

### 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

November 30, 2015

## WELL WORK PERMIT Horizontal 6A Well

This permit, API Well Number: 47-9101327, issued to EQT PRODUCTION COMPANY, 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 Märtin

Chief

Operator's Well No: 516338

Farm Name: MORRIS, MICHAEL G.

API Well Number: 47-9101327

Permit Type: Horizontal 6A Well

Date Issued: 11/30/2015

API Number: 9 1 0 1 3 2 7

## 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. Failure to adhere to the specified permit conditions may result in enforcement action.

#### **CONDITIONS**

- 1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
- 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 one hundred (100) 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.
- 9. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.



#### west virginia department of environmental protection

Office of Oil and Gas 601 57<sup>th</sup> Street Charleston, WV 25304 (304) 926-0450 fax (304) 926-0452

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

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

TO: EQT Production Company 115 Professional Place P.O. Box 230 Bridgeport WV, 26330

DATE: November 23, 2015 ORDER NO.: 2015-W-12

#### 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 EQT Production Company (hereinafter "EQT" 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. EQT is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as 115 Professional Place, P.O. Box 230, Bridgeport, West Virginia.
- 3. On August 26, 2015 and September 18, 2015, EQT submitted well work permit applications identified as API#s 47-091-01323, 47-091-01324, 47-091-01326 and 47-091-01327. The four proposed wells are to be located on the FAW 60 Pad in Booths Creek District of Taylor County, West Virginia.
- On August 26, 2015, EQT requested a waiver for Wetland A, Wetland C and Wetland E as outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for well work permit applications identified as API#s 47-091-01323, 47-091-01324, 47-091-01326 and 47-091-01327.

5. On June 9, 2015, Civil & Environmental Consultants, Inc. (CEC), on behalf of EQT, requested a Nationwide Permit (NWP) 14 from the U.S. Army Corps of Engineers (USACE) for permanent impacts to 0.007 acre of Wetland B. Furthermore, on November 19, 2015, CEC requested a waiver for the remaining portion (0.004 acre) of Wetland B as outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for well work permit applications identified as API#s 47-091-01323, 47-091-01324, 47-091-01326 and 47-091-01327.

### **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**

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. The Office of Oil and Gas grants the request for a waiver for Wetland A, Wetland B, Wetland C and Wetland E from well location restriction requirements in W. Va. Code §22-6A-12(b) for well work permit applications identified as API#s 47-091-01323, 47-091-01324, 47-091-01326 and 47-091-01327. The Office of Oil and Gas hereby **ORDERS** that EQT shall meet the following site construction and operational requirements for the FAW 60 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 a twenty four inches (24") in height;
- b. Filter/silt socks shall be installed on all slopes and down gradient locations of the pad and topsoil pile areas as erosion and sediment controlling BMPs;
- c. Wetlands A, B, C, and E shall have super silt fence backed with thirty two inch (32") compost filter sock for all areas immediately adjacent to the wetland
- d. The entire area where the wetlands are located will be delineated with orange construction fence.
- e. All diversion ditches that feed the areas where the wetlands are located shall have ditch checks to aid in the removal of sediment.
- f. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- g. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- h. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- i. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- j. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs:
- k. 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;
- 1. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- m. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 23<sup>rd</sup> day of November, 2015.

### IN THE NAME OF THE STATE OF WEST VIRGINIA:

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



November 5, 2015

Mr. Gene Smith West Virginia Department of Environmental Protection Office of Oil and Gas 601 57th Street SE Charleston, WV 25304

Re: revision of 47-091-01323, 01324, 01326, 01327

Dear Mr. Smith,

Enclosed is an updated WW-6B and schematics changing the fresh water casing, signed by the inspector. Please insert these changes into the permit applications on file.

If you have any questions, please do not hesitate to contact me at (304) 848-0076.

Sincerely,

Vicki Roark

Permitting Supervisor-WV

Enc.

NOV 05 2015
Environmental Protection

WW - 6B (4/15)

## 4709101327

API NO.	47		091	 0
ОРЕПАТО	RWE	LL NO	,	516338
Well Pa	d Nar	ne:		FAW60

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

1) Well Operator: EQT Produc	tion Company	у	306686	091		i	343
			Operator ID	County	District	Qua	drangle
2) Operator's Well Number:		516338		Well Pad N	ame:	FAW60	
3) Farm Name/Surface Owner :		Michael G. N	Morris	Public Road	d Access:	Co. F	It. 250
4) Elevation, current ground:	1,322.7	Ele	vation, propose	d post-construct	ion:1,	316.1	
5) Well Type: (a) Gas	Oil _		Underground St	orage			
Other							
(b) If Gas:	Shallow _		Deep				
	Horizontal _						
6) Existing Pad? Yes or No:	no						
7) Proposed Target Formation(s)	Donth/a) As	ticinated Thi		11.15	- /\		
<ol> <li>Proposed Target Formation(s),</li> <li>Target formation is Marcellus at</li> </ol>				ssociated Presst to be 155 feet and a		pronouro al	1869 PSI
			of Marcellus: 7		imopaled large	pressure or	1009 1131
8) Proposed Total Vertical Depth:				7290			
<ol><li>Formation at Total Vertical Dep</li></ol>	oth:			Marcellus			
10) Proposed Total Measured De	nth:			10881			
11) Proposed Horizontal Leg Leng				2,575			
12) Approximate Fresh Water Stra	ata Depths:			21, 204, 268, 357	7, 662, 736, 8	78	
13) Method to Determine Fresh W	later Depth:						
14) Approximate Saltwater Depths	s:			1,406			
15) Approximate Coal Seam Dept				390, 458, 527, 5	52, 626, 706.	772	
16) Approximate Depth to Possibl	e Void (coal r	nine, karst, o				reported	
17)Does proposed well location co							-
adjacent to an active mine?				Yes	No x		
(a) If Yes, provide Mine Info:	Name:						
	Depth:						
	Seam:						
	Owner:						

Page 1 of 3

Office of Oil and Gas Environmental Protection

WW - 6B (4/15)

## 4709101327

APINO	4/ -	091	-	(1)
OPERATO	R WELL	10		516338
Well Par	d Name:			FAW60

#### CASING AND TUBING PROGRAM

18)							
TYPE	Size (in)	<u>New</u> or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill- up (Cu.Ft.)
Conductor	20	New	MC-50	81	35	35	34 C.T.S.
Fresh Water	13 3/8	New	J-55	54.5	978	978	850 C.T.S.
Coal	-	~	-	-	_	-	-
Intermediate	9 5/8	New	A-500	40	2,250	2,250	875 C.T.S.
Production	5 1/2	New	P-110	20	10,881	10,881	See Note 1
Tubing	2 3/8		J-55	4.6			May not be run, if run will be set 100 less than TD
Liners						,	

TYPE	Size (in)	Wellbore	Wall	Burst Pressure	Anticipated	Cement	Cement Yield
		Diameter (in)	Thickness	(psi)	Max. Internal	Type	(cu. ft./k)
			(in)	1257	Pressure (psi)	1700	100.11.71
Conductor	20	24	0.375		18	Construction	1.18
Fresh Water	13 3/8	17 1/2	0.38	2,730	2,184	* See Note 2	1.21
Coal							-50
Intermediate	9 5/8	12 3/8	0.395	3,950	3,160	* See Note 2	1.21
Production	5 1/2	8 1/2	0.361	12,640	10,112	4	1.27/1.86
Tubing							
Liners							

#### **Packers**

Kind:	N/A	
Sizes:	N/A	
Depths Set:	N/A	

**Vote 1**: EQT plans to bring the TOC on the production casing cement job 1,000' above kick off point, which is at east 500' above the shallowest production zone, to avoid communication.

Vote 2: Reference Variance 2014-17. (Attached)

Page 2 of 3

Office of Oil and Gas

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(10/1	4	)	

# 4709101327

API NO.	<u> 17</u>	٠.	091	
OPERATO	51633			
Well Pag	d Nar	ne:		FAW6

	Well Pad Name:	FAW6
19) Describe proposed well work, including the drilling and plugging back of any pilot ho	ole:	
Drill and complete a new horizontal well in the Marcellus formation. The vertical drill to go down to an ap	poroximate depth of 4879	
Then kick off the horizontal leg into the Marcellus using a slick water frac.		
20) Describe fracturing/stimulating methods in detail, including anticipated max pressure		
Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fre freshwater sources. This water is mixed with sand and a small percentage (less than 0.3%) of chemicals (incl	actured wells and obtained from	
gelling agent, gel breaker, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwa	ater completion. Maximum	
anticipated internal casing pressure is expected to average approximately 8500 psl, maximum anticipated trea	iting rates are expected to average	<del></del>
approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 200,000 barrels of	water per stage. Sand sizes	
vary from 100 mesh to 20/40 mesh. Average approximately 200,000 pounds of sand per stage.		
21) Total area to be disturbed, including roads, stockpile area, pits, etc, (acres):	19.39	<del></del>
22) Area to be disturbed for well pad only, less access road (acres):	17.89	
23) Describe centralizer placement for each casing string.		
Surface: Bow spring centralizers - One at the shoe and one spaced every 500'.		
<ul> <li>Intermediate: Bow spring centralizers— One cent at the shoe and one spaced every 50</li> <li>Production: One spaced every 1000' from KOP to Int csg shoe</li> </ul>	<u>0',                                      </u>	
Troubblich. One spaced every rood non-KOF to the cay shoe		
24) Describe all cement additives associated with each cement type. Surface (Type	e 1 Cement): 0-3% Calcium Chloride	
Used to speed the setting of cement slurries.		
0.4% flake. Loss Circulation Material (LCM) is used to combat the loss of the cement slurry to a ti	hief zone.	
Intermediate (Type 1 Cement): 0-3% Calcium Chloride. Salt is used in shallow, low temperature forma slurries. 0.4% flake. Loss Circulation Material (LCM) is used to combat the loss of whole drilling fl	tions to speed the setting of cement	
to a thief zone.	aid of Cernerit Sturry (not hitrate)	-
Production:		
Lead (Type 1 Cement): 0.2-0.7% Lignosulfonate (Retarder). Lengthens thickening time.		-
0.3% CFR (dispersant). Makes cement easier to mix.		
Tail (Type H Cement): 0.25-0.40% Lignosulfonate (Retarder). Lengthens thickening time.		
0.2-0.3% CFR (dispersant). This is to make the cement easier to mix.		
60 % Calcuim Carbonate. Acid solubility.		<del></del>
0.4-0.6% Halad (fluid loss). Reduces amount of water lost to formation.		
25) Proposed borehole conditioning procedures. Surface: Circulate hole clean (Approximately	20 AE minutas) actation 9 occionos	·!
one full joint until cuttings diminish at surface. When cuttings returning to surface diminish, contin		ung
minutes. To ensure that there is no fill, short trip two stands with no circulation. If there is fill, bring		<del></del>
and circulate hole clean. A constant rate of higher than expected cuttings volume likely indicates		
ntermediate: Circulate hole clean (Approximately 30-45 minutes) rotating & reciprocating one full joint u		<del></del>
surface. When cuttings returning to surface diminish, continue to circulate an additional 5 minutes	s. If foam drilling, to enhance	On Pico
ole cleaning use a soap sweep or increase injection rate & foam concentration.		OBDERTANDO OBDERTANDO OBDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO ONDERTANDO
Production: Pump marker sweep with nut plug to determine actual hole washout. Calculate a gauge hole	s battams up valume.	NOV a
erform a cleanup cycle by pumping 3-5 bottoms up or until the shakers are clean. Check volume	of cuttings coming across	Ospertinent of specification
the shakers every 15 minutes.	- Ann	enterime.
		Mole Of
	<del></del>	

