

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

API 47-091-01336 County Taylor District Courthouse
Quad Grafton Pad Name Coalquest 2 Field/Pool Name _____
Farm name Coalquest Development LLC Well Number 211
Operator (as registered with the OOG) Arsenal Resources
Address 6031 Wallace Rd. Ext City Wexford State PA Zip 15090

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4350300.364 Easting 576710.441
Landing Point of Curve Northing 4350254.403 Easting 576770.309
Bottom Hole Northing 4352701.371 Easting 575930.345

Elevation (ft) 1265 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)
Synthetic oil-based muds

Date permit issued 9/19/2017 Date drilling commenced 10/21/2017 Date drilling ceased 11/03/2017
Date completion activities began 12/23/2017 Date completion activities ceased 01/31/2018
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by RECEIVED

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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug JUN 04 2018

Freshwater depth(s) ft 400' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1110' Void(s) encountered (Y/N) depths Environmental Protection
Coal depth(s) ft 552', 630', 712', 753', 847', 881', 910' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: Zec

Reviewed
Jackie Stanton for
Ken Greynolds 1/2/2020

API 47-091 - 01336 Farm name Coalquest Development LLC Well number 211

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	30"	24"	80'	New	94.00	NA	Y
Surface	17.5"	13 3/8"	683' GL	New	54.50	120'	Y
Coal	NA	NA	NA	NA	NA	NA	NA
Intermediate 1	12 1/4"	9 5/8"	1,630' GL	New	40.00	NA	Y
Intermediate 2	NA	NA	NA	NA	NA	NA	NA
Intermediate 3	NA	NA	NA	NA	NA	NA	NA
Production	8 1/2"-8 3/4"	5.5"	17,790' GL	New	20.00	NA	N
Tubing	NA	NA	NA	NA	NA	NA	NA
Packer type and depth set		NA					

Comment Details Cement to surface on Conductor, Surface, and Intermediate. Top of production cement at 1,304 ft.

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	A	450	15.6	1.2	540	Surface	8+
Surface	A	640	15.6	1.2	768	Surface	8+
Coal	NA	NA	NA	NA	NA	NA	NA
Intermediate 1	A	206/320	15.2/15.7	1.26/1.28	260/410	Surface	8+
Intermediate 2	NA	NA	NA	NA	NA	NA	NA
Intermediate 3	NA	NA	NA	NA	NA	NA	NA
Production	A	1209/2075	13.8/15.0	1.34/1.29	1620/2677	1,304'	8+
Tubing	NA	NA	NA	NA	NA	NA	NA

Drillers TD (ft) 17,838 ft Loggers TD (ft) NA

Deepest formation penetrated Marcellus Plug back to (ft) NA

Plug back procedure NA

Kick off depth (ft) KOP of Curve at 7,365 ft, No Plug

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 20" - No centralizers 13 3/8" - one bow spring centralizer on every other joint 9 5/8" - one bow spring centralizer every third joint from TD to surface 5 1/2" - one semi rigid centralizer on every joint from TD of casing to end of curve. Then every other joint to KOP. Every third joint from KOP to 1,600'; there will be no centralizers from 1,700' to surface.

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS 46 Stages and 1,840 perforations JUN 04 2018

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS NA WV Department of Environmental Protection

