

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: 47-10303103, 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

Operator's Well No: WILEY S GRN WZ 6H

Farm Name: COASTAL LUMBER COMPANY

API Well Number: 47-10303103

Permit Type: Horizontal 6A Well

Date Issued: 06/26/2015

API Number: <u>103-03103</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</u> conditions may result in enforcement action.

CONDITIONS

- 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, 47-103-03104 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

Order No. 2015-W-6

API Number 10303103 Well Number Wiley S GRN WZ 6H American Energy Marcellus, LLC Pad Name Wiley GRN WZ Well Pad Operator

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 elimination 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).
 - 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.
 - a. Specify in writing what additional controls, measures, devices, monitoring, etc will be utilized to protect these wetlands and/or perennial streams.

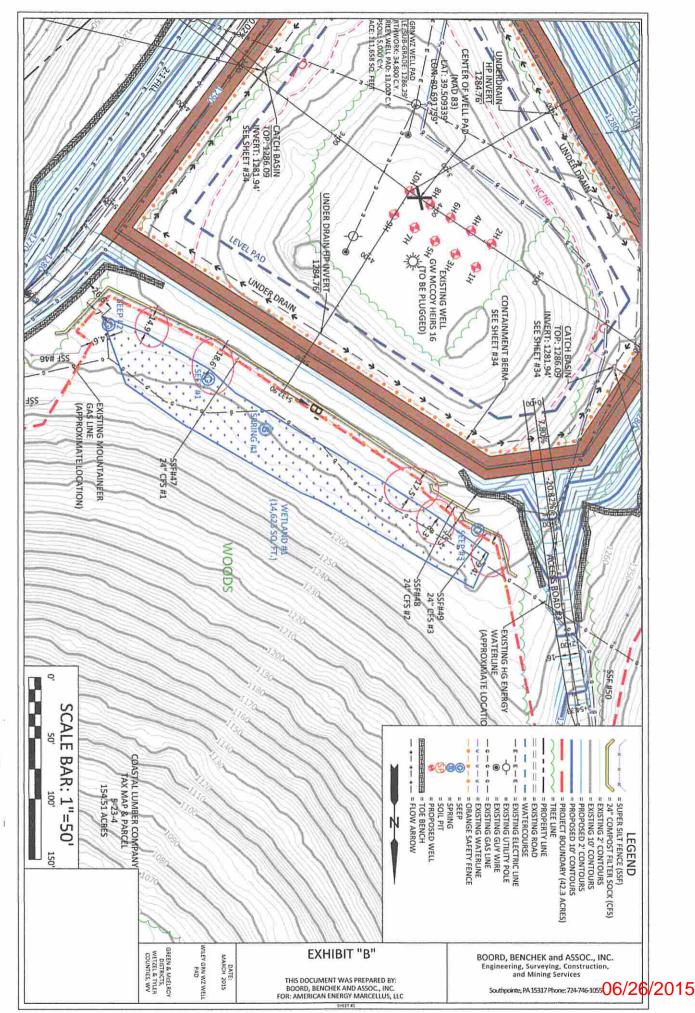
Erosion and Sediment Control and Site Plan has already been provided. Overviews of these impact areas are attached showing E&S Controls.

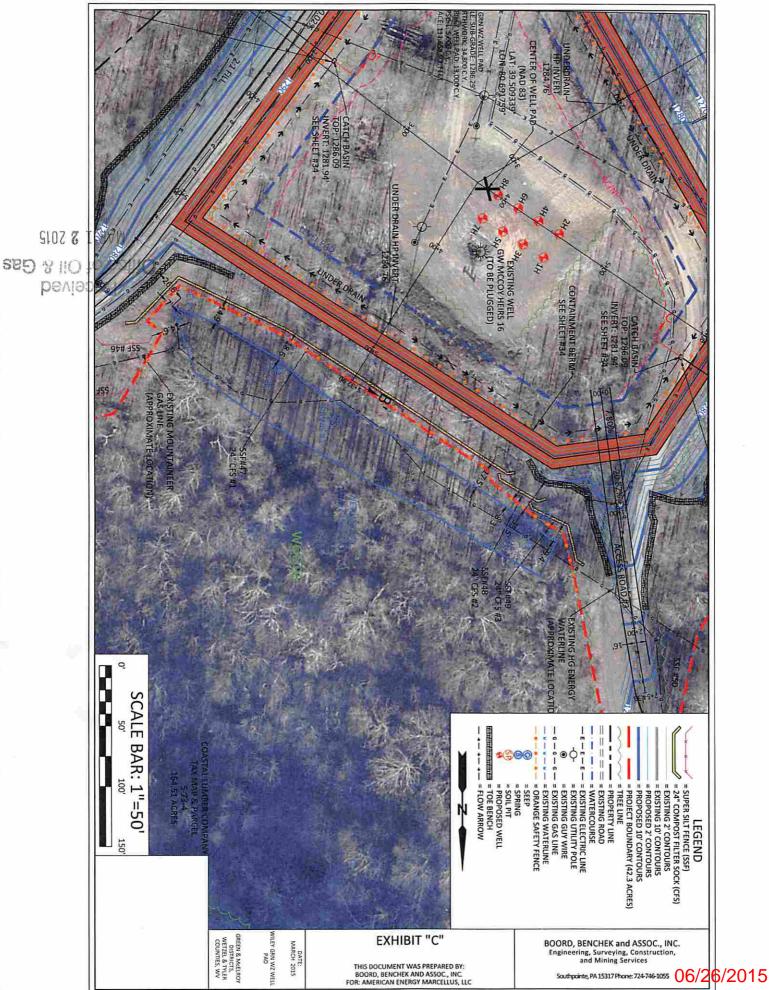
Wetland#

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.





API NO 0473 0 3 1 0 3

OPERATOR WELL NO. Wiley S GRN WZ 6H
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	r: American	Energy-Marce	ellus 4	94510050	Wetzel	Green	Center Point
	.,		(Operator ID	County	District	Quadrangle
2) Operator's W	ell Number: <u>W</u>	iley S GRN V	VZ 6H	Well Pad	Name: Wiley	GRN WZ	
3) Farm Name/S	urface Owner:	Coastal Lun	nber C	O. Public Road	Access: CR	13. CR 13	/3 and CR 13/8
4) Elevation, cur	rent ground:	1315'	Elev	ation, proposed p	ost-constructio	on: 1286.2	29'
2.	(a) Gas X Other	Oil	<u>X</u>	Unde	rground Storag	е	
į	S. 92	allow X		Deep			
6) Existing Pad:							
7) Proposed Targ	get Formation(s), Depth(s), A		ated Thickness ar		Pressure(s):	9
8) Proposed Tota	al Vertical Dep	th: 7277'					
9) Formation at	Total Vertical I	Depth: Marce	ellus				
10) Proposed To	tal Measured D	epth: 15650)'				
11) Proposed Ho	orizontal Leg L	ength: 7805'					
12) Approximate	e Fresh Water S	Strata Depths:	5	35'			
13) Method to D	etermine Fresh	Water Depths	: Ba	sed on drilling h	istory in neart	by wells	
14) Approximate	e Saltwater Dep	oths: 1315'					
15) Approximate	e Coal Seam De	epths: 1065'					
16) Approximate	e Depth to Poss	ible Void (coa	l mine	, karst, other): _	Vone anticipat	ed	
17) Does Propos directly overlyin				Yes	No	X	
(a) If Yes, prov	vide Mine Info:	Name:					
		Depth:					
		Seam:					
		Owner:					

