



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

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Wednesday, June 16, 2021
WELL WORK PERMIT
Horizontal 6A / New Drill

EQT PRODUCTION COMPANY
625 LIBERTY AVE., SUITE 1700
PITTSBURGH, PA 15222

Re: Permit approval for 4H
47-103-03412-00-00

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: 4H
Farm Name: MICHAEL KUHN
U.S. WELL NUMBER: 47-103-03412-00-00
Horizontal 6A New Drill
Date Issued: 6/17/2021

PERMIT CONDITIONS

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

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number: _____

PERMIT CONDITIONS

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.

06/25/2021

WW-6B
(04/15)

4710303412
API NO. 47-103 - 03412
OPERATOR WELL NO. 4H
Well Pad Name: Michael Kuhn

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

1) Well Operator: EQT Production Company 306686 Wetzel Center Big Run
Operator ID County District Quadrangle

2) Operator's Well Number: 4H Well Pad Name: Michael Kuhn

3) Farm Name/Surface Owner: Rachel Elizabeth Wyatt & Sheldon R Norris Public Road Access: CR 19/3

4) Elevation, current ground: 1509' (built) Elevation, proposed post-construction: 1509' (built)

5) Well Type (a) Gas X Oil _____ Underground Storage _____

Other _____

(b) If Gas Shallow X Deep _____

Horizontal X

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 7,751', 51', 2,620 PSI

8) Proposed Total Vertical Depth: 7751'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 16,713'

11) Proposed Horizontal Leg Length: 8185'

12) Approximate Fresh Water Strata Depths: 75', 361'

13) Method to Determine Fresh Water Depths: Offset Wells - 47-103-01884 & 43-103-01813

14) Approximate Saltwater Depths: 2027', 2100', 2295', 2369'

15) Approximate Coal Seam Depths: 1163'-1166', 1260'-1266'

16) Approximate Depth to Possible Void (coal mine, karst, other): N/A

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No X

(a) If Yes, provide Mine Info: Name: _____

Depth: _____

Seam: _____

Owner: _____

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WV Department of
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06/25/2021

WW-6B
(04/15)

API NO. 47- 103 - 03412
 OPERATOR WELL NO. 4H
 Well Pad Name: Michael Kuhn

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	26	New	A-500	85.6	40	40	50 ft^3 / CTS
Fresh Water	13 3/8	New	J-55	54.5	1316	1316	1210 ft^3 / CTS
Coal							
Intermediate	9 5/8	New	J-55	36	2823	2823	1100 ft^3 / CTS
Production	5 1/2	New	P-110	20	16713	16713	500' above intermediate casing
Tubing							
Liners							

Bryan Harris 5/13/21

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	26	30	0.312	1050	18	Class A	1.18
Fresh Water	13 3/8	17 1/2	0.380	2730	2184	Class A / Type 1	1.13 - 1.19
Coal							
Intermediate	9 5/8	12 3/8	0.352	3520	2816	Class A / Type 1	1.13 - 1.19
Production	5 1/2	8 1/2	0.361	14360	11488	Class A/H	1.04 - 2.10
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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

Drill and complete a new horizontal well in the Marcellus Formation. Drill the vertical, kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

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 0.1%) 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 10,000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 350,000 gallons of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 200,000-600,000 pounds of proppant per stage.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 12.25 acres (2.87 acres previously disturbed)

22) Area to be disturbed for well pad only, less access road (acres): 5.17 acres (2.72 acres existing)

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: Calcium Chloride. Used to speed the setting of cement slurries
Intermediate: Calcium Chloride. Used to speed the setting of cement slurries.
Production: Calcium Carbonate, Fluid Loss, Extender, Dispersent, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Settling/Suspension Agent

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: Perform a cleanup cycle by pumping 3-8 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

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*Note: Attach additional sheets as needed.

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601 57th Street, SE
Charleston, WV 25304
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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 I (2% Calcium Chloride-Accelerator, 0.25% Super Flake-Lost Circulation, 5.2% Water, 94% Type "I" 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.

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06/25/2021



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Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
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**BEFORE THE OFFICE OF OIL AND GAS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OF WEST VIRGINIA**

IN THE MATTER OF A VARIANCE FROM) ORDER NO. 2014 - 17
REGULATION 35 CSR § 4-11.4/11.5/14.1)
AND 35 CSR § 8-9.2.h. 4/5/6/8 OF THE)
THE OPERATIONAL)
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
- 2.) 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.

Promoting a healthy environment.

