

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47-017-06390 County DODDRIDGE District WEST UNION
Quad OXFORD 7.50 Pad Name OXF150 Field/Pool Name _____
Farm name HARPER, LUCY E. Well Number 512476
Operator (as registered with the OOG) EQT Production Company
Address 625 Liberty Ave. EQT Plaza, Suite 1700 City Pittsburgh State PA Zip 15222

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4341558.6 Easting 518036.7
Landing Point of Curve Northing 4341810.8 Easting 518251.8
Bottom Hole Northing 4343553.5 Easting 517394.6

Elevation (ft) 1259 GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)
SBM 12.0ppg – powdered hydrocarbon resin, calcium carbonate, ground almond hulls, barium sulfate, calcium chloride, lecithin liquid, organophilic clay, polyaminated fatty acid, calcium hydroxide, polyimide surfactant, modified fatty acid, dimer.trimer fatty acid, ground walnut hulls, refined base oil.

Date permit issued 1/17/2014 Date drilling commenced 3/26/2014 Date drilling ceased 5/17/2014
Date completion activities began 7/31/2014 Date completion activities ceased 11/17/2014
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 155,165,258,294,395,449 Open mine(s) (Y/N) depths N
Salt water depth(s) ft NONE FOUND Void(s) encountered (Y/N) depths N
Coal depth(s) ft 343,644,1479 Caverns encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

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Reviewed by: _____

API 47-017 - 06390 Farm name HARPER, LUCY E. Well number 512476

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24"	20"	40'	New	94lb/ft	N/A	Y
Surface	17-1/2"	13-3/8"	1,045'	New	54.5lb/ft	N/A	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2,902'	New	40lb/ft	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-1/2"	5-1/2"	13,788'	New	20lb/ft	N/A	N
Tubing							
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Class A	38	15.6	1.18	44.84	0	8
Surface	Class A	815	15.6	1.19	970	0	8
Coal							
Intermediate 1	Class A	1060	15.6	1.19	1261	0	8
Intermediate 2							
Intermediate 3							
Production	Class A/Class H	600/1078	14.2/15.2	1.26/1.97	2,880	4,220	72
Tubing							

Drillers TD (ft) 13,776' _____ Loggers TD (ft) _____

Deepest formation penetrated Marcellus _____ Plug back to (ft) _____

Plug back procedure _____

Kick off depth (ft) 5170' _____

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING Conductor- N/A _____

Surface-Bowstring centralizer on shoe track and every 300' to surface

Intermediate-Bowstring centralizer on shoe track and every 500' to surface

Production- Composite bodied centralizers on every joint from TD up to 4,220'

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
					See Attachment

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
								See Attachment

Please insert additional pages as applicable.

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus</u>	<u>6,639.1</u>	<u>TVD</u>	<u>7,136</u> <u>MD</u>
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1,500 psi Bottom Hole NA psi DURATION OF TEST 103.5 hrs

OPEN FLOW Gas 7,966 mcfpd Oil 0 bpd NGL 20.75 bpd Water 912 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	<u>0</u>		<u>0</u>		
	<i>See Attached</i>				

Please insert additional pages as applicable.

Drilling Contractor Savanna Drilling
Address 2204 Timberloch Place Suite 230 City Woodlands State TX Zip 77380

Logging Company Vaughn Energy Services
Address P.O. Box 261021 City Corpus Christi State TX Zip 78426

Cementing Company Nabors Completion & Production Services Co.
Address PO BOX 975682 City Dallas State TX Zip 75397-5682

Stimulating Company WFT Int'l (Stages 1-3) / FTSI Services, LLC (Stages 4-44)
Address 2911 Reach RD / 301 East 18th Street City Williamsport / Cisco State PA / TX Zip 17701 / 76437

Please insert additional pages as applicable.

Completed by James E. Helmick Jr Telephone 412-395-5518
Signature _____ Title Vice President - Completions Operations Date 2/3/2015