Page 1 of 3

API NO. 47	
OPERATOR WELL NO.	Wiley S GRN WZ 6H

Well Pad Name: Wiley GRN WZ

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#	15650'	15650'	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 H50-10 Poz 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

	<u>PACKERS</u>	GCS 6/25/15
Kind:		
Sizes:		
Depths Set:		

WW-6B
(10/14)

PI NO	0. 47			
OF	ERATOR \	NELL	NO.	Wiley S GRN WZ 6H
W	ell Pad Na	me:	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.

acsept 14

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

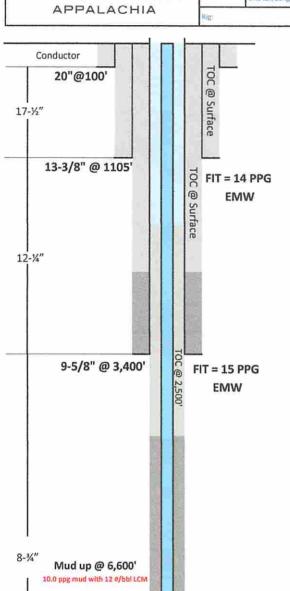
50/50 Poz H + 0.5 %FL 17 +5% Gyp + 0.1%C41P + 0.15% C51 + 0.1% C20 Additives are FL-17, Gypsum, C41-P, C-51, and C-20



10 3 0 3 1 0 3 Wiley S GRN WZ 6H Wetzel, West Virginia Grant Marcellus RKB / Elevation: HL Lat/Long: 39.509301 N, 80.692027 W AFE DC/CWC: **NAD 27** USDW: BHL Lat/Long: Property #: 535'

7,277' TVD @ 0' VS, 89.5 Inc, 150 Azi

Target Line:



Casing Design									
Interval	Hole size (in)	Size (in)	Weight #/ft	Grade	Conn.	Collapse (PSI)	Burst (PSI)	Depth (ft)	Cost \$/ft
Conductor	26"	20"		-	-		15	100	
Surface	17-1/2"	13-3/8"	54.5	J-55	BTC	1,130	2,740	1,105	36
Intermediate	12-1/4"	9-5/8"	36	J-55	LTC	2,020	3,520	3,400	22
Production	8-3/4"	5-1/2"	20	P-110	ULT-DQX	11.110	12,640	15,650	22

		C	ement [Design		
Interval	Slurry	Weight	Ft ³	Yeild	Excess	Cement Top
Conducor					50%	
- Conducti	Tail	15.6 ppg	330	1.20 cuft/sk	3070	Surface
Surface					50%	
Suriece	Tail	15.6 ppg	320	1.20 cuft/sk	30%	Surface
Intermediate	Lead	13.5 ppg	250	1.51 cuft/sk	30%	Surface
intermediate	Tail	15.3 ppg	1150	1.27 cuft/sk	30%	700
Production	Lead	13.5 ppg	1000	1.51 cuft/sk	100/	2500
Production	Tail	15.3 ppg	1760	1.27 cuft/sk	10%	6300

Geological	Informa	tion
Formation	TVD	Sub Sea
Freshwater	535'	653'
Pittsburgh Coal	1,065'	123'
Saltwater	1,315'	-127'
Big Injun	2,355'	-1,167'
Big Injun Base	2,555'	-1,367'
Berea	2,915'	-1,727'
Gordon	3,135'	-1,947'
Gordon Base	3,220'	-2,032'
Middlesex	6,852'	-5,664'
Geneseo	7,095'	-5,907'
Tully	7,123'	-5,935'
Hamilton	7,147'	-5,959'
Marcellus	7,235'	-6,047'
Purcell	7,242'	-6,054'
Lower Marcellus	7,244'	-6,056'
Basal Marcellus	7,267'	-6,079'
Onondaga	7,285'	-6,097'

AFE#:

- 8-3/4" Curve and Lateral

5-½"Casing @ 15,650':

Target Line: 7,277' TVD @ 0' VS, 89.5° Inc, 150° Azi

Kick Off Point

					Drilli	ng Fluids Infor	mation			-0 -1				
	AIR INT	ERVALS					SYI	VTHETIC OI	L BASED MUI	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	4504	
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	6-0	150K -	75:25 -
Vert/Nudge	3,400'-6,600'	>5000	40-60	3/4-1	Lateral	7,950'-15,650'	13.5 - 13.7	50 -60	4 - 6	18-24	10-12	6-9	/26/2	to de

10 30 3 1 0 3 API Number 47 - _____

Operator's Well No. Wiley S GRN WZ 6H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name American Energ	y - Marcellus, LLC	(OP Code 4945100500	
Watershed (HUC 10) Fishing	Creek	Quadrangle	enter Point	
Elevation 1315	County_Wetzel		District Green	
Do you anticipate using more to Will a pit be used? Yes	han 5,000 bbls of water to comple	te the proposed well	work? Yes 🔽	No
If so, please describe	anticipated pit waste: Closed lo	op system no pits wi	ll be used	
Will a synthetic liner	be used in the pit? Yes	No If so,	what ml.?	
Proposed Disposal Me	ethod For Treated Pit Wastes:			<u>=</u>
Und Reu: Off:	d Application erground Injection (UIC Permit I se (at API Number_next anticipated w Site Disposal (Supply form WW-9 er (Explain	of for disposal location		nd Landfills)
Will closed loop system be use	d? If so, describe:yes; see attached	d sheet titled Closed	oop typical description	·
Drilling medium anticipated for	this well (vertical and horizontal)	? Air, freshwater, o	il based, etc. Air. Freswater	mist, and Synthetic based oil
	e? Synthetic, petroleum, etc.Synthe			· · · · · · · · · · · · · · · · · · ·
	medium? see attached sheet titled drill			
	Leave in pit, landfill, removed of			
	o solidify what medium will be us		sawdust)	
	ne/permit number?see attached shee			
provisions of the permit are en law or regulation can lead to en I certify under penalty application form and all attaction and the information, I be penalties for submitting false in Company Official Signature	and and agree to the terms and come of Oil and Gas of the West Virging forceable by law. Violations of an forcement action. To flaw that I have personally expenses thereto and that, based of the companion, including the possibility of the possibility. The American Energy - Marcellus, Lee	man Department of E ny term or condition camined and am far on my inquiry of the c, accurate, and come of fine or imprison	nvironmental Protection of the general perminiliar with the information in the information of the informatio	ion. I understand that the it and/or other applicable nation submitted on this redictely responsible for
· • •	· — — — — — — — — — — — — — — — — — — —			
Company Official Title Regula	iory recimician			
Subscribed and sworn before me	. 1.	BENARY	. 20_5 Notary Public	O 1400/768

