



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Jim Justice, Governor
Austin Caperton, Cabinet Secretary
www.dep.wv.gov

PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ARSENAL RESOURCES LLC
6031 WALLACE ROAD EXTENSION SUITE 300

WEXFORD, PA 15090

Re: Permit Modification Approval for COALQUEST 2 211H
47-091-01336-00-00

Extending lateral length

ARSENAL RESOURCES LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.



James A. Martin
Chief

Operator's Well Number: COALQUEST 2 211H
Farm Name: COALQUEST DEVELOPMENT LLC
U.S. WELL NUMBER: 47-091-01336-00-00
Horizontal 6A / New Drill
Date Issued: 8/4/2017

Promoting a healthy environment.

08/04/2017

4709101336

mo



June 29, 2017

WVDEP
Office of Oil and Gas
ATTN: Laura Adkins
601 57th Street SE
Charleston, WV 25304

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Office of Oil and Gas

JUN 30 2017

WV Department of
Environmental Protection

RE: Coalquest 2 Pad – Coalquest 2 211, API# 47-91-01336 – Modification to extend lateral

Dear Laura:

Enclosed please find the modification for the Coalquest 2 211 (API# 47-91-01336). This well was originally permitted to 6,982.71'. We have obtained additional leasing for this site and request a modification to extend the lateral to 9,227.14'. Included are the following:

- Revised Plat
- Revised WW-6B Form
- Revised WW-6A1

Should you have any questions or need any additional information, please feel free to contact me by phone or email. Thank you!

Sincerely,

A handwritten signature in blue ink that reads 'Carolinda Flanagan'.

Carolinda Flanagan
Permitting Specialist
1-304-838-2987 mobile
1-724-940-1224 office
cflanagan@arsenalresources.com

Area of Review Report - Coalquest2 Pad, 211 Lateral, Taylor County, WV

Well Name	API Number	Operator Name / Address	Well Type	Latitude	Longitude	Total Depth	Perforated Formation(s)	Producing Zones not Perforated
Coaltrain 7	091-00707	Alliance Petroleum Corp	Vertical/Active	39.294336	-80.106791	4712	Fourth, Riley	NA
Live Plants 2	091-00252	Bonnie Plant Farm	Vertical	39.271312	-80.115413	4654	Fourth, Fifth, Riley	NA
Coaltrain Corp 11	091-00763	Petroleum Development Corp	P&A-1992	39.301522	-80.1102	NA	NA	NA
e Mason 1 (Co Num 6	091-30020	Pittsburgh & WV Gas	Vertical	39.319503	-80.118421	2325	Fifty-Foot, Fifth	NA

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 OFFICE OF OIL AND GAS
 AUG 01 2017

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 mvd

4709101336

WW-6B
(04/15)

API NO. 47-91 - MD

OPERATOR WELL NO. Coalquest 2 211

Well Pad Name: Coalquest 2

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Arsenal Resources 494519412 Taylor Courthouse Grafton
Operator ID County District Quadrangle

2) Operator's Well Number: Coalquest 2 211 Well Pad Name: Coalquest 2

3) Farm Name/Surface Owner: Coalquest Development LLC Public Road Access: Wendell Road CR 36, CR11/1 and CR 11

4) Elevation, current ground: 1265' Elevation, proposed post-construction: 1266'

5) Well Type (a) Gas Oil _____ Underground Storage _____
Other _____

(b) If Gas Shallow Deep _____
Horizontal _____

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6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s): Marcellus Shale, Top 7692', Bottom 7790', 98', 0.5 psi/ft
WV Department of Environmental Protection

8) Proposed Total Vertical Depth: 7,779'

9) Formation at Total Vertical Depth: Marcellus Shale

10) Proposed Total Measured Depth: 17,682'

11) Proposed Horizontal Leg Length: 9,227.14'

12) Approximate Fresh Water Strata Depths: 400'

13) Method to Determine Fresh Water Depths: Offsetting wells reported water depths (091-00707, 091-00708, 091-00740, 091-00761, 091-00763)

14) Approximate Saltwater Depths: 1110'

15) Approximate Coal Seam Depths: Bakerstown - 544', Brush Creek - 645', Upper Freeport - 707', Lower Freeport - 743', Upper Kittanning - 837', Middle Kittanning - 871', Lower Kittanning - 902'