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

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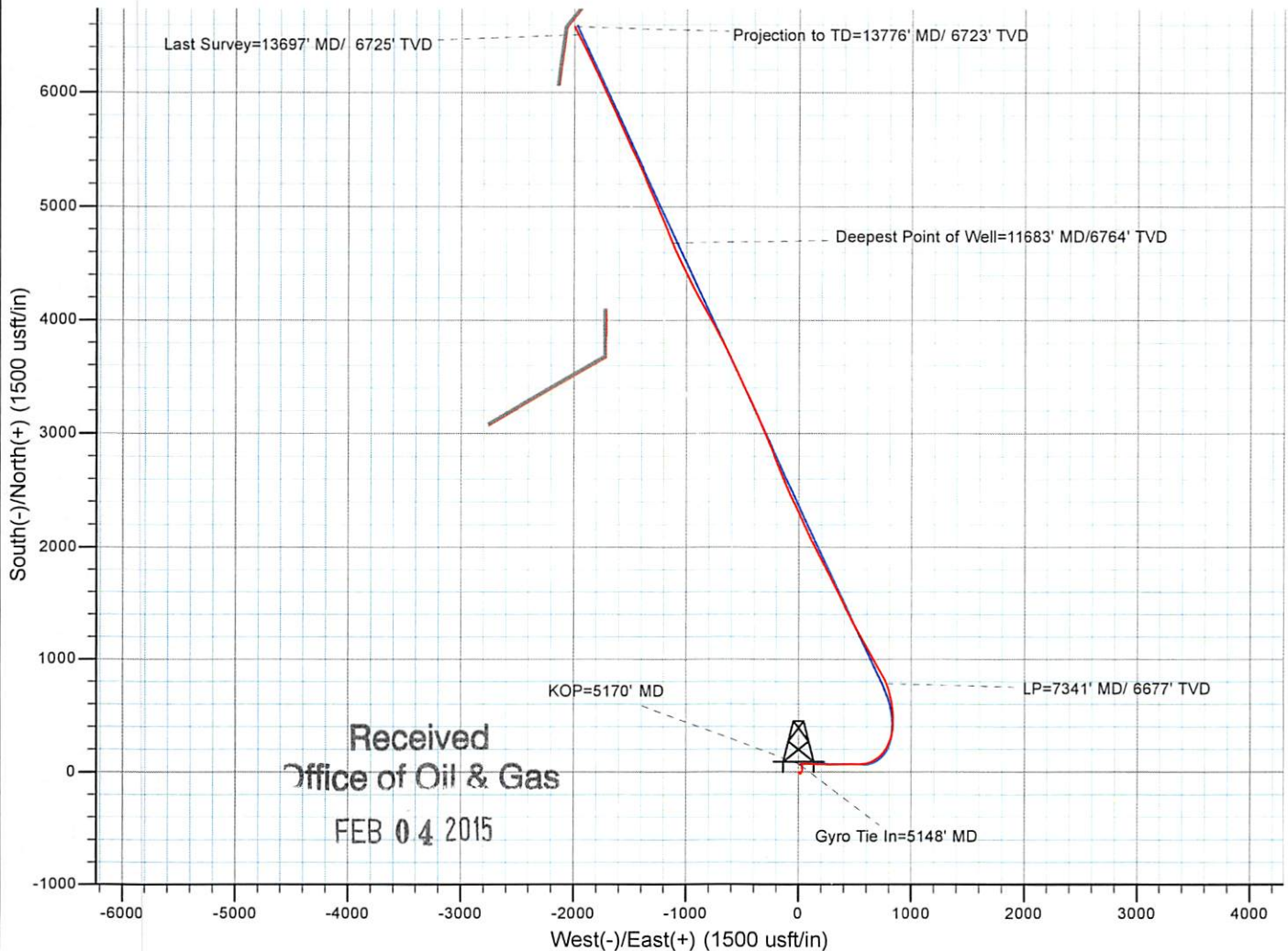
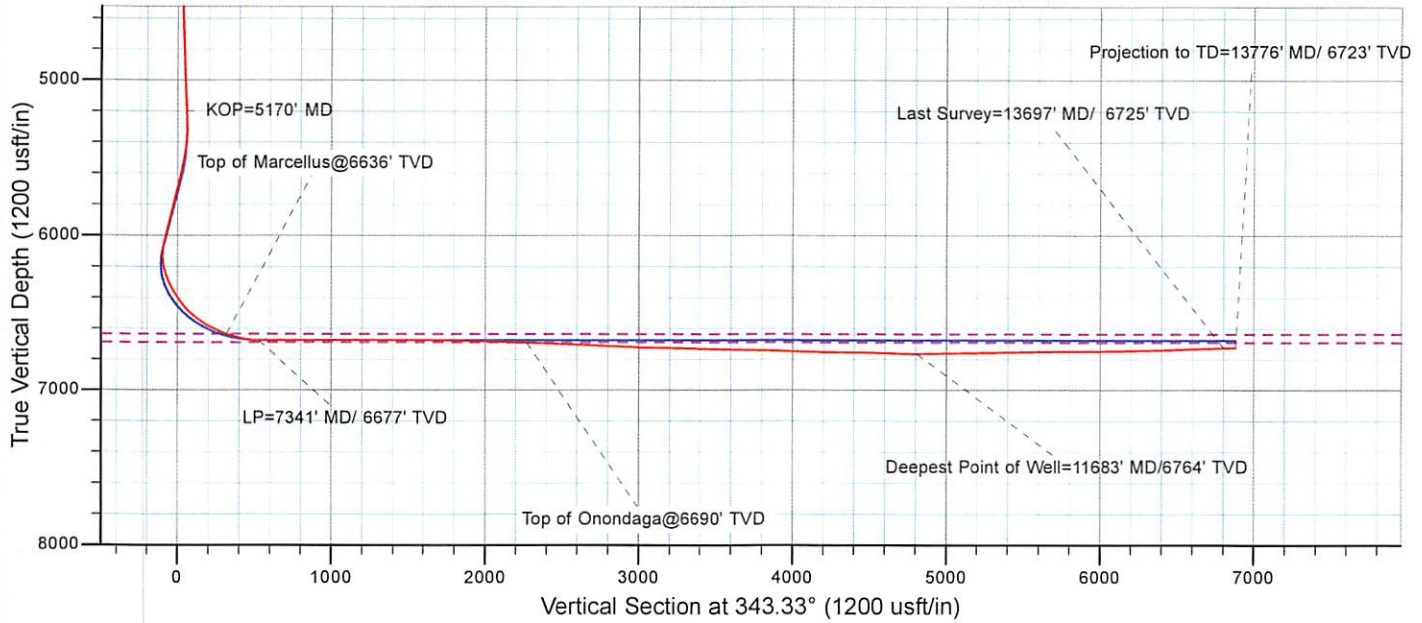
Formation Name	Final Top MD (ftGL) (ft)	Final Top TVD (ft)	Final Btm MD (ftGL) (ft)	Final Btm TVD (ft)
FRESH WATER ZONE	1	1	449	449
SAND / SHALE	1	1	343	343
COAL	343	343	349	349
SAND / SHALE	349	349	644	644
COAL	644	644	647	647
SAND / SHALE	647	647	1,479.00	1,479.00
COAL	1,479.00	1,479.00	1,485.00	1,485.00
SAND / SHALE	1,485.00	1,485.00	1,593.00	1,593.00
MAXTON	1,593.00	1,593.00	1,662.00	1,662.00
SAND / SHALE	1,662.00	1,662.00	1,774.00	1,773.90
BIG LIME	1,774.00	1,773.90	1,824.00	1,823.90
SAND / SHALE	1,824.00	1,823.90	1,889.00	1,888.90
BIG INJUN	1,889.00	1,888.90	1,911.00	1,910.90
SAND / SHALE	1,911.00	1,910.90	2,058.00	2,057.90
WEIR	2,058.00	2,057.90	2,174.00	2,173.90
SAND / SHALE	2,174.00	2,173.90	2,273.00	2,272.80
GANTZ	2,273.00	2,272.80	2,333.00	2,332.70
SAND / SHALE	2,333.00	2,332.70	2,368.00	2,367.70
FIFTY FOOT	2,368.00	2,367.70	2,417.00	2,416.60
SAND / SHALE	2,417.00	2,416.60	2,465.00	2,464.60
