



 west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Tuesday, April 9, 2019
 WELL WORK PERMIT
 Horizontal 6A / New Drill

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

Re: Permit approval for OXF43H32
 47-017-06884-00-00

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

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

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

James A. Martin
 Chief

Operator's Well Number: OXF43H32
 Farm Name: CATHY JEAN WETZEL, ET AL
 U.S. WELL NUMBER: 47-017-06884-00-00
 Horizontal 6A New Drill
 Date Issued: 4/9/2019

PERMIT CONDITIONS

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

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.
7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. 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.
10. 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.

04/12/2019

API Number: _____

PERMIT CONDITIONS

11. 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.

04/12/2019

EQT Production
Hydraulic Fracturing Monitoring Plan

Pad ID: OXF43

County: Doddridge

11/29/2018

RECEIVED
Office of Oil and Gas

DEC 6 2018

Page 1 of 2
WV Department of
Environmental Protection

Purpose

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operators near EQT hydraulic fracturing in **Doddridge County**, WV prior to hydraulic fracturing at the following EQT wells on **OXF43H32, OXF43H34, OXF43H35, OXF43H36, OXF43H37**.

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

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

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

1. Communications with Well Operators

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

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

EQT will recommend to these operators at a minimum to:

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

2. Reporting

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

RECEIVED
Office of Oil and Gas

DEC 6 2018
Page 2 of 2

WV Department of
Environmental Protection

RECEIVED
 Office of Oil and Gas
 DEC 6 2008
 WV Department of
 Environmental Protection

API Number	Abandoned Date	Completion Date	Current Operator	Elevation	Elevation Reference	Final Status	Lat	Long	Well Name	Permit Date	SPUD Date	Permit Information	Total Depth	Permit
4701700025		8/13/1930	PGH & WV GAS	1012		UNK	39.1659	-80.8015					2502	73264
4701700196		9/27/1917	PGH & WV GAS	831		GAS-P	39.1577	-80.8122					2288	73311
4701700782		6/23/1962	WM GRUBER	883		DRY	39.1696	-80.8185					2352	73315
4701701471		9/6/1967	MID AMERICAN EXPLORATION	1046		O&G	39.1354	-80.7692					2653	73371
4701701518		8/29/1968	HUGH SPENCER	906		GAS	39.1597	-80.8139					2007	73316
4701702047		5/23/1918	EPC			GAS	39.1682	-80.7981					1907	73313
4701702048		5/18/1918	EPC			GAS	39.1695	-80.7876					1944	02057
4701702051		7/5/1918	EPC			GAS	39.1521	-80.798					1801	73370
4701702109		1/12/1921	EPC			GAS	39.179	-80.8185					1898	73369
4701703722		6/23/1939	TERM ENERGY	1021		GAS	39.1719	-80.795					5094	73262
4701703911			EASTERN AMERICAN	864		LOC	39.1653	-80.8103					73263	
4701704939		6/2/2005	KEY OIL	1204		GAS	39.1686	-80.7914					2771	73272
4701773309						LOC	39.1669	-80.7942					73280	
4701773310						LOC	39.1644	-80.7986					73344	
47017001000000		2/16/1930	CONSOL GAS COMPANY	1163	GR	UNKWN	39.1610	-80.7924	7056 S W STOUT	1/2/1930	1/17/1930		00100	
47017001000001		7/19/1939	CONSOL GAS COMPANY	1163	GR	GAS	39.1610	-80.7924	7056 S W STOUT	6/4/1939	6/19/1939	BIG INJUN /SD/	2045	00100
47017001040000		9/1/1939	EQT PRODUCTION COMPANY	1095	GR	GAS	39.1594	-80.8016	4658 W B MAXWELL 2	7/18/1939	8/2/1939	GORDON	2492	00104
47017001680000		10/1/1946	DIVERSIFIED RESOURCES INCORPORATED	905	GR	GAS	39.1501	-80.7947	1 JESSIE WILLIAMS	8/17/1946	9/1/1946	GORDON	2321	00168
47017001720000		12/1/1946	DIVERSIFIED RESOURCES INCORPORATED	955	GR	GAS	39.1641	-80.7854	2 JESSE WILLIAMS	10/17/1946	11/1/1946	SALT SD 1	1344	00172
47017001720001		12/1/1946	DIVERSIFIED RESOURCES INCORPORATED	955	GR	GAS	39.1641	-80.7854	2 JESSE WILLIAMS	10/17/1946	11/1/1946	GORDON	2317	00172
47017001850000		6/1/1948	EQT PRODUCTION COMPANY	1103	GR	GAS	39.1510	-80.7802	4708 F L LODGE 3	4/17/1948	5/2/1948	BIG INJUN /SD/	2008	00185
47017002070000		10/1/1954	DIVERSIFIED RESOURCES INCORPORATED	883	GR	GAS	39.1471	-80.7910	7 JESSIE WILLIAMS 3	8/17/1954	9/1/1954	SALT SD 2	1331	00207
47017002070001		9/1/1962	DIVERSIFIED RESOURCES INCORPORATED	883	GR	GAS	39.1471	-80.7910	7 JESSIE WILLIAMS 3	7/18/1962	8/2/1962	BIG INJUN /SD/	1736	00207
47017003650000		9/1/1960	BEECHLICK OIL INCORPORATED	1152	GR	10&1G	39.1540	-80.7806	1 JESSIE WILLIAMS ET VIR	7/18/1960	8/2/1960	POCONO	2033	00365
47017004310000		11/1/1960	ASH & CHAPMAN	937	GR	10&1G	39.1449	-80.7750	1 DORSEY E HUFF	9/17/1960	10/2/1960	BIG INJUN /SD/	1904	00431
47017004680000			ASH & CHAPMAN			UNKWN	39.1482	-80.7757	1 ROY RUPPERT HEIRS				00468	
47017005110000		11/1/1961	MID PINE DEVELOPMENT	1009	GR	10&1G	39.1580	-80.7824	1 H C CHAPMAN HEIRS	9/17/1961	10/2/1961	BIG INJUN /SD/	1950	00511
47017006130000	1/1/1981	10/1/1961	PENNZOIL COMPANY	944	GR	ABD-GW	39.1363	-80.7720	3 ANDREW HURST	8/17/1961	9/1/1961	BIG INJUN /SD/	2094	00613
47017007660000		8/1/1962	BEECHLICK OIL INCORPORATED	935	GR	10&1G	39.1549	-80.7832	2 JESSIE WILLIAMS ET VIR	6/17/1962	7/2/1962	BIG INJUN /SD/	1847	00766
47017008350000	7/5/1966	7/1/1962	DOLLEY ED LEE	1068	GR	ABDOG W	39.1478	-80.7761	1 H C CHAPMAN	5/17/1962	6/1/1962	BIG INJUN /SD/	2084	00835
47017010740000		2/1/1964	BEECHLICK OIL INCORPORATED	949	GR	GAS	39.1557	-80.7811	3 JESSIE WILLIAMS ET AL	12/18/1963	1/2/1964	GORDON	2459	01074
47017012830000		8/1/1965	MEADOWS S L JR PRODUCTION COMPANY	1041	GR	10&1G	39.1491	-80.7791	3 THURMAN SPURGEON	6/17/1965	7/2/1965	BIG INJUN /SD/	2018	01283
47017012930000		9/1/1965	MEADOWS S L JR PRODUCTION COMPANY	1117	GR	10&1G	39.1522	-80.7776	1 S L CHAPMAN	7/18/1965	8/2/1965	BIG INJUN /SD/	2090	01293
47017012980000		9/1/1965	MEADOWS S L JR PRODUCTION COMPANY	1282	GR	10&1G	39.1545	-80.7793	2 S L CHAPMAN	7/18/1965	8/2/1965	BIG INJUN /SD/	2232	01298
47017013050000		3/24/1966	PENNZOIL COMPANY	893	GR	D&A-O	39.1464	-80.7787	6 SPURGEON THURMAN	9/1/1965	9/1/1965	PRICE	1900	01305
47017013160000		1/5/1966	EQT PRODUCTION COMPANY	1131	GR	OIL	39.1503	-80.7811	6208 W J HICKMAN 2	9/13/1965	9/28/1965	POCONO	2003	01316
47017013170000		2/27/1919	EQT PRODUCTION COMPANY	1057	GR	GAS	39.1416	-80.7845	PO-4709 F L LODGE	1/22/1919	2/6/1919	BIG INJUN /SD/	1929	01317
47017013170001		11/1/1965	EQT PRODUCTION COMPANY	1057	GR	OIL	39.1416	-80.7845	4709 F L LODGE	9/9/1965	9/24/1965	POCONO	2001	01317
47017013310000			PENNZOIL COMPANY			PSEUDO	39.1559	-80.7806	2 THOMAS HICKMAN				01331	
47017013670000		10/1/1966	EQT PRODUCTION COMPANY	1071	GR	OIL	39.1471	-80.7850	6210 F L LODGE	8/17/1966	9/1/1966	POCONO	1998	01367
47017014080000		10/1/1966	JAY-BEE OIL & GAS INC	1241	GR	10&1G	39.1371	-80.7753	1 C A VANHORN	8/17/1966	9/1/1966	POCONO	2300	01408
47017014090000		10/1/1966	JAY-BEE OIL & GAS INC	1219	GR	10&1G	39.1384	-80.7696	2 MELVILLE CONLEY	8/17/1966	9/1/1966	HAMPSHIRE	3000	01409
47017014290000		3/1/1967	EQT PRODUCTION COMPANY	873	GR	OIL	39.1449	-80.7873	6213 F L LODGE	1/15/1967	1/30/1967	POCONO	1781	01429
47017014330000	3/22/1967	2/1/1967	FRIESTAD FRANCIS	913	GR	D&A-G	39.1755	-80.8173	1 M L HAUGHT	12/18/1966	1/2/1967	BIG INJUN /SD/	1784	01433
47017014520000		6/1/1967	EQT PRODUCTION COMPANY	1081	GR	OIL	39.1423	-80.7889	6214 F L LODGE	4/17/1967	5/2/1967	BIG INJUN /SD/	2027	01452
47017014700000		7/1/1968	JAY-BEE OIL & GAS INC	1234	GR	GAS	39.1344	-80.7739	2 C A VANHORN	5/27/1968	6/11/1968	GORDON	2879	01470
47017015600000		10/1/1969	EQT PRODUCTION COMPANY	1011	GR	10&1G	39.1403	-80.7888	6217 F L LODGE	8/17/1969	9/1/1969	BIG INJUN /SD/	1943	01560
47017016230000	1/1/1974	8/8/1971	WARREN DRILLING	1226	GR	ABD-GW	39.1565	-80.7949	47-ADAMS/ MAXWELL W B	6/30/1971	7/10/1971	UNKNOWN	2700	01623
47017018810000		5/27/1978	EQT PRODUCTION COMPANY	908	GR	OIL	39.1416	-80.7882	6230 F L LODGE	3/17/1978	3/27/1978	MISSISSIPPIAN	1893	01881
47017018850000		5/1/1978	EQT PRODUCTION COMPANY	863	GR	OIL	39.1418	-80.7882	6232 F L LODGE	3/17/1978	4/1/1978	BIG INJUN /SD/	1893	01885
47017019660000			CONSOL GAS COMPANY	940	GR	GAS	39.1372	-80.7740	5295 J ADAMS			HAMPSHIRE	2520	01966
47017019660001		6/5/1957	CONSOL GAS COMPANY	940	GR	GAS	39.1372	-80.7740	5295 JOSHUA ADAMS	1/29/1957	2/13/1957	HAMPSHIRE	2520	01966
47017020500000	5/24/2006	6/18/1918	EQT PRODUCTION COMPANY	1066	GR	ABD-GW	39.1695	-80.7895	4653 GASTON MARY V	3/23/1918	4/23/1918	BIG INJUN	1823	02050
47017020500001	5/24/2006	10/24/1926	EQT PRODUCTION COMPANY	1066	GR	ABD-GW	39.1695	-80.7895	4653 GASTON MARY V	8/4/1926	9/4/1926	BIG INJUN	1944	02050
470170205040000	6/12/2006	6/1/1996	UNKNOWN	1247	GR	ABD-GW	39.1739	-80.7923	4666 GASTON	3/24/1996	4/24/1996	WEIR /SD/	2795	02054
47017020550000	6/27/1988	11/6/1918	EQUITABLE GAS COMPANY	1097	GR	ABD-GW	39.1585	-80.7920	4672 JACKSON LEESON	9/25/1918	10/10/1918	SALT SD 2	1639	02055
47017020570000			UNKNOWN			PSEUDO	39.1645	-80.7986	4684 GASTON				02057	
47017020680000		3/2/1920	EQT PRODUCTION COMPANY	1035	GR	GAS	39.1668	-80.7942	4744 GASTON C	12/3/1919	1/3/1920	BIG INJUN	1833	02068
47017020690000		1/1/1981	EQT PRODUCTION COMPANY	1188	GR	GAS	39.1632	-80.7941	4749 GASTON C	10/24/1980	11/24/1980	KEENER /SD/	5053	02069
47017020720000		7/16/1920	UNKNOWN	1017	GR	GAS	39.1802	-80.8222	4768 MAXWELL	6/9/1920	6/24/1920	BIG INJUN /SD/	1850	02072
47017021070000		7/14/1930	EQT PRODUCTION COMPANY	1012	GR	GAS	39.1658	-80.8015	4983 ROSA B RYMER	5/19/1930	6/3/1930	CHEMUNG	2502	02107
47017021130000	9/30/2015	6/8/1920	EQT PRODUCTION COMPANY	1083	GR	ABD-GW	39.1689	-80.8044	6110 GASTON	2/29/1920	3/31/1920	GORDON /SD/	2485	02113
47017021140000	9/24/2015	11/15/1920	EQT PRODUCTION COMPANY	972	GR	ABD-GW	39.1609	-80.8048	6111 GASTON R J	6/12/1920	7/12/1920	GORDON	2400	02114
47017021150000	6/26/2006	1/1/1981	EQUITABLE PRODUCTION COMPANY	1063	GR	ABD-GW	39.1630	-80.8137	WV 606112 GASTON	10/29/1980	11/29/1980	BIG INJUN	1820	02115
47017023860000		4/11/1919	EQT PRODUCTION COMPANY	1068	GR	GAS	39.1507	-80.7819	4703 W J HICKMAN	3/27/1919	4/11/1919	POCONO	2093	02380
47017023860000		2/20/1914	EQT PRODUCTION COMPANY	990	GR	GAS	39.1382	-80.7850	4244 F L LODGE	12/11/1913	12/26/1913	CHEMUNG	2604	02386
47017024610000		9/6/1979	MURVIN & MEIER OIL COMPANY	1230	GR	GAS	39.1802	-80.7966	11 MAXWELL BRENT W	8/6/1979	8/16/1979	DEVONIAN /SD/	2636	02461
47017030380000		11/30/1981	ENERGY CORPORATION OF AMERICA INC	855	KB	GAS	39.1571	-80.8130	1466 GRIMM DONALD	11/7/1981	11/17/1981	DEVONIAN /SH/	5047	03038

