

west virginia department of environmental protection

Office of Oil and Gas 601 57th Street SE Charleston, WV 25304 (304) 926-0450 (304) 926-0452 fax Earl Ray Tomblin, Governor Randy C. Huffman, Cabinet Secretary www.dep.wv.gov

June 26, 2015

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-10303105, issued to AMERICAN ENERGY-MARCELLUS, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin

Chiaf

Operator's Well No: WILEY S GRN WZ 8H

Farm Name: COASTAL LUMBER COMPANY

API Well Number: 47-10303105

Permit Type: Horizontal 6A Well

Date Issued: 06/26/2015

API Number: <u>103-03105</u>

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

CONDITIONS

- 1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE) and WV DEP Department of Water and Waste Management (DWWM). No activity authorized under this permit shall be commenced until all necessary permits from USACE and DWWM are obtained.
- 2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
- 4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
- 5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
- 6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
- 7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
- 8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.



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Earl Ray Tomblin, Governor Randy C. Huffman, Cabinet Secretary www.dep.wv.gov

ORDER ISSUED UNDER WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A

TO: American Energy Marcellus, LLC 3501 NW 63rd Street Oklahoma City, OK 73116

DATE: June 25, 2015 ORDER NO.: 2015-W-6

INTRODUCTION

This Order (hereinafter "Order") is issued by the Office of Oil and Gas (hereinafter "OOG"), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 et seq. to American Energy Marcellus, LLC. (hereinafter "AEM" or "Operator"), collectively the "Parties."

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

- 1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 et seq., and the rules and regulations promulgated thereunder.
- 2. AEM is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as 3501 NW 63rd Street Oklahoma City, Oklahoma.
- On March 12, 2015, AEM submitted well work permit applications identified as API#s 47-103-03098, 47-103-03099, 47-103-03100, 47-103-03101, 47-103-03102, 47-103-03103, 47-103-03104 and 47-103-03105 located on the Wiley GRN WZ Pad in Green District of Wetzel County, West Virginia.
- 4. On March 12, 2015, AEM requested a waiver for Wetland #1 outlined in Exhibit B, from well location restriction requirements in W. Va. Code §22-6A-12(b) for gas well permit applications identified as 47-103-03098, 47-103-03099, 47-103-03100, 47-103-03101, 47-103-03102, 47-103-03103, 47-103-03104 and 47-103-03105 located on the Wiley GRN WZ Pad in Green District of Wetzel County, West Virginia.

CONCLUSIONS OF LAW

- 1. West Virginia Code §22-1-6(d) requires, in part, that "[i]n addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to...(3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing."
- 2. West Virginia Code §22-6A-2(a)(6) requires, in part, that "Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter."
- 3. West Virginia Code §22-6A-12(b) requires, in part, that "[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the Office of Oil and Gas shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The Office of Oil and Gas may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary."

ORDER

Therefore, the Office of Oil and Gas grants AEM a waiver for Wetland #1 from well location restriction requirements in W. Va. Code §22-6A-12(b) for gas well permit applications identified as API#s 47-103-03098, 47-103-03099, 47-103-03100, 47-103-03101, 47-103-03102, 47-103-03103, 47-103-03104 and 47-103-03105 located on the Wiley GRN WZ Pad in Green District of Wetzel County, West Virginia. The Office of Oil and Gas hereby **ORDERS** that AEM shall meet the following site construction and operational requirements for the Wiley GRN WZ well pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least two feet (2') in height;
- b. Filter/silt socks and erosion control blankets shall be installed on all slopes and down gradient locations of the pad and topsoil pile areas as erosion and sediment controlling BMPs;
- c. Wetland #1 shall have a double compost filter sock stack and super silt fencing installed adjacent to the wetland;
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½") rain within any twenty-four (24) hour period;
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 25th day of June, 2015.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

H. JASON HARMON, DEPUTY CHIEF

API Number	10303105	Well Number	Wiley S GRN WZ 8H
Operator	American Energy Marcellus, LLC	Pad Name	Wiley GRN WZ Well Pad

Submit a conclusive demonstration to justify the proposed activity by addressing the following:

- 1. Demonstrate that there is not a practical alternative to impact the Waters of the U.S. by including other alternatives that were considered but eliminated.
 - a. Include a No-Action Alternative as to show "the future without the project
 - b. Location Alternatives must be shown
 - c. Must demonstrate why a 100' buffer cannot be maintained

a. A No-action alternative would result in the inability to extract any gas from this unit. The only available area for pad construction would be in the proposed location as shown in the attached drawing. Within this unit boundary there are no other viable pad locations, due to steepness of slope and impacts to waters of the U.S. In essence, the land surface and gas below would be unable to be developed in the Unit Boundary as shown.

b. See Exhibit "B" for overview of climination of alternatives.

East and West: Pad was unable to be shifted East or West 100' away of the proposed pad location because of impacts to Waters of the U.S. and steep terrain. North West: Pad was unable to be shifted North West of the proposed pad location without affecting waters of the U.S. because of the steepness of terrain. Refer to Exhibit "A".

South East: Pad was unable to be shifted South East of the proposed location without affecting water of the U.S. because of steepness of terrain. In addition, other areas that are more flat in nature are located on the banks of major watercourses where dwellings are located.

c. Steep terrain and other environmental features prohibit any other location within the area to be utilized Specifically, an odd shaped pad has been utilized to prevent encroachments into the wetlands themselves and encroachment into the 100' buffer of other wetlands.

Wetland #1--> The majority of the well pad proposed above wetland #1 is in cut. This maximizes the distance from the wetland. However, shifting the pad away from the wetland anymore to avoid the 100' setback requirement would make the pad too small for drilling operations and encroach into another wetlands 100' buffer.

2. Show that treatment facilities (Erosion and Sediment Control Features) will be located as close as practical to the source(s) with which it is associated.

Erosion and Sedimentation Controls have been located as practicably possible to earth disturbance. Erosion & Sediment Control and Site Plan display the location of these controls. These controls are unable to be any closer to the proposed well pad as area needed to construct toe benches and fill slopes is already squeezed as tightly as possible for safe construction practices to be met. Exhibits for the wetland show the location of erosion and sediment controls in relation to the associated wetland.

- 3. Demonstrate that all proposed activity will not impact Waters of the U.S. more than is necessary to accommodate the proper construction and operation of the facility.
 - Specify and identify wetlands using unique identification and/or perennial streams located within 100' of the pad's limit of disturbance (including erosion and sediment controls).
 - b. Is the proposed project the least environmentally damaging practicable alternative to the waters of the United States, so long as the alternative does not have other environmental consequences

No proposed activity will impact waters of the U.S.

a. One wetland is located within the 100' of the pad's limit of disturbance.

Wetland #1 is located overtop an existing gasline. It is 14,623 SF in size. Based on it's location and long and slender shape, this wetland appears to have been created as a result of the previous gas line installation. The closest distance to the LOD is 7 feet.

Super Silt Fence and 24" Compost filter sock will be utilized in areas within the 100' buffer for the wetland. Orange fencing will also be installed on the Project boundary to ensure no accidental encroachment happens.

b. Yes, this project avoids being 100' from all perennial streams. In addition, the majority of the pad proposed above Wetland #1 is cut. This maximizes the distance from the wetland. Fill slope heights in this area have been minimized to stay maximum distance away from wetlands.

- 4. Provide mapping, plans, specifications and design analysis for the preferred alternative to the project.
 - Specify in writing what additional controls, measures, devices, monitoring, etc will be utilized to protect these wetlands and/or perennial streams.

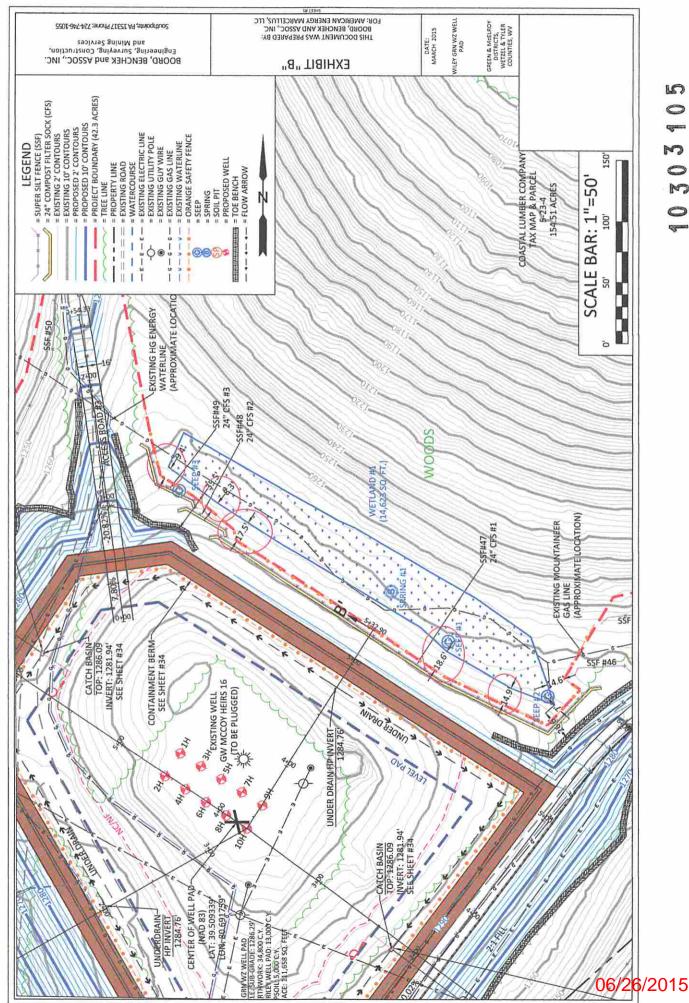
Erosion and Sediment Control and Site Plan has already been provided. Overviews of these impact areas are attached showing E&S Controls.

Wetland

In addition to the Super Silt Fence typically used on sites we have placed 24" compost filter sock in front of the SSF. The majority of the proposed well pad above Wetland #1 is constructed in cut.

A geotechnical inspector will be on-site to ensure the recommended construction techniques are followed. An earthern berm is proposed to be placed on the perimeter of the pad. It is 3.3 feet in height with a top width of 2 feet and 2:1 slopes with a base of 15.2 feet.

