

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

Wednesday, May 17, 2017 WELL WORK PERMIT Horizontal 6A / New Drill

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

Re: Permit approval for GLO76H5

47-049-02451-00-00

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: GLO76H5

Farm Name: TONKERY, TOBERT E. & MAXINE P.

U.S. WELL NUMBER: 47-049-02451-00-00

Horizontal 6A / New Drill

Date Issued: 5/17/2017

Promoting a healthy environment.

API Number:	

PERMIT CONDITIONS 7 0 4 9 0 2 4 5 1

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

CONDITIONS

- 1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). 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 5 1

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.

API NO. 47-049 -	
OPERATOR WELL NO. GLOTEHS	
Well Pad Name: GLO76	

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

1) Well O	. FOT)	ialian O		200000	<u> </u>		
1) Well Opera	tor: Edir	Tout	icuon C	ompany	306686	Marion		Glover Gap
2) Operator's		_				County Name: GLO		Quadrangle
3) Farm Name	/Surface Ov	mer:	Robert E &	Maxine P 7	Tonkery Public Roa	d Access: C	o Rt 64/4	•
4) Elevation, c	urrent groun	ıd:	1424	EI	evation, proposed j	post-construc	tion: 1424	
5) Well Type	(a) Gas	<u>X</u>			Unde			
	Other							
	(b)If Gas	Sha	llow	X	Деер			
6) Existing Pad	l. V N		izontal	<u>x</u>	<u> </u>			50W
•		*******		·	. 1579 . 1	•	_	5/11/2017
Marcellus, 77	708', 56', 259	ion(s) 3 PS), Depin(s), Antici	pated Thickness ar	id Expected 1	Pressure(s):	
8) Proposed To	tal Vertical	Deptl	h: 7708	<u> </u>				
9) Formation at	Total Verti	cal D	epth: N	Aarcellus				
10) Proposed T	otal Measur	ed De	epth: <u>1</u>	2041				
11) Proposed H	orizontal Le	g Le	ngth: 3	885				
12) Approxima	te Fresh Wa	ter St	rata Dep	ths:	263			
13) Method to I	Determine F	resh '	Water De	epths: F	rom offset wells			
14) Approximat	te Saltwater	Dept	hs: Nor	ne reporte	ed			
15) Approximat	te Coal Sean	n Dep	oths: <u>65</u>	2,808,10	67,1166			
(6) Approximat	te Depth to l	Possil	ole Void	(coal mir	ne, karst, other): N	one reporte	d	
17) Does Propodirectly overlying					Yes	No	x	
(a) If Yes, pro	vide Mine I	nfo:	Name:					
•			Depth:					
			Seam:					
			Owner:					
						-		

WW-68	
(04/15)	

API NO. 47-048

OPERATOR WELL NO. GLO76H5
Well-Pad Name: GLO76

18)

CASING AND TUBING PROGRAM

TYPE		New					
	Size (in)	or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	Fill-up
Conductor	20	New	A-500	78.6	40	T	(Cu. Ft.)/CTS
Fresh Water	13 3/8	New	J-55	54.5		40	60 ft^3 / CTS
Coal	1.0 0,0		0-55	34.5	413	413	387 ft^3 / CTS
Intermediate	9 5/8	New	A-500	40	3051		
Production	5 1/2	New				3051	1211 ft^3 / CTS
		MAN	P-110	20	12041	12041	SOO above top producing zone
Tubing	2 3/8		J-55	4.7		May not be me, if no see 40'	
Liners						show top perf or 20° inclination.	

5/11/2017

TYPE	Size (in)	<u>Wellbore</u> <u>Diameter (in)</u>	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield
Conductor	20	26	.375	1378	1102	Class A	(<u>cu. ft./k)</u> 1.18
Fresh Water	13 3/8	17 1/2	.38	2700	2160	See Vertance	
Coal							1.15
Intermediate	9 5/8	12 3/8	.395	3950	3160	See Variance	1.19
Production	5 1/2	8 1/2	.361	12640	10112	Class A/H	1.123/2.098
Tubing	2 3/8	NA	.19	7700			1.120/2.090
Liners							

PACKERS

Kind:		
Sizes:		
Depths Set:		

WW	/-6B
(10)	(14)

API NO. 47- 049

OPERATOR WELL NO. GLO76H5

Well Pad Name: GLO76

104908161 19) Describe proposed well work, including the drilling and plugging back of an

Drill and complete a new horizontal well in the Marcellus Formation. Dril 10 9/16/16 depth of 6250'. Kick off and drill curve. Drill the lateral in the Marcellus. Comen again

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, 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 250,000 gallons of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 250,000 pounds of sand per stage.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): No Additional Disturbance
- 22) Area to be disturbed for well pad only, less access road (acres): No Additional Disturbance
- 23) Describe centralizer placement for each casing string:
- Surface: Bow spring centralizers One centralizer at the shoe and one spaced every 500'.
- · Intermediate: Bow spring centralizers- One centralizer at the shoe and one spaced every 500'.
- · Production: One solid body centralizer 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 slurries

Intermediate (Type 1 Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries.

Lead (Class A 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 (Class 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.

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

Office of Oil & Gas

*Note: Attach additional sheets as needed.

Well GLO76H5

EQT Production

Glover Gap Quad Marion County, WV Azimuth 337 Vertical Section 4089

Note: Diagram is not to scale Deepest Fresh Water: 263 Casing and Cementing Top Base Production Formations TVD TVD Type Conductor Surface Intermediate 12 3/8 8 1/2 Hole Size, In. 26 17 1/2 5 1/2 20 13 3/8 9 5/8 Casing Size, OD In. 0.395 0.361 Base Fresh Water 263 Casing Wall Thickness, In. 0.375 0.380 12.041 413' 3,051 40' Depth, MD 20# 78.6# 54.5# 40# Weight J-55 A-500 P-110 Grade A-500 New New New Maxton 2136 - 2173 New or Used New 12,640 Big Lime 2283 - 2352 Burst (psi) 1378 2,700 3.950 A/H Big Injun 2447 - 2602 Cement Class A / Type 1 A / Type 1 A 1.123 / 2.098 Base Red Rock 1.18 1.19 2593 Cement Yield 1.19 Weir 2720 - 2740 500' above top Producing Zone Top of Cement (Planned) Surface Surface Surface Gantz 2928 - 2981 Displacement Method Displacement Displacement Displacement 2.338 Fifty foot 3088 - 3101 Est. Volume (cu ft) 60 387 1,211 Calcium Carbonate, Fluid Loss, Thirty foot 3178 - 3211 Extender, Dispersent, Viscosifier, Gordon 3242 - 3291 Calcium Defoamer, POZ, Bonding Agent. Forth Sand 3311 - 3343 Possible Additives N/A Calcium Chloride Chloride Retarder, Anti-Settling/Suspension Bayard 3372 - 3389 80 Agent Warren 3854 - 3892 Speechley 4075 - 4112 S Balltown A 4436 - 4834 Received Riley 4959 - 5060 Benson 5518 - 5542 Office of Oil & Gas Alexander 5904 - 6000 KOP@ 6,250 Sonyea 7209 - 7370 07 Middlesex 7370 - 7424 MAR 2 2 2017 4 Genesee 7424 - 7516 Geneseo 7516 - 7549 Tully 7549 - 7575 Hamilton 7575 - 7676 Marcellus 7676 - 7732 Onondaga 7732 Est. TD @ 7,708' TVD Land curve @ 7,708' TVD 12,041' MD 8,156' MD

Proposed Well Work:

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

Drill the vertical to an approximate depth of 6250'.

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

3.885' Lateral

EQT Production

Hydraulic Fracturing Monitoring Plan

Pad ID: GLO76

Marion County, WV

3/8/17

Received
Office of Oil & Gas

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 GLO76 pad: GLO76H5, GLO76H6

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.

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.

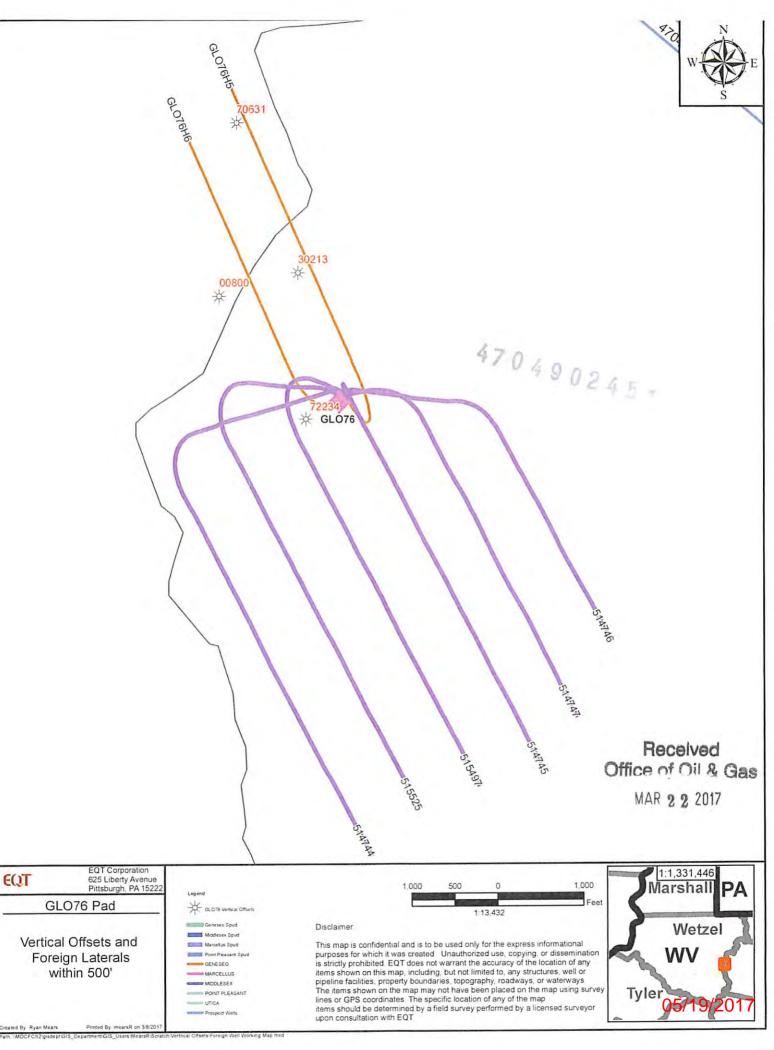
EQT will recommend to these operators at a minimum to:

- 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.

