLIED MECHANICS	Artex Oil Co.	GAS-P	39.195	-80.992						2113	Plugged 1970
	4708501521	C W & J E RICHARDS	Richards, Connard W & James E	O&G	39.2089	-80.987	1991			5326.926037		1992	Completed 1954
	4708501530	RUBY OIL & GAS	Mossor Oil and Gas Co.	GAS	39.2006	-80.9977	2100				Big Injun and Squaw	2060-2077	Completed 1954
	4708501540	RICHARDS OIL & GAS	RICHARDS OIL & GAS	GAS	39.2111	-80.985	2090			5328.496223		2090	Completed 1954
	4708501545	E J FITZGERALD	E J FITZGERALD	GAS	39.2037	-81.0007	2098					2108	Completed 1954
	4708501550	ROLLO OIL & GAS	Goose Run Gas	GAS	39.2122	-80.9863	2089					2089	Completed 1954
	4708501590	UNION GAS	Richards, Connard W & James E	GAS	39.2045	-80.9923	2064			5341.210724		1975	Completed 1955
	4708501601	INDIAN CREEK O & G	INDIAN CREEK O & G	DRY	39.1884	-80.9916						2082	Completed 1956
	4708502596	PDC	PDC	GAS	39.1831	-80.9884	2255				Pennsylvanian System, Mississippian, Big Injun, Squaw	1475-2113	Completed 1962
	4708502609	ARTEX OIL	PDC	O&G-P	39.187	-80.9947	1980					1980	Plugged 1970
	4708502639	C & F OIL & GAS	Cotrille, C. C.	GAS	39.2123	-80.9724	1375				2nd Salt Sand	137S 1857-1870	Completed 1962
	4708503013	LITTLE MO OIL & GAS	LITTLE MO OIL & GAS	GAS	39.1882	-80.9883	1920					2144	Completed 1965
	4708504445	HAUGHT	HAUGHT	GAS	39.2105	-80.9987	2260				9	2130	Completed 1980
	4708504446	HAUGHT	HAUGHT	GAS	39.2127	-80.9964	2279			5374.45253		3482-5194	Completed 1980 Completed 1980
	4708504947	CHASE	CHASE	GAS	39.2125						Speechley, Balltown, Riley, Benson, Alexander	4116-5086	Completed 1981
	4708505121	RICHARDS ENERGY	RICHARDS ENERGY	GAS	39.2005		5328				Riley, Benson, Alexander Riley, Benson, Alexander	4428-5145	Completed 1981
	4708505124	RICHARDS ENERGY	RICHARDS ENERGY	GAS	39.1969	-80.9817 -80.9753	5372 2527				Big Injun, Weir	2050-2364	Completed 1981
	4708505138	ALLSTATE ENERGY	ALLSTATE ENERGY	0&G	39.2019	-80.9733					2nd Salt Sand, Big Injun, Weir	1686-2301	Completed 1981
	4708505193	RICHARDS ENERGY	RICHARDS ENERGY	GAS	39.2033	-80.9728	5401				Riley, Benson, Alexander	4417-5138	Completed 1981
	4708505194	RICHARDS ENERGY	RICHARDS ENERGY	GAS	39.2041 39.2012	-80.9783	2490				Big Injun, Weir	1868-2188	Completed 1981
	4708505198	RICHARDS ENERGY	RICHARDS ENERGY	GAS GAS	39.1961		2503				2nd Salt Sand, Big Injun, Weir	1732-2393	Completed 1981
	4708505201	RICHARDS ENERGY	RICHARDS ENERGY	GAS	39.1901							3410-3452	Completed 1981
	4708505302	RICHARDS ENERGY	RICHARDS ENERGY		39.1972		5262				Balltown, Riley, Alexander	3888-4844	Completed 1981
	4708505303	RICHARDS ENERGY	RICHARDS ENERGY	GAS GAS	39.1974						Big injun, Warren	2015-3413	Completed 1981/1983
	4708505304	RICHARDS ENERGY	RICHARDS ENERGY	GAS	39.2006						Bradford, Riley, Benson, Alexander	4134-5104	Completed 1981
	4708505305	RICHARDS ENERGY	RICHARDS ENERGY	O&G	39.1871						Bradford, Riley, Benson, Java Fm	4215-4710	Completed 1982
	4708506086	PRIOR OIL	PRIOR OIL	0&G	39.1902						Udev, Lower Huron, Alexander	3282-5168	Completed 1983
	4708506144	PRIOR OIL & GAS	PRIOR OIL & GAS	O&G	39.186						Lower Huron, Alexander	3426-4809	Completed 1983
	4708506272	PRIOR OIL & GAS	PRIOR OIL & GAS STALNAKER ENERGY	GAS	39.2063						Udev, Lower Huron, Java Fm, Alexander	3198-4961	Completed 1983
	4708506408	STALNAKER ENERGY	PRIOR OIL & GAS	O&G	39.1829						Udev, Lower Huron, Angola Fm	3448-5221	Completed 1983
	4708506434	PRIOR OIL & GAS		GAS	39.2018						Devonian, Angola Fm	2732-5188	Completed 1983
	4708506473	ALLSTATE	ALLSTATE	10/13	33.2018	00.5710	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		<u> </u>		J		

8 601 - 6	Well ID	Prior Operator on Record	Operator-DEP*	Status	Latitude	Longitude	Vertical TD	Closest Distance from PUL96 Lateral Map View	PUL96 Horizontal TVD minus Offset Vertical TD	Hypotenuse Distance	Producing Formation	Gas Show/Pay Zone Depths	Notes
ا م	708506668	TOWER DRILLING	TOWER DRILLING	O&G	39.1862	-80.9891	5118	322	1054	6715.16046	Udev, Lower Huron, Java Fm, Angola Fm	3231-5064	Completed 1983
' [708506676	PRIOR OIL	PRIOR OIL	O&G	39.2087	-80.9995	5027	1179	1084	6696.473699	Lower Huron, Angola Fm	3571-4957	Completed 1983
7	708507053	ALLSTATE	ALLSTATE	GAS	39.1956	-80.9778	5318	854.27	1051	6717.033646	Warren, Java Fm, Alexander	3414-5162	Completed 1984
7	708507296	STALNAKER ENERGY	STALNAKER ENERGY	GAS	39.2022	-81.0015	5367	1496	999	6749.631471	Lower Huron, Angola Fm	5196	Completed 1985
7	708507435	ALLSTATE	ALLSTATE	GAS	39.1954	-80.9769	2226	1117	4130	5363.391837	Big Injun	2032-2078	Completed 1985
1	708507515	ALLSTATE	ALLSTATE	UNK	39.1969	-80.9802	2223	260		5357.229881		2061-2107	Completed 1986
- [7	1708507516	STONEWALL GAS	STONEWALL GAS	GAS	39.2091	-80.9735	4870	698	1362	6527.325026	Warren, Lower Huron, Benson	3287-4746	Completed 1986
1	1708508972	STALNAKER ENERGY	STALNAKER ENERGY	GAS	39.214995	-80.98529		1363	1081	6698.338675	Warren, Balltown, Riley, Benson, Alexander	3318-5047	Completed 2004
- [4708508973	STALNAKER ENERGY	STALNAKER ENERGY	GAS	39.210195	-80.98769	5353	16	1061	6710.792874	Warren, Speechly, Balltown, Riley, Benson, Alexander	3488-5194	Completed 2004
- [4708508974	STALNAKER ENERGY	STALNAKER ENERGY	GAS	39.209415	-80.993855		28	1063	6709.545812	Warren, Balltown, Riley, Benson, Alexander	3186-5039	Completed 2003
, į	4708508975	STALNAKER ENERGY	STALNAKER ENERGY	GAS	39.213765	-80.992715		1403			Warren, Balltown, Riley, Benson, Alexander	3534-5350	Completed 2003
ļ	4708509095	STALNAKER ENERGY	STALNAKER ENERGY	GAS	39.21201	-80.99717	5322	1158	1026	6732.675248	Warren, Balltown, Riley, Benson, Alexander	3457-5322	Completed 2004
Ī	4708509114	STALNAKER ENERGY	STALNAKER ENERGY	GAS	39.201105	-80.99075	5049	441	1086	6695.23084	Elizabeth, Warren, Balltown, Riley, Benson, Udev	2638-5049	Completed 2005
	4708509115	STALNAKER ENERGY	STALNAKER ENERGY	GAS	39.204885	-80.98265		405	1077	6700.826591	Warren, Balltown, Riley, Benson, Alexander	3178-5047	Completed 2005
Ī	4708509118	STALNAKER ENERGY	STALNAKER ENERGY	GAS	39.20844	-80.9792	5257	45	1079	6699.58245	Warren, Balltown, Riley, Benson, Alexander	3370-5257	Completed 2005
Ī	4708509196	STAKNAKER ENERGY	STAKNAKER ENERGY	GAS	39.19707	-80.9987		1256	1088	6693.988348	Warren, Greenland Gap, Benson, Alexander	3253-5108	Completed 2006
ļ	4708509198	STALNAKER ENERGY	STALNAKER ENERGY	GAS	39.194145	-80.992685	5234	82		6685.921103	Udev, Warren, Greenland Gap, Benson, Alexander	3374-5234	Completed 2006
Ì	4708509199	STALNAKER ENERGY	STALNAKER ENERGY	GAS	39.193305	-80.98568	5324	125		6684.061639	Mauch Chunk Grp, Udev, Greenland Gap, Balltown, Riley, Bens	1998-5324	Completed 2006
l	4708509240	STALNAKER ENERGY	STALNAKER ENERGY	GAS	39.204885	-80.99522	5259	155	1093	6690.883723	Warren, Scherr Fm, Misc Sands	6438-5259	Completed 2006