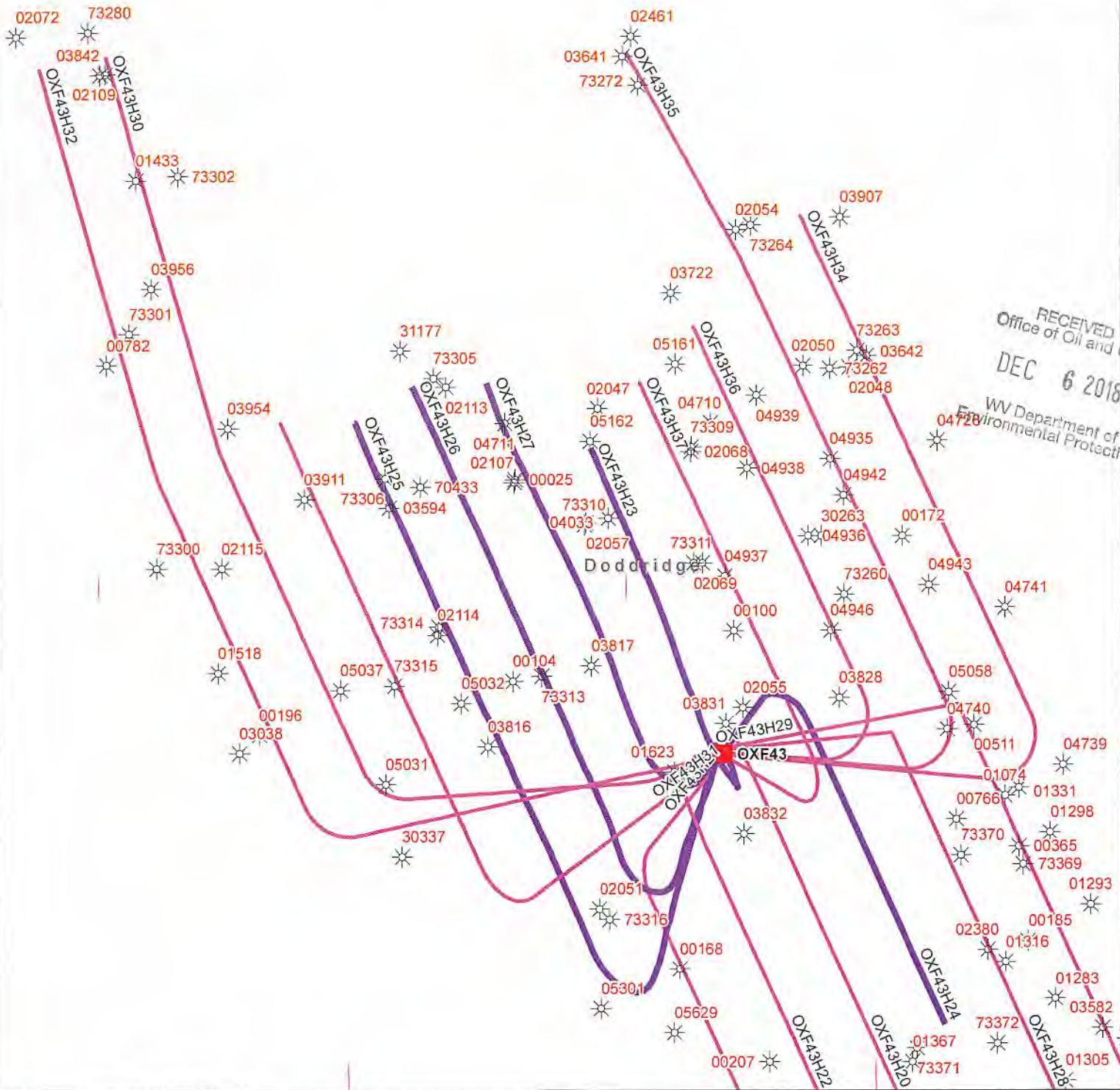
47017035820000		10/28/1987	CONSOL GAS COMPANY	1020	KB	GAS	39.1482	-80.7771	3000	THURMAN SPURGEON	9/29/1987	10/9/1987	DEVONIAN /SH/	5343	03582
47017035940000		10/17/1987	TERM ENERGY	968	KB	GAS	39.1650	-80.8068	87-3-25	MCCNEESE	9/23/1987	10/3/1987	ALEXANDER	5012	03594
47017036410000		6/18/1988	TERM ENERGY	1220	KB	GAS	39.1795	-80.7970	88-2	FARR CAROLYN	5/27/1988	6/6/1988	DEVONIAN /SD/	5279	03641
47017036410001		10/3/2002	TERM ENERGY	1220	KB	GAS-WO	39.1795	-80.7970	1	FARR	8/6/2002	8/15/2002	BRADFORD	5279	03641
47017036420000		6/27/1988	TERM ENERGY	1238	KB	GAS	39.1698	-80.7869	1(88-3)	PRUNTY MYRTLE	6/2/1988	6/12/1988	DEVONIAN /SH/	5432	03642
47017038160000		9/20/1990	ENERGY CORPORATION OF AMERICA INC	1075	KB	GAS	39.1573	-80.8027	1	MERT/MAXWELL F	8/22/1990	9/1/1990	DEVONIAN /SD/	5235	03816
47017038170000		6/21/1990	ENERGY CORPORATION OF AMERICA INC	1220	KB	GAS	39.1599	-80.7984	2	MERT/MAXWELL F	5/26/1990	6/5/1990	DEVONIAN /SD/	5323	03817
47017038280000		9/28/1990	ENERGY CORPORATION OF AMERICA INC	930	KB	GAS	39.1588	-80.7880	6	WILLIAMS JESSIE	9/1/1990	9/11/1990	DEVONIAN /SD/	5107	03828
47017038310000		9/18/1990	ENERGY CORPORATION OF AMERICA INC	1260	KB	GAS	39.1580	-80.7928	4	MERT/WILLIAMS	8/18/1990	8/28/1990	DEVONIAN /SD/	5422	03831
47017038320000		9/20/1990	ENERGY CORPORATION OF AMERICA INC	1102	KB	GAS	39.1545	-80.7920	5	MERT/WILLIAMS	8/25/1990	9/4/1990	DEVONIAN /SD/	5283	03832
47017038420000		8/9/1990	TERM ENERGY	1140	KB	GAS	39.1789	-80.8187	2	CASSIDY JOAN	7/13/1990	7/23/1990	DEVONIAN /SD/	5259	03842
47017038420001		11/21/2002	TERM ENERGY	1140	KB	GAS-WO	39.1789	-80.8187	2	CASSIDY	11/13/2002	11/13/2002	BIG INJUN	5259	03842
47017039070000		9/29/1991	ENERGY CORPORATION OF AMERICA INC	1349	KB	GAS	39.1743	-80.7879	BLAUSER/MAXWELL	MAXWELL W B HEIRS ETAL	9/14/1991	9/24/1991	DEVONIAN /SD/	5534	03907
47017039540000		6/30/1992	TERM ENERGY	905	KB	GAS	39.1676	-80.8135	GASTONS	GASTON SAMMUEL ETAL	6/7/1992	6/17/1992	DEVONIAN /SD/	4960	03954
47017039540001		9/30/2002	TERM ENERGY	905	KB	GAS-WO	39.1676	-80.8135	5	GASTON SAMUEL D	8/6/2002	9/23/2002	WEIR /SD/	4960	03954
47017039560000		8/1/1992	TERM ENERGY	945	KB	GAS	39.1721	-80.8166	CASSIDY	3 HAUGHT MABEL G ETAL	6/14/1992	6/24/1992	DEVONIAN /SD/	5017	03956
47017039560001		11/21/2004	TERM ENERGY	945	KB	GAS-WO	39.1721	-80.8166	3	CASSIDY	9/24/2004	10/6/2004	BIG INJUN	5017	03956
47017040300000		9/15/1993	TERM ENERGY	970	GR	GAS	39.1646	-80.7976	1	MATHENY BARRY L ETALS	8/16/1993	8/26/1993	ALEXANDER	5000	04033
47017047100000		1/27/2003	KEY OIL COMPANY	1206	GR	GAS	39.1677	-80.7933	1	ADAMS	12/22/2002	1/13/2003	DEVONIAN UPPER	5343	04710
47017047110000		1/20/2003	KEY OIL COMPANY	1215	GR	GAS	39.1677	-80.8019	1	RYMER	12/22/2002	1/2/2003	DEVONIAN UPPER	5341	04711
47017047280000		5/4/2004	CONSOL GAS COMPANY	1135	GR	GAS	39.1671	-80.7839	6294	MORRIS IKE L	4/29/2003	4/24/2004	DEVONIAN	2720	04728
47017047390000		10/22/2003	KEY OIL COMPANY	1144	GR	GAS	39.1567	-80.7787	3	HICKMAN	6/17/2003	10/9/2003	DEVONIAN /SH/	5313	04739
47017047400000		10/15/2003	KEY OIL COMPANY	1215	GR	GAS	39.1578	-80.7835	2	HICKMAN	6/17/2003	10/4/2003	DEVONIAN /SH/	5347	04740
47017047410000		10/4/2003	KEY OIL COMPANY	1202	GR	GAS	39.1617	-80.7811	1	HICKMAN	6/17/2003	9/29/2003	DEVONIAN /SH/	5347	04741
47017048180000		3/1/2005	KEY OIL COMPANY	959	GR	GAS	39.1472	-80.7753	2	CHAPMAN H C	4/19/2004	2/16/2005	DEVONIAN /SH/	2681	04818
47017049350000		3/5/2005	KEY OIL COMPANY	1203	GR	GAS	39.1665	-80.7884	1	ADAMS A	1/24/2005	2/23/2005	GORDON	2770	04935
47017049360000		5/20/2005	KEY OIL COMPANY	1247	GR	GAS	39.1641	-80.7893	2	ADAMS A	1/24/2005	5/11/2005	DEVONIAN	2807	04936
47017049370000		5/26/2006	KEY OIL COMPANY	1224	GR	GAS	39.1628	-80.7928	3	ADAMS A	2/8/2005	5/17/2005	DEVONIAN /SH/	2774	04937
47017049380000		6/5/2005	KEY OIL COMPANY	1028	GR	GAS	39.1662	-80.7919	4	ADAMS A	2/28/2005	5/23/2005	DEVONIAN	2581	04938
47017049420000		10/14/2005	CONSOL GAS COMPANY	1171	GR	GAS	39.1654	-80.7878	14083	MORRIS I L	2/8/2005	9/29/2005	GORDON	2762	04942
47017049430000		12/10/2005	CONSOL GAS COMPANY	984	GR	GAS	39.1625	-80.7843	14084	MORRIS I L	2/8/2005	11/16/2005	GORDON	2512	04943
47017049460000		11/29/2005	CONSOL GAS COMPANY	1123	GR	GAS	39.1610	-80.7884	14082	MORRIS I L	2/8/2005	11/11/2005	DEVONIAN /SH/	2720	04946
470170503010000		7/5/2005	SPENCER ENTERPRISES	965	GR	GAS	39.1561	-80.8070	1-A	GRIMM	6/10/2005	6/20/2005	BIG INJUN	2070	05031
47017050320000		6/27/2005	SPENCER ENTERPRISES	1184	GR	GAS	39.1587	-80.8038	2-A	GRIMM	6/8/2005	6/18/2005	GORDON	2730	05032
47017050370000		7/5/2005	SPENCER ENTERPRISES	940	GR	GAS	39.1591	-80.8088	3-A	GRIMM	6/14/2005	6/24/2005	BIG INJUN	1950	05037
47017050580000		10/1/2005	SPENCER ENTERPRISES	1206	GR	GAS	39.1590	-80.7835	3	HICKMAN	8/22/2005	8/17/2005	BIG INJUN	2285	05058
47017051610000		6/28/2006	KEY OIL COMPANY	1100	GR	GAS	39.1696	-80.7948	6	ADAMS A	2/21/2006	6/15/2006	GORDON /SD/	2631	05161
47017051620000		6/28/2006	KEY OIL COMPANY	1201	GR	GAS	39.1671	-80.7984	7	ADAMS A	2/21/2006	6/12/2006	GORDON /SD/	2755	05162
47017053010000		2/2/2007	EQT PRODUCTION COMPANY	978	GR	GAS	39.1488	-80.7980	WV 510808	LEESON J	10/16/2006	11/15/2006	ALEXANDER	5402	05301
47017056290000		9/4/2008	EQT PRODUCTION COMPANY	866	KB	GAS	39.1480	-80.7950	WV 510840	LEESON J	4/15/2008	6/10/2008	ONONDAGA /LM/	6332	05629
47017302630000	1/1/1938	10/24/1918	BEREN I H	1159	GR	ABD-GW	39.1641	-80.7888	4665	ALEXANDER ADAMS	9/1/1918	9/16/1918	POCONO	2054	30263
47017303370000	10/10/1940	6/24/1917	PITTSBURGH & W VA GAS	1084	GR	ABD-GW	39.1537	-80.8063	4572	W BRENT MAXWELL	5/9/1917	5/24/1917	POCONO	1958	30337
47017307290000	3/23/1949	5/17/1919	HOPE NATURAL GAS	979	GR	ABD-GW	39.1461	-80.7748	5468	H C CHAPMAN	3/24/1919	4/8/1919	HAMPSHIRE	2526	30729
47017311770000	4/16/1964	5/17/1919	EQUITABLE GAS COMPANY	1064	GR	ABD-GW	39.1700	-80.8063	6107	E M GASTON	3/23/1919	4/7/1919	POCONO	1997	31177
47017704330000			CARTER OIL & GAS			PSEUDO	39.1657	-80.8055	15	M GASTON				70433	
47017732600000			HOPE NATURAL GAS			UNKWVN	39.1622	-80.7878	7055	S W STOUT ET AL				73260	
47017732620000			UNKNOWN			UNKWVN	39.1694	-80.7884	M & F	GASTON				73262	
47017732630000			EQUITABLE RESOURCES EXPLORATION INC			UNKWVN	39.1700	-80.7873	4663	M & F GASTON				73263	
47017732640000			UNKNOWN			UNKWVN	39.1741	-80.7917	4666	C GASTON				73264	
47017732720000			UNKNOWN			UNKWVN	39.1786	-80.7963	4579	M J LEESON				73272	
47017732800000			HOPE NATURAL GAS			UNKWVN	39.1803	-80.8192	5885	MABEL HAUGHT ET AL				73280	
47017733000000			HOPE NATURAL GAS			UNKWVN	39.1630	-80.8165	7036	SAM GASTON				73300	
47017733010000			HOPE NATURAL GAS			UNKWVN	39.1706	-80.8176	6491	W B MAXWELL HRS				73301	
47017733020000			HOPE NATURAL GAS			UNKWVN	39.1757	-80.8155	5812	W B MAXWELL HRS				73302	
47017733050000			HOPE NATURAL GAS			UNKWVN	39.1691	-80.8049	7034	SAM GASTON				73305	
47017733060000			UNKNOWN			UNKWVN	39.1659	-80.8069	1	SAM GASTON				73306	
47017733110000			UNKNOWN			UNKWVN	39.1632	-80.7937	4749	C GASTON				73311	
47017733130000			UNKNOWN			UNKWVN	39.1596	-80.8004	4658	F MAXWELL				73313	
47017733140000			HOPE NATURAL GAS			UNKWVN	39.1612	-80.8047	7035	SAM GASTON				73314	
47017733150000			UNKNOWN			UNKWVN	39.1593	-80.8066	DONALD L	GRIMM				73315	
47017733160000			UNKNOWN			UNKWVN	39.1517	-80.7976	4660	F MAXWELL				73316	
47017733440000			UNKNOWN			UNKWVN	39.1397	-80.7733	1	RAY CONLEY				73344	
47017733690000			UNKNOWN			UNKWVN	39.1535	-80.7804	365	JESSE WILLIAMS				73369	
47017733700000			PHILADELPHIA OIL			UNKWVN	39.1537	-80.7830	4245	JESSE WILLIAMS				73370	
47017733710000			HOPE NATURAL GAS			UNKWVN	39.1475	-80.7848	1	F L LODGE				73371	
47017733720000			UNKNOWN			UNKWVN	39.1477	-80.7815	C-142	THOMAS SPURGEON				73372	

