

#### west virginia department of environmental protection

Office of Oil and Gas 601 57th Street, S.E. Charleston, WV 25304 (304) 926-0450 fax: (304) 926-0452 Jim Justice , Governor Austin Caperton , Cabinet Secretary www.dep.wv.gov

Tuesday, June 13, 2017 WELL WORK PERMIT Horizontal 6A / New Drill

EQT PRODUCTION COMPANY (A) 120 PROFESSIONAL PLACE BUILDING II BRIDGEPORT, WV 26330

Re: Permit approval for GLO 168H21

47-049-02445-00-00

This well work permit 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 any additional specific 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 of 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.

Per 35 CSR 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) 926-0450.

James A. Martin

Chief

Operator's Well Number: GLO 168H21

Farm Name: EQUITRANS LP

U.S. WELL NUMBER: 47-049-02445-00-00

Horizontal 6A / New Drill

Date Issued: 6/13/2017

Promoting a healthy environment.

API Number:		

# 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. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
- 8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
- 9. 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.
- 10. 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.

API Number:	

## PERMIT CONDITIONS 7 0 4 9 0 2 4 4 5

11. 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.

## 4704902445

PI NO. 47-49	
OPERATOR WELL NO. GLO168H21	
Well Pad Name: GLO168	_

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

					. 0	445
I) Well Operator: EQT Prod	duction Comp	pany	THE REAL PROPERTY.	Marion	Manning	Glover Gap
2) Operator's Well Number:	GLO168H21		Operator ID Well Pa	County ad Name: GLO	District	Quadrangle
3) Farm Name/Surface Owner	Equitrans L	P	Public Ro	ad Access: C/0	O Rt 7/4	
4) Elevation, current ground: 5) Well Type (a) Gas x Other	1357 O		evation, proposed			
(b) If Gas Si	hallow X		Deep			
6) Existing Pad: Yes or No N	orizontal X					SDW 31212017
7) Proposed Target Formation Marcellus, 7722, 53', 2593 P	(s), Depth(s), A	Antici	ipated Thickness a	and Expected P	ressure(s):	5121001
8) Proposed Total Vertical Dep						
9) Formation at Total Vertical		ellus	1			
10) Proposed Total Measured I	-	8				
11) Proposed Horizontal Leg L	ength: 1052	1				
12) Approximate Fresh Water	Strata Depths:		369			
<ul><li>13) Method to Determine Fresh</li><li>14) Approximate Saltwater Dep</li></ul>	Water Depths		y offset wells			
15) Approximate Coal Seam D		67, 9	35, 1032		=	
16) Approximate Depth to Poss				none		
17) Does Proposed well locatio directly overlying or adjacent to	n contain coal	seam		No		
(a) If Yes, provide Mine Info:	Name: H	larris	on County Mine			
		032'			REGE	WED
	Seam: P	ittsbu	urgh	0	ffice of Oil	and Gas
	Owner: M	lurray	Energy Corpora	ation	MAR 0 8	
					0	601/

WV Department of Environmental Protection

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WW-6B	
(04/15)	

API NO. 47- 049 - 02445

OPERATOR WELL NO. GL0168H21

Well Pad Name: GL0168

18)

CASING AND TUBING PROGRAM 7 0 4 9 0 2 4 4 5

TYPE		Mass				* V 7 9 ()	6445
	Size (in)	New or Used	<u>Grade</u>	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20	New	A-500	78.6	40	40	60 ft^3 / CTS
Fresh Water	13 3/8	New	J-55	54.5	449		417 ft^3 / CTS
Coal						1,0	417 11 37 013
Intermediate	9 5/8	New	A-500	40	3090	3090	1225 ft^3 / CTS
Production	5 1/2	New	P-110	20	21918	54545	SOT above top producing total
Tubing	2 3/8		J-55	4.7		May not be per if no set 40'	
Liners						above top perfor \$0 meliagraco	

SDW 61912017

TYPE			317-11	I"		611	
	Size (in)	Wellbore Diameter (in)	<u>Wall</u> <u>Thickness</u> (in)	<u>Burst Pressure</u> (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20	26	.375	1378	1102	Class A	
Fresh Water	13 3/8	17 1/2	.38	2700	2160	See Variance	1.19
Coal					2.00	755 75	1.18
Intermediate	9 5/8	12 3/8	.395	3950	3160	Class A	1.07
Production	5 1/2	8 1/2	.361	12640	10112	Class A/H	1.123/2.098
Tubing	2 3/8	NA	.19	7700			1.120/2.030
Liners							

#### **PACKERS**

Kind:		
Sizes:		
Depths Set:		
Li		

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WW-6E	3
(10/14)	١

API NO. 47- <u>49</u>	
OPERATOR WELL NO.	GLO168H21
Well Pad Name: GLO16	68

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

Drill and complete a new horizontal well in the Marcellus Formation. Drill the vertical to an approximate depth of 5527'. Kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

47049000

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

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.3%) of chemicals (including 15% Hydrochloric acid, gelling agent, gel breaker, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 10000 psi, maximum anticipated treating rates are expected to average 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): 66.70
- 22) Area to be disturbed for well pad only, less access road (acres): 6.40
- 23) Describe centralizer placement for each casing string:
- Surface: Bow spring centralizers One at the shoe and one spaced every 500'.
- Intermediate: Bow spring centralizers One cent at the shoe and one spaced every 500'.
- Production: One solid body cent spaced every joint from production casing shoe to KOP

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

Conductor: Class A no additives

Surface (Type 1 Cement): 0-3% Calcium Chloride Used to speed the setting of cement slurnes, .25% Flake Loss Circulation Material (LCM) is used to combat the loss of the cement slurny to a third zone. Intermediate (Type 1 Cement): 0-3% Calcium Chloride. Salt is used in shallow, low temperature formations to speed the setting of cement slurnes. 0.25% flake. Loss Circulation Material (LCM) is used to combat the loss of whole drilling fluid or cement slurny (not filtrate) to a third zone.

Lead (Type H Cement): 0.2% CD-20 (dispersant makes cement easier to mix). .15% SuperFL-300 (fluid loss/lengthens thickening time) .15% SEC-10 (fluid loss) 50:50 POZ (extender)

Tail (Type H Cement): 0.2% Super CR-1 (Retarder). Lengthens thickening time. .3% Super FL-200 (fluid loss) .2% SEC-10 (Fluid loss). .2% SuperFL-350 (fluid loss) Reduces amount of water lost to formation. 60 % Calcuim Carbonate. Acid solubility.

25) Proposed borehole conditioning procedures:

Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface. Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.

Surface.

Production: Pump marker sweep with nut plug to determine actual hole washout. Calculate a gauge bottoms up volume. Perform a cleanup cycle by pumping 3-5 bottoms up or until the backers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

\*Note: Attach additional sheets as needed.

WV Department of Sovitonmental Protection Page 3 of 3

868 2017 OII and Well GLO168H21 **EQT Production** 1 Glover Gap Quad Azimuth 337 9 Marion County, WV 12217 **Vertical Section** COM Live Note: Diagram is not to scale 13 Top Base Casing and Cementing Deepest Fresh Water: 369 **Formations** TVD TVD Type Conductor Surface Intermediate == Conductor 40 Hole Size, In. 17 1/2 26 12 3/8 Casing Size, OD In. 20 13 3/8 9 5/8 Base Fresh Water 369 Casing Wall Thickness, In. 0.375 0.380 0.395 Depth, MD 40' 449' 3.090 Surface Casing 449 Weight 78.6# 54.5# 40# Grade A-500 J-55 A-500 New or Used New New New Maxton 2248 - 2327 Burst (psi) 1378 2,700 3,950 **Big Lime** 2382 - 2495 Cement Class A A / Type 1 Н Big Injun 2542 -2660 Cement Yield 1.18 1.19 1.07 Weir 2784 - 2896 Top of Cement (Planned) Surface Surface Gantz 2990 - 3040 Surface 500' above top Producing Zone Intermediate Casing 3090 Method Displacement Displacement Displacement Fifty foot 3128 - 3157 Est. Volume (cu ft) 60 417 1,225 Thirty foot 3212 - 3235 Calcium Chloride, Fluid Calcium Carbonate, Fluid Loss. Gordon 3269 - 3310 Loss, Defoamer, Dispersant Extender, Dispersent, Viscosifier, Calcium Forth Sand 3337 - 3392 Possible Additives N/A POZ, Bonding Agent, Defoamer, POZ, Bonding Agent, Chloride Bayard 3420 - 3462 Extender, Retarder, Retarder, Anti-Settling/Suspension Flake/LCM Warren 3904 - 3994 Speechley 4086 - 4170 Balltown A 4459 - 4888 Riley 4950 - 5019 Benson 5542 - 5593 Alexander 5944 - 6014 KOP@ 5.527 Sonyea 7237 - 7392 Middlesex 7392 - 7448 Genesee 7448 - 7536 Geneseo 7536 - 7570 Tully 7570 - 7596 Hamilton 7596 - 7696 Marcellus 7696 - 7749 Production Casing 21918 MD Onondaga 7749 Land curve @ 7,722' TVD Est. TD @ 7,722 TVD 11,397' MD 21,918' MD Proposed Well Work:

Drill and complete a new horizontal well in the Marcellus formation. Drill the vertical to an approximate depth of 5527'.

Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.

10,521' Lateral

nmental Protection

Production

87/2

15.1/2

0.361

21,918

20#

P-110

New

12,640

A/H

1.123 / 2.098

Displacement

3,255

Agent

Department of

4704902445

**EQT Production** 

**Hydraulic Fracturing Monitoring Plan** 

Pad ID: GLO168

Marion County, WV

12/21/16

RECEIVED
Office of Oil and Gas

FEB 24 2017

WV Department of Environmental Protection
Page 1 of 2
06/16/2017

#### **Purpose**

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operators near EQT hydraulic fracturing in Marion County, WV prior to hydraulic fracturing at the following EQT wells on GLO168 pad: GLO168H1, GLO168H2, GLO168H3, GLO168H4, GLO168H5, GLO168H6, GLO168H7, GLO168H16, GLO168H17, GLO168H18, GLO168H19, GLO168H20, GLO168H21.

Due to the requirements under 35CSR8 5.11, the permittee is required to review the area surrounding the proposed well pad so as to identify and evaluate potential conduits for unintended fracture propagation. A report is required to be submitted along with a well work permit application.

The plan is being implemented as an additional safety measure to be utilized in conjunction with existing best management practices and emergency action plans for the site. These additional measures include coordination with well operators of the timing and location of the hydraulic fracturing, establishment of measures well operators should implement, and assurance that the OOG is notified of the timeline, as well as any issues that may arise during fracturing. 4704902445

#### 1. Communications with Well Operators

EQT, using available data (WV Geological Survey, WVDEP website, and IHS data service), has identified all known wells and well operators within 500 feet of this pad and the lateral sections that are known or could reasonably be expected to be within range of the fracture propagation. A map showing these wells along with a list of the wells and operators is included in Attachment A.

EQT will notify these operators of the hydraulic fracturing schedule for these wells, and coordinate with them throughout the fracturing process.

EQT will recommend to these operators at a minimum to:

- 1. Inspect their surface equipment prior to fracturing to establish integrity and establish pre-frac well conditions
- 2. Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas or pressure
- 3. Inspect or install master valves or other necessary equipment for wellhead integrity capable of a pressure recommended by EQT
- 4. Notify the OOG and EQT if any changes in water, gas production, pressure, or other anomalies are identified

#### 2. Reporting

EQT will provide information relating to the hydraulic fracturing schedule, communication with other operators, and ongoing monitoring of the work upon request of OOG or immediately in the event of any noted abnormalities.

> Office of Oil and Gas FEB 24 2017
>
> WV Department of Environmental Protection 06/16/2017