^{*} Most recent operator on DEP website

07/29/2016

WV Department of Environmental Protection

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Office of Oil and Gas

4/0001020
API NO. 47-85 -
OPERATOR WELL NO. 515966
Well Pad Name: PUL96

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

1) Well Operator: EQT Produc	ction Company	306686	Ritchie	Union	Pullman
V V V V V V V V V V V V V V V V V V V		Operator ID	County	District	Quadrangle
2) Operator's Well Number: 515	5966	Well	Pad Name: PU	L96	
3) Farm Name/Surface Owner:	James H. & Wilma J.	Wilson Public I	Road Access: 1	2/3	
4) Elevation, current ground:	1182 E	levation, propos	ed post-constru	ction: 1182	
5) Well Type (a) Gas <u>X</u> Other	Oil	Ŭ	nderground Sto	rage	
(b)If Gas Shal	low x	Deep	44		1 9/20
Hori 6) Existing Pad: Yes or No Yes	izontal X				Michael 320 5/26/16
7) Proposed Target Formation(s) Marcellus, 6376', 54', 2190 PSI	, Depth(s), Antic		ss and Expected	l Pressure(s):	51
8) Proposed Total Vertical Depth	1: 6376'				
9) Formation at Total Vertical D	epth: Marcellu	s			
10) Proposed Total Measured De	epth: 13,276'				
11) Proposed Horizontal Leg Le	ngth: 6,227'				
12) Approximate Fresh Water St	rata Depths:	342, 368, 39	9, 556		
13) Method to Determine Fresh	Water Depths:	From Offset W	ells		
14) Approximate Saltwater Dept	hs: None				
15) Approximate Coal Seam Dep	oths: None				
16) Approximate Depth to Possi	ble Void (coal m	ine, karst, other): None		
17) Does Proposed well location directly overlying or adjacent to				No X	
(a) If Yes, provide Mine Info:	Name:				
	Depth:				Descived
	Seam:			Offic	ce of Oil & Gas
	Owner:				MAY 2. 7 2016

WW-6B (04/15)

API NO. 47-85

OPERATOR WELL NO. 515966
Well Pad Name: PUL96

18)

CASING AND TUBING PROGRAM

ТҮРЕ	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	655	655	589 ft^3 / CTS
Coal							
Intermediate	9 5/8	New	A-500	40	2566	2566	1011 ft^3 / CTS
Production	5 1/2	New	P-110	20	13276	122-2	500' above top producing zone
Tubing	2 3/8		J-55	4.7		May not be run, if run set 40° above top perf or 80° inclination.	
Liners						asset top past of 80 inclination.	

MD.C /14

TYPE		-	Wall	<u> </u>	A 41 1		- 51
	Size (in)	Wellbore Diameter (in)	Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	<u>Cement</u> <u>Yield</u> (cu. ft./k)
Conductor	20	26	.375	1378	1102	Class A	1.18
Fresh Water	13 3/8	17 1/2	.38	2700	2160	See Variance	1.19
Coal							
Intermediate	9 5/8	12 3/8	.395	3950	3160	See Variance	1.19
Production	5 1/2	8 1/2	.361	12640	10112	Class H	1.07/1.86
Tubing	2 3/8	NA	.19	7700			
Liners							

PACKERS

Kind:	
Sizes:	
	Received
Depths Set:	Office of Oil & Gas
	MAY 27 2016

WW-6B (10/14) API 4740 8 5 1 0 2 8 9

OPERATOR WELL NO. 515966
Well Pad Name: PUL96

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 5029'. Kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

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

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.3%) 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): No Additional
- 22) Area to be disturbed for well pad only, less access road (acres): No Additional
- 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.

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 (exter little property) 2.2% 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 the companion of the carbonate. Acid solubility.

25) Proposed borehole conditioning procedures:

MAY 27 2016

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.

Page 3 of 3 07/29/2016 515966(PUL96H9)

EQT Production

Pullman Quad Ritchie County, WV

Azimuth 347 6783 Vertical Section

	Top Base			Casing and Cementing			Deepest Fresh Water	er: 556'
Formations	TVD TVD			Type	Conductor	Surface	Intermediate	Production
Conductor	40			Hole Size, In.	26	17 1/2	12 3/8	8 1/2
				Casing Size, OD In.	20	13 3/8	9 5/8	5 1/2
Base Fresh Water	556			Casing Wall Thickness, In.	0.375	0.380	0.395	0.361
				Depth, MD	40'	655'	2,566'	13,276'
Surface Casing	655	4		Weight	78.6#	54.5#	40#	20#
				Grade	A-500	J-55	A-500	P-110
Base Red Rock	1208	187		New or Used	New	New	New	New
Maxton	1830 - 1870			Burst (psi)	1378	2,700	3,950	12,640
Big Lime	2050 - 2139	1011	2 1	Cement Class	Α	A / Type 1	A / Type 1	Н
Big Injun	2139 - 2204			Cement Yield	1.18	1.19	1.19	1.07/1.86
Weir	2447 - 2492	11		Top of Cement (Planned) TVD	Surface	Surface	Surface	500' above top Producing Zor
Intermediate Casing	2566	4		Top of Cement (Flatined) TVD	Surface	Surface	Surface	500 above top Producing 201
Gantz	2662 - 2685			Method	Displacement	Displacement	Displacement	Displacement
Fifty foot	2744 - 2778			Est. Volume (cu ft)	60	589	1,011	2,587
Thirty foot	2793 - 2814							Calcium Carbonate, Fluid Los
Gordon	2831 - 2891					Calcium		Extender, Dispersent, Viscosii
Forth Sand	2951 - 2959			Possible Additives	N/A	Chloride	Calcium Chloride	Defoamer, POZ, Bonding Age
Bayard	3102 - 3133					Chionde		Retarder, Anti-Settling/Suspens Agent
Warren	3503 - 3549							
Speechley	3613 - 3740							
Balltown A	3951 - 4002							
Riley	4598 - 4619		1000 C.					
Benson	4939 - 4979		KOP @ 5,029'					
Alexander	5218 - 5243	1						
Sonyea	6099 - 6213							
Middlesex	6213 - 6265		0.0					
Genesee	6265 - 6313	7	304					
Geneseo	6313 - 6340							
Tully	6340 - 6349		()					
Hamilton	6349 - 6352		11					
Marcellus	6352 - 6406	HISEOWIE AUSTONIA			CACTOO STATE OF THE	THE COURSE OF STREET	Control of the second second second second	4
Production Casing	13276 MD	Control of the Control of the Control	THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO I					
Onondaga	6406	Section 1997		edatumentosofilusologicio problema		AND DESCRIPTION OF THE PARTY OF	SUCCESSION STREET, STR	•
	Q	Land cu	rve @ 6,376' TVD			Est. TD @	6,376'	TVD
	MA:	Lund ou	7,050' MD			2011 10 0	13,276'	MD
T PILOT HOLE>	M AV	77	1,000				101210	
ALLIEUT HOLL	- U w	U						
posed Well Work:	2.0	D						

Proposed Well Work:

Drill and complete a new horizontal well in the Marcellus formation.

Drill the vertical to an approximate depth of 5029.42

Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.

MAG 5/24/12

CT 00

0



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 "1" Cement)

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

Sincerety.

James Peterson

Environmental Resources Specialist / Permitting

Promoting a healthy environment.

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Office of Oil and Gas

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WV Department of Environment (29/2016)



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	í		
REGULATIONS OF CEMENTING OIL)		
AND GAS WELLS	í		

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
- 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.

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WV Department of Environment 429/2016on

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

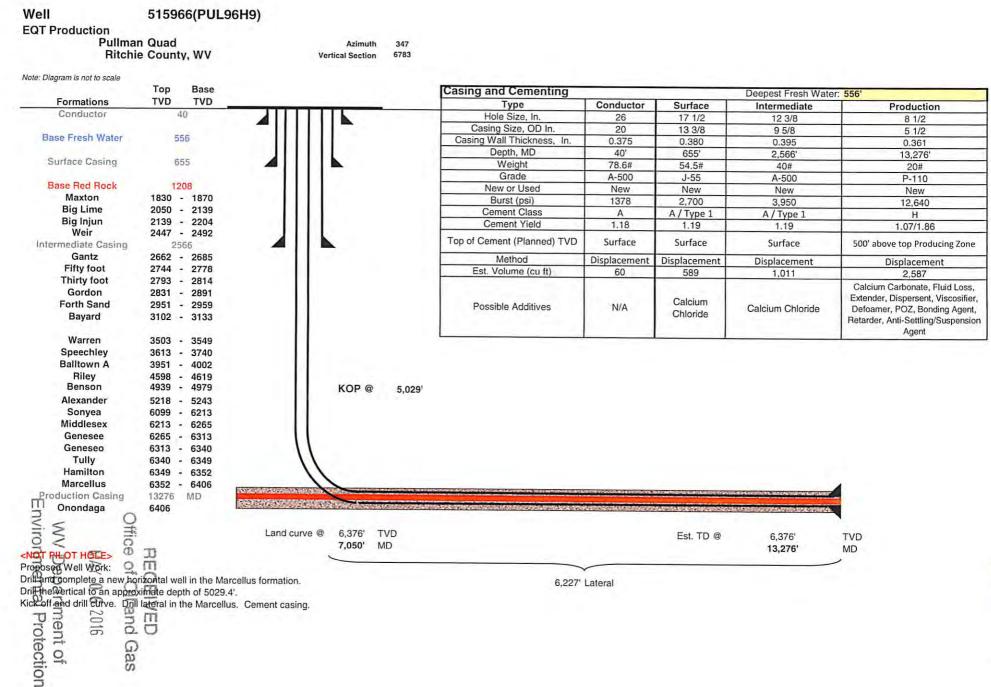
OFFICE OF OIL AND GAS DEPARTMENT OF ENVIRONMENTAL PROTECTION OF THE STATE OF WEST VIRGINIA

James Martin, Chief Office of Oil and Gas

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WV Department of Environmental 7/25/25/1976



Gas



April 22, 2016

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

Re: Casing Plan on Wells (PUL96)

Dear Mr. Smith,

EQT is requesting the 13-3/8" surface casing be set at 655' KB, 100' below the deepest fresh water show. We will set the 9-5/8" intermediate string at 2566' KB, below the porosity zone in the Big Injun formation.

If you have any questions, please do not hesitate to contact me at (304) 848-0076.

Sincerely,

Vicki Roark

Permitting Supervisor

Enc.