THIRTY FOOT	2,465.00	2,464.60	2,513.00	2,512.60
GORDON	2,513.00	2,512.60	2,613.00	2,612.50
FORTH SAND	2,613.00	2,612.50	2,704.00	2,703.30
SAND / SHALE	2,704.00	2,703.30	2,785.00	2,784.30
BAYARD	2,785.00	2,784.30	2,849.00	2,848.20
SAND / SHALE	2,849.00	2,848.20	3,270.00	3,268.60
WARREN	3,270.00	3,268.60	3,333.00	3,331.60
B-5	3,333.00	3,331.60	3,340.00	3,338.60
SPEECHLEY	3,340.00	3,338.60	3,851.00	3,849.40
BALLTOWN A	3,851.00	3,849.40	4,029.00	4,027.30
BALLTOWN B	4,029.00	4,027.30	4,225.00	4,223.30
BRADFORD	4,225.00	4,223.30	4,482.00	4,480.20
RILEY	4,482.00	4,480.20	4,918.00	4,915.90
BENSON	4,918.00	4,915.90	5,171.00	5,168.60
ALEXANDER	5,171.00	5,168.60	6,131.00	5,976.40
RHINESTREET UPPER	6,131.00	5,976.40	6,269.00	6,080.70
RHINESTREET	6,269.00	6,080.70	6,550.00	6,288.20
SONYEA	6,550.00	6,288.20	6,760.00	6,443.90
MIDDLESEX	6,760.00	6,443.90	6,828.00	6,489.60
GENESSEE	6,828.00	6,489.60	6,966.00	6,569.00
GENESEO	6,966.00	6,569.00	7,036.00	6,600.80
TULLY	7,036.00	6,600.80	7,093.00	6,624.10
HAMILTON	7,093.00	6,624.10	7,136.00	6,639.10
MARCELLUS	7,136.00	6,639.10	13,776.00	6,722.70