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12/19/2008													12/10/1949	12/16/1931	15/15/1931	7/20/1021	0/17/1000	7/76/1999	1/10/1702	3/19/1060							1/20/2000	1/36/3009	11/6/2000			0/1//1931	8/25/1931				8/4/2009	8/28/1950	6/7/1949	1/1/1949		4/5/1999	.,,	7/30/1999	9/30/1997	., ., .,	1/1/1930	5/6/1999	1/1/1930			1/1/1940	11/14/2008	6/10/1942	1/12/1939	5/20/1949	10/9/106/	10/3/1954	3/19/2009	3/13/1968	$\sim$	ABAND_DATE (
CONSOLIDATION COAL	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	ORKNOWN	OMENOWN	HOTE INFORME GAS	HORE NATIONAL CAS	INKOWN	UNKNOWN	UNKNOWN	UNKNOWN	RAAD SUPPLY COMPANY	HOPE CONSTRUCTION & REFINING	SOUTH PENN OIL	CONSULTIDATION COAL	CONSULIDATION COAL	CONTO THE REACY	2/1/1969 EQUITATION CASCOMPANY	CONTABLE GAS COMPANY	EQUITABLE GAS COMPANY	9/1/1953 EQUITABLE GAS COMPANY	/1/1951 EQUITABLE GAS COMPANY	6/1/1951 EQUITABLE GAS COMPANY	11/1/1950 EQUITABLE GAS COMPANY	12/1/1950 EQUITABLE GAS COMPANY	3/1/1950 EQUITABLE GAS COMPANY	8/1/1957 EQUITABLE GAS COMPANY	6/1/1950 EQUITABLE GAS COMPANY	EQUITABLE GAS COMPANY	8/1/1949 EQUITABLE GAS COMPANY	EQUITABLE GAS COMPANY	EQUITABLE GAS COMPANY	EQUITABLE GAS COMPANY	4/28/1954 EQUITABLE GAS COMPANY	7/6/1917 SOUTH PENN OIL	2/8/1919 EQUITABLE GAS COMPANY	7/12/1918 PITTSBURGH & W VA GAS	6/11/1914 RAAD SUPPLY COMPANY	7/6/1917 RAAD SUPPLY COMPANY		CONSOLIDATION COAL		CONSOLIDATION COM									6/1/1964 EQUITABLE GAS COMPANY	10/21/1918 SOUTH PENN OII	10/8/1918 HOPE NATIURAL GAS	1/26/1918 BAAD FIRBLY COMPANY	4/1//1918 PH 15BURGH & W VA GAS	7/16/1918 EQUITABLE GAS COMPANY	12/22/1918 EQUITABLE GAS COMPANY	1/31/1968 EQUITABLE GAS COMPANY	8/31/1918 SOUTH PENN OIL	COMP_DATE CURR_OPER
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CAKAM	CHANN	LINKWN	UNKWN	UNKWN	ONKWN	CNXWN	UNKWN	CNKWN	UNKWN	NAVNO	TAIL THE STATE OF	LINXWN	ABD-OW	ABDOGW	ABD-GW	UWXWN	UNKWN	OIT.	GSTG	GSTG	GSTG	GSTG	GSTG	GSTG	GSTG	GSTG	GSTG	GSTG	GSTG	GSTG	GSTG	ABD-GW	ABD-GW	GSTG	GSTG	GAS	ABD GW	ARD-OW	ABD-OW	ASS CW	PSEUDO	PSEUDO	PSEUDO	ABD-GW	PSEUDO	PSEUDO	PSEUDO	PSEUDO	PSEUDO	2 6	6516	ABD GW	ABD-OW	ABD-GW	ABD-GW	ABD-GW	ABD-OW	ABD-GW	ABD-GW	D&A	ARD.GW	S ENI STAT
39.5078	39.5155	30 6166	2002 68	39.5160	39.5128	39.5045	39.5287	39.5280	39.5330	39.53/2	20,723	39 4999	39.5119	39.5215	39.4946	39.5065	39.5003	39.5093	39.5207	39.5181	39.5161	39.5141	39.5158	39.5141	39.5151	39.5205	39.5150	39.5195	39.5173	39.5212	39.5200	39.5141	39.5184	39.5193	39.5155	39.5139	39 5 195	39 5161	39.5151	39.5266	39.5010	39.5049	39.5078	39.5194	39.5013	39.5065	39.4991	39.5018	39.5042	30 5727	30 5153	39.5128	39.5128	39.5208	39.5070	39.5173	39.5173	39.5206	39.5166	39.5216		
80.4215 UNKNOWN	80.4300 UNKNOWN	-80.4382 UNKNUWN	-80 CHANGANAI CREA OR	80.4480 UNKNOWN	-80.4478 UNKNOWN	-80.4481 UNKNOWN	80.4598 HOPE NATURAL GAS	-80.4573 UNKNOWN	-80.4410 UNKNOWN	80.4636 UNKNOWN	NAAONWO CT 24:00:	-90 A 715 HARAICHAN	-80 4258 RAAD SHIPPLY COMPANY	80.4388 HOPE CONSTRUCTION & BEEINING	80.4219 SOUTH PENN OIL	80.4219 CONSOLIDATION COAL	80.4217 CONSOLIDATION COAL	80.4285 GREENRIDGE OIL	-80.4493 EQUITABLE GAS COMPANY	80.4403 EQUITABLE GAS COMPANY	80.4500 EQUITABLE GAS COMPANY	80.4349 EQUITABLE GAS COMPANY	80.4367 EQUITABLE GAS COMPANY	80.4313 EQUITABLE GAS COMPANY	80.4270 EQUITABLE GAS COMPANY	80.4388 EQUITABLE GAS COMPANY	80.4448 EQUITABLE GAS COMPANY	80.4481 EQUITABLE GAS COMPANY	80.4378 EQUITABLE GAS COMPANY	80.4380 EQUITABLE GAS COMPANY	80.4406 EQUITABLE GAS COMPANY	80.4524 EQUITABLE GAS COMPANY	80.4339 EQUITABLE GAS COMPANY	80.4397 EQUITABLE GAS COMPANY	80.4258 EQUITABLE GAS COMPANY	-80.4252 SOUTH PENN OII	80 AASS FOLITABLE CAS COMPANY	80.4236 RAAD SUPPLY COMPANY	80.4251 RAAD SUPPLY COMPANY	80.4423 HOPE NATURAL GAS	80.4195 CONSOLIDATION COAL	80.4380 DELMAR OIL CORPORATION	80.4275 CONSOLIDATION COAL	-80.4349 N G PENN CO	80.4257 UNKNOWN	80.4253 UNKNOWN	80.4200 UNKNOWN	80.4257 UNKNOWN	-80.4747 EQUITABLE GAS COMPANY	80.4397 EQUITABLE GAS COMPANY	80.4324 EQUITABLE GAS COMPANY	80.4423 EQUITABLE GAS COMPANY	80.4281 SOUTH PENN OIL	-80.4412 HOPE NATURAL GAS	-80.4356 RAAD SUPPLY COMPANY	-80.4292 EQUITABLE GAS COMPANY	80.4318 PITTSBURGH & W VA GAS	80.4393 EQUITABLE GAS COMPANY	-80,4436 FOUITABLE GAS COMPANY	80.4322 EQUITABLE GAS COMPANY	39 S180 80 AAGE SCHITTLESTANDE	
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0 72327	0 72326	0 72323	0 72322	0 72321	0 72319	0 72295	0 72294	06227.0	0 77700	0 77787	0 70894	2894 30642	2759 30050	3488 30034.	0 01126	0 01125	2092 01017	3604 00300	0 01940	0 01939	0 00225	0 00221	0 00220	0 00217	0 00212	0 00211	0 00208	0 00207	0 00201	0 00200	3214 00235	2994 00223	0 00202	2305 00234	2278 01020	3220 01009	3440 30668	2892 30632	2378 30622	0 70249	0 01123	0 70113	0 01131	2926 01021	89110	0 01160	00100	0 0.2	274 002	365 00291	İ	FE	B	1	2 .	4	2(	)1;	7		101	on 20

47049020760000 47049020780000 47049004550000 4704972288 4/15/2010 7/23/2010 8/5/2009 CONSOLIDATION COAL
CONSOLIDATION COAL
1/1/1981 UNKNOWN
UNKNOWN

0 GR 0 GR 1086 GR

UNKWN ABD-GW UNKWN

39.5261 39.5288 39.5349 39.5356

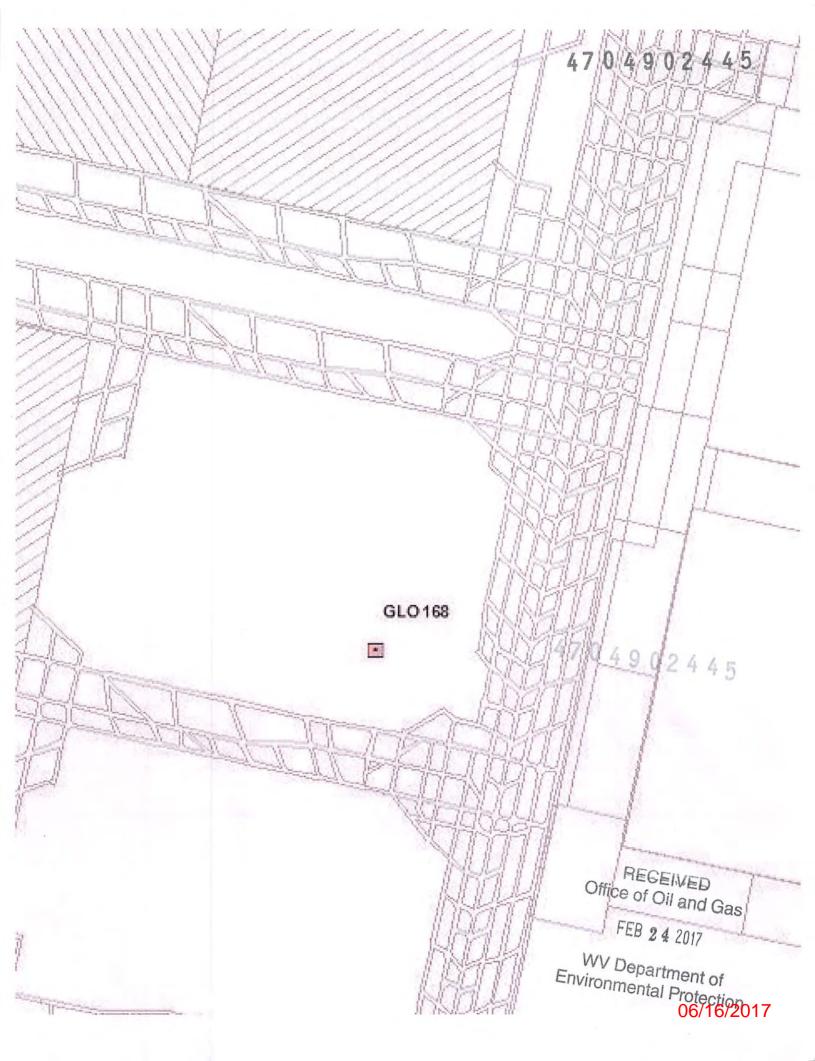
4704902465

-80.4425 CONSOLIDATION COAL
-80.4597 CONSOLIDATION COAL
-80.4400 EQUITABLE GAS COMPANY
-80.4602 UNKNOWN

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Office of Oil and Gas

0 02076 0 02078 3036 00455 72288 06/16/2017

UWI	Name	Depth Top	Base Depth	
47049010210000	PITTSBURGH COAL	885		
47049010210000	MURPHY /SD/	1007		*Perforated formations
47049010210000	DUNKARD LITTLE /SD/	1220		remorated formations
47049010210000	FREEPORT	1382		
47049010210000	SALT SD /GROUP/	1672		
47049010210000	MAXTON/SD/	2059		
47049010210000	BIG LIME	2118		
47049010210000	KEENER /SD/	2179	2200	
47049010210000	BIG INJUN /SD/	2210	2314	
47049010210000	FIFTY FOOT SD	2804	2847	
47049010210000	THIRTY FOOT SD	2884	2907	
	PITTSBURGH COAL	935	941	
47049010200000	MURPHY /SD/	1066	1097	
	DUNKARD LITTLE /SD/	1286	1322	
	DUNKARD BIG/SD/	1359	1385	
47049010200000	FREEPORT	1489	1522	
	SALT SD 1	1727	1757	
47049010200000	SALT SD 2	1792	1834	
	SALT SD 3	1918	2011	
	MAXTON/SD/	2144	2161	
47049010200000	BIG LIME	2190	2235	4704902445
	KEENER /SD/	2248	2270	4/04202743
	BIG INJUN /SD/	2274	1 2320	
47049004550000	PITTSBURGH COAL	843		





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 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,

4704902445

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.

Environmental Resources Specialist / Permitting

Promoting a healthy environment.

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WV Departme/2017
Environmental Protection



#### 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 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
REGULATION 35 CSR § 4-11.4/11.5/14.1	)		
AND 35 CSR § 8-9.2.h. 4/5/6/8 OF THE	)		
THE OPERATIONAL	í		
REGULATIONS OF CEMENTING OIL	í		
AND GAS WELLS	í		
		47049	02445

#### 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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FEB 24 2017

WV Department of Environmental Protection

Promoting a healthy environment.

#### 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

REGEIVED
Office of Oil and Gas

4704902445

FEB 2 4 2017



October 27, 2016

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 (GLO168)

Dear Mr. Smith,

EQT is requesting the 13-3/8" surface casing be set at 449' KB, 80' below the deepest fresh water. We will set the 9-5/8" intermediate string at 3090' KB, 50' below the base of the Gantz formation.

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

Sincerely,

Vicki Roark

Permitting Supervisor

4704902445

Enc.

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FEB 2 4 2017

WV Department of

# 4704902445 API Number 47-49

Operator's Well No. GLO168H21

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN 4

Operator Name EQT Production Company	OP Code 306686
Watershed (HUC 10) Laurel Run	Quadrangle Glover Gap
Do you anticipate using more than 5,000 bbls of water to comple	
Will a pit be used? Yes No ✓	
If so, please describe anticipated pit waste:	
	No ✓ If so, what ml.?
Proposed Disposal Method For Treated Pit Wastes:	SDW
Land Application	3/2/2017
Underground Injection (UIC Permit)	Number_0014, 8462, 4037
Reuse (at API Number Various  Off Site Disposal (Supply form WW-	9 for disposal location)
Other (Explain	For disposal location)
Will closed loop system be used? If so, describe: Yes, The closed cuttings are the	l loop system will remove drill cuttings from the drilling fluid. The drill n prepared for transportation to an off-site disposal facility.
Drilling medium anticipated for this well (vertical and horizontal	)? Air, freshwater, oil based, etc. See Attached
-If oil based, what type? Synthetic, petroleum, etc. Synthetic	
Additives to be used in drilling medium? See Attached	
Drill cuttings disposal method? Leave in pit. landfill, removed of	ffsite, etc. Landfill
-If left in pit and plan to solidify what medium will be us	The state of the s
-Landfill or offsite name/permit number? See Attached L	
Permittee shall provide written notice to the Office of Oil and Ga West Virginia solid waste facility. The notice shall be provided w where it was properly disposed.	s of any load of drill cuttings or associated waste rejected at any ithin 24 hours of rejection and the permittee shall also disclose
provisions of the permit are enforceable by law. Violations of a law or regulation can lead to enforcement action.  I certify under penalty of law that I have personally eapplication form and all attachments thereto and that based.	nditions of the GENERAL WATER POLLUTION PERMIT issued inia Department of Environmental Protection. I understand that the my term or condition of the general permit and/or other applicable examined and am familiar with the information submitted on this on my inquiry of those individuals immediately responsible for e, accurate, and complete. I am aware that there are significantly of fine or imprisonment.
Subscribed and sworn before me this 21 day of F  PULLICA H Womstreet  My commission expires 4-7-2020	Notary Public  OFFICIAL SCAL NOTARY PUBLIC STATE OF WEST VINGHISA SERRECA L WANSTIFFET

#### **WW-9 Attachment**

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.