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WW-9 (4/16)

API	Number	47 -	85

Operator's Well No. 515966

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EQT Production Company	OD Code 306686
Watershed (HUC 10) Goose Run of Rockcamp Run	OP Code 306686 Quadrangle Pullman
Do you anticipate using more than 5,000 bbls of water to com	
Will a pit be used? Yes No	protect the proposed well work? Tes V 190
If so, please describe anticipated pit waste: Flowb	ack water and residual solids
Will a synthetic liner be used in the pit? Yes	
Proposed Disposal Method For Treated Pit Wastes:	
Land Application	MAG 5/26/16
Underground Injection (UIC Perm	· ·
Reuse (at API Number Various	
Off Site Disposal (Supply form W Other (Explain	W-9 for disposal location)
Will closed loop system be used? If so, describe: Yes, The closed are then prepared to the system be used?	sed loop system will remove drill cuttings from the drilling fluid. The drill cuttings pared for transportation to an off-site disposal facility.
Drilling medium anticipated for this well (vertical and horizon	ntal)? 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, remove	d offsite, etc. Landfill
-If left in pit and plan to solidify what medium will t	be used? (cement, lime, sawdust) N/A
-Landfill or offsite name/permit number? See Attach	ed List
Permittee shall provide written notice to the Office of Oil and West Virginia solid waste facility. The notice shall be provide where it was properly disposed.	Gas of any load of drill cuttings or associated waste rejected at any ed within 24 hours of rejection and the permittee shall also disclose
on August 1, 2005, by the Office of Oil and Gas of the West 1, provisions of the permit are enforceable by law. Violations law or regulation can lead to enforcement action. I certify under penalty of law that I have personal application form and all attachments thereto and that, bas	I conditions of the GENERAL WATER POLLUTION PERMIT issued Virginia Department of Environmental Protection. I understand that the of any term or condition of the general permit and/or other applicable ally examined and am familiar with the information submitted on this sed on my inquiry of those individuals immediately responsible for true, accurate, and complete. I am aware that there are significant bility of fine or imprisonment.
Company Official Signature	Received
Company Official (Typed Name) Victoria J. Roark	Office of Oil & Gas
Company Official Title Permitting Supervisor	MAY 9.7 2016
Subscribed and sworn before me this 4 day of	May , 20 16
My commission expires 4-7-20	Notary Public OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA REBECCA L. WANSTREET BRIDGEPORT WAS APRILOT. 2020 By committeen series April 07. 2020

WW-9 Attachment

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.

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EQT Production Water plan

Offsite disposals for Marcellus wells

CWS TRUCKING INC.

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

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

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

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

BROAD STREET ENERGY LLC

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

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

KING EXCAVATING CO.

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

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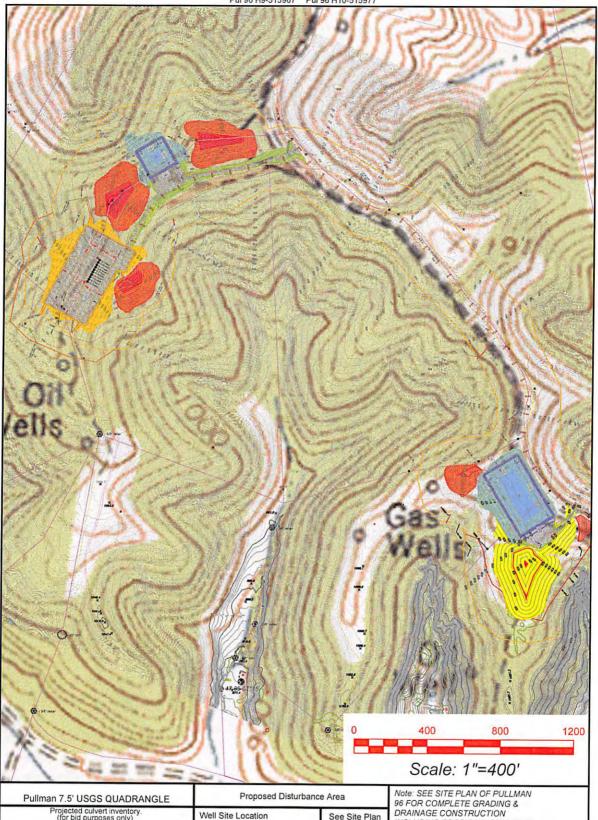
WV Department of Environmental Protection 07/29/2016

Field Reviewed?

	ompany		
Proposed Revegetation Tre	atment: Acres Disturbed N	o Additional Prevegetation p.F.	6.6
Lime 3	Tons/acre or to correc	t to pH 6.5	
Fertilizer type G	ranular 10-20-20		
Fertilizer amount_	1/3	lbs/acre	
Mulch 2		_Tons/acre	
		Sand Mixtures	
7	Temporary	Seed Mixtures Perma	nent
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
A	15		
Maps(s) of road, location, provided). If water from the acreage, of the land applica	oit and proposed area for land e pit will be land applied, inc tion area.	application (unless engineered plans included dimensions (L x W x D) of the pit, and	ling this info have been dimensions (L x W), a
Attach: Maps(s) of road, location, pprovided). If water from the acreage, of the land applica Photocopied section of involved plan Approved by: Comments:	pit and proposed area for land e pit will be land applied, incition area. plyed 7.5' topographic sheet.	lude dimensions (L x W x D) of the pit, and	ed areas
Attach: Maps(s) of road, location, pprovided). If water from the acreage, of the land applica Photocopied section of involved plan Approved by: Comments:	pit and proposed area for land applied, incition area. plyed 7.5' topographic sheet.	lude dimensions (L x W x D) of the pit, and	ed areas
Attach: Maps(s) of road, location, pprovided). If water from the acreage, of the land applica Photocopied section of involved Plan Approved by: Comments: Per WVASA	pit and proposed area for land applied, incition area. plyed 7.5' topographic sheet.	lude dimensions (L x W x D) of the pit, and	ed areas

MAY 27 2016





Projected culvert inventory (for bid purposes only) Proposed Access Road 15" minimum diameter culverts See Site Plan See Site Plan 24" minimum diameter culverts See Site Plan Approximate Total Disturbance See Site Plan Dwayne A. Hall, PS 243-14 243-14 Rec Plan

SURVEYING AND MAPPING SERVICES PERFORMED BY:

ALLEGHENY SURVEYS, INC. 1-800-482-8606

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

237 Birch River Road P.O. Box 438 Birch River, WV 26610

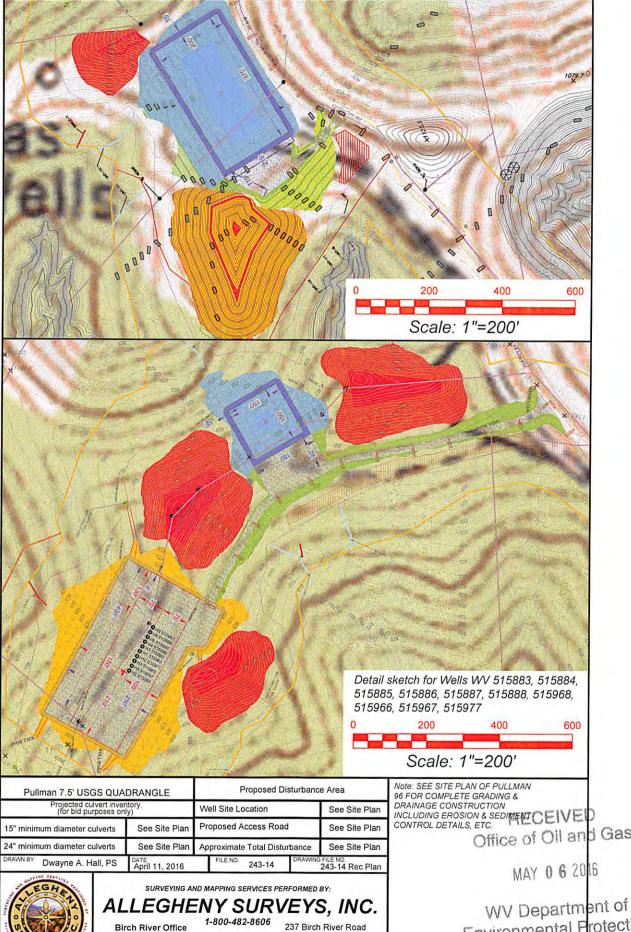
INCLUDING EROSION & SEDIMENT CONTROL DETAILS, ETC.

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MAY 0 6 2016

WV Department of Environmental Protection 07/29/2016





Phone: (304) 649-8606 Fax: (304) 649-8608

P.O. Box 438 Birch River, WV 26610 Office of Oil and Gas

Environmental Protection

07/29/2016

Operator's Well No.	515966
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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			2.00	mant die
Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page

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 ion 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: Victoria J Roark

Its: Permitting Supervisor

Page 1 of 2

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MAY 0 6 2016

Operator's Well No.

515966

ase No.	Grantor, Lessor, etc.	Grantee, Lessee, etc. Royalty	Book/Page
919995	Laurie Ann Haddox, et al (current royalty owner)		111111
	James A. Wilson, et ux (original lessor)	R. W. Richards	LB79/542
	R. W. Richards	J. E. Richards and C. W. Richards	LB80/78
	J. E. Richards and C. W. Richards	Bolyard Oil & Gas, LTD	LB169/136
	Bolyard Oil & Gas, LTD	Sheffield Exploration Co.	LB189/521
		M. S. Oil Co. (69.513% of working interest)	
	Sheffield Exploration Co.	and Applied Mechanics Corp. (30.487% of	LB208/268
	M. S. Oil Co. (69.513%)	working interest)	I D000/000
		Applied Mechanics Corp.	LB222/836
	Applied Mechanics Corporation, et al	FS Limited Partnership	AB274/80
	FS Limited Partnership	EQT Production Co.	AB274/102
919993 🗸	lan David Wilson, et al (current royalty owner)	100	
	Effie E. Wilson and James Wilson (original lessor)	J.E. Richards	LB79/346
	J.E. Richards	J. E. Richards and C.W. Richards	LB79/407
	J.E. Richards and C.W. Richards	P.O. Burgy, B.S. Marshall, L.B. Burgy & Rollo Riggs	LB81/279
	P.O. Burgy, B.S. Marshall, L.B. Burgy & Rollo Riggs	J. E. Richards and C.W. Richards	LB123/303
	J. E. Richards and C.W. Richards	Applied Mechanics, et al	LB206/8
	Applied Mechanics Corporation, et al	FS Limited Partnership	AB274/80
	FS Limited Partnership	EQT Production Co.	300000000000000000000000000000000000000
	/ O Elimited Farthership	EQT Floduction Co.	AB274/102
1006580 💙	Eagle Ridge L.P., et al (current royalty owner)	min pd 1/8	Rth
-	Eagle Ridge L.P. (original lessor)	EQT Production Company	LB285/155
	1	201111111111111111111111111111111111111	20200/100
1006581	Eagle Ridge L.P., et al (current royalty owner)	min pd 1/8	Bth
	Eagle Ridge L.P. (original lessor)	EQT Production Company	LB285/157
1006560	E. Howard Todd (current royalty owner)	min pd 1/8	8th
	E. Howard Todd (original lessor)	EQT Production Company	LB283/945
919989	Sandra Kay Reed, et al (current royalty owner)	makes during an	
	Barr Wilson, et al (original lessor)	W. H. Mossor	LB 81/120
	W.H. Mossor	Term Energy Corporation	LB132/314
	Term Energy Corporation	Sun Pantry Enterprises, Inc	158/831
	Sun Pantry Enterprises, Inc	Applied Mechanics Corporation, et al	222/830
	Applied Mechanics Corporation, et al	FS Limited Partnership	274/80
	FS Limited Partnership	EQT Production Company	LB274/102

*** We will pay 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 VED 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.

