

Well Operator's Report of Well Work



Where energy meets innovation.

Well Number: 512426

API: 47 - 085 - 10235

Submission: Initial Amended

Notes: w/o Flowback

RECEIVED
Office of Oil and Gas
OCT 25 2016
WV Department of
Environmental Protection

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

API 47 - 085 - 10235 County RITCHIE District UNION
Quad OXFFORD 7.5' Pad Name OXF122 Field/Pool Name N/A
Farm name RICHARD L. & SHERYL A. RAY Well Number 512426
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 N. 4,331,473.86 Easting E. 514,609.07
Landing Point of Curve Northing N. 4,331,569.63 Easting E. 515,532.26
Bottom Hole Northing N. 4,329,788.18 Easting E.516,188.04

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 w/o Flowback
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 11.5 ppg, Synthetic Base Mud 11.5 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, ferrochrome lignosulfonate, calcium carbonate, fibrous cellulose

Date permit issued 08/31/2015 Date drilling commenced 10/20/2015 Date drilling ceased 2/22/2016
Date completion activities began 8/21/2016 Date completion activities ceased 8/4/2016
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 190', 236' Open mine(s) (Y/N) depths N
Salt water depth(s) ft No salt water shows Void(s) encountered (Y/N) depths N
Coal depth(s) ft 233', 939' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: _____

API 47-085 - 10235 Farm name RICHARD L. & SHERYL A. RAY Well number 512426

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	A-500	N/A	Y
Surface	17 1/2"	13 3/8"	386'	NEW	J-55	173'	Y
Coal							
Intermediate 1	12 3/8"	9 5/8"	2984'	NEW	A-500	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8 1/2"	5 1/2"	14,308'	NEW	P-110	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	405	15.6	1.20	486	0	8
Coal							
Intermediate 1	CLASS A	881 / 194	15.6 / 15.6	1.18 / 1.20	1272.38	0	8
Intermediate 2							
Intermediate 3							
Production	CLASS H / CLASS H / CLASS H	540 / 396 / 915	12.5 / 15.2 / 15.6	1.75 / 1.11 / 1.84	3,068.2	1,388'	72
Tubing							

Drillers TD (ft) 14,312' Loggers TD (ft) N/A
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure Plug back from 5,868 to 5,344 RMD with 41 bbl (229 sks) 16.8 ppg, 1.02 yld Class H Cement through fiberglass tubing to sidetrack wellbore.

Kick off depth (ft) 3,086'

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: NONE
 SURFACE: 2 CENTRALIZERS AT JOINTS 1 AND 5
 INTERMEDIATE: 7 CENTRALIZERS AT LEAST EVERY 500'
 PRODUCTION: Composite body spiral centralizers installed every other joint from bottom to 3,100 fMD. One centralizers placed at 2,900 fMD.

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- 085 - 10235 Farm name RICHARD L. & SHERYL A. RAY Well number 512426

PERFORATION RECORD

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

Please insert additional pages as applicable.

API 47- 085 - 10235 Farm name RICHARD L. & SHERYL A. RAY Well number 512426

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>MARCELLUS</u>	<u>6451</u> TVD	<u>7815</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump
 SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs
 OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ 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	
	0		0		

Please insert additional pages as applicable.

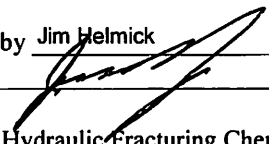
Drilling Contractor ALPHA HUNTER DRILLING (RIG 6)
 Address P.O. BOX 430 City RENO State OH Zip 45773

Logging Company Vaughn Energy Services
 Address P.O. BOX 261021 City Corpus Christi State TX Zip 78246-1021

Cementing Company C&J Energy Services (Nabors)
 Address 2504 Smith Creek Road City Waynesburg State PA Zip 15370

Stimulating Company FTS International
 Address 301 E. 18th Street City Cisco State TX Zip 76437

Please insert additional pages as applicable.