 Air is used to drill the top-hole sections of the wellbore (surface, intermediate, and pilot). Water based mud may be necessary depending on hole conditions to stabilize and drill the intermediate section. The pilot hole, curve, and lateral sections will be drilled with either air, water based mud, or oil based mud.

#### Additives to be used in drilling medium?

Air - biodegradable oil lubricant, detergent, defoaming, water. Water based mud – Barite, viscosifer, alkalinity control, lime, filtration control, deflocculates, biodegradable oil lubricant, defoaming, walnut shell, salt, x-cide, carbonates. Oil based mud – synthetic base oil, emulsifier, salt, lime, viscosifer, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant, defoaming, carbonates.

47060000000

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FEB 24 2017

## 4704902445

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Permane	ent
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4902	4 4 5
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S Soon as	s seasonabl
oled for	WU DEA

#### **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

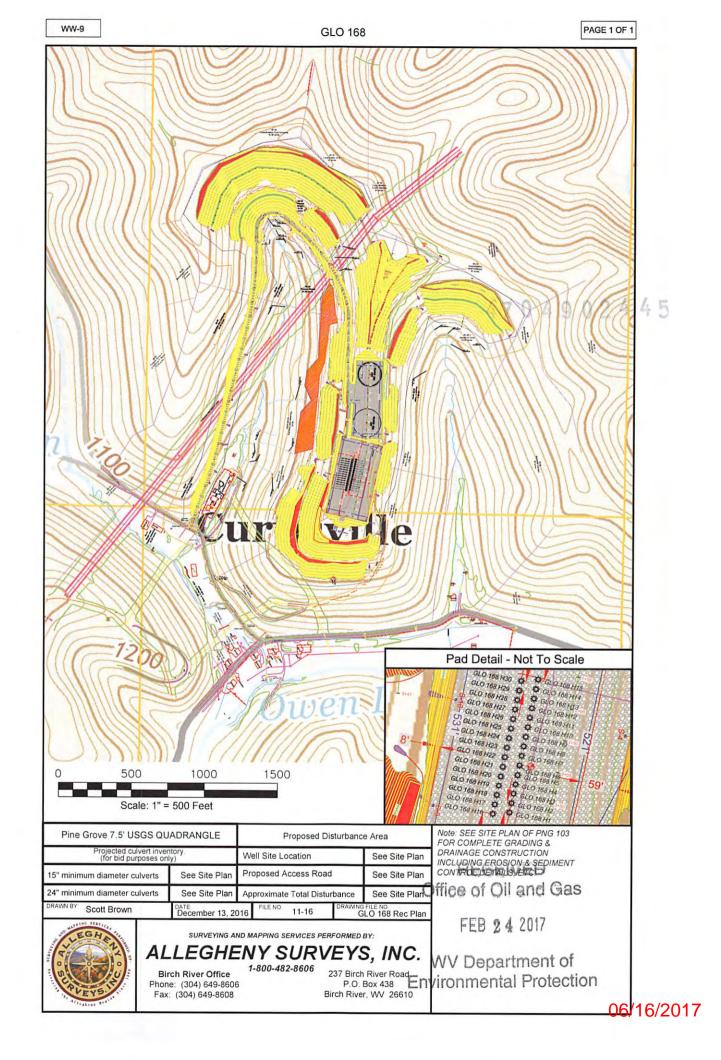
#### KING EXCAVATING CO.

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

47000000000

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FEB 24 2017



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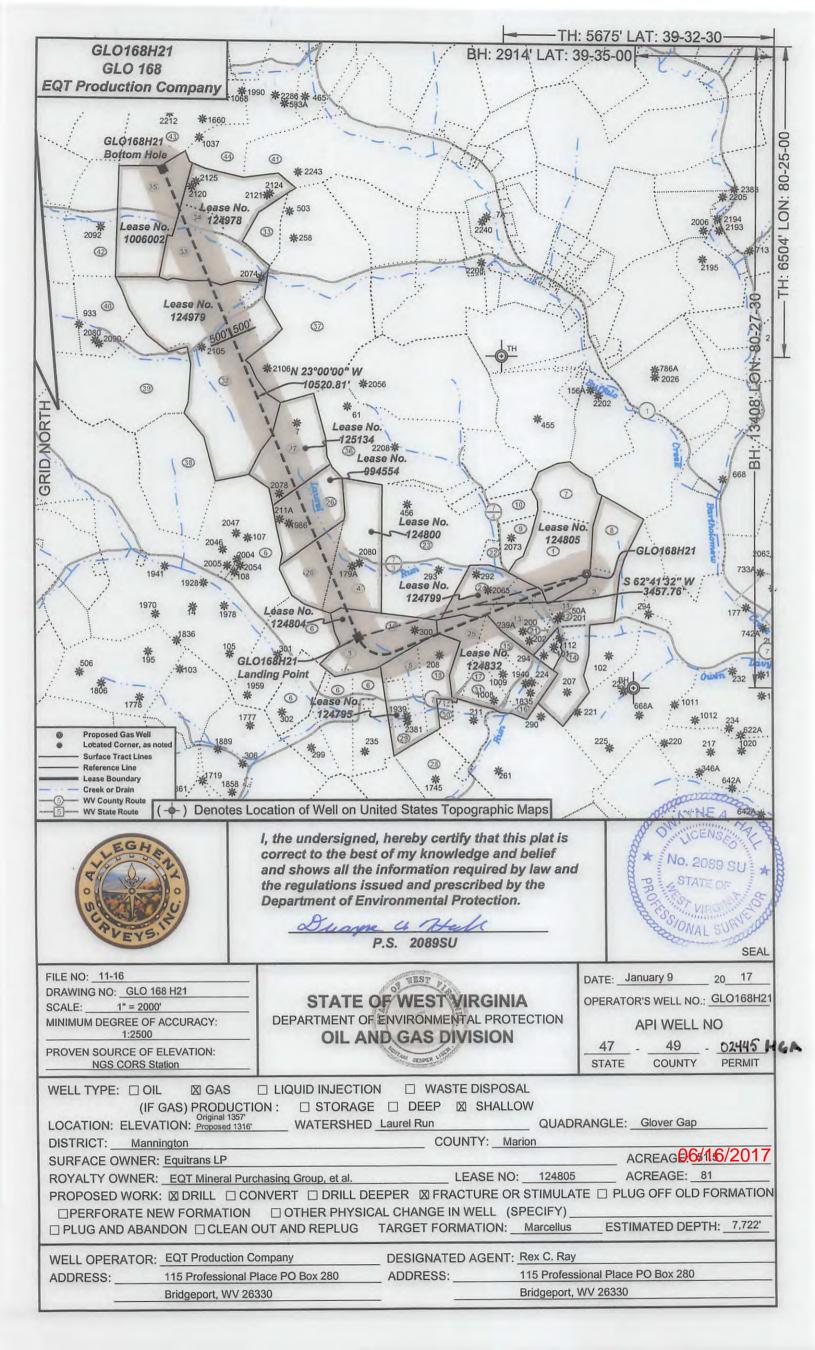
## Site Specific Safety Plan

## EQT GLO 168 Pad

# Glover Quadrant Marion County, WV

For Wells:

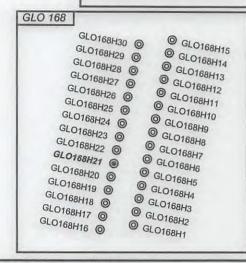
GLO168H1 _GLO168H2 _GLO168H3	3 _GLO168H4 _GLO168H5 GLO168H6_ GLO168H7_
GLO168H16 GLO168H17 GLO168H18	GLO168H19 GLO168H20 GLO168H21
EQT Production	Date Prepared: July 28, 2016  Spw3/2/2017  WV Oil and Gas Inspector
Title 1-26-17	Title
Date	Date



#### GLO168H21 GLO 168 EQT Production Company

Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	49	37	Marion	Mannington	Equitrans LP	51.50
2	49	39	Marion	Mannington	John H. Musgrave, et al.	28.96
3	48	5,1	Marion	Mannington	Marion County Commission	0.36
4	48	4	Marion	Mannington	Mark A. Barron	57.00
5	48	6	Marion	Mannington	Consolidation Coal Company	19.34
6	46	2	Marion	Mannington	Marion County Commission	844.34
7	49	38	Marion	Mannington	Thomas B. Wright	30.00
8	49	39	Marion	Mannington	Musgrave, et al.	23.90
9	49	36	Marion	Mannington	Frederic R. & Kimberly P. Steele	16.25
10	49	35	Marion	Mannington	Mannington Church of Christ Trustees	13.00
11	48	13.1	Marion	Mannington	Gary A. & Shella D. Earl	2.02
12	48	13	Marion	Mannington	Harlen O. & Diana S. Batson	1.10
13	48	14	Marion	Mannington	Roger & Pauline Eshelman	25.09
14	50	19	Marion	Mannington	Brenda D. Stuli	4.55
15	48	11	Marion	Mannington	Consolidated Coal Company	17.50
16	48	10	Marion	Mannington	Consolidated Coal Company	22,00
17	51	7	Marion	Mannington	Consolidation Coal Company	0.63
18	48	7	Marion	Mannington	Consolidation Coal Company	26.61
19	48	5	Marion	Mannington	Consolidation Coal Company	46.83
20	48	3	Marion	Mannington	Mark A. Barron	27.50
21	48	12	Marion	Mannington	Harlen O. & Diana S. Batson	0.45
22	48	16	Marion	Mannington	Consolidation Coal Company	5.50
23	48	17	Marion	Mannington	Consolidation Coal Company	117.50
24	48	15	Marion	Mannington	Elmer O. Duncan, et al.	23.50
25	48	8	Marion	Mannington	Consolidation Coal Company	18.18
26	48	2	Marion	Mannington	EQT Production Company	40
27	48	1.0	Marion	Mannington	David L. & Karta A. James	56.50
28	50	23	Marion	Mannington		
29	51	10			Charles R. & Wanda L. Russell	33.72
30	51	8	Marion	Mannington	Consolidation Coal Company	14,00
		_	Marion	Mannington	Consolidation Coal Company	4.12
31	48	9	Marion	Mannington	Consolidation Coal Company	15.62
32	46	5	Marion	Mannington	Ruby L. Herndon	182.04
33	45	9	Marion	Mannington	Jeffrey B. & Pamela J. Gray	102.28
34	45	6.1	Marion	Mannington	Barron R. & Mary A. Powell	8,00
35	45	10	Marion	Mannington	Lisa A. & Baron R. Powell	68,00
36	45	18	Marion	Mannington	Consolidation Coal Company, et al.	101.25
37	45	8	Marion	Mannington	Robert or Sharon Grim	186.00
38	46	4	Marion	Mannington	Consolidation Coal Company	67,47
39	48	6	Marion	Mannington	Patricia Cotherman	100.00
40	46	6,1	Marion	Mannington	Patricia Cotherman	40.00
41	44	37	Marion	Mannington	Priscilla A. Hamilton	157,30
42	45	5	Marion	Mannington	Harry R. & Susanne M. Morris	52.00
43	45	20	Marion	Mannington	Allegheny Forestlands LLC	78.50
44	45	21	Marion	Mannington	William C, & Vickle E. Lucas	103.20

Notes:
GLO168H21 coordinates are
NAD 27 N: 374,272.77 E: 1,735,746.68
NAD 27 Lat: 39.523816 Long: -80.436785
NAD 83 UTM N: 4,375,068.45 E: 548,424.53
GLO168H21 Landing Point coordinates are
NAD 27 Lat: 39.520056 Long: -80.453724
NAD 83 UTM N: 4,374,642.24 E: 546,971.07
GLO168H21 Bottom Hole coordinates are
NAD 27 N: 382,638.23 E: 1,726,843.22
NAD 27 Lat: 39.546523 Long: -80.468666
NAD 83 UTM N: 4,377,571.86 E: 545,669.55
West Virginia Coordinate system of 1927 (North Zone) based upon Differential GPS Measurements.
Plat orientation, comer and well ties are based upon the grid north meridian.
Well location references are based upon the grid north meridian.
UTM coordinates are NAD83, Zone 17, Meters.



Lease No.	Acres	Owner
124799	135	Anita K. Stanley, et al.
124832	73.31	Robert D. Baker, et al.
124804	48	CNX
124795	67	CNX, et al.
124800	84	I. L. Morris & Mike Ross Inc., et al.
994554	40	Edward R. Barron, Jr. & Vicky Sue Barron
125134	56	David L. James
124979	185	Trio Petroleum & Waco Oil & Gas, et al.
124978	108	Suda Ann Stritzinger, et al.
1006002	68	Ferrari VI OG, LLC, et al.