06/26/2015

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

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		

WW-9 (9/13)

API Number	47 -			-
Ope	rator's	Well	No.	Wiley S GRN WZ 6H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name American Energy - Marcellus, LLC OP Code 4945100500	
Watershed (HUC 10)_Fishing Creek Quadrangle Center Point	
Elevation 1315' County Wetzel District Green	
Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No No	
If so, please describe anticipated pit waste: Closed loop system no pits will be used	
Will a synthetic liner be used in the pit? Yes No If so, what ml.?	
Proposed Disposal Method For Treated Pit Wastes:	Dm 17
Land Application Underground Injection (UIC Permit Number see attached sheet titled UIC Wells and Landfills Reuse (at API Number next anticipated well Off Site Disposal (Supply form WW-9 for disposal location) Other (Explain	3-14-15
Will closed loop system be used? If so, describe: yes; see attached sheet titled Closed loop typical description	
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air, Freswater mist, and Symphetic based on	
-If oil based, what type? Synthetic, petroleum, etc.Synthetic oil based drilling mud	
Additives to be used in drilling medium? see attached sheet titled drilling additives	
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill	
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust)	
-Landfill or offsite name/permit number?see attached sheet titled UIC Wells and Landfills	
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT is on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other application can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible 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 or imprisonment. Company Official Signature	t the cable this
Company Official (Typed Name) American Energy - Marcellus, LLC	
Company Official Title Regulatory Technician	35
Paul III	
Subscribed and sworn before me this 17TH day of Fub way, 20 15 Conduct draft Notary Public My commission expires 05/28/2019	6/2015

10 30 3 10 3

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 Oil & Gas
MAR 1 2 2015

UIC WELLS and Landfills

Disposal Location	Туре	Permit No.
Wetzel County Landfill –	Landfill	SWF-1021/WV010985
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Kent Injection Well	UIC Well	34-119-2-7350-00-00
Moran Well	UIC Well	34-089-2-4412-00-00

Received
Office of Other Gas
MAR 1 2 2015

Form WW-9 Operator's Well No.____ 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:

Title: Dî | + Cas Inspector Date: 3-19-15

Field Reviewed? Yes (_____) No

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

Received
Office of Cit & Gas
MAR 1 2 2015

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

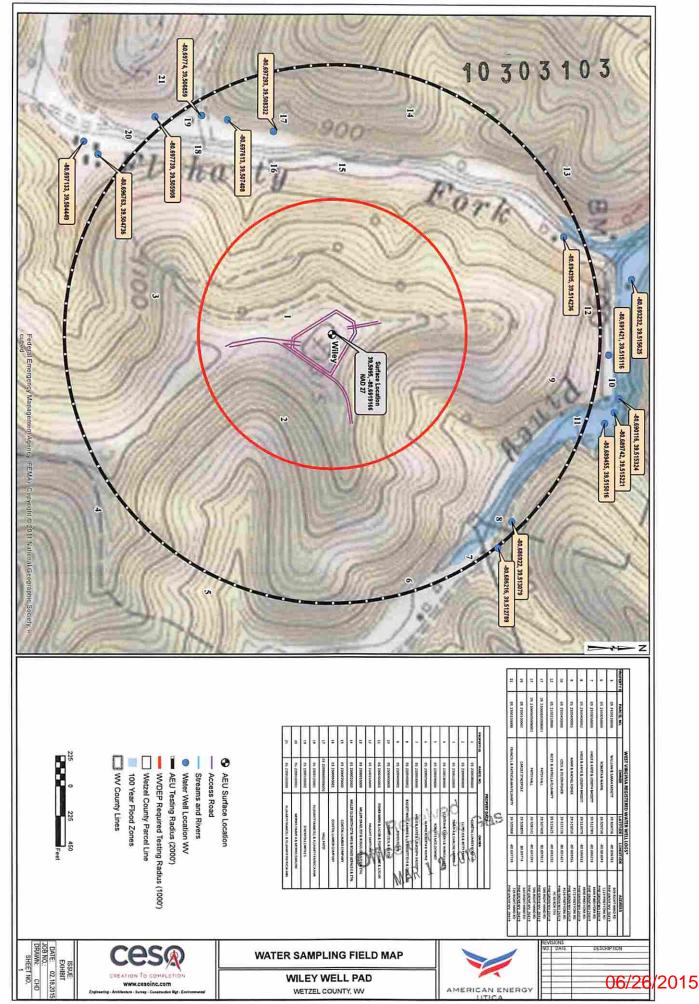
Wiley S GRN WZ 2H, 4H, 6H & 8H Site Safety Plan