MAY 0 6 2016

WV Department of Environmental Protection



April 22, 2016

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

Re: PUL96 well pad, well number 515966 Union 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,

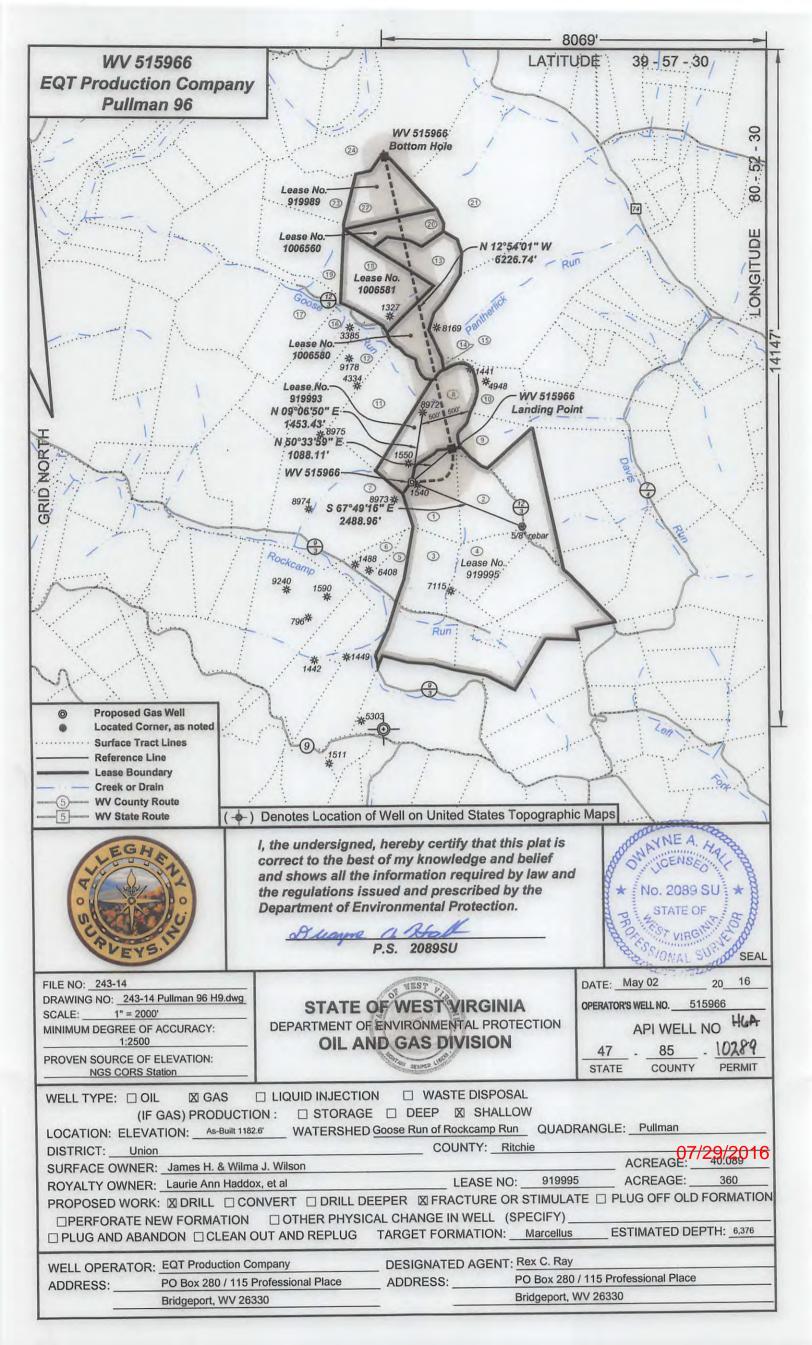
Vicki Roark

Permitting Supervisor-WV

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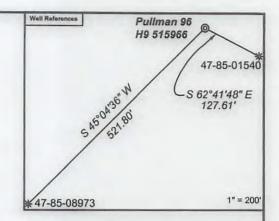
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WV Department of Environmental Protection

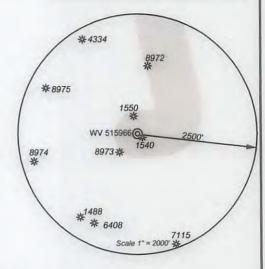


WV 515966 **EQT Production Company** Pullman 96

Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	7	8.4	Ritchie	Union	Wilma J. Wilson	40.09
2	7	8.3	Ritchie	Union	James D. Wilson	39.87
3	7	8.5	Ritchie	Union	Robert & Oleta Jane Wilson	37.23
4	7	8.2	Ritchie	Union	Ian David Wilson	30.10
5	7	11.0	Ritchie	Union	Arnold K. Richards (Life)	43.84
6	7	6.0	Ritchie	Union	Eva L. Riffle	14.75
7	7	5.0	Ritchie	Union	Jean W. Moore	134.70
8	7	4.0	Ritchie	Union	James D. Wilson, et al.	63.00
9	39	10.0	Ritchie	Clay	Charlie Ray & Lori Ann Amos	24.64
10	39	10.1	Ritchie	Clay	Pierce Okla & Suzanne Denise Amos	25.36
11	7	3.0	Ritchie	Union	Earl Wilson Jr., et al.	61.00
12	7	2.1	Ritchie	Union	Michael W. Elder	46.20
13	35	39.0	Ritchie	Clay	Chester D. Riddle, et al.	49.50
14	7	17.0	Ritchie	Union	Max D. & Laura B. Dodd	1.00
15	35	40.0	Ritchie	Clay	Max D. & Laura B. Dodd	211.60
16	7	2.0	Ritchie	Union	Michael W. Elder	66.00
17	7	1.0	Ritchie	Union	Randall K. Woods	55.20
18	35	39.1	Ritchie	Clay	Chester D. Riddle, et al.	47.50
19	35	38.0	Ritchie	Clay	James L. Crouse, et al.	50.00
20	35	39.2	Ritchie	Clay	Howard E. Todd	22.50
21	35	31.0	Ritchie	Clay	Max D. & Laura B. Dodd	93.33
22	35	30.0	Ritchie	Clay	Hothem Family Properties LP	38.75
23	35	- 29.0	Ritchie	Clay	James L. Crouse, et al.	38.50
24	35	14.0	Ritchie	Clay	Earl Wilson Jr., et al.	293.36



Notes; WV 515966 coordinates are NAD 27 N: 262,511.67 E: 1,578,950.12 NAD 27 Lat: 39,211188 Long: -80,985997 NAD 83 UTM N: 4,340,221.89 E: 501,223.44 WV 515966 Landing Point coordinates are NAD 27 N: 263,202.82 E: 1,579,790.53 NAD 27 N: 263,202.82 E: 1,579,790.53
NAD 27 Lat: 39.213124 Long: -80,983072
NAD 83 UTM N: 4,340,436.73 E: 501,475.95
WV 515966 Bottom Hole coordinates are
NAD 27 N: 269,272.40 E: 1,578,400.39
NAD 27 Lat: 39.229723 Long: -80,988332
NAD 83 UTM N: 4,342,278.72 E: 501,021.57
West Virginia Coordinate system of 1927 (North Zon Geographic coordinates are NAD27.
UTM coordinates are NAD83, Zone 17, Meters.
Plat orientation, corner and well ties are based upo the grid no meridian.
Well location references are based upon the grid no meridian.



Pullman 96

Name Acres Lease No. 919993 Ian David Wilson, et al. 63 49.5 1006580 Eagle Ridge L.P., et al. Eagle Ridge L.P., et al. E. Howard Todd 1006581 47.5 1006560 Sandra Kay Reed, et al



Proposed Gas Well Located Corner, as noted

Surface Tract Lines

Reference Line

Lease Boundary

WV County Route

Creek or Drain

WV State Route

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

P.S. 2089SU

OWAYNE A No. 2089 SU

FILE NO: 243-14 DRAWING NO: 243-14 Pullman 96 H9.dwg 1" = 2000' SCALE: MINIMUM DEGREE OF ACCURACY: 1:2500 PROVEN SOURCE OF ELEVATION:

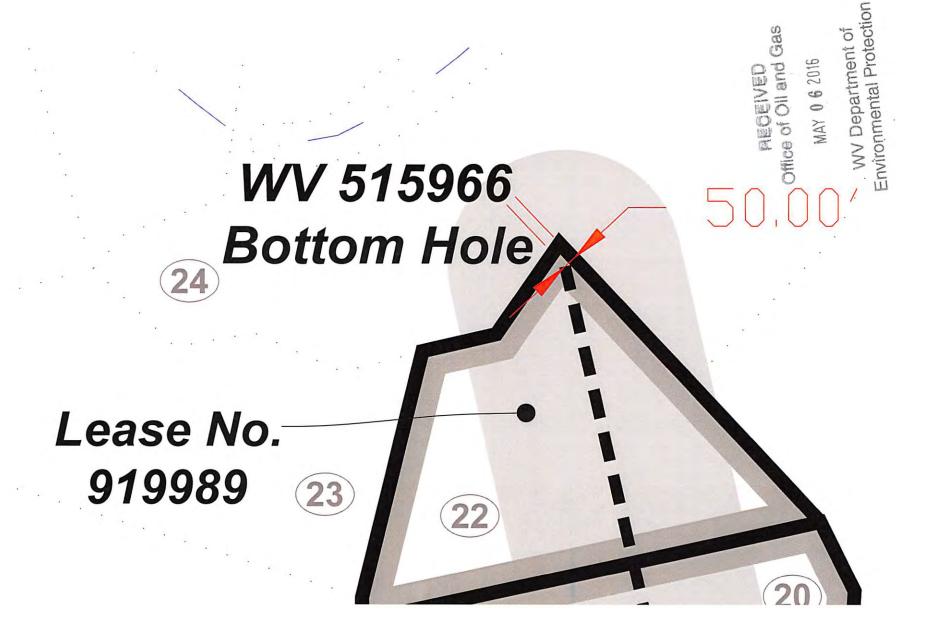
Bridgeport, WV 26330

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

DATE: May 02 OPERATOR'S WELL NO. 515966 API WELL NO HEA - 85 - 10289

Bridgeport, WV 26330

NGS CORS Station	SELECT	STATE COUNTY PERMIT
(IF GAS) PRODUCTION	☐ LIQUID INJECTION ☐ WASTE DISPO ON: ☐ STORAGE ☐ DEEP ☒ SHAL WATERSHED Goose Run of Rockcamp R	LOW
DISTRICT: Union	COUNTY: _ F	ACREAGE: 40.059
SURFACE OWNER: James H. & Wilma	a J. Wilson	
ROYALTY OWNER: Laurie Ann Haddo	x, et al LEASE N	O: 919995 ACREAGE: 360
	NVERT □ DRILL DEEPER ☒ FRACTURE C □ OTHER PHYSICAL CHANGE IN WELL	OR STIMULATE ☐ PLUG OFF OLD FORMATION (SPECIFY)
□ PLUG AND ABANDON □ CLEAN C	OUT AND REPLUG TARGET FORMATION:	: Marcellus ESTIMATED DEPTH: 6,376
WELL OPERATOR: EQT Production Co	ompany DESIGNATED AGENT	T: Rex C. Ray
ADDRESS: PO Box 280 / 115 F	Professional Place ADDRESS:	PO Box 280 / 115 Professional Place



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

	ce Certification:	API	No. 47- 85 -	10289	
			rator's Well No. 515	966	
			l Pad Name: PUL96		
Notice has					
	ne provisions in West Virginia Code	§ 22-6A, the Operator has provided	the required parties	with the Notice Forms liste	
	tract of land as follows:		• And the same same		
State:	W	UTM NAD 83 East			
County: District:	Ritchie Union	Public Road Access:	thing: 4,340,221.893		
District: Quadrangle:	Pullman	Generally used farm n	20.5112	James H. & Wilma J. Wilson	
Watershed:	Goose Run of Rockcamp Run	Generally used faili ii	annes in a vviii	ila J. VVIISOII	
prescribed by it has provid information r of giving the requirements Virginia Cod	West Virginia Code § 22-6A-7(b), the secretary, shall be verified and seed the owners of the surface described the owners of the surface described by subsections (b) and (c), so surface owner notice of entry to so of subsection (b), section sixteen the surface owner half by the applicant shall have been completed by the applica	shall contain the following informat bed in subdivisions (1), (2) and (4 ection sixteen of this article; (ii) that arvey pursuant to subsection (a), so of this article were waived in writi- tender proof of and certify to the sec	ion: (14) A certificated, subsection (b), set the requirement was tection ten of this arting by the surface or	ion from the operator that ection ten of this article, to s deemed satisfied as a resticle six-a; or (iii) the noticle wher; and Pursuant to We	
that the Ope	West Virginia Code § 22-6A, the O rator has properly served the require ECK ALL THAT APPLY		otice Certification	OOG OFFICE USE ONLY	
*PLEASE CHI	rator has properly served the require	ed parties with the following:	BECAUSE NO		
*PLEASE CHI	rator has properly served the require	NOTICE NOT REQUIRED I SEISMIC ACTIVITY WAS CON	BECAUSE NO NDUCTED	ONLY RECEIVED/	
*PLEASE CHI 1. NO	Trator has properly served the require ECK ALL THAT APPLY FICE OF SEISMIC ACTIVITY or	NOTICE NOT REQUIRED I SEISMIC ACTIVITY WAS CON	BECAUSE NO NDUCTED AS CONDUCTED BECAUSE	ONLY RECEIVED/ NOT REQUIRED	
*PLEASE CHI 1. NO	Tator has properly served the require ECK ALL THAT APPLY FICE OF SEISMIC ACTIVITY or FICE OF ENTRY FOR PLAT SURY	Ed parties with the following: ■ NOTICE NOT REQUIRED INTERPORT SEISMIC ACTIVITY WAS CONVEY OF ■ NO PLAT SURVEY WAS NOTICE NOT REQUIRED INTERPORT OF ENTRY FOR PLAT	BECAUSE NO NDUCTED AS CONDUCTED BECAUSE SURVEY	ONLY RECEIVED/ NOT REQUIRED RECEIVED RECEIVED/	
*PLEASE CHI 1. NO 2. NO 3. NO	Tator has properly served the require ECK ALL THAT APPLY FICE OF SEISMIC ACTIVITY or FICE OF ENTRY FOR PLAT SURY	Ed parties with the following: ■ NOTICE NOT REQUIRED IN SEISMIC ACTIVITY WAS CONVEY OR ■ NO PLAT SURVEY WAS CONTICE NOTICE NOTICE OF ENTRY FOR PLAT WAS CONDUCTED OR ■ WRITTEN WAIVER BY SURVEY WAS SURVEY WAIVER BY SURVEY OF ■ WRITTEN WAIVER BY SURVEY OR ■ WRITTEN WAIVER BY SURVEY OF ■ WRITTEN WAIVER BY S	BECAUSE NO NDUCTED AS CONDUCTED BECAUSE SURVEY	ONLY RECEIVED/ NOT REQUIRED RECEIVED RECEIVED/	
that the Ope *PLEASE CHI 1. NO 2. NO 3. NO 4. NO	Trator has properly served the require ECK ALL THAT APPLY FICE OF SEISMIC ACTIVITY or FICE OF ENTRY FOR PLAT SURY	Ed parties with the following: ■ NOTICE NOT REQUIRED IN SEISMIC ACTIVITY WAS CONVEY OR ■ NO PLAT SURVEY WAS CONTICE NOTICE NOTICE OF ENTRY FOR PLAT WAS CONDUCTED OR ■ WRITTEN WAIVER BY SURVEY WAS SURVEY WAIVER BY SURVEY OF ■ WRITTEN WAIVER BY SURVEY OR ■ WRITTEN WAIVER BY SURVEY OF ■ WRITTEN WAIVER BY S	BECAUSE NO NDUCTED AS CONDUCTED BECAUSE SURVEY	ONLY RECEIVED/ NOT REQUIRED RECEIVED/ NOT REQUIRED	

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 Gode § 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.

Certification of Notice is hereby given:

THEREFORE, I 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 CompanyAddress:115 Professional Place PO Box 280By:Victoria J RoarkBridgeport WV 26330Its:Permitting SupervisorFacsimile:304-848-0041Telephone:304-848-0076Email:vroark@eqt.com

NOTARYCSEAEAL
NOTARY PUBLIC
STATE OF WEST VIRIGINIA
REBECCA L. WANSTHEET
EQT PRODUCTION COMPANY
PO BOX 280
BRIDGEPORT, WV 28330
My commission expires April 07, 2020

Subscribed and sworn before me this 4 day of May 2016.

Relucca & Womstreed Notary Public

My Commission Expires 4-7-2

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 deprivacyofficer@wv.gov.

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Office of Oil and Gas

MAY 0 6 2016

WV Department of Environmental Protection WW-6A (9-13) API NO. 47- 85 - 10289

OPERATOR WELL NO. 515966

Well Pad Name: PUL96

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 the	nan the filing date of permit application.
Date of Notice: 5/10 Date Permit Application Filed: 5	<u>15/1</u> 0
PERMIT FOR ANY WELL WORK CONSTRUCTION OF	PROVAL FOR THE AN IMPOUNDMENT OR PIT
Delivery method pursuant to West Virginia Code § 22-6A-1	0(b)
	HOD OF DELIVERY THAT REQUIRES A EIPT OR SIGNATURE CONFIRMATION
certificate of approval for the construction of an impoundment or pregistered mail or by any method of delivery that requires a receipt sediment control plan required by section seven of this article, and the surface of the tract on which the well is or is proposed to be loc oil and gas leasehold being developed by the proposed well work, it described in the erosion and sediment control plan submitted pursu operator or lessee, in the event the tract of land on which the well proposed well work, if the surface tract is to be used for the placement, const impoundment or pit as described in section nine of this article; (5) have a water well, spring or water supply source located within one provide water for consumption by humans or domestic animals; an proposed well work activity is to take place. (c)(1) If more than thresubsection (b) of this section hold interests in the lands, the application records of the sheriff required to be maintained pursuant to section provision of this article to the contrary, notice to a lien holder is no	ee tenants in common or other co-owners of interests described in an any serve the documents required upon the person described in the eight, article one, chapter eleven-a of this code. (2) Notwithstanding any to notice to a landowner, unless the lien holder is the landowner. W. Va. provide the Well Site Safety Plan ("WSSP") to the surface owner and any
☐ Application Notice ☐ WSSP Notice ☐ E&S Plan Notice	
☑ SURFACE OWNER(s) Name: See Attached	☑ COAL OWNER OR LESSEE Name: See Attached
Address:	Address:
Name:	COAL OPERATOR Name: Address:
SURFACE OWNER(s) (Road and/or Other Disturbance) Name: See Attached Address:	SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s) Name:
Name:	Address:
Address: SURFACE OWNER(s) (Impoundments or Pits) Name: See Attached	OPERATOR OF ANY NATURAL CASE OF ACT FIELD Name: Office of Oil and Gas Address:
Address:	*Please attach additional forms if necessary 0 6 2016

WV Department of Environmental Protection

API NO. 47-85 - 16289 OPERATOR WELL NO. 515966

Well Pad Name: PUL96

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 or 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, it granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing profitions of the secretary considers necessary. 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 resorted 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 later to the well location restrictions regarding occupied dwelling structures pursuant to this section. Elipoprofinding that Ptotection that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

API NO. 47-85 - 10289 OPERATOR WELL NO. 515966

Well Pad Name: PUL86

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

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Office of Oil and Gas

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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.