Well References

14" Scarlet Oak

286.87,

GL0168H21

286.87,

GL0168H21

286.87,

325.20,08" Rebar

1" = 500'

315" Scarlet Oak



Proposed Gas Well Located Corner, as not

Surface Tract Lines

Reference Line

Lease Boundary Creek or Drain

WV County Route WV State Route

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

P.S. 2089SU

\* No. 2020 SU \*
STATE OF
STONAL SUSSEAL

FILE NO: \_\_11-16

DRAWING NO: \_\_GLO 168 H21

SCALE: \_\_\_\_1" = 2000'

MINIMUM DEGREE OF ACCURACY: \_\_\_\_\_1:2500

PROVEN SOURCE OF ELEVATION:

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

DATE: January 9 20 17

OPERATOR'S WELL NO.: GLO168H21

API WELL NO

47 - 49 - 02445

STATE COUNTY PERMIT

			The state of the s
WELL TYPE: □ OIL	☐ GAS ☐ LIQUID INJECTIO	N WASTE DISPOS	SAL
(IF G	GAS) PRODUCTION: STORAGE	☐ DEEP ☒ SHALL	OW
LOCATION: ELEVAT	ION: Proposed 1316' WATERSHED	Starkey Run and Wiley Forl	QUADRANGLE: Glover Gap
DISTRICT: Mannin	ngton	COUNTY: Ma	
SURFACE OWNER:	Equitrans LP		ACREAGE 6/16/2017
ROYALTY OWNER:	EQT Mineral Purchasing Group, et al.	LEASE NO	: 124805 ACREAGE: 81
PROPOSED WORK:	☑ DRILL ☐ CONVERT ☐ DRILL DE	EPER IN FRACTURE OF	R STIMULATE   PLUG OFF OLD FORMATION
□PERFORATE NE	W FORMATION OTHER PHYSIC	CAL CHANGE IN WELL (S	SPECIFY)
☐ PLUG AND ABAND	OON CLEAN OUT AND REPLUG	TARGET FORMATION:	Marcellus ESTIMATED DEPTH: 7,722'
WELL OPERATOR: _	EQT Production Company	DESIGNATED AGENT:	Rex C. Ray
ADDRESS:	115 Professional Place PO Box 280	ADDRESS:	115 Professional Place PO Box 280
	Bridgeport, WV 26330		Bridgeport, WV 26330

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

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

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

Lease Name or Number

Grantor, Lessor, etc.

Grantee, Lessee, etc.

Royalty

Book/Page

See Attached

6700

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

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

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

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. Office of Oll and Gas

Well Operator: EQT Production Company

By:

Victoria J Roark

Its:

Permitting Supervisor

Environmental Protection

Page 1 of 2

		•			
Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page	
	EQT Mineral Purchasing Group, et al. (Current Royalty	Owner)	•••		
124805	Howard Wright, et ux, et al. (Original Lessor)	Equitable Gas Company		DD cczno	
124000	Equitable Gas Company	• •		DB 667/33	
	· ·	Equitrans, Inc.		AB 12/279	
	Equitrans, Inc.	Equitrans, LP		DB 46/660	
	Equitrans, LP	EQT Production Company		DB 1114/130	
	Anita K, Stanley, et al. (Current Royalty Owner)		•••		
124799	Guy F. Musgrave, et al.	Pittsburgh & West Virginia Gas		DB 465/312 DB 510/487,	
	Pittsburgh & West Virginia Gas	Equitable Gas Company		511/539	
	Equitable Gas Company	Equitrans, Inc.		AB 12/279	
	Equitrans, Inc.	Equitrans, LP			
	Equitrans, LP	EQT Production Company		DB 46/660	
	Equatio, E.	Let Floridation company		DB 1114/130	
	Robert D. Baker, et al. (Current Royalty Owner)		•••		
<u>124832</u>	John Lawlis & Ursula Lawlis	South Penn Oil Company		OB 156/218	
	South Penn Oil Company	South Penn Natural Gas		DB 353/201	
	South Penn Natural Gas	Pittsburgh & West Virginia Gas Company		DB 480/383	
	Buck and A Harake And A			DB 510/487,	
	Pittsburgh & West Virginia Gas Company	Equitable Gas Company		511/539	
	Equitrans, Inc.	Equitrans, LP		DB 46/660	
	Equitrans, LP	EQT Production Company		DB 1114/130	4704000
	CNX (Current Royalty Owner)		•••		$\frac{\partial \mathcal{P}}{\partial x} = \frac{\partial \mathcal{P}}{\partial x} = \partial $
124804	John D. Cunningham, et ux.	Equitable Gas Company		DB 730/264	
	Equitable Gas Company	Equitrans, Inc.		AB 12/279	
	Equitrans, Inc.	Equitrans, LP		OB 46/660	
	Equitrans, LP	EQT Production Company		DB 1114/130	
	Equipality, El	Let Flodocion Company		00 1114/130	
	CNX, et al. (Current Royalty Owner)		•••		
<u>124795</u>	C. H. Cunningham, et al.	Pittsburgh & West Virginia Gas		DB 465/309 DB 510/487,	
	Pittsburgh & West Virginia Gas Company	Equitable Gas Company		511/539	
	Equitable Gas Company	Equitrans, Inc.		AB 12/279	
	Equitrans, Inc.	Equitrans, LP		AB 16/660	
	Equitrans, LP	EQT Production Company		DB 1114/127	
	I. L. Morris & Mike Ross Inc., et al. (Current Royalty Ow	mer)	•••		
124800	Carl V. Burdine, et ux.	Equitable Gas Company		DB 729/730	
	Equitable Gas Company	Equitrans, Inc.		AB 12/279	
	Equitrans, Inc.	Equitrans, LP		DB 46/660	
	Equitrans, LP	EQT Production Company		DB 1114/130	
	Edward R. Barron, Jr. & Vicky Sue Barron (Current Roy	atty Owner)	•••		
<u>994554</u>	Edward R. Barron, Jr. & Vicky Sue Barron	EQT Production Company		DB 1135/113	
	Posidi Ingga (Occasion Position Company)		•••		
125134	David L. James (Current Royalty Owner) Lana Hays, et vir.	Carnegie Natural Gas Company	•••	DB 286/161	
	Carnegie Natural Gas Company	Equitable Gas Company		DB 563/353	
	Equitable Gas Company	Equitrans, Inc.		AB 12/279	
	Equitrans, Inc.	Equitrans, LP		DB 46/660	
	Equitrans, LP	EQT Production Company		DB 1114/130	
	Tais Ostrotours & Wass Off & Co. 1997		•••		
124979	Trio Petroleum & Waco Oil & Gas, et al. (Current Royalth Howard Digman, et al.	(Owner) Equitable Gas Company		DB 724/564	PEGE.
184010	Equitable Gas Company	• •		DB 724/561	Office REGEIVER
	Equitable Gas Company Equitrans, Inc.	Equitrans, Inc.		AB 12/279	Office of Oil and
	•	Equitrans, LP		DB 46/660	THE ITY IN THE
	Equitrans, LP	EQT Production Company		DB 1114/130	
	Suda Ann Stritzingerm et al. (Current Royalty Owner)		•••		FEB 2 4 2017
<u>124978</u>	H. Lawrence Gump, et ux.	Equitable Gas Company		DB 596/394	
	Equitable Gas Company	Equitrans, Inc.		AB 12/279	M/V m =
	Equitrans, Inc.	Equitrans, LP		DB 46/660	WV Department
	Equitrans, LP	EQT Production Company		DB 1114/130	Environmental Prote
	Ferrari VI OG, LLC, et al. (Current Royalty Owner)		•••		Prote
1006002	Louis a. Ferrari, Sr. Estate, et al. (Tully to Onondaga)	XTO Energy		DB 115/766	
	XTO Energy	EQT Production Company		AB 48/276	
	AAAN	follows the second company			

<sup>\*\*\*</sup>We certify that we will pay a minimum one-eighth of the total amount paid to or received by or allowed to the owner of the working interest at the wellhead for the oil or gas so extracted, produced or marketed before deducting the amount to be paid to or set aside for the owner of the oil or gas in place, on all such oil or gas to be extracted, produced or marketed from the well.

d Gas

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January 13, 2017

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

Re: GLO168 well pad, wells: GLO168H1, GLO168H2, GLO168H3, GLO168H4, GLO168H5, GLO168H6, GLO168H7, GLO168H16, GLO168H17, GLO168H18, GLO168H19, GLO168H20, GLO168H21

Mannington District, Marion County

Dear Mr. Martin,

EQT Production Company is submitting an application for a new well work permit for the above well number. 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.

470490244

Sincerely,

Vill

Vicki Roark

Permitting Supervisor-WV

Office of Oil and Gas
FEB 2 4 2017
WV Department of
Environmental Protection

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

	ication: 22117	API No. 47-	49 -	
		Operator's V		O168H21
National .		Well Pad Na		
Notice has been giv	en:			
below for the tract of	ions in West Virginia Code	§ 22-6A, the Operator has provided the requi	ired parties	with the Notice Forms liste
State: wv	and as follows:	Barton		
County: Marion		UIIVINAD X3	48424.53	
District: Manningt	on		375068.45	
Quadrangle: Glover G	ар		C/O Rt 7/4 Equitrans LP	
Watershed: Laurel Ru	in	Senerally used farm flame.	quittans LP	
information required b of giving the surface requirements of subse Virginia Code § 22-6A	y subsections (b) and (c), so owner notice of entry to su ction (b), section sixteen c	whall contain the following information: (14) abed in subdivisions (1), (2) and (4), subsection sixteen of this article; (ii) that the requirevey pursuant to subsection (a), section ten of this article were waived in writing by the ender proof of and certify to the secretary that it.	tion (b), se irement was of this art	ction ten of this article, the s deemed satisfied as a resu icle six-a; or (iii) the notice
*PLEASE CHECK ALL T	properly served the require	perator has attached proof to this Notice Certi d parties with the following:		OOG OFFICE USE ONLY
☐ 1. NOTICE OF	SEISMIC ACTIVITY or	NOTICE NOT REQUIRED BECAUSE SEISMIC ACTIVITY WAS CONDUCTED	E NO D	RECEIVED/ NOT REQUIRED
2. NOTICE OF	ENTRY FOR PLAT SURV	EY or  NO PLAT SURVEY WAS CON	DUCTED	☐ RECEIVED
☐ 3. NOTICE OF	INTENT TO DRILL or	NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or	E Y	RECEIVED/ NOT REQUIRED
		WRITTEN WAIVER BY SURFACE (PLEASE ATTACH)	OWNER	
■ 4. NOTICE OF	PLANNED OPERATION	(PLEASE ATTACH)	OWNER	☐ RECEIVED
■ 4. NOTICE OF			OWNER	☐ RECEIVED

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 Mirginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing. WV Department of Environmental Protection

06/16/2017

WW-6AC (1/12)

Certification of Notice is hereby given;

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

Well Operator:EQT Production CompanyAddress:115 Professional Place PO Box 280By:Victoria J RoarkBridgeport WV 26330Its:Permitting SupervisorFacsimile:304-848-0041Telephone:304-848-0076Email:vroark@eqt.com

NOTARYSBAEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
FEBECCA L. WANSTREET
EQT PRODUCTION COMPANY
PO BOX 280
BRIDGEPORT, WV 26330
By commission expires April 07, 2020

Subscribed and sworn before me this al day of February 17.

My Commission Expires 4-7-2030

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>.

4700000000

RECEIVED
Office of Oil and Gas

FEB 2 4 2017

API NO. 47- 49
OPERATOR WELL NO. GL0168H21
Well Pad Name: GL0168

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

Notice Time Requirement: notice shall be provided no later that	n the filing date of permit application.
Date of Notice: 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	21/17
✓ PERMIT FOR ANY ☐ CERTIFICATE OF APP	ROVAL FOR THE
	AN IMPOUNDMENT OR PIT
Delivery method pursuant to West Virginia Code § 22-6A-10	(b)
☐ PERSONAL ☐ REGISTERED ☑ METH	OD OF DELIVERY THAT REQUIRES A
	PT OR SIGNATURE CONFIRMATION
the surface of the tract on which the well is or is proposed to be local oil and gas leasehold being developed by the proposed well work, if described in the erosion and sediment control plan submitted pursual operator or lessee, in the event the tract of land on which the well promore coal seams; (4) The owners of record of the surface tract or tractive well work, if the surface tract is to be used for the placement, constraint impoundment or pit as described in section nine of this article; (5) A have a water well, spring or water supply source located within one provide water for consumption by humans or domestic animals; and proposed well work activity is to take place. (c)(1) If more than three subsection (b) of this section hold interests in the lands, the applicant records of the sheriff required to be maintained pursuant to section exprovision of this article to the contrary, notice to a lien holder is not	the well plat to each of the following persons: (1) The owners of record of ted; (2) The owners of record of the surface tract or tracts overlying the the surface tract is to be used for roads or other land disturbance as int to subsection (c), section seven of this article; (3) The coal owner, oposed to be drilled is located [sic] is known to be underlain by one or cts overlying the oil and gas leasehold being developed by the proposed uction, enlargement, alteration, repair, removal or abandonment of any any surface owner or water purveyor who is known to the applicant to thousand five hundred feet of the center of the well pad which is used to (6) The operator of any natural gas storage field within which the elements in common or other co-owners of interests described in at may serve the documents required upon the person described in the eight, article one, chapter eleven-a of this code. (2) Notwithstanding any notice to a landowner, unless the lien holder is the landowner. W. Va. rovide the Well Site Safety Plan ("WSSP") to the surface owner and any
☐ Application Notice ☐ WSSP Notice ☐ E&S Plan Notice	☑ Well Plat Notice is hereby provided to:
SURFACE OWNER(s)	☐ COAL OWNER OR LESSEE
Name: See Attached	Name: See Attached
Address:	Address:
Name:	COAL OPERATOR
Address:	Name:
OVER LOD ON STREET	Address:
SURFACE OWNER(s) (Road and/or Other Disturbance) Name: See Attached	HOUBEACE ONAIED OF WATER WELL
	☑ SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Address:	15. [2] [1] : [1] : [2] : [2] : [3]
Name:	Name: See Attached Address:
Address:	
	OPERATOR OF ANY NATURAL GAS STORAGE FIELD
SURFACE OWNER(s) (Impoundments or Pits)	Name: REGEIVED
Name: See Attached	Name: REGEIVED Address: Office of Oil and Gas
Address:	*Please attach additional forms if necessary 2 4 2017

API NO. 47- <u>49</u>	
OPERATOR WELL NO.	GLO168H21
Well Pad Name: GL0168	

#### Notice is hereby given:

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

#### This Notice Shall Include:

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

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

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

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

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

#### **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 waives, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section prevents an operator from conducting the activities permitted or authorized by a Clean water of the United States Army Corps of Engineers within any waters of the state or within the restricted areas gerenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a faithting 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, 20, 2, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of prizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Exper a finding manney the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise requirements to address the items

WW-6A (8-13)

API NO. 47-49

OPERATOR WELL NO. GLO168H21

Well Pad Name: GLO168

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

#### Water Well Testing:

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

#### Water Testing Laboratories:

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

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

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

#### Written Comment:

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

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

RECEIVED Office of Oil and Gas

(304) 926-0450

FEB 2 4 2017

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

WV Deposits

WW-6A (8-13)

API NO. 47-49 -OPERATOR WELL NO. GLO168H21

Well Pad Name: GLO168

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 <a href="http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx">http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx</a> 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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FEB 2 4 2017

WW-6A (8-13)

API NO. 47-49 OPERATOR WELL NO. GLO168H21 Well Pad Name: GL0168

Notice is hereby given by:

Well Operator: EQT Production Company Telephone: 304-848-0076

Email: vroark@eqt.com

Address: 115 Professional Place PO Box 280

Bridgeport WV 26330

Facsimile: 304-848-0041

#### 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.

> NOTARY PUBLIC STATE OF WEST VIRGI STATE OF WEST VIRGINIA REBECCA L. WANSTREE EOT PRODUCTION COMPANY
> PO BOX 280
> BRIDGEPORT, WV 26330
> ty commission expires April 07, 2020

Subscribed and sworn before me this 21 day of February 2017.

