

JK

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

API 47 - 970 - 3813 County UPSHUR District BUCKHANNON
Quad ADRIAN 7.5' Pad Name ADR125 Field/Pool Name _____
Farm name BELL, CHARLES R. SR. Well Number 511416
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 4315772.4 Easting 560935.2
Landing Point of Curve Northing 4315929.7 Easting 560926.5
Bottom Hole Northing 4318016.5 Easting 560106.9

Elevation (ft) 1572 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 12.5 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, ferrocrown lignosulfonate, calcium carbonate, fibrous cellulose

Date permit issued 2/16/2012 Date drilling commenced 12/26/2013 Date drilling ceased 4/11/2014
Date completion activities began 5/17/2014 Date completion activities ceased 5/27/2014
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 105', 822', 858' 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 109', 524', 721', 838', 969' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

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Reviewed by: _____
09/19/2014

API 47-970 - 3813 Farm name BELL, CHARLES R. SR. Well number 511416

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/lb	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"	958'	New	54.5lb/ft	N/A	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2,935'	New	40lb/ft	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-1/2"	5-1/2"	15,327'	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	760	15.6	1.19	904.4	0	8
Coal							
Intermediate 1	Class A	1010	15.6	1.19	1,201.9	0	8
Intermediate 2							
Intermediate 3							
Production	Class A/Class H	460/970	14.2/15.2	1.26/1.97	2,490.5		72
Tubing							

Drillers TD (ft) 15,327' Loggers TD (ft) 7,740'

Deepest formation penetrated Onondaga Plug back to (ft) 6,940'

Plug back procedure Balance plug set 1/7,740' back to 6,940'. Kicked off curve from TOC at 6,967'

Kick off depth (ft) 6,967'

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- Bowspring centralizer on shoe track and every 300' to surface

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

Production- Composite bodied steel ring centralizers on every joint from TD up to 5,467'

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

API 47- 970 - 3813 Farm name BELL, CHARLES R. SR Well number _____

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>7,534</u> TVD	<u>7,642</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1,881 psi Bottom Hole NA psi DURATION OF TEST 102.3 hrs

OPEN FLOW Gas 1,104 mcfpd Oil 0 bpd NGL 0 bpd Water 648 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>		

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Please insert additional pages as applicable.

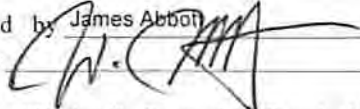
Drilling Contractor Savanna Drilling
Address 2204 Timberloch Place Suite 230 City Woodlands State TX Zip 77380

Logging Company Baker Hughes
Address 4998B Elk River Road City South Elview State WV Zip 25071

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

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

Please insert additional pages as applicable.

Completed by James Abbot Telephone 412-553-5996
Signature  Title Director - Completions Operations Date 8/21/2014