Received
Office of Oil & Gas



	PERMIT DT SECTION NO	SPUD_DATE TD_FORM_NM	TOT DEPTH	Permit
	7/20/1911	8/4/1911 POCOND	2425.0000000000000	30213
				72234
PORATION				00800
				70631

 ELEVATION
 ELEV.RF_CD
 FNL_STAT
 LATITUDE
 LONGITUDE
 OPER_NAME

 1349,0000000000 GR
 ABD GW
 39.56734400000
 -80.4913000000 UNKNOWN

 GR
 VINKWN
 39.5633400000
 -80.4913000000 UNKNOWN

 GR
 VINKWN
 39.57273800000
 -80.49486400000 CARNEGE NATURAL GAS CORPOGE

 GR
 UNKWN
 39.57273800000
 -80.49411500000 UNKNOWN

ABAND_DATE COMP_DATE COUNTY_NM CURR_OPER
4/8/1939 9/19/1911 MARION HOPE MATURAL GAS
MARION UNKNOWN
WITZEL COT PRODUCTION COMPANY
WETZEL UNKNOWN

47049024B

Received
Office of Oil & Gas MAR 2 2 2017



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,

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.

Sincerely

James Peterson

Environmental Resources Specialist / Permitting

Promoting a healthy environment.

Received Office of Oil & Gas MAR 2 2 2017



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)	470490245
AND 35 CSR § 8-9.2.h. 4/5/6/8 OF THE)	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
THE OPERATIONAL)	
REGULATIONS OF CEMENTING OIL)	
AND GAS WELLS)	

REPORT OF THE OFFICE

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

FINDINGS OF FACT

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

Received
Office of Oil & Gas

MAR 2 2 2017

Promoting a healthy environment.

470480

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

> Received Office of Oil & Gas MAR 2 2 2017

API Number	47 -	048	_	
Оре	rator's	Well N	o. cz	.076

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

Operator Name EOT Production Company Watershed (HUC 10). Starkey Run & Wiley Fork Do you anticipate using more than 5,000 bols of water to complete the proposed well work? Yes No Do you anticipate using more than 5,000 bols of water to complete the proposed well work? Yes No Do you anticipate using more than 5,000 bols of water to complete the proposed well work? Yes No Do you anticipate the proposed Disposal Method For Treated Fit Wastes: If so, please describe anticipated pit waste: Rowback water & residual anticipated Row	FLUIDS/ CUTTINGS DISPOSAL & RECLAM	ATION PLAN
Watershed (HUC 10) Starkey Run & Wiley Fork Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No	, and the second se	
Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No	Watershed (HUC 10) Starkey Run & Wiley Fork Opendrangle	42 / /
Will a pit be used? Yes No If so, please describe anticipated pit waste:	Do you anticipate using more than 5,000 bbls of water to complete the proposed we	
Will a synthetic liner be used in the pit? Yes No If so, what ml.? 60 Proposed Disposal Method For Treated Pit Wastes: Land Application Underground Injection (UIC Permit Number 0014, 8482, 4037 Reuse (at API Number Vators) Other (Explain Other (Explain Other (Explain) Other (Explain) Other (Explain) Very Treated by the Company of the season of the permit and other other permit and other other permit and other o	Will a pit be used? Yes V No	MOINT IS W. NO.
Proposed Disposal Method For Treated Pit Wastes: Land Application	If so, please describe anticipated pit waste: flowback water & residual so	fids
Proposed Disposal Method For Treated Pit Wastes: Land Application UIC Permit Number 0014,8482,4037	Will a synthetic liner be used in the pit? Yes 🗸 No 🔲 If so	, what ml.? 60
Underground Injection (UIC Permit Number 0014, 8482, 4037 Reuse (at AFI Number Vestees Off Site Disposal (Supply form WW-9 for disposal location) Other (Explain Will closed loop system be used? If so, describe: Yes, The closed loop pystem will contend for the series of the pystem will contend for the designed backly. Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. -If oil based, what type? Synthetic, petroleum, etc. Synthetic Mud Additives to be used in drilling medium? See Attached Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill -If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) NA -Landfill or offsite name/permit number? See Attached List Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed. I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is tare, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine of imprisonment. Company Official Title Penniliting Supervisor	Proposed Disposal Method For Treated Pit Wastes:	
Reuse (at AFI Number Ventors Off Site Disposal (Supply form WW-9 for disposal location) Other (Explain		
Off Site Disposal (Supply form WW-9 for disposal location) Other (Explain Will closed loop system be used? If so, describe: Wes, The closed loop system will cannow did cuttings from the drifting fluid. The drift cuttings are then prepared for temporation to an effect despetable beinty. Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. See Attachad -if oil based, what type? Synthetic, petroleum, etc. Synthese Musl Additives to be used in drilling medium? See Attached Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill -If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A -Landfill or offsite name/permit number? See Attached List Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed. I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, including the possibility of fine of imprisonment. Company Official Title Permitting Supervisor Subscribed and sworn before rise this. day of March. 2017	Underground Injection (UIC Permit Number 0014, 8462	. 4037
Will closed loop system be used? If so, describe: Yes, The closed loop system will remove drift cuttings from the drifting field. The drift cuttings are then prepared for the swell (vertical and horizontal)? Air, freshwater, oil based, etc. See Attached -if oil based, what type? Synthetic, petroleum, etc. Synthetic Mud Additives to be used in drilling medium? See Attached Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill -If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A -Landfill or offsite name/permit number? See Attached List Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid weste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed. I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto 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 of imprisonment. Company Official Title Permitting Supervisor Subscribed and sworn before be this. day of March. Termitten and and sworn before be this. Ago of March. Journal of the provided writer and described by the violation of any term or		ianl
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 Mud Additives to be used in drilling medium? See Attached Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill -If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A -Landfill or offsite name/permit number? See Attached List Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed. I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August I, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto 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 of imprisonment. Company Official Title Permitting Supervisor Subscribed and sworn before the this. day of MacLe 20 17 Entituding medium 20 17		
Additives to be used in drilling medium? See Attached Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill -If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A -Landfill or offsite name/permit number? See Attached List Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed. I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August I, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto 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 of imprisonment. Company Official Signature Company Official Title Permitting Supervisor Subscribed and sworn before this		
Additives to be used in drilling medium? See Attached Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Lendfill -If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A -Landfill or offsite name/permit number? See Attached List Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed. I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto 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 of imprisonment. Company Official Signature Company Official Title Permitting Supervisor Subscribed and sworn before of this	Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater,	oil based, etc. See Allached
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill -If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A -Landfill or offsite name/permit number? See Attached List Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed. I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is take, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine of imprisonment. Company Official Signature Company Official Signature Company Official Title Permitting Supervisor Subscribed and sworn before the is	-If oil based, what type? Synthetic, petroleum, etc. Synthetic Mud	
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A -Landfill or offsite name/permit number? See Attached List Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed. I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto 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 of imprisonment. Company Official Signature Company Official Title Permitting Supervisor Subscribed and sworn before the this day of Agy of Title Supervisor	Additives to be used in drilling medium? See Attached	
Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed. I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto 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 of imprisonment. Company Official Signature Company Official Title Permitting Supervisor Subscribed and sworn before the this day of ###################################	Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill	
Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed. I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto 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 of imprisonment. Company Official Signature Company Official Title Permitting Supervisor Subscribed and sworn before the this day of ###################################	-If left in pit and plan to solidify what medium will be used? (cement, lime,	Sawdust) N/A
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto 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 of imprisonment. Company Official Signature Company Official Title Pennitting Supervisor Subscribed and sworn before the this day of the company of th		
on August 1, 2003, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto 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 of imprisonment. Company Official Signature Company Official Title Pennitting Supervisor day of	west virginia solid waste facility. The notice shall be provided within 24 hours of re-	cuttings or associated waste rejected at any ection and the permittee shall also disclose
Zithittiinininininininininininininininini	on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of provisions of the permit are enforceable by law. Violations of any term or conditional law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am final application form and all attachments thereto and that, based on my inquiry of subtaining the information, I believe that the information is true, accurate, and containing the information.	Environmental Protection. I understand that the on of the general permit and/or other applicable amiliar with the information submitted on this those individuals immediately responsible for mplete. I am aware that there are significant
My commission expires 8-24-22 My commission expires 8-24-22 My Commission expires Bridgeport, Wy 26330 My Commission Expires Aug. 24, 2022	Subscribed and sworn before the this day of MacL	Z(151(101)1010101010101010101010101010101010
	My commission expires 8-24-22	SIAIE OF WEST VIRGINIA ROTARY PUBLIC Pamels Sykes EQT Production PO Box 280 Bridgeport, WV 26330 My Commission Expires Aug. 24, 2022