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

Perforation Record					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations (s)
Perforate Stage #46 of 46	1/30/2018 22:40	8,579	8,741	40	Marcellus Shale
Perforate Stage #45 of 46	1/30/2018 16:06	8,779	8,941	40	Marcellus Shale
Perforate Stage #44 of 46	1/30/2018 10:05	8,979	9,141	40	Marcellus Shale
Perforate Stage #43 of 46	1/29/2018 23:46	9,179	9,341	40	Marcellus Shale
Perforate Stage #42 of 46	1/29/2018 10:22	9,379	9,541	40	Marcellus Shale
Perforate Stage #41 of 46	1/28/2018 23:50	9,579	9,741	40	Marcellus Shale
Perforate Stage #40 of 46	1/28/2018 11:11	9,779	9,941	40	Marcellus Shale
Perforate Stage #39 of 46	1/28/2018 0:21	9,979	10,141	40	Marcellus Shale
Perforate Stage #38 of 46	1/27/2018 9:52	10,179	10,341	40	Marcellus Shale
Perforate Stage #37 of 46	1/26/2018 22:18	10,379	10,541	40	Marcellus Shale
Perforate Stage #36 of 46	1/26/2018 10:20	10,579	10,741	40	Marcellus Shale
Perforate Stage #35 of 46	1/25/2018 22:41	10,779	10,941	40	Marcellus Shale
Perforate Stage #34 of 46	1/25/2018 13:48	10,979	11,141	40	Marcellus Shale
Perforate Stage #33 of 46	1/24/2018 18:14	11,179	11,341	40	Marcellus Shale
Perforate Stage #32 of 46	1/23/2018 23:21	11,379	11,541	40	Marcellus Shale
Perforate Stage #31 of 46	1/22/2018 23:05	11,579	11,741	40	Marcellus Shale
Perforate Stage #30 of 46	1/22/2018 12:01	11,779	11,941	40	Marcellus Shale
Perforate Stage #29 of 46	1/13/2018 15:05	11,979	12,141	40	Marcellus Shale
Perforate Stage #28 of 46	1/12/2018 23:42	12,179	12,341	40	Marcellus Shale
Perforate Stage #27 of 46	1/12/2018 12:01	12,379	12,541	40	Marcellus Shale
Perforate Stage #26 of 46	1/12/2018 12:00	12,579	12,741	40	Marcellus Shale
Perforate Stage #25 of 46	1/11/2018 11:03	12,779	12,941	40	Marcellus Shale
Perforate Stage #24 of 46	1/11/2018 0:08	12,979	13,141	40	Marcellus Shale
Perforate Stage #23 of 46	1/10/2018 11:44	13,179	13,341	40	Marcellus Shale
Perforate Stage #22 of 46	1/10/2018 1:28	13,379	13,541	40	Marcellus Shale
Perforate Stage #21 of 46	1/9/2018 16:30	13,579	13,741	40	Marcellus Shale
Perforate Stage #20 of 46	1/9/2018 2:08	13,779	13,941	40	Marcellus Shale
Perforate Stage #19 of 46	1/8/2018 19:37	13,979	14,141	40	Marcellus Shale
Perforate Stage #18 of 46	1/1/2018 6:47	14,179	14,341	40	Marcellus Shale
Perforate Stage #17 of 46	12/31/2017 0:00	14,379	14,541	40	Marcellus Shale
Perforate Stage #16 of 46	12/31/2017 13:27	14,579	14,741	40	Marcellus Shale
Perforate Stage #15 of 46	12/31/2017 3:01	14,779	14,941	40	Marcellus Shale
Perforate Stage #14 of 46	12/30/2017 14:29	14,979	15,141	40	Marcellus Shale
Perforate Stage #13 of 46	12/30/2017 6:55	15,179	15,341	40	Marcellus Shale
Perforate Stage #12 of 46	12/30/2017 22:01	15,379	15,541	40	Marcellus Shale
Perforate Stage #11 of 46	12/29/2017 12:53	15,579	15,741	40	Marcellus Shale
Perforate Stage #10 of 46	12/29/2017 3:50	15,779	15,941	40	Marcellus Shale
Perforate Stage #9 of 46	12/28/2017 18:49	15,979	16,141	40	Marcellus Shale
Perforate Stage #8 of 46	12/28/2017 9:59	16,179	16,341	40	Marcellus Shale
Perforate Stage #7 of 46	12/28/2017 0:49	16,379	16,541	40	Marcellus Shale
Perforate Stage #6 of 46	12/27/2017 13:01	16,579	16,741	40	Marcellus Shale
Perforate Stage #5 of 46	12/27/2017 4:28	16,779	16,941	40	Marcellus Shale

