

PM

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

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Office of Oil and Gas

OCTO 14 2014

WV Department of
Environmental Protection

API 47 - 017 - 06248 County Doddridge District Grant
Quad CenterPoint 7.5 Pad Name CPT 11 Field/Pool Name _____
Farm name Jordan Family Partnership Well Number 514316
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 4359464 Easting 523818
Landing Point of Curve Northing 4359464 Easting 523852
Bottom Hole Northing 4357552 Easting 524308

Elevation (ft) 1111 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)

Water base Mud 12.4 ppg barium sulfate, sodium chloride, xanthan gum, polyanionic cellulose, modified starch, sodium hydroxide, phosphonates and alkyl phosphates, glutaraldehyde solution, calcium hydroxide, partially hydrolyzed polyacrylamide/polyacrylate, potassium chloride, sodium carbonate, ground walnut shells, alcohol and modified fatty acid, ferrochrome lignosulfonate, calcium carbonate, fibrous cellulose

Date permit issued 7/3/2013 Date drilling commenced 10/8/2013 Date drilling ceased 12/22/2013
Date completion activities began 3/4/2014 Date completion activities ceased 3/26/2014
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 79', 717' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1674', 1402' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 865' - 867', 1277' - 1280' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

10/31/2014

API 47-017 - 06248 Farm name Jordan Family Partnership Well number 514316

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	A500 94#		Y
Surface	17-1/2"	13-3/8"	1035'	New	J55 54.5#	120, 953	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	5,272	New	A500 40#	149', 3093', 3272', 5138'	Y
Intermediate 2							
Intermediate 3							
Production	8-1/2"	5-1/2"	13,601'	New	P110 20#		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	44.85	0	8
Surface	Class A	820	15.6	1.19	975.8	0	8
Coal							
Intermediate 1	Class A	310/1155	15.6/15.6	1.18/1.18	1728.7	0	8
Intermediate 2							
Intermediate 3							
Production	Class A/Class H	390/820	14.2/15.2	1.31/1.94	2101.7	5285	8
Tubing							

Drillers TD (ft) 13,601' Loggers TD (ft) 7,091'

Deepest formation penetrated Onondaga Plug back to (ft) 5350

Plug back procedure Air drop plug set f/ pilot hole TD 7091. Could not kick off hard cement. Set a BHKA cement plug 1/ 5350'.

Kick off depth (ft) 5,350'

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-bow spring centralizer on the shoe, and 556'

Intermediate-bow spring centralizers ran at the shoe and every 500' to TD.

Production- plastic centralizer on every joint from the shoe up to intermediate casing point at 5285'

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 _____

API 47- 017 - 06248 Farm name Jordan Family Partnership Well number 514316

PERFORATION RECORD

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

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 Attached

Please insert additional pages as applicable.

API 47- 170 - 6248 Farm name Jordan Family Partnership Well number _____

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>6,987.70</u> TVD	<u>7,385.00</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump
 SHUT-IN PRESSURE Surface 2,392 psi Bottom Hole NA psi DURATION OF TEST 77.5 hrs
 OPEN FLOW Gas 1,146 mcfpd Oil 0 bpd NGL 0 bpd Water 144 bpd GAS MEASURED BY Estimated Orifice Pilot

<u>LITHOLOGY/ FORMATION</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H₂S, ETC)</u>
	<u>DEPTH IN FT NAME TVD</u>	<u>DEPTH IN FT TVD</u>	<u>DEPTH IN FT MD</u>	<u>DEPTH IN FT MD</u>	
	<u>0</u>		<u>0</u>		

Please insert additional pages as applicable.

Drilling Contractor Patterson UTI
 Address 207 Carlton Drive City Eighty Four State PA Zip 15330

Logging Company Vaughn Energy Services
 Address P.O. Box 261021 City Corpus Christi State TX Zip 78246

Cementing Company Halliburton Energy Services
 Address 121 Champion Way City Canonsburg State PA Zip 15317

Stimulating Company Halliburton Energy Services
 Address 121 Champion Way City Canonsburg State PA Zip 15317

Please insert additional pages as applicable.