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

97-03813

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	858	858
Sand / Shale	1	1	109	109
Coal	109	109	110	110
Sand / Shale	110	110	524	524
Coal	524	524	526	526
Sand / Shale	526	526	721	721
Coal	721	721	724	724
Sand / Shale	724	724	838	838
Coal	838	838	843	843
Sand / Shale	843	843	969	969
Coal	969	969	972	972
Sand / Shale	972	972	1,688.00	1,688.00
Maxton	1,688.00	1,688.00	1,720.00	1,720.00
Sand / Shale	1,720.00	1,720.00	1,791.00	1,791.00
Big Lime	1,791.00	1,791.00	1,808.00	1,808.00
Sand / Shale	1,808.00	1,808.00	2,041.00	2,041.00
Weir	2,041.00	2,041.00	2,047.00	2,047.00
Sand / Shale	2,047.00	2,047.00	2,069.00	2,069.00
Gantz	2,069.00	2,069.00	2,128.00	2,128.00
Sand / Shale	2,128.00	2,128.00	2,227.00	2,227.00
Thirty foot	2,227.00	2,227.00	2,250.00	2,250.00
Sand / Shale	2,250.00	2,250.00	2,262.00	2,262.00
Gordon	2,262.00	2,262.00	2,268.00	2,268.00
Sand / Shale	2,268.00	2,268.00	2,318.00	2,318.00
Forth Sand	2,318.00	2,318.00	2,333.00	2,333.00
Sand / Shale	2,333.00	2,333.00	2,800.00	2,800.00
Bayard	2,800.00	2,800.00	2,829.00	2,829.00
Sand / Shale	2,829.00	2,829.00	2,928.00	2,928.00
Warren	2,928.00	2,928.00	2,978.00	2,978.00
Sand / Shale	2,978.00	2,978.00	3,010.00	3,010.00
Speechley	3,010.00	3,010.00	3,072.00	3,072.00
Sand / Shale	3,072.00	3,072.00	3,397.00	3,397.00
Balltown A	3,397.00	3,397.00	3,406.00	3,406.00
Sand / Shale	3,406.00	3,406.00	4,065.00	4,064.80
Riley	4,065.00	4,064.80	4,126.00	4,125.80
Sand / Shale	4,126.00	4,125.80	4,551.00	4,550.50
Benson	4,551.00	4,550.50	6,753.00	6,750.50
Sonyea	6,753.00	6,750.50	7,084.00	7,076.80
Middlesex	7,084.00	7,076.80	7,200.00	7,186.50
Genesee	7,200.00	7,186.50	7,380.00	7,352.00
Geneseo	7,380.00	7,352.00	7,443.00	7,404.40
Tully	7,443.00	7,404.40	7,480.00	7,433.10
Hamilton	7,480.00	7,433.10	7,642.00	7,534.00
Marcellus	7,642.00	7,534.00	15,327.00	7,693.60

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511416 - Perforations

Stage Number	Perforation Date	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Number of Shots	Formation
Initiation Sleeve	5/17/2014	15,300.00	15,302.00	10	MARCELLUS
1	5/17/2014	15,179.00	15,271.00	32	MARCELLUS
2	5/17/2014	15,029.00	15,151.00	40	MARCELLUS
3	5/18/2014	14,879.00	15,001.00	40	MARCELLUS
4	5/18/2014	14,729.00	14,851.00	40	MARCELLUS
5	5/18/2014	14,579.00	14,701.00	40	MARCELLUS
6	5/18/2014	14,429.00	14,551.00	40	MARCELLUS
7	5/19/2014	14,279.00	14,401.00	40	MARCELLUS
8	5/19/2014	14,129.00	14,251.00	40	MARCELLUS
9	5/19/2014	14,106.00	13,984.00	40	MARCELLUS
10	5/19/2014	13,949.00	13,831.00	40	MARCELLUS
11	5/20/2014	13,679.00	13,801.00	40	MARCELLUS
12	5/20/2014	13,529.00	13,651.00	40	MARCELLUS
13	5/20/2014	13,379.00	13,501.00	40	MARCELLUS
14	5/20/2014	13,229.00	13,351.00	40	MARCELLUS
15	5/20/2014	13,079.00	13,199.00	40	MARCELLUS
16	5/21/2014	12,929.00	13,049.00	40	MARCELLUS
17	5/21/2014	12,779.00	12,901.00	40	MARCELLUS
18	5/21/2014	12,629.00	12,749.00	40	MARCELLUS
19	5/21/2014	12,481.00	12,599.00	40	MARCELLUS
20	5/21/2014	12,329.00	12,449.00	40	MARCELLUS
21	5/22/2014	12,179.00	12,301.00	40	MARCELLUS
22	5/22/2014	12,029.00	12,151.00	40	MARCELLUS
23	5/22/2014	11,879.00	12,001.00	40	MARCELLUS
24	5/22/2014	11,729.00	11,849.00	40	MARCELLUS
25	5/22/2014	11,579.00	11,703.00	40	MARCELLUS
26	5/23/2014	11,429.00	11,549.00	40	MARCELLUS
27	5/23/2014	11,279.00	11,401.00	40	MARCELLUS
28	5/23/2014	11,129.00	11,249.00	40	MARCELLUS
29	5/23/2014	10,979.00	11,099.00	40	MARCELLUS
30	5/23/2014	10,829.00	10,949.00	40	MARCELLUS
31	5/24/2014	10,679.00	10,799.00	40	MARCELLUS
32	5/24/2014	10,529.00	10,651.00	40	MARCELLUS
33	5/24/2014	10,379.00	10,501.00	40	MARCELLUS
34	5/24/2014	10,231.00	10,351.00	40	MARCELLUS
35	5/24/2014	10,079.00	10,199.00	40	MARCELLUS
36	5/24/2014	9,929.00	10,049.00	40	MARCELLUS
37	5/25/2014	9,779.00	9,899.00	40	MARCELLUS
38	5/25/2014	9,629.00	9,751.00	40	MARCELLUS
39	5/25/2014	9,479.00	9,601.00	40	MARCELLUS
40	5/25/2014	9,329.00	9,451.00	40	MARCELLUS
41	5/25/2014	9,179.00	9,299.00	40	MARCELLUS
42	5/25/2014	9,029.00	9,149.00	40	MARCELLUS
43	5/26/2014	8,879.00	8,997.00	40	MARCELLUS
44	5/26/2014	8,729.00	8,851.00	40	MARCELLUS
45	5/26/2014	8,579.00	8,701.00	40	MARCELLUS
46	5/26/2014	8,431.00	8,551.00	40	MARCELLUS
47	5/26/2014	8,279.00	8,399.00	40	MARCELLUS
48	5/26/2014	8,131.00	8,249.00	40	MARCELLUS
49	5/27/2014	7,977.00	8,099.00	40	MARCELLUS