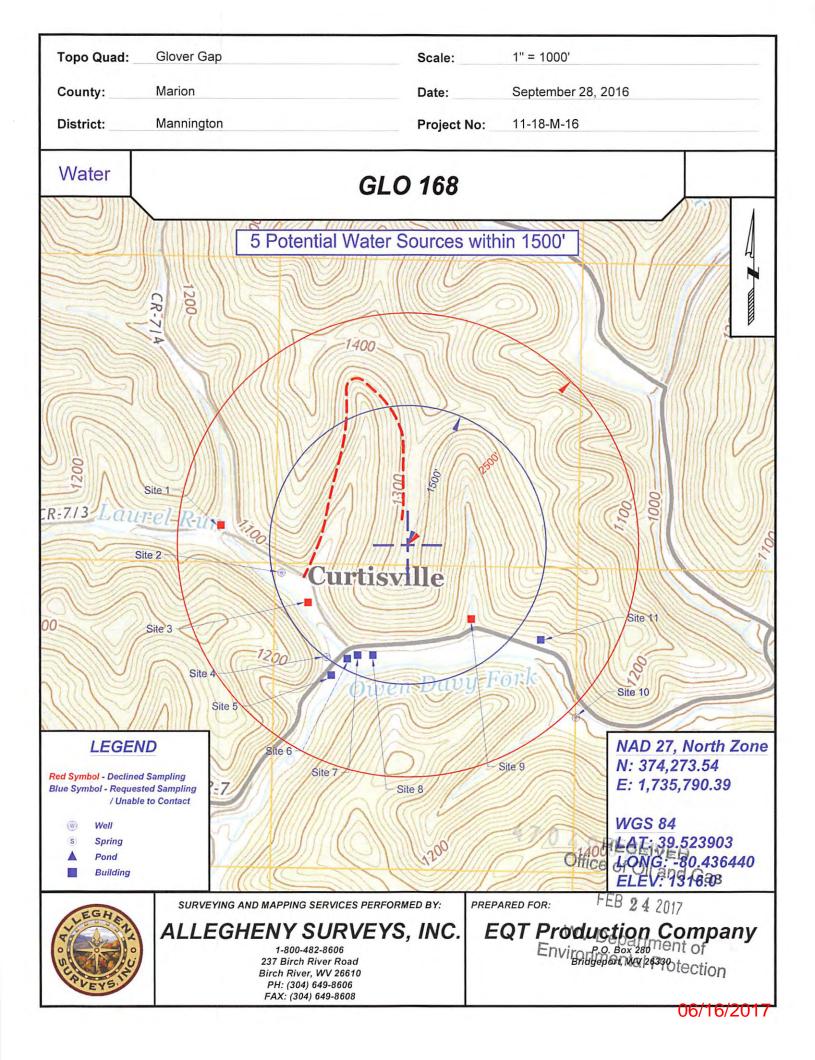
Notary Public

My Commission Expires

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REGEIVED Office of Oil and Gas

FEB 2 4 2017

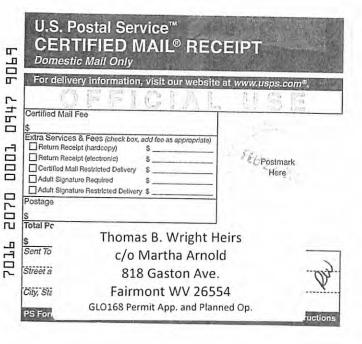


## Surface Owners:

Equitrans, LP 625 Liberty Ave., Suite 1700 Pittsburgh, PA 15222

Thomas B. Wright Heirs C/O Martha Arnold 808 Gaston Ave. Fairmont, WV 26554

Joseph V. Forte John H. Musgrave & Matilda Henry C/O Joseph Forte 11 Hutchinson Dr. Fairmont, WV 26554



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For deliver	y information, visit our website at	www.usps.com <sup>®</sup>	
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Extra Services	& Fees (check box, add fee as appropriate)	7	
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Sent Tc	c/o Joseph Forte		Uh
Street a	11 Hutchinson Dr.		
1	Fairmont WV 26554		
City, St	GLO168 Permit App and Planned	Op.	
PS For			ructions

Office of Oil and Gas
FEB 24 2017
WV Department of
Environmental Protection
06/16/2017

## Surface Owners Access road & Other disturbance

Equitrans, LP 625 Liberty Ave., Suite 1700 Pittsburgh, PA 15222

Thomas B. Wright Heirs C/O Martha Arnold 808 Gaston Ave. Fairmont, WV 26554

Joseph V. Forte John H. Musgrave & Matilda Henry C/O Joseph Forte 11 Hutchinson Dr. Fairmont, WV 26554

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For delive	ery information, visit our website at www.usps.c	om®.
Return Rece	\$ & Fees (check box, add fee as appropriate)    Postmail Restricted Delivery \$ Here	ark
Postage \$		
Total Pc \$ Sent To	Thomas B. Wright Heirs c/o Martha Arnold	
Street a	818 Gaston Ave. Fairmont WV 26554	0
PS For	GLO168 Permit App. and Planned Op.	ructio



REGEIVED
Office of Oil and Gas
FEB 2 4 2017
WV Department of 6/2017
Environmental Protection

Surface Owner, AST

Equitrans, LP 625 Liberty Ave., Suite 1700 Pittsburgh, PA 15222

Joseph V. Forte John H. Musgrave & Matilda Henry C/O Joseph Forte 11 Hutchinson Dr. Fairmont, WV 26554

10		Postal Service™ ITIFIED MAIL® REC	EIPT
ירחף כטףח.	For delic	very information, visit our website	THE PERSON SHOWN
2070 0001,	☐ Return Rec ☐ Certified M: ☐ Adult Signa	eipt (electronic) \$	Perfinance 2017
7076	\$ Josep Sent 7c Street a City, St. PS For	oh V Forte, John H Musgrave, M c/o Joseph Forte 11 Hutchinson Dr. Fairmont WV 26554 GL0168 Permit App and Planned O	- Oz

4704902445

Office of Oil and Gas
FEB 2 4 2017
WV Department of
Environmental Protection 17

# Coal Owners:

Consol Mining Company **Engineering Operations Support Dept Coal CNX Center** 1000 Consol Energy Drive Canonsburg, PA 15317-6506

Consolidation Coal Company C/O Murray Energy Corporation Attn: Alex O'Neill 46226 National Road St. Clairsville, OH 43950

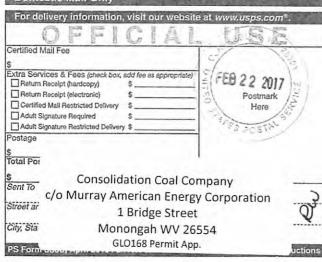
Consolidation Coal Company C/O Murray Energy Corporation Attn: Troy FreeIs 1 Bridge Street Monongah, WV 26554

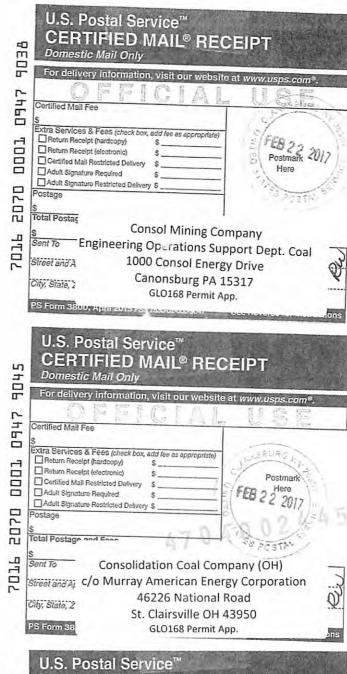
Legacy Minerals, LLC P.O. Box 23298 Pittsburgh, PA 15222-2006

#### **CBM** ownership

**CNX Gas Company Engineering Operations Support Dept Coal CNX Center** 1000 Consol Energy Drive Canonsburg, PA 15317-6506

#### U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only





# CERTIFIED MAIL® RECEIPT Domestic Mail Only

For deliv	very information, visit our website at www.usps.com®.
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Certified Mai \$	3
	es & Fees (check box, add fee as appropriate)  FEB 2.2 2017
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Total F	Office of CHIVED
\$	Legacy Minerals, LLC PO Box 23298  FED - STATE OF THE POINT OF T
Sent 7	PO Box 23298 FEB
Street	LR Dominal
Olloci	Pittsburgh PA 15222-2006
City, S	GLO168 Permit App WV Departmental S. Of
-	Environmental Protection
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#### Coal Owners:

Consol Mining Company
Engineering Operations Support Dept Coal
CNX Center
1000 Consol Energy Drive
Canonsburg, PA 15317-6506

Consolidation Coal Company C/O Murray Energy Corporation Attn: Alex O'Neill 46226 National Road St. Clairsville, OH 43950

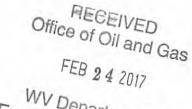
Consolidation Coal Company C/O Murray Energy Corporation Attn: Troy Freels 1 Bridge Street Monongah, WV 26554

Legacy Minerals, LLC P.O. Box 23298 Pittsburgh, PA 15222-2006

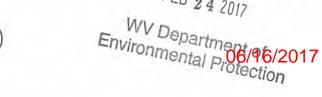
#### CBM ownership

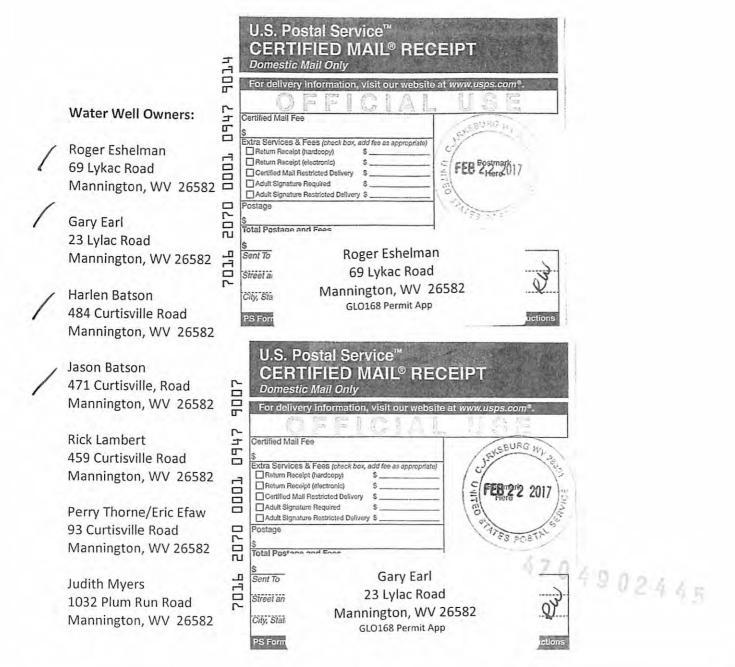
CNX Gas Company Engineering Operations Support Dept Coal CNX Center 1000 Consol Energy Drive Canonsburg, PA 15317-6506 4704902465



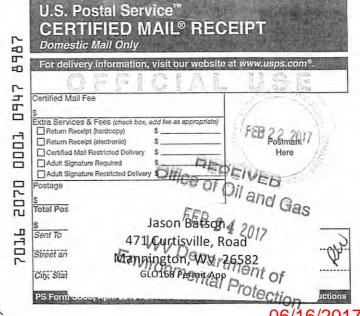












(T)