Completed by Jim Helmick Telephone (412) 395-5518
 Signature  Title VP Completions Date 10/24/2016

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

API 47- 085 - 10235 Farm name RICHARD L. & SHERYL A. RAY Well number 512426

Drilling Contractor Savanna Drilling Rig 803
Address 125 Industry Road City Waynesburg State PA Zip 15370

Logging Company Phoenix Technology Services
Address 1805 Brittmoore Road City Houston State TX Zip 77043

Logging Company _____
Address _____ City _____ State _____ Zip _____

Cementing Company Allied Oil and Gas Services, LLC
Address 333 Technology Drive, Suite 290 City Canonsburg State PA Zip 15317

512426 Final Formations API #47-08510235

Formation Name	Final Top MD (ftGL) (ft)	Final Top TVD (ft)	Final Btm MD (ftGL) (ft)	Final Btm TVD (ft)
SAND/SHALE	1	1	233	233
COAL	233	233	234	234
SAND/SHALE	234	234	939	939
COAL	939	939	942	942
SAND/SHALE	942	942	1698	1698
MAXTON	1698	1698	1881	1881
BIG LIME	1881	1881	2156	2156
WEIR	2156	2156	2370	2370
BEREA	2370	2370	2381	2381
GANTZ	2381	2381	2475	2475
50F	2475	2475	2631	2631
GORDON	2631	2631	2894	2894
BAYARD	2894	2894	3214	3213
WARREN	3214	3213	3272	3270
SPEECHLEY	3272	3270	3771	3686
BALLTOWN A	3771	3686	4566	4253
RILEY	4566	4253	5015	4572
BENSON	5015	4572	5450	4883
ALEXANDER	5450	4883	7162	6122
SONYEA	7162	6122	7324	6234
MIDDLESEX	7324	6234	7439	6302
GENESSEE	7439	6302	7610	6381
GENESEO	7610	6381	7726	6424
TULLY	7726	6424	7775	6440
HAMILTON	7775	6440	7815	6451
MARCELLUS	7815	6451	14312	6612

512426- 47-085-10235-0000 - Perforations

Stage Number	Perforation Date	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Number of Shots	Formation
Initiation Sleeve	2/27/2016	14,307	14,308	10	MARCELLUS
1	7/21/2016	14,161	14,253	32	MARCELLUS
2	7/22/2016	14,011	14,133	40	MARCELLUS
3	7/22/2016	13,861	13,983	40	MARCELLUS
4	7/22/2016	13,711	13,833	40	MARCELLUS
5	7/23/2016	13,561	13,683	40	MARCELLUS
6	7/23/2016	13,411	13,533	40	MARCELLUS
7	7/24/2016	13,261	13,383	40	MARCELLUS
8	7/24/2016	13,111	13,233	40	MARCELLUS
9	7/24/2016	12,961	13,083	40	MARCELLUS
10	7/25/2016	12,811	12,933	40	MARCELLUS
11	7/25/2016	12,661	12,783	40	MARCELLUS
12	7/25/2016	12,511	12,633	40	MARCELLUS
13	7/26/2016	12,361	12,483	40	MARCELLUS
14	7/26/2016	12,211	12,333	40	MARCELLUS
15	7/26/2016	12,061	12,183	40	MARCELLUS
16	7/27/2016	11,911	12,033	40	MARCELLUS
17	7/27/2016	11,761	11,883	40	MARCELLUS
18	7/27/2016	11,611	11,733	40	MARCELLUS
19	7/28/2016	11,461	11,583	40	MARCELLUS
20	7/28/2016	11,311	11,433	40	MARCELLUS
21	7/28/2016	11,161	11,283	40	MARCELLUS
22	7/28/2016	11,011	11,133	40	MARCELLUS
23	7/29/2016	10,861	10,983	40	MARCELLUS
24	7/29/2016	10,711	10,833	40	MARCELLUS
25	7/29/2016	10,561	10,683	40	MARCELLUS
26	7/30/2016	10,411	10,533	40	MARCELLUS
27	7/30/2016	10,261	10,383	40	MARCELLUS
28	7/30/2016	10,111	10,233	40	MARCELLUS
29	7/30/2016	9,961	10,083	40	MARCELLUS
30	7/31/2016	9,811	9,933	40	MARCELLUS
31	7/31/2016	9,661	9,780	40	MARCELLUS
32	7/31/2016	9,511	9,633	40	MARCELLUS
33	8/1/2016	9,364	9,483	40	MARCELLUS
34	8/1/2016	9,211	9,333	40	MARCELLUS
35	8/1/2016	9,061	9,183	40	MARCELLUS
36	8/2/2016	8,911	9,033	40	MARCELLUS
37	8/2/2016	8,761	8,883	40	MARCELLUS
38	8/3/2016	8,611	8,733	40	MARCELLUS
39	8/3/2016	8,461	8,583	40	MARCELLUS
40	8/3/2016	8,311	8,433	40	MARCELLUS
41	8/4/2016	8,161	8,283	40	MARCELLUS
42	8/4/2016	8,011	8,131	40	MARCELLUS