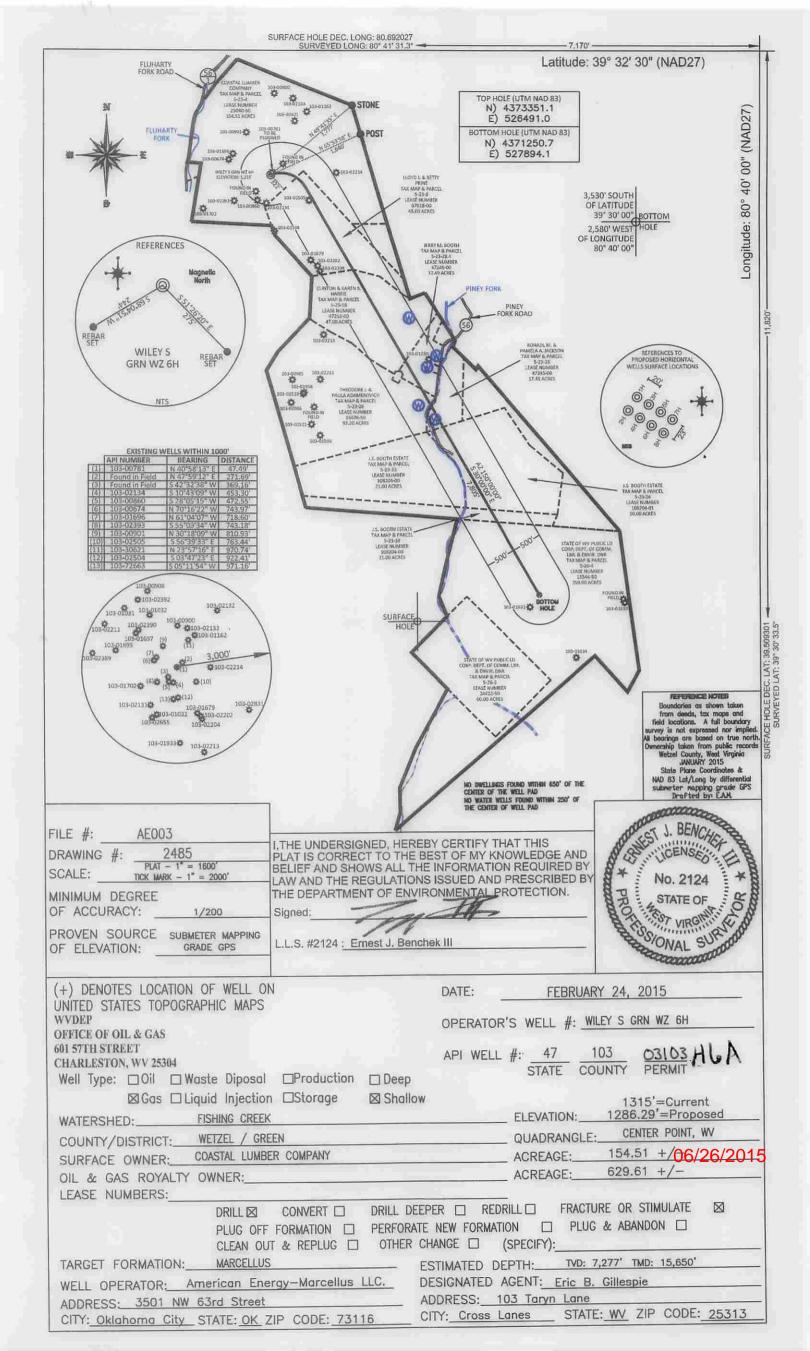


AMERICAN ENERGY MARCELLUS

DMH 3-19-15







WW-6A1 (5/13)

Operator's Well No. Wiley S GRN WZ 6H

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:

Office of Oil & Gas

MAR 1 2 2015

- 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

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: American Energy - Marcellus, LLC

Regulatory Technician

Page 1 of 4

10303103

Wiley S GRN WZ 6H

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 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, (1) the tract of fand is the same tract described in this Application, partly or wholly depetied 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.

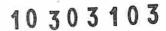
Reger or name change. In those cases, we've directed your attention to the records of the West Virginia Secretary of State, where said documentation can be found.

Reger or name change. In those cases, we've directed your attention to the records of the West Virginia Secretary of State, where said documentation can be found.

1	Fee/Lease No.		Virginia Secretary of State, where said documentation can be Lossee/Assignee	Royalty/instrumen	Book/Pag
	20040-00	John R. McCoy etal	J.F. Guffey	410	
		J.F. Guffey	W.M. Graham	1/8	48/445
		W.M. Graham	W.H. Nimick	Assignment	56/286
		W.H.Nimick		Assignment	56/288
		South Penn Oil Company	South Penn Oil Company	Assignment	49/268
		South Penn Natural Gas Company	South Penn Natural Gas Company	Assignment	33A/455
		South Penn Oil Company	South Penn Oil Company	Assignment	215/478
		South Fenn Oil Company	Pennzoll Company	Cert. of Name Change	213/4/8
		Pennzoil Company	Pennzail United, Inc.		WV Sec. of State
		Pennzoil United, Inc.	Pennzoil Company	Assignment	246/491
		Pennzoil Company	Pennsell Penduck C	Cert. of Name Change	WV Sec. of State
		Pennzoil Products Company	Pennzoil Products Company	Assn. & Supp. Assn.	319/397 & 322
		Pennzoll Exploration and Production Company	Pennzoil Exploration and Production Company	Assignment	363/384
		PennyEnergy Evelopeting - 4 D	PennzEnergy Exploration and Production 1.1.C	Cert. of Merger	
		PennzEnergy Exploration and Production, L.L.C.	Devon Energy Production Company, L.P.	Cert. of Merger	12/177
		Devon Energy Production Company, L.P.	East Resources, Inc.		12/278
		East Resources, Inc.	HG Energy, LLC	Assignment	370/580
		East Resources, Inc. and HG Energy, LLC	AG Energy, LLC	Assignment	118A/253
		armay, aco	American Energy - Marcellus, LLC	Assignment	153A/238
2	67618-00	Unit I Bit of			10070230
		Lloyd Joe Prine stux	Pennzoll Company	479	
		Penrizoil Company	Pennzail Products Company	1/8	68A/188
		Pennzoil Products Company	Pennzoil Exploration and Production Company	Assn. & Supp. Assn.	319/397 & 322/
		Pennzoil Exploration and Production Company	r enitzuii Expidration and Production Company	Assignment	363/384
		PerinzEnergy Exploration and Production, L.L.C.	PennzEnergy Exploration and Production, L.L.C.	Cert. of Merger	12/177
		Dayon Survey State and Production, L.L.C.	Devon Energy Production Company, L.P.	Cert. of Merger	
		Devon Energy Production Company, L.P.	East Resources, Inc.		12/278
		East Resources, Inc.	HG Energy, LLC	Assignment	370/580
		East Resources, Inc. and HG Energy, LLC	American Care	Assignment	118A/253
		3), 200	American Energy - Marcellus, LLC	Assignment	153A/238
3	47252-00	George H. Stonestreet etux			1000238
			C.E. Beck	1/8	-
		C.E. Beck	Pennzoil Company		58/A 177
-		Pannzoil Company	Pennzoil Products Company	Assignment	58A/229
		Pennzoil Products Company	Report Ford Froducts Company	Assn. & Supp. Assn.	319/397 & 322/5
		Pennzoil Exploration and Production Company	Pennzoil Exploration and Production Company	Assignment	363/384
		PennzEnergy Exploration and Production, L.L.C.	PennzEnergy Exploration and Production, L.L.C.	Cert. of Merger	12/177
		Passas Exploration and Production, L.L.C.	Devon Energy Production Company, L.P.	Cert. of Merger	
		Devon Energy Production Company, L.P.	East Resources, Inc.		12/278
_		East Resources, Inc.	HG Energy, LLC	Assignment	370/580
		East Resources, Inc. and HG Energy, LLC	no Energy, LLC	Assignment	118A/253
		The strange and st	American Energy - Marcellus, LLC	Assignment	153A/238
4	47245-00	A. Carlos Booth			10010200
			C.E. Beck	1/8	
		C.E. Beck	Pennzoil Company		58A/119
		Pennzoil Company	Pennzoil Products Company	Assignment	58A/229
_		Pennzoil Products Company	Pennzoil Exploration and Production Company	Assn. & Supp. Assn.	319/397 & 322/57
		Pennzoil Exploration and Production Company	Description Exploration and Production Company	Assignment	363/384
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		East Resources, Inc. and HG Energy, LLC	American Format Att 1	Assignment	118A/253
			American Energy - Marcellus, LLC	Assignment	153A/238
5	15636-50	James A. and M.E. Booth			
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		South Penn Oil Company	South Penn Natural Gas Company		47/198
		South Penn Natural Gas Company	South Penn Oil Company	Assignment	33A/455
		South Penn Oil Company	South Ferin Oil Company	Assignment	215/478
		Pennzoil Company	Pennzoil Company	Cert. of Name Change	WV Sec. of State rec
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			Pennzoil Company		
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		East Resources, Inc and HG Energy, Inc	American Form At 11		
			American Energy - Marcellus, LLC	Assignment	153A/238
10	15544-50	Geo. V. and Josphine M. Reilly	Court Down City		
		South Penn Oil Company	South Penn Oil Company	1/8	47/34
		South Ponn Natural Gas Company	South Penn Natural Gas Company	Assignment	33AV455
		South Penn Oil Company	South Penn Oil Company	Assignment	215/478
		Pennzoil Company	Pennzoil Company	Cert. of Name Change	WV Sec. of State rec
		Pennzoil United, Inc.	Pennzoil United, Inc.	Assignment	246/491
		Ponnzoil Company	Ponnzoil Company	Cert. of Name Change	WV Sec. of State rec
		Pennzoil Products Company	Ponnzoil Products Company	Assn. & Supp. Assn.	319/397 & 322/57
\longrightarrow		Pennzoil Exploration and Production Company	Pennzoil Exploration and Production Company	Assignment	363/384
-		PennzEnergy Exploration and Production, L.L.C.	PennzEnergy Exploration and Production, L.L.C.	Cort. of Merger	12/177
		Dovon Energy Production Company, L.P.	Devon Energy Production Company, L.P.	Cort. of Merger	12/278
		East Resources, Inc.	East Resources, Inc.	Assignment	370/580
		East Resources, Inc. and HG Energy, LLC	HG Energy, LLC	Assignment	118A/253
			American Enorgy - Marcellus, LLC	Assignment	153A/238
11	24422-50	Henry and Mary Notand	WB at a		
		W.R. McIntyro	W.R. McIntyre	1/8	46/93
		South Penn Oil Company	South Penn Oil Company	Assignment	17A/450
		South Penn Natural Gas Company	South Penn Natural Gas Company	Assignment	33A/455
		South Penn Oil Company	South Penn Oil Company	Assignment	215/478
		Pennzoil Company	Pennzoli Company	Cort. of Name Change	WV Sec. of State reco
		Pennzeil United, Inc.	Pennzoii United, Inc.	Assignment	248/491
		Ponnzoil Company	Pennzoil Company	Cort. of Name Change	WV Sec. of State reco
		Pennzoil Products Company	Pennzoli Products Company	Assn. & Supp. Assn.	319/397 & 322/577
		Pennzoll Exploration and Production Company	Pennzoil Exploration and Production Company	Assignment	363/384
		PennzEnergy Exploration and Production, L.L.C.	PennzEnergy Exploration and Production, L.L.C.	Cert. of Merger	12/177
		Dovon Energy Production Company, L.P.	Devon Energy Production Company, L.P.	Cort. of Morger	12/278
		East Resources, Inc.	East Resources, Inc.	Assignment	370/580
		East Resources, Inc. and HG Energy, LLC	HG Energy, LLC American Energy - Marcellus, LLC	Assignment	118A/253
				Assignment	