Proposed Revegetation Tre	atment; Acres Disturbed	No Additional Disturbance Prevegetation pl	r 65
_	Tons/scre or to corre	-	1 0.0
Fertilizer type GI	ranular 10-20-20		
Fertilizer amount_	1/3	lbs/acre	
Mulch 2		Tons/acre	_
		•	4704000
		Seed Mixtures	0.0
	emporary	Perma	nent
Seed Type KY-31	lbs/acre 40	Seed Type	lbs/acre
		Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		
Attach: faps(s) of road, location, pi rovided). If water from the creage, of the land applicati hotocopied section of invol	on area	d application (unless engineered plans includi lude dimensions (L x W x D) of the pit, and a	ing this info have been dimensions (L x W), and are
Maps(s) of road, location, pirovided). If water from the creage, of the land application to the coordinate of the coordi	on area ved 7.5' topographic sheet.	tude dimensions (L x W x D) of the pit, and d	dimensions (L x W), and are
Maps(s) of road, location, pirovided). If water from the creage, of the land application to the coordinate of the coordi	on area ved 7.5' topographic sheet.	inde dimensions (L $ imes$ W $ imes$ D) of the pit, and (dimensions (L x W), and are
Maps(s) of road, location, pirovided). If water from the creage, of the land application to the coordinate of the coordi	on area ved 7.5' topographic sheet.	tude dimensions (L x W x D) of the pit, and d	dimensions (L x W), and are
Maps(s) of road, location, pirovided). If water from the creage, of the land application to the coordinate of the coordi	on area ved 7.5' topographic sheet.	tude dimensions (L x W x D) of the pit, and d	dimensions (L x W), and are
Maps(s) of road, location, pirovided). If water from the creage, of the land application to the coordinate of the coordi	on area ved 7.5' topographic sheet.	tude dimensions (L x W x D) of the pit, and d	dimensions (L x W), and are
Maps(s) of road, location, pirovided). If water from the creage, of the land application to the coordinate of the coordi	on area ved 7.5' topographic sheet.	tude dimensions (L x W x D) of the pit, and d	dimensions (L x W), and are
Maps(s) of road, location, pirovided). If water from the creage, of the land application to the coordinate of the coordi	on area ved 7.5' topographic sheet.	tude dimensions (L x W x D) of the pit, and d	dimensions (L x W), and are
Maps(s) of road, location, pirovided). If water from the creage, of the land application to the coordinate of the coordi	on area ved 7.5' topographic sheet.	tude dimensions (L x W x D) of the pit, and d	dimensions (L x W), and are
Maps(s) of road, location, pirovided). If water from the creage, of the land application to the coordinate of the coordi	ved 7.5' topographic sheet. Dukend	tude dimensions (L x W x D) of the pit, and d	dimensions (L x W), and are

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

Additives to be used in drilling medium?

water based mud, or oil based mud.

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.

intermediate section. The pilot hole, curve, and lateral sections will be drilled with either air,

Received
Office of Oil & Gas

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

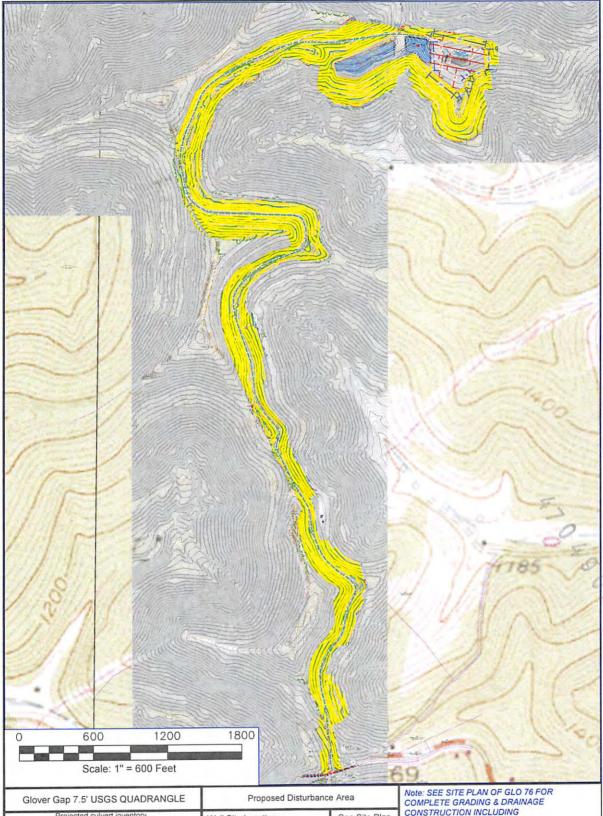
TRIAD ENERGY

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

> Received Office of Oil & Gas



Projected culvert inventory (for bid purposes only) Well Site Location See Site Plan Proposed Access Road See Site Plan See Site Plan 15" minimum diameter culverts See Site Plan Approximate Total Disturbance See Site Plan 24" minimum diameter culverts GLO 76 Rec Pla September 13, 2016 Scott Brown

CONSTRUCTION INCLUDING **EROSION & SEDIMENT CONTROL** DETAILS, ETC.

Received Office of Oil & Gas

MAR 2 2 2017

SURVEYING AND MAPPING SERVICES PERFORMED BY:

LEGHENY SURVEYS, INC. 1-800-482-8606

Birch River Office Phone: (304) 649-8606 Fax: (304) 649-8608 237 Birch River Road P.O. Box 438 Birch River, WV 26610

05/19/2017



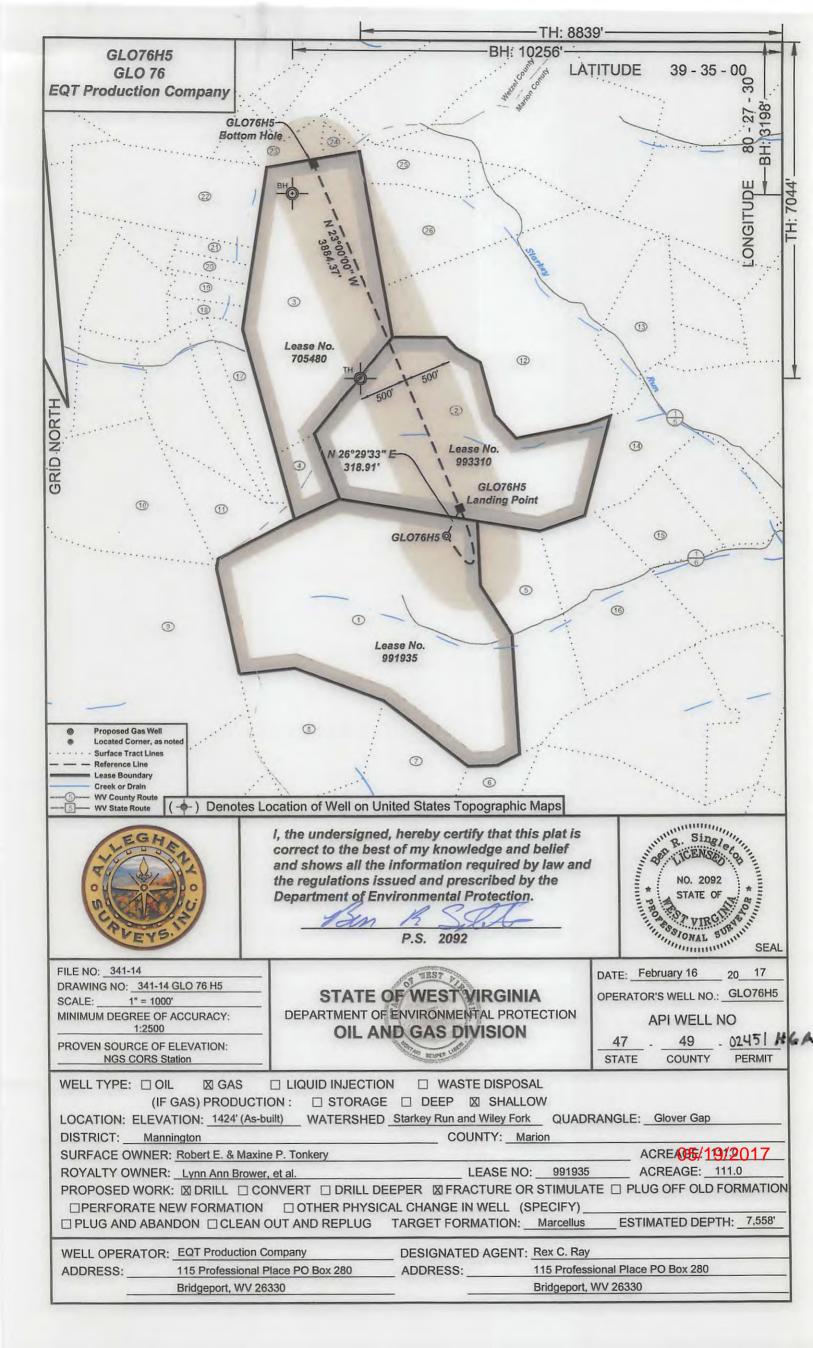
Site Specific Safety Plan

EQT GLO 76 Pad

Mannington

Marion County, WV

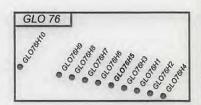
GL076H5	For Wells:	9	*
		3,	
EQT Production	Date Prepared:	November 7, 2016	SDW 5/11/2017
Denon Hong Supervisor		WV Oil and Gas Inspec	ctor
3-14-17 Date		Title	
		Date	