This provides for more than adequate containment during and after drilling activites. While the distance from the LOD is only 7 feet in the closest area the distance from the fill slope itself is 35.5 feet in its closest spot.



OPERATOR WELL NO. Wiley I GO W 5H
Well Pad Name: Wiley GRN WZ

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

1) Well Operator: American	Energy-	-Marcellus	4945	10050	Wetzel	Green	Center Point
			Ope	rator ID	County	District	Quadrangle
2) Operator's Well Number: V	/iley S (GRN WZ 8	Н	_ Well Pad	Name: Wiley	GRN WZ	
3) Farm Name/Surface Owner:	Coast	al Lumber	Co.	Public Road	d Access: CR	13. CR 13	/3 and CR 13/8
4) Elevation, current ground:	1315'	Ele	evation	n, proposed p	post-construction	on: 1286.2	29'
5) Well Type (a) Gas X		Oil X		Unde	erground Storag	ge	
Other						1 	
(b)If Gas Sh	allow	X		Deep			
Ho	orizontal	X					
6) Existing Pad: Yes or No No)			_			
 Proposed Target Formation(s) Marcellus, Approximate TVD 			-			Pressure(s):	
8) Proposed Total Vertical Dep	th: 728	33'					
9) Formation at Total Vertical I	Depth:	Marcellus	u .				
10) Proposed Total Measured I	Depth:	16100'				-	10
11) Proposed Horizontal Leg L	ength:	7968'				5	1 -11
12) Approximate Fresh Water S	Strata De	epths:	535'				6/25/15
13) Method to Determine Fresh	Water I	Depths: B	ased	on drilling h	nistory in near	by wells	
14) Approximate Saltwater Dep	oths: 1	315'					
15) Approximate Coal Seam De	epths:	1065'			h		
16) Approximate Depth to Poss	sible Voi	id (coal mir	ne, kar	st, other):	None anticipat	ed	
17) Does Proposed well locatio directly overlying or adjacent to				es	No	X	
(a) If Yes, provide Mine Info:	Name	::					
÷	Depth	1:					
	Seam						
	Owne	er:					

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	20"	New	J-55	94#	100'	100'	330, CTS
Fresh Water	13-3/8"	New	J-55	54.5#	1105'	1105'	320, CTS
Coal							
Intermediate	9-5/8"	New	J-55	40#	3400'	3400'	1650, CTS
Production	5-1/2"	New	P-110	20#	16100'	16100'	4375
Tubing	2-7/8"	New	N-80	4.7#			
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Max. Associated Surface Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	24"	0.438	2110	50	Class A	1.2
Fresh Water	13-3/8"	17-1/2"	0.38	2740	600	Class A	1.2
Coal							
Intermediate	9-5/8"	12-1/4"	0.395	3520	1500	Premium H30-50 Por H	Tail 1.27, Lead 1.51
Production	5-1/2"	8-3/4"	0.361	12640	5000	Premium H/50-50 Poz H	Tail 1.27, Lead 1.51
Tubing	2-7/8"	4.778"	0.19	11100			
Liners							

PACKERS

	PACKERS	GCS 6/25/15
Kind:		
Sizes:		
Depths Set:		

API NO 40-30-3105 OPERATOR WELL NO. Wiley S GRN WZ 8H Well Pad Name: Wiley GRN WZ

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

The well will be spud using a conductor rig. It will drill down 100' per the casing program. It will set 20" casing and circulate cement back to surface. The conductor rig will move off location, a rig capable of drilling to TD will move on and finish drilling the well. We will drill on air with a tri-cone bit to 1105' and set freshwater casing. We will then continue drilling vertically and setting casing per the attached casing program to TD.

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

We plan to hydraulically fracture/stimulate the well utilizing the "slickwater" frac technique. We will plug and perforate through cased hole and frac with an anticipated max pressure that will not exceed 10,000 psi.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 42.3
- 22) Area to be disturbed for well pad only, less access road (acres): 6.8
- 23) Describe centralizer placement for each casing string:

Conductor: N/A

Surface: Centralizer every 3 joints or 120' Intermediate: Centralizer every 3 joints or 120'

Production: Run 1 spiral centralizer every 120' from the first 5.5" long joint to the top of the curve

Run 1 spiral centralizer every 200' from the top of the curve to surface

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

Conductor: Class A Cement (see attachment for complete description)
Surface: Class A Cement (see attachment for complete description)

Intermediate: Premium H/50-50 Poz H Cement (see attachment for complete description) Productions: Premium H/50-50 Poz H Cement (see attachment for complete description)

25) Proposed borehole conditioning procedures:

The wellbore will be properly circulated at TD of each section until as much of the residual drill cuttings have been removed from the wellbore as possible, residual drilling gas has been circulated out and until the mud and wellbore are both constant and stable. Mud properties will be adjusted if needed. Hole cleaning times may vary from well to well, hole section to hole section.

*Note: Attach additional sheets as needed

Cement Additives for WW-6B

Class A - Neat + 2% BWOC Calcium + Chloride + .25% BWOC Flo-Seal Additives are Polyflake LCM

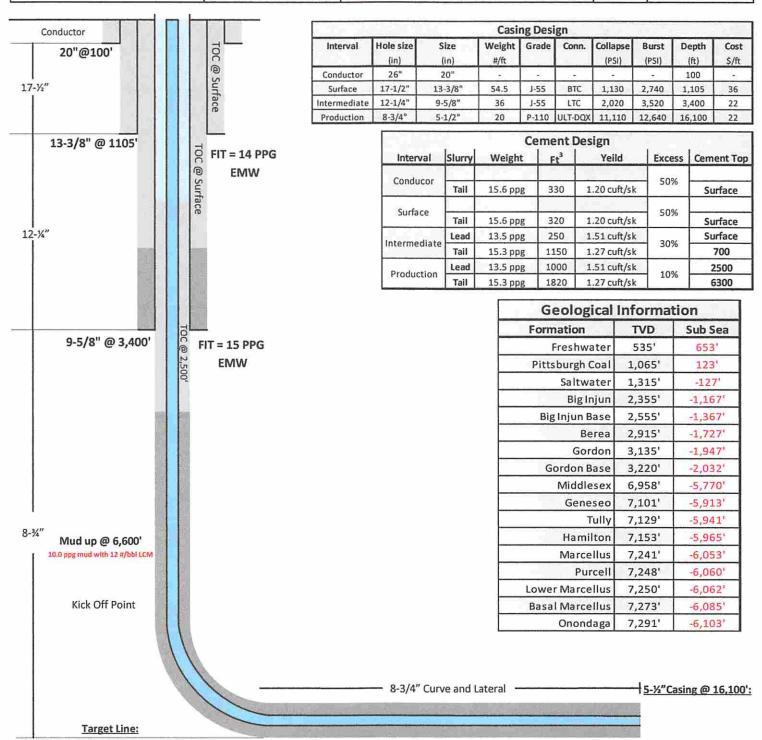
Class H Premium + 0.75% FI 17 + 0.1% C41P + 0.15%C45 +3pps gilsonite + 0.2% C20 Additives are FL-17, C41-P, C-45, Gilsoite, and C-20

50/50 Poz H + 0.5 %FL 17 +5% Gyp + 0.1%C41P + 0.15% C51 + 0.1% C20 Additives are FL-17, Gypsum, C41-P, C-51, and C-20

10 30 3 10 5



Wiley S GRN WZ 8H Formation: Wetzel, West Virginia Grant Marcellus RKB / Elevation: 39.509272 N, 80.691967 W HL Lat/Long: AFE DC/CWC: **NAD 27** USDW: BHL Lat/Long: Property #: 535' Target Line: 7,283' TVD @ 0' VS, 89.5 Inc, 150 Azi AFE #:



7,283' TVD @ 0' VS, 89.5°	inc,	150	AZI
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					Drilli	ng Fluids Infor	mation							
	AIRINT	ERVALS			SYNTHETIC OIL BASED MUD INTERVAL									
Interval	Depth (MD)	Rate (cfpm)	Water (bbl/hr)	Foamer (gal/hr)	Interval	Depth (MD)	Weight (#/gal)	Viscosity (sec/qt)	HTHP (ml/30min)	PV (cps)	YP (#/100 ft ²)	6 RPM	WPS ppm	OWR % by vol
Surface	0'-1105'	>5000	30-50	1/2 -3/4	Vertical	6,600'-6,650'	10.0 - 10.5	50-60	4-6	18-24	10-12	6-9		
Intermediate	1105'-3,400'	>5000	30-50	1/2-3/4	Curve	6,650'-7,950'	10.5 - 13.5	50-60	4-6	18-24	10-12	6-9	150K -	75:25 -
Vert/Nudge	3,400'-6,600'	>5000	40-60	3/4 - 1	Lateral	7,950'-16,100'	13.5 - 13.7	50-60	4-6	18-24	10-12	6.60	/20/2	1043

06/26/2015

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name American Energy - Mar	rcellus, LLC		OP Code 4945100500	
Watershed (HUC 10) Fishing Creek		Quadrangle _C	Center Point	
Elevation 1315'	County_Wetzel		District Green	
Do you anticipate using more than 5, Will a pit be used? Yes	000 bbls of water to comp	lete the proposed we	ll work? Yes	No
If so, please describe anticip	pated pit waste: Closed I	oop system no pits w	vill be used	
Will a synthetic liner be used	d in the pit? Yes	No If so,	, what ml.?	
Proposed Disposal Method I	For Treated Pit Wastes:			
Reuse (at	lication and Injection (UIC Permit API Number_next anticipated isposal (Supply form WW plain_	-9 for disposal locati	on)	nd Landfills)
Will closed loop system be used? If s	o, describe:yes; see attach	ed sheet titled Closed	loop typical description	1
Drilling medium anticipated for this w	vell (vertical and horizonta	l)? Air, freshwater, o	oil based etc. Air Freswater	mist, and Synthope based oil
-If oil based, what type? Sym				
Additives to be used in drilling mediu				
Drill cuttings disposal method? Leave				
-If left in pit and plan to solid			sawdust)	
-Landfill or offsite name/perr				
I certify that I understand and on August 1, 2005, by the Office of Orprovisions of the permit are enforced law or regulation can lead to enforcem I certify under penalty of lar application form and all attachments obtaining the information, I believe to penalties for submitting false information.	ple by law. Violations of the west Virgole by law. Violations of the tection. We that I have personally the thereto and that, based that the information is the tection of	gunia Department of] any term or conditio examined and am fa on my inquiry of the accurate and are	Environmental Protection of the general permi	on. I understand that t and/or other applical nation submitted on t
Company Official (Typed Name) Ame	erican Energy - Marcellus,	LLC		
Company Official Title Regulatory Te				
Subscribed and sworn before me this My commission expires	17TH day of FG	iterry	, 20 1 Notary Public	OLINE ACTUAL OF THE PROPERTY O

UIC WELLS and Landfills

<u>Disposal Location</u>	Туре	Permit No.
Wetzel County Landfill –	Landfill	SWF-1021/WV010985
Short Creek Landfill –	Landfill	SWP-1034/WV0109517
Brooke County –	Landfill	SWF-1013/WV0109029
Kemble -	UIC Well	34-119-2-8780-00-00
Elkhead-	UIC Well	34-157-2-5511-00-00
Kent Injection Well	UIC Well	34-119-2-7350-00-00
Moran Well	UIC Well	34-089-2-4412-00-00

Closed Loop Typical Description

A series of storage tanks that separate liquids and solids along with screen shakers, hydro cyclones, centrifuges and collection equipment (e.g., vacuum trucks, shale barges) may be on site. The wastes created are minimizes and transfer red off-site for disposal.