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection

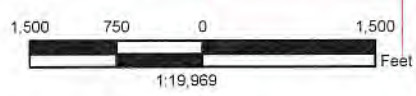
04/12/2018



RECEIVED
Office of Oil and Gas
DEC 6 2018
WV Department of Environmental Protection

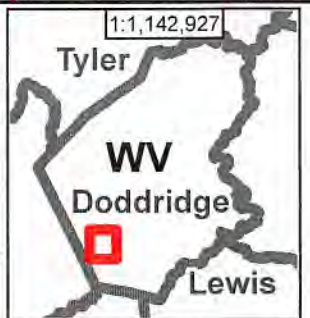
EQT
EQT Corporation
625 Liberty Avenue
Pittsburgh, PA 15222

- SPUDS - GGX**
- GO
 - MD
 - MR
 - PT
 - Planned Marcellus



Disclaimer:

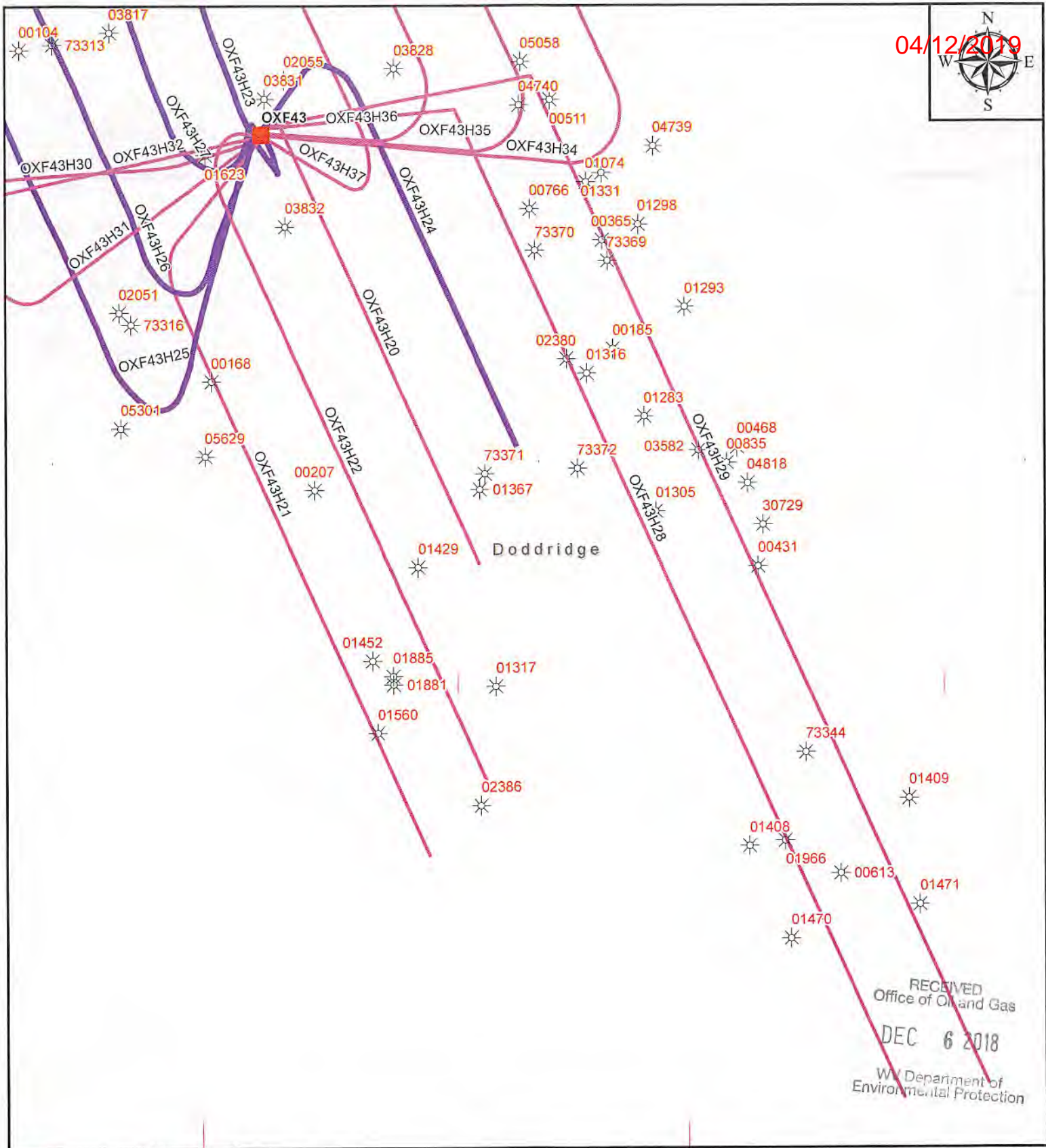
This map is confidential and is to be used only for the express informational purposes for which it was created. Unauthorized use, copying, or dissemination is strictly prohibited. EQT does not warrant the accuracy of the location of any items shown on this map, including, but not limited to, any structures,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