16) Approximate Depth to Possible Void (coal mine, karst, other): None known

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No None known

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

WW-6B
(04/15)

4709101336
API NO. 47- 91 - 01336 *MOD*
OPERATOR WELL NO. Coalquest 2 211
Well Pad Name: Coalquest 2

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	24"	New	H-40	94#	80'	80'	CTS
Fresh Water	13.375"	New	J-55	54.5#	650'	650'	CTS
Coal							
Intermediate	9.625"	New	J-55	40#	1,600'	1,600'	CTS
Production	5.5"	New	P-110	20#	17,682'	17,682'	TOC @ 1,450' MD
Tubing							
Liners							

Richard J. Reynolds 6-14-17

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	24"	36"			0	Type 1, 3% Calcium	1.20
Fresh Water	13.375"	17.5"	0.38"	2,730	0	Class A 3% CaC12	1.20
Coal							
Intermediate	9.625"	12.25"	0.395"	3,950 psi	0	Class A 2% CaC12	1.29
Production	5.5"	8.5-8.75	0.361"	12,640 psi	9,500	Type 1	1.64/1.32
Tubing					5,000		
Liners					N/A		

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PACKERS

Kind:				
Sizes:				
Depths Set:				

WW-6B
(10/14)

OPERATOR WELL NO. Coalquest 2 211

Well Pad Name: Coalquest 2

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

The well will be started with a conductor rig drilling a 36" hole to Conductor programmed depth then running 24" casing and grout cement back to surface. The conductor rig will move out and the drilling rig will move in and rig up. The drilling rig will then spud a 17 1/2" hole and drill to fresh water casing (Surface) to the programmed depth, Run 13- 3/8" casing and cement to surface. The rig will continue drilling a 12- 1/4" intermediate hole to the programmed depth, run 9- 5/8" casing and cement to surface. The rig will then continue to drill a 8- 3/4" hole to a designed Pilot Hole Depth, log the well, and then set a cement kick-off plug from Pilot hole TD to designed kick-off point. Once the plug has cured, the plan is to then start drilling the curve and lateral section to the programmed total measured depth, run 5 1/2" casing and cement according to the program.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

The well will be completed using a plug and perforation method and stimulated with a slickwater and sand slurry. The anticipated maximum rate will be 90 bpm and the maximum pressure will be 9,500 psi.

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21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 3.48

22) Area to be disturbed for well pad only, less access road (acres): 3.48

23) Describe centralizer placement 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 1,400'; there will be no centralizers from 1,400' to surface.

24) Describe all cement additives associated with each cement type:

24" will be grouted from surface. The 13-3/8" casing will be cemented to surface with Class A cement and no greater than 3% CaCl (calcium chloride). The 9-5/8" casing will be cemented to surface with Type 1 cement, & no greater than 3% calcium chloride. The 5-1/2" production string will be cemented back to 1,150' (+/- 200' above the casing shoe for the 9-5/8") with Type 1 or Class A cement retarder (to extend pumpability) cellophane flaked for fluid loss, Bentonite gel as an extender (increased pumpability and fluid loss), a defoaming agent to decrease cement foaming during mixing to insure the cement is of proper weight to placement and possibly a gypsum gas blocking additive to aid in blocking/gas migration (in combination with other additive mentioned here, helps cement achieve a "right-angle" set) during the plastic phase of the cement set-up.

25) Proposed borehole conditioning procedures:

Top holes will be drilled with fresh water to KOP. At KOP, the wellbore will be loaded with synthetic oil based mud, barite-weighted mud system with such properties as to build a filter-cake on the face to the bore-hole. This will provide lubricity as well as stabilizing the well bore. We will begin rotating the drill string and mud will be circulated upon reaching TD until no further cuttings are observed coming across the shaker screens. Once clean mud is circulated back to surface, we will pull three stands of drill pipe, load the hole, pull three stands and load the hole. The weight indicator on the rig will be monitored for any occurrences of drag and if any are notices, we will re-run the previous stand of pipe pulled across and circulate 2X bottoms up while watching the shakers for signs of cuttings. Once at the base of the curve, the string will be continuously rotated while pumping 2X bottoms up. We will pull three stands and fill the hole until we reach the vertical section of the well.

*Note: Attach additional sheets as needed.