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CONCLUSIONS OF LAW

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

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

ORDER

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

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

IN THE NAME OF THE STATE OF WEST VIRGINIA

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


James Martin, Chief
Office of Oil and Gas

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06/25/2021

WEST VIRGINIA GEOLOGICAL PROGNOSIS

BIG467

Horizontal Well
 Pad Name: MICHAEL KUHN
 BIG467

Drilling Objectives:
 Quad:
 County:
 Elevation:
 Recommended Azimuth:

Marcellus
 Wetzel
 1536 KB
 Degrees

1523 GL

Recommended total wellbore length:

Proposed Logging Suite:

-No Pilot Hole Needed

Coal requirements:

Run a directional survey from the surface through the deepest coal seam

ESTIMATED FORMATION TOPS		Derived from well		4710302775		
Formation	Top (TVD)	Base (TVD)	Lithology		Comments	
Fresh Water Zone	1	361			FW from offsets @ 75,361,	
Sewickley Coal	1163	1166	Coal			
Pittsburgh Coal	1260	1266	Coal		SW @ 2027,2100,2295,2369	
Big Injun	2623	2773	Sandstone		Hydrocarbon prod/show in offset @2395,2679,3320,3432,3569, . . .	
Int csg pt	2823				50 ft below Big Injun	
Berea	2891	3151	Sandstone		RED ROCK SHOWS NOT LISTED IN OFFSETS	
Gantz	3256	3324	Silty sand			
Fifty foot	3324	3412	Silty sand			Outside of Storage Boundary
Thirty foot	3412	3609	Silty sand			
Bayard	3609	3683	Sandstone			
Upper Speechley	4014	4067	Silty sand			
Speechley	4067	4150	Silty sand			
Balltown	4150	4514	Silty sand			
Bradford	4514	5629	Silty sand			
Benson	5629	6037	Silty sand			
Alexander	6037	6468	Silty sand			
Elk	6468	7272	Silty sand			
Sonyea	7272	7441	Gray shale			
Middlesex	7441	7485	Black Shale			
Genesee	7485	7572	Gray shale interbedded			
Genesee	7572	7599	Black Shale			
Tully	7599	7622	Limestone			Top RR Base RR
Hamilton	7622	7725	Gray shale with some			
Marcellus	7725	7776	Black Shale			
-Purcell	7742	7744	Limestone			
-Cherry Valley	7754	7756	Limestone			
-Lateral Zone	7751					
Onondaga	7776		Limestone			

Comments:
 Note that this is a TVD prog for a horizontal well (azimuth of degrees; target formation = Marcellus). All measurements taken from estimated KB elevation. Water and coal information estimated from surrounding well data.

RECOMMENDED CASING POINTS

	CSG OD		CSG DEPTH	Planned Depth	
Conductor:	24"			40	
Freshwater / Coal:	13 3/8"			1316	50' below Pittsburgh
Intermediate 1:	9 5/8"			2823	50' below big injun
Production:	5 1/2"			@ TD	

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 Environmental Protection
 06/25/2021



May 10, 2021

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

Re: Casing on Michael Kuhn 4H

Dear Mr. Brewer,

The 13-3/8" surface casing will be set at 1,316' KB, 50' below the deepest workable coal seam and 955' below the deepest fresh water. The 9-5/8" intermediate string will be set at 2,823' KB, 50' below the base of the Big Injun formation.

If you have any questions, please do not hesitate to contact me at 724-746-9073.

Sincerely,

A handwritten signature in blue ink, appearing to read 'J. Zavatchan'.

John Zavatchan
Project Specialist - Permitting

Enc.

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4710303412

WEST VIRGINIA GEOLOGICAL PROGNOSIS

BIG467

Horizontal Well
 Pad Name: MICHAEL KUHN
 BIG467

Drilling Objectives:

Marcellus
~~Marcellus~~ **Big Run**
 Wetzel

Quad:

County:

Elevation:

1536 KB

1523 GL

Recommended Azimuth

Degrees

Recommended total wellbore length:

Proposed Logging Suite:

-No Pilot Hole Needed

Coal requirements:

Run a directional survey from the surface through the deepest coal seam

ESTIMATED FORMATION TOPS

Derived from well 4710302775

Formation	Top (TVD)	Base (TVD)	Lithology	Comments
Fresh Water Zone	1	361		FW from offsets @ 75,361, , , , ,
Sewickley Coal	1163	1166 Coal		
Pittsburgh Coal	1260	1266 Coal		SW @ 2027,2100,2295,2369
Big Injun	2623	2773 Sandstone		Hydrocarbon prod/show in offset @2395,2679,3320,3432,3569, , ,
Int. csg pt	2823			50 ft below Big Injun
Berea	2891	3151 Sandstone		RED ROCK SHOWS NOT LISTED IN OFFSETS
Gantz	3256	3324 Silty sand		
Fifty foot	3324	3412 Silty sand		Outside of Storage Boundary
Thirty foot	3412	3609 Silty sand		
Bayard	3609	3683 Sandstone		
Upper Specchley	4014	4067 Silty sand		
Specchley	4067	4150 Silty sand		
Balltown	4150	4514 Silty sand		
Bradford	4514	5629 Silty sand		
Benson	5629	6037 Silty sand		
Alexander	6037	6468 Silty sand		
Elk	6468	7272 Silty sand		
Sonyea	7272	7441 Gray shale		
Middlesex	7441	7485 Black Shale		
Genesee	7485	7572 Gray shale interbedded		
Genesee	7572	7599 Black Shale		
Tully	7599	7622 Limestone		Top RR Base RR
Hamilton	7622	7725 Gray shale with some		
Marcellus	7725	7776 Black Shale		
-Purcell	7742	7744 Limestone		
-Cherry Valley	7754	7756 Limestone		
-Lateral Zone	7751			
Onondaga	7776	Limestone		

Comments:

Note that this is a TVD prog for a horizontal well (azimuth of degrees; target formation = Marcellus). All measurements taken from estimated KB elevation. Water and coal information estimated from surrounding well data.