Completed by James E. Helmick Jr. Telephone 412-395-5518
 Signature _____ Title Vice President - Completions Operations Date 10/13/2014

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

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	717	717
SAND / SHALE	1	1	865	865
COAL	865	865	867	867
SAND / SHALE	867	867	1,277.00	1,277.00
COAL	1,277.00	1,277.00	1,280.00	1,280.00
SAND / SHALE	1,280.00	1,280.00	1,868.00	1,867.90
MAXTON	1,868.00	1,867.90	2,110.00	2,109.50
BIG LIME	2,110.00	2,109.50	2,514.00	2,511.70
WEIR	2,514.00	2,511.70	2,691.00	2,687.80
BEREA	2,691.00	2,687.80	2,708.00	2,704.70
GANTZ	2,708.00	2,704.70	2,767.00	2,763.30
50F	2,767.00	2,763.30	2,896.00	2,891.40
30F	2,896.00	2,891.40	2,921.00	2,916.30
GORDON	2,921.00	2,916.30	3,060.00	3,054.10
4TH	3,060.00	3,054.10	3,219.00	3,211.60
5TH	3,219.00	3,211.60	3,585.00	3,573.40
WARREN	3,585.00	3,573.40	3,806.00	3,791.80
SPEECHLEY	3,806.00	3,791.80	4,168.00	4,149.40
BALLTOWN A	4,168.00	4,149.40	4,547.00	4,523.90
BRADFORD	4,547.00	4,523.90	5,175.00	5,140.50
BENSON	5,175.00	5,140.50	5,596.00	5,554.40
ALEXANDER	5,596.00	5,554.40	6,379.00	6,201.00
ELK	6,379.00	6,201.00	6,832.00	6,622.40
SONYEA	6,832.00	6,622.40	6,977.00	6,752.60
MIDDLESEX	6,977.00	6,752.60	7,017.00	6,786.10
GENESEE	7,017.00	6,786.10	7,168.00	6,895.40
GENESEO	7,168.00	6,895.40	7,222.00	6,925.30
TULLY	7,222.00	6,925.30	7,271.00	6,947.60
HAMILTON	7,271.00	6,947.60	7,385.00	6,986.70
MARCELLUS	7,385.00	6,986.70	13601	6982.8

AMENDED REPORT WITH FLOW BACK DATA
API 47-017-06248

Stimulation Notes:

Re-perforated stage 38 (38.1)