WW-6A1
(5/13)

Operator's Well No. Coalquest 2 211

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See Attached				

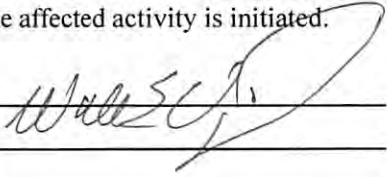
**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Arsenal Resources
 By: William Veigel 
 Its: Designated Agent

JUN 30 2017

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Environmental Protection

Attachment to WW-6A1, CoalQuest 2 - 211HM

Letter Designation/Number Designation on Plat	Grantor, Lessor, Assignor, etc.	Grantee, Lessee, Assignee, etc.	Royalty	Book/Page	Acreage
Tract 1 (Lease 00005004)	Patriot Mining Company, Inc.	PDC Mountaineer, LLC	0.155	62/595	19.1
	PDC Mountaineer, LLC	River Ridge Energy, LLC			
Tract 2 and 3 (Lease 00003426)	Coaltrain Corporation	Petroleum Development Corporation	0.125	42/260 44/134	212
	Petroleum Development Corporation	PDC Mountaineer, LLC		30/698	
	PDC Mountaineer, LLC	River Ridge Energy, LLC			
Tract 4 and 5 (Lease 00003751)	Glenn C. Larew and Jarrell S. Larew, his wife; B. Keith Larew and Susan Larew, his wife; Thomas A. Willis and Pamela Willis, his wife	Petroleum Development Corporation	0.125	46/559 48/231 49/416	192
	Petroleum Development Corporation	PDC Mountaineer, LLC		1440/364	
	PDC Mountaineer, LLC	River Ridge Energy, LLC			
Tract 6 (Lease 00006649)	Harry E. Baker and Nancy B. Baker, his wife, and James E. Baker	PDC Mountaineer, LLC	0.15	65/206	50.27
	PDC Mountaineer, LLC	River Ridge Energy, LLC			
Tract 7 and 8 (Lease 00006650)	Larry A. Towner and Donna S. Towner, his wife	PDC Mountaineer, LLC	0.125	65/210	79.36
	PDC Mountaineer, LLC	River Ridge Energy, LLC			
Tract 9 (Lease 00007808)	Franklin E. Simons and Sylvia M. Simons, husband and wife	Mar Key, LLC	0.15	68/554	19.32
Tract 10 (Lease 00007848)	William T. Jenkins and Rebecca L. Shaw, husband and wife	Mar Key, LLC	0.15	68/552	32
Tract 11 (Lease 00007847)	Jay S. Springer and Mary M. Gerba, husband and wife	Mar Key, LLC	0.15	68/548	19.91

4709101336MD

Agreement to Drill, Complete and Operate Oil & Gas Wells

This Agreement to Drill, Complete and Operate Oil & Gas Wells (this "Agreement"), by and among Mountaineer Keystone LLC, a West Virginia limited liability company ("Mountaineer Keystone"), PDC Mountaineer, LLC, a Delaware limited liability company ("PDC"), and PDC Mountaineer Holdings, LLC, a Delaware limited liability company ("PDC Holdings"), is effective as of October 15, 2014. (the "Effective Date") and sets forth the terms pursuant to which Mountaineer Keystone will drill, complete and operate the Wells (as defined below) on behalf of PDC and PDC Holdings. Mountaineer Keystone, PDC, and PDC Holdings are each a "Party" and are collectively the "Parties". In consideration of the foregoing and the respective agreements hereinafter set forth and the mutual benefits to be derived therefrom, the Parties, intending to be legally bound, hereby agree as follows:

1. **Term:** This Agreement is effective from the Effective Date until terminated by Mountaineer Keystone on the one hand or PDC and PDC Holdings on the other hand with 30 days' written notice to the other Party or Parties, as applicable (the "Term").
2. **Authorization to Operate:** PDC and PDC Holdings authorize Mountaineer Keystone to undertake and perform, on PDC and PDC Holdings behalf, all operations, including without limitation permit applications, well pad preparation, drilling and completing wells, and marketing gas, oil and other hydrocarbons therefrom with respect to all oil and gas wells to be drilled on oil and gas leasehold acreage held by PDC or PDC Holdings. PDC, PDC Holdings and Mountaineer Keystone are affiliates with a common parent. Mountaineer Keystone was formed to operate oil and gas leasehold acreage held by PDC, PDC Holdings and certain other affiliates. Mountaineer Keystone agrees that it shall, in a good and workmanlike manner and in accordance with industry standards as they prevail in the area, drill, complete and operate oil and gas wells on leasehold acreage owned by PDC or PDC Holdings from time to time as directed by PDC or PDC Holdings (collectively, the "Wells").
3. **No Third Party Beneficiary:** This Agreement is for the benefit of the Parties and is not for the benefit of any third party.
4. **Counterparts:** This Agreement may be simultaneously executed in several counterparts and via facsimile or similar electronic transmittal, each of which shall be deemed to be an original and taken together shall constitute one and the same instrument.