<sup>\*</sup>Note: Attach additional sheets as needed.

Well 516338 (FAW60H9) **EQT Production** Fairmont West Azmuth 161 Taylor West Virgina Vertical Section 3380 TVD Depth Formation Casing (leet) Tops (TVD) Hole Size Size Type (mohes) (inches) 24 Conductor 250 500 7501 Baue Fresh Water 17 1/2 Surface 13 3/8 1,000 Martine (1000) flig Lime 1040 1271 1.250 1412 1,500 1604 1643 -Fifty Local 1714 1755 1,750 Therty foot 18te TREE Gordon 9873 1928 2,000 Sizes Red Rock 1923 (2000) · Forth Band 2105 2,250 2164 Bayard 2700 to gen at 2250 12 3 B 95/8 40#/A-500 Intermediate 2,500 -Warren 2542 2603 2770 2,750 3,000 (3000) 3,250 3,500 3927 2567 3.750 4,000 ATRI 4234 4.250 4,500 -Alexande 4528 4.750 5,000 KOP @ 4,879° 5,250" 5,500" 5,750 6,000° 6,250 6439 6720 6.500° Middleson 6720 8427 6627 1957 6.750 11952 602x 1984 7647 7,000 -Hamilton 1047 T184 7164 7,250 Target Inside Marcellus 7290 8 1/2 Production Casing 5 1/2 20#/P-110 Marcellas Bottom 7339 7,500 7,750

Drill and complete a new horizontal well in the Marcellus formation.

The vertical drill to go down to an approximate depth of 4879.

Then kick off the horizontal teg into the Marcellus using a slick water frac.

Proposed Well Work:

2,575 ft Lateral

Est. TD @ 7,290" ft TVD 10,881" ft MD

Land curve @ 7,290" It TVD

8,306' H MD



November 2, 2015

Mr. Gene Smith West Virginia Department of Environmental Protection Office of Oil and Gas 601 57th Street SE Charleston, WV 25304

Re: Casing plan on Wells (FAW60)

Dear Mr. Smith,

EQT is requesting the 13-3/8" surface casing be set at 978' KB, 100' below the deepest fresh water. We will set the 9-5/8" intermediate string at 2250' KB, 50' below the base of the Bayard formation.

If you have any questions, please do not hesitate to contact me at (304) 848-0076.

Sincerely,

Vicki Roark

Permitting Supervisor

Enc.

NOV N.5 015
Environmental Protection



west virginia department of environmental protection

Office of Oil and Gas 601 57th Street, SE Charleston, WV 25304 (304) 928-0460 (304) 926-0462 fax

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

March 18, 2014

Nabors Completion & Production Services Company 1380 Route 286 Hwy E #121 Indiana PA 15701

Re: Cement Variance Request

Dear Sir or Madam,

This agency is approving a variance request for the cement blend listed below to be used on surface and coal protection strings for the drilling of oil and gas wells in the state of West Virginia. The variance cannot be used without requesting its use on a permit application and approval by this agency:

Type 1 (2% Calcium Chloride-Accelerator, 0.25% Super Flake-Lost Circulation, 5.2% Water, 94% Type "1" Cement)

If you have any questions regarding this matter feel free to contact me at 304-926-0499, ext. 1653.

James Peterson

Environmental Resources Specialist / Permitting

4709101327

Promoting a healthy environment.

RECEIVED
Chass of Orland Gas

SEP 1 8 2015

V/V Conadment of Encommed of Pro<mark>12/04/2015</mark>



west virginia department of environmental protection

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

#### BEFORE THE OFFICE OF OIL AND GAS DEPARTMENT OF ENVIRONMENTAL PROTECTION STATE OF WEST VIRGINIA

IN THE MATTER OF A VARIANCE FROM	)	ORDER NO.	2014 - 17
<b>REGULATION 35 CSR § 4-11.4/11.5/14.1</b>	)		
AND 35 CSR § 8-9.2.h. 4/5/6/8 OF THE	)		
THE OPERATIONAL	)		
REGULATIONS OF CEMENTING OIL	)		
AND GAS WELLS	)		

#### REPORT OF THE OFFICE

Nabors Completion & Production Services Co. requests approval of a different cement blend for use in cementing surface and coal protection casing of oil and gas wells.

#### FINDINGS OF FACT

- 1.) Nabors Completion & Production Services Co. proposes the following cement blend:
  - 2% Calcium Chloride (Accelerator)
  - 0.25 % Super Flake (Lost Circulation)
  - 94% Type "1" Cement
  - 5.20 % Water
- Laboratory testing results indicate that the blend listed in Fact No.1 will achieve a 500
  psi compressive strength within 6 hours and a 2,435 psi compressive strength within 24
  hours.

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Promoting a healthy environment.

MECETYZD Office of Oil and Gas

SEP 1 8 2015

#### CONCLUSIONS OF LAW

Pursuant to Articles 6 and 6A, Chapter 22 of the Code of West Virginia, the Office of Oil and Gas has jurisdiction over the subject matter embraced in said notice, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

Pursuant to 35 CSR § 4-11.5 and 35 CSR § 8-9.2.h.8 the Chief of the Office of Oil and Gas may approve different cement blends upon the well operator providing satisfactory proof that different cement types are adequate.

#### ORDER

It is ordered that Nabors Completion & Production Services Co. may use the cement blend listed in Findings of Fact No.1 for the cementing of surface and coal protection casing of oil and gas wells in the State as may be requested by oil and gas operators. The waiting time on the cement blend shall be 8 hours. The cement blend shall be mixed in strict accordance with the specifications for each blend and weight measurements made on-site to assure the cement slurries meet the minimum weight specifications. A sample shall be collected and, if after 8 hours the cement is not set up, additional time will be required. Nabors Completion & Production Services Co. shall keep a record of cement blend jobs in which the cement blend approved under this order is to be used and made available to the Office of Oil and Gas upon request.

Dated this, the 18th day of March, 2014.

IN THE NAME OF THE STATE OF WEST VIRGINIA

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

James Martin, Chief Office of Oil and Gas

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SEP 1 8 2015

Wilder Description 12/04/2015
Emiliar Hamilton Protection

WW-9 (2/15)

	Page		1	of	2
API No. 47	- (	091	-		0
Operator's V	Vell I		516338		

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

Fluids/Cuttings Disposal & Reclamation Plan

Operator Name	EQT Production Company	OP Code	306686	
Watershed (HUC10)	Hustead Fork of Booths Creek	Quadrangle	Fairmont West	
Do you anticipate using r	nore than 5,000 bbls of water to comple	te the proposed well wor	k? Yes <u>x</u> No	· 
Will a pit be used ? Yes:	XNo:			
If so please descr	ribe anticipated pit waste:	flowback water & resi	dual solids	
Will a synthetic lir	ner be used in the pit? Yes X	NoIf so,	what ml.?60	
Proposed Dispo	Reuse (at API Number	ermit Number 001. Various WW-9 for disposal locati	4, 8462, 4037 ) on)	
Will closed loop system b	then prepared for transportation to an off-site		m the drilling	
Drilling medium anticipate	ed for this well (vertical and horizontal)?  I the wellbore (surface, intermediate, and pilot). Water based multothole, curve, and lateral sections will be drilled with either air, to	Air, freshwater, oil based d may be necessary depending on hole		
Additives to be used in d alkalinity control, lime, filtration	control, deflocculates, biodegradable oil lubricant e oil, emulsifier, salt, lime, viscosifer, alkalinity cor	cant , detergent, defoaming, water. W , defoaming, walnut shell, salt,	ater based mud – Barite, viscositer, & x-cide, carbonates.	9101327
Drill cuttings disposal m	- ethod? Leave in pit, landfill, removed of	fsite, etc.	Landfill	
	plan to solidify what medium will be used? (Ceme		n/a	
- Landfill or offsi	ite name/permit number?	See Attached Li	st	
any West Virginia solid was disclose where it was prope I certify that I understand on August 1, 2005, by the Office	d and agree to the terms and conditions of the GE te of Oil and Gas of the West Virginia Department	n 24 hours of rejection and NERAL WATER POLLUTION of Environmental Protection. I	PERMIT issued understand that	•
	forceable by law. Violations of any term or condition ement action.		other applicable law	
application form and all attachr the information, I believe that the	law that I have personally examined and am fam ments thereto and that, based on my inquiry of tho ne information is true, accurate, and complete. I a cluding the possibility of fine or imprisonment.	se individuals immediately resp	consible for obtaining	
Company Official Signat Company Official (Typed Company Official Title	Name)	Victoria J. Roark/ litting Supervisor/	/L	EIVED
	110	Sambanaha	O Unice of C	lit and Gas
Subscribed and sworn b	efore me this	septembe		R 2015
- demen	an or Memor		Notary Public SEP 1	
My commission expires	1-1-du		WAY Dapa	Timent of
			Environtrient	12/04/2015