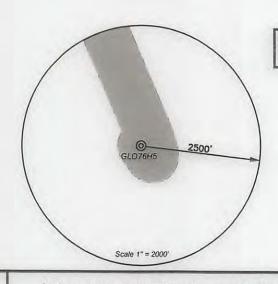


GLO76H5 GLO 76 EQT Production Company

Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	43	11	Marion	Mannington	Robert E. & Maxine P. Tonkery	111.00
2	43	22	Marion	Mannington	Paul Able Trustee, et al.	83.00
3	15	26	Wetzel	Grant	William Jack Barr, et al.	76.22
4	15	36	Wetzel	Grant	Barry L. Long	7.00
5	43	10	Marion	Mannington	Robert S. & Gloria L. Thorn	25.33
6	45	28	Marion	Mannington	Delbert C. Teagarden, Jr.	40.80
7	45	29	Marion	Mannington	Raymond C. Teagarden	61.02
8	43	11.1	Marion	Mannington	David A. & Diane E. Floyd	30.00
9	20	1	Wetzel	Grant	Alan D. & Diana L. Barr	13.00
10	15	34	Wetzel	Grant	Karen R. Dennison, et al.	111.40
11	15	35	Wetzel	Grant	Thomas E. Wyatt, et al.	174.68
12	43	21	Marion	Mannington	Raymond & Lois E. Joy	66.50
13	43	20	Marion	Mannington	Raymond & Lois E. Joy	23.50
14	43	15	Marion	Mannington	Thomas W. Neer	46.75
15	43	12	Marion	Mannington	Thomas A. & Betty L. Heldreth	16.75
16	43	9	Marion	Mannington	Robert S. & Gloria L. Thorn	46.79
17	15	33	Wetzel	Grant	William Jack Barr, et al.	10.75
18	15	25	Wetzel	Grant	William Jack Barr, et al.	4.20
19	15	24	Wetzel	Grant	William Jack Barr, et al.	4.75
20	15	23	Wetzel	Grant	William Jack Barr, et al.	3.88
21	15	22	Wetzel	Grant	Donald W. & Dianna White	3.63
22	15	13	Wetzel	Grant	Donald W. & Dianna White	40.00
23	15	7.1	Wetzel	Grant	Donald W. & Dianna White	7.80
24	15	37	Wetzel	Grant	Coastal Forest Resources Co.	1.45
25	43	28	Marion	Mannington	Ernest W. & Nancy A. Michael	15.38
26	43	25	Marion	Mannington	Ernest W. & Nancy A. Michael	40.14

Notes:
GLO76H5 coordinates are
NAD 27 N: 389,066.62 E: 1,720,985.94
NAD 27 Lat: 39.563996 Long: -80.489686
NAD 83 UTM N: 4,379,500.59 E: 543,852.45
GLO76H5 Landing Point coordinates are
NAD 27 N: 389,351.75 E: 1,721,128.33
NAD 27 Lat: 39.564783 Long: -80.489192
NAD 83 UTM N: 4,379,588.19 E: 543,894.38
GLO76H5 Boltom Hole coordinates are
NAD 27 N: 392,927.62 E: 1,719,610.44
NAD 27 Lat: 39.574554 Long: -80.494716
NAD 83 UTM N: 4,380,669.91 E: 543,413.80
West Virginia Coordinate system of 1927 (North Zone) based upon Differential GPS Measurements.
Plat orientation, corner 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.

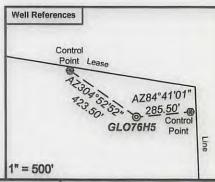




 Lease No.
 Acres
 Owner

 993310
 83
 ET Blue Grass LLC, et al.

 705480
 83.22
 Jeffrey Scott Cozart, et al.





Proposed Gas Well Located Corner, as no Surface Tract Lines Reference Line Lease Boundary

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. 2092



FILE NO: 341-14

DRAWING NO: 341-14 GLO 76 H5

SCALE: 1" = 1000'

MINIMUM DEGREE OF ACCURACY: 1:2500

PROVEN SOURCE OF ELEVATION: NGS CORS Station STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: February 16 20 17

OPERATOR'S WELL NO.: GLO76H5

API WELL NO

47 - 49 - 02451 STATE COUNTY PERMIT

NGG CONG Station	The state of the s	STATE COUNTY PERMIT
	IQUID INJECTION ☐ WASTE DISPOSAL	
LOCATION: ELEVATION: 1424' (As-built)	WATERSHED Starkey Run and Wiley Fork	
DISTRICT: Mannington	COUNTY: Marie	on
SURFACE OWNER: Robert E. & Maxine P. T	onkery	ACREA 95/19/2017
	. LEASE NO:	
		STIMULATE PLUG OFF OLD FORMATION
	OTHER PHYSICAL CHANGE IN WELL (SP	
	AND REPLUG TARGET FORMATION:	
WELL OPERATOR: EQT Production Compa	DESIGNATED AGENT: R	Rex C. Ray
ADDRESS: 115 Professional Place I	PO Box 280 ADDRESS: 1	15 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

470490245.

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

Office of Oil & Gas

MAR 2 2 2017

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

Well Operator: EQT Production Company

By: Victoria Roark

Its: Permitting Supervisor

Page 1 of 2

Operator's Well No.

_		70	
u	LU	70	H5

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<u>991935</u>	Lynn Ann Brower, et al.	EQT Production Company	**	DB 1134/110
<u>993310</u>	Dennis Ice, et al.	EQT Production Company	**	DB 1134/632
	Will E. Morris Heirs Trust 92, et al. (Current Royalty Owner)		**	
<u>705480</u>	Seymour McIntire, et al.	C.V. Smith/Carnegie Natural Gas Comp	any	DB 96/385
	Carnegie Natural Gas Company	Carnegie Production Company		LB 228/859
	Carnegie Production Company	Equitable Production-Eastern States, In	C.	see attached
	Equitable Production-Eastern States, Inc.	Equitable Production Company		see attached
	Equitable Production Company	EQT Production Company		CB 281/346 Doddridg

^{**}We certify that we will pay a minimum one-eight 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, producted 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, producted or marketed from well.

Received
Office of OII & Gas



February 21, 2017

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

Re: GLO76H5 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.

Sincerely,

Vicki Roark

Permitting Supervisor-WV

470490245-

Received Office of Oil & Gas MAR.2 2 2017

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

Date of Noti	ce Certification: 3-17-17	API No. 47- 049	
	The second secon	Operator's Well	No. GLO76H5
		Well Pad Name:	GLO76
Notice has			
Pursuant to the below for the	ne provisions in West Virginia Code stract of land as follows:	22-6A, the Operator has provided the required	parties with the Notice Forms listed
State:	w	LITMANAD 82 Easting: 543,85	52.45
County:	Marion	— UIMINAD X3	500.59
District:	Mannington	Public Road Access: Co Rt	64/4
Quadrangle:	Glover Gap	Generally used farm name: Rober	t E & Maxine P Tonkery
Watershed:	Starkey Run & Wiley Fork		
of giving the requirements Virginia Cod of this article	surface owner notice of entry to su of subsection (b), section sixteen o e § 22-6A-11(b), the applicant shall t have been completed by the applican		this article six-a; or (iii) the notice rface owner; and Pursuant to West the notice requirements of section ten
that the Ope	West Virginia Code § 22-6A, the Operator has properly served the require ECK ALL THAT APPLY	erator has attached proof to this Notice Certific d parties with the following:	OOG OFFICE USE ONLY
☐ 1. NO	TICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRED BECAUSE N SEISMIC ACTIVITY WAS CONDUCTED	O RECEIVED/ NOT REQUIRED
☐ 2. NO	TICE OF ENTRY FOR PLAT SURV	TEY or NO PLAT SURVEY WAS CONDU	CTED RECEIVED
■ 3. NO	TICE OF INTENT TO DRILL or	☐ NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or	☐ RECEIVED/ NOT REQUIRED
		☐ WRITTEN WAIVER BY SURFACE OV (PLEASE ATTACH)	
■ 4. NO	TICE OF PLANNED OPERATION	Received Office of Oil & Gas	☐ RECEIVED
■ 5. PUI	BLIC NOTICE	Office of On A	☐ RECEIVED
■ 6. NO	TICE OF APPLICATION	MAK Z Z	☐ RECEIVED

Required Attachments:

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

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 RoarkBridgeport WV 26330Its:Permitting SupervisorFacsimile:304-848-0041Telephone:304-848-0076Email:vroark@eqt.com



Subscribed and sworn before me this 15 day of 100 2017.

Notary Public My Commission Expires 8-24-22

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.

470490245+

Received
Office of Oil & Gas
MAR 2 2 2017

WW-6A (9-13) API NO. 47- 049 OPERATOR WELL NO. GLO76H5
Well Pad Name: GLO76

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

Notice Time Requirement: notice shall be provided no later than the filing date of permit application. Date of Notice: 3-16-17 Date Permit Application Filed: 3-17-17 Notice of: CERTIFICATE OF APPROVAL FOR THE PERMIT FOR ANY WELL WORK CONSTRUCTION OF AN IMPOUNDMENT OR PIT Delivery method pursuant to West Virginia Code § 22-6A-10(b) METHOD OF DELIVERY THAT REQUIRES A PERSONAL REGISTERED RECEIPT OR SIGNATURE CONFIRMATION SERVICE Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule. ☐ Application Notice ☐ WSSP Notice ☐ E&S Plan Notice ☐ Well Plat Notice is hereby provided to: COAL OWNER OR LESSEE ☑ SURFACE OWNER(s) Name: See Attached Name: See Attached Address: Address: COAL OPERATOR Name: Name: Address: Address: SURFACE OWNER(s) (Road and/or Other Disturbance) IT SURFACE OWNER OF WATER WELL Name: See Attached AND/OR WATER PURVEYOR(s) Address: Name: Address: Name: Address: ☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD SURFACE OWNER(s) (Impoundments or Pits) Name: Address: Received Name: See Attached *Please attach additional forms if necessattice of Oil & Gas Address: MAR 2 2 2017

Surface Owners:

Robert E Tonkery 33 Tonkery Drive Fairmont WV 26554

Surface Owners: Access Road

Robert E Tonkery 33 Tonkery Drive Fairmont WV 26554

Beverly Hickman 132 Joes Run Road Morgantown WV 26508

Paul W Glover 15861 Rt 301 LaGrange OH 44050

Raymond C Teagarden 718 Evans Run Road Mannington WV 26582

David A Floyd & Diane E Floyd 12 Emily Ct Fairmont WV 26554

Keith A & Rita G Powell 3898 Buffalo Brink Road Mannington WV 26554

Surface Owner Pit/Impoundments

Robert E Tonkery 33 Tonkery Drive Fairmont WV 26554 4700000050

Received
Office of Oil & Gas

Coal Owner:

Consol Mining Company Engineering Operations Support Dept. Coal 1000 Consol Energy Drive Canonsburg, PA 15317

4704902451

Received
Office of Oil & Gas
MAR 2 2 2017

API NO. 47- 049 -	
OPERATOR WELL NO.	GLO76H5
Well Pad Name: GL076	

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 Environment of Environment

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

WW-6A (8-13)

API NO. 47-049

OPERATOR WELL NO. GLO76H5

Well Pad Name: GLO76

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 properties as to the location or construction of the applicant's proposed well work to the Secretary at:

Office of Oil & Gas

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

MAR 2 2 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.