[Signature Page Follows]

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JUN 30 2017

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IN WITNESS WHEREOF, Mountaineer Keystone, PDC, and PDC Holdings have caused their duly authorized representatives to execute this Agreement as of the Effective Date.

MOUNTAINEER KEYSTONE LLC

By: [Signature]
Name: Robert Koel
Title: CEO

PDC MOUNTAINEER, LLC

By: [Signature]
Name: Robert Koel
Title: CEO

PDC MOUNTAINEER HOLDINGS, LLC

By: [Signature]
Name: Robert Koel
Title: CEO

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JUN 30 2017

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Agreement to Drill, Complete and Operate Oil & Gas Wells

This Agreement to Drill, Complete and Operate Oil & Gas Wells (this "Agreement"), by and among Arsenal Resources LLC, a West Virginia limited liability company ("Arsenal"), River Ridge Energy, LLC, a Delaware limited liability company ("River Ridge"), and River Ridge Energy, Holdings, LLC, a Delaware limited liability company ("River Ridge Holdings"), is effective as of March 1, 2017. (the "Effective Date") and sets forth the terms pursuant to which Arsenal will drill, complete and operate the Wells (as defined below) on behalf of River Ridge and River Ridge Holdings. Arsenal, River Ridge, and River Ridge Holdings are each a "Party" and are collectively the "Parties". In consideration of the foregoing and the respective agreements hereinafter set forth and the mutual benefits to be derived therefrom, the Parties, intending to be legally bound, hereby agree as follows:

1. **Term:** This Agreement is effective from the Effective Date until terminated by Arsenal on the one hand or River Ridge and River Ridge Holdings on the other hand with 30 days' written notice to the other Party or Parties, as applicable (the "Term").
2. **Authorization to Operate:** River Ridge and River Holdings authorize Arsenal to undertake and perform, on River Ridge and River Ridge Holdings behalf, all operations, including without limitation permit applications, well pad preparation, drilling and completing wells, and marketing gas, oil and other hydrocarbons therefrom with respect to all oil and gas wells to be drilled on oil and gas leasehold acreage held by River Ridge or River Ridge Holdings. River Ridge, River Ridge Holdings and Arsenal are affiliates with a common parent. Arsenal was formed to operate oil and gas leasehold acreage held by River Ridge, River Ridge Holdings and certain other affiliates. Arsenal agrees that it shall, in a good and workmanlike manner and in accordance with industry standards as they prevail in the area, drill, complete and operate oil and gas wells on leasehold acreage owned by River Ridge or River Ridge Holdings from time to time as directed by River Ridge or River Ridge Holdings (collectively, the "Wells").
3. **No Third Party Beneficiary:** This Agreement is for the benefit of the Parties and is not for the benefit of any third party.
4. **Counterparts:** This Agreement may be simultaneously executed in several counterparts and via facsimile or similar electronic transmittal, each of which shall be deemed to be an original and taken together shall constitute one and the same instrument.

[Signature Page Follows]

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JUN 30 2017

WV Department of
Environmental Protection

IN WITNESS WHEREOF, Arsenal, River Ridge, and River Ridge Holdings have caused their duly authorized representatives to execute this Agreement as of the Effective Date.

ARSENAL RESOURCES LLC

By: Joel E. Symonds
Name: Joel E. Symonds
Title: Vice President - Land

RIVER RIDGE ENERGY, LLC

By: Joel E. Symonds
Name: Joel E. Symonds
Title: Vice President - Land

RIVER RIDGE HOLDINGS, LLC

By: Joel E. Symonds
Name: Joel E. Symonds
Title: Vice President - Land

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West Virginia Secretary of State — Online Data Services

Business and Licensing

Online Data Services Help

Business Organization Detail

NOTICE: The West Virginia Secretary of State's Office makes every reasonable effort to ensure the accuracy of information. However, we make no representation or warranty as to the correctness or completeness of the information. If information is missing from this page, it is not in the The West Virginia Secretary of State's database.