WV Department of Environmental Protection

WW-6A (8-13) API NO. 47- 85 - 102 89

OPERATOR WELL NO. 515966

Well Pad Name: PUL96

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.

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Office of Oil and Gas

MAY **0 6** 2016

WW-6A (8-13) API NO. 47-85 - 102 & 9

OPERATOR WELL NO. 515966

Well Pad Name: PUL96

Notice is hereby given by:

Well Operator: EQT Production Company

Telephone: 304-848-0076

Email: vroark@eqt.com

Address: 115 Professional Place PO Box 280

Bridgeport WV 26330

Facsimile: 304-848-0041

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.

OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA REBECCA L. WANSTHEET EQT PRODUCTION COMPANY PO BOX 280
BRIDGEPORT, WV 26330
My commission expires April 07, 2020

Subscribed and sworn before me this

day of

2016

Notary Public

My Commission Expires

4-7-20

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Office of Oil and Gas

MAY 0 6 2016

85-10289 Topo Quad: Pullman 7.5' Scale: 1 " = 2000' Ritchie December 12, 2014 County: Date: Project No: 243-38-U-14 District: Union **PULLMAN 96** Beas Oil Wen Run Pantherlick Well Pulman 96



SURVEYING AND MAPPING SERVICES PERFORMED BY:

DE24

Rockcamp

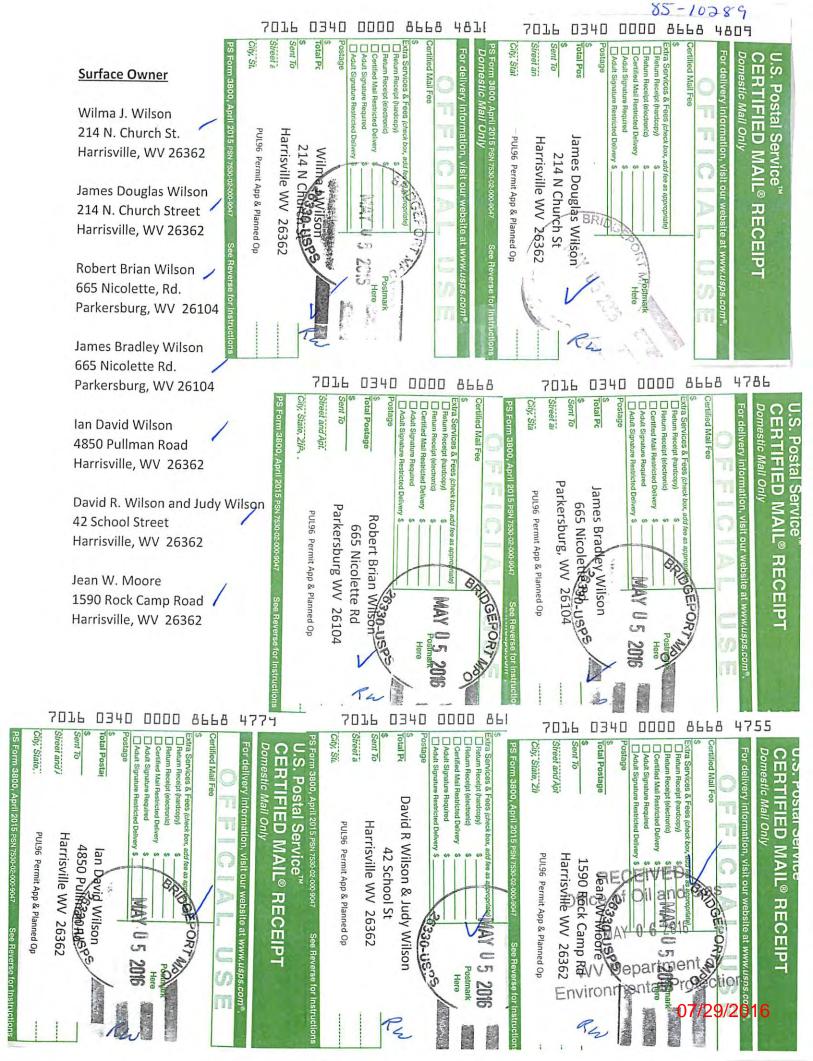
ALLEGHENY SURVEYS, INC.

1-800-482-8606 237 Birch River Road Birch River, WV 26610 PH: (304) 649-8606 FAX: (304) 649-8608 Office of Oil and Gas

EQT Production Company

Bridgeport, WV 26330
WV Department of

Environmental Protection



Environmental Protection WV Department of

Surface Owner (Road and/or Other Disturbance)

9105 8 0 YAM

Wilma J. Wilson Office of Office April 2011 Harrisville, WV 26362

James Douglas Wilson 214 N. Church Street Harrisville, WV 26362

Robert Brian Wilson 665 Nicolette, Rd. Parkersburg, WV 26104

James Bradley Wilson /. 665 Nicolette Rd. Parkersburg, WV 26104

Ian David Wilson 4850 Pullman Road Harrisville, WV 26362

7016

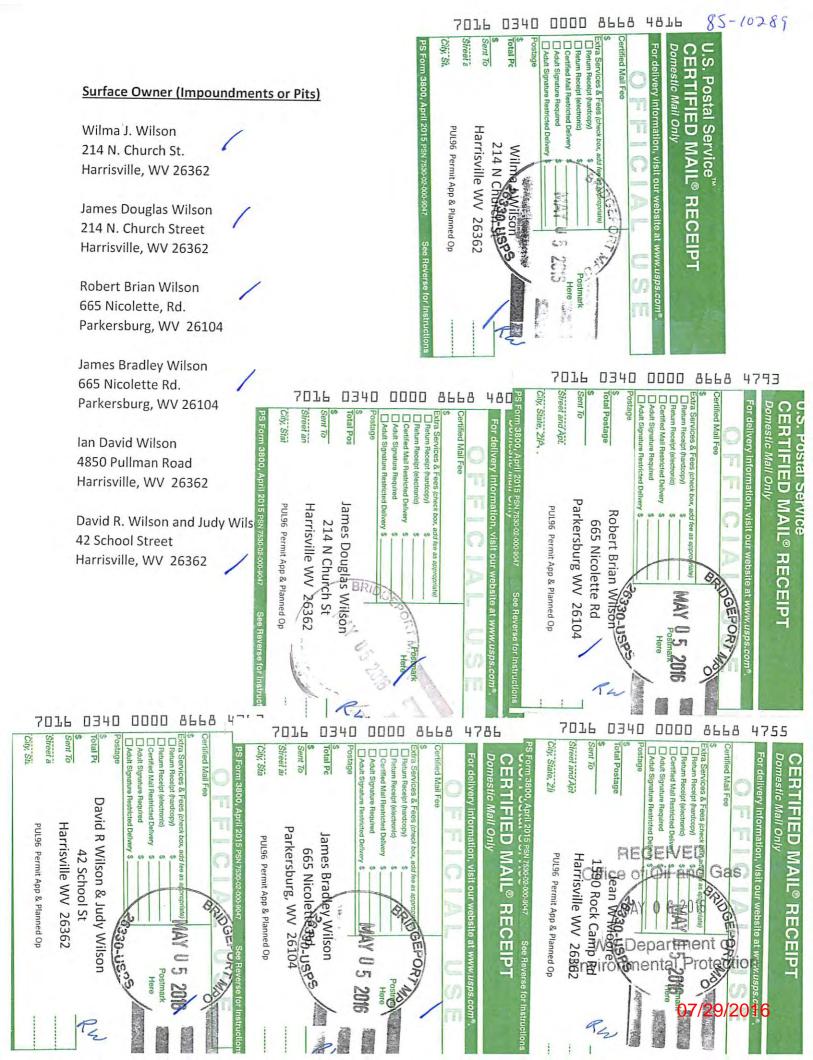
PUL96 Permit App & Planned Op

Harrisville WV 26362 42 School St

0340

David R Wilson & Judy Wilson

David R. Wilson and Judy Wilson 42 School Street Harrisville, WV 26362



Coal Owners

Ritchie Petroleum Corporation P.O. Box 545 Pennsboro, WV 26415-0545

J.F. Deem Oil & Gas 4541 Emerson Avenue Parkersburg, WV 26104-1213

Nancy C. Ruth, Trustee Cottrill Family Trust 328 E. Spring Street Marietta, OH 45750-2438

Jay A. Cottrill, Trustee Cottrill Family Trust 328 E. Spring Street Marietta, OH 45750-2438

Joseph D. Cottrill, Trustee Cottrill Family Trust 1748 Mills Ave Cincinnati, OH 45212-2826

Christopher Cottrill, Trustee 3029 Lakeshore Drive 1108 E. 2700 S Apt 14 Salt Lake City, UT 84106

Theresa Ann Wilson 1026 King Street Lancaster, OH 43130

Leslie Randall Elder / 1432 Wedgewood Drive Anaheim, CA 92801

James Russell Clovis 19801 Eagle Nest Rd. Cutler Bay, FL 33157

Claudia G. Elder 2119 Tremont Avenue Simi Valley, CA 93063 Richard Wesley Elder 1931 Whitehall Court Simi Valley, CA 93065

Geneva E. Snodgrass / 510 Harrisoin St. Harrisville, WV 26362

William Harold Moore 3307 Smith St. Parkersburg, WV 26104

Pamela Donohoe 524 SE 42nd Street Ocala, FL 34480

Carol Robinson 524 SE 42nd Street Ocala, FL 34480

Deborah Lesh 524 SE 42nd Street Ocala, FL 34480

Earl Wilson Jr. 10593 Pullman Rd. Pennsboro, WV 26415

Annabel Wilson Day 4101 County Rd 282 Auxvasse, MO 65231

Julia Staggers 3052 Valley Avenue #100 Winchester, VA 22601

Sandra Staggers

1604 Rose Hill Drive
Charlottesville, VA 22903

Susan Cafferty 3855 105th Street SE Kandiyohi, MN 56251 RECEIVED
Office of Oil and Gas