## 4709101327

Form WW-9		Operato	or's Well No.	51633
Proposed Revegetation Treat	ment: Acres Disturbed	19.39	Prevegetation pH	6.07
Lime 3	Tons/acre or to c	orrect to pH	6.5	
Fertilize type	Granular 10-20-20			
Fertilizer Amount	1/3 lbs/acr	e (500 lbs minimum)		
Mulch	2	Tons/acre		
	Se	eed Mixtures		
Tempora			Permanent	
Seed Type KY-31	lbs/acre 40	Seed Type Orchard Grass	lbs/a- 15	cre
Alsike Clover	5	Alsike Clover	5	
Annual Rye	15	-		
Drawing(s) of road, localion,pi Photocopied section of involve		d application.		
Plan Approved by:	Emile!	Lynn		· ·
Comments: 250	to ASOO			
	-			
Title: OIL + GAS	INSPECTED	Date:	-4-15	
Field Reviewed? (	V ) Yes	(	) No	

# **EQT Production Water plan Offsite disposals for Marcellus wells**

#### **CWS TRUCKING INC.**

P.O. Box 391 Williamstown, WV 26187 740-516-3586 Noble County/Noble Township Permit # 3390

#### LAD LIQUID ASSETS DISPOSAL INC.

226 Rankin Road Washington, PA 15301 724-350-2760 724-222-6080 724-229-7034 fax Ohio County/Wheeling Permit # USEPA WV 0014

#### TRI COUNTY WASTE WATER MANAGEMENT, INC.

1487 Toms Run Road Holbrook, PA 15341 724-627-7178 Plant 724-499-5647 Office Greene County/Waynesburg Permit # TC-1009

#### **Waste Management - Meadowfill Landfill**

Rt. 2, Box 68 Dawson Drive Bridgeport, WV 26330 304-326-6027 Permit #SWF-1032-98 Approval #100785WV

#### **Waste Management - Northwestern Landfill**

512 E. Dry Road Parkersburg, WV 26104 304-428-0602 Permit #SWF-1025 WV-0109400 Approval #100833WV

#### **BROAD STREET ENERGY LLC**

37 West Broad Street Suite 1100 Columbus, Ohio 43215 740-516-5381 Washington County/Belpre Twp. Permit # 8462

#### **TRIAD ENERGY**

P.O. Box 430 Reno, OH 45773 740-516-6021 Well 740-374-2940 Reno Office Jennifer Nobel County/Jackson Township Permit # 4037

#### KING EXCAVATING CO.

Advanced Waste Services 101 River Park Drive New Castle, Pa. 16101 Facility Permit# PAR000029132

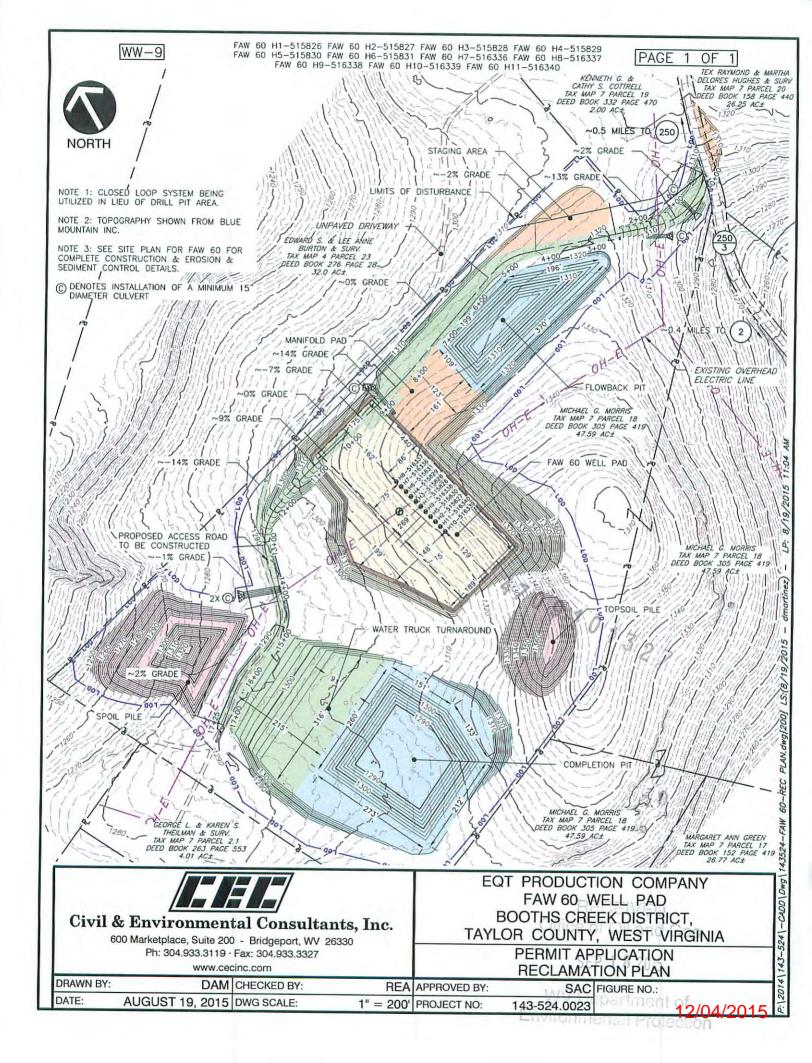


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WV Department of Environment in Protection 2/04/2015



4709101327



# Site Specific Safety Plan

# EQT FAW 60 Pad

Fairmont- West Quadrant

Taylor County, WV

3/4338	For We	lls:
Quel A	Date Prepared:	August 18, 2015  WV Oil and Gas Inspector
10 /10 /	Percurat	Title  11-4-15  Date

### 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 -

- 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;
- 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	INI	me	OI
N	umb	er	

Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
965747			min pd 1/8th	
	John Sandor	Hunt Marcellus, LLC		LB62/178
	Stephany Mallery	Hunt Marcellus, LLC		LB62/181
	Stephen Sandor	Hunt Marcellus, LLC		LB62/185
	Hunt Marcellus, LLC (50%)	<b>EQT Production Company</b>		AB33/526
	Michael G. Morris (50%)	EQT Production Company		LB66/66
1003685			min pd 1/8th	
	Stephany S. Mallery	EQT Production Company		LB66/170
	John C. Sandor & Carole Sandor	EQT Production Company		LB66/172
	Stephen J. Sandor, Jr. & Susan Sandor	EQT Production Company		LB66/174
965724			min pd 1/8th	
	Tex R. Hughes & Martha D. Hughes	Hunt Marcellus, LLC		LB61/347
	Hunt Marcellus, LLC	EQT Production Company		AB33/526
1006532	Tex R. Hughes & Martha D. Hughes	EQT Production Company		LB66/231
965738			min pd 1/8th	
	Martha Mable Withers	Hunt Marcellus, LLC		LB61/539
	Hunt Marcellus, LLC	EQT Production Company		AB33/526
965676			min pd 1/8th	
	Renee Adair Development Co., LLC	Hunt Marcellus, LLC		LB60/562
	Hunt Marcellus, LLC (80%)	EQT Production Company		AB33/526
	Patricia Craft (10%)	EQT Production Company		LB67/335
	The Diocese of Wheeling-Charleston	Act and Arthur		
	F.B.O. St. Augustine's Roman Catholic Church (10%)	EQT Production Company		LB67/402

Upon information and belief, Operator's lease and/or other real property rights permit it to conduct drilling operations for the subject well in the location shown on the plat. including under any public roads that the well lateral crosses.

#### 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

- 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.

> FOT Production Company Well Operator: By:

Its: Permitting Supervisor

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SEP 1 8 2015

Page 1 of 1

yw Decariment of Environmental Pretaction

4709101327

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

Date of No	tice Certification:		PI No. 47 09 perator's Well No.	516338
		W	Vell Pad Name:	FAW60
lotice has	been given:			
	[1987년 12일 - 1987년 1988년 1988년 1987년 1	Code § 22-6A, the Operator has provided the	e required parties with	h the Notice Forms listed
	e tract of land as follows:			
tate:	WV	UTM NAD 83 Easting:		572.115.26
ounty:	Taylor	UTM NAD 83 Northing:		4,359,297.64
strict:	Booths Creek	Public Road Access:		Co. Rt. 250
uadrangle:	Fairmont West	Generally used farm name:		Michael G. Morris
atershed:	Hustead Fork of Booths Cre	eek		
f this article fursuant to nat the Ope PLEASE (	west Virginia Code § 22-6A, the restor has properly served the reconstruction of the control of	e Operator has attached proof to this Notice equired parties with the following:  NOTICE NOT REQUIRED BECAUS SEISMIC ACTIVITY WAS CONDUCTION.	Certification SE NO CTED	OOG OFFICE USE ONLY  RECEIVED/NOT REQUIRED
NOTICE	E OF ENTRY FOR PLAT SU	JRVEY or NO PLAT SURVEY WA	S CONDUCTED	LHECEIVED
NOTIC	E OF INTENT TO DRILL or	NOTICE NOT REQUIRED BECAU NOTICE OF ENTRY FOR PLAT S WAS CONDUCTED OR		RECEIVED/NOT REQUIRED
		WRITTEN WAIVER BY SURFACE (PLEASE ATTACH)	OWNER	
V NOTICI	E OF PLANNED OPERATION	DN		RECEIVED
▼ PUBLIC	CNOTICE			RECEIVED
▼ NOTICI	E OF APPLICATION		A.	RECEIVED
			0	

### Required Attachments:

SEP 1 8 2015

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 person postal receipt for certified mailing.

WW-6AC (1/12)

						,
Certification	of	Notice	is	hereby	qiv	en:

, have read and understand the notice requirements within West Virginia Code § 22-THEREFORE, f 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.