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Perforate Stage #4 of 46	12/26/2017 18:37	16,979	17,141	40	Marcellus Shale
Perforate Stage #3 of 46	12/24/2017 11:14	17,179	17,341	40	Marcellus Shale
Perforate Stage #2 of 46	12/24/2017 2:47	17,379	17,541	40	Marcellus Shale
1 of 46	12/21/2017 23:15	17,579	17,741	40	Marcellus Shale

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Stimulation Information Per 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)
1	12/23/2017	67.00	8,147		5,415	499,540	17,925
2	12/24/2017	79.00	8,493	6982	4,888	500,580	13,027
3	12/26/2017	77.00	8,194	6951	4,548	342,260	12,929
4	12/26/2017	64.00	8,472	7580	4,757	449,200	12,893
5	12/27/2017	80.00	8,203	5915	4,615	506,620	11,132
6	12/27/2017	69.00	8,309	6644	5,541	395,460	14,503
7	12/28/2017	79.00	8,233	5933	5,410	499,760	11,107
8	12/28/2017	73.00	8,325	6552	5,651	503,080	10,589
9	12/28/2017	73.00	7,982	6304	4,564	497,920	12,860
10	12/29/2017	76.00	8,204	6977	5,604	496,240	9,816
11	12/29/2017	80.00	8,353	6585	5,719	502,940	11,062
12	12/30/2017	76.00	7,864	6507	4,723	501,500	12,136
13	12/30/2017	75.00	8,050	6488	4,409	502,980	11,857
14	12/30/2017	73.00	8,236	6474	5,152	469,700	13,409
15	12/31/2017	71.00	8,171	6426	4,834	501,700	12,621
16	12/31/2017	70.00	8,034	6488	5,338	477,740	14,178
17	01/01/2018	76.00	7,990	6126	5,614	497,180	11,086
18	01/08/2018	78.00	8,305	6054	5,636	498,740	12,887
19	01/08/2018	76.00	7,966	6410	4,849	497,860	11,136
20	01/09/2018	78.00	7,755	6539	5,939	501,880	11,412
21	01/09/2018	78.00	8,059	6423	6,125	503,200	10,393
22	01/10/2018	70.00	8,348	6579	5,801	500,520	14,153
23	01/10/2018	64.00	8,530	6341	4,519	371,240	14,664
24	01/11/2018	79.00	8,136	6844	5,152	501,960	11,704
25	01/11/2018	70.00	8,064	6838	5,285	490,900	11,212
26	01/12/2018	74.00	8,249	6446	5,212	500,000	12,711
27	01/12/2018	69.00	8,019	6610	4,846	501,900	14,109
28	01/13/2018	71.00	8,071	7487	5,571	501,920	11,512
29	01/22/2018	72.50	8,241	7546	5,236	497,440	13,416
30	01/22/2018	67.00	8,110	7077	5,084	503,560	12,597
31	01/23/2018	51.60	8,705	6581	4,514	343,580	13,841
32	01/24/2018	65.00	8,216	6207	4,786	498,400	13,378
33	01/24/2018	69.00	8,328	6695	4,447	494,560	14,069
34	01/25/2018	74.00	8,157	6561	5,239	495,040	12,294
35	01/26/2018	71.00	7,550	6316	5,742	501,500	11,388
36	01/26/2018	70.00	7,825	6657	5,239	504,320	12,052
37	01/27/2018	73.00	7,811	6165	5,459	501,500	10,410
38	01/27/2018	63.00	8,174	6180	5,056	495,700	13,103
39	01/28/2018	63.00	8,331	6207	6,270	369,440	14,037
40	01/28/2018	60.00	7,939	6290	4,970	496,600	14,425
41	01/29/2018	73.00	7,418	6638	5,636	500,960	12,837
42	01/29/2018	56.00	8,229	6175	5,515	337,720	14,279

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43	01/30/2018	73.00	7,909	6122	5,743	499,400	14,027
44	01/30/2018	74.00	7,682	6251	4,805	502,160	12,846
45	01/30/2018	72.00	7,149	5531	4,970	495,900	12,704
46	01/31/2018	75.00	7,556	6661	4,661	504,720	13,955