OXF43 - North

Vertical Offsets and Foreign Laterals within 500'

04/12/2019



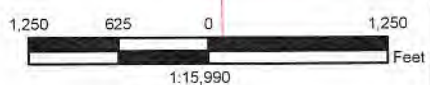
RECEIVED
Office of Oil and Gas
DEC 6 2018
WV Department of
Environmental Protection

EQT
EQT Corporation
625 Liberty Avenue
Pittsburgh, PA 15222

OXF43 - South

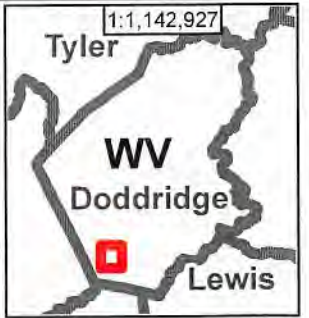
Vertical Offsets and
Foreign Laterals
within 500'

- SPUDS - GGX**
- GO
 - MD
 - MR
 - PT
 - Planned Marcellus



Disclaimer:

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



WW-6B
(04/15)

API NO. 47-017
OPERATOR WELL NO. OXF43H32
Well Pad Name: OXF43

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

1) Well Operator: EQT Production Company 306686 Doddridge South West/ Cove Oxford
Operator ID County District Quadrangle

2) Operator's Well Number: OXF43H32 Well Pad Name: OXF43

3) Farm Name/Surface Owner: Cathy Jean Wetzel, et al Public Road Access: Rt. 20

4) Elevation, current ground: 1229 Elevation, proposed post-construction: 1229

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

(b) If Gas Shallow Deep
Horizontal

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target formation is Marcellus at a depth of 6666 with the anticipated thickness to be 57 feet and anticipated target pressure of 2951 PSI

8) Proposed Total Vertical Depth: 6666

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 19255

11) Proposed Horizontal Leg Length: 9220

12) Approximate Fresh Water Strata Depths: 70, 221, 307, 382

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

14) Approximate Saltwater Depths: None present in offset wells

15) Approximate Coal Seam Depths: 322

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

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

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

RECEIVED
Office of Oil and Gas
APR
WV Department of
Environmental Protection
RECEIVED
Office of Oil and Gas

Jes
11/11/19

APR 10 2019
Page 1 of 3
WV Department of
Environmental Protection

WW-6B
(04/15)

API NO. 47- 017
OPERATOR WELL NO. OXF43H32
Well Pad Name: OXF43

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	26	New	A-500	85.6	40	40	49 ft ³ / CTS
Fresh Water	13 3/8	New	J-55	54.5	532	532	319 ft ³ / CTS
Coal							
Intermediate	9 5/8	New	A-500	40	5291	5291	1165 ft ³ / CTS
Production	5 1/2	New	P-110	20	19255	19255	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							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	26	30	.312	884	18	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 A/H	1.123/2.098
Tubing	2 3/8	NA	.19	7700			
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

RAF
1/17/19

RECEIVED
Office of Oil and Gas
Page 2 of 3
APP-0-9-2019

WW-5B
(10/14)

API NO. 47- 017
OPERATOR WELL NO. OXF43H32
Well Pad Name: OXF43

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 3565'. Kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

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

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.1%) of chemicals (including 15% Hydrochloric acid, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 10000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 350,000 gallons of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 400,000 pounds of proppant 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 centralizer at the shoe and one spaced every 500'.
- Intermediate: Bow spring centralizers– One centralizer at the shoe and one spaced every 500'.
- Production: One solid body centralizer spaced every joint from production casing shoe to KOP

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

Conductor: Class A no additives
Surface (Type 1 Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries
Intermediate (Type 1 Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries.
Production:
Lead (Class A Cement): 0.2% CD-20 (dispersant makes cement easier to mix), .15% SuperFL-300 (fluid loss/lengthens thickening time), .15% SEC-10 (fluid loss), 50:50 POZ (extender)
Tail (Class H Cement): 0.2% Super CR-1 (Retarder), Lengthens thickening time, .3% Super FL-200 (fluid loss), .2% SEC-10 (Fluid loss), .2% SuperFL-350 (fluid loss) Reduces amount of water lost to formation, 60 % Calcium Carbonate. Acid solubility.

25) Proposed borehole conditioning procedures:

Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Production: Pump marker sweep with nut plug to determine actual hole washout. Calculate a gauge holes bottoms up volume. Perform a cleanup cycle by pumping 3-5 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

*Note: Attach additional sheets as needed.

PAC
1/7/19

RECEIVED
Office of Oil and Gas
Page 3 of 2
APR 09 2019



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.

Sincerely,

A handwritten signature in black ink that reads "James Peterson" followed by a stylized set of initials "JCS".

James Peterson
Environmental Resources Specialist / Permitting

Promoting a healthy environment.

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection



west virginia department of environmental protection

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

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

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

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

REPORT OF THE OFFICE

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

FINDINGS OF FACT

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

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

Promoting a healthy environment.

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection

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

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection

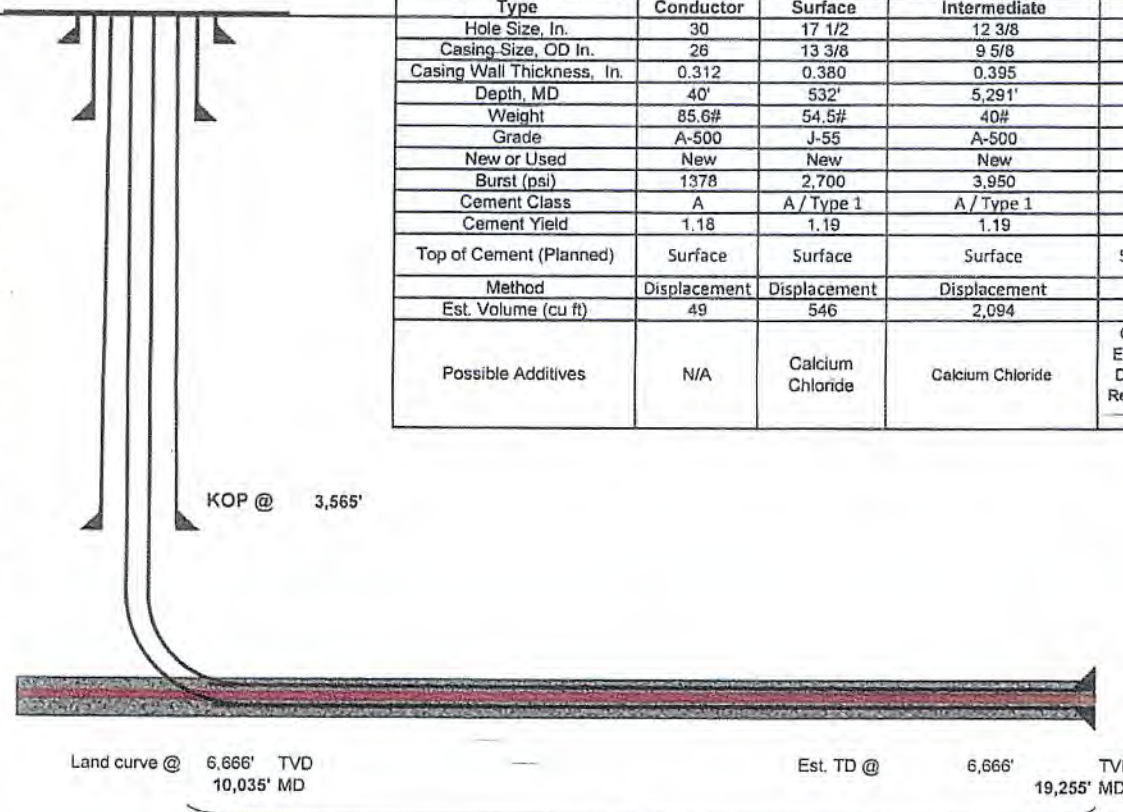
4701706884

Well **OXF43H32**
 EQT Production
 Oxford Quad
 Doddridge County, WV

Azimuth 337
 Vertical Section 11385
 Enertia # 516241

Note: Diagram is not to scale

Formations	Top TVD	Base TVD
Conductor	40	
Base Fresh Water	382	
Surface Casing	532	
Base Red Rock	829	
Maxton	1103 - 1143	
Big Lime	1979 - 2047	
Big Injun	2091 - 2123	
Weir	2265 - 2391	
Gantz	2465 - 2547	
Fifty foot	2547 - 2604	
Thirty foot	2645 - 2681	
Gordon	2687 - 2736	
Forth Sand	2787 - 2854	
Bayard	2967 - 3038	
Warren	3301 - 3367	
Spechley	3367 - 3872	
Balltown A	3872 - 4230	
Riley	4470 - 4846	
Benson	4846 - 4940	
Alexander	5148 - 5241	
Intermediate Casing	5291	
Sonyea	6324 - 6474	
Middlesex	6474 - 6464	
Genesee	6464 - 6573	
Geneseo	6573 - 6615	
Tully	6615 - 6628	
Hamilton	6628 - 6646	
Marcellus	6646 - 6702	
Production Casing	6666	MD
Onondaga	6702	



Casing and Cementing		Deepest Fresh Water: 382'		
Type	Conductor	Surface	Intermediate	Production
Hole Size, In.	30	17 1/2	12 3/8	8 1/2
Casing Size, OD In.	26	13 3/8	9 5/8	5 1/2
Casing Wall Thickness, In.	0.312	0.380	0.395	0.361
Depth, MD	40'	532'	5,291'	19,255'
Weight	85.6#	54.5#	40#	20#
Grade	A-500	J-55	A-500	P-110
New or Used	New	New	New	New
Burst (psi)	1378	2,700	3,950	12,640
Cement Class	A	A / Type 1	A / Type 1	A / H
Cement Yield	1.18	1.19	1.19	1.123 / 2.098
Top of Cement (Planned)	Surface	Surface	Surface	500' above top Producing Zone
Method	Displacement	Displacement	Displacement	Displacement
Est. Volume (cu ft)	49	546	2,094	#N/A
Possible Additives	N/A	Calcium Chloride	Calcium Chloride	Calcium Carbonate, Fluid Loss, Extender, Dispersant, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Settling/Suspension Agent

RECEIVED
 Office of Oil and Gas
 APR 09 2019
 WV Department of Environmental Protection
 RECEIVED

Proposed Well Work:
 Drill and complete a new horizontal well in the Marcellus formation.
 Drill the vertical to an approximate depth of 3565'.
 Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.