**EQT Production Company** Address: P.O. Box 280 Well Operator: Victoria J. Roark Bridgeport, WV 26330 By: Permitting Supervisor Facsimile: 304-848-0040 Its: 304-848-0076 Email: vroark@eqt.com Telephone:

OFFICIAL SEAL NOTARY PUBLIC OTARY SEAL. HEATER

Subscribed and sworn before me this

10 day of September 2015

Notary Public

My Commission Expires

#### 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.

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WV Department of al Protection Environment at Protection

API NO.	47	4	091	+	(
OPERATOR	R WEL	L NO.			516338
Well Pad	Nam	e:	-		FAW60

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

Date of Notice: 9-17	- 15 Date Permit Appl		9-17-	and the same of th		
Notice of:						
PERMIT FOR ANY WELL WORK	☐ CERTIFICATE C		L FOR THE OUNDMENT OR	PIT		
Delivery method pursuant to V	Vest Virginia Code § 22-6A-10	(b)				
☐ PERSONAL	REGISTERED	☑ метн	OD OF DELIVER	Y THAT REQUIRES A		
SERVICE	MAIL			RE CONFIRMATION		
for the construction of an intequires a receipt or signature plat to each of the following the surface tract or tracts of disturbance as described intessee, in the event the tract of the surface one, chapter eleventures the lien holder is the surface owner and any of the surface owner and any of SURFACE OWNER(s).	) Michael G, M	irred by this f the applicate of record of isehold being control plan I proposed to a gas leased or abandonre a water well imans or done tenants in cequired upon istanding any R. § 35-8-5. Owner subjection of the control of the con	article shall deltion, the erosion the surface of g developed by submitted pursue be drilled is located by the drilled b	iver, by personal server and sediment control he tract on which the the proposed well wo mant to subsection (c) cated [sic] is known loped by the propose oundment or pit as deer supply source loca and (6) The operator or co-owners of interecribed in the records is article to the contropart, that the operator	rice or by registered plan required by well is or is proport, if the surface to be underlain by the well work, if the escribed in section of any natural gasests described in surface, notice to a lier shall also provided in section 15.	d mail or by any section seven of osed to be located; ract is to be used this article; (3) The one or more coal e surface tract is to a nine of this ousand five a storage field absection (b) of ired to be a holder is not e the Well Site of this rule.
Address:	512 Tappan Grafton WV 2	Road A	ddress:		512 Tappar Grafton WV	n Road
				Con attached for	r additional coal o	
Name:		Ţ			i additional coal o	whers.
Address:			ame: ddress:			
Name: Address: Name: Address:	(s) (Road and/or Other Dist Michael G, M 512 Tappan I Grafton WV 2 Kenneth G. and Cathy Co 430 Tappan I Grafton WV 2 road/ other disturbance ow () (Impoundments/Pits) Michael G, M 512 Tappan I Grafton WV 2	Iorris Road An Na	ND/OR WATE	OWNER OF WATE R PURVEYOR(s)	Michael G, 1512 Tappar Grafton WV	1 Road 26354
		*P	lease attach add	litional forms if neces	WV Dapa	rtment of 12/04/2015

#### WW6-A

#### Additional Access Road Owners:

Tex Raymond and Martha Delores Hughes 383 Tappan Road Grafton WV 26354

#### Additional Coal Owners:

Coalquest Development LLC c/o Ark Land Company Attn: Dave Finnerty One City Place Drive St. Louis MO 63141-7056

#### Additional Surface Owner of Water Wells:

William R and Sally L Hostutler 

2006 Rock Union Rd.

Fairmont WV 26554

Edward S and Lee Anne Burton and Surv Rr 4 Box 509 Fairmont WV 26554

Tex Raymond and Martha Delores Hughes and Surv. 383 Tappan Road Grafton WV 26354

Kenneth G. and Cathy Cottrell and Surv. 430 Tappan Road Grafton WV 26354

George and Karen S Theilman and Surv. 492 Mohawk Rd. Grafton WV 26354

Robin V Leeper 1576 Turkey Run Rd. Grafton WV 26354

John T and Patricia P Marshal 162 Aspen Dr. Fairmont WV 26554

Robert W and Vivian L Sickles and Surv. 388 Mohawk Rd. Grafton WV 26354

Gary and Kimberly Weaver and Surv. 6430 Beverly Pike Fairmont WV 26554 \$70970732>

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Office of Oil and Gas

SEP 1 8 2015

WW-6A
(8-13)

API NO. 47 - 091 - 0

OPERATOR WELL NO. 516338

Well Pad Name: FAW60

#### 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 predrilling 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 waiver, 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 Clean 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 poise, 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 zavārtment o dwelling structures are inadequate or otherwise require alteration to address the items Electric order of Protect

WW-6A OPERATOR WELL NO. (8-13)Well Pad Name:

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-bycase 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:

470910

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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

SEP 1 8 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. The Protect 2/04/2015 NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

#### 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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SEP 18 2015

#### Notice is hereby given by: Well Operator: **EQT Production Company** 115 Professional Place P.O. Box 280 304-848-0082 Bridgeport, WV 26330 Telephone: Vroark@eqt.com 304-848-0041 Email: Facsimile:

#### 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.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form 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.

> OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA EQT PRODUCTION COMPANY
> PO BOX 280
> BRIDGEPORT, WV 26330
> y commission expires April 07, 202

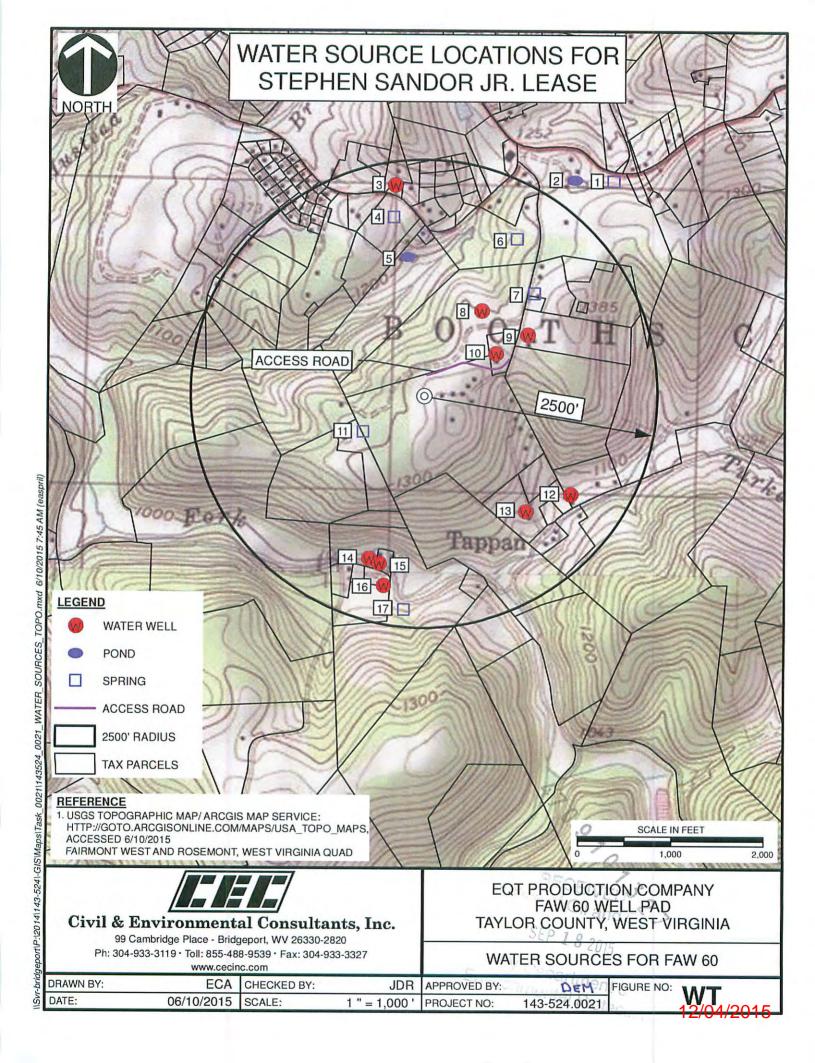
By: Victoria Roark Its: Permitting Supervisor

Subscribed and sworn before n 100 day of Septomber, 2015
Notary Public

My Commission Expir

4709101327

SEP 1 8 2015 WV Dayartment of Environment a Protection



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

Date of Notice	ce: 6/20/2014		Date of Plan	ned Entry	6/30/2014
Delivery met	hod pursuant to W	/est Virginia Code § 22		mod Lindy.	0/30/2014
	VAL SERVICE	X CERTIFIED MAIL			
					S A RECEIPT OR SIGNATURE CONFIRMATIO
prior to such a pursuant to se records. The r and gas explo	entry to: (1) The su ection thirty-six, art notice shall include tration and production	rface owner of such tra ticle six, chapter twenty a statement that copies on may be obtained from	ct; (2) to any owner or lessee of co	al seams be ner of mine Control Ma	vide notice of planned entry on to the surfative seven days but no more than forty-five date eneath such tract that has filed a declarationals underlying such tract in the county to the nual and the statutes and rules related to contact information, including the address for the statutes.
Notice is here	eby provided to:				
	URFACE OWNER(	S)	V	LAUNEDAL	OMMEN (a)
100	ichael G. Morris	/	X	Annual State of the State of th	OWNER(S)
Address: 51	12 Tappan Rd.		Name:	Michael G 512 Tappa	
Gi	rafton, WV 26354-8	354	Address:		VV 26354-8354
X C	OAL OWNER(S) O	R LESSEE(S)			
\$2	pai Declaration purs 22-6-36 Not of Reco	suant to §22-6A-10 and ord		·DI-	
_ §2	22-6-36 Not of Reco	ord		'Please attac	ch additional forms if necessary
Notice is here Pursuant to We	22-6-36 Not of Reco by given: est Virginia Code §	ord			
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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.

12/04/2015

WW-6A5	
(1/12)	

Operator Well No.