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API 47- 091 - 01336 Farm name Coalquest Development LLC Well number 211

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
Marcellus Shale	7,798'	TVD	17,838' 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 DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
Sand/Silt	0	552	0	552	Freshwater @ 400'
Sand/Silt/Coal	552	711	552	712	Bakerstown Coal @ 552' TVD, Brush Creek Coal @ 630'TVD
Sand/Silt/Coal	711	846	712	847	Upper Freeport @ 711' TVD, Lower Freeport @ 753' TVD
Sand/Silt/Coal	846	1662	847	1665	Upper Kittanning @ 846' TVD, Middle Kittanning @ 880' TVD, Lower Kittanning @ 909' TVD, Saltwater @ 1,100'
Big Lime	1662	1777	1665	1780	Limestone
Balltown	3265	3315	3320	3370	Sandstone
Elk Siltstone	4830	4883	4970	5023	Siltstone
Burkett	7441	7465	7828	7858	Shale
Tully	7465	7529	7858	7942	Limestone
Mahantango	7529	7702	7942	8283	Shale
Marcellus	7702	7764	8283	8524	Shale
Purcell	7764	7768	8524	8548	Limestone
Lower Marcellus	7768	7801*	8548	17838	Shale - Gas shows through lateral
Onondaga	7801*				*Onondaga not penetrated - top estimated based on 4709101108 thickness

Please insert additional pages as applicable.

Drilling Contractor H&P
 Address 1437 South Boulder Ave. City Tulsa State OK Zip 74119

Logging Company NA
 Address _____ City _____ State _____ Zip _____

Cementing Company C&J Energy Services, Inc.
 Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Stimulating Company Keane Group
 Address 2121 Sage Road City Houston State TX Zip 77056

Please insert additional pages as applicable.

Completed by Arsenal Resources Telephone 304-629-6309
 Signature [Signature] Title Permitting Manager Date 5/20/18

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS to Environmental Protection

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	12/24/2017
Job End Date:	1/31/2018
State:	West Virginia
County:	Taylor
API Number:	47-091-01336-00-00
Operator Name:	Arsenal Resources
Well Name and Number:	Coal Quest II 211H
Latitude:	39.29868800
Longitude:	-80.11036800
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,679
Total Base Water Volume (gal):	25,385,724
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	Ascent	Carrier/Base Fluid	Water	7732-18-5	100.00000	90.10256	None
Sand (Proppant)	Keane	Proppant	Crystalline silica: Quartz (SiO2)	14808-60-7	100.00000	9.3814	None
Hydrochloric Acid (7.5%)	Keane	Acid Inhibitor	Water	7732-18-5	92.50000	0.35090	None
			Hydrochloric Acid	7647-01-0	7.50000	0.02845	None
KFR-16FW	Keane	Friction Reducer	Water	7732-18-5	60.00000	0.06643	None
			Distillates (petroleum), hydrotreated light	64742-47-8	20.00000	0.02216	None
			ammonium chloride	12125-02-9	1.50000	0.00166	None
			oleic acid diethanolamide	93-83-4	1.50000	0.00166	None
			alcohols, C12-16, ethoxylated	68551-12-2	1.00000	0.0011	None
MBC-516	Keane	Biocide	Water	7732-18-5	56.70000	0.00531	None
			Glutaral	111-30-8	26.70000	0.00250	None