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511416 - 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	5/17/2014	14.00	7,881.00	NA	4,547	0	3,128	0
1	5/17/2014	82.00	8,579.00	8,215.00	4,702	199,700	5,737	0
2	5/18/2014	87.70	8,635.00	7,198.00	4,531	200,600	5,753	0
3	5/18/2014	81.00	8,801.00	6,973.00	5,151	200,500	5,760	0
4	5/18/2014	81.96	8,561.00	7,528.00	4,967	200,500	5,306	0
5	5/18/2014	93.20	8,589.00	7,049.00	4,590	199,900	5,123	0
6	5/19/2014	89.80	8,650.00	6,818.00	4,780	200,400	5,285	0
7	5/19/2014	84.34	8,466.00	7,316.00	5,337	201,200	4,910	0
8	5/19/2014	90.00	8,693.00	7,322.00	5,229	200,500	4,985	0
9	5/19/2014	88.20	8,645.00	7,019.00	4,593	200,800	5,311	0
10	5/20/2014	92.00	8,663.00	7,125.00	4,517	200,900	5,229	0
11	5/20/2014	82.84	8,634.00	6,974.00	4,744	200,500	4,711	0
12	5/20/2014	87.85	8,562.00	7,715.00	5,160	202,200	4,947	0
13	5/20/2014	88.70	8,540.00	6,948.00	5,097	201,400	5,095	0
14	5/20/2014	89.40	8,712.00	6,988.00	4,666	200,900	5,085	0
15	5/21/2014	81.90	8,504.00	6,882.00	4,487	200,400	5,162	0
16	5/21/2014	92.48	8,635.00	7,549.00	5,698	202,500	5,000	0
17	5/21/2014	87.91	8,540.00	6,916.00	4,853	200,400	4,977	0
18	5/21/2014	90.70	8,463.00	6,601.00	5,446	202,100	5,150	0
19	5/21/2014	90.61	8,521.00	6,768.00	5,093	202,700	5,044	0
20	5/22/2014	88.97	8,504.00	6,540.00	5,045	201,100	5,612	0
21	5/22/2014	91.00	8,550.00	6,527.00	4,773	201,900	5,369	0
22	5/22/2014	97.50	8,540.00	6,760.00	4,625	200,600	5,295	0
23	5/22/2014	94.96	8,643.00	6,821.00	5,071	201,400	5,041	0
24	5/22/2014	94.34	8,484.00	6,666.00	4,895	201,200	4,933	0
25	5/23/2014	95.79	8,554.00	7,397.00	4,750	201,600	4,954	0
26	5/23/2014	96.60	8,476.00	6,921.00	4,918	202,800	5,311	0
27	5/23/2014	97.60	8,548.00	6,733.00	5,270	201,200	5,337	0
28	5/23/2014	99.20	8,423.00	5,349.00	5,012	201,100	5,122	0
29	5/23/2014	97.99	8,430.00	7,157.00	5,326	201,500	4,857	0
30	5/23/2014	94.50	8,417.00	7,257.00	5,266	200,400	5,130	0
31	5/24/2014	98.16	8,372.00	7,841.00	5,611	201,500	5,016	0
32	5/24/2014	98.40	8,398.00	6,923.00	5,908	200,800	4,971	0
33	5/24/2014	97.80	8,546.00	6,695.00	5,716	200,900	5,042	0
34	5/24/2014	97.12	8,467.00	6,659.00	5,750	200,500	5,107	0
35	5/24/2014	98.20	8,366.00	6,862.00	5,547	202,200	5,007	0
36	5/25/2014	99.10	8,403.00	6,749.00	5,175	199,100	5,141	0
37	5/25/2014	97.90	8,115.00	7,230.00	5,050	203,200	4,840	0
38	5/25/2014	98.90	8,250.00	7,587.00	5,047	200,800	5,024	0
39	5/25/2014	99.20	8,318.00	7,496.00	5,217	201,200	5,043	0
40	5/25/2014	97.03	8,360.00	7,124.00	5,708	204,000	5,568	0
41	5/25/2014	100.20	8,086.00	6,781.00	5,012	202,800	4,861	0
42	5/26/2014	98.50	8,296.00	7,299.00	4,880	202,100	4,732	0
43	5/26/2014	99.30	8,203.00	6,546.00	5,408	200,200	4,970	0
44	5/26/2014	99.90	8,068.00	7,153.00	5,125	200,700	4,892	0
45	5/26/2014	101.00	7,963.00	7,323.00	5,311	201,100	4,908	0
46	5/26/2014	100.50	8,081.00	7,248.00	4,763	202,800	5,012	0
47	5/26/2014	100.78	7,784.00	7,338.00	4,708	202,500	4,779	0
48	5/27/2014	101.02	7,751.00	6,489.00	4,978	210,300	5,416	0
49	5/27/2014	100.55	7,801.00	6,486.00	5,161	212,600	4,663	0