WW-6A (8-13)

API NO. 47-049

OPERATOR WELL NO. GLO76H5

Well Pad Name: GLO76

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

Office of Oil & Gas

4704 SMAR 22 2017

API NO. 47-049 OPERATOR WELL NO. GLO76H5
Well Pad Name: GLO76

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.

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Pamela Sykes
EQT Production
PO Box 280
Bridgeport, WV 26330
My Commission Expires Aug. 24, 2022

Subscribed and sworn before me this 15 day of 15 day of 15

- Chara-

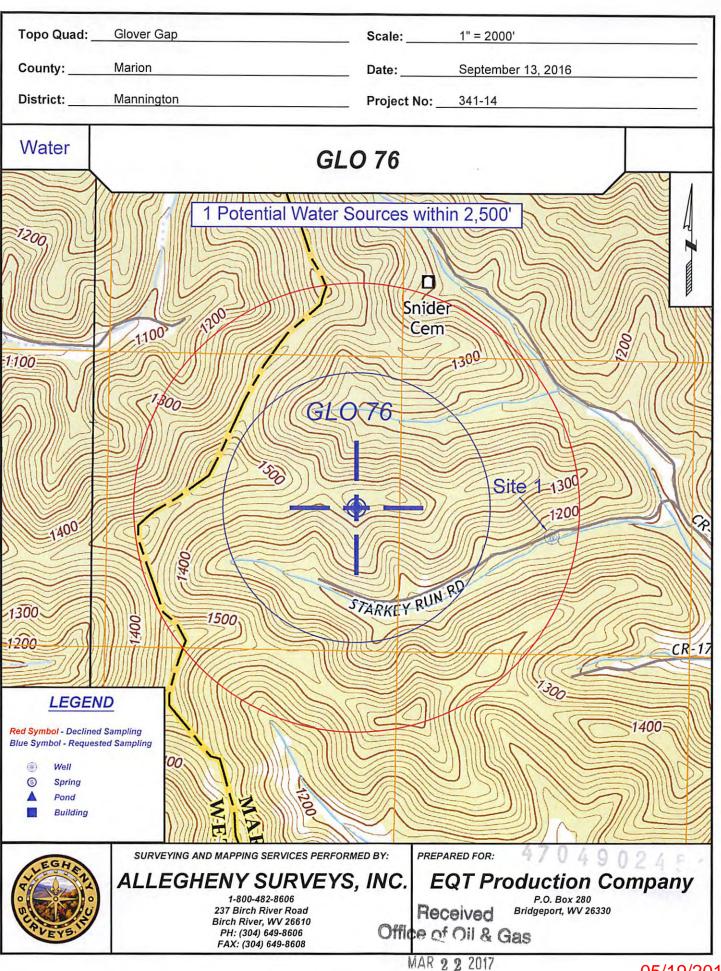
Notary Public

My Commission Expires

8-24.22

4704902451

Received Office of Oil & Gas



STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF INTENT TO DRILL

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.

Date of Noti	ce: 02/17/2017 Date Pern		
Delivery me	thod pursuant to West Virginia Code § 22	2-6A-16(b)	
☐ HAND	■ CERTIFIED MAIL		
DELIVE	ERY RETURN RECEIPT REQU	UESTED	
receipt reque drilling a hor of this subsec subsection m	W. Va. Code § 22-6A-16(b), at least ten days sted or hand delivery, give the surface owner izontal well: <i>Provided</i> , That notice given petion as of the date the notice was provided as y be waived in writing by the surface owner ple, facsimile number and electronic mail additional statements.	er notice of its intent to enter upon the bursuant to subsection (a), section to to the surface owner: <i>Provided, how</i> er. The notice, if required, shall incl	the surface owner's land for the purpose of en of this article satisfies the requirements wever. That the notice requirements of this ude the name, address, telephone number,
Notice is he	ereby provided to the SURFACE OW	NER(s):	
Name: See Atta	ached	Name: See Attached	
Address:		Address:	
Pursuant to V	ereby given: West Virginia Code § 22-6A-16(b), notice is	s hereby given that the undersigned	well operator has an intent to enter upon
Pursuant to V the surface of State: County:	ereby given: West Virginia Code § 22-6A-16(b), notice is wher's land for the purpose of drilling a horion Mannington	izontal well on the tract of land as fo UTM NAD 83 Easting: Northing: Public Road Access:	well operator has an intent to enter upon bllows: 543,852.45 4,379,500.59 Co Rt 64/4
Pursuant to V the surface of State: County: District:	West Virginia Code § 22-6A-16(b), notice is wher's land for the purpose of drilling a hori WV Marion	izontal well on the tract of land as fo — UTM NAD 83 Easting: Northing:	bllows: 543,852.45 4,379,500.59
Pursuant to V	West Virginia Code § 22-6A-16(b), notice is wher's land for the purpose of drilling a hori WV Marion Mannington	izontal well on the tract of land as fo UTM NAD 83 Easting: Northing: Public Road Access:	543,852.45 4,379,500.59 Co Rt 64/4
Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to facsimile nur related to hoo located at 60	West Virginia Code § 22-6A-16(b), notice is wner's land for the purpose of drilling a hori WV Marion Mannington Glover Gap Starkey Run & Wiley Fork Shall Include: West Virginia Code § 22-6A-16(b), this mber and electronic mail address of the oprizontal drilling may be obtained from the 1 57th Street, SE, Charleston, WV 25304 (36)	izontal well on the tract of land as for Easting: — UTM NAD 83 Easting: Northing: Public Road Access: Generally used farm name: — notice shall include the name, addressator and the operator's authorized Secretary, at the WV Department of	ollows: 543,852.45 4,379,500.59 Co Rt 64/4 Robert E & Maxine P Tonkery ress, telephone number, and if available, ed representative. Additional information of Environmental Protection headquarters,
Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to facsimile nur related to hoo located at 60 Notice is he	West Virginia Code § 22-6A-16(b), notice is wner's land for the purpose of drilling a hori WV Marion Mannington Glover Gap Starkey Run & Wiley Fork Shall Include: West Virginia Code § 22-6A-16(b), this maker and electronic mail address of the oprizontal drilling may be obtained from the 1 57 th Street, SE, Charleston, WV 25304 (30 ereby given by:	izontal well on the tract of land as for Easting: Output NAD 83 Easting: Northing: Public Road Access: Generally used farm name: notice shall include the name, addreserator and the operator's authorize Secretary, at the WV Department of 04-926-0450) or by visiting www.de	ollows: 543,852.45 4,379,500.59 Co Rt 64/4 Robert E & Maxine P Tonkery ress, telephone number, and if available, ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.
Pursuant to Value surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to Value facsimile nuite related to hoo located at 60 Notice is he Well Operator	West Virginia Code § 22-6A-16(b), notice is wher's land for the purpose of drilling a horiwal work. Marion Mannington Glover Gap Starkey Run & Wiley Fork Shall Include: West Virginia Code § 22-6A-16(b), this makes and electronic mail address of the opinizontal drilling may be obtained from the 1 57th Street, SE, Charleston, WV 25304 (30 tereby given by: EVERT Production Company	izontal well on the tract of land as for Easting: — UTM NAD 83 Easting: Northing: Public Road Access: Generally used farm name: — notice shall include the name, addreserator and the operator's authorized Secretary, at the WV Department of 04-926-0450) or by visiting www.defined.	ollows: 543,852.45 4,379,500.59 Co Rt 64/4 Robert E & Maxine P Tonkery ress, telephone number, and if available, ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx. Victoria Roark
Pursuant to Value surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to facsimile numeriated to hoo located at 60 Notice is he Well Operato Address:	West Virginia Code § 22-6A-16(b), notice is wner's land for the purpose of drilling a hori WV Marion Mannington Glover Gap Starkey Run & Wiley Fork Shall Include: West Virginia Code § 22-6A-16(b), this maker and electronic mail address of the operizontal drilling may be obtained from the 1 57th Street, SE, Charleston, WV 25304 (30th property) Pereby given by: EQT Production Company 115 Professional Place PO Box 280	izontal well on the tract of land as for Easting: — UTM NAD 83 Easting: Northing: Public Road Access: Generally used farm name: — notice shall include the name, address authorized Secretary, at the WV Department of 04-926-0450) or by visiting www.decee Authorized Representative: Address:	ollows: 543,852.45 4,379,500.59 Co Rt 64/4 Robert E & Maxine P Tonkery ress, telephone number, and if available, ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.
Pursuant to Value surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to facsimile numeriated to hoo located at 60 Notice is he Well Operated Address: Bridgeport WV 2	West Virginia Code § 22-6A-16(b), notice is wner's land for the purpose of drilling a hori WV Marion Mannington Glover Gap Starkey Run & Wiley Fork Shall Include: West Virginia Code § 22-6A-16(b), this member and electronic mail address of the oprizontal drilling may be obtained from the rizontal drilling may be obtained from the 1 57th Street, SE, Charleston, WV 25304 (30 ereby given by: EQT Production Company 115 Professional Place PO Box 280	izontal well on the tract of land as for Easting: — UTM NAD 83 Easting: Northing: Public Road Access: Generally used farm name: — notice shall include the name, addreserator and the operator's authorized Secretary, at the WV Department of 04-926-0450) or by visiting www.de — Authorized Representative: Address: Bridgeport WV 26330	ollows: 543,852.45 4,379,500.59 Co Rt 64/4 Robert E & Maxine P Tonkery ress, telephone number, and if available, ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx. Victoria Roark 115 Professional Place PO Box 280
Pursuant to Value surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to facsimile numeriated to hoo located at 60 Notice is he well Operated Address: Bridgeport WV 2 Telephone:	West Virginia Code § 22-6A-16(b), notice is wner's land for the purpose of drilling a hori WV Marion Mannington Glover Gap Starkey Run & Wiley Fork Shall Include: West Virginia Code § 22-6A-16(b), this maker and electronic mail address of the operizontal drilling may be obtained from the 1 57th Street, SE, Charleston, WV 25304 (30 creby given by: Derivor: EQT Production Company 115 Professional Place PO Box 280 16330 304-848-0076	izontal well on the tract of land as for Easting: Northing: Public Road Access: Generally used farm name: notice shall include the name, addresator and the operator's authorized Secretary, at the WV Department of 04-926-0450) or by visiting www.de Authorized Representative: Address: Bridgeport WV 26330 Telephone:	ollows: 543,852.45 4,379,500.59 Co Rt 64/4 Robert E & Maxine P Tonkery ress, telephone number, and if available, ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx. Victoria Roark 115 Professional Place PO Box 280 304-848-0076
Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to facsimile nur related to hoo located at 60 Notice is he	West Virginia Code § 22-6A-16(b), notice is wner's land for the purpose of drilling a hori WV Marion Mannington Glover Gap Starkey Run & Wiley Fork Shall Include: West Virginia Code § 22-6A-16(b), this member and electronic mail address of the oprizontal drilling may be obtained from the rizontal drilling may be obtained from the 1 57th Street, SE, Charleston, WV 25304 (30 ereby given by: EQT Production Company 115 Professional Place PO Box 280	izontal well on the tract of land as for Easting: — UTM NAD 83 Easting: Northing: Public Road Access: Generally used farm name: — notice shall include the name, addreserator and the operator's authorized Secretary, at the WV Department of 04-926-0450) or by visiting www.de — Authorized Representative: Address: Bridgeport WV 26330	ollows: 543,852.45 4,379,500.59 Co Rt 64/4 Robert E & Maxine P Tonkery ress, telephone number, and if available, ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx. Victoria Roark 115 Professional Place PO Box 280