MAR KEY LLC

Organization Information								
Org Type	Effective Date	Established Date	Filing Date	Charter	Class	Sec Type	Termination Date	Termination Reason
LLC Limited Liability Company	7/11/2011		7/11/2011	Domestic	Profit			

Organization Information			
Business Purpose	2111 - Mining, Quarrying, Oil & Gas Extraction - Oil and Gas Extraction - Crude Oil and Natural Gas Extraction		Capital Stock
Charter County		Control Number	99Q1F
Charter State	WV	Excess Acres	
At Will Term	A	Member Managed	MBR
At Will Term Years		Par Value	

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WV Department of Environmental Protection

08/04/2017

4709101336AD

Authorized Shares

Addresses	
Type	Address
Designated Office Address	65 PROFESSIONAL PLACE SUITE 200 BRIDGEPORT, WV, 26330
Mailing Address	6031 WALLACE ROAD EXTENSION SUITE 300 WEXFORD, PA, 15090 USA
Notice of Process Address	CORPORATION SERVICE COMPANY 209 WEST WASHINGTON STREET CHARLESTON, WV, 25302
Principal Office Address	6031 WALLACE ROAD EXTENSION SUITE 300 WEXFORD, PA, 15090 USA
Type	Address

Officers	
Type	Name/Address
Member	MOUNTAINEER KEYSTONE ENERGY LLC 6031 WALLACE ROAD EXTENSION SUITE 300 WEXFORD, PA, 15090
Organizer	PAUL M HERZING 560 EPSILON DR. PITTSBURGH, PA, 15238 USA
Type	Name/Address

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Annual Reports
Date filed

08/04/2017

6/20/2016	709101336 MOD
6/30/2015	
4/28/2014	
6/28/2013	
5/8/2012	
Date filed	

For more information, please contact the Secretary of State's Office at 304-558-8000.

Thursday, February 23, 2017 — 9:08 AM

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08/04/2017

THRASHER

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

NOTES ON SURVEY

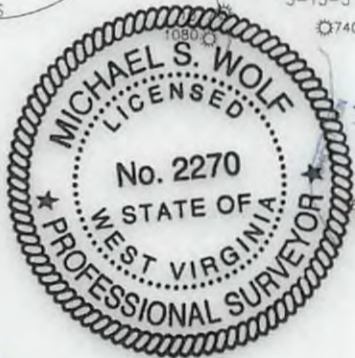
- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT 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.

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	AUVIL	5-13-5
J	AUVIL	5-13-5.3
K	AUVIL	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.	5-8-26
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