PAE
 1/7/19



04/12/2019

November 29, 2018

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

Re: Casing on OXF43

Dear Mr. Smith,

EQT is requesting the 13-3/8" surface casing be set at 532' KB, 150' below the deepest fresh water. We will set the 9-5/8" intermediate string at 5291' KB, 50' below the base of the Alexander formation.

If you have any questions, please do not hesitate to contact me at (304) 848-0035.

Sincerely,

A handwritten signature in blue ink, appearing to read 'E. Spine'.

Erin Spine
Regional Land Supervisor

Enc.

WW-9
(4/16)

API Number 47 - 017
Operator's Well No. OXF43H32

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EQT Production Company OP Code 306686

Watershed (HUC 10) Middle Fork Hughes River Quadrangle Oxford

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

Will a pit be used? Yes No

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

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

Proposed Disposal Method For Treated Pit Wastes:

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

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

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

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

Additives to be used in drilling medium? See Attached

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

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

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

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

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

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

Company Official Signature [Signature]

Company Official (Typed Name) Erin Spire

Company Official Title Regional Land Supervisor

RECEIVED
Office of Oil and Gas

APR 09 2019

Subscribed and sworn before me this 29 day of November, 2018

[Signature]
Notary Public

My commission expires 4-7-2020



RECEIVED
WV Department of Environmental Protection
Office of Oil and Gas

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.

RECEIVED
Office of Oil and Gas

APR 09 2019

WV Department of
Environmental Protection
RECEIVED
Office of Oil and Gas

WV Department of
Environmental Protection

Form WW-9

Operator's Well No. OXF43H32

EQT Production Company

Proposed Revegetation Treatment: Acres Disturbed no additional Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type Granular 10-20-20

Fertilizer amount 1/3 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

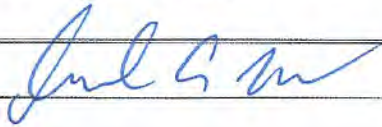
Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____



Comments: _____

RECEIVED
Office of Oil and Gas

APR 09 2019

Title: Oil & Gas Inspector

Date: 1/7/19

Field Reviewed?

Yes

No

WV Department of
Environmental Protection
Office of Oil and Gas

EQT Production Water plan

04/12/2019

Offsite disposals for Marcellus wells

CWS TRUCKING INC.

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

BROAD STREET ENERGY LLC

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

LAD LIQUID ASSETS DISPOSAL INC.

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

TRIAD ENERGY

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

TRI COUNTY WASTE WATER MANAGEMENT, INC.

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

KING EXCAVATING CO.

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

Waste Management - Meadowfill Landfill

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

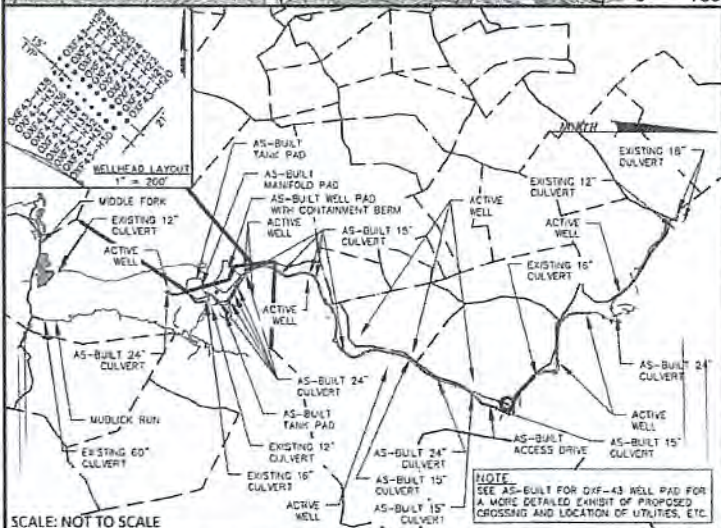
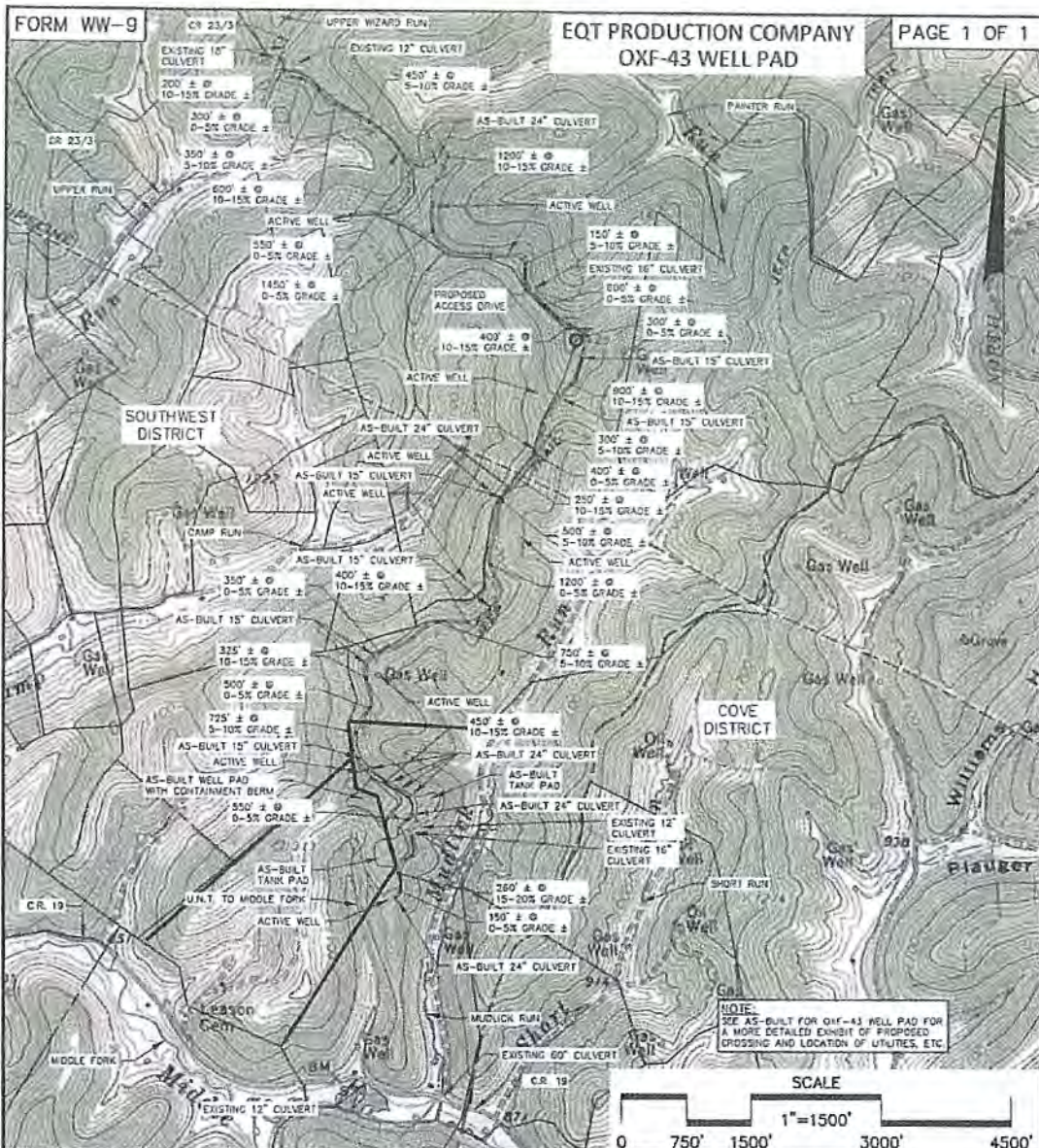
Waste Management - Northwestern Landfill

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

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection



ALL ROADS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV DEP OIL AND GAS BMP MANUAL. ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV DOT REGULATION. SEPARATE PERMITS MAY BE REQUIRED BY DOT.

APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV DEP OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

TEMPORARY SEED AND MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT AND STACK ALL MARKETABLE TIMBER.

STACKED BRUSH MAY BE USED FOR SEDIMENT CONTROL.

APPLICATIONS FOR SEPARATE PLC PERMITS ON THE ACCESS ROAD STREAM CROSSINGS HAVE BEEN PREPARED (IF APPLIES).

— = AS-BUILT CULVERT 18" MIN UNLESS OTHERWISE NOTED
 — = EXISTING CULVERT
 — = APPROXIMATE LIMIT OF DISTURBANCE

NOTE:
 SEE AS-BUILT FOR OXF-43 WELL PAD FOR A MORE DETAILED EXHIBIT OF PROPOSED CROSSING AND LOCATION OF UTILITIES, ETC.

CONSTRUCTION AND RECLAMATION PLAN
OXF-43 WELL PAD
 SOUTHWEST TAX DISTRICT DODDRIDGE COUNTY, WV

EQT **RETTEW**
 Where energy meets innovation. RETTEW Associates, Inc.
 One Robinson Plaza,
 Suite 200
 6500 Steadenville Pike,
 Pittsburgh, PA 15205

DRAWN BY: DAW
 DATE: 4/27/18
 SCALE: AS NOTED

lean italie
RECEIVED
 Office of Oil and Gas

APR 09 2019

C:_RETTEW\VAULT\TRIP\092612027-01F 43\SHEETS\LD\WW-9 EXHIBIT\092612027-FORM WW-9 EXHIBIT AS-BUILT.DWG



Where energy meets innovation.™

Site Specific Safety and Environmental Plan

EQT
OXF43 Pad
West Union
Doddridge County, WV

For Wells:

OXF43H32 _____

Date Prepared: February 21, 2018

[Signature]
EQT Production

Regional Land Supervisor
Title

11/29/18
Date

[Signature]
WV Oil and Gas Inspector

Oil & Gas Inspector
Title

11/7/19
Date

RECEIVED
Office of Oil and Gas

1 APR 09 2019

WV Department of Environmental Protection

**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
Green County/Waynesburg
Permit # TC-1009

Waste Management - Meadowbrook Landfill

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

Waste Management - Meadowbrook Landfill

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

RECEIVED
Office of Oil and Gas
DEC 6 2018
WV Department of
Environmental Protection

EQT Water Management Plan

Section V. Planned Additives to be used in Fracturing

Material	Approximate Percentage
Water	95.5%
Sand	4.2%
Friction Reducer	0.1%
Biocide	0.05%
Scale Inhibitor	0.03%
15% Hydrochloric Acid	0.06%
Gelling Agent	0.02%
Oxidizing Breaker	0.0009%
Enzyme Breaker	0.0009%

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection



Table 1 – Water Source Identification

EQT Well Pad Name: OXF 43 Submittal Date: _____

EQT Well Number: _____

Survey / Engineering Company: RETTEW Associates, Inc.