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 Received Office of Oil & Gas DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Surface Owners:

Robert E Tonkery 33 Tonkery Drive Fairmont WV 26554

Surface Owners: Access Road

Robert E Tonkery 33 Tonkery Drive Fairmont WV 26554

Beverly Hickman 132 Joes Run Road Morgantown WV 26508

Paul W Glover 15861 Rt 301 LaGrange OH 44050

Raymond C Teagarden 718 Evans Run Road Mannington WV 26582

David A Floyd & Diane E Floyd 12 Emily Ct Fairmont WV 26554

Keith A & Rita G Powell 3898 Buffalo Brink Road Mannington WV 26554

Surface Owner Pit/Impoundments

Robert E Tonkery 33 Tonkery Drive Fairmont WV 26554 470496

Received
Office of Oil & Gas
MAR 2 2 2017

WW-6A5 (1/12)

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

Delivery me	thod pursuant to West Virginia (Code § 22-6A-16(c)	
	FIED MAIL	☐ HAND	
	RN RECEIPT REQUESTED	DELIVERY	
return receipt the planned of required to be drilling of a damages to tl (d) The notic of notice. Notice is her	requested or hand delivery, give to operation. The notice required by e provided by subsection (b), section horizontal well; and (3) A proposing surface affected by oil and gas of es required by this section shall be reby provided to the SURFACE (as listed in the records of the sheriff	he surface owner whose land will by this subsection shall include: (1) on ten of this article to a surface owned surface use and compensation perations to the extent the damages given to the surface owner at the a DWNER(s) f at the time of notice):	rmit application, an operator shall, by certified mail be used for the drilling of a horizontal well notice of) A copy of this code section; (2) The information where whose land will be used in conjunction with the agreement containing an offer of compensation for s are compensable under article six-b of this chapter, address listed in the records of the sheriff at the time
Name: See Atte Address:	eby given: Vest Virginia Code § 22-6A-16(c), the surface owner's land for the pu	urpose of drilling a horizontal well	lersigned well operator has developed a planned on the tract of land as follows:
Name: See Atta Address:	eby given: Vest Virginia Code § 22-6A-16(c), the surface owner's land for the pu	notice is hereby given that the undurpose of drilling a horizontal well	dersigned well operator has developed a planned
Name: See Atte Address:	eby given: Vest Virginia Code § 22-6A-16(c), the surface owner's land for the pu	notice is hereby given that the undurpose of drilling a horizontal well	lersigned well operator has developed a planned on the tract of land as follows: Casting: 543,852.45 Northing: 4,379,500.59
Name: See Atta Address:	eby given: Vest Virginia Code § 22-6A-16(c), the surface owner's land for the pu	Address: notice is hereby given that the und arpose of drilling a horizontal well UTM NAD 83	lersigned well operator has developed a planned on the tract of land as follows: Easting: 543,852.45 Northing: 4,379,500.59 s: Co Rt 64/4
Name: See Atte Address: Notice is her Pursuant to V operation on State: County:	eby given: Vest Virginia Code § 22-6A-16(c), the surface owner's land for the pu	notice is hereby given that the undurpose of drilling a horizontal well UTM NAD 83 Public Road Access	lersigned well operator has developed a planned on the tract of land as follows: Easting: 543,852.45 Northing: 4,379,500.59 s: Co Rt 64/4
Name: See Atte Address: Notice is her Pursuant to V operation on State: County: District: Quadrangle: Watershed: This Notice: Pursuant to V to be provide horizontal we surface affect	reby given: Vest Virginia Code § 22-6A-16(c), the surface owner's land for the put wv Marion Mannington Glover Gap Starkey Run & Wiley Fork Shall Include: Vest Virginia Code § 22-6A-16(c), ed by W. Va. Code § 22-6A-10(bell; and (3) A proposed surface use ted by oil and gas operations to the related to horizontal drilling may located at 601 57th Street, SE,	notice is hereby given that the undurpose of drilling a horizontal well UTM NAD 83 Public Road Access Generally used farm this notice shall include: (1)A cop) to a surface owner whose land and compensation agreement compensat	lersigned well operator has developed a planned on the tract of land as follows: Easting: 543,852.45 Northing: 4,379,500.59 s: Co Rt 64/4
Name: See Atta Address: Notice is her Pursuant to V operation on State: County: District: Quadrangle: Watershed: This Notice: Pursuant to V to be provide horizontal we surface affect information theadquarters. gas/pages/de	reby given: Vest Virginia Code § 22-6A-16(c), the surface owner's land for the put wv Marion Mannington Glover Gap Starkey Run & Wiley Fork Shall Include: Vest Virginia Code § 22-6A-16(c), red by W. Va. Code § 22-6A-10(b) rell; and (3) A proposed surface use ted by oil and gas operations to the related to horizontal drilling may located at 601 57th Street, SE, fault, aspx.	notice is hereby given that the undurpose of drilling a horizontal well UTM NAD 83 Public Road Access Generally used farm this notice shall include: (1)A cop) to a surface owner whose land and compensation agreement connected the damages are compensed by the compensation of the Secretary, and Charleston, WV 25304 (304-9)	dersigned well operator has developed a planned on the tract of land as follows: Easting: 543,852.45 Northing: 4,379,500.59 S: Co Rt 64/4 In name: Robert E & Maxine P Tonkery Day of this code section; (2) The information required will be used in conjunction with the drilling of a draining an offer of compensation for damages to the asable under article six-b of this chapter. Additional at the WV Department of Environmental Protection
Name: See Atta Address: Notice is her Pursuant to V operation on State: County: District: Quadrangle: Watershed: This Notice: Pursuant to V to be provide horizontal we surface affect information theadquarters.	reby given: Vest Virginia Code § 22-6A-16(c), the surface owner's land for the put wv Marion Mannington Glover Gap Starkey Run & Wiley Fork Shall Include: Vest Virginia Code § 22-6A-16(c), red by W. Va. Code § 22-6A-10(b) rell; and (3) A proposed surface use ted by oil and gas operations to the related to horizontal drilling may located at 601 57th Street, SE, fault, aspx.	Address:	dersigned well operator has developed a planned on the tract of land as follows: Easting: 543,852.45 Northing: 4,379,500.59 S: Co Rt 64/4 Robert E & Maxine P Tonkery Dry of this code section; (2) The information required will be used in conjunction with the drilling of a staining an offer of compensation for damages to the asable under article six-b of this chapter. Additional at the WV Department of Environmental Protection (26-0450) or by visiting

Oil and Gas Privacy Notice:

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

> Received Office of Oil & Gas

Surface Owners:

Robert E Tonkery 33 Tonkery Drive Fairmont WV 26554

Surface Owners: Access Road

Robert E Tonkery 33 Tonkery Drive Fairmont WV 26554

Beverly Hickman 132 Joes Run Road Morgantown WV 26508

Paul W Glover 15861 Rt 301 LaGrange OH 44050

Raymond C Teagarden 718 Evans Run Road Mannington WV 26582

David A Floyd & Diane E Floyd 12 Emily Ct Fairmont WV 26554

Keith A & Rita G Powell 3898 Buffalo Brink Road Mannington WV 26554

Surface Owner Pit/Impoundments

Robert E Tonkery 33 Tonkery Drive Fairmont WV 26554 4704908451

Received
Office of Oil & Gas



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

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 57th Street, SE Charleston, WV 25304