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 6H

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 6H 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 10 30 3 10 3

Date of Notic	ee Certification: 02/18/2015	API No. 4	7 s Well No. Wiley	S CDN W7 SH		
			Name: Wiley G			
Notice has l	oeen given:	Well I ad I	tame.			
		22-6A, the Operator has provided the red	quired parties v	vith the Notice Forms listed		
below for the	tract of land as follows:					
State:	West Virginia	UTM NAD 83 Easting:	526491			
County:	Wetzel	Northing:	4373351.1			
District:	Green	Public Road Access:				
Quadrangle:	Center Point	Generally used farm name:				
Watershed:	Fishing Creek					
it has provide information re of giving the requirements Virginia Code	ed the owners of the surface described equired by subsections (b) and (c), see surface owner notice of entry to surface of subsection (b), section sixteen of	hall contain the following information: (1 bed in subdivisions (1), (2) and (4), subtiction sixteen of this article; (ii) that the reverse pursuant to subsection (a), section f this article were waived in writing by ender proof of and certify to the secretary it.	section (b), sec equirement was ten of this arti the surface ov	ction ten of this article, the deemed satisfied as a resul cle six-a; or (iii) the notice wner; and Pursuant to Wes		
that the Ope	West Virginia Code § 22-6A, the Oprator has properly served the require ECK ALL THAT APPLY	erator has attached proof to this Notice C d parties with the following:	Certification	OOG OFFICE USE ONLY		
☐ 1. NO	FICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRED BECA SEISMIC ACTIVITY WAS CONDUC		☐ RECEIVED/ NOT REQUIRED		
■ 2. NO	TICE OF ENTRY FOR PLAT SURV	YEY or NO PLAT SURVEY WAS C	ONDUCTED	☐ RECEIVED		
☐ 3. NO	FICE OF INTENT TO DRILL or	NOTICE NOT REQUIRED BECANOTICE OF ENTRY FOR PLAT SURWAS CONDUCTED or	7-1-25	☐ RECEIVED/ NOT REQUIRED		
		☐ WRITTEN WAIVER BY SURFA (PLEASE ATTACH)	CE OWNER			
■ 4. NO	TICE OF PLANNED OPERATION			☐ RECEIVED		
■ 5. PUE	BLIC NOTICE			☐ RECEIVED		
■ 6. NO	FICE OF APPLICATION			RECEIVED		
				Received Gas		

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, the return receipt card or other postal receipt for certified mailing.

Certification of Notice is hereby given:

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, LLCAddress:301 NW 63rd, Suite 600By:Ariel BravoOklahoma City, OK 73116Its:Regulatory TechnicianFacsimile:405-607-5868Telephone:405-607-5529Email:ariel.bravo@aep-lp.com

NOTARY SEAL

Subscribed and sworn before me this 18 day of February

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)

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

Notice Time Requirement: notice shall be provided no later than the filing date of permit application. Date of Notice: 2/17/2015 Date Permit Application Filed: 3/2/2015 Notice of: ✓ PERMIT FOR ANY ☐ CERTIFICATE OF APPROVAL FOR THE WELL WORK CONSTRUCTION OF AN IMPOUNDMENT OR PIT Delivery method pursuant to West Virginia Code § 22-6A-10(b) PERSONAL ✓ REGISTERED ✓ METHOD OF DELIVERY THAT REQUIRES A **SERVICE** MAIL RECEIPT OR SIGNATURE CONFIRMATION Pursuant to 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 certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment 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 the surface 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 oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") 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. ☑ Application Notice ☑ WSSP Notice ☑ E&S Plan Notice ☑ Well Plat Notice is hereby provided to: ☑ SURFACE OWNER(s) COAL OWNER OR LESSEE Name: Please see attached. Name: Please see attached. Address: Address: COAL OPERATOR Name: Name: Consol Energy Address: Address: 6126 Energy Road
Moundsville, WV 26041 SURFACE OWNER(s) (Road and/or Other Disturbance) ☑ SURFACE OWNER OF WATER WELL Address: AND/OR WATER PURVEYOR(s) Name: Please see attached. Address: OPERATOR OF ANY NATURAL GAS PROPAGE FIELDS

Name:

Address:

Office of ☐ SURFACE OWNER(s) (Impoundments or Pits) *Please attach additional forms if necessary MAR 1 2 2015 Address:

APING. 47 7 7 7 7 OPERATOR WELL NO. WILL S GRN WZ 6H 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. Awatver, if granted 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 Open Water Act Section 404 permit 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. 17.0 3 0 3 1 0 3

OPERATOR WELL NO. Wiley S GRN WZ 6H

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 describer 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 Property of Environmental

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

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. 47-10-303103 OPERATOR WELL NO. Wiley S GRN WZ 6H

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. 47OPERATOR WELL NO WIES GIN VA 6H
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

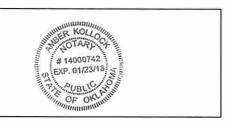
Address: 301 NW 63RD, Suite 600

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.