Performed additional injection tests on after stages 1 (2 tests), 11, and 38.1

514316 - Perforations

Stage Number	Perforation Date	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Number of Shots	Formation
Toe Pop	3/4/2014 4:58	13,575.00	13,573.00	10	MARCELLUS
1	3/4/2014 20:49	13,452.00	13,544.00	32	MARCELLUS
2	3/14/2014 0:56	13,302.00	13,424.00	40	MARCELLUS
3	3/14/2014 6:38	13,152.00	13,274.00	40	MARCELLUS
4	3/14/2014 12:12	13,002.00	13,124.00	40	MARCELLUS
5	3/14/2014 21:10	12,852.00	12,974.00	40	MARCELLUS
6	3/15/2014 1:41	12,702.00	12,824.00	40	MARCELLUS
7	3/15/2014 7:32	12,552.00	12,674.00	40	MARCELLUS
8	3/15/2014 13:06	12,402.00	12,524.00	40	MARCELLUS
9	3/15/2014 19:20	12,252.00	12,374.00	40	MARCELLUS
10	3/16/2014 0:20	12,102.00	12,224.00	40	MARCELLUS
11	3/16/2014 9:11	11,952.00	12,072.00	40	MARCELLUS
12	3/17/2014 0:32	11,802.00	11,924.00	40	MARCELLUS
13	3/17/2014 5:10	11,652.00	11,774.00	40	MARCELLUS
14	3/17/2014 15:03	11,502.00	11,624.00	40	MARCELLUS
15	3/17/2014 19:26	11,352.00	11,474.00	40	MARCELLUS
16	3/18/2014 0:23	11,202.00	11,324.00	40	MARCELLUS
17	3/18/2014 4:50	11,052.00	11,174.00	40	MARCELLUS
18	3/18/2014 10:40	10,902.00	11,024.00	40	MARCELLUS
19	3/19/2014 16:09	10,752.00	10,874.00	40	MARCELLUS
20	3/19/2014 21:41	10,602.00	10,724.00	40	MARCELLUS
21	3/20/2014 3:21	10,452.00	10,574.00	40	MARCELLUS
22	3/20/2014 9:53	10,302.00	10,424.00	40	MARCELLUS
23	3/20/2014 17:29	10,152.00	10,274.00	40	MARCELLUS
24	3/21/2014 0:46	10,002.00	10,124.00	40	MARCELLUS
25	3/21/2014 5:38	9,852.00	9,974.00	40	MARCELLUS
26	3/21/2014 10:20	9,702.00	9,824.00	40	MARCELLUS
27	3/21/2014 18:32	9,552.00	9,674.00	40	MARCELLUS
28	3/22/2014 4:44	9,402.00	9,524.00	40	MARCELLUS
29	3/22/2014 9:35	9,252.00	9,374.00	40	MARCELLUS
30	3/22/2014 14:56	9,102.00	9,224.00	40	MARCELLUS
31	3/23/2014 2:46	8,952.00	9,074.00	40	MARCELLUS
32	3/23/2014 10:56	8,802.00	8,924.00	40	MARCELLUS
33	3/23/2014 15:13	8,652.00	8,774.00	40	MARCELLUS
34	3/23/2014 22:24	8,502.00	8,624.00	40	MARCELLUS
35	3/24/2014 3:11	8,352.00	8,474.00	40	MARCELLUS
36	3/24/2014 9:27	8,202.00	8,324.00	40	MARCELLUS
37	3/24/2014 14:48	8,052.00	8,174.00	40	MARCELLUS
38	3/24/2014 19:34	7,902.00	8,024.00	40	MARCELLUS
38.1	3/25/2014 5:53	7,872.00	7,979.00	32	MARCELLUS
39	3/25/2014 17:41	7,722.00	7,844.00	40	MARCELLUS
40	3/25/2014 23:07	7,572.00	7,694.00	40	MARCELLUS
41	3/26/2014 5:39	7,422.00	7,544.00	40	MARCELLUS
42	3/26/2014 13:22	7,272.00	7,394.00	40	MARCELLUS