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EQT Production - Marcellus

KB Elevation=1275 FT
Ground Elevation= 1259 FT
Measurements were taken from KB Elevation

Project: Doddridge County, WV Grid
Site: Doddridge County 512476
Well: Well #512476
Wellbore: Main Wellbore
Design: 512476 AS Drilled Surveys



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512476 - 47-017-06390-0000 - Perforations

Stage Number	Perforation Date	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Number of Shots	Formation
Initiation Sleeve	7/29/2014	13,763.00	13,766.00	10	MARCELLUS
1	7/30/2014	13,642.00	13,732.00	32	MARCELLUS
2	7/31/2014	13,492.00	13,612.00	40	MARCELLUS
3	7/31/2014	13,342.00	13,478.00	40	MARCELLUS
4	10/31/2014	13,192.00	13,312.00	40	MARCELLUS
5	10/31/2014	13,042.00	13,062.00	40	MARCELLUS
6	10/31/2014	12,892.00	13,012.00	40	MARCELLUS
7	11/6/2014	12,742.00	12,862.00	56	MARCELLUS
8	11/7/2014	12,592.00	12,712.00	40	MARCELLUS
9	11/7/2014	12,442.00	12,562.00	40	MARCELLUS
10	11/7/2014	12,292.00	12,412.00	40	MARCELLUS
11	11/7/2014	12,142.00	12,262.00	40	MARCELLUS
12	11/8/2014	11,992.00	12,108.00	40	MARCELLUS
13	11/8/2014	11,842.00	11,957.00	40	MARCELLUS
14	11/8/2014	11,692.00	11,812.00	40	MARCELLUS
15	11/9/2014	11,542.00	11,662.00	40	MARCELLUS
16	11/9/2014	11,392.00	11,512.00	40	MARCELLUS
17	11/9/2014	11,242.00	11,358.00	40	MARCELLUS
18	11/9/2014	11,092.00	11,212.00	40	MARCELLUS
19	11/9/2014	10,942.00	11,062.00	40	MARCELLUS
20	11/10/2014	10,792.00	10,912.00	40	MARCELLUS
21	11/10/2014	10,642.00	10,762.00	40	MARCELLUS
22	11/10/2014	10,492.00	10,612.00	40	MARCELLUS
23	11/11/2014	10,342.00	10,462.00	40	MARCELLUS
24	11/11/2014	10,192.00	10,312.00	40	MARCELLUS
25	11/11/2014	10,042.00	10,162.00	40	MARCELLUS
25.1 (Re-Perf)	11/11/2014	10,032.00	10,094.00	24	MARCELLUS
26	11/12/2014	9,882.00	10,002.00	40	MARCELLUS
27	11/12/2014	9,732.00	9,852.00	40	MARCELLUS
28	11/13/2014	9,582.00	9,702.00	40	MARCELLUS
29	11/13/2014	9,432.00	9,552.00	40	MARCELLUS
30	11/14/2014	9,282.00	9,402.00	40	MARCELLUS
31	11/14/2014	9,142.00	9,240.00	40	MARCELLUS
32	11/14/2014	8,992.00	9,092.00	40	MARCELLUS
33	11/15/2014	8,842.00	8,942.00	40	MARCELLUS
34	11/15/2014	8,692.00	8,792.00	40	MARCELLUS
35	11/15/2014	8,542.00	8,642.00	40	MARCELLUS
36	11/15/2014	8,392.00	8,492.00	40	MARCELLUS
37	11/15/2014	8,232.00	8,352.00	40	MARCELLUS
38	11/16/2014	8,082.00	8,202.00	40	MARCELLUS
39	11/16/2014	7,932.00	8,052.00	40	MARCELLUS
40	11/16/2014	7,782.00	7,902.00	40	MARCELLUS
41	11/16/2014	7,632.00	7,752.00	40	MARCELLUS
42	11/16/2014	7,482.00	7,602.00	40	MARCELLUS
43	11/17/2014	7,332.00	7,452.00	40	MARCELLUS
44	11/17/2014	7,182.00	7,302.00	40	MARCELLUS