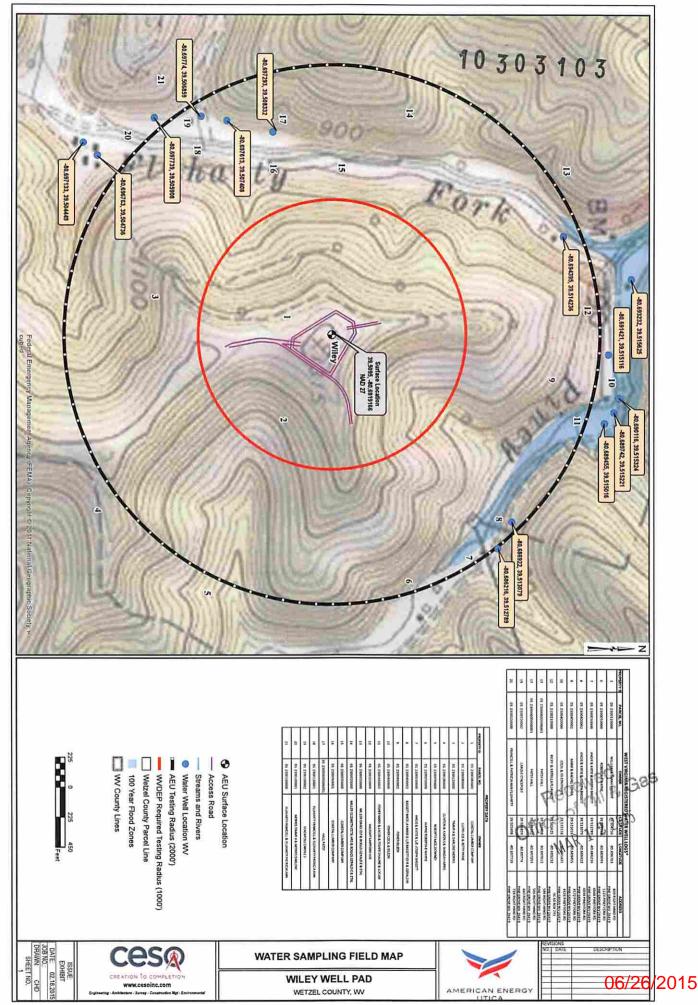


Subscribed and sworn before me this 17 day of February, 2015

Notary Public

My Commission Expires 01/23/18

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		State Zin							WV 28167		WV 26155						WV 25649	<u> </u>	MV	š	>M				VW >25303	
		City	Latrobe	Jacksonburg	Wellsburg	Pine Grove	Pine Grove	Reader	Reader	Pine Grove	Reader	Charleston	Reader	Reader	Nitro	Pine Grove	Verdunville	Buckherahannon	Wellsburg	Oklahoma City	Wellsburg	Weirton	Vienna		Charleston	o charles
Wiley N GRN WZ 1H, 3H, 5H & 7H	Wiley S GRN WZ 2H, 4H, 6H & 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	233 Gardner Ave	PO Box 5519		1900 Kanawha Blvd. East, Bldg 3, Rm 643	1900 Kanawha Rivd Fact Bidd & Ron 525
		Last	Adamerovich	Bassett	Booth	Clayton	Fisher	Harris	Haught	lce	Jackson	McEldowney	Morison	Morris	Prine	Wayne	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	urces Commerce Division
		First	Theodore J. & Paula	William B. & Sarah E.	Jerry Martin	Michael R.	Cecil & Elieen	Clinton & Karen S.	Stantford	Patrick	Ronald & Pamela	Robert	Bradley Cole	rlene	Lloyd J. & Betty		Debra & Doug	Coastal L	Elizabe	American En	Isreal	J.S. E	Penzo	WV State of Commerce E		WV Dept. of Natural Resources Commerce Division

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		Coal Owners			
	Wiley	Wiley N GRN WZ 1H, 3H, 5H & 7H			
	Wiley	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	HO	44011
Betty Ann Glen	Eversman	112 Rebel Run Road	Crossville	NF	38558
Gary Steven	McCoy	PO Box 669	Glendora	5	91740
Dale	McCoy	1430 Mariners Dr.	Newport Beach	ধ	93660
Stephen	McCoy	215 West Normal St. #102	Houston	¥	77009
William	McCoy	200 Catherine Street	Sistersville	%	26175
Flo	McCoy	PO Box 462	Southern Pines	NC	28388
Jean E.	McCoy	1095 Central Drive	Southern Pines	NC NC	28387
William J.	McCoy	5907 Willow Creek Way	Richmond	¥	23225
		Coal Operator			
	Wiley	Wiley N GRN WZ 1H, 3H, 5H & 7H			
	Wiley	Wiley S GRN WZ 2H, 4H, 6H & 8H			
Consol Energy		6126 Energy Road	Moundsville	.w	26041

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			diZ	26419	26419	26419	26167	26419	26419	26419	26167	25314	26167	25143	26419	26419	26201	26070	Sentra
			State	%	>	^	%	>	^	^	^	^	^	^	^		^	^	\ <u>\</u>
			City	Pine Grove	Pine Grove	Pine Grove	Reader	Pine Grove	Pine Grove	Pine Grove	Reader	Charleston	Reader	Nitro	Pine Grove	Pine Grove	Buckhern hanna	Wellsburg	Wellshird
Water Owners	Wiley N GRN WZ 1H, 3H, 5H & 7H	Wiley S GRN WZ 2H, 4H, 6H & 8H	Address	4848 Piney Fork Road	809 Right Hand Road	4572 Piney Fork Road	HC 60 Box 301	HC 60 Box 286	HC 60 Box 293	586 Right Hand Road	PO Box 374	1560 Hampton Road	HC 60 Box 294	300 Kanawha Ave	660 Right Hand Road	5124 Piney Fork Road	P.O. Box 709	PO Box 508	PO Box 508
			Last	Bassett	Bassett	Fisher	Fisher	Fluharty	Fluharty	Hall	Harris	McEldowney	Morris	Prine	Stackpole	Wayne	pany	ate	9
			First	Angie, Katie & Joseph	William B. & Sarah E.	Cecil & Elleen	Mark & Jacob & Shaune & Logan	Francis & Patricia	Rick & Kathrilla	Patsy	Clinton & Karen S.	Robert	Timmy A. & Darlene	Lloyd J. & Betty	Carole	Robert B.	Coastal Lumber Company	Elizabeth Miller Estate	Isreal Miller Estate