514316 - 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)
Toe Pop	3/4/14 16:06	17.70	8,053.00	NA	6,893	NA	1,811	0
1	3/4/14 22:49	78.70	8,482.00	8,964.00	7,725	202,900	5,774	0
Inj Test (1)	3/5/14 3:10	2.10	6,552.00	NA	8,026	NA	661	0
Inj Test (2)	3/12/14 19:16	10.20	7,288.00	NA	6,644	NA	2,011	0
2	3/14/14 2:30	86.00	8,411.00	6,558.00	3,612	201,000	5,292	0
3	3/14/14 8:39	92.70	8,618.00	6,151.00	4,171	206,900	5,278	0
4	3/14/14 18:05	89.10	8,522.00	6,249.00	4,414	198,400	5,098	0
5	3/14/14 22:39	94.90	8,434.00	5,715.00	4,211	197,800	5,212	0
6	3/15/14 2:30	94.80	8,444.00	5,757.00	4,239	200,500	5,128	0
7	3/15/14 10:06	91.50	8,635.00	6,045.00	4,101	200,200	5,065	0
8	3/15/14 16:12	94.10	8,597.00	5,978.00	3,962	202,300	5,056	0
9	3/15/14 21:21	95.10	8,322.00	5,710.00	4,380	200,700	5,351	0
10	3/16/14 6:11	96.30	8,430.00	6,156.00	4,695	196,100	5,042	0
11	3/16/14 10:37	96.30	8,280.00	6,701.00	5,272	196,700	4,809	0
Inj Test	3/16/14 19:26	10.20	5,750.00	NA	4,851	NA	2,182	0
12	3/17/14 2:00	99.20	8,090.00	5,474.00	5,274	200,100	5,116	0
13	3/17/14 12:01	99.00	8,253.00	6,426.00	5,424	199,400	5,031	0
14	3/17/14 16:20	99.10	8,093.00	6,858.00	5,408	196,700	5,011	0
15	3/17/14 21:27	99.70	7,815.00	6,524.00	5,455	198,600	5,105	0
16	3/18/14 1:59	100.30	7,338.00	6,317.00	4,844	198,500	5,244	0
17	3/18/14 6:46	96.20	8,038.00	6,791.00	4,840	195,600	5,290	0
18	3/19/14 13:25	93.50	8,396.00	7,035.00	4,178	198,100	5,091	0
19	3/19/14 18:51	96.92	8,410.00	6,448.00	4,987	199,900	5,112	0
20	3/20/14 0:10	99.82	8,300.00	5,795.00	4,656	200,800	4,999	0
21	3/20/14 7:04	97.40	8,534.00	5,849.00	4,717	201,200	5,044	0
22	3/20/14 14:40	99.20	8,499.00	6,030.00	5,868	201,300	5,389	0
23	3/20/14 21:59	93.96	8,417.00	6,066.00	4,784	202,100	5,296	0
24	3/21/14 3:30	96.68	8,537.00	6,001.00	5,598	199,800	6,164	0
25	3/21/14 7:36	99.00	8,383.00	6,031.00	5,243	204,600	5,119	0
26	3/21/14 15:50	98.10	8,579.00	6,359.00	5,458	198,700	5,182	0
27	3/22/14 2:02	96.02	8,313.00	6,537.00	5,335	200,800	5,022	0
28	3/22/14 6:55	97.70	7,936.00	5,975.00	4,804	201,900	5,011	0
29	3/22/14 12:19	97.90	7,831.00	6,184.00	5,580	203,900	5,062	0
30	3/23/14 0:11	100.70	8,015.00	6,214.00	5,701	200,200	4,867	0
31	3/23/14 8:24	99.20	8,331.00	6,888.00	5,202	200,900	5,057	0
32	3/23/14 12:41	99.70	8,208.00	6,078.00	5,213	202,600	5,080	0
33	3/23/14 19:26	92.10	8,275.00	6,443.00	5,055	198,500	5,233	0
34	3/24/14 0:21	99.00	7,776.00	7,003.00	4,685	197,700	4,742	0
35	3/24/14 6:19	100.80	7,426.00	6,073.00	5,472	198,300	5,062	0
36	3/24/14 11:58	100.50	7,474.00	6,210.00	4,956	197,900	5,016	0
37	3/24/14 18:11	99.10	7,287.00	7,091.00	5,389	201,900	5,087	0
38	3/25/14 2:01	76.90	8,387.00	6,971.00	5,275	4,500	2,711	0
38.1 (Re-Perf)	3/25/14 7:44	97.10	7,514.00	NA	NA	202,700	5,122	0
Inj Test	3/25/14 13:35	9.50	5,291.00	NA	NA	NA	1,719	0
39	3/25/14 20:06	100.80	7,203.00	6,098.00	4,831	199,400	5,186	0
40	3/26/14 2:09	99.20	7,118.00	7,485.00	5,444	202,900	5,112	0
41	3/26/14 10:48	99.70	7,393.00	5,984.00	5,294	204,900	5,005	0
42	3/26/14 15:09	97.40	6,897.00	6,915.00	4,406	202,000	5,047	0

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/4/2014
Job End Date:	3/26/2014
State:	West Virginia
County:	Doddridge
API Number:	47-017-06248-00-00
Operator Name:	EQT Production
Well Name and Number:	CPT11 - 514316
Longitude:	-80.72361700
Latitude:	39.38424400
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	7,025
Total Base Water Volume (gal):	9,959,140
Total Base Non Water Volume:	428,143



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	Halliburton	Carrier	Water	7732-18-5	100.00000	90.34806	
Sand	Halliburton	Proppant	Crystalline Silica	14808-60-7	100.00000	9.16977	
MX-5	Halliburton	Biocide	Sodium Nitrate	7631-99-4	60.00000	0.06313	
Hydrochloric Acid 15%	Halliburton	Acidizing	Hydrochloric Acid	7647-01-0	15.00000	0.03858	
FR-66	Halliburton	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.02275	
LGC-36	Halliburton	Adds viscosity to fluid	Naphtha, hydrotreated heavy	67742-48-9	50.00000	0.00798	
			Guar Gum	9000-30-0	50.00000	0.00798	
MX-8	Halliburton	Biocide	Bacteria Culture	000-00-0	100.00000	0.01270	
BA-40L	Halliburton	Buffer	Potassium carbonate	584-08-7	60.00000	0.00352	
LP-65	Halliburton	Scale Inhibitor	Ammonium Chloride	12125-02-9	10.00000	0.00255	