512426- 47-085-10235-0000 - 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 (bbbls)	Amount of Nitrogen/other (units)
Initiation Sleeve	7/21/2016	14.2	6,560	9,134	5,425	0	532	0
1	7/21/2016	87.8	8,933	9,341	4,488	251,517.00	6,949	0
2	7/22/2016	95.7	8,139	8,648	4,249	250,381.00	5,919	0
3	7/22/2016	93.6	8,808	9,298	4,772	249,975.00	6,578	0
4	7/23/2016	100.1	8,923	9,241	4,820	250,287.00	6,224	0
5	7/23/2016	99.2	8,916	9,106	4,891	248,482.00	6,085	0
6	7/24/2016	100.1	8,665	9,164	5,200	247,786.00	6,346	0
7	7/24/2016	100.1	8,496	9,219	4,891	249,515.00	6,029	0
8	7/24/2016	100.2	8,272	9,155	5,154	247,708.00	6,023	0
9	7/24/2016	100	8,373	9,105	5,024	249,445.00	6,039	0
10	7/25/2016	99.1	8,515	8,980	4,766	249,881.00	6,052	0
11	7/25/2016	100.1	8,486	8,811	5,376	250,387.00	5,891	0
12	7/26/2016	99.3	8,255	8,488	5,235	249,708.00	6,269	0
13	7/26/2016	97	8,900	9,274	5,161	248,641.00	5,912	0
14	7/26/2016	99.5	8,504	8,810	5,181	247,657.00	6,102	0
15	7/26/2016	100.5	8,424	8,647	5,674	249,924.00	6,044	0
16	7/27/2016	100.2	8,406	8,545	5,564	248,825.00	6,226	0
17	7/27/2016	100.3	8,679	9,138	5,553	249,500.00	5,988	0
18	7/27/2016	100.1	8,326	8,669	5,490	249,980.00	5,812	0
19	7/28/2016	100.4	8,187	8,361	5,713	249,363.00	5,963	0
20	7/28/2016	100.4	8,195	8,348	5,618	251,244.00	5,983	0
21	7/28/2016	100	8,492	8,733	5,336	250,588.00	5,920	0
22	7/29/2016	100.2	8,029	8,190	5,310	250,728.00	6,031	0
23	7/29/2016	100.1	7,937	8,065	5,540	252,766.00	5,977	0
24	7/29/2016	100.5	7,897	8,104	5,533	250,550.00	5,843	0
25	7/29/2016	100.5	7,873	8,068	5,559	251,823.00	5,809	0
26	7/30/2016	100.2	7,886	8,336	5,577	252,024.00	5,872	0
27	7/30/2016	100.3	7,823	7,963	5,080	249,406.00	5,937	0
28	7/30/2016	100.3	7,883	7,996	4,909	251,099.00	5,809	0
29	7/31/2016	100	7,769	8,674	4,803	252,387.00	6,711	0
30	7/31/2016	100.7	7,891	7,999	5,046	251,340.00	5,886	0
31	7/31/2016	100.2	7,908	8,112	5,440	252,003.00	5,472	0
32	7/31/2016	100.6	8,247	8,418	5,414	250,746.00	5,588	0
33	8/1/2016	97.1	7,645	8,024	5,035	250,783.00	5,769	0
34	8/1/2016	100.5	8,002	8,102	4,846	249,963.00	5,653	0
35	8/1/2016	100	8,644	8,867	5,325	249,908.00	5,700	0
36	8/2/2016	95.2	8,426	8,893	5,404	250,889.00	5,543	0
37	8/3/2016	99.3	7,889	8,106	5,434	248,516.00	5,637	0
38	8/3/2016	96.1	7,854	8,958	5,434	249,848.00	5,756	0
39	8/3/2016	97.4	8,131	9,193	5,512	250,095.00	5,824	0
40	8/4/2016	96.3	8,678	9,117	5,433	249,807.00	5,671	0
41	8/4/2016	97.4	8,595	9,008	5,238	248,995.00	5,516	0
42	8/4/2016	97.2	8,240	8,611	5,197	249,542.00	6,573	0