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10303103 STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS **NOTICE OF ENTRY FOR PLAT SURVEY**

entry			
)ate of Notic	e: 2/17/2015	Date of Plan	ned Entry: 2/25/2015
Delivery metl	hod pursuant t	o West Virginia Co	de § 22-6A-10a
☐ PERSON	ial 🔳	REGISTERED	■ METHOD OF DELIVERY THAT REQUIRES A
SERVIC	E	MAIL	RECEIPT OR SIGNATURE CONFIRMATION
on to the surfa- but no more the beneath such to wher of mine and Sediment becretary, which mable the sur-	nce tract to condinan forty-five di tract that has filerals underlying Control Manualich statement shace owner to o	luct any plat surveys ays prior to such entred a declaration purst, such tract in the coll and the statutes and tall include contact i btain copies from the	rior to filing a permit application, the operator shall provide notice of planned entry required pursuant to this article. Such notice shall be provided at least seven days ry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams suant to section thirty-six, article six, chapter twenty-two of this code; and (3) any unty tax records. The notice shall include a statement that copies of the state Erosion d rules related to oil and gas exploration and production may be obtained from the information, including the address for a web page on the Secretary's web site, to e secretary.
	eby provided to CE OWNER(s)):	COAL OWNER OR LESSEE
Name: Please s			
			Name: Please see attached. Address:
ddress:			■ MINERAL OWNER(s)
			Name: Please see attached.
lame:		· · · · · · · · · · · · · · · · · · ·	. Audiess.
address:			*please attach additional forms if necessary
-			
Notice is her ursuant to W plat survey o			otice is hereby given that the undersigned well operator is planning entry to conduct Approx. Latitude & Longitude: N 4373351.1/E 526491
Notice is her tursuant to W plat survey of tate:	est Virginia Co on the tract of la		
Notice is her Pursuant to W plat survey of state: County:	est Virginia Co on the tract of la West Virginia		Approx. Latitude & Longitude: N 4373351.1/E 526491
Notice is here Pursuant to W plat survey of State: County: District:	Vest Virginia Co on the tract of la West Virginia Wetzel Green		Approx. Latitude & Longitude: N 4373351.1/E 526491 Public Road Access: CR 13. CR 13/3 and CR 13/8 Watershed: Fishing Creek
Notice is here Pursuant to War plat survey of State: County: District: Quadrangle: Copies of the may be obtain Charleston, Washined from	Vest Virginia Coon the tract of la West Virginia Wetzel Green Center Point state Erosion and defrom the Service 25304 (304) the Secretary by	and as follows: and Sediment Control cretary, at the WV D-926-0450). Copies by visiting www.dep	Approx. Latitude & Longitude: N 4373351.1/E 526491 Public Road Access: CR 13. CR 13/3 and CR 13/8 Watershed: Fishing Creek
Notice is here Pursuant to War plat survey of State: County: District: Quadrangle: Copies of the may be obtain Charleston, War betained from	Vest Virginia Coon the tract of la West Virginia Wetzel Green Center Point state Erosion and defrom the Service 25304 (304) the Secretary by	and as follows: and Sediment Control cretary, at the WV D-926-0450). Copies by visiting www.dep	Approx. Latitude & Longitude: Public Road Access: Watershed: Generally used farm name: Manual and the statutes and rules related to oil and gas exploration and production pepartment of Environmental Protection headquarters, located at 601 57th Street, SE, of such documents or additional information related to horizontal drilling may be .wv.gov/oil-and-gas/pages/default.aspx.

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 named country. 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. 06/26/2015

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		City	Latrobe	Jacksonburg	Wellsburg	Pine Grove	Pine Grove	Reader	Reader	Pine Grove	Reader	Charleston	Reader	Reader	Nitro	Pine Grove	Verdunville	Buckharn hannon	Wellsburg	Oklahoma City	Wellsburg	Weirton	Vienna	Charleston	Charleston
Wiley N GRN WZ 1H, 3H, 5H & 7H	Wiley S GRN WZ 2H, 4H, 6H & 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	233 Gardner Ave	PO Box 5519	1900 Kanawha Blvd. East. Bldn 3. Rm 643	1900 Kanawha Blvd. East, Bldg 6, Rm 525
		Last	Adamerovich	Bassett	Booth	Clayton	Fisher	Harris	Haught	Ice	Jackson	McEldowney	Morison	Morris	Prine	Wayne	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
		First	Theodore J. & Paula	William B. & Sarah E.	Jerry Martin	Michael R.	Cecil & Elieen	Clinton & Karen S.	Stantford	Patrick	Ronald & Pamela	Robert	Bradley Cole	Timmy A. & Darlene	Lloyd J. & Betty	Robert B.	Debra & Doug	Coast	Elize	American	Isr	, ,	Pe	WV State of Commerc	WV Dept. of Natural Re

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		Coal Owners				
	Wiley	Wiley N GRN WZ 1H, 3H, 5H & 7H				
	Wiley	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	1
Karen Lynn	Eversman	2041 W. Reserve Circle	Avon	HO	44011	\
Betty Ann Glen	Eversman	112 Rebel Run Road	Crossville	Z.	38558	\
Gary Steven	McCoy	PO Box 669	Glendora	5	91740	\
Dale	McCoy	1430 Mariners Dr.	Newport Beach	5	93660	\
Stephen	McCoy	215 West Normal St. #102	Houston	۲	77009	١
William	McCoy	200 Catherine Street	Sistersville	%	26175	\
Flo	McCoy	PO Box 462	Southern Pines	NC	28388	١
Jean E.	McCoy	1095 Central Drive	Southern Pines	NC	28387	1
William J.	McCoy	5907 Willow Creek Way	Richmond	٧A	23225	\
		Coal Operator				
	Wiley	Wiley N GRN WZ 1H, 3H, 5H & 7H				
	Wiley	Wiley S GRN WZ 2H, 4H, 6H & 8H				
Consol Energy		6126 Energy Road	Moundsville	%	26041	1