516338

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

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notic	re:	Date Perm	it Applica	tion Filed:		
Delivery met	hod pursuant to West Virginia Code § 22	-6A-16(c)				
1 2 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		IAND ELIVERY				
return receipt the planned op required to be drilling of a ho damages to th	Va. Code § 22-6A-16(c), no later than the dat requested or hand delivery, give the surface of peration. The notice required by this subsection provided by subsection (b), section ten of this rizontal well; and (3) A proposed surface use a surface affected by oil and gas operations to required by this section shall be given to the	wner whose land in shall include article to a sure a sure at compensation the extent the	nd will be u : (1) A copy rface owne ion agreem damages a	used for the drilling of a of this code section; (a r whose land will be us ent containing an offer are compensable under	a horizontal well not 2) The information ed in conjunction w r of compensation for r article six-b of this	ith the or chapter.
	by provided to the SURFACE OWNER(s)					
	listed in the records of the sheriff at the time					/
Name:		el G, Morris	Name: _	Ke	enneth G and Cathy	
	512 Ta	ppan Road	Address:	-		130 Tappan Road
Notice is here Pursuant to W	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1					Grafton WV 26354
operation on t State:	by given: est Virginia Code § 22-6A-16(c), notice is here the surface owner's land for the purpose of dri W	by given that th ling a horizont	al well on t	he tract of land as follo Easting:	ows:	ed 572.115.26
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Notice is here Pursuant to W operation on t State: County:	by given: est Virginia Code § 22-6A-16(c), notice is here he surface owner's land for the purpose of dri W Tayl	oy given that th ling a horizont V UTM NA or ek Public R	al well on t AD 83	he tract of land as follo Easting: Northing:	ows:	572.115.26 ,359,297.640000
Notice is here Pursuant to W operation on t State: County: District: Quadrangle: Watershed: This Notice Sh Pursuant to W to be provided horizontal wel surface affecte information re headquarters, pages/default Well Operator	by given: est Virginia Code § 22-6A-16(c), notice is here he surface owner's land for the purpose of dri  W Tayl  Booths Cre Fairmont We Hustead Fork of Booths Creek  est Virginia Code § 22-6A-16(c), this notice sha by W. Va. Code § 22-6A-10(b) to a surface ov 1; and (3) A proposed surface use and compend d by oil and gas operations to the extent the collated to horizontal drilling may be obtained frollocated at 601 57th Street, SE, Charleston, Wolaspx.  EQT Production Company	oy given that the ling a horizont or ek Public Rest General or entry of the line of the li	al well on the AD 83  Road Access  Ily used far  A copy of the did will be usent contain to the AD 26-0450) of the AD 26-0450) of the AD 26-0450.	he tract of land as follows:  Easting: Northing:  The second section; (2) The second in conjunction with sing an offer of compense under article six-b of the second in th	e information requir the drilling of a sation for damages this chapter. Additio ironmental Protectionwy.gov/oil-and-gas/	572.115.26 ,359,297.640000 Co. Rt. 250 lichael G. Morris
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#### 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 <a href="mailto:deprivacyofficer@wv.gov.">deprivacyofficer@wv.gov.</a>

516338

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

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice	:	Date Permit Ap	plication Filed:	
Delivery metho	od pursuant to West Virginia Code §	22-6A-16(c)		
E	FIED MAIL RN RECEIPT REQUESTED	HAND DELIVERY		
return receipt re the planned ope required to be pi drilling of a horiz damages to the s	Va. Code § 22-6A-16(c), no later than the equested or hand delivery, give the surfact ration. The notice required by this subserovided by subsection (b), section ten of contal well; and (3) A proposed surface usurface affected by oil and gas operation equired by this section shall be given to the	ce owner whose land w ction shall include: (1) / this article to a surface se and compensation a s to the extent the dam	Il be used for the drilling of copy of this code section owner whose land will be greement containing an of ages are compensable und	of a horizontal well notice of ; (2) The information used in conjunction with the fer of compensation for der article six-b of this chapter.
Notice is hereby	provided to the SURFACE OWNER(s)			
(at the address li	isted in the records of the sheriff at the t	ime of notice):		
Name:	Tex Raymonda and Martha		ne:	
Address:	38	83 Tappan Road Add	ress:	
Audi ess.		afton WV 26354	***	
Notice is hereby Pursuant to Wes	given: t Virginia Code § 22-6A-16(c), notice is h	ereby given that the un	4	1 13 -
Notice is hereby Pursuant to Wes operation on the State: County:	given: t Virginia Code § 22-6A-16(c), notice is h e surface owner's land for the purpose of	ereby given that the un f drilling a horizontal we WV UTM NAD 83 Taylor	ll on the tract of land as fo Easting: Northing:	ollows: 9 572.115.26 4,359,297,640000
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Notice is hereby Pursuant to Wes operation on the State: County:	given: t Virginia Code § 22-6A-16(c), notice is h e surface owner's land for the purpose of	ereby given that the un f drilling a horizontal we WV UTM NAD 83 Taylor Creek Public Road	ll on the tract of land as fo Easting: Northing:	ollows: 9 572.115.26 4,359,297,640000
Notice is hereby Pursuant to Wes operation on the State: County: District: Quadrangle: Watershed: This Notice Shall Pursuant to Wes to be provided b horizontal well; a surface affected information relat	Booths Hustead Fork of Booths Creek  I Include:  It Virginia Code § 22-6A-16(c), notice is he surface owner's land for the purpose of Booths  Booths  Fairmont Hustead Fork of Booths Creek  I Include:  It Virginia Code § 22-6A-16(c), this notice by W. Va. Code § 22-6A-10(b) to a surface and (3) A proposed surface use and comply oil and gas operations to the extent the tot horizontal drilling may be obtained to the cated at 601 57th Street, SE, Charleston,	ereby given that the unformation of drilling a horizontal we work utformation and the control of	Easting: Northing: Northing: Access: of farm name:  of this code section; (2) The used in conjunction when the management of complete in the WV Department of Enter the WV Department o	572.115.26 4,359,297,640000 Co. Rt. 250 Michael G. Morris The information required ith the drilling of a ensation for damages to the of this chapter. Additional nvironmental Protection
Notice is hereby Pursuant to Wes operation on the State: County: District: Quadrangle: Watershed: This Notice Shall Pursuant to Wes to be provided b horizontal well; a surface affected information relat headquarters, lo pages/default.as	Booths Hustead Fork of Booths Creek  I Include:  It Virginia Code § 22-6A-16(c), notice is he surface owner's land for the purpose of Booths  Booths  Fairmont  Hustead Fork of Booths Creek  I Include:  It Virginia Code § 22-6A-16(c), this notice by W. Va. Code § 22-6A-10(b) to a surface and (3) A proposed surface use and comply oil and gas operations to the extent the ted to horizontal drilling may be obtained to the cated at 601 57th Street, SE, Charleston, spx.	ereby given that the unformal definition of the control of the con	Easting: Northing: Northing: Access: ed farm name:  of this code section; (2) The used in conjunction wontaining an offer of compusable under article six-b of the WV Department of Enterior by visiting www.decestical www.decestical six-b of the WV Department of Enterior by visiting www.decestical six-b of the WV Department of Enterior by visiting www.decestical six-b of the WV Department of Enterior by visiting www.decestical six-b of the WV Department of Enterior by visiting www.decestical six-b of the WV Department of Enterior by visiting www.decestical six-b of the wwww.decestical six-b of the www.decestical	572.115.26 4,359,297,640000 Co. Rt. 250 Michael G. Morris The information required ith the drilling of a ensation for damages to the of this chapter. Additional nvironmental Protection ep.wv.gov/oil-and-gas/
Notice is hereby Pursuant to Wes operation on the State: County: District: Quadrangle: Watershed: This Notice Shall Pursuant to Wes to be provided b horizontal well; a surface affected information relai headquarters, lo pages/default.as	Booths Hustead Fork of Booths Creek  I Include: It Virginia Code § 22-6A-16(c), notice is he surface owner's land for the purpose of Booths  Booths  Fairmont  Hustead Fork of Booths Creek  I Include: It Virginia Code § 22-6A-16(c), this notice by W. Va. Code § 22-6A-10(b) to a surface and (3) A proposed surface use and comply oil and gas operations to the extent the ted to horizontal drilling may be obtained to the cated at 601 57th Street, SE, Charleston, SEX.  EQT Production Company	ereby given that the unformation and personal week of the company	Easting: Northing: Northing: Access: ed farm name:  of this code section; (2) The used in conjunction wontaining an offer of compusable under article six-b of the WV Department of Ending www.de	572.115.26 4,359,297,640000 Co. Rt. 250 Michael G. Morris The information required ith the drilling of a ensation for damages to the of this chapter. Additional nvironmental Protection ep.wv.gov/oil-and-gas/
Notice is hereby Pursuant to Wes operation on the State: County: District: Quadrangle: Watershed: This Notice Shall Pursuant to Wes to be provided b horizontal well; a surface affected information relat headquarters, lo pages/default.as	Booths Hustead Fork of Booths Creek  I Include:  It Virginia Code § 22-6A-16(c), notice is he surface owner's land for the purpose of Booths  Booths  Fairmont  Hustead Fork of Booths Creek  I Include:  It Virginia Code § 22-6A-16(c), this notice by W. Va. Code § 22-6A-10(b) to a surface and (3) A proposed surface use and comply oil and gas operations to the extent the ted to horizontal drilling may be obtained to the cated at 601 57th Street, SE, Charleston, spx.	ereby given that the unformation and personal week of the company	Easting: Northing: Northing: Access: ed farm name:  of this code section; (2) The used in conjunction wontaining an offer of compusable under article six-book the WV Department of Ending www.decest.  115 Professional Placert, WV 26330	572.115.26 4,359,297,640000 Co. Rt. 250 Michael G. Morris The information required ith the drilling of a ensation for damages to the of this chapter. Additional nvironmental Protection ep.wv.gov/oil-and-gas/

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 <a href="mailto:depprivacyofficer@wv.gov">depprivacyofficer@wv.gov</a>.