Site Number: 07-16-7 Distance from Gas Well (feet): 1583'

Surface Owner / Occupant: Cathy Jean Wetzel, ET AL

322 Zacks Run Road, RT 2 Box 317,

Address: Mount Claire, WV 26408 Phone #: _____

Field Located Date: 4/20/17 Owner home during survey (yes/no): _____

Coordinates: 39.155761, 80.79576216 (decimal degrees – NAD 83)

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

Comments: Spring, no update from October 2018 visit

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

Site Number: 07-16-7 Distance from Gas Well (feet): 2237'

Surface Owner / Occupant: Cathy Jean Wetzel, ET AL

322 Zacks Run Road, RT 2 Box 317,

Address: Mount Claire, WV 26408 Phone #: _____

Field Located Date: 4/20/17 Owner home during survey (yes/no): _____

Coordinates: 39.15199707, 80.79445984 (decimal degrees – NAD 83)

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

Comments: Spring, no update from October 2018 visit

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

Site Number: 07-16-7 Distance from Gas Well (feet): 2567'

Surface Owner / Occupant: Cathy Jean Wetzel, ET AL

322 Zacks Run Road, RT 2 Box 317,

Address: Mount Claire, WV 26408 Phone #: _____

Field Located Date: 4/20/17 Owner home during survey (Yes/No): _____

Coordinates: 39.15149523, 80.7964674 (decimal degrees – NAD 83)

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

Comments: Spring, no update from October 2018 visit

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

RECEIVED
 Office of Oil and Gas
 DEC 6 2018
 WV Department of Environmental Protection



Table 1 – Water Source Identification

EQT Well Pad Name: OXF43 Submittal Date: _____

EQT Well Number: _____

Survey / Engineering Company: RETTEW

Site Number: 07-16-7 Distance from Gas Well (feet): 2872'

Surface Owner / Occupant: Cathy Jean Wetzel, ET AL

Address: 322 Zacks Run Road, RT 2 Box 317, Mount Claire, WV 26408 Phone #: _____

Field Located Date: 4/20/17 Owner home during survey (yes/no): _____

Coordinates: 39.15136349, 80.79874149 (decimal degrees – NAD 83)

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

Comments: Well, no update from October 2018 visit

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

Site Number: 07-13-67 Distance from Gas Well (feet): 2616'

Surface Owner / Occupant: Charles R. Greathouse

Address: 71 Alum Fork Road, Camden, WV 26338 Phone #: _____

Field Located Date: 10/23/18 Owner home during survey (yes/no): _____

Coordinates: 39.15583001, 80.8012587 (decimal degrees – NAD 83)

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

Comments: Well

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

Site Number: 07-13-66 Distance from Gas Well (feet): 2321'

Surface Owner / Occupant: Evelyn G. Greathouse

Address: 147 Torrey Dr, Buckhannon, WV 26201 Phone #: _____

Field Located Date: 10/23/18 Owner home during survey (Yes/No): _____

Coordinates: 39.15729159, 80.80024123 (decimal degrees – NAD 83)

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

Comments: Well

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

RECEIVED
Office of Oil and Gas
DEC 6 2018
WV Department of
Environmental Protection



Table 1 – Water Source Identification

EQT Well Pad Name: OXF43 Submittal Date: _____

EQT Well Number: _____

Survey / Engineering Company: RETTEW

Site Number: 07-13-41 Distance from Gas Well (feet): 3179'

Surface Owner / Occupant: William A. Armentrout & Sandra Matheny

Address: 815 Mace St, Elk View, WV 25071 Phone #: _____

Field Located Date: 04/21/17 Owner home during survey (yes/no): _____

Coordinates: 39.16348426, 80.79976642 (decimal degrees – NAD 83)

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

Comments: Well, no update from October 2018 visit

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

Site Number: 07-14-8 Distance from Gas Well (feet): 3288'

Surface Owner / Occupant: Walter Riesenber, ET AL

Address: Clarksville, OH 45113 Phone #: _____

Field Located Date: 04/21/17 Owner home during survey (yes/no): _____

Coordinates: 39.16572147, 80.79158604 (decimal degrees – NAD 83)

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

Comments: Well, update - October 2018 - landowner response indicated parcel uninhabited and no wells

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

Site Number: 02-1-9 Distance from Gas Well (feet): 3498'

Surface Owner / Occupant: Wm & Randy Huff Decedents

Address: 826 Orange Ave, Coronado, CA 92118 Phone #: _____

Field Located Date: 10/23/18 Owner home during survey (Yes/No): _____

Coordinates: 39.15651686, 80.78094585 (decimal degrees – NAD 83)

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

Comments: Well

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

RECEIVED
Office of Oil and Gas
DEC 6 2018
WV Department of
Environmental Protection



Table 1 – Water Source Identification

EQT Well Pad Name: OXF43 Submittal Date: _____

EQT Well Number: _____

Survey / Engineering Company: RETTEW

Site Number: 07-17-1 Distance from Gas Well (feet): 3371'

Surface Owner / Occupant: Randy E. Huff & William Lee

Address: 826 Orange Ave., Coronado, CA 92118 Phone #: _____

Field Located Date: 10/23/18 Owner home during survey (yes/no): _____

Coordinates: 39.14843745, 80.79014573 (decimal degrees – NAD 83)

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

Comments: Well

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

Site Number: 07-17-1 Distance from Gas Well (feet): 3177'

Surface Owner / Occupant: Randy E. Huff & William Lee

Address: 826 Orange Ave., Coronado, CA 92118 Phone #: _____

Field Located Date: 10/23/18 Owner home during survey (yes/no): _____

Coordinates: 39.14876464, 80.79325539 (decimal degrees – NAD 83)

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

Comments: Well

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

Site Number: 07-16-6 Distance from Gas Well (feet): 3538'

Surface Owner / Occupant: Betty M. Ryan

Address: 4153 Grove Summers Rd, New Milton, WV 26411 Phone #: _____

Field Located Date: 10/23/18 Owner home during survey (Yes/No): _____

Coordinates: 39.15060189, 80.80151208 (decimal degrees – NAD 83)

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

Comments: Well

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

RECEIVED
Office of Oil and Gas
DEC 6 2018
WV Department of Environmental Protection



Table 1 – Water Source Identification

EQT Well Pad Name: OXF43 Submittal Date: _____

EQT Well Number: _____

Survey / Engineering Company: RETTEW

Site Number: 07-14-10 Distance from Gas Well (feet): _____

Surface Owner / Occupant: Walter Riesenber, ET AL

Address: Clarksville, OH 45113 Phone #: _____

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

Coordinates: Unconfirmed (decimal degrees – NAD 83)

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

Comments: No features within 2600' buffer

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

Site Number: 07-10-2 Distance from Gas Well (feet): _____

Surface Owner / Occupant: I L (Ike) Morris

Address: Glenville, WV 26351 Phone #: _____

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

Coordinates: Unconfirmed (decimal degrees – NAD 83)

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

Comments: No features within 2600' buffer

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

Site Number: 02-1-1 Distance from Gas Well (feet): _____

Surface Owner / Occupant: Dale Arnold, ET AL

Address: 4825 Roop Rd, Mount Airy, MD 21771 Phone #: _____

Field Located Date: _____ Owner home during survey (Yes/No): _____

Coordinates: Unconfirmed (decimal degrees – NAD 83)

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

Comments: No features within 2600' buffer

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

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of Environmental Protection



Table 1 – Water Source Identification

EQT Well Pad Name: OXF43 Submittal Date: _____

EQT Well Number: _____

Survey / Engineering Company: RETTEW

Site Number: 02-4-1 Distance from Gas Well (feet): _____

Surface Owner / Occupant: Wilma Lee Leeson

Address: 2687 Millview Dr, Columbus, OH 43207 Phone #: _____

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

Coordinates: Unconfirmed (decimal degrees – NAD 83)

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

Comments: No features within 2600' buffer

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

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

Surface Owner / Occupant: _____

Address: _____ Phone #: _____

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

Coordinates: _____ (decimal degrees – NAD 83)

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

Comments: _____

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

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

Surface Owner / Occupant: _____

Address: _____ Phone #: _____

Field Located Date: _____ Owner home during survey (Yes/No): _____

Coordinates: _____ (decimal degrees – NAD 83)

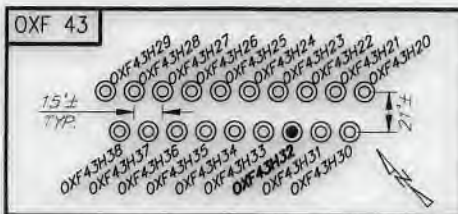
Contact Attempts (Date): 1st: _____ 2nd: _____ Date Door Hanger Left: _____

Comments: _____

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

RECEIVED
Office of Oil and Gas
DEC 6 2018
Department of Energy

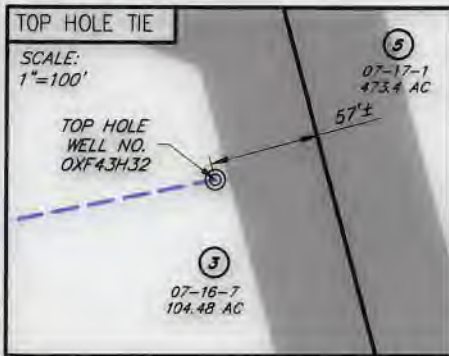
OXF43H32
OXF43
EQT Production Company



OXF43H32 Well Point Coordinates

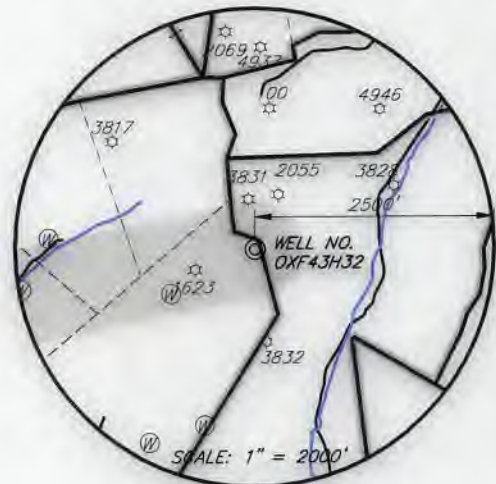
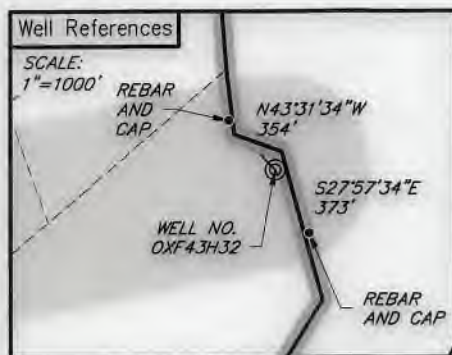
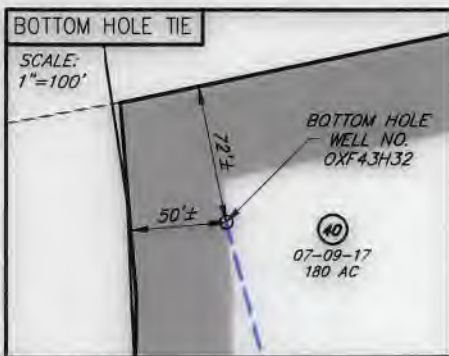
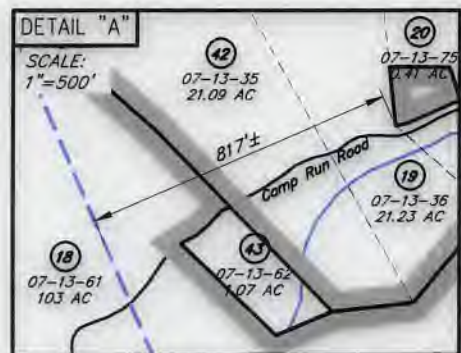
Top Hole Coordinates		
NAD 27 S.P.C. (Ft.)	N: 241,922.437	E: 1,633,379.830
NAD 27 GEO	LAT: 39.156976	LONG: 80.792883
NAD 83 UTM 17N (M)	N 4,334,226.6	E: 517,909.9
NAD 83 S.P.C. (Ft.)	N 241,957.8	E: 1,601,939.0
Landing Point Coordinates		
NAD 27 S.P.C. (Ft.)	N: 241,399.472	E: 1,628,441.701
NAD 27 GEO	LAT: 39.155344	LONG: 80.810268
NAD 83 UTM 17N (M)	N 4,334,042.2	E: 516,408.2
NAD 83 S.P.C. (Ft.)	N 241,434.7	E: 1,597,210.0
Bottom Hole Coordinates		
NAD 27 S.P.C. (Ft.)	N: 250,097.713	E: 1,625,455.931
NAD 27 GEO	LAT: 39.179103	LONG: 80.821247
NAD 83 UTM 17N (M)	N 4,336,676.9	E: 515,454.4
NAD 83 S.P.C. (Ft.)	N 250,132.8	E: 1,594,015.0

04/12/2019



NO.	SURFACE OWNER
1	CHARLES R. GREATHOUSE
2	EVELYN G. GREATHOUSE
3	CATHY JEAN WETZEL, ET AL
17	DARLENE K. PRUNTY
18	EDRA LOUISE GRIMM
40	JOAN H. CASSIDY TRUST
41	KATHRYN GOODWIN, ET AL
42	JERRI KATHRYN FOWLER
44	JOHN W. & MARGARET L. JANSCHKE
45	BRADLEY A. COPELAND, SR.