09/19/2014

Hydraulic Fracturing Fluid Product Component Information Disclosure



97-03813

Job Start Date:	5/17/2014
Job End Date:	5/27/2014
State:	West Virginia
County:	Upshur
API Number:	47-097-03813-00-00
Operator Name:	EQT Production
Well Name and Number:	ADR125 - 511416
Longitude:	-80.29660000
Latitude:	38.98874000
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,694
Total Base Water Volume (gal):	11,118,282
Total Base Non Water Volume:	498,807

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	Nabors	Carrier	Water	7732-18-5	100.00000	89.92275	
Sand	Nabors	Proppant	Crystalline Silica	14808-60-7	100.00000	9.59490	
MX-5	Halliburton	Biocide	Sodium Nitrate	7631-99-4	60.00000	0.05832	
Hydrochloric Acid 15%	Nabors	Acidizing	Hydrochloric Acid	7647-01-0	15.00000	0.04010	
WFR-3B	Nabors	Friction Reducer	Hydrotreated Light Distillates (Petroleum)	64742-47-8	50.00000	0.02225	
			Ethoxylated Alcohols	68551-12-2	15.00000	0.00668	
			Ethoxylated Oleylamine	26635-93-8	5.00000	0.00223	
EXP-F1111-13	Nabors	Friction Reducer	Anionic water-soluble polymer	NA	100.00000	0.02879	
Super TSC LT	Nabors	Scale Inhibitor	Non Hazardous	000-00-0	100.00000	0.02610	
MX-8	Halliburton	Biocide	Bacteria Culture	000-00-0	100.00000	0.01006	
LSG-100	Nabors	Adds Viscosity to Fluid					