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512476 - 47-017-06390-0000 - Stimulated Stages

Stage Number	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
Initiation Sleeve	7/29/2014	NA	NA	NA	4,950	NA	1,717	0
1	7/31/2014	77.40	8,871.00	9,470.00	5,075	250,800	6,428	0
2	7/31/2014	86.40	9,095.00	9,373.00	5,289	250,820	6,538	0
3	8/1/2014	87.00	8,144.00	9,605.00	4,878	241,480	6,372	0
Injection Test	8/2/2014	2.50	4,853.00	NA	4,200	0	941	0
Injection Test	10/30/2014	3.50	4,532.00	NA	4,980	0	3,680	0
4	10/31/2014	87.30	7,443.00	8,176.00	4,727	250,304	6,764	0
5	10/31/2014	81.70	7,956.00	8,761.00	5,493	201,877	5,795	0
6	11/1/2014	78.80	8,283.00	9,116.00	5,322	4,201	1,843	0
Injection Test	11/1/2014	3.20	6,670.00	NA	8,027	0	327	0
7	11/6/2014	99.40	8,257.00	8,929.00	5,111	389,351	10,567	0
8	11/7/2014	94.30	7,571.00	8,151.00	4,447	201,250	5,550	0
9	11/7/2014	92.10	7,812.00	8,589.00	4,780	205,835	5,575	0
10	11/7/2014	95.10	7,897.00	8,347.00	5,078	203,605	5,518	0
11	11/8/2014	98.00	8,153.00	8,601.00	5,413	202,625	5,788	0
12	11/8/2014	93.50	8,134.00	8,788.00	4,983	200,335	5,246	0
13	11/8/2014	79.60	8,246.00	8,771.00	5,704	149,230	3,842	0
14	11/8/2014	96.30	8,280.00	8,665.00	5,355	200,255	5,333	0
15	11/9/2014	98.30	8,426.00	8,740.00	5,313	199,311	5,292	0
16	11/9/2014	94.20	8,335.00	8,878.00	5,225	202,240	5,630	0
17	11/9/2014	95.60	8,273.00	8,684.00	5,155	200,280	5,204	0
18	11/9/2014	88.80	8,414.00	8,945.00	5,419	197,956	5,265	0
19	11/10/2014	97.90	8,282.00	8,814.00	4,955	197,519	5,148	0
20	11/10/2014	96.70	7,891.00	8,594.00	4,927	201,784	5,222	0
21	11/10/2014	97.00	8,129.00	9,140.00	5,644	182,155	4,879	0
22	11/11/2014	88.10	8,438.00	9,030.00	5,437	152,442	6,171	0
23	11/11/2014	97.90	8,199.00	8,413.00	4,638	198,105	5,470	0
24	11/11/2014	93.40	8,142.00	8,712.00	5,380	197,518	5,040	0
25	11/11/2014	69.10	7,370.00	9,087.00	4,651	76,500	3,252	0
Injection Test	11/11/2014	18.00	7,233.00	NA	5,362	0	863	0
25.1 (Re-Perf)	11/12/2014	84.20	7,417.00	9,609.00	4,639	68,400	2,463	0
Injection Test	11/12/2014	12.00	6,700.00	7,934.00	3,920	0	2,321	0
26	11/12/2014	85.30	7,325.00	9,375.00	4,891	156,509	6,344	0
Injection Test	11/13/2014	11.00	5,450.00	6,382.00	4,996	0	1,261	0
27	11/13/2014	91.70	7,620.00	8,121.00	4,403	198,574	5,332	0
28	11/13/2014	91.40	7,663.00	8,296.00	3,888	197,000	5,275	0
29	11/14/2014	93.70	8,200.00	8,552.00	4,535	194,316	5,625	0
30	11/14/2014	90.30	8,002.00	8,477.00	4,421	198,800	5,341	0
31	11/14/2014	98.50	7,924.00	8,250.00	5,268	196,120	5,325	0
32	11/15/2014	100.80	7,556.00	7,774.00	5,132	198,000	5,351	0
33	11/15/2014	99.20	7,334.00	7,741.00	4,036	200,211	5,273	0
34	11/15/2014	99.60	7,572.00	7,932.00	4,356	203,137	5,274	0
35	11/15/2014	96.30	7,830.00	8,493.00	4,799	196,700	6,034	0
36	11/15/2014	92.40	7,385.00	7,794.00	4,385	195,900	5,519	0
37	11/16/2014	100.40	7,465.00	7,715.00	4,978	198,100	5,311	0
38	11/16/2014	99.10	7,374.00	7,625.00	4,139	198,789	5,333	0
39	11/16/2014	98.70	7,332.00	8,148.00	5,374	197,161	5,183	0
40	11/16/2014	97.70	7,580.00	7,968.00	4,447	196,500	5,459	0
41	11/16/2014	98.70	7,215.00	7,379.00	5,388	198,800	5,351	0
42	11/17/2014	98.70	7,117.00	7,353.00	4,944	197,500	5,316	0
43	11/17/2014	99.20	7,377.00	7,520.00	5,113	198,369	5,277	0
44	11/17/2014	90.50	7,321.00	7,996.00	5,097	198,867	6,237	0