Subject: DOH Permit for the GLO 76 Pad Site, Marion County

47-049-02451

GLO76H2 GLO76H1 GLO76H3 GL076H4 GLO76115 GLO76H6 GLO76H7 GLO76H8 GLO76H9 GLO76H10 GLO76H11 GLO76H12 GLO76H13

Dear Dr. Martin,

This well site will be accessed from Permit # 04-2014-0722 issued to EQT Production Company for access to the State Road. The well site is located off of Marion County Route 1

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.

layton Regional Maintenance Engineer Central Office O&G Coordinator

470490245+

Nick Bumgardner

EQT Production Company

CH, OM, D-4, File

E.E.O./AFFIRMATIVE ACTION EMPLOYER

Received Office of Oil & Gas MAR 2 2 2017

Anticipated Frac Additives Chemical Names and CAS numbers

<u>Material</u>	<u>Ingredient</u>	CAS Number
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

470690965

Received Office of Oil & Gas



1	ELEV FLOWBACK PIT STORAGE						Unincises
		CF .	CA	BARRELS	GALLONS	AC-FT	AC-FT
	1400	0	0	0	0	0.000	0
	1410	3,152	117	551	23,571	0.072	. 0
	1411	7,355	273	1,310	55,019	0.169	0
	1412	12,522	464	2,210	93,471	0.287	0
	1413	18,751	694	3,339	140,267	C.430	0
INCISED VOLUME	1414	26,141	NEW	4,656	195.555	0.600	0.000
	1415	34,822	1,290	6,202	260,485	C.799	0.199
	1516	64,923	1,664	8,001	336,546	1.031	0.411
	147.7	56,316	2,093	10,065	422,768	1 297	0.697
	1418	69,672	7,543	12,408	521,191	1.539	0.999
	1419	34,468	1,125	15,043	631,862	1.939	1.339
	1470	100,931	3,740	17,984	755,368	2.318	1.718
	1421	119,311	4,419	21,249	392,505	2.739	2.119
	1122	139,550	5,169	24,555	1,043,978	3.204	7.634
CAPACITY	1423	161,791	5,092	28,814	1,710,277	3.714	3.114
	1424	186,064	6,891	33,137	1.191,351	4.271	3 671
TOTAL BEFOR	1425	212,777	7.801	37.594	1.591.677	4.885	4.785

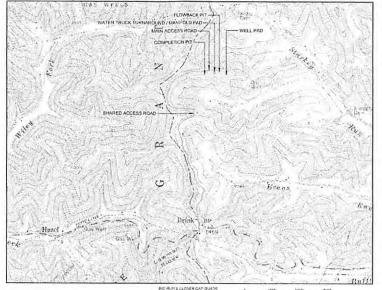
AS BUILT VOLUME AT CAPACITY = 28.814 EULS DESIGN VOLUME AT CAPACITY = 27.909 BBLS DIFFERENCE = -815 BELS

1	ELEV	COMPLETION PIT STORAGE					
		CF .	CY	BARRELS	GALLONS	AC-FT	AC-FT
	140#	0	- 0	. 0	· ·	0.000	0
	1409	14,691	544	2616	109896	0.337	0
	1410	32,463	1202	5731	242839	0.745	0
	1411	\$3,170	1969	9469	397718	1 221	0
	1412	76,587	2877	13640	572909	1.758	0
1	1413	202,804	3808	18309	169025	2.360	0
	1414	131,502	4825	73491	926697	3 028	0
-	1415	263,534	5071	29200	1226487	1.764	0
NOTED VOLUME	1416	199,014	7372	35447	1452873	4 569	0.600
	1417	237,175	8755	42243	1774336	5.443	0.876
	1415	278,499	19315	19599	2083110	11.393	1.824
1	1419	323,017	11964	57528	2416327	7 415	2.846
	1420	370,818	13734	56041	2773902	8.513	3.914
	1471	421,98?	15529	75154	3156671	7,687	5.118
	1422	476.609	17652	54281	1555271	10.941	6.372
CAPACITY	1423	534,738	19905	95234	40/30105	17.275	7.707
	1424	996,424	22090	106220	4461547	13.692	W.148
TOP OF ADAM	1475	662,124	24323	117921	4953015	15.200	10511

AS-BUILT VOLUME AT CAPACITY = 95.234 BBLS DESIGN VOLUME AT CAPACITY = 95.508 BBLS DIFFERENCE + -374 BBLS



GLO-76 AS-BUILT PLANS EQT PRODUCTION COMPANY



WELL LEGEND

**CHARLITAC LAT 35 SERVICE (LOVE) 30 487391 8550 F

#*CHARLITAC LAT 35 SERVICE (LOVE) 30 487391 8550 F

#*CHARLITAC LAT 35 SERVICE (LOVE) 30 487391 8550 F

#*CHARLITAC LAT 35 SERVICE COME 35 48731 8550 F

#*CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

#*CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

#*CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

#*CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE LOVE) 30 48731 8550 F

**CHARLITAC LAT 35 SERVICE L

NET (CY) TOPSON. (CY) 1,722 4,303 (CY) STONE (CY) FILL (CY) COMPACTION (CY) SHARED ACCESS DRIVE GLO-76 ACCESS DRIVE 1,655 13,972 1,397 30,286 2,696 6,176 1.722 54,813 50,476 5.649 4,677 1160 21.500 41,893 65,261 1,455 2,967 303 5,001 8,601 14,865 0 32.379 854 \$3,619 3.361 List 8,194 806 136 72,233 36.1.7 15,482 1.233 64,686 1,531 45,164 0 5,034 1.671 -19,823 36.708 214 273,962 294,333 30,850 29,812 9,964 236,922 10.342 -20372 23,693 A1 10 275

SOIL STOCKFILE TOTAL VOLUME NOTES

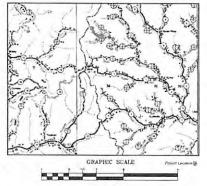
FLOW BACK PIT

GLO-76 WELL PAD

- TOPSOLDET THUGGG IN THE ASSOCIAT TRANSPER PERFORMED FOR THE GGG TO WELL PAD AND EXTMATED AT IT AS INDICATED IN THE DESKIN DRAININGS VERHEARTICAL OF ACTUAL DEPTH OF TOP 30% OR HALLED VOLUMES YERF NOT WARRIE!
- 2 STONE CLANTITIES INDICATED HAVE HERN APPLIED TO AS BUILT CUT LIFEL VOLUMES AS REQUIRED
- 3 DESCRIPTION EAS DEVICE QUANTITIES MAY BE DUE TO INCOMPLETE INSTALLATION AT THE TIME OF AS BUE! CREATION

5/15/2017





,	DICH - 1 WILE			
FLOODPLAIN	CONE	OITIONS	3	
DO SITE CONSTRUCTON ACTIVITIES	TAKE PLACE IN	FLOODPLAIN:	NO	
PERMIT NEEDED FHOM COUNTY FLOODPLAIN COURDINATOR:				
HEC-RAS STUDY COMPLETED			NA	
FLOODPLAIN SHOWN ON DRAWINGS:				
FIRM MAP NUMBER(3) FOR SITE	54049C0085U	-54103C0250G		
ACREAGES OF CONSTRUCTION IN FLOODPLAIN:		N/A	entrician.	

SHEET INDEX COVER SHEET / LOCATION MAP AS BUILT PLAN AS BUILT ACCESS ROAD PROFILE

	DESIGN QTV	UNIT	ASBUILT OT
ITEM DESCRIPTION	DESIGN CLIF	CONT	ASSOUT DIS
Clearing and Grupping	60.2	AC.	60.1
tit' Sit Sox	NA	U	783
12" Sit Sox	NA.	1.5	3.350
18' Sit Sox	N.A.	(F	377
24" 5/8 50F	NA	T.	5.618
32° 54 50s	N.A.	1 t	5.054
18" Dia HDPE Culvert/ Plose	776	LF	1,066
24" Dia, HDPE Culvert/ Plac	185	E LE	83
Freedy Control Matting	147,200	SY	733,010
Straw Wattle	NA	1.F	NA

J	Э <u>н</u>	
тоту	SIT	1
1	10 C O 50	5
1	2 1 7 X	5
9	50 G 8	3
2	2 - 7 9	1
8	- 0 - N	9
	5 5	3
6	n 52	Z
	\$ >	

Engineers recommenda and Engineering

EQT

THIS DOCT MENT PREPARED FOR EQT PRODECTION COMPANY

REVISIONS DATE 11.12.2215

Date: 10/16/2015 REVISE VOLUMES & DUANTITIES Scale: As Shown ADD TOE NEW VOLUMES 308 2017 REVISE WELL LEGEND PLR EQ.