NO.	ADJACENT OWNER
5	RANDY E. & WILLIAM LEE HUFF
19	RANDALL L. GRIMM
20	ERNEST JONES, ET AL
37	CAROLYN S. GASTON, ET AL
39	CAROLYN S. GASTON, ET AL
43	JERRI KATHRYN FOWLER
46	JOAN H. CASSIDY TRUST



LEGEND

- ☆ EXISTING OIL/GAS WELL
- ⊕ WATER FEATURE
- ⊙ WELL HEAD TOP HOLE
- ▲ WELL LANDING POINT
- WELL BOTTOM HOLE
- REBAR FOUND
- DRILLED LATERAL LINE
- - - PERMITTED LATERAL LINE
- LEASE BOUNDARY
- - - PROPERTY LINE
- STREAM
- · - 500' LATERAL COLLECTION BUFFER



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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

[Signature]



FILE NO.: EES-60635
DRAWING NO.: OXF43_Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: ±3'
PROVEN SOURCE OF ELEVATION: GPS

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

DATE NOVEMBER 30, 20 18
OPERATORS WELL NO. _____
API WELL NO. _____
STATE 47 COUNTY 17 PERMIT 06884

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION, ELEVATION: 1229' (As-Built Pad) WATERSHED: Middle Fork Hughes River QUADRANGLE: OXFORD
DISTRICT: SOUTH WEST / COVE COUNTY: DODDRIDGE
SURFACE OWNER: Cathy Jean Wetzel, ET AL ACREAGE: 104.48± AC
ROYALTY OWNER: Franklin Maxwell Heirs L. P. LEASE NO.: 107429 ACREAGE: 255± AC
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6666'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson
ADDRESS: 115 Professional Pl. P.O. Box 280 ADDRESS: 115 Professional Pl. P.O. Box 280
Bridgeport, WV 26330 Bridgeport, WV 26330

WWW.ENCOMPASSSERVICES.COM PLOT DATE: 11/30/2018 CAD FILE: OXF 43_WELL PLAT-2018-11-29.DWG

WW-6A1
(5/13)

Operator's Well No. OXF43H32

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

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

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

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See 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

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection

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

Well Operator: EQT Production Company
 By: Erin Spine
 Its: Regional Land Supervisor

WW-6A1 attachment

Operator's Well No.

OXF43H32

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
107429	<u>Franklin Maxwell Heirs L.P. (current royalty owner)</u>		**	
	W. Brent Maxwell, et al (original lessor)	Fisher Oil Co.		LB23/337
	Fisher Oil Co.	The Philadelphia Company of West Virginia		LB32/120
	The Philadelphia Company of West Virginia	Pittsburgh & West Virginia Gas Company		DB87/90
	Pittsburgh & West Virginia Gas Co.	Equitable Gas Company		DB121/303
	Equitable Gas Company	Equitrans, Inc.		LB154/475
	Equitrans, Inc.	Equitrans, L.P.		DB329/645
	Equitrans, L.P.	Equitable Production-Eastern States, Inc.		LB 192/19
	Equitable Production-Eastern States, Inc.	Equitable Production Company		CB281/346
	Equitable Production Company	EQT Production Company		CB281/346
109481	<u>Adele McDougal, et al. (current royalty owner)</u>		**	
	Jackson Leeson, et al. (original lessor)	The Philadelphia Co. of West Virginia		LB21/76
	The Philadelphia Co. of West Virginia	Pittsburgh & West Virginia Gas Co.		DB87/90
	Pittsburgh & West Virginia Gas Co.	Equitable Gas Company		DB121/303
	Equitable Gas Company	Equitrans, Inc.		LB154/475
	Equitrans, Inc.	Equitrans, L.P.		DB329/645
	Equitrans, L.P.	Equitable Production-Eastern States, Inc.		LB 192/19
	Equitable Production-Eastern States, Inc.	Equitable Production Company		CB281/346
	Equitable Production Company	EQT Production Company		CB281/346
114445	<u>Marks Family Trust, et al (current royalty owner)</u>		**	
	W.T. Snider, et ux (original lessor)	The Philadelphia Co. of West Virginia		LB32/446
	The Philadelphia Co. of West Virginia	Pittsburgh & West Virginia Gas Co.		DB87/90
	Pittsburgh & West Virginia Gas Co.	Equitable Gas Company		DB121/303
	Equitable Gas Company	Equitrans, Inc.		LB154/475
	Equitrans, Inc.	Equitable Production-Eastern States, Inc.		LB192/19
	Equitable Production-Eastern States, Inc.	Equitable Production Company		CB281/346
	Equitable Production Company	EQT Production Company		CB281/346
1003646	<u>ET Blue Grass LLC, et al. (current royalty owner)</u>		**	
	Cyril Scott, et ux, et al (original lessor)	Hugh Spencer		LB91/637
	Hugh Spencer	J & J Enterprises		LB111/390
	J & J Enterprises	Eastern American Energy Corp.		LB211/137
	Eastern American Energy Corp.	Energy Corporation of America		LB240/498
	Energy Corporation of America	Antero Resources Corp.		LB272/339
	Antero Resources Corp.	EQT Production Co.		DB371/448
122692	<u>Jonathan D. Casto, et al. (current royalty owner)</u>		**	
	R. J. Gaston, et al (original lessor)	Carter Oil Co.		LB36/362
	Carter Oil Co.	Hope Natural Gas Co.		LB42/410
	Hope Natural Gas Co.	Pittsburgh & WV Gas Co.		LB53/82
	Pittsburgh & WV Gas Co.	Equitable Gas Co.		DB121/303
	Equitable Gas Co.	Equitrans, Inc.		LB154/475
	Equitrans, Inc.	Equitable Production-Eastern States, Inc.		LB192/19
	Equitable Production-Eastern States, Inc.	Equitable Production Company		CB281/346
	Equitable Production Company	EQT Production Co.		CB281/346
987065	<u>James Robert Haught, et al. (current royalty owner)</u>		**	
	James Robert Haught	EQT Production Company		LB317/617
122689	<u>Melinda Chambers, et al. (current royalty owner)</u>		**	
	M.L. Haught, et ux (original lessor)	Hope Natural Gas Company		LB35/10
	Hope Natural Gas Company	Equitable Gas Company		LB157/349
	Equitable Gas Company	Equitrans, Inc.		DB154/475
	Equitrans, Inc.	Equitable Production-Eastern States, Inc.		LB192/19
	Equitable Production-Eastern States, Inc.	Equitable Production Company		CB281/346
	Equitable Production Company	EQT Production Co.		CB281/346

** Per West Virginia Code Section 22-6-8.

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection



04/12/2019

4701706884

November 29, 2018

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

Re: OXF43 well pad, well numbers: OXF43H32, OXF43H34, OXF43H35, OXF43H36,
OXF43H37
Southwest District, Doddridge County

Dear Mr. Brewer,

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

Sincerely,

A handwritten signature in blue ink, appearing to read 'E. Spine'.

Erin Spine
Regional Land Supervisor

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection

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

Date of Notice Certification: 12/03/2018

API No. 47- 017 -
Operator's Well No. OXF43H32
Well Pad Name: OXF43

Notice has been given:

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

State:	<u>WV</u>	UTM NAD 83	Easting:	<u>517909.912</u>
County:	<u>Doddridge</u>		Northing:	<u>4334226.637</u>
District:	<u>South West/ Cove</u>	Public Road Access:		<u>Rt. 20</u>
Quadrangle:	<u>Oxford</u>	Generally used farm name:		<u>Cathy Jean Wetzal, et al</u>
Watershed:	<u>Middle Fork Hughes River</u>			

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

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:

*PLEASE CHECK ALL THAT APPLY

- 1. NOTICE OF SEISMIC ACTIVITY or NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED
- 2. NOTICE OF ENTRY FOR PLAT SURVEY or NO PLAT SURVEY WAS CONDUCTED
- 3. NOTICE OF INTENT TO DRILL or NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)
- 4. NOTICE OF PLANNED OPERATION
- 5. PUBLIC NOTICE
- 6. NOTICE OF APPLICATION

OOG OFFICE USE ONLY

- RECEIVED/ NOT REQUIRED
- RECEIVED
- RECEIVED/ NOT REQUIRED
- RECEIVED
- RECEIVED
- RECEIVED

RECEIVED
Office of Oil and Gas

DEC 6 2018

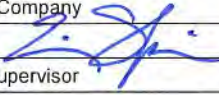
WV Department of
Environmental Protection

Required Attachments:

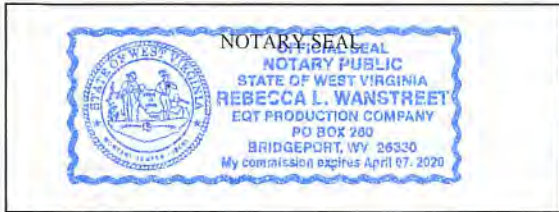
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication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

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 Company
By: Erin Spine 
Its: Regional Land Supervisor
Telephone: 304-848-0035

Address: 2400 Ansys Drive, Suite 200
Canonsburg PA 15317
Facsimile: 304-848-0041
Email: espine@eqt.com



Subscribed and sworn before me this 29 day of November 2018.
Rebecca L. Wanstreet Notary Public
My Commission Expires 4-7-2020

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.