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/29/2014
Job End Date:	11/17/2014
State:	West Virginia
County:	Doddridge
API Number:	47-017-06390-00-00
Operator Name:	EQT Production
Well Name and Number:	OXF150 - 512476
Longitude:	-80.79104700
Latitude:	39.22312800
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	6,764
Total Base Water Volume (gal):	11,246,298
Total Base Non Water Volume:	514,548

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Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	FTSI	Carrier	Water	7732-18-5	100.00000	82.41837	
Water	Weatherford	Carrier	Water	7732-18-5	100.00000	8.03463	
Sand	FTSI	Proppant	Crystalline Silica	14808-60-7	100.00000	7.72663	
Sand	Weatherford	Proppant	Crystalline Silica	14808-60-7	100.00000	0.71749	
Hydrochloric Acid 15%	FTSI	Acidizing	Hydrochloric Acid	7647-01-0	15.00000	0.11332	
MX-5	Halliburton	Biocide	Sodium Nitrate	7631-99-4	60.00000	0.05732	
HVG-1	FTSI	Gel	Petroleum Distillate	64742-47-8	55.00000	0.02626	
			Guar Gum	9000-30-0	50.00000	0.02387	
			Surfactant	68439-51-0	2.00000	0.00095	
			Clay	14808-60-7	2.00000	0.00095	
FRW-600	FTSI	Friction Reducer	Hydrotreated light distillate	64742-47-8	30.00000	0.02441	

			Ammonium acetate	631-61-8	6.00000	0.00488
B-10	FTSI	Buffer Agent				
			Potassium carbonate	584-08-7	48.00000	0.00963
			Potassium hydroxide	1310-58-3	20.00000	0.00401
APB-1	FTSI	Gel Breaker				
			Ammonium Persulfate	7727-54-0	95.00000	0.01102
MX-8	Halliburton	Biocide				
			Bacteria Culture	N/A	100.00000	0.00970
Hydrochloric Acid 15%	WFT	Acidizing				
			Hydrochloric Acid	7647-01-0	15.00000	0.00577
WFR-65LA	Weatherford	Friction Reducer				
			Distillates, Petroleum, Hydrotreated Light	64742-47-8	40.00000	0.00310
			Ammonium acetate	631-61-8	5.00000	0.00039
WGA-15L	Weatherford	Gelling Agent				
			Solvent naphtha, petroleum, heavy aliph	64742-96-7	60.00000	0.00253
CS-500-SI	FTSI	Scale Inhibitor				
			Ethylene Glycol	107-21-1	10.00000	0.00212
CI-150	FTSI	Corrosion Inhibitor				
			Organic amine resin salt	Proprietary	30.00000	0.00037
			Ethylene Glycol	107-21-1	30.00000	0.00037
			Isopropanol	67-63-0	30.00000	0.00037
			Quaternary ammonium compound	Proprietary	10.00000	0.00012
			Aromatic aldehyde	Proprietary	10.00000	0.00012
			Dimethylformamide	68-12-2	10.00000	0.00012
FE-100L	FTSI	Iron Control				
			Citric Acid	77-92-9	55.00000	0.00125
WS-685L	Weatherford	Scale Inhibitor				
			Ammonium Chloride	12125-02-9	15.00000	0.00054
			Monoethanolamine Hydrochloride	2002-24-6	15.00000	0.00054
			Methyl Alcohol	67-56-1	2.50000	0.00009
WPB-584L	Weatherford	Buffer				
			Potassium Carbonate	584-08-7	40.00000	0.00055
			Potassium Hydroxide	1310-58-3	40.00000	0.00055
WIC-641L	Weatherford	Iron Control				
			Citric Acid	77-92-9	60.00000	0.00030
NE-100	FTSI	Non-Emulsifier				
			2-Butoxyethanol	111-76-2	10.00000	0.00006
			2-Propanol	67-63-0	10.00000	0.00006
			Dodecylbenzenesulfonic acid	27176-87-0	5.00000	0.00003
WAI-251LC	Weatherford	Acid Inhibitor				
			Ethylene Glycol	107-21-1	40.00000	0.00003
			N,N-Dimethylformamide	68-12-2	20.00000	0.00002