EQT PRODUCTION API NO. 47-115 PROFESSIONAL PLACEOPERATOR WELL NO. H9-516338 BRIDGEPORT, WV 26330-4509Vell Pad Name: FAVV60

1/- 36/ BRIDDEFURI, WV 250000 STATE OF WEST VIRGINIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

## WELL LOCATION RESTRICTION WAIVER

work. Please be advised that well work permits are			of West Virginia to	conduct oil or gas well
Well Location Restrictions Pursuant to West Virginia Code § 22-6A-12(a), V any existing water well or developed spring used located within six hundred twenty-five feet of an clarger used to house or shelter dairy cattle or po dwellings or agricultural buildings that existed on provided in section ten of this article or a notice of article was provided, whichever occurs first, and to by written consent of the surface owner transmitt clerk of the county commission for the county in variance by the secretary from these distance restrior practices to be employed during well site const conditions the department requires to ensure the satinclude insurance, bonding and indemnification, as	for human or domest occupied dwelling stru- ultry husbandry. This the date a notice to the intent to drill a horizo o any dwelling under c ed to the department a which such property ctions upon submission fruction, drilling and co- fety and protection of a	ic animal consumerture, or a building a limitation is appearant well as provious truction prior and recorded in the isludicated. Further nof a plan which presents as a located persons a second construction.	ption. The center of ig two thousand five plicable to those well of planned entry for sign ded in subsection (b), to that date. This limit he real property recommore, the well oper identifies the sufficient ariance, if granted, s	well pads may not be hundred square feet or Ils, developed springs, surveying or staking as , section sixteen of this sitation may be waived ords maintained by the rator may be granted a ent measures, facilities hall include terms and
	WAIVE			
provisions listed above, and that I have received co WW-6A and attachments consisting of pages one ( required, and the well plat, all for proposed well we State:  West Virginia  County:  Taylor  District:  Booths Creek  Quadrangle:  Fairmont West  Hustead Fork of Booths Creek	t) through (1) ork on the tract of land UTM NAI UTM NAI Public Roa Generally	plication, an Appl _, including the often as follows: D 83 Easting: D 83 Northing: Ind Access: Used farm name:	ication for a Well Worrosion and sediment  39,380,147  -80,162688  Tappan Road  Morris Farm	ork Permit on Form control plan, if
I further state that I have no objection to the planne issued on those materials and I therefore waive all the state of th	well site restrictions lis	ted under West V	/irginia Code § 22-6/	1-12(a).
WELL SITE RESTRICTIONS BEING WAIVE *Please check all that apply	D		TON BY A NATUR School of 10 hael G. Morris	
<ul><li>□ EXISTING WATER WELLS</li><li>□ DEVELOPED SPRINGS</li></ul>		Date: 3/3// FOR EXECUT Company:	2015 TION BY A CORPO	RATION, ETC.
DWELLINGS		By:	TAYL	gianna Thompson DR County 03:06:10 PM rument No 2015005613
☐ AGRICULTURAL BUILDINGS		Signature: Date:	Date	Recorded 04/06/2015
Well Operator: EQT Production  By: John W. Damerto		ture hone:	04-848-063E	ment Type MIS
By: John W. Damato Its: Afterney in fact	Тетер	none.		-Page 11-361
OFFICIAL SEAL COMMISSIONER FOR WEST VIRGINIA James R. Evans Bridgeport, WV My Commission Expires March 07, 2023	Subscribed and sworn	K		rding Fee \$5.00
Oil and Gas Privacy Notice: The Office of Oil and Gas processes your personal inforpersonal information may be disclosed to other State age or regulatory requirements, including Freedom of Information any questions about our use or your personal information.	mation, such as name, ac necles or third parties in t nation Act requests. Our	Idress and telephon he normal course of office will approp	e number, as part of ou f business or as needed riately secure your pers	to comply with statutory sonal information. If you

ectip2/04/2015

5-7 8 915



### WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

**Division of Highways** 

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

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

August 24, 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 FAW60 Well Site, Taylor County

515826 FAW60 H1 515827 FAW60 H2 515828 FAW60 H3 515829 FAW60 H4 515830 FAW60 H5 515831 FAW60 H6 516336 FAW60 H7 516337 FAW60 H8 516338 FAW60 H9 516339 FAW60 H10 516340 FAW60 H11

Dear Mr. Martin,

Cc:

Nick Bumgardner

CH, OM, D-4

File

**EQT Production Company** 

This well site will be accessed from Permit # 04-2015-0781 issued to EQT Production Company for access to the State Road for a well site located off of Taylor County Route 250/3 SLS.

The 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. 09101327

Very Truly Yours,

Gary K. Clayton

Regional Maintenance Engineer

Central Office Oil & Gas Coordinator

nd Gas

12/04/2015

# Anticipated Frac Additives Chemical Names and CAS numbers

<u>Material</u>	Ingredient	CAS Number
Water		
Sand	Hydrotreated light petroleum distillate	14808-60-7
Friction Reducer	Tributyl tetradecyl phosphonium chloride	64742-47-8
Biocide	Ammonium chloride	81741-28-8
Scale Inhibitor	Hydrochloric Acid	12125-02-9
15% Hydrochloric Acid	Propargyl Alcohol	7647-01-0
Corrosion Inhibitor	Methanol	107-19-7
Corrosion Inhibitor	Guar Gum	67-56-1
Gelling Agent	Sodium Persulfate	9000-30-0
Oxidizing Breaker	Potassium Carbonate	7775-27-1
Buffering Agent		584-08-7

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SEP 1 8 2015

WV Department of Environmental Protection 12/04/2015





West Virginia Department of **Environmental Protection** Office of Oil & Gas 601 57th Street SE Charleston, WV 25304-2345

DEP Offic	e Use only.	
Date Received by Oil & Gas:	11-30-15	
Assigned Impoundment ID #:	091-WPA	-000z

# Permit Associated Impoundment / Pit Registration

Instruction: This form is to be used to register impoundments or waste pits, greater than 5,000 bbls, that are associated with a WVDEP, Office of Oil and Gas, well drilling permit. An associated impoundment or pit means it has been designed and included in the well drilling permit application, will follow the reclamation time frame of well work permit, and will be approved in conjunction with the well work permit. An impoundment ID number will be assigned by WVDEP, Office of Oil and Gas, to all impoundments and pits. This impoundment ID number will be sent to the applicant following receipt of this form by WVDEP. Please reference this impoundment ID number with all future correspondence and reference to this impoundment. Conditions as described in W.Va. State Rule §35-4-21 will be followed as it relates to impoundments and pits.

Section 1 - Operator Information

Operator Name:	EQT Production Company			21975	***************************************
Operator ID:	306686				
Address: Street	115 Professional Place			4)****	
City:	Bridgeport	State:	WV	Zip;	26330
Contact Name:	Phillip Keaton		act Title:		ager Construction
Contact Phone:	304-348-7605		ct Email:	pkeeton@eqt.com	

Section 2 - Engineering / Design Contractor Information

Design will be contracte	d   ■ Designed in-ho						
Company Name:	Civil & Environmenta	al Consultant	s, Inc.				
	600 Marketplace Ave					**	<del></del>
City:	Bridgeport		State:	WV	Zip:	26330	
Contact Name:	Joseph D. Robinson		Contact	Title:	Project Mana		-
Contact Phone:			Contact E		jrobinson@d		
Certifying Professional E		. Robinson			-		
Professional Engineer R	egistration Number:	19756			470	0	
						7 10	130-

Office of Oil and Page 1 of 4

SEP 1 8 2015 12/04/2015 WV Department of Environmental Protection



Office of Oil and Gas

## Section 3 - Impoundment / Pit Information

Type of Structure. Check one of two choices below:
☐ Freshwater Impoundment ☑ Waste Pit
Note: Any waste in a pit will make it a waste pit.
Name of Structure (Occurrence)
Name of Structure (Company Name :) FAW 60 Flowback Pit
County: Taylor District: Booths Creek
USGS 7.5' Quad Map Name: Fairmont West Farm Name: Stephen Sandor Jr.
Pad Name: FAW 60
Surface Owner Name: Michael G. Morris, et ux
Physical Description of Location: North on I-79 and go 12.6 miles. Take exit 132 and turn right onto US Rt. 250 and go 3.2 miles, right onto Co. Rt. 250/2 and go 200 feet. Turn left onto County Route 250/3 and go 0.4 miles to the beginning of the proposed access road.
(Note: Give general location, example: 2 miles south of Smalltown, WV on Rt. 22, left on Buffalo Creek)
Watershed (nearest perennial): Unnamed Tributary of Hustead Fork
Distance (Drainage Distance) to nearest perennial stream: 0.1 mi Hustead Fork
to a second of the meaning of the management of the meaning of the
Location Coordinates (NAD83, Decimal Degrees (xx.xxxx, -xx.xxxx))
Latitude: 39.380881 Longitude (Use negative sign): -80.161399
UTM Coordinates 572225.5279
Access Road Coordinates (junction of state highway access)
Latitude: 39.381080 Longitude (Use negative sign): -80.159596
UTM Coordinates : 572380.5569 E 4359403.6738 N
Approximate Dimensions
Length: 370' Width: 109' Height: 15' berm; 13' capacity w/ 2' FB
Note: If irregularly shaped, give approximate dimensions of long axis.
Total Capacity – Provide all units of measure below:
Barrels: 40,555 Gallons: 1.703,410 Acre-Feet: 5.228
Connection with Ol French and Indian
Capacity with 2' Freeboad – Provide all units of measure below:  Barrels: 30,396  Gallons: 1,276,721
Barrels: 30,396 Gallons: 1,276,721 Acre-Feet 37918
Barrels: 30,396
Barrels: 30,396 Gallons: 1,276,721 Acro Foot: 3,918
Barrels: 30,386 Gallons: 1,276,721 Acre-Feet: 3.918
Net impounded volume: (Total volume less incised volume.)
Rarrele: 10.159
Gallons: 420,009 Acre-Feet: 1.309
Anticipated Construction Start Date (estimation, non-binding): NOVEMBER 2015
Note: No construction may begin on Associaated impoundment until MA (DED issues the strill
and the state of t
inspector of construction start date. Use form IMP-2, "Notification of Impoundment / Pit Construction,"

Office of Oil and Gas SEP 1 8 2015



Section 4 - Associated Well Numbers and API Numbers. List associated well numbers and API number. API numbers may not be assigned at time of registering this impoundment, if so list as pending.