Drilling Additives

Air mist system additives are commonly; Drilling Foam, Drilling Soap, and occasionally Shale Stabilizer (KCI).

Synthetic Oil Based Additives

The base oil is the main ingredient, and it will run approx. 70% of the fluid volume, water will make up about 25%, the remaining 5% by volume will include a mixture of the following:

ANCO Gel

Cottonseed Hulls	Base Oil	Anco Thunder Plug
D294	Anco Mud Mod	Calcium Carbonate M
Anco Bar	Anco Mul OW	Cedar Fiber
Clayton	Anco Mul P	LCF Blend
Lime	Anco Mul S	Walnut Shell Med
Calcium Chloride	Anco Mul Thin	Anco Drill A
Anco Trol		

Closed Loop Typical Description

A series of storage tanks that separate liquids and solids along with screen shakers, hydro cyclones, centrifuges and collection equipment (e.g., vacuum trucks, shale barges) may be on site. The wastes created are minimizes and transfer red off-site for disposal.

Received
Office of CHR. Gas
MAR 1 2 7015

10 30 3 1 0 5

UIC WELLS and Landfills

Disposal Location	Туре	Permit No.
Wetzel County Landfill –	Landfill	SWF-1021/WV010985
Short Creek Landfill –	Landfill	SWP-1034/WV0109517
Brooke County –	Landfill	SWF-1013/WV0109029
Kemble -	UIC Well	34-119-2-8780-00-00
Elkhead-	UIC Well	34-157-2-5511-00-00
Kent Injection Well	UIC Well	34-119-2-7350-00-00
Moran Well	UIC Well	34-089-2-4412-00-00

MAR 1 2 115

Form WW-9 Operator's Well No. Wiley S GRN WZ 8H American Energy - Marcellus, LLC Proposed Revegetation Treatment: Acres Disturbed 19.02 Prevegetation pH ______ Tons/acre or to correct to pH 6.5 10-20-20 Fertilizer type Fertilizer amount 500 lbs/acre Mulch minimum of 2-3 Tons/acre **Seed Mixtures Temporary** Permanent Seed Type lbs/acre Seed Type lbs/acre See attached See attached Attach: Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided) Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Comments:

01 + 6cs Topects Date: 3-15-15

Field Reviewed?

Temporary and Permanent Seed Mix

250 lbs. /acre

Mix Details

Medium red clover	4%
Alsike clover	4%
Birds foot trefoil	5%
Forage tall fescue	45%
Forage perineal rye	20%
Annual rye	11%
Winter wheat	10%

Straw

Winter – 3 ton per acre

Summer - 2 ton per acre

Office " MAR 12

Wiley N GRN WZ 1H, 3H, 5H &7H

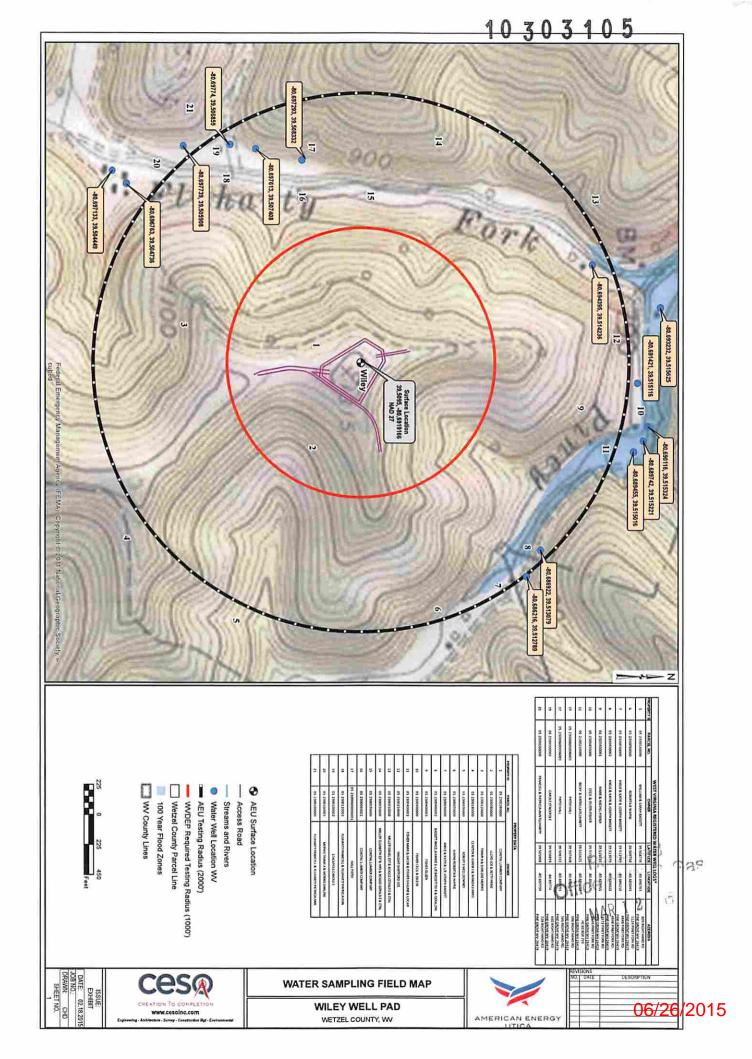
Wiley S GRN WZ 2H, 4H, 6H & 8H Site Safety Plan

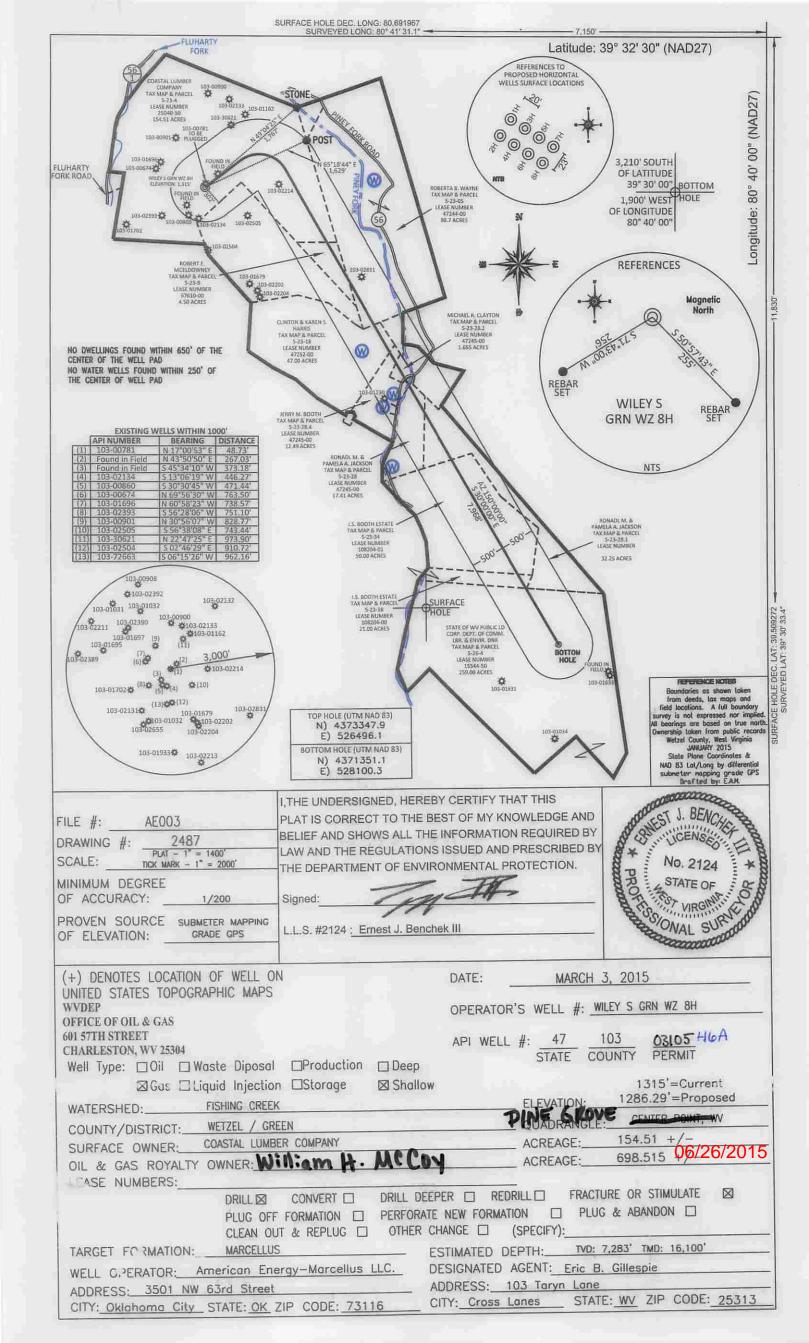


AMERICAN ENERGY MARCELLUS

DMH 3-19-15







WW-6A1 (5/13)

Operator's Well No.	Wiley S GRN WZ 8H

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

Please 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

Received
Office of Oil & Gas

MAR 1 2 2015

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:	American Energy - Marcellus, LLC
By:	Attl 3
Its:	Regulatory Technician

Page 1 of 3

10303105

WW-6A1

Operator's Well No.