47-017-06248

Calcium Chloride	Halliburton	Prevent Freezing				
			CaCl2	10043-52-4	100.00000	0.00022
SP Breaker	Halliburton	Oxidizing Breaker				
			Sodium Persulfate	7775-27-1	100.00000	0.00019
Methanol	Halliburton	Corrosion inhibitor				
			Methanol	67-56-1	60.00000	0.00013
Propargyl Alcohol	Halliburton	Corrosion inhibitor				
			Propargyl Alcohol	107-19-7	10.00000	0.00002

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.

* 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)

LATITUDE 39°25'00"
LONGITUDE 80°42'30"

EQT PRODUCTION COMPANY J.D. McREYNOLDS LEASE 1500± ACRES WELL NO. WV 514316

WELL NO. WV 514316
STATE PLANE COORDINATES
NORTH ZONE (NAD 27)
N. 324,414.9
E. 1,654,147.6

LANDING POINT
WELL NO. WV 514316
STATE PLANE COORDINATES
NORTH ZONE (NAD 27)
N. 323,835.4
E. 1,654,217.0

LAT=(N) 39.384244
LONG=(W) 80.723617
UTM (NAD'83)(METERS)
N. 4,359,463.6
E. 523,817.6

LAT=(N) 39.382656
LONG=(W) 80.723344
UTM (NAD'83)(METERS)
N. 4,359,297.4
E. 523,841.6

FLINT O&G COMPANY
71 ACRES±

BOTTOM HOLE
WELL NO. WV 514316
STATE PLANE COORDINATES
NORTH ZONE (NAD 27)
N. 318,113.9
E. 1,655,857.2

LAT=(N) 39.367002
LONG=(W) 80.717976
UTM (NAD'83)(METERS)
N. 4,357,551.7
E. 524,309.5

J.C. THOMPSON
94.49 ACRES±

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 DEED BOOK 280 PAGE 695, DEED BOOK 223 PAGE 430, DEED BOOK 282 PAGE 406 & DEED BOOK 175 PAGE 633.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN JULY, 2012.
4. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK).
5. PLAT UPDATED ON 01/27/14 TO SHOW THE AS DRILLED PATH COORDINATES FROM INFORMATION PROVIDED BY EQT ON 01/21/14.



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. 677 *Gregory A. Smith*



AS DRILLED INFORMATION

BOTTOM HOLE WELL NO. WV 514316 STATE PLANE COORDINATES NORTH ZONE (NAD 27) N. 318,114.6 E. 1,655,851.7 LAT=(N) 39.367004 LONG=(W) 80.717994 UTM (NAD'83)(METERS) N. 4,357,551.9 E. 524,307.8	LANDING POINT WELL NO. WV 514316 STATE PLANE COORDINATES NORTH ZONE (NAD 27) N. 324,414.9 E. 1,654,147.6 LAT=(N) 39.384244 LONG=(W) 80.723617 UTM (NAD'83)(METERS) N. 4,359,463.6 E. 523,817.6
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(*) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE MARCH 15, 20 13
 REVISED DATE JANUARY 27, 20 14
 OPERATORS WELL NO. WV 514316
 API WELL NO. 47-017-06248
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200
 FILE NO. 7749ASDRILLED514316
 PROVEN SOURCE OF ELEVATION DGPS (SURVEY GRADE TIE TO CORS NETWORK)
 SCALE 1" = 2000'

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 1,130' (GROUND) 1,111' (PROPOSED) WATERSHED FLINT RUN OF McELROY CREEK
 DISTRICT GRANT COUNTY DODDRIDGE QUADRANGLE CENTER POINT 7.5'

SURFACE OWNER JORDAN FAMILY PARTNERSHIP ACREAGE 460±
 ROYALTY OWNER J.D. McREYNOLDS HEIRS/ASSIGNS ACREAGE 100±

PROPOSED WORK: LEASE NO. 100000000
 DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND RE-PLUG ___ OTHER ___
 PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION MARCELLUS
 ESTIMATED DEPTH WV Department of Environmental Protection

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