Well Number(s):	API Number(s) - If issued
515826; 515827	
515828; 515829	
515830; 515831	
516336; 516337	
516338; 516339	
516340	

Section 5 - Required Information Checklist To Register Permit Associated Impoundments or Pits. Include the following information and plans with application.

-			
×	Engineered Construction Plans,	certified by MAI Pogistared D. C.	
	o	, certified by VVV Registered P.E	

- Erosion and Sediment Control Plan, certified by WW Registered P.E.
- Reclamation Plan, certified by WV Registered P.E.

Section 6 - Dam Standard Qualifying Evaluation

The design of this structure has been evaluated by the applicant to determine it does NOT qualify to be defined as a dam, under W.Va Rule §47-34. If the design of this structure qualifies it to be defined as a dam, all permits regulating dams will be required prior to registering the structure with the Office of Oil and Gas. The dam standard, from the WVDEP, Div. Of Water and Waste, is available for review at: http://www.dep.wv.gov/WWE/ee/ds/Pages/default.aspx

ide any additional comments concerning this project
4709101327
O' I and Gas

SEP 1 8 2015

Page 3 of 4



## Section 8 - Application Certification

I hereby certify that the information listed above is true and accurate. I understand that this pit/impoundment is to be constructed only in a location appropriate for the storage of water, including wastewater, and will be constructed in accordance with plans designed and certified by a West Virginia registered professional engineer. I further recognize that all required plans have been submitted to the Office of Oil and Gas. I understand that after construction, and prior to any fluid being placed in the pit/impoundment, it shall be inspected by a West Virginia registered professional engineer to ensure compliance with the certified design and construction plan, and that the professional engineer shall certify that this structure was constructed in accordance with design and construction plans. I understand that such certification shall be in writing to the Chief and that no fluids may be placed in the pit/impoundment until the certification has been filed with the chief. I agree that this pit/impoundment shall be constructed, maintained, operated and closed in accordance with all applicable laws and rules, including the requirements of W. Va. Code R § 35-4-2.

Name:	Victoria J. Konk
Title:	Dermitting Speedisor
Signature:	Thus //
Taken, subscrib	ed and sworn to before me this, 20th Day of August 20 15
My commission	expires: 4-7-20
Notary Seal:	
	OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRIGINIA REBECCA L. HEATER EQT PRODUCTION COMPANY PO BOX 280 BRIDGEPORT, WV 26330 My commission expires April 07, 2020
Section 9 Su	hmittal Instructions

## Section 9. Submittal Instructions

Submit original paper copy of application to:

West Virginia Department of Environmental Protection Office of Oil and Gas Impoundment Registration 601 57th Street, SE Charleston WW 25304

Email PDF file format of this application and all related engineering Plans to : Depimpoundments@wv.gov

Page 4 of 4

WV Department of 12/04/2015 Environmental Protection





West Virginia Department of Environmental Protection Office of Oil & Gas 601 57th Street SE Charleston, WV 25304-2345

DEP Office	Use only
Date Received by Oil & Gas:	11-30-15
Assigned Impoundment ID #:	091-WPA-09030

## Permit Associated Impoundment / Pit Registration

Instruction: This form is to be used to register impoundments or waste pits, greater than 5,000 bbls, that are associated with a WVDEP, Office of Oil and Gas, well drilling permit. An associated impoundment or pit means it has been designed and included in the well drilling permit application, will follow the reclamation time frame of well work permit, and will be approved in conjunction with the well work permit. An impoundment ID number will be assigned by WVDEP, Office of Oil and Gas, to all impoundments and pits. This impoundment ID number will be sent to the applicant following receipt of this form by WVDEP. Please reference this impoundment ID number with all future correspondence and reference to this impoundment. Conditions as described in W.Va. State Rule §35-4-21 will be followed as it relates to impoundments and pits.

## Section 1 - Operator Information

Operator Name:	<b>EQT Production Company</b>		
Operator ID:	306686		
Address: Street	115 Professional Place		
City:	Bridgeport	State: WV	Zip: 26330
Contact Name:	Phillip Keaton	Contact Title:	Regional Manager Construction
Contact Phone:	304-348-7605	Contact Email:	pkeeton@eqt.com

## Section 2 - Engineering / Design Contractor Information

Design will be contracte	d   Designed in-ho	ouse 🗆	- Advantage			
Company Name:	Civil & Environment	al Consultant	s, Inc.			
Address: Street	600 Marketplace Ave	enue, Suite 20	00			
City:	Bridgeport		State:	WV	Zip:	26330
Contact Name:	Joseph D. Robinson		Contact	Title:	Project Mana	
Contact Phone:	304-848-7134		Contact E		jrobinson@c	
Certifying Professional E	a da	. Robinson				
Professional Engineer R	egistration Number:	19756				
					470	0101-

Office of Oil and Page 1 of 4

SEP 1 8 2015

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## Section 3 - Impoundment / Pit Information

Note: Any waste in a nit will	ındment		Waste Pit	
waste in a bit Will	make it a waste p	it.		
		****		
Name of Structure (Comp	any Name :)	AW 60 Completio	n Pit	
County: Taylor		Dist	trict: Booths Creek	
USGS 7.5' Quad Map Nar		West		
Farm Name: Stephen S	andor Jr.			
Pad Name: FAW 60				
	ichael G. Morris, et u	The state of the s		
Physical Description of Lo	cation: North on	I-79 and go 12.6 miles. T	ake exit 132 and turn righ	at onto US Rt. 250 and go 3.2 miles, right onto
Co. Rt. 250/2 and go 200 feet. Tu	rn left onto County I	Route 250/3 and go 0.4	miles to the beginning o	f the proposed access road.
(Note: Give general location, exa	ample: 2 miles south	of Smalltown, WV on	Rt. 22, left on Buffalo C	reek)
Watershed (nearest peren				
Distance (Drainage Distan			0.1 mi Hustead Fork	-
			-	
Location Coordinates (NAI	D83, Decimal D	egrees (xx.xxxx -x	(x xxxx))	
Latitude: 39.378937		itude (Use negativ		3
UTM Coordinates: 57	72026.4875	E	4359162.4917	4240
Access Road Coordinates	(junction of stat			N
Latitude: 39.381080		gitude (Use negati		96
UTM Coordinates :	572380.5569	E	4359403.6738	
				N
Approximate Dimensions				
Longth: 273'	Width:	260'		
			Height: 1	8' herm: 16' canacity w/ 2' ED
		ons of long axis.	Height: _1	8' berm; 16' capacity w/ 2' FB
Note: If irregularly shaped, give ap	pproximate dimensi		Height: _1	8' berm; 16' capacity w/ 2' FB
Note: If irregularly shaped, give an Total Capacity – Provide al	pproximate dimensi	re below:		
Note: If irregularly shaped, give an Total Capacity – Provide al	pproximate dimensi		Height: 1	8' berm; 16' capacity w/ 2' FB  18.531
Note: If irregularly shaped, give ap Total Capacity – Provide al Barrels: 143,758	pproximate dimensi Il units of measu Gallons:	re below: 6,038,260	Acre-Feet:	
Note: If irregularly shaped, give ap Total Capacity – Provide al Barrels: 143,758 Capacity with 2' Freeboad -	pproximate dimensi Il units of measu Gallons: – Provide all un	ire below: 6,038,260 its of measure belo	Acre-Feet:	18.531
Note: If irregularly shaped, give ap Total Capacity – Provide al Barrels: 143,758 Capacity with 2' Freeboad -	pproximate dimensi Il units of measu Gallons:	ire below: 6,038,260 its of measure belo	Acre-Feet:	18.531
Length: 273' Note: If irregularly shaped, give ap Total Capacity – Provide al Barrels: 143,758  Capacity with 2' Freeboad - Barrels: 120,298	pproximate dimensi Il units of measu Gallons: – Provide all un	ire below: 6,038,260 its of measure belo	Acre-Feet:	18.531
Note: If irregularly shaped, give aptending the provide all Barrels: 143,758  Capacity with 2' Freeboad - Barrels: 120,298  Incised volume:	pproximate dimensi Il units of measu Gallons: – Provide all un Gallons:	ire below: 6,038,260 its of measure belo 5,052,879	Acre-Feet:  Acre-Feet:	18.531 15.507
Note: If irregularly shaped, give aptending the provide all Barrels: 143,758  Capacity with 2' Freeboad - Barrels: 120,298  Incised volume:	pproximate dimensi Il units of measu Gallons: – Provide all un	ire below: 6,038,260 its of measure belo	Acre-Feet:	18.531
Note: If irregularly shaped, give approvide all Barrels: 143,758  Capacity with 2' Freeboad - 120,298  Incised volume: 35,879	pproximate dimensi Il units of measu Gallons: Provide all un Gallons: Gallons:	its of measure belo 5,052,879	Acre-Feet:  Acre-Feet:	18.531 15.507 4.625
Note: If irregularly shaped, give ap Total Capacity – Provide al Barrels: 143,758 Capacity with 2' Freeboad - Barrels: 120,298 Incised volume: Barrels: 35,879	pproximate dimensi Il units of measu Gallons: Provide all un Gallons: Gallons:	its of measure below: 5,052,879  1,507,020  incised volume.)	Acre-Feet:  Acre-Feet:  Acre-Feet:	18.531 15.507 4.625 470910130=
Note: If irregularly shaped, give ap Total Capacity – Provide al Barrels: 143,758 Capacity with 2' Freeboad - Barrels: 120,298 Incised volume: Barrels: 35,879	pproximate dimensi Il units of measu Gallons: Provide all un Gallons: Gallons:	its of measure belo 5,052,879	Acre-Feet:  Acre-Feet:	18.531 15.507
Note: If irregularly shaped, give approved the shaped of t	pproximate dimensi Il units of measu Gallons: Provide all un Gallons: Gallons: Gallons: Otal volume less Gallons:	its of measure below: 5,052,879 1,507,020 incised volume.)	Acre-Feet:  Acre-Feet:  Acre-Feet:  Acre-Feet:	18.531 15.507 4.625 470910130=
Note: If irregularly shaped, give approvide all Capacity — Provide all Barrels: 143,758  Capacity with 2' Freeboad - Barrels: 120,298  ncised volume: Barrels: 35,879  Net impounded volume: (To Barrels: 107,879  Anticipated Construction States	pproximate dimensi Il units of measu Gallons: Provide all un Gallons: Gallons: Gallons: Gallons: Otal volume less Gallons:	its of measure below: 5,052,879  1,507,020  incised volume.) 4,531,240	Acre-Feet: Acre-Feet: Acre-Feet: Acre-Feet:	18.531 15.507 4.625 470910130=

Office of Oil and Gas

VVV Department of



**Section 4 - Associated Well Numbers and API Numbers.** List associated well numbers and API number. API numbers may not be assigned at time of registering this impoundment, if so list as pending.