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			tridecyltrimethylammonium chloride	7173-51-5	8.00000	0.00079	None
			quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.30000	0.00050	None
			ethonal	64-17-5	2.80000	0.00026	None
KL-SI-21	Keane	Scale Inhibitor	polyphosphoric acids, esters with triethanolamine, sodium salts	68131-72-6	30.00000	0.00443	None
KA1-12	Keane	Acid Inhibitor	Ethylene glycol	107-21-1	40.00000	0.00069	None
			dipropylene glycol, monomethyl ether	34590-94-8	20.00000	0.00034	None
			Ethoxylated alcohol	68131-39-5	10.00000	0.00017	None
			Tar bases, quinoline derivs., benzyl chloride-quaternized	72480-70-7	10.00000	0.00017	None
			formic acid	64-18-6	10.00000	0.00017	None
			Cinnamaldehyde	104-55-2	10.00000	0.00017	None
			soproyl alcohol	67-63-0	5.00000	0.00009	None
			Water	7732-18-5	92.50000	0.35090	
			Disillates (petroleum), hydrotreated light	64742-47-8	20.00000	0.02216	
			Glutaral	111-30-8	26.70000	0.00250	
			oleic acid diethanolamide	93-83-4	1.50000	0.00166	
			ammonium chloride	12125-02-9	1.50000	0.00166	
			alcohols, C12-16, ethoxylated	68551-12-2	1.00000	0.00111	
			didecyltrimethylammonium chloride	7173-51-5	8.00000	0.00075	
			quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.30000	0.00050	
			dipropylene glycol, monomethyl ether	34590-94-8	20.00000	0.00034	
			ethonal	64-17-5	2.80000	0.00026	
			formic acid	64-18-6	10.00000	0.00017	
			Cinnamaldehyde	104-55-2	10.00000	0.00017	
			Tar bases, quinoline derivs., benzyl chloride-quaternized	72480-70-7	10.00000	0.00017	
			Ethoxylated alcohol	68131-39-5	10.00000	0.00017	
			soproyl alcohol	67-63-0	5.00000	0.00009	
			Water	7732-18-5	85.00000	0.00001	

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)