Wiley S GRN WZ 8H

INFORMATION SUPPLED 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 I of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Application, (1) the tract of land is the same tract described in this Application, partly or wholly depcited 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:

American Energy - Marcellus, LLC is the record title owner of the leases identified herein. Listed below each lease is the applicable chain of title by which American Energy - Marcellus, LLC was vested with title thereto.

	- recitease	ases, we've directed your attention to the records of the West V Lossor/Assignor	Lessee/Assignee	Royalty/Instrument	Book/Page
1	25040-50	John R. McCoy etal	J.F. Guffey	1/8	48/445
		J.F. Guffey	W.M. Graham	Assignment	56/286
		W.M. Graham	W.H. Nimick	Assignment	56/288
		W.H.Nimick	South Penn Oil Company	Assignment	49/268
		South Penn Oil Company	South Penn Natural Gas Company	Assignment	33A/455
		South Penn Natural Gas Company	South Penn Oil Company	Assignment	215/478
		South Penn Oil Company	Pennzoil Company	Cert of Name Change	WV Sec. of State reco
		Pennzoil Company	Pennzoll United, Inc.	Assignment	246/491
		Pennzoil United, Inc.	Pennzoil Company	Cert. of Name Change	WV Sec. of State reco
		Pennzoli Company	Pennzoil Products Company	Assn. & Supp. Assn.	319/397 & 322/577
		Pennzoil Products Company	Pennzol Exploration and Production Company	Assignment	363/384
		Pennzoil Exploration and Production Company	PennzEnergy Exploration and Production, L.L.C.	Cert. of Morger	12/177
		PennzEnergy Exploration and Production, L.L.C.	Devon Energy Production Company, L.P.	Cert. of Merger	12/278
		Devon Energy Production Company, L.P.	East Resources, Inc.	Assignment	370/580
		East Resources, Inc.	HG Energy, LLC	Assignment	118A/253
		East Resources, Inc. and HG Energy, LLC	American Energy - Marcellus, LLC	Assignment	153A/238
2	67610-00	Robert E. McEldowney	Pennzoll Company	1/8	67A/574
		Pennzoil Company	Pennzoil Products Company	Assn. & Supp. Assn.	319/397 & 322/57
		Pennzoil Products Company	Pennzoil Exploration and Production Company	Assignment	363/384
		Pennzoil Exploration and Production Company	PennzEnergy Exploration and Production, L.L.C.	Cert of Merger	12/177
		PennzEnergy Exploration and Production, L.L.C.	Devon Energy Production Company, L.P.	Cert, of Merger	12/278
		Devon Energy Production Company, L.P.	East Resources, Inc.	Assignment	370/580
		East Resources, Inc.	HG Energy, LLC	Assignment	118A/253
		East Resources, Inc. and HG Energy, LLC	American Energy - Marcellus, LLC	Assignment	153A/238
3					
	47244-00	Ella F. Neal etvir	C.E. Beck	1/8	58A/127
		C.E. Beck	Pennzoil Company	Assignment	58A/229
		Pennzoil Company	Pennzoil Products Company	Assn. & Supp. Assn.	319/397 & 322/57
		Pennzoil Products Company	Pennzoil Exploration and Production Company	Assignment	363/384
		Pennzoil Exploration and Production Company	PennzEnergy Exploration and Production, L.L.C.	Cert, of Merger	12/177
		PennzEnergy Exploration and Production, L.L.C.	Devon Energy Production Company, L.P.	Cert. of Merger	12/278
		Devon Energy Production Company, L.P.	East Resources, Inc.	Assignment	370/580
		East Resources, Inc.	HG Energy, LLC	Assignment	118A/253
		East Resources, Inc. and HG Energy, LLC	American Energy - Marcellus, LLC	Assignment	153A/238
4	47252-00	George H. Stonestreet etux	C.E. Beck	1/8	58/A 177
		C.E. Beck	Pennzoil Company	Assignment	58A/229
		Pennzoil Company	Pennzoil Products Company	Assn. & Supp. Assn.	319/397 & 322/57
		Pennzoit Products Company	Pennzoli Exploration and Production Company	Assignment	363/384
		Pennzoil Exploration and Production Company	PennzEnergy Exploration and Production, L.L.C.	Cert. of Merger	12/177
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		East Resources, Inc. and HG Energy, LLC	American Energy - Marcellus, LLC	Assignment	153A/238
5					
5	47245-00	A. Carlos Booth	C.E. Beck	1/8	58A/119
5		C.E. Beck	Pennzoil Company	Assignment	58A/229
		Pennzoii Company	Pennzoil Products Company	Assn. & Supp. Assn.	319/397 & 322/57
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		Devon Energy Production Company, L.P.	East Resources, Inc.	Assignment	370/580
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6	47245-00	A. Carlos Booth	C.E. Beck	1/8	58A/119
6	47245-00	C.E. Beck	Pennzoil Company	Assignment	58A/229
6	47245-00	C.E. Beck Pennzoil Company	Pennzoil Company Pennzoil Products Company	Assignment Assn. & Supp. Assn.	58A/229 319/397 & 322/57
6	47245-00	C.E. Beck Pennzoil Company Pennzoil Products Company	Pennzoil Company Pennzoil Products Company Pennzoil Exploration and Production Company	Assignment Assn. & Supp. Assn. Assignment	58A/229 319/397 & 322/57 363/384
6	47245-00	C.E. Beck Pentzoil Company Pentzoil Products Company Pentzoil Exploration and Production Company	Pennzoil Company Pennzoil Products Company Pennzoil Exploration and Production Company Pennzoil Exploration and Production, L.L.C.	Assignment Assn. & Supp. Assn. Assignment Cert. of Merger	58A/229 319/397 & 322/57 363/384 12/177
6	47245-00	C.E. Beck Pennzoil Company Pennzoil Products Company Pennzoil Exploration and Production Company Pennzenergy Exploration and Production, L.L.C.	Pennzoil Company Pennzoil Products Company Pennzoil Exploration and Production Company PennzEnergy Exploration and Production, L.L.C. Devon Energy Production Company, L.P.	Assignment Assn. & Supp. Assn. Assignment Cert. of Merger Cert. of Merger	58A/229 319/397 & 322/57 363/384 12/177 12/278
6	47245-00	C.E. Beck Pennzoil Company Pennzoil Products Company Pennzoil Exploration and Production Company PennzEnergy Exploration and Production, L.L.C. Devon Energy Production Company, L.P.	Pennzoil Company Pennzoil Products Company Pennzoil Exploration and Production Company PennzEnergy Exploration and Production, L.L.C. Devon Energy Production Company, L.P. East Resources, Inc.	Assignment Assn, & Supp. Assn, Assignment Cert. of Merger Cert. of Merger Assignment	58A/229 319/397 & 322/57 363/384 12/177 12/278 370/580
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6	47245-00	C.E. Beck Pennzoil Company Pennzoil Products Company Pennzoil Exploration and Production Company PennzEnergy Exploration and Production, L.L.C. Devon Energy Production Company, L.P.	Pennzoil Company Pennzoil Products Company Pennzoil Exploration and Production Company PennzEnergy Exploration and Production, L.L.C. Devon Energy Production Company, L.P. East Resources, Inc.	Assignment Assn, & Supp. Assn, Assignment Cert. of Merger Cert. of Merger Assignment	58A/229 319/397 & 322/57 363/384 12/177 12/278 370/580
7		C.E. Beck Pennzoil Company Pennzoil Products Company Pennzoil Exploration and Production Company Pennzenergy Exploration and Production, L.L.C. Devon Energy Production Company, L.P. East Resources, Inc. East Resources, Inc.	Pennzoil Company Pennzoil Products Company Pennzoil Exploration and Production Company PennzEnergy Exploration and Production, L.L.C. Devon Energy Production Company, L.P. East Resources, Inc. HG Energy, LLC American Energy - Marcellus, LLC	Assignment Assn. & Supp, Assn. Assignment Cert. of Merger Cort. of Merger Assignment Assignment Assignment	58A/229 319/397 & 322/57 363/384 12/177 12/278 370/580 118A/253 153A/238
	47245-00 47245-00	C.E. Beck Pennzoil Company Pennzoil Products Company Pennzoil Exploration and Production Company PennzEnergy Exploration and Production, L.L.C. Devon Energy Production Company, L.P. East Resources, Inc. East Resources, Inc. A. Carlos Booth	Pennzoil Company Pennzoil Products Company Pennzoil Exploration and Production Company Pennzenergy Exploration and Production, L.L.C. Devon Energy Production Company, L.P. East Resources, Inc. HG Energy, LLC American Energy - Marcellus, LLC C.E. Beck	Assignment Assn. & Supp. Assn. Assignment Cert. of Merger Cert. of Merger Assignment Assignment Assignment Assignment	58A/229 319/397 & 322/57 363/384 12/177 12/276 370/580 118A/253 153A/238
		C.E. Beck Pentzoil Company Pentzoil Products Company Pentzoil Exploration and Production Company Pentzoil Exploration and Production, L.L.C. Devon Energy Production Company, L.P. East Resources, Inc. East Resources, Inc. A. Carlos Booth C.E. Beck	Pennzoil Company Pennzoil Products Company Pennzoil Exploration and Production Company Pennzoil Exploration and Production Company PennzEnergy Exploration and Production, L.L.C. Devon Energy Production Company, L.P. East Resources, Inc. HG Energy, LLC American Energy - Marcellus, LLC C.E. Beck Pennzoil Company	Assignment Assn. & Supp. Assn. Assignment Cert. of Merger Cort. of Merger Assignment Assignment Assignment Assignment Assignment	58A/229 319/397 & 322/57 363/384 12/177 12/278 370/580 118A/253 153A/238 58A/119 58A/229
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10 30 3 10 5