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/21/2016
Job End Date:	8/4/2016
State:	West Virginia
County:	Ritchie
API Number:	47-085-10235-00-00
Operator Name:	EQT Production
Well Name and Number:	512426
Latitude:	39.13223300
Longitude:	-80.83124700
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,451
Total Base Water Volume (gal):	10,561,446
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

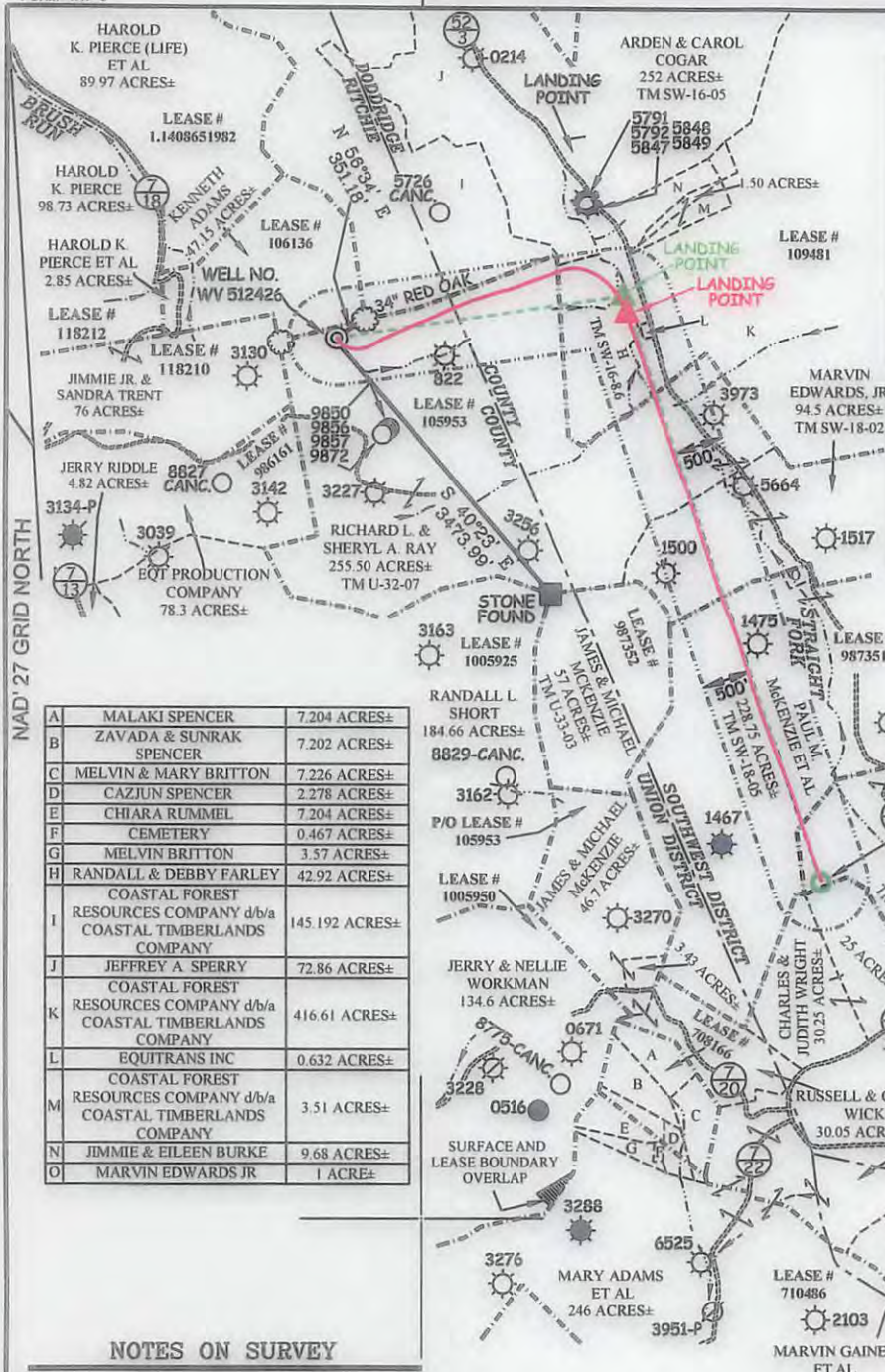
Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	FTS International	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	88.96762	None
ECM FR NI 200	ECM Supply	Friction Reducing Agent					
			Water	7732-18-5	50.00000	0.03488	None