MAY 0 6 2016

Coal Owners

Mira White 3244 Homerood Ave North Port, FL 34286

lan David Wilson 1025 E. south Street Harrisville, WV 26362

James Douglas Wilson 214 S. Church Street Harrisville, WV 26362

James Bradley Wilson 665 Nicolette Rd. Parkersburg, WV 26104

Robert Brian Wilson 665 Nicolette Rd. Parkersburg, WV 26104

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MAY 0 6 2016

WV Department of Environmental Protection

07/29/2016

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Date of Noti		l at least TEN (10) days prior to filing a Permit Application Filed: 04/25/2016	permit application.
Delivery me	thod pursuant to West Virginia Code	§ 22-6A-16(b)	
☐ HAND	CERTIFIED MAIL		
DELIV		EOUESTED	
receipt reque drilling a hor of this subsec subsection m	sted or hand delivery, give the surface or rizontal well: <i>Provided</i> , That notice give ction as of the date the notice was provid	wner notice of its intent to enter upon the pursuant to subsection (a), section to led to the surface owner: <i>Provided, howwher.</i> The notice, if required, shall include the surface owner.	, an operator shall, by certified mail return he surface owner's land for the purpose of en of this article satisfies the requirements vever, That the notice requirements of this lude the name, address, telephone number, or's authorized representative.
	ereby provided to the SURFACE O	WNER(s):	
Name: See Atta	ached	Name: See Attached	
Address:		Address:	
	wner's land for the purpose of drilling a l		
State: County: District: Quadrangle: Watershed:	WV Ritchie Union Pullman Goose Run of Rockcamp Run	UTM NAD 83 Easting: Northing: Public Road Access: Generally used farm name:	501,223.443 4,340,221.893 12/3 James H. & Wilma J. Wilson
County: District: Quadrangle: Watershed: This Notice Pursuant to value facsimile nuited to hoo	Ritchie Union Pullman Goose Run of Rockcamp Run Shall Include: West Virginia Code § 22-6A-16(b), thi mber and electronic mail address of the rizontal drilling may be obtained from ti	Public Road Access: Generally used farm name: is notice shall include the name, addre operator and the operator's authorize the Secretary, at the WV Department of	4,340,221.893 12/3
County: District: Quadrangle: Watershed: This Notice Pursuant to value facsimile nurelated to hoo located at 60 Notice is he	Ritchie Union Pullman Goose Run of Rockcamp Run Shall Include: West Virginia Code § 22-6A-16(b), thi mber and electronic mail address of the rizontal drilling may be obtained from ti 1 57 th Street, SE, Charleston, WV 25304 ereby given by:	Public Road Access: Generally used farm name: is notice shall include the name, addre operator and the operator's authorize the Secretary, at the WV Department of (304-926-0450) or by visiting www.de	4,340,221.893 12/3 James H. & Wilma J. Wilson ress, telephone number, and if available, ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.
County: District: Quadrangle: Watershed: This Notice Pursuant to value facsimile nuited to hoo located at 60 Notice is he well Operator	Ritchie Union Pullman Goose Run of Rockcamp Run Shall Include: West Virginia Code § 22-6A-16(b), thi mber and electronic mail address of the rizontal drilling may be obtained from to 1 57th Street, SE, Charleston, WV 25304 ereby given by: or: EQT Production Company	Public Road Access: Generally used farm name: is notice shall include the name, addre operator and the operator's authorize the Secretary, at the WV Department of (304-926-0450) or by visiting www.de	4,340,221.893 12/3 James H. & Wilma J. Wilson ress, telephone number, and if available, ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx. Victoria Roark
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County: District: Quadrangle: Watershed: This Notice Pursuant to vifacsimile nuit related to hose located at 60 Notice is he well Operated Address: Bridgeport W 2 Telephone:	Ritchie Union Pullman Goose Run of Rockcamp Run Shall Include: West Virginia Code § 22-6A-16(b), thi mber and electronic mail address of the rizontal drilling may be obtained from to 1 57th Street, SE, Charleston, WV 25304 Preby given by: EQT Production Company 115 Professional Place PO Box 280 304-848-0076	Public Road Access: Generally used farm name: is notice shall include the name, addrese operator and the operator's authorize the Secretary, at the WV Department of (304-926-0450) or by visiting www.de Authorized Representative: Address: Bridgeport WV 26330 Telephone:	4,340,221.893 12/3 James H. & Wilma J. Wilson ress, telephone number, and if available, ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx. Victoria Roark 115 Professional Place PO Box 280 304-848-0076
County: District: Quadrangle: Watershed: This Notice Pursuant to vifacsimile nur related to hor located at 60 Notice is he Well Operato Address: Bridgeport W 2	Ritchie Union Pullman Goose Run of Rockcamp Run Shall Include: West Virginia Code § 22-6A-16(b), thi mber and electronic mail address of the rizontal drilling may be obtained from ti 1 57 th Street, SE, Charleston, WV 25304 Pereby given by: DT: EQT Production Company 115 Professional Place PO Box 280 16330	Public Road Access: Generally used farm name: is notice shall include the name, addrese operator and the operator's authorize the Secretary, at the WV Department of (304-926-0450) or by visiting www.de Authorized Representative: Address: Bridgeport WV 26330	4,340,221.893 12/3 James H. & Wilma J. Wilson ress, telephone number, and if available, ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx. Victoria Roark 115 Professional Place PO Box 280

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 for 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.

MAY 0 6 2016

Surface Owner

Wilma J. Wilson 214 N. Church St. Harrisville, WV 26362

James Douglas Wilson 214 N. Church Street Harrisville, WV 26362

Robert Brian Wilson 665 Nicolette, Rd. Parkersburg, WV 26104

James Bradley Wilson 665 Nicolette Rd. Parkersburg, WV 26104

lan David Wilson 4850 Pullman Road Harrisville, WV 26362

David R. Wilson and Judy Wilson / 42 School Street Harrisville, WV 26362

Jean W. Moore 1590 Rock Camp Road Harrisville, WV 26362

RECEIVED
Office of Oil and Gas

MAY 0 6 2016

Surface Owner (Road and/or Other Disturbance)

Wilma J. Wilson 214 N. Church St. Harrisville, WV 26362

James Douglas Wilson 214 N. Church Street Harrisville, WV 26362

Robert Brian Wilson 665 Nicolette, Rd. Parkersburg, WV 26104

James Bradley Wilson 665 Nicolette Rd. Parkersburg, WV 26104

lan David Wilson 4850 Pullman Road Harrisville, WV 26362

David R. Wilson and Judy Wilson 42 School Street Harrisville, WV 26362

> RECEIVED Office of Oil and Gas

> > MAY 0 6 2016

WV Department of 07/29/2016 Environmental Protection

Surface Owner (Impoundments or Pits)

Wilma J. Wilson 214 N. Church St. Harrisville, WV 26362

James Douglas Wilson 214 N. Church Street Harrisville, WV 26362

Robert Brian Wilson 665 Nicolette, Rd. Parkersburg, WV 26104

James Bradley Wilson 665 Nicolette Rd. Parkersburg, WV 26104

lan David Wilson 4850 Pullman Road Harrisville, WV 26362

David R. Wilson and Judy Wilson 42 School Street Harrisville, WV 26362

RECEIVED
Office of Oil and Gas

MAY 0 6 2016

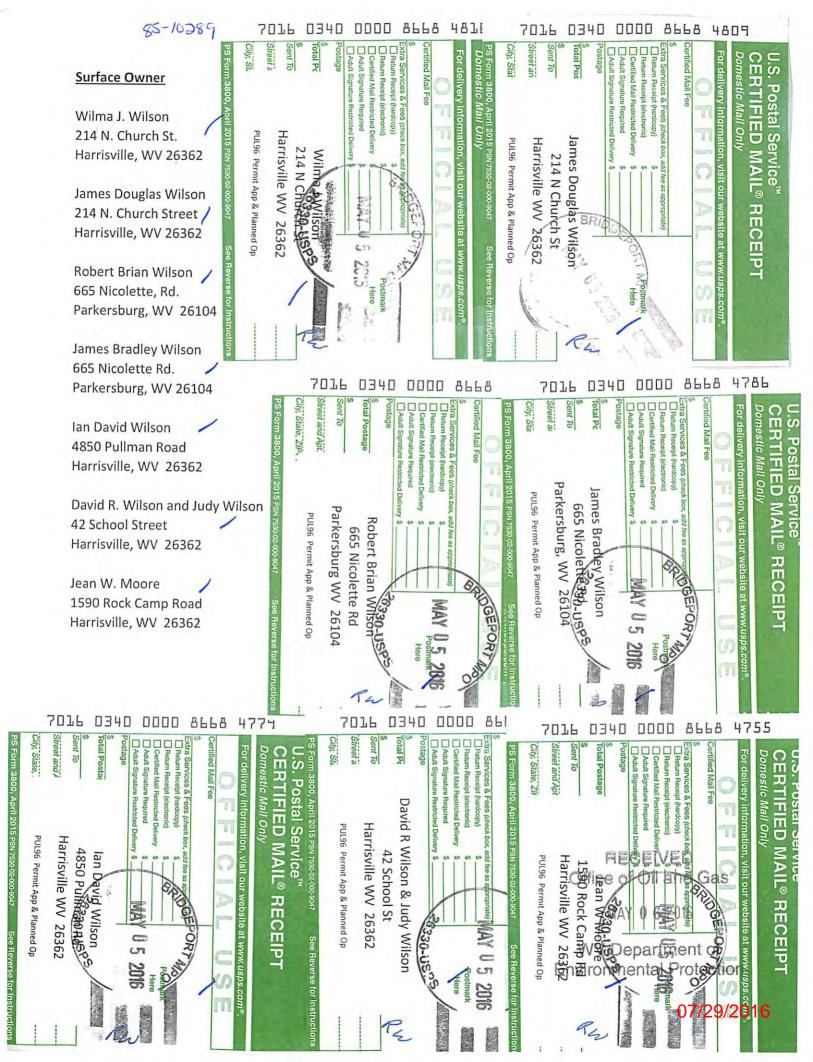
WW-6A5 (1/12)