#### Water Well Owners:

Roger Eshelman 69 Lykac Road Mannington, WV 26582

Gary Earl 23 Lylac Road Mannington, WV 26582

Harlen Batson 484 Curtisville Road Mannington, WV 26582

Jason Batson 471 Curtisville, Road Mannington, WV 26582

Rick Lambert
459 Curtisville Road
Mannington, WV 26582

Perry Thorne/Eric Efaw 93 Curtisville Road Mannington, WV 26582

Judith Myers 1032 Plum Run Road Mannington, WV 26582







Operator	Well	No.	124799	

Notice Time Requirement: Notice shall be provided at least SEVI	EN (7) days but no more than FORTY-FIVE (45) days prior to entry.
Date of Notice: 12/4/2015	Date of Planned Entry: 12/11/2015
Delivery method pursuant to West Virginia Code § 22-6A-10(a)	<b>:</b>
PERSONAL SERVICE X CERTIFIED MAIL N	ETHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION
tract to conduct any plat surveys required pursuant to this article. prior to such entry to: (1) The surface owner of such tract; (2) to pursuant to section thirty-six, article six, chapter twenty-two of the statement that copies of the statement t	mit application, the operator shall provide notice of planned entry on to the surface Such notice shall be provided at least seven days but no more than forty-five days any owner or lessee of coal seams beneath such tract that has filed a declaration his code; and (3) any owner of minerals underlying such tract in the county tax late Erosion and Sediment Control Manual and the statutes and rules related to oil cretary, which statement shall include contact information, including the address for her to obtain copies from the secretary.
Notice is hereby provided to:	
X SURFACE OWNER	COAL OWNER OR LESSEE
Joseph Forte Name: (John H. Musgrave & Joseph V. Forte)	Name:
Address: 11 Hutchinson Drive, Fairmont, WV 26554	Address:
	MINERAL OWNER(S)
Name:	Manage
	Address:
Address:	
Name:	Name:
Address:	Address:  Please attach additional forms if necessary
Notice is hereby given:  Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby of the tract of land as follows:	given that the undersigned well operator is planning entry to conduct a plat survey on
State: WV	Approx. Latitude & Longitude: 39.52384/-80.43652
County: Marion	Public Road Access: CR 7/3 & 7 (Lylac & Curtisville Rds.)
District: Mannington, Tax Map 49, Parcel 39	Watershed: Laurel Run
Quadrangle: Glover Gap	Generally Used Farm Name: Musgrave
Copies of the state Erosion and Sediment Control Manual an	d the statues and rules related to oil and gas exploration and production may be ental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 mation related to horizontal drilling may be obtained from the Secretary by visiting
Notice is hereby given by:	•
Well Operator: EQT Production Company	Address: 115 Professional Place, Bridgeport, WV 26330
Telephone: 304-848-0074	EQT Representative: Jamie I. Barbou CEIVED
Facsimile: 304-848-0040	Office of Office Gen
Email: EQTLandEntryNotice@eqt.com	Signature: FEB 2.4.2017
ISMICO AND AN ASSESSMENT OF A STATE OF A STA	name, address and telephone number, as pan of regulatory duties. Your personal information course of business or as needed to comely with statutory locality apply requirements, including ecure your personal information. If you have an information apply our use or your personal information.

Notice Time Req	uirement: Notice shall be provided at least SEV	EN (7) days but no more than t	FORTY-FIVE (45) days prior to entry.
Date of Notice:	12/4/2015	Date of Planned	Entry: _ 12/11/2015
Delivery method	pursuant to West Virginia Code § 22-6A-10(a	<b>):</b>	
PERSONAL	SERVICE X CERTIFIED MAIL N	ETHOD OF DELIVERY THAT RE	QUIRES A RECEIPT OR SIGNATURE CONFIRMATION
tract to conduct a prior to such entry pursuant to section records. The notice and gas exploration	ny plat surveys required pursuant to this article. y to: (1) The surface owner of such tract; (2) to on thirty-six, article six, chapter twenty-two of t ce shall include a statement that copies of the st	Such notice shall be provided any owner or lessee of coal so his code; and (3) any owner ate Erosion and Sediment Coal cretary, which statement shall in	nall provide notice of planned entry on to the surface at least seven days but no more than forty-five days eams beneath such tract that has filed a declaration of minerals underlying such tract in the county tax atrol Manual and the statutes and rules related to oil include contact information, including the address for exertary.
Notice is hereby	provided to:		
Jose (Joh	FACE OWNER eph Forte nn H. Musgrave, Joseph V. Forte & Matilda		OAL OWNER OR LESSEE
Name: Hen	iry)	Name:	
Address: 11	Hutchinson Drive, Fairmont, WV 26554	Address:	
		M	INERAL OWNER(S)
Name:		Name:	
Address:		Address:	
Name:		Name:	·
Address:		Address:	se attach additional forms if necessary
Notice is hereby Pursuant to West the tract of land a	t Virginia Code § 22-6A-10(a), notice is hereby gi		se attach additional forms if necessary  operator is planning entry to conduct a plat survey on
State: W	<b>N</b>	Approx. Latitude & Longitude	e: 39.52384/-80.43652
County: M	1arion	Public Road Acces	s: CR 7/3 & 7 (Lylac & Curtisville Rds.)
District: N	lannington, Tax Map 49, Parcel 39.1	Watershe	d: Laurel Run
Quadrangle: G	ilover Gap	Generally Used Farm Name	e: Musgrave
obtained from the (304-926-0450).	e Secretary, at the WV Department of Environme	ntal Protection headquarters, I	I to oil and gas exploration and production may be ocated at 601 57th Street, SE, Charleston, WV 25304 ling may be obtained from the Secretary by visiting
Notice is hereby	y given by:		ASSERTION ASSERTED
Well Operator:	EQT Production Company	Address	: 115 Profession Plage, Bridgeport, WV 26330
Telephone:	304-848-0074	EQT Representative	= '! (611/0 / )
Facsimile:	304-848-0040		FEB 2 4 200 / 0
Email:	EQTLandEntryNotice@eqt.com	Signature	
may be disclosed freedom of Inform	to other State agencies or third parties in the normal c	ourse of business or as needed to cure your personal information. If	Environment of the partment of the part of regulative units of the part of regulative units of the part of regulative units of the part of

Notice Time Re	equirement: No	tice shall be provided at	least SEVEN (7) days but no more than	n FOI	RTY-FIVE (45) days prior to entry.
Date of Notice:	12/4/2015		Date of Planne	ed Er	ntry: <u>12/11/2015</u>
<b>Delivery metho</b>	d pursuant to	West Virginia Code § 2	2-6A-10(a):		
PERSONA	L SERVICE [	x CERTIFIED MAIL	METHOD OF DELIVERY THAT F	REQU	IRES A RECEIPT OR SIGNATURE CONFIRMATION
tract to conduct prior to such en pursuant to sec records. The no and gas explora	any plat survey try to: (1) The s tion thirty-six, a tice shall includ- tion and produc	s required pursuant to the urface owner of such transiticle six, chapter twen e a statement that copie tion may be obtained from	his article. Such notice shall be provide act; (2) to any owner or lessee of coal ty-two of this code; and (3) any owne as of the state Erosion and Sediment C	d at I seam or of I contro	provide notice of planned entry on to the surface east seven days but no more than forty-five days as beneath such tract that has filed a declaration minerals underlying such tract in the county tax of Manual and the statutes and rules related to oil ude contact information, including the address for etary.
Notice is hereb	y provided to:				
X SU	RFACE			COA	L OWNER OR LESSEE
	iomas B. Wright			Á	
Name: <u>c/c</u>	Martha Arnold		Name: _		the state of the s
Address: 80	18 Gaeton Ava	Fairmont, WV 26554	Address:		
Addiess	o Gasion Ave.,	raminoni, vv v 20004			
			<u></u>	MINE	ERAL OWNER(S)
Name:		· · · · · · · · · · · · · · · · · · ·	Name:	····	
Address:			Address: _		
Name:					
Address:			Address:		
				lease at	lach additional forms if necessary
Notice is hereb Pursuant to Wes the tract of land	st Virginia Code	§ 22-6A-10(a), notice is	s hereby given that the undersigned wel	ll ope	rator is planning entry to conduct a plat survey on
State:	wv		Approx. Latitude & Longitu	ıde.	39.52384/-80.43652
	Marion		Public Road Acce	-	CR 7/3 (Lylac Road)
· —	Mannington/Tax	Map 49 Parcel 38	Watersh	-	Laurel Run
_	Glover Gap		Generally Used Farm Nar	-	
obtained from the (304-926-0450) www.dep.wv.go	ne Secretary, at . Copies of suc v/oil-and-gas/pa	the WV Department of	Environmental Protection headquarters	, loca	oil and gas exploration and production may be ted at 601 57th Street, SE, Charleston, WV 25304 may be obtained from the Secretary by visiting
Notice is hereb	by given by:				
Well Operator:	EQT Producti	on Company	Addres	ss: _	115 Professional Place, Bridgeport, WV 26330
Telephone:	304-848-0074		EQT Representative	ve:	Jamie I. Barbour
Facsimile:	304-848-0040				DOWNER BOILDER GOL
Email:	EQTLandEntr	yNotice@eqt.com	Signator	fe: _	TARIHITA STATE TO STATE OF THE
information may	il and Gas proce	other State agencies or	third parties in the permal course of busi	iness erson	number, as part of oil and Gas number, as part of pregulatory duties. Your personal or as needed to comply with tratutory or regulatory al information. If you have any questions about our use environmental Protection 16/2017 Page 1 of 1

Notice Time Rec	quirement: Notice shall be provided at least SE	EVEN (7) days but no more tha	in FORTY-F	IVE (45) days prior to entry.	
Date of Notice:	12/4/2015	Date of Plann	ed Entry:	12/11/2015	
Delivery method	d pursuant to West Virginia Code § 22-6A-10	(a):			
PERSONAL	SERVICE X CERTIFIED MAIL	METHOD OF DELIVERY THAT	REQUIRES A	A RECEIPT OR SIGNATURE CONFIRMA	TION
tract to conduct a prior to such enti- pursuant to sect records. The not and gas explorat	t Virginia Code § 22-6A-10(a), prior to filing a pany plat surveys required pursuant to this articlery to: (1) The surface owner of such tract; (2) ion thirty-six, article six, chapter twenty-two office shall include a statement that copies of the ion and production may be obtained from the Secretary's web site, to enable the surface of the secretary's web site, to enable the surface of the secretary's web site.	e. Such notice shall be provide to any owner or lessee of coal f this code; and (3) any owner state Erosion and Sediment C secretary, which statement sha	ed at least so I seams ben er of minera Control Man Ill include co	even days but no more than forty-five neath such tract that has filed a decla als underlying such tract in the coun ual and the statutes and rules related	e days tration ty tax I to oil
Notice is hereby	provided to:				
SUF	RFACE OWNER	X	COAL OW	NER OR LESSEE	
Name:		Name:	Consolidati	ion Coal Co.	
Address:		Address:	CNX Cente	g and Operations Support Coal Dept. er, 1000 Consol Energy Drive g, PA 15317-6506	
Addiess		Addless		· · · · · · · · · · · · · · · · · · ·	
Name:		L  Name:		OWNER(S)	
Name:					
		<del></del>			
Address:		Address: _			
Notice is hereb	v given:	•	Please attach additi	ional forms if necessary	
	st Virginia Code § 22-6A-10(a), notice is hereby	given that the undersigned we	ell operator is	s planning entry to conduct a plat surv	ey on
State: V	VV	Approx. Latitude & Longitu	ude: 39.52	2384/-80.43652	
County: N	Marion	Public Road Acce	ess: CR 7	7/3 & 7 (Lylac & Curtisville Rds.)	
District: N	Mannington, Tax Map 49, Parcels 39 & 39.1	Watersh	ned: Laure	el Run	
Quadrangle:	Glover Gap	Generally Used Farm Na	me: Muso	grave	
obtained from th (304-926-0450).	tate Erosion and Sediment Control Manual a re Secretary, at the WV Department of Environal Copies of such documents or additional info v/oil-and-gas/pages/default.aspx.	nental Protection headquarters	s, located at	601 57th Street, SE, Charleston, WV	25304
Notice is hereb	y given by:				
Well Operator:	EQT Production Company	Addre	ss: <u>115 P</u>	Professional Place, Bridgeport, WV 26	330
Telephone:	304-848-0074	EQT Representati	ve: Jamie	I. Barbour	
Facsimile:	304-848-0040			Office of A VED	/_
Email:	EQTLandEntryNotice@eqt.com	Signatu	ıre:	ACCOLONATION STA	<u> 10</u>
Oil and Gas Pri The Office of Oil a may be disclosed Freedom of Infor information, pleas	ivacy Notice: and Gas processes your personal information, such to other State agencies or third parties in the norma mation Act requests. Our office will appropriately se contact DEP's Chief Privacy Officer at depprivacy	a name, address and telephone not be a name, address and telephone not be a name, address or as needed secure your personal information. officer@WV.gov.	umber, as pa to comply w	and of regulatory duffes his personal information of regulatory requirements, in any question of the personal information of the personal information of the personal information of the personal personal personal information of the personal information of	rmation cluding ersonal 017

WW-6A3 (1/12)

Operator	Well No.	124799	
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# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time R	Requirement: Notice shall be provided at least	SEVEN (7) days but no more than FC	PRTY-FIVE (45) days prior to entry.
Date of Notice	e: <u>12/4/2015</u>	Date of Planned E	intry: <u>12/11/2015</u>
Delivery meth	od pursuant to West Virginia Code § 22-6A	-10(a):	
PERSON	AL SERVICE X CERTIFIED MAIL	METHOD OF DELIVERY THAT REQ	UIRES A RECEIPT OR SIGNATURE CONFIRMATION
tract to conduction to such e pursuant to se records. The nand gas explored.	at any plat surveys required pursuant to this and intry to: (1) The surface owner of such tract; ( ection thirty-six, article six, chapter twenty-two tice shall include a statement that copies of	ticle. Such notice shall be provided at 2) to any owner or lessee of coal sea o of this code; and (3) any owner of the state Erosion and Sediment Contr e Secretary, which statement shall inc	Il provide notice of planned entry on to the surface least seven days but no more than forty-five days ms beneath such tract that has filed a declaration minerals underlying such tract in the county tax ol Manual and the statutes and rules related to oil dude contact information, including the address for retary.
Notice is here	by provided to:		
SI	URFACE OWNER	X co.	AL OWNER OR LESSEE
Nome			ray American Energy, Inc.
Name:			n.: Troy Freels
Address:			idge Street ongah, WV26554
			ERAL ÓWNER(S)
Name:			EIAL OWILING)
Address:		Address:	
Name:		Name:	
Address:		Address:	
Notice is here	•	'Please	attach additional forms if necessary
	est Virginia Code § 22-6A-10(a), notice is here	eby given that the undersigned well op	erator is planning entry to conduct a plat survey on
State:	wv	Approx. Latitude & Longitude:	39.52384/-80.43652
County:	Marion	Public Road Access:	
District:	Mannington, Tax Map 49, Parcels 39 & 39.1	Watershed:	Laurel Run
Quadrangle:	Glover Gap	Generally Used Farm Name:	Musgrave
obtained from (304-926-0450	the Secretary, at the WV Department of Environment	onmental Protection headquarters, loc	o oil and gas exploration and production may be ated at 601 57th Street, SE, Charleston, WV 25304 g may be obtained from the Secretary by visiting
Notice is here	eby given by:		
Well Operator	: EQT Production Company	Address:	115 Professional Place, Bridgeport, WV 26330
Telephone	: 304-848-0074	EQT Representative:	Jamie I. Barbole OEIVE
Facsimile	: 304-848-0040		Jamie I. Barbol October Of On and Gas J
Email	: EQTLandEntryNotice@eqt.com	Signature:	Vitte 1 2 20
Oil and Gas F	Privacy Notice:		Teb 24 2017

The Office of Oil and Gas processes your personal information, such a name, address and telephone number, as party of 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 statuted disciplination, requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any imperior a personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@WV.gov.