NOTES ON SURVEY

- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

THRASHER
 THE THRASHER GROUP, INC.
 600 WHITE OAKS BLVD.
 BRIDGEPORT, WV 26330
 PHONE 304-624-4108

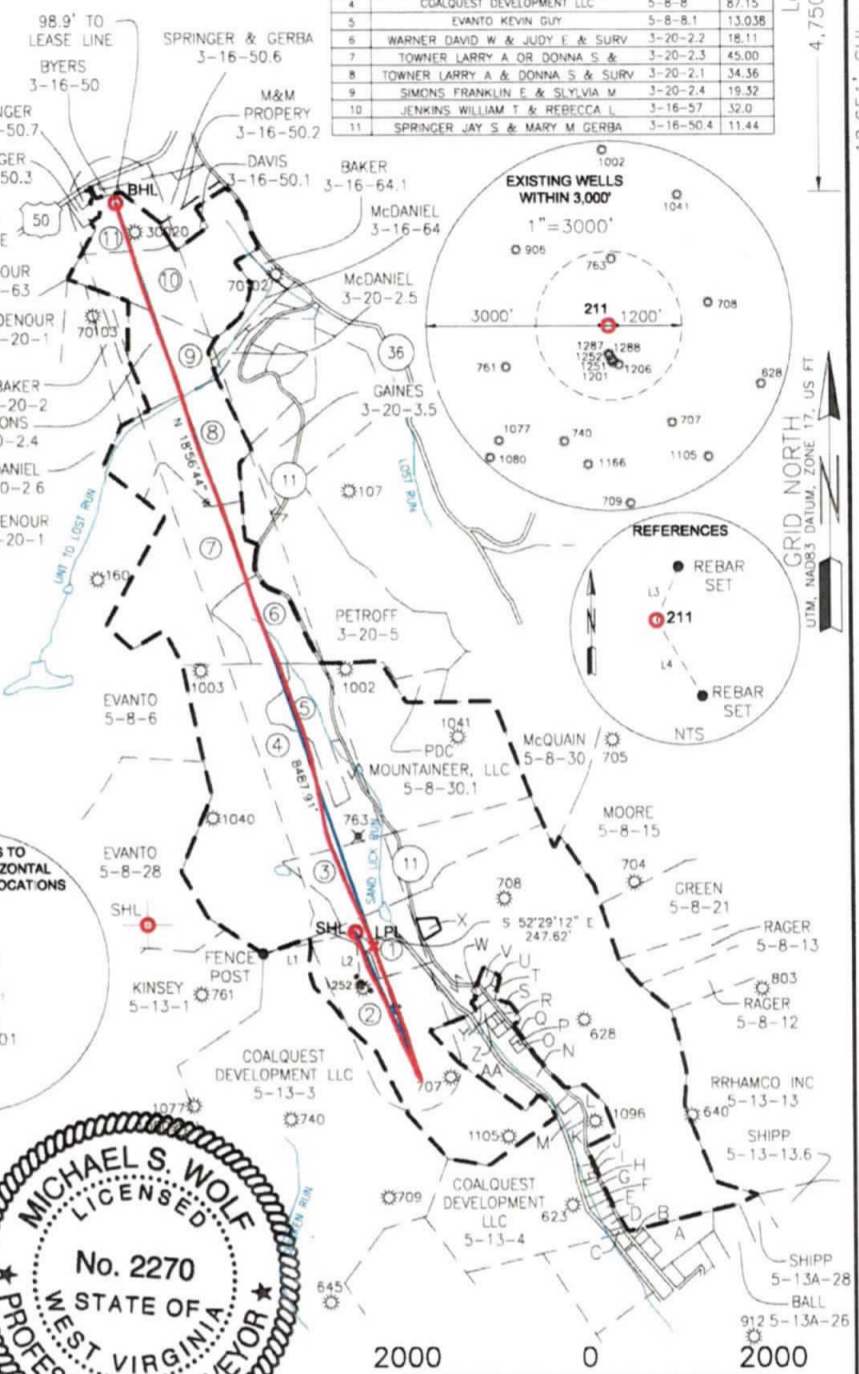
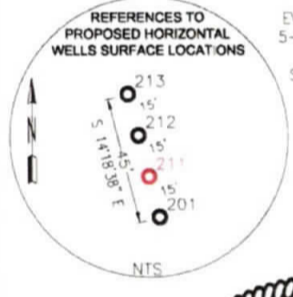
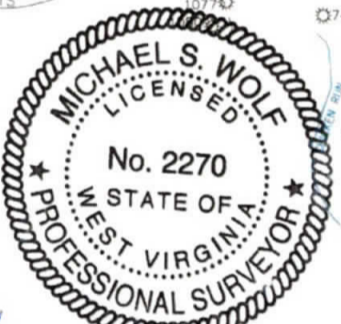
LINE	DESCRIPTION	DISTANCE	DESCRIPTION	MONUMENT
L1	S 76°45'21" W	1038.80	SHL TO LANDMARK	FENCE POST CORNER
L2	S 05°16'25" E	566.63	SHL TO LANDMARK	WELL# 1252
L3	N 22°37'52" E	187.79	SHL TO LANDMARK	REBAR SET
L4	S 30°53'31" E	287.70	SHL TO LANDMARK	REBAR SET

TRACT	SURFACE OWNER	TAX PARCEL	ACRES
1	COALQUEST DEVELOPMENT LLC	5-8-10.2	10.0
2	COALQUEST DEVELOPMENT LLC	5-8-10	83.9
3	COALQUEST DEVELOPMENT LLC	5-8-9	15.98
4	COALQUEST DEVELOPMENT LLC	5-8-8	87.15
5	EVANTO KEVIN GUY	5-8-8.1	13.038
6	WARNER DAVID W & JUDY E & SURV	3-20-2.2	18.11
7	TOWNER LARRY A OR DONNA S &	3-20-2.3	45.00
8	TOWNER LARRY A & DONNA S & SURV	3-20-2.1	34.36
9	SIMONS FRANKLIN E & SYLVIA M	3-20-2.4	19.32
10	JENKINS WILLIAM T & REBECCA L	3-16-57	32.0
11	SPRINGER JAY S & MARY M GERBA	3-16-50.4	11.44