515826; 515827 515828; 515829	
515020, 515024	
515830; 515831	
516336; 516337	
516338; 516339	
516340	

Section 5 - Required Information Checklist To Register Permit Associated Impoundments or Pits. Include the following information and plans with application.

	Engineered Construction Plans, certified by WV Registered P.E.	-
₽	Eligineered Construction Plane contitod by MA/ Decisions of E	
	- S.	

- Reclamation Plan, certified by WW Registered P.E.

Section 6 - Dam Standard Qualifying Evaluation

The death of the second of the	
The design of this structure has been evaluated by the applicant to determine it does defined as a dam, under W.Va Rule §47-34. If the design of this structure qualifies it all permits regulating dams will be required prior to registering the structure with the C. The dam standard from the MACE.	to be defined as a dam,
The dam standard, from the WVDEP, Div. Of Water and Waste, is available for review http://www.dep.wv.gov/WWE/ee/ds/Pages/default.aspx	w at:

Section 7 –Comments – Provide any ac	dditional comments concerning this project
	470910130
	Office of Cil and G
	SEP 1 8 2015

Environment of Section



## Section 8 - Application Certification

I hereby certify that the information listed above is true and accurate. I understand that this pit/impoundment is to be constructed only in a location appropriate for the storage of water, including wastewater, and will be constructed in accordance with plans designed and certified by a West Virginia registered professional engineer. I further recognize that all required plans have been submitted to the Office of Oil and Gas. I understand that after construction, and prior to any fluid being placed in the pit/impoundment, it shall be inspected by a West Virginia registered professional engineer to ensure compliance with the certified design and construction plan, and that the professional engineer shall certify that this structure was constructed in accordance with design and construction plans. I understand that such certification shall be in writing to the Chief and that no fluids may be placed in the pit/impoundment until the certification has been filed with the chief. I agree that this pit/impoundment shall be constructed, maintained, operated and closed in accordance with all applicable laws and rules, including the requirements of W. Va. Code R § 35-4-2.

Name: _	Victoria J. Boank
Title: _	The permitting Seperalson
Signature: _	The th
Taken, subscribe	and sworn to before me this, 20th Day of August 20 15
My commission e	expires: 4-7-20
Notary Seal:	
	OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA REBECCA L. HEATER EQT PRODUCTION COMPANY PO BOX 280 BRIDGEPORT, WY 26330 My commission expires April 07, 2620

## Section 9. Submittal Instructions

Submit original paper copy of application to:

West Virginia Department of Environmental Protection Office of Oil and Gas Impoundment Registration

601 57th Street, SE Charleston WW 25304

Email PDF file format of this application and all related engineering Plans to: Depimpoundments@wv.gov

> SEP 1 8 2015
> 12/04/2015 Environmental protection

## YOU DIG!

WEST VIRGINA \$11 DIVE CALL WAS PERFORMED IN NOVEMBER 2014 THE FOLLOWING UTILITY COMPANIES MAY BE PRESENT IN THE PROJECT AREA

FIRSTENERGY CORP.
FRONTIER COMMUNICATIONS (FORMERLY VERIZON)
COMCAST
MOUNTAIN VIEW WATER ASSOCIATION
FRONTIER - A CITIZENS COMMUNICATIONS COMPANY

#### PROJECT DWNER/APPLICANT

EQT PRODUCTION COMPANY PH (304) S48-0058 CONTACT JUSTIN MEADOWS

#### CIVIL ENGINEER

CAVIL & ENVIRONMENTAL CONTULTANTS, INC. IN CAMBRIDGE PLACE BROOKPORT, WY 2030 ERDDEPORT, WY 20130 PH (104) \$13-3119 CONTACT JOSEPH D. ROBINSON, P.E. WYDON

#### SPILL HOTUNE

WEST VIRGIMA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WYDER) PH. (IDD) 843-3074

PENNSYLVANIA

AREA

PROJECT !YLAND

Loc	AL EMERGENCY SERVICES	
	NAME	TELEPHONE NO
AMBULANCE		911
HOSPITAL EMERGENCY FOOM	FARMONT GENERAL HOSPITAL	(364) 367-7100
HPE CEPARTMENT		811
POLICE DEPARTMENT		911
POISON CONTROL CENTER	WEST VIRGINIA POISON CENTER	IAOG 227-1222

Capitol

# FAW 60 FINAL SITE DESIGN, CONSTRUCTION PLANS, & EROSION & SEDIMENT CONTROL PLANS **EQT PRODUCTION COMPANY**

LAT./LONG: N 39° 22' 48.80" W 80° 9' 46.31" APPROXIMATE CENTER OF PROJECT)







VI	CINITY M	IAP
TAYLD	R COUNTY RO	DAD MAP
000	SCALE IN FEE	7
-	A Married Street	2 84.13



WV83 (WEST VIRGINIA		(E)
	LATITUDE	LONGITUDE
DEGINNING OF MAIN ACCESS FOAD	29,561060	-80,159590
CENTROID OF PAD	39,363223	-80.162864
CENTROID OF FLOWBACK PIT.	39,360881	-40,161509
CENTROID OF COMPLETION PIT	39,371037	-80,163733

SITE LOCATI UTM83-17 (WEST VIRGIN		NE)	
	NORTHING   EASTIN		
EGINNING OF MAIN ACCESS ROAD	4355401.0738	8773MQ.5589	
ENTROID OF PAD	4358305.9316	572100.0473	
ENTROID OF FLOWBACK PIT	4352380,0852	572225,5278	
ENTROID OF COMPLETION PIT	4385161 4017	5,7900B AR76	

SHEET 1 OF 22	COVERSHEET
SHEET 2 OF 32	Existing conditions
SHEET 3 OF 32	CONSTRUCTION NOTES
SHEET 4 OF 32	SUMMARY OF QUANTITIES
SHEET'S OF 32	CVERVIEW SITE PLAN
SHEETS AT OF 22	FINAL DESIGN SITE PLAN
SHEETS 8-12 OF 32	WELL PAD PROPILE & CROSS SECTIONS
SHEETS 13-14 OF 32	FLOWBACK PIT PROFILE & CROSS SECTIONS
SHEETS 15-17 OF 32	COMPLETION PIT PROFILE & CROSS SECTIONS
SHEETS IA-19 OF 32	MAIN ACCESS ROAD PROFILES & CROSS SECTIONS
SHEETS 20-21 OF 32	COMPLETION PIT ACCESS FICAD PROFILE & CROSS SECTIONS.
SHEETS 22-23 OF 30	SPUIL PILE PROFILES & CROSS SECTIONS
SHEETS 24-25 OF 32	TOPSOIL PILE PROFILE & CROSS SECTIONS
SHEETII 26-50 OF 22	CONSTRUCTION DETAILS

#### AFFECTED TAX PARCELS

BOOTHS CREEK DISTRICT: TAYLOR COUNTY WV

MICHAEL G. MORRIS TAX MAP 7 PARCEL 18 DEED BOOK 305 PAGE 419

DESIGNATION OF THE STATE AND A SAME AND A SA

KENNETH G. AND CATHY'S, COTTRELL TAX MAP 7 PARCEL 18 DEED BOOK 232 PAGE 470 Z.DO AC ± (AFFECTED AREA FROM MAIN ACCESS FOAD - D.OS ACRES)

TEX RAYMOND AND MARTHA DELOPES HUGHES AND SURV. TAX MAP 7 PARCEL 30 DEED BOOK 150 PARE 440

24.25 AC ± (AFFECTED AREA FROM STAGING AREA = 0.15 ACRES)

TOTAL WOODED AREA

will de trouble and de trouble		
MAIN ACCESS ROAD		1.50 A
DRILL FAD		4.42 A
FLOWBACK PIT	14	1.00 At
MANIFOLD PAD		0.63 %
COMPLETION PIT	-	3.08 A
COMPLETION PIT ACCESS ROAD		1.49 A
WATER TRUCK TURNARDLIND		1,00 A
STAGING AREA	-	0.54 At
SPOIL PILE	-	1.38 A
TOPSOIL PILE		1.34 A
TOTAL		19.567

WELL LEGEND API# 9101323 API# 9101324 API# 9101326 API# 9101327

. 683 AC

PLAN REPRODUCTION WARNING THE PLANS HAVE BEEN GREATED ON ANSI D DUT X MY SHEETS.
FOR REDUCTIONS. REFER TO GRAPHIC SCALE.

THE PLANS HAVE BEEN CREATED FOR PULL COLOR PLOTTING. ANY SET OF THE PLANS THAT IS NOT PLOTTED IN FLAL COLOR SHALL NOT BE CONSIDERED ADEQUATE FOR CONSTRUCTION PLIPPOSES.

PARIS ... IN OPINATION MAY BE LOST IN COPYING AND/OF

FLOOD	LAIN CONDITIONS	
DO SITE CONSTRUCTION ACTIVITY	ES TAKE PLACE IN FLOODPLAIN	TNO.
PERMIT NEEDED FROM COUNTY PLOODPLAIN COORDINATOR:		YES
HEC-NAS-STUDY COMPLETED:		N/A
FLOODPLAIN SHOWN ON DRAWIN	0.9:	NO
FIRM MAP NUMBERGY) FOR BITE	\$4091C202SE	-
ACREAGE OF CONSTRUCTION IN	LOCCELAN: INIA	-



Civil & J

EQT PRODUCTION COMPANY FAW 60 BOOTHS CREEK DISTRICT TAYLOR COUNTY, WEST VIRGINIA

C000

APPROVED WVDEP OOG SHEETS 11-92 OF 32 RECLAMATION PLAN 11/16/2015