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Date of Notic	Requirement: Notice shall be provided at		permit application.
Delivery met	thod pursuant to West Virginia Code § 2	22-6A-16(b)	
HAND DELIVE	CERTIFIED MAIL ERY RETURN RECEIPT REQ	MUESTED	
DELIVE	RETURN RECEIPT REC	QUESTED	
receipt request drilling a hore of this subsect subsection ma	V. Va. Code § 22-6A-16(b), at least ten day sted or hand delivery, give the surface own izontal well: <i>Provided</i> , That notice given stion as of the date the notice was provided ay be waived in writing by the surface own ble, facsimile number and electronic mail and	ner notice of its intent to enter upon the pursuant to subsection (a), section tent to the surface owner: <i>Provided, how</i> ner. The notice, if required, shall include:	e surface owner's land for the purpose of n of this article satisfies the requirements ever, That the notice requirements of this ade the name, address, telephone number,
Notice is he	reby provided to the SURFACE OW	NER(s):	
Name: see atta		Name:	
Address:		Address:	
State: County: District: Quadrangle:	Marion  Mannington Glover Gap	Public Road Access:	548,424,53 4,375,068.45 Co Rt. 7/4 Equitrans LP.
Pursuant to Y facsimile nur related to hor	Shall Include: West Virginia Code § 22-6A-16(b), this mber and electronic mail address of the crizontal drilling may be obtained from the 1 57 <sup>th</sup> Street, SE, Charleston, WV 25304 (250)	operator and the operator's authorize Secretary, at the WV Department of	d representative. Additional information Environmental Protection headquarters,
Notice is he	reby given by:		
	DT: EQT Production Company	Authorized Representative:	Victoria J. Roark
Address:	115 Professional Place	Address:	115 Professional Place
Bridgeport, WV		Bridgrport, WV 26330	Parameter state
Telephone:	304-848-0082	Telephone:	304-848-0076
Email:	vroark@eqt.com	Email:	
Facsimile:	304-848-0020	Facsimile:	304-848-0020
Oil and Ga	s Privacy Notice:		Office of Oll and

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 recedom of information act requests/our of the many appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

DEP's Chief Privacy Officer at depprivacyofficer@wv.gov. needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests!/Our office will

06/16/2017

# WAIVER

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: Provided. That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: Provided, however, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Surface Own  I. Ralph Deer	, hereby s	state that I have read the notice pr	ovisions listed	f above and hereby waive t	he
notice require	ments under West Virginia	a Code § 22-6A-16(b) for the trac	t of land as fo	llows:	
State:	w	LITA ( NIA D. GO	Easting:	548424.53	
County:	Marion	UTM NAD 83	Northing:	4375068.45	<del></del>
District:	Mannington	Public Road Ac	cess:	C/O Rt 7/4	
Quadrangle:	Glover Gap	Generally used	farm name:	Equilrans LP	
Watershed:	Laurel Run		_		
			RO	1 90 pa	
Name: Equitrar	ns LP	Signature:	1 kgp	Wille	
Address: 625 L	liberty Ave Suite 1700		21 1		- ~1/
Pittsburgh PA 152	272	Date:	2-1211	17	Color
		•			-7

#### 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.

Office of Oil and Gas

FEB 2 4 2017 WV Department of Environmental Protection 17

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

Denvery me	ethod pursuant to West Virgini	a Code § 22-6A-16(c)		
4	TFIED MAIL			
	JRN RECEIPT REQUESTED	☐ HAND		
		DELIVERY		
the planned required to b drilling of a damages to t	operation. The notice required be provided by subsection (b), see horizontal well; and (3) A prop the surface affected by oil and ga-	by this subsection shall inci- ction ten of this article to a su cosed surface use and compe	nd will be used fude: (1) A copy rface owner who nsation agreeme	ication, an operator shall, by certified material for the drilling of a horizontal well notice of this code section; (2) The information see land will be used in conjunction with the containing an offer of compensation for appensable under article six-b of this chapter sted in the records of the sheriff at the time.
at the address	reby provided to the SURFACE	riff at the time of notice):		
Name: See Atta Address:		Name		
rudicss		Addre	ss:	
County: District: Quadrangle:	Manington Glover Gap			4375068.45 C/O Rt 7/4
	Cicro, Cup	Cicherany III	sed farm name.	Equitrane I D
	Laurel Run	Generally us	sed farm name:	Equitrans LP
This Notice Soursuant to Woo be provide to the prov	Shall Include: Vest Virginia Code § 22-6A-16(ced by W. Va. Code § 22-6A-10(ell; and (3) A proposed surface used by oil and gas operations to related to horizontal drilling may located at 601 57 <sup>th</sup> Street, SE, ault.aspx.	c), this notice shall include: (1) (b) to a surface owner whose and compensation agreement the extent the damages are compensation agreement.	)A copy of this e land will be uent containing an ompensable und	code section; (2) The information required used in conjunction with the drilling of a offer of compensation for damages to the er article six-b of this chapter. Additional Department of Environmental Protection or by visiting <a href="https://www.dep.wv.gov/oil-and-damages-new-cond-dep-wv.gov/oil-and-damages-new-cond-dep-wv.gov/oil-and-damages-new-cond-dep-wv.gov/oil-and-damages-new-cond-damage&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;This Notice Starsuant to Wood be provided orizontal we surface affect information readquarters, as/pages/def&lt;/td&gt;&lt;td&gt;Shall Include: West Virginia Code § 22-6A-16(ced by W. Va. Code § 22-6A-10(cell; and (3) A proposed surface used by oil and gas operations to related to horizontal drilling may located at 601 57th Street, SE, Sault.aspx.&lt;/td&gt;&lt;td&gt;c), this notice shall include: (1) (b) to a surface owner whose and compensation agreement the extent the damages are of the obtained from the Secretary Charleston, WV 25304  Address:&lt;/td&gt;&lt;td&gt;)A copy of this e land will be usent containing an ompensable undurary, at the WV (304-926-0450)&lt;/td&gt;&lt;td&gt;code section; (2) The information required used in conjunction with the drilling of a offer of compensation for damages to the er article six-b of this chapter. Additional Department of Environmental Protection or by visiting &lt;a href=" oil-and-cepoleox280"="" www.dep.wv.gov="">www.dep.wv.gov/oil-and-cepoleox280</a>
Pursuant to Woo be provided norizontal we surface affect of the province of th	Laurel Run  Shall Include: Vest Virginia Code § 22-6A-16(ced by W. Va. Code § 22-6A-10(ced by and (3)) A proposed surface used by oil and gas operations to related to horizontal drilling may located at 601 57th Street, SE, ault.aspx.  r: EQT Production Company	c), this notice shall include: (1) (b) to a surface owner whose and compensation agreement the extent the damages are of the obtained from the Secretary Charleston, WV 25304  Address:	)A copy of this e land will be usent containing an ompensable und tary, at the WV (304-926-0450)	code section; (2) The information required used in conjunction with the drilling of a offer of compensation for damages to the er article six-b of this chapter. Additional Department of Environmental Protection or by visiting <a href="https://www.dep.wv.gov/oil-and-cepoleox280">www.dep.wv.gov/oil-and-cepoleox280</a>

FEB 2 4 2017

WV Department of 2017

Environmental Profession

## Surface Owners:

Equitrans, LP 625 Liberty Ave., Suite 1700 Pittsburgh, PA 15222

Thomas B. Wright Heirs C/O Martha Arnold 808 Gaston Ave. Fairmont, WV 26554

Joseph V. Forte
John H. Musgrave &
Matilda Henry
C/O Joseph Forte
11 Hutchinson Dr.
Fairmont, WV 26554

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City, Sta	Fairmont WV 2655	4	
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	City, St	Fairmont WV 26554 GLO168 Permit App and Planned Op.	
	PS Fon		ruction

Office of Oil and Gas FEB 2 4 2017

WV Department of Environmental F06/2/2017

# Surface Owners Access road & Other disturbance

Equitrans, LP 625 Liberty Ave., Suite 1700 Pittsburgh, PA 15222

Thomas B. Wright Heirs C/O Martha Arnold 808 Gaston Ave. Fairmont, WV 26554

Joseph V. Forte John H. Musgrave & Matilda Henry C/O Joseph Forte 11 Hutchinson Dr. Fairmont, WV 26554

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Office of Oil and Gas
FEB 2 4 2017

WV Department of Environmental Profession 7

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT 9076 Domestic Mail Only Surface Owner, AST For delivery information, visit our website 2460 Equitrans, LP Certified Mail Fee 625 Liberty Ave., Suite 1700 Extra Services & Fees (check box, add fee as appropriate)

| Return Receipt (hardcopy) | \$ Pittsburgh, PA 15222 Return Receipt (electronic) Certified Mail Restricted Delivery Joseph V. Forte Adult Signature Required Adult Signature Restricted Delivery S 2070 John H. Musgrave & Postage Matilda Henry Total P C/O Joseph Forte 7076 Sent To Joseph V Forte, John H Musgrave, Matilda Henry 11 Hutchinson Dr. c/o Joseph Forte Fairmont, WV 26554 Street & 11 Hutchinson Dr. Fairmont WV 26554 City, St. GLO168 Permit App and Planned Op. PS For

17040084

MEGEIVED Office of Oil and Gas

FEB 2 4 2017

WV Department of Environmental Pro6/dt6/2017

API NO. 47-49		
OPERATOR WEL	L NO.	GLO168H21
Well Pad Name: 9	SLO168	

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS VOLUNTARY STATEMENT OF NO OBJECTION

#### Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

#### Comment and Waiver Provisions

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.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

#### **VOLUNTARY STATEMENT OF NO OBJECTION**

WW-6A and	, hereby state that I have read ted above, and that I have received copies of a attachments consisting of pages one (1) thro the well plat, all for proposed well work on the w	Notice of Apough tract of land a	oplication, an App , including the follows:	dication for a Well Work Permit on Form
County:	Marton	UTM NAD	Northing:	437,5068 45
District:	Mannington	Public Road		C/D Rt 7/4
Quadrangle:		Generally u	ised farm name:	Equitrans LP
Watershed:	Laurel Run		•	
issued on tho		escribed in the		
Please eneck	the box that applies .		FOR EXECUT	ION BY A NATURAL PERSON
SURFACE	CE OWNER		Signature:	
SURFAC	CE OWNER (Road and/or Other Disturband	ce)	Print Name:	
■ SURFAC	CE OWNER (Impoundments/Pits)			ION BY A CORPORATION, ETC.
□ COAL C	OWNER OR LESSEE		Company: Equitran	
COAL C	PERATOR		By: Ratph Deer	a
□ WATER	RPURVEYOR		Signature: / X	eloh O Exec
□ OPERA	TOR OF ANY NATURAL GAS STORAG	E FIELD	Date:	121/17

Oil and Gas Privacy Notice:

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





# WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

**Division of Highways** 

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

Thomas J. Smith, P. E. Secretary of Transportation/ Commissioner of Highways

February 17, 2017

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

Subj	ect: DOH Permit fo	r the G <mark>LO 168 P</mark> ad Sit	e, Marion County	
	GLO168H1	GLO168H2	GLO168H3	GLO168H4
	GLO168H5	GLO168H6	GLO168H7	GLO168H8
	GLO168H9	GLO168H10	GLO168H11	GLO168H12
	GLO168H13	GLO168H14	GLO168H15	GLO168H16
445	GLO168H17	GLO168H18	GLO168H19	GLO168H20
1-1-7	GLO168H21	GLO168H22	GLO168H23	GLO168H24

44-02445

Dear Mr. Martin,

This well site will be accessed from Permit # 04-2016-0799 issued to EQT Production Company for access to the State Road. The well site is located off of Marion County Route 7/3 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.

Very Truly Yours,

Gary K. Clayton, P.E.