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			2-Butoxyethanol	111-76-2	15.00000	0.00001	
			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	15.00000	0.00001	
			Cinnamaldehyde	104-55-2	15.00000	0.00001	
			Poly(oxy-1,2-ethaned iyl), alpha-(4-nonylphen yl)-. omega -hyd roxy- bran ched	127087-87-0	5.00000	0.00000	
			1-Decanol	112-30-1	5.00000	0.00000	
			1-Octanol	111-87-5	2.50000	0.00000	
			Isopropanol	67-63-0	2.50000	0.00000	
			Triethyl Phosphate	78-40-0	2.50000	0.00000	
WBK-133	Weatherford	Breaker					
			Ammonium Persulfate	7727-54-0	100.00000	0.00009	
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.							

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* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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EQT PRODUCTION COMPANY LEWIS MAXWELL LEASE 2654 ACRES ± WELL NO. WV 512476

BOTTOM HOLE
WELL NO. WV 512476
STATE PLANE COORDINATES
(NORTH ZONE) NAD'27

N. 272,565.0
E. 1,632,225.0

LAT=(N) 39.241054
LONG=(W) 80.798517

UTM (NAD83)(METERS)

N. 4,343,555.9
E. 517,402.3

ZOE K. WALTERS
261.25 ACRES ±

LANDING POINT
WELL NO. WV 512476
STATE PLANE COORDINATES
(NORTH ZONE) NAD'27

N. 266,791.8
E. 1,634,917.1

LAT=(N) 39.225311
LONG=(W) 80.788721

UTM (NAD83)(METERS)

N. 4,341,810.8
E. 518,251.8

AS DRILLED COORDINATES FOR WELL NO. WV512476

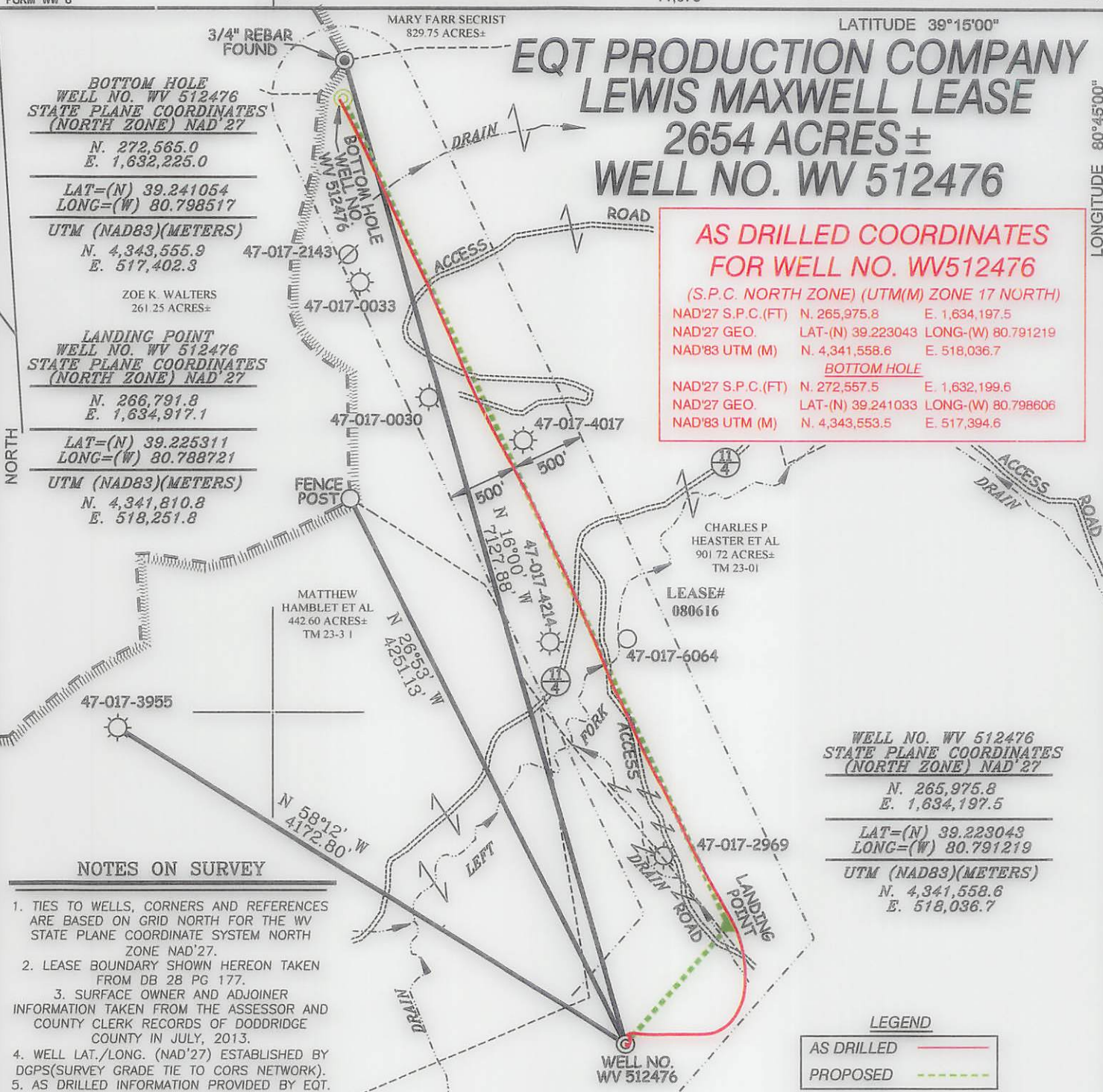
(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