ENGINEER'S CERTIFICATION

TO THE BEST OF MY NORMED OR AND BELLEF, THE AS MALE HER DEAL AND MEDICAL PROPERTY OF STREET OF THE S

600-10-10-10-10-10-10-10-10-10-10-10-10-1
THE CERTIFICATION OF THE INFORMATION CONTAINED IN THE AS-BUILT DRAWING APPLIES ONLY TO THE TOPOGRAPHY AND YOU USES AS GENERATED FROM THE
SURPLEY FIRED DATA DOLLECTED AT THE DIVE OF THE FELD SURVEY PERFORMED BY ALLEGHEMY SURVEYS.
INC DATED & 16 2015, NORNOR BROTHERS ENGINEERS
HAS NO KNOWLEDGE OF AND IS NOT RESPONSIBLE FOR ANY CHANGES, REVISIONS, OR CONSTRUCTION DIRECTORS BEYOND THE AFFIRE MENTIONED THATH
THAT MAY ALTER THE TOPOURAPHY OR PIT VOLUMES

Project Location (5)

	ELEV	FLOWBACK PIT STORAGE				Unincised	
		CF	CY	BARRELS	GALLONS	AC-FT	AC-FT
	1409	0	0	0	0	0.000	0
	1410	3,152	117	561	23,579	0.072	0
	1411	7,355	272	1,310	55,019	0 169	0
	1412	12,522	464	2,230	91,671	0 287	a
	1413	18,751	694	3,119	140,267	0.430	0
INCISED VOLUME	1414	26,142	961	4,656	195,555	0.600	0.000
	1415	34,822	1,290	6,202	260,486	0.799	0.199
	1416	44,923	1.664	8,001	336,046	1.011	0.431
	1417	56,516	2,093	10,065	422,768	1.797	0.697
	1418	69,672	2,580	12,408	521,181	1:599	0.999
	1419	84,468	3,128	15,041	631,862	1.939	1.339
	1470	100,981	3,740	17,984	755,388	2.318	1.718
	1471	119,311	4,419	21,249	R92,505	2,739	2 139
	1422	139,560	5,169	24,855	1,043,976	3.204	2.604
CAPACITY	1425	161,791	5,997	28,814	1,210,277	3,711	3414
	1424	186,064	6,891	33,137	1,391,851	4.271	3.671
TOP OF BEAM	1425	212,777	7.881	37,894	1,591,677	4.885	4.285

AS-BUILT VOLUME AT CAPACITY = 28,814 BBLS DESIGN VOLUME AT CAPACITY = 27,999 BBLS DIFFERENCE = +815 BBLS

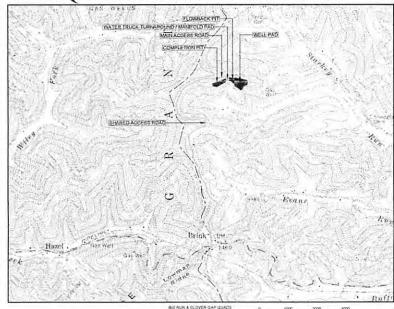
	ELEA	COMPLETION PIT STORAGE					
		CF	CY	BARRELS	GALLONS	AC-FT	AC-FT
1	1408	0	0	0	0	0.000	0
1	1409	14,691	544	2616	109896	0.337	.0
1	1410	32,463	1202	5781	242819	0.745	U
- 1	1411	53,170	1969	9469	397718	1.221	0
- 1	1412	76,587	2837	13640	572909	1.758	0
1	1413	102,804	3808	18309	769025	2.360	0
1	1414	131,902	4885	23491	986692	3.028	0
1	1415	163,958	5073	29200	1226487	3.764	.0
ICISED VOLUME	1416	199,014	2372	35447	1488873	4.569	0.000
	1417	237,195	8785	42243	1774336	5.445	0.876
	1418	278,499	10315	49599	2083310	6.393	1.874
	1419	323,017	11964	5752B	2416127	7.415	2.846
	1420	370,818	13714	66041	2773902	8.513	3.944
1	1421	421,987	15629	75154	3156671	9.657	5 118
1	1422	476,609	17652	84881	3565271	10,941	6.372
CAPACITY	1425	534,731	19805	95734	4000105	12-276	2.707
	1424	596,424	22090	106220	4461547	13 692	9.121
TOP OF BERM	1425	662,124	24523	117921	4953015	15 200	10.631

AS-BUILT VOLUME AT CAPACITY = 95,234 BBLS DESIGN VOLUME AT CAPACITY = 95,556 BBLS DIFFERENCE = -324 BBLS

MISS Utility of Winst Virginia
1.480-2.45-4648
(Seet Virginia Shafe Lav
(Seethin 791/ Chapter 244-C)
sequent that you call five business
syst before you dig in the state of
What Virginia
IT'S THE LAW!!



GLO-76 **AS-BUILT PLANS EQT PRODUCTION COMPANY**



SITE LOCATIONS WGS 44 (NW NORTH ZONE)						
	LATITUDE.	LONGITUDE				
Center of Propiosed Well Pad.	39.564098	-80 489550				
enter of Proposed Completion Pit	39.563943	-80 492314				
Center of Proposed Flowback Pd	39.564354	-80 40069d				

#704-02396 LA 1956-0694 LONG -06-48939 (BUCT)
#704-02396 LA 1956-0694 LONG -06-48939 (BUCT)
#704-02339 LA 1956-0694 LONG -06-489339 (BUCT)
#704-02339 LA 1956-0697 LONG -06-48943 (BUCT)
#704-02331 LA 1956-097 LONG -06-48943
ULC 74-86 LA 1956-0694 LONG -06-48943
ULC 74-76-0694 LONG -06-48943
ULC 74-76-0694 LONG -06-48943
ULC 74-76-0694 LONG -06-48943

ENGINEER'S CERTIFICATION

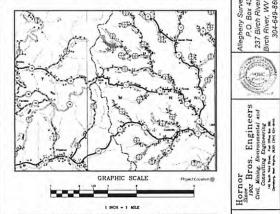
TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE AS BUILT INFORMATION CONTAINED IN THE SEPRIMS INDICATE THE SITE COMMINIENTS WERE GENERALLY CONSTRUCTED IN ACCORDANCE WITH THE CONSTRUCTION PLAIS AND SECURICATIONS PREPARED BY METTEW ASSOCIATES, DATED JUNE 3, 2014 FOR EQT PRODUCTION COMPANY.

GRADING VOLUMES PER DESIGN									ASBUILT VO	LUMES			
AREA	CUT (CY)	STONE (CY)	(CY)	COMPACTION (CY)	NET (CY)	TOPSOIL (CY)	TOE / BONDING BENCHES (CY)	Asbuilt CUT (CY)	Asbuilt FILL (CY)	Top Soil (CY)	Toe Key (CY)	Asbuilt Stone (CY)	Spail (CY)
SHARED ACCESS DRIVE	63,309	4,115	59,729	5,973	1,722	4,303	D	67,377	55,716	4,762	15,499	4,926	11,661
GLO-76 ACCESS DRIVE	44,000	1,655	13,972	1,397	30,28E	1,511	D	82,932	54,312	2,696	6,176	1,722	28,620
COMPLETION PIT	66,812	0	56,486	5,649	4,677	1,560	21,500	41,880	65,261	1,455	2,967	0	-23,381
FLOW BACK PIT	4,750	342	33,610	3,351	-32,379	854	0	3,193	8,194	306	136	303	5,001
GLO-76 WELL PAD	72,239	3,852	36,917	3,692	35,482	1,233	26,667	78,580	64,686	1,631	5,034	3,891	13,893
SOIL STOCKPILE	0		36,208	1,621	-19,829	814		0	46,164	0	0	0	46,164
TOTAL	250,610	9,964	236,922	23,693	-41	10,275	48,167	273,962	294,333	10,850	29,812	10,842	-20372

- TOPSOIL DEPTH USED IN THE AS-BUILT TAKED OF PERFORMED FOR THE GLO-76 WELL PAD ARE ESTIMATED AT .17 AS INDICATED IN THE DESIGN DRAWINGS. VERIFICATION OF ACTUAL DEPTH OF TOP SOIL OR HAULED VOLUMES WERE NOT AVAILABLE.
- 2 STONE QUANTITIES INDICATED HAVE BEEN APPLIED TO ASSUILT CUT / FILL VOLUMES AS REQUIRED.

WVDEP OOG ACCEPTED AS-BUILT 5-15-17





	1 DICH - 1 MILE			
FLOODPLAII	N CONE	ITIONS	3	
DO SITE CONSTRUCTON ACTIVITIE	5 TAKE PLACE IN	FLOODPLAIN:	NO	
PERMIT NEEDED FROM COUNTY FLOODPLAIN COORDINATOR:				
HEC-RAS STUDY COMPLETED			N/A	
FLOODPLAIN SHOWN ON DRAWING		N/A		
FIRM MAP NUMBER(5) FOR SITE	54049C0065D	-54103C0250C		
ACREAGES OF CONSTRUCTION IN	FLOODPLAIN:	NA		

SHEET INDEX COVER SHEET / LOCATION MAP AS BUILT PLAN AS BUILT ACCESS ROAD PROFILE

ITEM DESCRIPTION	DESIGN QTY	UNIT	ASBUILT QTY
Clearing and Grubbing	60.2	AC	60.2
10" Sift Sax	N.A.	1.5	283
12" Sift Sow	N.A.	1.5	3,359
18" Sift Sox	N.A.	LF	177
24" Silt Sox	NA.	LF	5,618
32" 58t Sox	N.A.	TI.	5,056
18" Dia HDPE Culvert/ Pipe	776	U	1,066
24" Dia. HDPE Culvert/ Pipe	186	1.6	6.3
Erosion Control Matting	147,200	SY	213,010
Straw Wattle	N.A.	11	N.A.

	SURVEY NOTE
	THE CERTIFICATION OF THE INFORMATION CONTAINED
١	IN THIS AS-BUILT DRAWING APPLIES DALLY TO THE
	TOPOGRAPHY AND VOLUMES AS DENERATED FROM THE
	SURVEY FIELD DATA COLLECTED AT THE TIME OF THE
	FIELD SURVEY PERFORMED BY ALLEGHENY SURVEYS
	INC. DATED 9.16.2015. HORNOR BAOTHERS ENGINEERS
	HAS NO KNOWLEDGE OF AND IS NOT RESPONSIBLE FOR
	ANY CHANGES, REVISIONS, OR CONSTRUCTION.
	DIRECTIVES BEYOND THE AFORE MENTIONED DATE
	THAT MAY ALTER THE TOPOGRAPHY OR PIT VOLUMES.

DATE	REVISIONS	Date 10/16/2015
11.07.2015	REVISE VOLUMES & QUANTITIES	Scale: As Shown
11.12.2015	ADD TOE KEY VOLUMES	Dengoud Rv. J. D. Y.
1,27,2016	UPDATED ASSULT MATERIAL CITYS	Pile No
3,08,2017	REVISE WELL LEGEND PER EQT	Page 1 of a

THIS DOCUMENT PREPARED FOR EQT PRODUCTION COMPANY

AS BUILT PLAN COVER PAGE GLO-76
WELL PAD SITE