Other Chemical (s)	Listed Above	See Trade Name (s) List					
			Water	7732-18-5	50.00000	0.03488	
Sand (Proppant)	FTS International	Proppant					
				Listed Below			
MC MX 8-2544	Multi-Chem Group	Live Culture - Nitrate Reducing Bacteria					
				Listed Below			
Hydrochloric Acid (15%)	FTS International	Acidizing					
				Listed Below			
MC MX 5-3886	Multi-Chem Group	Specialty Brine					
				Listed Below			
CS-500-SI	FTS International	Scale inhibitor					
				Listed Below			
CI-150	FTS International	Acid corrosion inhibitor					
				Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			Silica Substrate	14808-60-7	100.00000	10.60321	None
			Calcium Nitrate.4H2O	13477-34-4	100.00000	0.10932	
			Calcium Nitrate.4H2O	13477-34-4	100.00000	0.10932	None
			Hydrochloric Acid	7647-01-0	15.00000	0.03245	None

			Copolymer of Two Propenamide	69418-26-4	30.00000	0.02093	None
			Copolymer of Two Propenamide	69418-26-4	30.00000	0.02093	
			Petroleum Distillate	64742-47-8	20.00000	0.01395	
			Petroleum Distillate	64742-47-8	20.00000	0.01395	None
			Sodium chloride	7647-14-5	100.00000	0.00966	None
			Sodium chloride	7647-14-5	100.00000	0.00966	
			Ethylene glycol	107-21-1	10.00000	0.00237	
			Ethylene glycol	107-21-1	10.00000	0.00237	None
			Alcohols, C-12-16, Ethoxylated	68551-12-2	2.00000	0.00140	
			Oleic Acid Diethanolamide	93-83-4	2.00000	0.00140	None
			Alcohols, C-12-16, Ethoxylated	68551-12-2	2.00000	0.00140	None
			Oleic Acid Diethanolamide	93-83-4	2.00000	0.00140	
			Ammonium Chloride ((NH4)Cl)	12125-02-9	1.00000	0.00070	
			Ammonium Chloride ((NH4)Cl)	12125-02-9	1.00000	0.00070	None
			Sodium nitrate	7631-99-4	5.00000	0.00048	None
			Sodium nitrate	7631-99-4	5.00000	0.00048	
			Organic amine resin salt	Proprietary	30.00000	0.00012	None
			Ethylene glycol	107-21-1	30.00000	0.00012	None
			Ethylene glycol	107-21-1	30.00000	0.00012	
			Isopropanol	67-63-0	30.00000	0.00012	None
			Aromatic aldehyde	Proprietary	10.00000	0.00004	None
			Quaternary ammonium compound	Proprietary	10.00000	0.00004	None
			Dimethylformamide	68-12-2	10.00000	0.00004	None

- * Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water
- ** Information is based on the maximum potential for concentration and thus the total may be over 100%
- *** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

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)



**EQT PRODUCTION COMPANY
W.M. ADAMS LEASE
402 ACRES±
WELL NO. WV 512426
OXF122 H1**

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

NAD'27 S.P.C.(FT) N. 233,069.84 E. 1,622,397.04
NAD'27 GEO. LAT-(N) 39.132233 LONG-(W) 80.831146
NAD'83 UTM (M) N. 4,331,473.86 E. 514,609.07

LANDING POINT

NAD'27 S.P.C.(FT) N. 233,511.24 E. 1,625,391.22
NAD'27 GEO. LAT-(N) 39.133566 LONG-(W) 80.820615
NAD'83 UTM (M) N. 4,331,623.57 E. 515,518.98

BOTTOM HOLE

NAD'27 S.P.C.(FT) N. 227,443.86 E. 1,627,466.53
NAD'27 GEO. LAT-(N) 39.116992 LONG-(W) 80.812987
NAD'83 UTM (M) N. 4,329,785.75 E. 516,182.06