Figure 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	Æ	44425
Sheldon	Anderson	1304 20th ST	Vienna	≩	26105
Edna M.	Booth	Box 165	East Springfield	FO	43925
		PO Box 177 East			
Jimmie O.	Booth	RR 43 Box 177E	Springfield	ᆼ	4550
James Keith	Booth	1125 Lincoln Ave	Steubenville	동	26062
Jerry Martin	Booth	125 Hiddenwood Acres	Wellsburg	<u></u>	26070
A. Carlos	Booth	223 Gardner AVE	Weirton	<u></u>	26062
Dana Virginia	Booth	223 Gardner AVE	Weirton		26062
Suzanne	Brossett	330 Founday St	Mentineville	747	26166
Angie & Katie Bassett Life Estate	C/O Joseph Bassett	HC 60 Box 303	Pine Grove	A N	26419
Harold C. Neely	C/O June Neely Andrews	821 Austin Dr.	Saint Albans	À	25177
Julia D.	King	4606 Virginia Ave SE	Charleston	À	25304
William J.	McCoy	5907 Willow Creek Way	Richmond	۸۸	23225
William H.	McCoy	200 Catherine St.	Sistersville	M	26175
James R.	Moore	19 Marcella Ave	Tridelphia	M	26059
Lloyd Joe and Betty	Prine	300 Kawawha Ave.	Nitro	A	25143
Evelyn Leulla Miller	Tokas	911 Rabbit Hill Rd	Wellburg	W\	760010
		Rt 2 Box 176			
Rudy G.	Yost	28 Rose St Lot 175	New Martinsville	^	26155
Coastal Lumber Company	er Company	PO Box 709	Buckhorghannon	W\	26201
		PO Box 246			
Shiben Estates, Inc.		269 Main Street	New Martinsville	%	26155
The State of West Virginia, Public Land Corporation,		for the use and benefit of 1900 Kanawha Blvd East, Bldg			
the Department of Commerce, Labor and Enviromn	d Enviromnental Resources, Division of 3, Rm 643	3, Rm 643	Charleston	^	25303

Pieceived Office of Colf & Case MAR 1 2 7015 WW-6A5 (1/12)

Operator Well No. Wiley S GRN WZ 6H

STATE OF WEST VIRGINIA 40 30 3 40 3 DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF PLANNED OPERATION

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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 was 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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		City	Latrobe	Jacksonburg	Wellsburg	Pine Grove	Pine Grove	Reader	Reader	Pine Grove	Reader	Charleston	Reader	Reader	Nitro	Pine Grove	Verdunville	Buckharn hannen	Wellsburg	Oklahoma City	Wellsburg	Weirton	Vienna	3	Cilariestori	Charleston
Surface Owners Wiley N GRN W7 1H 3H 5H & 7H	Wiley S GRN WZ 2H, 4H, 6H & 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 Pinev 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	283 Gardner Ave	PO Box 5519		1900 Naliawila Diva. East, Diug 3, Nili 043	1900 Kanawha Blvd. East, Bldg 6, Rm 525
		First Last	Theodore J. & Paula Adamerovich	William B. & Sarah E. Bassett	Jerry Martin Booth	Michael R. Clayton	Cecil & Elieen Fisher	Clinton & Karen S. Harris	Stantford		& Pamela	Robert	Bradley Cole Morison	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.	O COD	WV Dept. of Natural Resources Commerce Division

Figure 1 & Gas

Office of Oil & 2015



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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
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 4H

Wiley S GRN WZ 6H

Wiley S GRN WZ 8H

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

Cc: Eric Bruckman

American Energy - Marcellus, LLC.

CH, OM, D-6

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\$1.38.7000 8.135.700 10 43.500 38.5418 801 44 35.6 801 9.5015 8	Maximum Ingredient per Concentration in HF Comments ont (LBS) Fluid													35 0,00104%					53 0,08016%	0.00000%	0.00000%	0,00000%	0.00000%	THE WALLE		1	
2.65 8,135,70 1.07 8,500 0.97 44 1.05 9,505 1.19 0 0.94 3,605 1.20 6,716 1.27 0 1.27 0 1.27 0 1.27 0 1.27 0 1.20 0	Maximum Ingredient Concentration in Maxs per Additive Component (LBS)			40.00%	20,00%		15.00%	2.50%	2	33,489 30,00%		5,00% 4,176			Fropricasy #4/410E:		Proprietary #FALUE:		40,00% 125	1.00%	1.00%	1,00%	1,00%	Proprietary #VALUE:		5,00% 2,858	
Sand Choppart) Hydrochloric Acid (15%) Hydrochloric Acid (15%) PROCHIBIT PRA 407 BRO 407 BRO 502ALE CLEAR 112 PRO 102 MI PRO 601 4.00 PRO 601 4.00 PRO 601 4.00 PRO BREAKER 4 BNL-10C PRO DRB-LT BUTCH 12 BRI-10C PRO DRB-LT BUTCH 13 BRI-10C PRO 102 BREAK	Chemical Abstract Service Number (CAS#)	7722-18-5	7647-01-0	31 82	111/26-2	67-56-1	127087/87-0	61788-93-0	2732418-35	64742-47-8	7647-14-5	12125.02-9	Proprietary	Proprietary	7732-18-5	2687-96-9	7732-18-5	Proprietary 10721-1	57.50.1	9003-11-6	100.97-0	Proprietary	Proprietary	Proprietary 7732-18-5	64742.47-8	9016-45-9	60828:78-6
Chemical Disclosure Registry (e.g. XX-XXX-XXXXX-0000) America S America S Alliance	Ingredients	Water	Silica Substrate Frontechorio Actif	Dimethylcocoamine, bis chloroethyll ether, diquaternal	2-Butexyethanol	Methyl Alcahol	Nonyl Phenol Ethosylate, Branched	Propargyl Alcohol Coco alkyldimethylamines	Water	Petroleum Distillates	Sodium Chloride	Ammonium Chloride	Tall oil	Proprietary Ingredient	Water Methol Modod	N-dodecyl-2-pyrrolidone	Water	Ethoxylate Alcohol	Sucrose	Polyether Polyol	Hexamethyleneteramine	Proprietary Ingredient	Proprietary Ingredient	Proprietary Ingredient	Distillates (Petroleum), hydrotreated light	Nonylphenol, Ethoxylate	Nonionic Surfactant
Wetzel Wetzel Wiley GRN WZ No NAD27 RESS.174	Purpose	Carrier/Base Fluid	Proposit	Actualing			The second second		THE REAL PROPERTY AND ADDRESS OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN C	Friction Reduces					Surfaceant			Breathe				The second secon			Gelling Agent		
Fracture End Date Times States States API Numbers Operator Numbers Weld Numer Federal Wells Federal Wells Forderal Wells Forderal Wells Forderal Wells Forderal Wells Forderal Wells Forderal Wells True Vertical Depth (TVD): Total Clean Fluid Volume* (gal): Forder Clean Fluid Volume* (gal):	Supplier	pany t		Producers Service Corp 11			- A - A - A			Producers Service Corp. 1					Dendinas Comica Com			Producers Service Core	n Gas						Producers Service Corp. (
True Total Circ	Trade Name		Sand (Proppant)							FRA 407					N COLO IN COR			F GENYAGE DEG					Charles and the second		PRO GEL 4.0L		

All component information isted was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the Supplier who provided it. The Octopational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary," "Inde secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(i) and Appendix D.