Regional Maintenance Engineer Central Office O&G Coordinator

Cc: Nick Bumgardner

EQT Production Company

CH, OM, D-4, File

RECEIVED
Office of Oil and Gas

FEB 2 4 2017

WV Department of Environmental Protection

# Anticipated Frac Additives Chemical Names and CAS numbers

<u>Material</u>	Ingredient	<b>CAS Number</b>
Water		
Sand	Hydrotreated light petroleum distillate Tributyl tetradecyl phosphonium	14808-60-7
Friction Reducer	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

RECEIVED
Office of Oil and Gas

FEB 24 2017

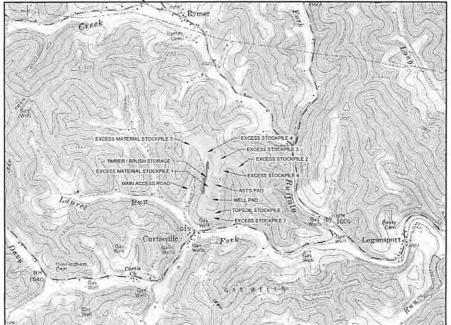
WV Department of Environmental Protection



#### WELL LEGEND

GLO 168 H1 - LAT: 39.523705 / LONG. -80.436555 GLO 168 H2 - LAT: 39.523745 / LONG. -80.436545 GLO 168 H3 - LAT: 39.523785 / LONG. -80.436535 GLO 168 H4 - LAT: 39.523826 / LONG. -80.436524 GLO 168 H5 - LAT: 39.523866 / LONG. -80.436514 GLO 168 H6 - LAT: 39.523907 / LONG. -80.436503 GLO 168 H7 - LAT: 39.523947 / LONG. -80.436493 GLO 168 H8 - LAT: 39.523987 / LONG. -80.436482 GLO 168 H9 - LAT: 39.524028 / LONG. -80.436472 GLO 168 H10 - LAT: 39.524068 / LONG. -80.436461 GLO 168 H11 - LAT: 39.524108 / LONG. -80.436451 GLO 168 H12 - LAT: 39.524149 / LONG. -80.436441 GLO 168 H13 - LAT: 39.524189 / LONG. -80.436430 GLO 168 H14 - LAT: 39.524230 / LONG. -80.436420 GLO 168 H15 - LAT: 39 524270 / LONG: -80 436409 GLO 168 H16 - LAT: 39.523698 / LONG. -80.436648 GLO 168 H17 - LAT: 39,523738 / LONG. -80,436637 GLO 168 H18 - LAT: 39.523779 / LONG. -80.436627 GLO 168 H19 - LAT: 39.523819 / LONG. -80.436616 GLO 168 H20 - LAT: 39.523859 / LONG. -80.436606 GLO 168 H21 - LAT. 39.523900 / LONG. -80.436595 GLO 168 H22 - LAT: 39.523940 / LONG -80.523585 GLO 168 H23 - LAT: 39.523981 / LONG. -80.436574 GLO 168 H24 - LAT: 39.524021 / LONG. -80.436564 GLO 168 H25 - LAT: 39.524061 / LONG. -80.436554 GLO 168 H26 - LAT: 39.524102 / LONG. -80.436543 GLO 168 H27 - LAT: 39 524142 / LONG. -80 436533 GLO 168 H28 - LAT: 39.524182 / LONG. -80.436522 GLO 168 H29 - LAT: 39.524223 / LONG. -80.436512 GLO 168 H30 - LAT: 39.524263 / LONG. -80.436501

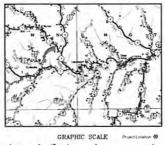
EQT - GLO 168 FINAL SITE DESIGN, CONSTRUCTION PLANS, & **EROSION & SEDIMENT CONTROL PLANS** EOT PRODUCTION COMPANY



SITE LOCATIONS WGS M (MY NORTH ZONE)			
	LATITUCE	LONGITUDE	
Proposed Well Pad	39.523903	-80 435440	
Proported 40 000 BBL AST	39.525860	-80.435113	
Proposed 50,000 BBL AST	39.524954	-80 436160	
Proposed Appear Road Std 0+00	39 522937	-80.440416	

MISS Utility of West Virginia 1-800-245-4848 West Virginia State Law (Section XIV: Chapter 24-C) Requires that you call two business days before you dig in the state of West Virginia. IT'S THE LAW!!





1 DCH = 1 MIZ

WELL LOCATION RESTRICTION

Oil and Gas 535-4-71

Storage Tank (AST)

The drawings, construction notes, and reference diagrams attached

The Information reflects a 40,000 BBL. Above Ground Storage Tank (AST) Pad with secondary containment and a 60,000 BBL. Above

Hornor Brothers Engineers make no certifications relating to the design, construction or materials associated with the Above Ground

ereto have been prepared in accordance with the West Virginia Code of State Rules, Division of Environmental Protection: Office of

HEC-RAS STUDY COMPLETED:

FLOODPLAIN SHOWN ON DRAWINGS

ACREAGES OF CONSTRUCTION IN FLOODPLAIN

FIRM MAP NUMBER(S) FOR SITE



M PE ACRES SITE DISTURBANCE

TIMBER REMOVAL - T BY ACRES

MAIN ACCESS ROAD = 831 ACRES ASTS PAD = 121 ACRES TIMBER / BRUSH STORAGE = 1 81 ACRES TOPSOIL STOCKPILE = 1 36 ACRES

AELL PAD = 2.08 ACRES

BI 25 ACRES SITE DISTURBANCE

TIMBER REMOVAL = 21 23 ACRES

JOSEPH V FORTE FARMAP 41. PARCE 13 38 ACRES SITE DISTURBANCE

ASTS PAD = 3-32 ACRES EXCESS MATERIAL STOCKPILES = 11 16 ACRES WELL PAD = 1-11 ACRES

THREE REMOVAL & 14 64 ACRES

#### West Virginia Coordinate System of 1983 State Plane Grid North Elevations NAVD88 Established By Survey Grade GPS

## APPROVED WVDEP OOG

21 1 5/24/2017

Justin Nixon- EQT Production Company 304-848-0037 Office

Surveyor & Engineer

Ben Singleton - PS - Allegheny Surveys In-304-649-8606 Office

Tom Corethers - PE, PS - Hornor Brothers Eng 304-624-6445 Office



Allegheny S P.O. Bo 237 Birch F Birch River,

Engineers ironmental and ngineering

THIS DOCUMENT

COMPANY

COVER LIDICATION SHEET
GLO 168
WELL PAD SITE
MANNINGTON DISTRECT
MARRON COUNTY, WV

54049C0065D & 54049C0070D

FLOODPLAIN CONDITIONS

DO SITE CONSTRUCTON ACTIVITIES TAKE PLACE IN FLOODPLAIN

PERMIT NEEDED FROM COUNTY FLOODPLAIN COORDINATOR

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2-1
5-1
7-2
4-3
9.4
1-4
44
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DATE	REVISIONS	Date: 12/7/2016
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		Pege 1 of 40

NO

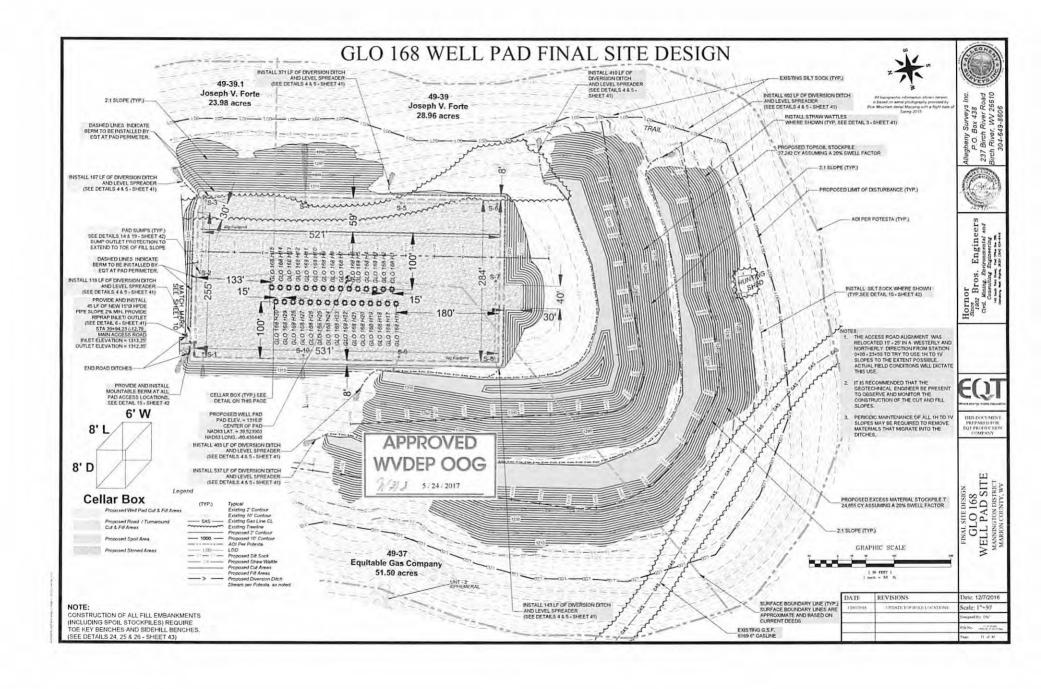
NO

N/A

N/A

## SHEET INDEX

COVER	SHEET / LOCATION MAP1
EXIST	NG CONDITIONS PLAN2
SCHE	ULE OF QUANTITIES3
CONS.	RUCTION, GENERAL AND ESS NOTES 4
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AST P	D PROFILE & CROSS SECTIONS 15-16
MAIN A	CCESS ROAD PROFILE & CROSS SECTIONS 17-25
EXCES	5 MATERIAL STOCKPILES PROFILES & SECTIONS - 24-38
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CONS	RUCTION DETAILS
RECLA	MATION PLANS 44.49





GLO 168 H1 - LAT 39 523705 / LONG -80 436555 GLO 168 H2 - LAT 39 523745 / LONG -80 436545 GLO 168 H3 - LAT 39 523785 / LONG -80 436535 GLO 168 H4 - LAT 39 523826 / LONG -80 436524 GLO 168 H5 - LAT 39 523866 / LONG -80 436514 GLO 168 H6 - LAT 39.523907 / LONG -80 436503 GLO 168 H7 - LAT 39 523947/LONG -80 436493 GLO 168 HB - LAT 39 523987 / LONG -80 438482 GLO 168 H9 - LAT 39 524028 / LONG -80.436472 GLO 168 H10 - LAT 39 524068 / LONG -80 436461 GLO 168 H11 - LAT 39 524108 / LONG -80 436451 GLO 168 H12 - LAT 39 524149 / LONG -80 436441 GLO 168 H13 - LAT 39 524189 / LONG -80 436430 GLO 168 H14 - LAT 39 524230 / LONG -80 436420 GLO 168 H15 - LAT 35 524270 / LONG -80 436409 GLO 168 H16 - LAT 39 523698 / LONG -80 436648 GLO 168 H17 - LAT 39 523738 / LONG -80 436637 GLO 168 H18 - LAT 39 523779 / LONG -80 436627 GLO 168 H19 - LAT 39 523819 / LONG -80.436616 GLO 168 H20 - LAT 39 523859 / LONG -80.436606 GLO 168 H21 - LAT 39 523900 / LONG -80 436595 GLO 168 H22 - LAT 39 523940 / LONG -80 523585 GLO 168 H23 - LAT 39 523981 / LONG -80 436574 GLO 168 H24 - LAT 39 524021 / LONG -80 436564 GLO 168 H25 - LAT 39 524061 / LONG -80 436554 GLO 168 H26 - LAT 39 524102 / LONG -80 436543 GLO 168 H27 - LAT 39 524142 / LONG -80 436533 GLO 168 H28 - LAT 39.524182 / LONG -80 436522 GLO 168 H29 - LAT 39 524223 / LONG -80 436512 GLO 168 H30 - LAT 39 524263 / LONG -80.436501

MISS Utility of West Virginia

1-800-245-4848 West Virginia State Law (Section XIV: Chapter 24-C) Requires that you call two business days before you dig in the state of

West Virginia.

IT'S THE LAW!!





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EXCESS MATERIAL DICCKPILES

TMBER / BRUSH STORAGE

EXCESS MATERIAL STOCKPRE 11

# GRAPHIC SCALE

excess stocked

AST S PAD

-WELL PAD

TOPSON STOCKPILE

EXCESS STOCKE

WELL LOCATION RESIDENCE TOWN

OW and Gas \$35-4-21 The information reducts a 40 000 IBEL Above Ground Strage Fank (ATT) that with becoming contamenent and a 60 000 IBEL Above Ground Strage Fank that

Horser Brothers Engineers make no certifications residing to the datign conditions or estimated associated with the Above Streets should Facility (AGT)



P.O. E. River,



Ante Neso EQT by

FLOODPLAIN CONDITIONS

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TARREST HEAVY THE REST

C RAS STUDY COMPLETED

IRM MAP NUMBER(S) FOR SITE

CHEAGES OF CONSTRUCTION IN FLOCOPLAIN

#### Project Contacts

serveyor & Copense



HIS DOCUMENT PREPARED FOR OT PRODUCTION COMPANY

GLO 168 WELL PAD SITE

SHEET INDEX

94049000050 \$ 54049000700

COVER SHEET / LOCATION MAD EXISTING CONCITIONS FLAN CHEDULE OF QUANTITIES CONSTRUCTION GENERAL AND EAS NOTES CONSTRUCTION GENERAL AND EAST NOTES

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**EQT - GLO 168** FINAL SITE DESIGN, CONSTRUCTION PLANS, &

**EROSION & SEDIMENT CONTROL PLANS** EQT PRODUCTION COMPANY