NAD'27 GRID NORTH

12,542

A	MALAKI SPENCER	7.204 ACRES±
B	ZAVADA & SUNRAK SPENCER	7.202 ACRES±
C	MELVIN & MARY BRITTON	7.226 ACRES±
D	CAZJUN SPENCER	2.278 ACRES±
E	CHIARA RUMMEL	7.204 ACRES±
F	CEMETERY	0.467 ACRES±
G	MELVIN BRITTON	3.57 ACRES±
H	RANDALL & DEBBY FARLEY	42.92 ACRES±
I	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	145.192 ACRES±
J	JEFFREY A SPERRY	72.86 ACRES±
K	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	416.61 ACRES±
L	EQUITRANS INC	0.632 ACRES±
M	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	3.51 ACRES±
N	JIMMIE & EILEEN BURKE	9.68 ACRES±
O	MARVIN EDWARDS JR	1 ACRE±

RANDALL L. SHORT
184.66 ACRES±
8829-CANC.

3162
P/O LEASE #
105953

LEASE #
1005950

JERRY & NELLIE WORKMAN
134.6 ACRES±

3228
0516

3276
MARY ADAMS ET AL
246 ACRES±

ROYALTY OWNERS		
ADELE McDUGAL ET AL	2000 AC±	LEASE NO. 109481
MICHAEL M. MCKENZIE ET AL	199.75 AC±	LEASE NO. 987351
JAMES L. REED ET AL	40 AC±	LEASE NO. 986844

LEGEND

LEASE LINE	---
SURFACE LINE	---
PROPOSED PATH	---
AS DRILLED PATH	---
OFFSET LINE	---
TIE LINE	---
CREEK	---
ROAD	---
FENCE LINE	---
COUNTY ROUTE	---
PROPOSED WELL	○
EXISTING WELL	○
PERMITTED WELL	○
RITCHIE COUNTY UNION DISTRICT TAX MAP-PARCEL	TM U-00-00
DODDRIDGE COUNTY SOUTHWEST DISTRICT TAX MAP-PARCEL	TM SW-00-00

NOTES ON SURVEY

1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
2. AS DRILLED INFORMATION PROVIDED BY EQT.

AS DRILLED COORDINATES FOR WELL NO. WV 512426

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

NAD'27 S.P.C.(FT) N. 233,069.84 E. 1,622,397.04
NAD'27 GEO. LAT-(N) 39.132233 LONG-(W) 80.831146
NAD'83 UTM (M) N. 4,331,473.86 E. 514,609.07

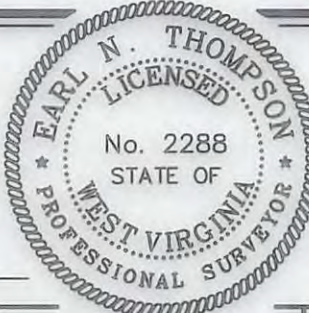
LANDING POINT

NAD'27 S.P.C.(FT) N. 233,333.51 E. 1,625,431.82
NAD'27 GEO. LAT-(N) 39.133079 LONG-(W) 80.820463
NAD'83 UTM (M) N. 4,331,569.63 E. 515,532.26

BOTTOM HOLE

NAD'27 S.P.C.(FT) N. 227,451.52 E. 1,627,486.28
NAD'27 GEO. LAT-(N) 39.117014 LONG-(W) 80.812918
NAD'83 UTM (M) N. 4,329,788.18 E. 516,188.04

Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC.
SLS
SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.
(904) 482-5634 WWW.SLSURVEYS.COM



I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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 NOVEMBER 16, 20 09
REVISED 03/12/10, 07/10/15, 02/29/16 & 06/15/16
OPERATORS WELL NO. WV 512426
API WELL NO. 47-085-10235H
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 6811AD512426R
HORIZONTAL & VERTICAL CONTROL DETERMINED BY 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 1,111'(PAD ELEVATION) WATERSHED STRAIGHT FORK
DISTRICT UNION COUNTY RITCHIE QUADRANGLE OXFORD 7.5'

SURFACE OWNER RICHARD L. & SHERYL A. RAY ACREAGE 255.50±
ROYALTY OWNER HAUGHT FAMILY TRUST ET AL ACREAGE 402±
LEASE NO. 105953

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 TVD 6,461'

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