			Solvent Naphtha, (Petroleum) Heavy Aliphatic	64742-47-8	65.00000	0.00521
LSG-100	Nabors	Adds Viscosity to Fluid				
			Solvent Naphtha, (Petroleum) Heavy Aliphatic	64742-47-8	65.00000	0.00521
AI-2	Nabors	Corrosion Inhibitor				
			Propargyl Alcohol	107-19-7	40.00000	0.00018
			Isopropyl Alcohol	67-63-0	40.00000	0.00018
			Glycol Ethers	111-76-2	40.00000	0.00018
			Ethoxylated Nonylphenol	68412-54-4	13.00000	0.00006
			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	10.00000	0.00005
OB-2	Nabors	Gel 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:

* 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)

97-03813

1,400'
LONGITUDE 80°17'30"

MARY F. HIGGINBOTHAM ET AL LEASE 500 ACRES ± WELL NO. WV 511416

LATITUDE 39°00'00"

**BOTTOM HOLE
WELL NO. WV 511416
STATE PLANE COORDINATES
(SOUTH ZONE)**

N. 732,324
E. 2,197,266

LAT=(N) 39.00904
LONG=(W) 80.30585

UTM (NAD83)(METERS)
N. 4,318,020
E. 560,117

**WELL NO. WV 511416
STATE PLANE COORDINATES
(SOUTH ZONE) (NAD27)**

N. 724,950
E. 2,199,950

LAT=(N) 38.98874
LONG=(W) 80.29660

UTM (NAD83)(METERS)
N. 4,315,773
E. 560,935

OWNER	ACRES±
A JAMES LEROY MEHR	24.39
B CHARLES J. & JEAN C. JOHNSON	86.15
C BLAIRE SNYDER	3.49
D STEVEN M. CASTO	146.915
E EDWIN M. QUEEN	80
F DORIS JEAN ARNOVITZ	66.76
G EVA KATHRYN HOWES	80
H ERIC S. & SHERRY L. CLAUS	2.33
I ERIC S. & SHERRY L. CLAUS	1.38
J JOSEPH & BELINDA GONTAREK	2.383
K RICHARD CARL CURRY	14.5
L KATHERINE L. & MIKE J. CRAWFORD	1.23
M RICHARD BOOTH ET AL	78.87
N DARRYL D. BEVERLIN	2.30
O JACK A. & SHARON L. LEWIS	3.09
P JOAN D. STILTNER	2.0
Q TIMOTHY S. RATLIFF	1.19
R CLIFFORD & ALDA E. SUMMERS	1.96
S JAMES E. DOWELL	9.59
T BRADFORD KNIGHT, JR.	1.48
U JO ANN HOOVER	1.0
V JO ANN HOOVER	18.5
W SHARON WILLIAMS	20.00
X GARY L. DOWELL	3.12
Z JACKIE A. OR SHARON L. LEWIS	2.45
AA RANDAL G. & BARBARA SHIPLEY	100
BB GARY L. DOWELL	47.18
CC MAMIE STARKEY	44.96
DD LYNN & ARMILDA HARRIS	57.95
EE JOHN SKRUCK	7.98
FF MIKE ROSS INC	77.50
GG RICHARD C. CURRY ET AL	LOT

NORTH

NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 06/18/10.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A DEED RECORDED IN DEED BOOK 399 AT PAGE 785.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF UPSHUR COUNTY IN JULY, 2011. PARCELS AFFECTED BY CURRENT CHANGES CHECKED JULY, 2013.
5. WELL LAT./LONG. (NAD27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).
6. ORIGINAL PLAT DATED 11/10/11 REVISED 07/29/11 TO UPDATE SPOT CIRCLE & ADJOINER INFORMATION & 11/13/13 TO EXTEND LEG & UPDATE, ETC.
7. NO WATER WELLS WERE FOUND WITHIN 250 FEET OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS (GREATER THAN 2500 SQUARE FEET) OR DWELLINGS WERE FOUND WITHIN 625 FEET OF CENTER OF PROPOSED WELL PAD.
8. PLAT UPDATED ON 08/22/14 TO SHOW THE AS DRILLED PATH COORDINATES FROM INFORMATION PROVIDED BY EGT ON 04/28/14.