NAD'27 S.P.C.(FT) N. 265,975.8 E. 1,634,197.5
NAD'27 GEO. LAT=(N) 39.223043 LONG=(W) 80.791219
NAD'83 UTM (M) N. 4,341,558.6 E. 518,036.7

BOTTOM HOLE

NAD'27 S.P.C.(FT) N. 272,557.5 E. 1,632,199.6
NAD'27 GEO. LAT=(N) 39.241033 LONG=(W) 80.798606
NAD'83 UTM (M) N. 4,343,553.5 E. 517,394.6

NORTH



WELL NO. WV 512476
STATE PLANE COORDINATES
(NORTH ZONE) NAD'27

N. 265,975.8
E. 1,634,197.5

LAT=(N) 39.223043
LONG=(W) 80.791219

UTM (NAD83)(METERS)
N. 4,341,558.6
E. 518,036.7

NOTES ON SURVEY

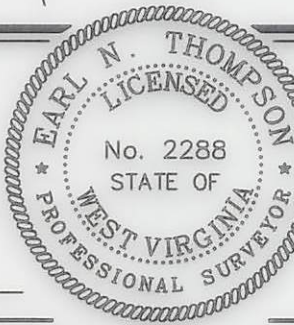
1. TIES TO WELLS, CORNERS AND REFERENCES ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD'27.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DB 28 PG 177.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN JULY, 2013.
4. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SURVEY GRADE TIE TO CORS NETWORK).
5. AS DRILLED INFORMATION PROVIDED BY EQT.

LEGEND

AS DRILLED ———
PROPOSED - - - - -



LUCY E. HARPER
442.60 ACRES ±
TM 23-03



I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S.
2288 *Earl N. Thompson*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE AUGUST 29, 20 13
REVISED JANUARY 29, 20 15
OPERATORS WELL NO. WV 512476
API WELL NO. 47-017-06390
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 6980ASDRILLED512476
PROVEN SOURCE OF ELEVATION DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 1000'

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



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

LOCATION: ELEVATION 1,259' (GROUND) 1,258' (PROPOSED) WATERSHED LEFT FORK ARNOLDS CREEK

DISTRICT WEST UNION COUNTY DODDRIDGE QUADRANGLE OXFORD 7.5'

SURFACE OWNER LUCY E. HARPER ACREAGE 442.60 ±

ROYALTY OWNER LEWIS MAXWELL HRS ACREAGE 2654 ±

PROPOSED WORK: LEASE NO. 080616

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION MARCELLUS

ESTIMATED DEPTH _____

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT REX C. RAY
ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330

COUNTY NAME

PERMIT