TRACT	ADJOINER SURFACE OWNER	TAX PARCEL
A	COALQUEST DEVELOPMENT, LLC.	5-13A-15.1
B	GERARD	5-13A-13
C	FOWLER	5-13-11
D	FOWLER	5-13-10
E	BARTLETT	5-13-9
F	COOK	5-13-7
G	ZBOSNIK	5-13-7.2
H	ZBOSNIK	5-13-7.1
I	AJVL	5-13-5
J	AJVL	5-13-5.3
K	AJVL	5-13-5.2
L	PHILLIPS	5-13-5.1
M	CURRY	5-13-5.5
N	COALQUEST DEVELOPMENT, LLC.	5-8-10
O	FELTON	5-8-11.2
P	POLING	5-8-11.1
Q	POLING	5-8-11
R	KETTERMAN	5-8A-14
S	KETTERMAN	5-8A-7
T	LIPSCOMB	5-8A-4
U	LIPSCOMB	5-8A-3
V	CAMPBELL	5-8A-2
W	GREEN	5-8A-1
X	COALQUEST DEVELOPMENT, LLC.	5-8-28
Y	ROSS	5-8A-5
Z	FLEMING	5-8A-6
AA	COALQUEST DEVELOPMENT, LLC.	5-8-10.1

SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,350,300.364 EASTING: 576,710.441
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,350,044.084 EASTING: 576,842.893
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,352,703.291 EASTING: 575,927.234
SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,350,300.364 EASTING: 576,710.441
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,350,254.403 EASTING: 576,770.309
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,352,701.371 EASTING: 575,930.345

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.



P.S. 2270 *MSW 1/12/18*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034	MINIMUM DEGREE OF ACCURACY: 1/200 PROVEN SURVEY SOURCE OF ELEVATION: SURVEY GRADE GPS (NAVD 88, US FT)	OPERATOR'S WELL #: 211 API WELL #: 47 91 01336 STATE COUNTY PERMIT
	WELL TYPE: OIL <input type="checkbox"/> WASTE DISPOSAL <input type="checkbox"/> PRODUCTION <input type="checkbox"/> DEEP <input type="checkbox"/> GAS <input checked="" type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> STORAGE <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/>	WATERSHED: SAND LICK RUN OF SIMPSON CREEK DISTRICT: COURTHOUSE COUNTY: TAYLOR SURFACE OWNER: COALQUEST DEVELOPMENT LLC OIL & GAS ROYALTY OWNER: PATRIOT MINING, INC.
DRILL <input type="checkbox"/> DRILL DEEPER <input type="checkbox"/> REDRILL <input type="checkbox"/> FRACTURE OR STIMULATE <input type="checkbox"/> PLUG OFF OLD FORMATION <input type="checkbox"/> PERFORATE NEW FORMATION <input type="checkbox"/> CONVERT <input type="checkbox"/> PLUG & ABANDON <input type="checkbox"/> CLEAN OUT & REPLUG <input type="checkbox"/> OTHER CHANGE <input checked="" type="checkbox"/> (SPECIFY) AS-DRILLED	TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 7,799 TVD 17,838 TMD	
WELL OPERATOR: ARSENAL RESOURCES ADDRESS: 6031 WALLACE ROAD EXTENSION #300 CITY: WEXFORD STATE: PA ZIP CODE: 15090	DESIGNATED AGENT: WILLIAM VEIGEL ADDRESS: 65 PROFESSIONAL PLACE, SUITE 200 CITY: BRIDGEPORT STATE: WV ZIP CODE: 26330	
LEGEND: AS-DRILLED SURFACE HOLE / BOTTOM HOLE EXISTING / PRODUCING WELLHEAD LPL* LANDING POINT LOCATION EXISTING WATER WELL EXISTING SPRING	SURVEYED BOUNDARY DRILLING UNIT LEASE BOUNDARY AS-DRILLED PATH PROPOSED PATH 500' BUFFER	REVISIONS: DATE: 01-12-2018 DRAWN BY: K. POTH SCALE: 1" = 2000' DRAWING NO: 030-3042 WELL LOCATION PLAT