	1 1	East Resources, Inc and HG Energy, Inc	American Energy - Marcellus, LLC	Assignment	153A/238
9	108204-00	Jerry M. Booth	HG Energy	1/8	136A/882
		East Resources, Inc and HG Energy, Inc	American Energy - Marcellus, LLC	Assignment	153A/238
10	15544-50	Goo, V. and Josphine M. Reilly	South Penn Oil Company	1/8	47/34
	1	South Ponn Oil Company	South Penn Natural Gas Company	Assignment	33A/455
	1	South Penn Natural Gas Company	South Ponn Oil Company	Assignment	215/478
	+	South Penn Oil Company	Pennzoil Company		
	+			Cert. of Name Change	WV Sec. of State record
	+	Pennzoil Company	Pennzoil United, Inc.	Assignment	246/491
		Pennzeil United, Inc.	Portnzoil Company	Cert. of Name Change	WV Soc. of State record
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	1	Pennzoil Products Company	Pennzoil Exploration and Production Company	Assignment	363/384
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		PennzEnergy Exploration and Production, L.L.C.	Devon Energy Production Company, L.P.	Cort. of Merger	12/278
		Devon Energy Production Company, L.P.	East Resources, Inc.	Assignment	370/580
		East Resources, Inc.	HG Energy, LLC	Assignment	118A/253
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11	47245-00	A. Carlos Booth	C.E. Beck	1/8	58A/119
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		Devon Energy Production Company, L.P.	East Resources, Inc.	Assignment	370/580
	<u></u>	East Resources, Inc.	HG Energy, LLC	Assignment	118A/253
		East Resources, Inc. and HG Energy, LLC	American Energy - Marcellus, LLC	Assignment	153A/238



February 13, 2015

West Virginia Department of Environmental Protect Chief, Office of Oil & Gas Attn: Mr. James Martin 601 57th Street Charleston, West Virginia 25304

Re: Application for a Permit to Drill Wiley S GRN WZ 8H

Dear Mr. Martin,

American Energy - Marcellus, LLC has the right to drill, extract and produce the minerals from any roads crossed by the proposed laterals for the Wiley S GRN WZ 8H well by virtue of the lease identified on page WW-6A1 of the accompanying permit application.

No action on your part is required. If you have any questions or concerns, please feel free to contact me.

Best Regards,

Ariel Bravo

Regulatory Technician ariel.bravo@aep-lp.com

Cell 405-403-4803 Office 405-607-5529

> Received Office of Oil & Gas MAR 1 2 2015

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE CERTIFICATION

Date of Notic	e Certification: 02/18/2015	Α	PI No. 47	1030	3 1 0 5
	-	o	perator's	Well No. Wiley	S GRN WZ 8H
		V	Vell Pad N	ame: Wiley GF	RN WZ
Notice has l					
	e provisions in West Virginia Code §	22-6A, the Operator has provide	ded the req	uired parties w	ith the Notice Forms listed
	tract of land as follows:				
State:	West Virginia		Easting:	526496.1	
County:	Wetzel		Northing:	4373347.9	
District:	Green	Public Road Access		CR 13 CR 13/3 at	nd CR 13/8
Quadrangle:	Center Point	Generally used farr	n name:		
Watershed:	Fishing Creek				
information re of giving the requirements Virginia Code	ed the owners of the surface describe equired by subsections (b) and (c), se surface owner notice of entry to su of subsection (b), section sixteen of e § 22-6A-11(b), the applicant shall to have been completed by the applicant	ction sixteen of this article; (ii) rvey pursuant to subsection (a) f this article were waived in wender proof of and certify to the	that the reconstruction to riting by t	uirement was en of this artic he surface ow	deemed satisfied as a result cle six-a; or (iii) the notice yner; and Pursuant to West
that the Ope	West Virginia Code § 22-6A, the Oprator has properly served the require ECK ALL THAT APPLY		s Notice Ce	ertification	OOG OFFICE USE ONLY
☐ 1. NO	TICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRE SEISMIC ACTIVITY WAS			☐ RECEIVED/ NOT REQUIRED
■ 2. NO	ΓΙCE OF ENTRY FOR PLAT SURV	EY or NO PLAT SURVEY	Y WAS CC	NDUCTED	☐ RECEIVED
☐ 3. NO	TICE OF INTENT TO DRILL or	NOTICE NOT REQUIRE NOTICE OF ENTRY FOR PLUAS CONDUCTED or			☐ RECEIVED/ NOT REQUIRED
		WRITTEN WAIVER BY (PLEASE ATTACH)	Y SURFAC	CE OWNER	
■ 4. NO	ΓΙCE OF PLANNED OPERATION				☐ RECEIVED
■ 5. PUE	BLIC NOTICE				☐ RECEIVED
■ 6. NO	TICE OF APPLICATION				☐ RECEIVED

Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, as the return receipt card or other postal receipt for certified mailing.

WW-6AC (1/12)

Certification	of Notice is	hereby	given:
Cultification	or monice is	HCI CDV	MIVCH.

10303105

THEREFORE, I Ariel Bravo , have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator:	American Energy - Marcellus, LLC	Address:	301 NW 63rd, Suite 600	
By:	Ariel Bravo		Oklahoma City, OK 73116	
Its:	Regulatory Technician	Facsimile:	405-607-5868	
Telephone:	405-607-5529	Email:	ariel.bravo@aep-lp.com	

NOTARY SEAL

NOTARY SEAL

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10 OBLIC OF OKLANIA

Subscribed and	sworn before n	ne this 18	day of	February
	A STATE OF THE PARTY OF THE PAR			

Notary Public

My Commission Expires 01/23/2018

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Received
Office of Oil & Gas
MAR 1 2 2015

WW-6A (9-13) 10 30 3 10 5

API NO. 47-___OPERATOR WELL NO. Wiley S GRN WZ 8H
Well Pad Name: Wiley GRN WZ

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION

Noti	ice Time Requirement: notice shall be provided no later the	an the filing date of permit application. $$ $$ $$ $$ $$ $$ $$ $$ $$ $$
	e of Notice: <u>2/17/2015</u> Date Permit Application Filed: <u>3/2</u> ice of:	/2015
V		
Deli	very method pursuant to West Virginia Code § 22-6A-1	0(b)
regis sedin the so oil a description of the so oper more well important proving proposubs record proving Code code code code code code code code c	stered mail or by any method of delivery that requires a receipt ment control plan required by section seven of this article, and surface of the tract on which the well is or is proposed to be located as leasehold being developed by the proposed well work, ribed in the erosion and sediment control plan submitted pursuator or lessee, in the event the tract of land on which the well percoal seams; (4) The owners of record of the surface tract or to work, if the surface tract is to be used for the placement, consoundment or pit as described in section nine of this article; (5) as a water well, spring or water supply source located within one ide water for consumption by humans or domestic animals; and sosed well work activity is to take place. (c)(1) If more than threetion (b) of this section hold interests in the lands, the applicated of the sheriff required to be maintained pursuant to section ision of this article to the contrary, notice to a lien holder is not e. R. § 35-8-5.7.a requires, in part, that the operator shall also	or signature confirmation, copies of the application, the erosion and the well plat to each of the following persons: (1) The owners of record of cated; (2) The owners of record of the surface tract or tracts overlying the if the surface tract is to be used for roads or other land disturbance as ant to subsection (c), section seven of this article; (3) The coal owner, proposed to be drilled is located [sic] is known to be underlain by one or racts overlying the oil and gas leasehold being developed by the proposed truction, enlargement, alteration, repair, removal or abandonment of any Any surface owner or water purveyor who is known to the applicant to be thousand five hundred feet of the center of the well pad which is used to ad (6) The operator of any natural gas storage field within which the rece tenants in common or other co-owners of interests described in ant may serve the documents required upon the person described in the reight, article one, chapter eleven-a of this code. (2) Notwithstanding any of notice to a landowner, unless the lien holder is the landowner. W. Va. provide the Well Site Safety Plan ("WSSP") to the surface owner and any
	••	• •
	JRFACE OWNER(s)	
	ress:	Address:
Nan	ne:	ZI COAL OPERATOR
Add	ress:	Name: Consol Energy
	EMIT FOR ANY CONSTRUCTION OF AN IMPOUNDMENT OR PIT method pursuant to West Virginia Code § 22-6A-10(b) ESONAL REGISTERED METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION o. W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, he erosion and control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of e of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the sl casehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as in the crosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, we lessee, in the event the tract of land on which the well proposed to be defined is located (igic) is known to dendrain by one or seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or admonment of any ment or pit as described in section nine of this article; (3) Any surface owner or water purveyor who is known to the applicant to ter well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to atter for consumption by humans or domestic animals, and (6) The operator of any natural gas storage field within which the well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in the well work activity is to	
_	, , ,	
Add	ress:	AND/OR WATER PURVEYOR(s)
Non	201	
Add	ress:	
	JRFACE OWNER(s) (Impoundments or Pits)	OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Nan	ne:	Address: MAR 1 2 2015
Add	ress:	*Please attach additional forms if necessary
		T lease attach additional forms if necessary

WW-6A (8-13) API NO. 47-OPERATOR WELL NO. Wiley S GRN WZ 8H Well Pad Name: Wiley GRN WZ

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waive registrated shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 444 Spermit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

WW-6A (8-13) API NO. 47- O 3 0 3 1 0 5
OPERATOR WELL NO. Wiley S GRN WZ 8H
Well Pad Name: Wiley GRN WZ

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Received
Office of CH 2 Gas
MAR 1 2 2015

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WW-6A (8-13) API NO 40 30-3105 OPERATOR WELL NO. Wiley S GRN WZ 8H

Well Pad Name: Wiley GRN WZ

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have THIRTY (30) DAYS after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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WW-6A (8-13)

API NO. 47 OF TO STILL OF STATE OF STAT

Well Pad Name: Wiley GRN WZ

Notice is hereby given by:

Well Operator: American Energy - Marcellus, LLC

Telephone: 405-607-5529

Email: ariel.bravo@aep-lp.com

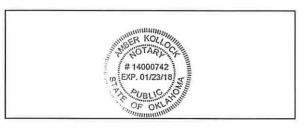
Address: 301 NW 63RD, Suite 600

Oklahoma City, OK 73116

Facsimile: 405-607-5868

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

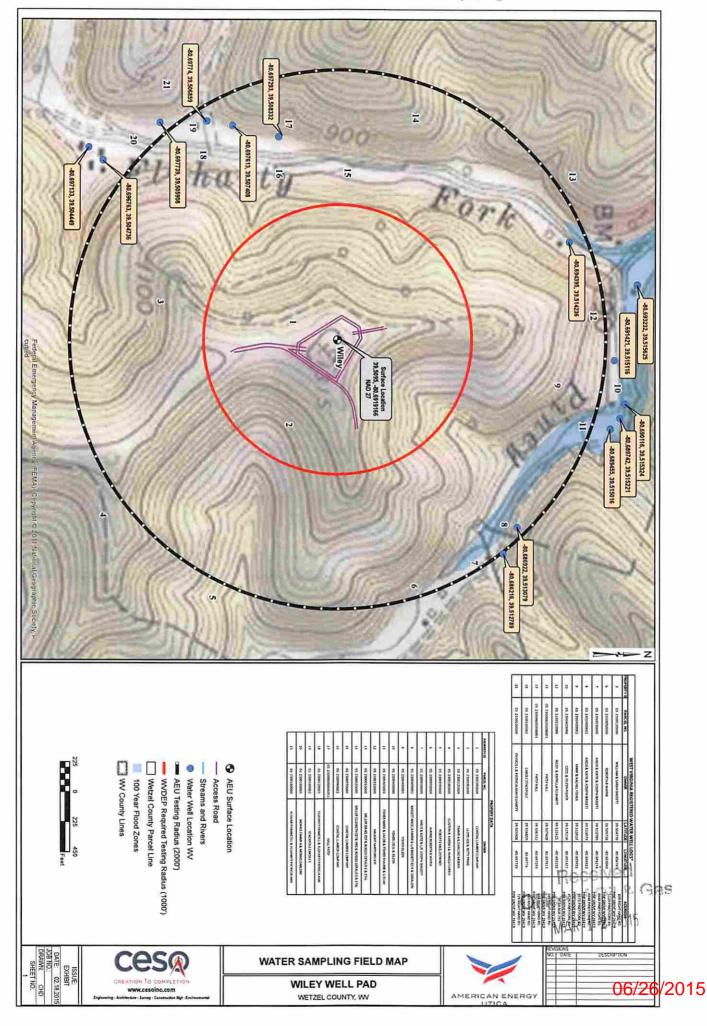


Subscribed and sworn before me this 17 day of February, 2015

Notary Public

My Commission Expires 01/23/18

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Office of Oil & Gas
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1000		1900 Kanawha Bivd. East, Bidg 6, Rm 525	WV Dept. of Natural Resources Commerce Division	WV Dept. of Natural Ru
₹	Charleston	1900 Kanawha Blvd. East, Bldg 3, Rm 643	Public	
		-	WV State of Commerce Bureau of Natural Resources Div.	WV State of Commerc
ΛM	Vienna	PO Box 5519	Penzoil Product Co.	Pe
٧V	Weirton	23/3 Gardner Ave	J.S. Booth Estate	٠
٧V	Wellsburg	PO Box 508	Isreal Miller Estate	S
웃	Oklahoma City	P.O. Box 18756	American Energy - Marcellus, LLC	American
۸W		PO Box 508	Elizabeth Miller Estate	Eliz
۸M	Buck horn -hannen	P.O. Box 709	Coastal Lumber Company	Coast
۸W	Verdunville	3406 Mud Fork Rd	Williamson	Debra & Doug
۸W	Pine Grove	HC 60 Box 315	Wayne	Robert B.
ΛM	Nitro	300 Kanawha Ave	Prine	Lloyd J. & Betty
۸W	Reader	HC 60 Box 294	Morris	Timmy A. & Darlene
۸M	Reader	PO Box 405	Morison	Bradley Cole
۸W	Charleston	1560 Hampton Road	McEldowney	Robert
۸V	Reader	PO Box 107	Jackson	Ronald & Pamela
\	Pine Grove	4076 Piney Fork Road	Ice	Patrick
₹	Reader	HC 60 Box 295	Haught	Stantford
۸W	Reader	PO Box 374	Harris	Clinton & Karen S.
٧٧	Pine Grove	4526 Piney Fork Road	Fisher	Cecil & Elieen
₹	9	HC 60 Box 330	Clayton	Michael R.
₹		125 Hiddenwood Acres	Booth	Jerry Martin
₹	Jacksonburg	HC 79 Box 55	Bassett	William B. & Sarah E.
PA	Latrobe	131 Charles Houck Rd	Adamerovich	Theodore J. & Paula
State	City	Address	Last	First
		Wiley S GRN WZ 2H, 4H, 6H & 8H		
		Wiley N GRN WZ 1H, 3H, 5H & 7H		

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Consol Energy Road N	Wiley S GRN WZ 2H, 4H, 6H & 8H	Wiley N GRN WZ 1H, 3H, 5H & 7H	Coal Operator	William J. McCoy 5907 Willow Creek Way	McCoy 1095 Central Drive	Flo McCoy PO Box 462 S	William McCoy 200 Catherine Street S	Stephen McCoy 215 West Normal St. #102	Dale McCoy 1430 Mariners Dr.	Gary Steven McCoy PO Box 669	Betty Ann Glen Eversman 112 Rebel Run Road C	Karen Lynn Eversman 2041 W. Reserve Circle	Heirs or Devisees of Guy H. McCoy C/O Susan Toth 205 Holly Dirve S	Last Address	Wiley S GRN WZ 2H, 4H, 6H & 8H	Wiley N GRN WZ 1H, 3H, 5H & 7H	
6126 Energy Road Moundsville	GRN WZ 2H, 4H, 6H & 8H	GRN WZ 1H, 3H, 5H & 7H	Coal Operator	5907 Willow Creek Way Richmond	1095 Central Drive Southern Pines	PO Box 462 Southern Pines	200 Catherine Street Sistersville	215 West Normal St. #102 Houston	1430 Mariners Dr. Newport Beach	PO Box 669 Glendora	112 Rebel Run Road Crossville	2041 W. Reserve Circle Avon	205 Holly Dirve Southport	Address City	GRN WZ 2H, 4H, 6H & 8H	I GRN WZ 1H, 3H, 5H & 7H	Coai Owlicia
WV				VA	NC	NC	WV	XΤ	CA	CA	TN	НО	NC	State			
26041				23225	28387	28388	26175	77009	93660	91740	38558	44011	28461	Zip			

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Devices Associated the Solis of Island

260 90	VW	Wellsburg	PO Box 508	Isreal Miller Estate
26070	٧V	Wellsburg	PO Box 508	Elizabeth Miller Estate
26201	٧V	Buckhorn hannon	P.O. Box 709	Coastal Lumber Company
26419	٧V	Pine Grove	5124 Piney Fork Road	Robert B. Wayne
26419	WV	Pine Grove	660 Right Hand Road	Carole
25143	wv	Nitro	300 Kanawha Ave	Lloyd J. & Betty Prine
26167	٧V	Reader	HC 60 Box 294	Timmy A. & Darlene Morris
25314	٧V	Charleston	1560 Hampton Road	Robert
26167	٧V	Reader	PO Box 374	Clinton & Karen S. Harris
26419	٧V	Pine Grove	586 Right Hand Road	Patsy Hall
26419	٧V	Pine Grove	HC 60 Box 293	Rick & Kathrilla Fluharty
26419	٧٧	Pine Grove	HC 60 Box 286	Francis & Patricia Fluharty
26167	٧V	Reader	HC 60 Box 301	Mark & Jacob & Shaune & Logan Fisher
26419	٧V	Pine Grove	4572 Piney Fork Road	Cecil & Eileen Fisher
26419	W۷	Pine Grove	809 Right Hand Road	William B. & Sarah E. Bassett
26419	WV	Pine Grove	4848 Piney Fork Road	Angie, Katie & Joseph Bassett
Zip	State	City	Address	First Last
			Wiley S GRN WZ 2H, 4H, 6H & 8H	
			Wiley N GRN WZ 1H, 3H, 5H & 7H	
			Water Owners	

10303105

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

entry	Requirement: Notice shall be proved: 2/17/2015 Date of Pla	nned Entry: 2/25/2015	ys but no more than	i FORTY-FIVE (4	5) days prior to
	nod pursuant to West Virginia C	ode § 22-6A-10a			
☐ PERSON SERVICE		METHOD OF DEL RECEIPT OR SIGN			
on to the surfactor to the such the beneath such the owner of mine and Sediment (Secretary, while enable the surface)	est Virginia Code § 22-6A-10(a), ce tract to conduct any plat survey an forty-five days prior to such er ract that has filed a declaration purals underlying such tract in the control Manual and the statutes as ch statement shall include contact face owner to obtain copies from the control of the contact face owner to obtain copies from the contact of the contact o	is required pursuant to this an atry to: (1) The surface owner rsuant to section thirty-six, a punty tax records. The notice and rules related to oil and gas information, including the a	ticle. Such notice s r of such tract; (2) t rticle six, chapter to e shall include a sta s exploration and pr	chall be provided at to any owner or less wenty-two of this contement that copies of reduction may be of	least seven days ee of coal seams ode; and (3) any of the state Erosion otained from the
	by provided to:	■ 20.43		CORR	
	E OWNER(s)		LOWNER OR LE		
Name: Please se		_ Name: Ple	ase see attached.		-
		Address:			_
Name:		_			
Address:		_ • Mini	ERAL OWNER(s)		
		Name: Ple	ase see attached.		_
Name:		_ Address:			_
Address:			1 112 10 20	<u> </u>	_
		*please attac	h additional forms if neo	cessary	
	est Virginia Code § 22-6A-10(a), on the tract of land as follows: West Virginia Wetzel Green	Approx. Latit Public Road A Watershed:	ude & Longitude:	operator is plannin N 4373347.9/E 526496.1 CR 13. CR 13/3 and CR Fishing Creek	
may be obtaine Charleston, W obtained from Notice is her	state Erosion and Sediment Control ed from the Secretary, at the WV V 25304 (304-926-0450). Copie the Secretary by visiting www.de Teby given by: American Energy - Marcellus, LLC 405-607-5529	Department of Environmenta s of such documents or addit p.wv.gov/oil-and-gas/pages/	ll Protection headquional information re default.aspx.	uarters, located at 60 elated to horizontal	01 57 th Street, SE, drilling may be
Email:	ariel.bravo@aep-lp.com	Facsimile:	405-607-5868		360 M 8. 130
Oil and Gas	American Energy - Marcellus, LLC 405-607-5529 ariel.bravo@aep-lp.com Privacy Notice: Oil and Gas processes your persoi	nal information such as nam	e address and teler	Office	AND our regulatory