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. 849 *C. Victor Moyers*



AS DRILLED INFORMATION

BOTTOM HOLE WELL NO. WV 511416 STATE PLANE COORDINATES (SOUTH ZONE)	WELL NO. WV 511416 STATE PLANE COORDINATES (SOUTH ZONE) (NAD27)
N. 732,313 E. 2,197,233	N. 724,950 E. 2,199,950
LAT=(N) 39.00901 LONG=(W) 80.30596	LAT=(N) 38.98874 LONG=(W) 80.29660
UTM (NAD83)(METERS) N. 4,318,016 E. 560,107	UTM (NAD83)(METERS) N. 4,315,773 E. 560,935

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE NOVEMBER 13 , 20 13
 REVISED DATE AUGUST 22 , 20 14
 OPERATORS WELL NO. WV 511416
 API WELL NO. 47-097-03813
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 6282ASDRILLED511416
 PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 2000'

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

WELL TYPE: OIL GAS INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW
 LOCATION:
 ELEVATION 1,572' (ACTUAL PAD) WATERSHED TRIBUTARY OF SPRUCE FORK
 DISTRICT BUCKHANNON COUNTY UPSHUR QUADRANGLE ADRIAN 7.5'
 SURFACE OWNER CHARLES R. BELL, SR. ACREAGE 357.639±
 ROYALTY OWNER BISHOP OF THE PROTESTANT EPISCOPAL CHURCH OF THE DIOCESE OF W.V. (500 AC.±) / WINDAMAR, INC. ET AL (151.12 AC.±)
 PROPOSED WORK:
 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

09/19/2014

MARY F. HIGGINBOTHAM ET AL LEASE

500 ACRES ±

WELL NO. WV 511416

LATITUDE 39°00'00"

LONGITUDE 80°17'30"

BOTTOM HOLE
WELL NO. WV 511416
STATE PLANE COORDINATES
(SOUTH ZONE)

N. 732,324
E. 2,197,266

LAT=(N) 39.00904
LONG=(W) 80.30585

UTM (NAD83)(METERS)

N. 4,318,020
E. 560,117

WELL NO. WV 511416
STATE PLANE COORDINATES
(SOUTH ZONE) (NAD27)

N. 724,950
E. 2,199,950

LAT=(N) 38.98874
LONG=(W) 80.29660

UTM (NAD83)(METERS)

N. 4,315,773
E. 560,935

OWNER	ACRES±
A JAMES LEROY MEHR	24.39
B CHARLES J. & JEAN C. JOHNSON	86.15
C BLAIRE SNYDER	3.49
D STEVEN M. CASTO	146.915
E EDWIN M. QUEEN	80
F DORIS JEAN ARNOVITZ	66.76
G EVA KATHRYN HOWES	80
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P.S. C. Victor Moyers
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DATE NOVEMBER 13, 20 13

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API WELL NO. 47-097-03813
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 6282ASDRILLED511416
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STATE OF WEST VIRGINIA
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OFFICE OF OIL AND GAS



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

LOCATION: ELEVATION 1,572' (ACTUAL PAD) WATERSHED TRIBUTARY OF SPRUCE FORK
DISTRICT BUCKHANNON COUNTY UPSHUR QUADRANGLE ADRIAN 7.5'

SURFACE OWNER CHARLES R. BELL, SR. ACREAGE 357.639±

ROYALTY OWNER BISHOP OF THE PROTESTANT EPISCOPAL CHURCH OF THE DIOCESE OF W.V. (500 AC±) / WINDAMAR, INC. ET AL (151.12 AC±) LEASE NO. 121717 / 991894

PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X 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