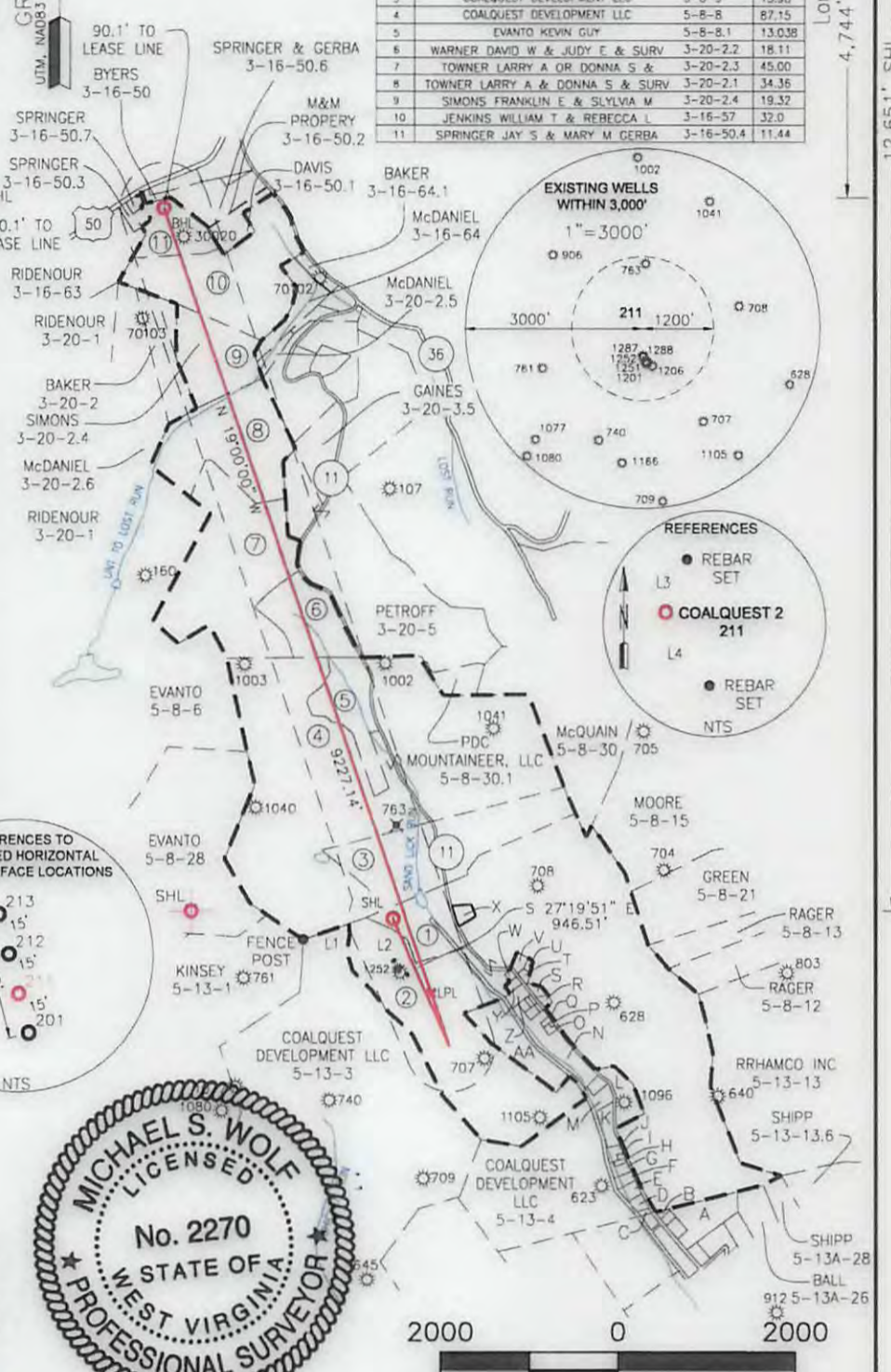
I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S. 2270



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	63.9
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 & SURV	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



GRAPHIC SCALE IN FEET

	(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS	MINIMUM DEGREE OF ACCURACY: 1/200	OPERATOR'S WELL #: 211
	WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034	PROVEN SURVEY SOURCE OF ELEVATION: GRADE GPS (NAVD 88, US FT)	API WELL #: 47 91 01336 STATE COUNTY PERMIT
WELL TYPE: OIL WASTE DISPOSAL PRODUCTION DEEP GAS <input checked="" type="checkbox"/> LIQUID INJECTION STORAGE SHALLOW <input checked="" type="checkbox"/>	WATERSHED: SAND LICK RUN OF SIMPSON CREEK	ELEVATION: 1266.0 (DESIGN)	QUADRANGLE: GRAFTON
DISTRICT: COURTHOUSE COUNTY: TAYLOR	SURFACE OWNER: COALQUEST DEVELOPMENT LLC	ACREAGE: 10.00	ACREAGE: 10.00
OIL & GAS ROYALTY OWNER: PATRIOT MINING, INC.	DRILL <input checked="" type="checkbox"/> DRILL DEEPER REDRILL FRACTURE OR STIMULATE <input checked="" type="checkbox"/> PLUG OFF OLD FORMATION PERFORATE NEW FORMATION	CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)	
TARGET FORMATION: MARCELLUS	ESTIMATED DEPTH: 7,779 TVD 17,682 TMD	DATE: 6-29-2017	
WELL OPERATOR: ARSENAL RESOURCES	DESIGNATED AGENT: WILLIAM VEIGEL	DRAWN BY: K. POTH	
ADDRESS: 6031 WALLACE ROAD EXTENSION #300	ADDRESS: 65 PROFESSIONAL PLACE, SUITE 200	SCALE: 1" = 2000'	
CITY: WEXFORD STATE: PA ZIP CODE: 15090	CITY: BRIDGEPORT STATE: WV ZIP CODE: 26330	DRAWING NO: 030-3042	
LEGEND:	REVISIONS:	WELL LOCATION PLAT	