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact

DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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	diz	15650	26377	26070	26419	26419	26167	26167	26419	26155	25314	26155	26167	25143	26419	25649	26201	26070	73154	26030	26062	26105		25303	25303
	State	PA	%	≩			W\	\M\	%		<u></u>	%	M			/M	W	^	š		/M	W		^	\ \
	City	Latrobe	Jacksonburg	Wellsburg	Pine Grove	Pine Grove	Reader	Reader	Pine Grove	Reader	Charleston	Reader	Reader	Nitro	Pine Grove	Verdunville	Buckhom hannon	Wellsburg	Oklahoma City	Wellsburg	Weirton	Vienna		Charleston	Charleston
Wiley N GRN WZ 1H, 3H, 5H & 7H Wiley S GRN W7 2H AH & 8H	Address	131 Charles Houck Rd	HC 79 Box 55	125 Hiddenwood Acres	HC 60 Box 330	4526 Piney Fork Road	PO Box 374	HC 60 Box 295	4076 Piney Fork Road	PO Box 107	1560 Hampton Road	PO Box 405	HC 60 Box 294	300 Kanawha Ave	HC 60 Box 315	3406 Mud Fork Rd	P.O. Box 709	PO Box 508	P.O. Box 18756	PO Box 508	223 Gardner Ave	PO Box 5519		1900 Kanawna Bivd. East, Bidg 3, Km 643	1900 Kanawha Blvd. East, Bldg 6, Rm 525
	Last	heodore J. & Paula Adamerovich	William B. & Sarah E. Bassett	Jerry Martin Booth	Michael R. Clayton	Cecil & Elieen Fisher	Clinton & Karen S. Harris	Stantford Haught	lce	Ronald & Pamela Jackson	McEldowney		Timmy A. & Darlene Morris	Lloyd J. & Betty Prine	Robert B. Wayne	Debra & Doug Williamson	Coastal Lumber Company	Elizabeth Miller Estate	American Energy - Marcellus, LLC	Isreal Miller Estate	J.S. Booth Estate	Penzoil Product Co.	WV State of Commerce Bureau of Natural Resources Div.	Public	WV Dept. of Natural Resources Commerce Division

Received
Office of Call & Gas
MAR 1 2 2015

		Coal Owners			
	Wile	Wiley N GRN WZ 1H, 3H, 5H & 7H			
	Wile	Wiley S GRN WZ 2H, 4H, 6H & 8H			
First	Last	Address	City	State	Zip
Heirs or Devisees of Guy H. McCoy	C/O Susan Toth	205 Holly Dirve	Southport	NC	28461
Karen Lynn	Eversman	2041 W. Reserve Circle	Avon	ЮН	44011
Betty Ann Glen	Eversman	112 Rebel Run Road	Crossville	NT	38558
Gary Steven	McCoy	PO Box 669	Glendora	8	91740
Dale	McCoy	1430 Mariners Dr.	Newport Beach	ঠ	93660
Stephen	McCoy	215 West Normal St. #102	Houston	¥	77009
William	McCoy	200 Catherine Street	Sistersville		26175
Flo	McCoy	PO Box 462	Southern Pines	SC	28388
Jean E.	McCoy	1095 Central Drive	Southern Pines	NC	28387
William J.	McCoy	5907 Willow Creek Way	Richmond	۷A	23225
		Cost Operator			
	Wile	Wilev N GRN WZ 1H. 3H. 5H & 7H			
	Wile	Wiley S GRN WZ 2H, 4H, 6H & 8H			
Consol Energy		6126 Energy Road	Moundsville	^	26041

Received
Office of Oil & Gas
MAR 1 2 2015

	Mineral Owners	Owners			
	Wiley N GRN WZ 1H, 3H, 5H & 7H	1H, 3H, 5H & 7H			
	Wiley S GRN WZ 2H, 4H, 6H & 8H	2н, 4н, 6н & 8н			
First	Last	Address	City	State	Zip
Diana L. Craig	a/k/a Diana Allensworth	242 Westview Ave	Hubbard	동	44425
Sheldon	Anderson	1304 20th ST	Vienna	M	26105
Edna M.	Booth	Box 165	East Springfield	동	43925
		PO Box 177 East			
Jimmie O.	Booth	RR 43 Box 177E	Springfield	Б	4570
James Keith	Booth	1125 Lincoln Ave	Steubenville	공	26062
Jerry Martin	Booth	125 Hiddenwood Acres	Wellsburg	A	26070
A. Carlos	Booth	223 Gardner AVE	Weirton	M	26062
Dana Virginia	Booth	223 Gardner AVE	Weirton	M	79097
Suzanne	Brossett	330 Foundry St.	New Martinsville	ΛM	76155
Angie & Katie Bassett Life Estate	C/O Joseph Bassett	HC 60 Box 303	Pine Grove	*	26419
Harold C. Neely	C/O June Neely Andrews	821 Austin Dr.	Saint Albans	M	25177
Julia D.	King	4606 Virginia Ave SE	Charleston	M	25304
William J.	McCoy	5907 Willow Creek Way	Richmond	۷A	23225~
William H.	МсСоу	200 Catherine St.	Sistersville	×	26175
James R.	Moore	19 Marcella Ave	Tridelphia	M	26059
Lloyd Joe and Betty	Prine	300 Kawawha Ave.	Nitro		25143
Evelyn Leulla Miller	Tokas	911 Rabbit Hill Rd	Wellburg	ş	26070~
(Rt 2 Box 176			
Rudy G.		28 Rose St Lot 175	New Martinsville	WV	26155
Coastal Lumber Company	er Company	PO Box 709	Buckhorn hannon	^	26201
		PO Box 246			
Shiben Estates, Inc.	- 1	269 Main Street	New Martinsville	≩	26155
The State of West Virginia, Public Land Corporation,	orporation, for the use and benefit of	for the use and benefit of 1900 Kanawha Blvd East, Bldg			
the Department of Commerce, Labor and Enviromne	Environmental Resources, Division of 3, Rm 643	3, Rm 643	Charleston	^	25303

Received Office of Oil & Gas MAR 1 2 2015

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS **NOTICE OF PLANNED OPERATION**

		equirement: notice shal		o later than the filing pplication Filed: 03		application.
Delive	ry meth	od pursuant to West Vi	rginia Code § ?	22-6A-16(c)		
	CERTIFI	ED MAIL	□·	HAND		
I	RETURN	N RECEIPT REQUESTE	ED	DELIVERY		
return i the pla require drilling damage	receipt reunned op of to be possible to be possible to the entires of a horices on the possible to the enotices.	equested or hand deliver, eration. The notice req provided by subsection (lorizontal well; and (3) A surface affected by oil a	y, give the surfa juired by this su b), section ten on a proposed surfa nd gas operation	ace owner whose lar ubsection shall included f this article to a surface use and comper as to the extent the compensions to the extent the compensions.	d will be used for ude: (1) A copy face owner who usation agreement lamages are com	ication, an operator shall, by certified mail for the drilling of a horizontal well notice of of this code section; (2) The information se land will be used in conjunction with the nt containing an offer of compensation for pensable under article six-b of this chapter. sted in the records of the sheriff at the time
(at the		y provided to the SUR listed in the records of the		time of notice):		
			<u></u>	Name: Addre		
						
Pursua operati State: County District Quadra	nt to We on on th ': t: ungle:	by given: st Virginia Code § 22-64 se surface owner's land f West Virginia Wetzel Green Center Point	A-16(c), notice i or the purpose o	of drilling a horizont UTM NAD Public Road	al well on the tra 83 Easting: Northing:	well operator has developed a planned act of land as follows: 526496.1 4373347.9 CR 13. CR 13/3 and CR 13/8
Waters	hed:	Fishing Creek		_		
Pursuato be phorizon surface informate informa	nt to We provided ntal well affected ation rel	by W. Va. Code § 22- g and (3) A proposed sur if by oil and gas operation ated to horizontal drillino ocated at 601 57 th Street	-6A-10(b) to a s face use and co ons to the exten ng may be obta	surface owner whos impensation agreem at the damages are of ined from the Secre-	se land will be a ent containing ar compensable und etary, at the WV	code section; (2) The information required used in conjunction with the drilling of a n offer of compensation for damages to the der article six-b of this chapter. Additional Department of Environmental Protection or by visiting

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov. DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

MAR 1 2 2015

		Surface Owners			
		Wiley N GRN WZ 1H, 3H, 5H & 7H			
		Wiley S GRN WZ 2H, 4H, 6H & 8H			
First	Last	Address	City	State	Zip
Theodore J. & Paula	Adamerovich	131 Charles Houck Rd	Latrobe	PA	15650
William B. & Sarah E.	Bassett	HC 79 Box 55	Jacksonburg		26377
Jerry Martin	Booth	125 Hiddenwood Acres	Wellsburg	≩	26070
Michael R.	Clayton	HC 60 Box 330	Pine Grove	M	26419
Cecil & Elieen	Fisher	4526 Piney Fork Road	Pine Grove		26419
Clinton & Karen S.	Harris	PO Box 374	Reader	WV	26167
Stantford	Haught	HC 60 Box 295	Reader	^ M	26167
Patrick	Ice	4076 Piney Fork Road	Pine Grove	AV.	26419
Ronald & Pamela	Jackson	PO Box 107	Reader	W\	26155
Robert	McEldowney	1560 Hampton Road	Charleston	AV.	25314
Bradley Cole	Morison	PO Box 405	Reader		26155
Timmy A. & Darlene	Morris	HC 60 Box 294	Reader	∧	26167
Lloyd J. & Betty	Prine	300 Kanawha Ave	Nitro	W\	25143
Robert B.	Маупе	HC 60 Box 315	Pine Grove	W	26419
Debra & Doug	Williamson	3406 Mud Fork Rd	Verdunville	AV.	25649
Coastal L	Coastal Lumber Company	P.O. Box 709	Buckhoff hannen	W\	26201
Elizabe	Elizabeth Miller Estate	PO Box 508	Wellsburg	^	26070
American En	American Energy - Marcellus, LLC	P.O. Box 18756	Oklahoma City	š	73154
Isreal	Isreal Miller Estate	PO Box 508	Wellsburg	%	26030
J.S. E	J.S. Booth Estate	233 Gardner Ave	Weirton	\ \	26062
Penzo	Penzoil Product Co.	PO Box 5519	Vienna	%	26105
WV State of Commerce E	WV State of Commerce Bureau of Natural Resources Div.				
	Public	1900 Kanawha Blvd. East, Bldg 3, Rm 643	Charleston	W۸	25303
WV Dept. of Natural Resources Commerce Division	urces Commerce Division	1900 Kanawha Blvd. East, Bldg 6, Rm 525	Charleston	W۷	25303

Precised Gas
Office of Oil & Gas
MAR 1 2 2015



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

Earl Ray Tomblin
Governor

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Paul A. Mattox, Jr., P. E. Secretary of Transportation/Commissioner of Highways

March 6, 2015

James A. Martin, Chief Office of Oil and Gas Department of Environmental Protection 601 57th Street, SE Charleston, WV 25304

Subject: DOH Permit for the site Wiley South (501) Pad, Tyler County

✓ Wiley S GRN WZ 2H Wiley S GRN WZ 8H Wiley S GRN WZ 4H

Wiley S GRN WZ 6H

Dear Mr. Martin.