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

Notice T Date of	Time R Notice	equirement: notice shall be provided no : <u>5/5/1U</u> Date Permit Ap	later that plication	n the filing n Filed:	date of permit 5/5/1U	application.
Delivery	meth	od pursuant to West Virginia Code § 2	2-6A-16	i(c)		
■ CE	ERTIFI	ED MAIL	HAND			
		-	DELIV	ERY		
return re the plans required drilling of damages	ceipt rended operated to be possible of a hostices	equested or hand delivery, give the surface eration. The notice required by this sub- provided by subsection (b), section ten of rizontal well; and (3) A proposed surface surface affected by oil and gas operations	ce owner bsection this artic ce use a s to the	whose land shall included to a surfand compensextent the day	I will be used for de: (1) A copy ace owner whos ation agreemen amages are comp	cation, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information we land will be used in conjunction with the t containing an offer of compensation for pensable under article six-b of this chapter. Sted in the records of the sheriff at the time
Notice is (at the ac Name: So	ddress l	y provided to the SURFACE OWNER isted in the records of the sheriff at the tired	k(s) me of no	•	See Attached	
Address:				Address		
Notice is Pursuant operation State: County: District: Quadran	to Wesn on th	st Virginia Code § 22-6A-16(c), notice is e surface owner's land for the purpose of well-build distribution of the purpose of	f drilling — U — Pı	a horizonta TM NAD 8 ublic Road A	I well on the trace Easting: Northing:	well operator has developed a planned ct of land as follows: 501,223,443 4,340,221,893 12/3 James H. & Wilma J. Wilson
Watershe	ed:	Soose Run of Rockcamp Run	_	•		
Pursuant to be pro horizonta surface a informati	to Westovided al well; affected ion relaters, lo	by W. Va. Code § 22-6A-10(b) to a sur and (3) A proposed surface use and comby oil and gas operations to the extent ated to horizontal drilling may be obtain ocated at 601 57th Street, SE, Charles	arface over npensation the damined from	wner whose on agreemer nages are co n the Secreta	land will be unt containing an impensable underly, at the WV	code section; (2) The information required used in conjunction with the drilling of a offer of compensation for damages to the er article six-b of this chapter. Additional Department of Environmental Protection or by visiting

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone 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. According to the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of information. According to the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of information. According to the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of information. According to the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of information. According to the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of information. According to the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of information. According to the normal course of the norma



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James Bradley Wilson 665 Nicolette Rd. Parkersburg, WV 26104

Ian David Wilson

4850 Pullman Road

Harrisville, WV 26362

David R. Wilson and Judy Wilson / 42 School Street Harrisville, WV 26362

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Office of Oil and Gas

MAY 0 6 2016

PUL96 Permit App & Planned Op

Surface Owner (Impoundments or Pits)

Wilma J. Wilson 214 N. Church St. Harrisville, WV 26362

James Douglas Wilson 214 N. Church Street Harrisville, WV 26362

Robert Brian Wilson 665 Nicolette, Rd. Parkersburg, WV 26104

James Bradley Wilson 665 Nicolette Rd. Parkersburg, WV 26104

Ian David Wilson 4850 Pullman Road Harrisville, WV 26362

David R. Wilson and Judy Wilson 42 School Street Harrisville, WV 26362

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MAY 0 6 2016



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

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

Earl Ray Tomblin Governor

April 18, 2016

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 96 Pad Site, Ritchie County

515966 PUL96H9

Dear Mr. Martin,

This well site will be accessed from Permit #03-2015-0122 applied for by EQT Production Company for access to the State Road. The well site is located off of Ritchie County Route 12/3 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 CEIVED
Central Office O&G Coordinator Oll and Gas

Cc: Nick Bumgardner

EQT Production Company

CH, OM, D-3, File

MAY 0 6 2016

Anticipated Frac Additives Chemical Names and CAS numbers

<u>Material</u>	<u>Ingredient</u>	CAS Number	
Water			
Sand	Hydrotreated light petroleum distillate Tributyl tetradecyl phosphonium	14808-60-7	
Friction Reducer	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	

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Office of Oil and Gas

MAY 0 6 2016

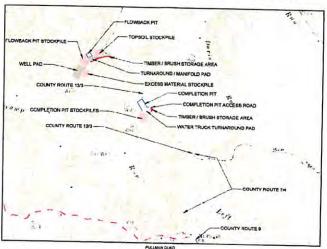
FLOODPLAIN CONDITIONS DO SITE CONSTRUCTON ACTIVITIES TAKE PLACE IN FLOCOPLAIN: PERMIT NEEDED FROM COUNTY FLOODPLAIN COORDINATOR HFC-RAS STUDY COMPLETED: N/A FLOODPLAIN SHOWN ON DRAWINGS: N/A FIRM MAP NUMBER(S) FOR SITE ACREAGES OF CONSTRUCTION IN FLOCOPLAIN.

NO WETLANDS OR STREAMS ARE IMPACTED

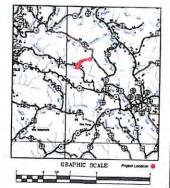
GRADING VOLUMES		ASSUILT GRADING VOLUMES				TOE KEY EXCAVATION				
DESCRIPTION	CUT (CY)	FILL (CY)	NET (CY)	CUT (CY)	urr (ca)	NET (CI)	Design vs Asbuilt	CUT(CY)	HLL [CY]	NET (CT)
WELL PAD ACCESS ROAD	4,893	1,917	976	4,492	3,721	771	205	3,039	0	3,659
WELL PAD	38,128	24,163	13.965	35,151	24,933	10,712	3,753	5,342	0	5,342
COMPLETION PIT	68,447	15,823	52 624	67,677	15,680	51,597	627	2.017	0	2,017
FLOWBACK PIT	24,880	1,857	21.023	26,557	3,411	25,342	-2.119	1,405	3	1,405
COMPLETION PIT ACCESS / WITA	479	17,842	-17,363	1,566	17.285	-15,719	-1.544	1.075	1	1,075
FLOWBACK PIT ACCESS / WANEGED	4,559	1,859	2,700	2,191	264	2.127	573	.,003	2	0
COMP/ WITA SIUCKIPLE	C	43,220	-43,220	15	40.919	-40,904	-7,316	1,881	3	1.881
F OWRACK STOCKPILE	0	22.585	-22,585	0	17,381	-17,381	-5.204	1,671	2	1,681
EXCESS MATERIAL STULKPILE	0	8,120	8,120	0	1/,213	-17,073	8,953	2,572	0	2,572
TOPSCIL STOCKPILE	12,850	0	12,850	12,314	0	12,314	535	3,894	0	1,894
TOTAL	154,226	141,386	12,850	150,163	140 677	5,485	1.164	5,051	-	3,694

ITEM DESCRIPTION	DESIGN QTY	UNIT	ASSUILT OF
Clearing and Grubbing	28.59	AC	28.99
24" SAt Sax	6,770	Lf	6,794
Straw Wattle	6.080	LF	3,659
Access Roads, Well Pad, & WITA's 6" Minus Crusher Asin Aggregate (8")	4,857	CV	4,571
Access Roads, Well Pad, & WTTA's 15" Minus Crusher Run Aggregate (2")	1213	CY	1,143
15" Dis. HDPF Colvert / P per	241	LF	110
.6" Dia. HDPt Luivert/ P pe	0	LF	0
Erosion Control Matting	41,390	24	N/A
Access Roads, Well Pad, & WTTA's Geotextile Fabric (Terra "ex HPG-37)	6,508	SY	6,940
fairling Fence Replacement/ Falocation	0	ır	N/A
lictes		_	
Quantities are based upon comparisors of design data to asbuilt field survey	ed or scanned cat	a and do n	of account
for overlap, actual truck volumes or tonnage as required for proper installats			

PUL 96 AS BUILT COVER SHEET / LOCATION MAP



	CATIONS	
The second second second	LATITUDE	LONGITUDE
egrowing of Completion Pt Access Road	15 107807	-80 97544B
Center of Completon Pd	39 307549	-80 07750M
Beginning of their Pass Access Road	39.713806	-80 091707
Core of Frontace Pt	30 313657	-80 994744
Cortie of West Part	39.71 1064	80 936/10



WELL LEGEND

H8 515967 - LAT: 39.211306 / LONG:-80.985804 H9 515966 - LAT: 39.211269 / LONG:-80.985829 H6 515888 - LAT: 39 211233 / LONG:-80.985853 (API# 47-085-10218) H4 515886 - LAT: 39.211196 / LONG:-80.985878 (API# 47-085-10217) H3 515885 - LAT: 39.211160 / LONG:-80.985902 (API# 47-085-10220) H1 515883 - LAT: 39.211123 / LONG:-80.985927 (API# 47-085-10219) H10 515977 - LAT: 39.211087 / LONG:-80.985951 (API# 47-085-10210) H7 515965 - LAT: 39.211050 / LONG:-80.985976 (API# 47-085-10209) H5 515887 - LAT: 39.211014 / LONG:-80.986000 (API# 47-085-10211) H2 515884 - LAT: 39.210977 / LONG:-80.986025 (API# 47-085-10207)

Surveyor & Engineer

MISS I thilly of West Verynia
1-800-245-1818
West Verynia Shat Law
(Secreon XIV: Chapter 24-C)
Requires It fairly ou call his bosiness
days before you do no bosiness
days before you do no state of
West Verynia.
IT'S THE LAW!! ow what's below. Call before you dig.

SHEET INDEX

COVER BREET LOCATION MAP 1
AS-BUILT GRACING 10
AS-BUILT GRACING 10
AS-BUILT GRACING 10
AS-BUILT MAIN ACCESS 4 COMPLETION PIT ROAD PROFILE 10
AS-BUILT MAIN ACCESS 4 COMPLETION PIT ROAD PROFILE 10



WVDEP OOG

ACCEPTED AS-BUILT

7-26-2016

COMPLETION PLY ACCESS 1 094 HCPES COMPLETION PLY - 4 (SACRES) THESE 4 APP THE STORAGE - 1 94 ACRES TOTAL DISTUMBANCE - 0 21 ACRES THREE A PEMOUSL - 0 01 ACRES

237 I Birch

Engine



THIS DOCUMENT PREPARED FOR EQT PRODUCTION COMPANY

AS BUILT COVER SHEET PUL 96
WELL PAD SITE CLAY & INNON DISTRICTS RITCHIE COUNTY, WV

RECEIVED

Office of Oil and Gas Date: 10/28/2015

DATE REVISIONS ADD AR NUMBERS, UPDATE HE & 119 MASELLO NEA 20 Designal H: TIX WV Departmen

nemal 1