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection

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

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

Date of Notice: 5 12/7/2018 **Date Permit Application Filed:** 5 12/7/2018

Notice of:

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

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

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

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

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

SURFACE OWNER(s)
Name: See Attached
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: See Attached
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
Name: See Attached
Address: _____

COAL OWNER OR LESSEE
Name: See Attached
Address: _____

COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: See Attached
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection

*Please attach additional forms if necessary

04/12/2019

Surface Owners:

CATHY JEAN WETZEL, ET AL
322 ZACKS RUN ROAD
MOUNT CLARE , WV 26408)

RANDY E. HUFF DECEDENT'S TRUST B
826 ORANGE AVENUE
CORONADO , CA 92118 |

WILLIAM LEE HUFF
826 ORANGE AVENUE
CORONADO , CA 92118 |

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection

04/12/2019

Surface Owners (road, AST, or other disturbance):

CATHY JEAN WETZEL, ET AL
322 ZACKS RUN ROAD
MOUNT CLARE , WV 26408

RANDY E. HUFF DECEDENT'S TRUST B
826 ORANGE AVENUE
CORONADO , CA 92118

WILLIAM LEE HUFF
826 ORANGE AVENUE
CORONADO , CA 92118

I.L. MORRIS
PO BOX 397
GLENVILLE, WV

MATHEW H. COPELAND
1500 HAYSTACK LANE
WEST UNION, WV 26456

SANDRA MATHENY ARMENTROUT AND WILLIAM A. ARMENTROUT
851 MACE ST.
ELKVIEW, WV 25071

Janice S. McCormack
1903 CAMP RUN ROAD
WEST UNION, WV 26456

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection

04/12/2019

Coal Owner

Adele McDougal
213 W. High Street
Harrisville WV 26362

William Lee Huff c/o Joye E Huff
826 Orange Ave.
Coronado CA 92118

Master Mineral Holdings II LP
P.O.Box 10886
Midland TX 79702

Lois L McKain
4141 S. Braeswood Blvd. Apt 224
Houston TX 77009

Katherine Foster Leggett
1625 Stonehenge Rd
Charleston WV 25314

Franklin Maxwell Heirs Ltd Partnership #1
P.O.Box 2395
Buchannon WV 26201

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection

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.

RECEIVED
Office of Oil and Gas
DEC 6 2018
WV Department of Environmental Protection

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, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

RECEIVED
Office of Oil and Gas
DEC 6 2018
WV Department of
Environmental Protection

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

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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


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

RECEIVED
Office of Oil and Gas
DEC 6 2018
WV Department of
Environmental Protection

WW-6A
(8-13)

API NO. 47-017 - 04/12/2019
OPERATOR WELL NO. OXF43H2
Well Pad Name: OXF43

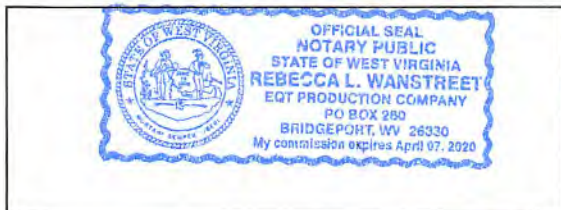
Notice is hereby given by:

Well Operator: EQT Production Company 
Telephone: 304-848-0035
Email: espine@eqt.com

Address: 2400 Ansys Drive, Suite 200
Canonsburg PA 15317
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.



Subscribed and sworn before me this 29 day of November 2018.

Rebecca L. Wanstreet Notary Public

My Commission Expires 4-7-2020

RECEIVED
Office of Oil and Gas
DEC 6 2018
WV Department of
Environmental Protection

04/12/2019

Surface Owners:

CATHY JEAN WETZEL, ET AL
322 ZACKS RUN ROAD
MOUNT CLARE, WV 26408

RANDY E. HUFF DECEDENT'S TRUST B
826 ORANGE AVENUE
CORONADO, CA 92118

WILLIAM LEE HUFF
826 ORANGE AVENUE
CORONADO, CA 92118

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection

04/12/2019

Surface Owners (road, AST, or other disturbance):

CATHY JEAN WETZEL, ET AL
322 ZACKS RUN ROAD
MOUNT CLARE , WV 26408

RANDY E. HUFF DECEDENT'S TRUST B
826 ORANGE AVENUE
CORONADO , CA 92118

WILLIAM LEE HUFF
826 ORANGE AVENUE
CORONADO , CA 92118

I.L. MORRIS
PO BOX 397
GLENVILLE, WV

MATHEW H. COPELAND
1500 HAYSTACK LANE
WEST UNION, WV 26456

SANDRA MATHENY ARMENTROUT AND WILLIAM A. ARMENTROUT
851 MACE ST.
ELKVIEW, WV 25071

Janice S. McCormack
1903 CAMP RUN ROAD
WEST UNION, WV 26456

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection

04/12/2019

Surface Owners:

CATHY JEAN WETZEL, ET AL
322 ZACKS RUN ROAD
MOUNT CLARE ,WV 26408

RANDY E. HUFF DECEDENT'S TRUST B
826 ORANGE AVENUE
CORONADO , CA 92118

WILLIAM LEE HUFF
826 ORANGE AVENUE
CORONADO , CA 92118

RECEIVED
Office of Oil and Gas
DEC 6 2018
WV Department of
Environmental Protection

04/12/2019

Surface Owners (road, AST, or other disturbance):

CATHY JEAN WETZEL, ET AL
322 ZACKS RUN ROAD
MOUNT CLARE ,WV 26408

RANDY E. HUFF DECEDENT'S TRUST B
826 ORANGE AVENUE
CORONADO , CA 92118

WILLIAM LEE HUFF
826 ORANGE AVENUE
CORONADO , CA 92118

I.L. MORRIS
PO BOX 397
GLENVILLE, WV

MATHEW H. COPELAND
1500 HAYSTACK LANE
WEST UNION,WV 26456

SANDRA MATHENY ARMENTROUT AND WILLIAM A. ARMENTROUT
851 MACE ST.
ELKVIEW, WV 25071

Janice S. McCormack
1903 CAMP RUN ROAD
WEST UNION, WV 26456

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways

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

Thomas J. Smith, P. E.
Secretary of Transportation/
Commissioner of Highways

November 13, 2018

Jill M. Newman
Deputy Commissioner

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 OXF43 Well Site, Doddridge County

OXF43H20	OXF43H21	OXF43H22
OXF43H24	OXF43H28	OXF43H29
OXF43H32	OXF43H34	OXF43H35
OXF43H36	OXF43H37	

Dear Mr. Martin,

This well site will be accessed from Permit # 04-2015-0394 has been issued to EQT Production Company for access to the State Road for a well pad located off of County Rt. 23/3 SLS in Doddridge County.

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

Very Truly Yours,

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

Cc: Nick Bumgardner
EQT Production Company
CH, OM, D-4
File

Anticipated Frac Additives
Chemical Names and CAS numbers

4701706884
00/122094

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

RECEIVED
Office of Oil and Gas

DEC 6 2018

WV Department of
Environmental Protection

THIS NORTH AND
DISTANCE SCHEMATIC
SHOWN HEREON WERE
PREPARED BY THE
SURVEYOR.

WELL ELEVATION DETAIL

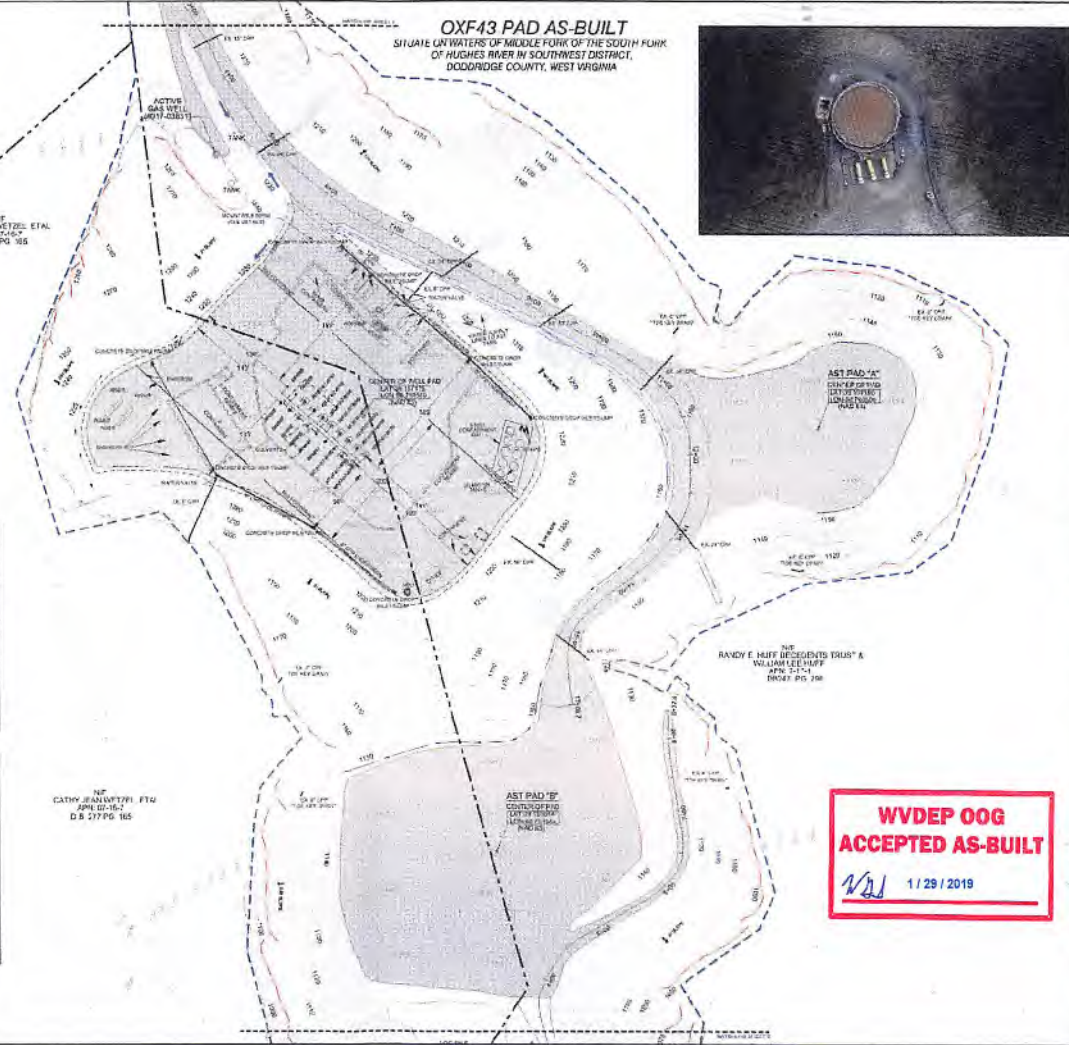
OXF43H38	OXF43H29
OXF43H37	OXF43H28
OXF43H36	H21 (47-017-06747)
OXF43H35	H26 (47-017-06745)
OXF43H34	H25 (47-017-06744)
OXF43H33	H24 (47-017-06742)
H32 (47-017-06749)	H23 (47-017-06743)
H31 (47-017-06749)	H22 (47-017-06741)
H30 (47-017-06746)	H21 (47-017-06740)
	H20 (47-017-06739)

SCALE - 1"=20'



SCALE
1 INCH = 50 FEET

OXF43 PAD AS-BUILT
SITE ON WATERS OF MIDDLE FORK OF THE SOUTH FORK
OF HUGHES RIVER IN SOUTHWEST DISTRICT,
DODDGE COUNTY, WEST VIRGINIA



**WVDEP OOG
ACCEPTED AS-BUILT**
1/29/2019

NO.	DATE	DESCRIPTION
1	1/29/2019	AS BUILT DRAWING

EQT
Energy & Environmental Technology

SLS
Land & Energy Development

THIS DOCUMENT HAS
BEEN REVIEWED BY
C. J. HARRIS, REGISTERED
ENGINEER, STATE OF
WEST VIRGINIA

**OXF43
PAD AS-BUILT**
DATE: 1/29/2019

DATE: 04-05-2019
SCALE: 1"=20'
DESIGNED BY: T.W.
FILE NO: 0433
SHEET 18 OF 20