This well site will be accessed from a DOH permit 06-2014-0834 which has been applied for by American Energy – Marcellus, LLC for access to the State Road. The well site is located off of Tyler County Route 13/8.

This operator has signed a Statewide Oil and Gas Road Maintenance Bonding Agreement and provided the required bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Gary K. Clayton, P.E.

Regional Maintenance Engineer

Central Office O&G Coordinator

Received

Office Of the R. Gas

Cc: Eric Bruckman

American Energy - Marcellus, LLC.

CH, OM, D-6

File

06/26/2015

MAR 1 2 7015

gal Ilb Sal Sal Sal Sal Sal Sal Sal Sal Sal Sal	Comments																	The state of the s											
Mass (ths) 7.13.56.23.7 8.13.57.23.7 8.13.52.27 3.8.5.23 8.15.23 8.15.23 8.15.23 9.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Concentration in HE Fluid	89.111.52%	0.04851%	2,00018%	0.00009%	0.000000	0.00002%	0.00001%	0,04172%	0.03129%	0.00522%	0.00522%	0,00104%	0.02172%	0.00787%	WALUE!	0.00016%	0.00000%	0.00000%	0.00000%	0.00000%	0,00000%	0.04647%	0.00357%	0,03570%	### ##################################			
Additive Quantity 8,1553,174 8,1553,174 8,1553,00 43,500 43,500 0 0 0 0 0 0 0 0 0 0 0 0	Mass per Component (LBS)	71,376,237	38,842	142	11	12	53	6 GALLEAN	33,409	25,057	9217	1,070	8335	17,391	1,449	WALVE	125	3.1	3	6	3	3	#V4LUE!	2,858	28,583	4,0230 ent of the MSDS should I			
Specific George 2.65 2.65 2.65 1.00 1.00 1.04 1.05 1.24 1.24 1.24 1.29 1.20 1.20 1.20	Maximum Ingredient Concentration in Additive	100,00%	10,00%	40,00%	20.00%	20,00%	15.00%	2.50%	40,00%	30,00%	5,00%	5,00%	1,00%	Proprietary 60,00%	5.00%	Proprietary	40,00%	1.00%	1.00%	2,000%	1,00%	1,00%	Proprietary 65.00%	5:00%	\$0,00%	S(BLF); questions regarding the contary.", "frade secret", and "conf			
Auditive Nature Sand Principant) Hydrochloric Acid (15%) Hydrochloric Clear (15%) PRO FLO 102-M PRO BERAKIR 4 BAL-10C PRO BERAKIR 4 BAR-10C BAR-	Chemical Abstract Service Number (CAS#)	77702:18-5	7647.01-0		107.21.1	122021-47-0	107:19:7	61788-93-0	64742:47:8	Proprietary 7647-14-5	12125-02.9	Proprietary	Proprietary	67-56-1	2687.96-9	Proprietary	107.21.1	1-02-75	144-55-8	100-97-0	Proprietary	Proprietary	64742-47-8	9016-45-9	9000,300	(608.28-18-0 te and/or incomplete information. Any one that Federal Law protects "propriete			
Frac Focus Chemical Disclosure Registry Gr. XX-XXX-XXX-00000 Annerica's Natural Gas. Alliance	Ingredients	Water Citics Subsession	Hydrochloric Acid	Dimethylexcomine, bis(chloroethyl) ether, diquaterna	Ethylene Glycol	Methyl Akedol	Propargyl Alcohol	Coco alfoldimellyfamines	Petroleum Distillates	Polyacylamide salt Sodum Chorde	Ammonium Chloride	Ethoxylate Alcohol: Tall oil	Proprietary Ingredient	Methyl Alcohol	N-dodecyl-2-pyrrolidone	Bitraxylate Alcohol	Ethylene Glycol	Polyciber Polyol	Sodium Bicarbonate	Hexamethyleneterranine	Proprietary Ingredient	Proprietary Ingredient	Distillates (Perroleum), hydrogreated Behr	Nonyiphenol, Ethoxylate	Guar Gum	Nonone Surfactant State ISON STATES			
CELLS WITH BLUE BACKGROUND ARE THE ONLY CELLS TO BE EDITED Fricture Start DateTime Fricture Start DateTime State Not Number Operator Number Well Number Federal Well Longitude	Purpose	Carrier/Base Fluid	Acidzing	Inhibitor					Friction Reducer					Surfactant			Breaker						Gelling Apent			Total Water Volume source than include fresh water, produced water, and/or recycled water ** Information is tagged on the ribx niturn potential for concentration and thus the total may be over 100% All component incrimation [1] and was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the who provided it "The Companional Safety and Health Administrations" (SOSM), pagaintens govern the enteria for the how this information is reported on MSDS is subject to 29 CFR 1910, 1200(it) and Appendix D.	8 1		
Freeture Start Date/Line Fracture Start Date/Line Fracture Start Date/Line Fracture End Date/Line State Mys Compay Wetel API Number: Operator Number: Operator Number: Well Names Wiley GR Frederal Well No Long/Lat Profestom NAD27 True Vertical Depth (TVD) Total Crean Fluid Volume* (gab) 8,853,174 Total Crean Fluid Volume* (gab) 8,853,174	Supplier	Company 1	Producers Service Com	Producers Service Corp					Producers Service Corp					Producers Service Corp			Producers Service Corp.						Producers Service Corp			include fresh water, E thistimum potential for control of the cont	i de	ive	d
**CELLS WITH BLO	Trade Name		Hydrochloric Acid (15%)	۲i					FRA 407					PRO FLO 102 M			PRO BREAKER 4						PRO GEL 4.0L			*Total Water Volume source *Information is larged on IR All component information (1) All component information (1) All component information is report New Provided in Fire Component is report	- 2	ive)ii 8 2015 20 1	



FEBURARY 2015

CONTRACTOR MUST CONTACT THE WV ONE CALL

SYSTEM, INC., 1-800-245-4848 **TICKET NUMBER: 1503403104**

OWNER

2-3. EVACUATION ROUTE/PREVAILING WIND 4. E&S CONTROL LAYOUT OVERVIEW 5-18. E&S CONTROL LAYOUT 3HEET INDEX 1. TITLE SHEET

34. WELL PAD CROSS-SECTIONS AND PROFILES C-C', 19. E&S CONTROL AND SITE PLAN OVERVIEW AND D-D' 35-38. ACCESS ROAD #1,#2 AND #3 PROFILES 20-33. E&S CONTROL AND SITE PLAN

39-42. ACCESS ROAD #1,#2 AND #3 CROSS-SECTIONS 46. RECLAMATION PLAN OVERVIEW 47-60. RECLAMATION PLAN 43-45. DETAIL SHEET

ACCESS ROAD #1 DISTURBED AREA: 33.1 AC. ACCESS ROAD #2 DISTURBED AREA: 1.9 AC. ACCESS ROAD #3 DISTURBED AREA: 0.5 AC. WELL PAD DISTURBED AREA: 6.8 AC. TOTAL DISTURBED AREA: 42.3 AC

AMERICAN ENERGY MARCELLUS, LLC 1000 UTICA WAY CAMBRIDGE, OH 43725

AMERICAN ENERGY MARCELLUS

ENGINEERING, SURVEYING, CONSTRUCTION AND MINING SERVICES SOUTHPOINTE, PA 15317 PHONE: 724-746-1055 BOORD BENCHEK & ASSOCIATES, INC. PLANS PREPARED BY

2-52-15 ANDREW BENCHEK P.E.

> (NAD 27) LAT: 39.509327* LONG: 80.692005* CENTER OF WELLS LAT: 39.509409* LONG: 80.691827* (NAD 83) PARCEL # ACRES NO DATE DESCRIS 5-26-6 PROPERTY OWNER PROJECT BOUNDARY ACREAGE COASTAL FOREST RESOURCES STATE OF WY PUBLIC LD CORP, DEPT, OF COMM, LBR & ENYR, DNR STATE OF WY PUBLIC LD CORP, DEPT, OF COMM, LBR & ENYR, DNR S. KNIGHT S. KNIGHT RIGHT & PAULA ADAMEROVICH RIGHT C. SARAH E. BASSETI

> > PROJECT LOCATION

THE FOLLOWING EROSION & SEDIMENT CONTROL PLAN HAS BEEN BESIGNED. BESIGNED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES ESTABLISHED BY THE CHIEF AND PROVIDED IN THE OFFICE'S EROSION AND SEDIMENT CONTROL FIELD MANUAL, A GENERAL CONSTRUCTION SEQUENCE, DESCRIPTION OF STABLUZATION METHODS, AND DETAILS & SPECIFICATIONS FOR EROSION & SEDIMENT BEST MANAGEMENT PRACTICES HAVE BERN INCLUDED IN THE REVOYIDED DETAIL SHEETS.

WILEY GRN WZ WELL PAD GREEN & MCELROY DISTRICT, WETZEL & TYLER COUNTIES, WV TITLE SHEET

1"=3000 3000 6000 (NAD 83) LAT: 39.463195* LONG: 80.684883* (NAD 27) LAT: 39.463112* LONG: 80.685060* COORDINATES SITE ENTRANCE SHEET 4 4 8

06/26/2015