RECOMMENDED CASING POINTS

Conductor:	CSG OD	24"	CSG DEPTH	Planned Depth	
Freshwater / Coal:	CSG OD	13 3/8"	CSG DEPTH	40	
Intermediate 1:	CSG OD	9 5/8"	CSG DEPTH	1316	50' below Pittsburgh
Production:	CSG OD	5 1/2"	CSG DEPTH	2823	50' below big injun
				@ TD	

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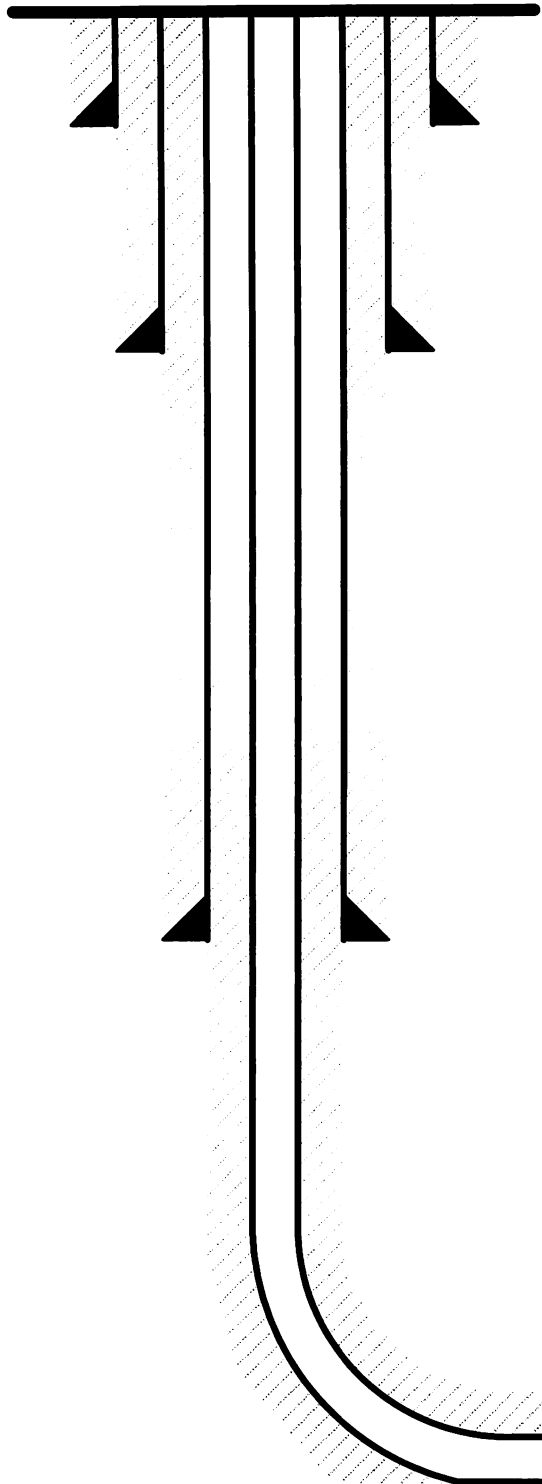
4710303412

EQT Production

Wellbore Diagram

Well: Michael Kuhn 4H
Pad: Michael Kuhn
Elevation: 1523' GL 1536' KB

County: Wetzel
State: West Virginia



Conductor @ 40'

26", 85.6#, A-500, cement to surface w/ Class A

Surface @ 1,316'

13-3/8", 54.5#, J-55, cement to surface w/ Class A/Type I

Intermediate @ 2,823'

9-5/8", 36#, J-55, cement to surface w/ Class A/Type I

Production @ 16,713' MD / 7,751' TVD

5-1/2", 20#, P-110, cement to 500' inside 9-5/8" w/ Class A/H

Formation: Marcellus

Office of Oil and Gas

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WV Department of Environmental Protection

NOT TO SCALE
06/25/2021

WW-9
(4/16)

API Number 47 - 103 - 03412
Operator's Well No. Michael Kuhn 4H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EQT Production Company OP Code 306686

Watershed (HUC 10) Knob Fork of WV Fork of Little Fishing Creek Quadrangle Big Run

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: N/A

Will a synthetic liner be used in the pit? Yes No If so, what ml.? N/A

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number 0014, 8462, 4037)
- Reuse (at API Number Various)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? If so, describe: Yes, The closed loop system will remove drill cuttings from the drilling fluid. The drill cuttings are then prepared for transportation to an off-site disposal facility.

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

-If oil based, what type? Synthetic, petroleum, etc. Synthetic 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 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 or imprisonment.

Company Official Signature [Signature]
Company Official (Typed Name) John Zavatchan
Company Official Title Project Specialist - Permitting

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Subscribed and sworn before me this 14th day of May, 2021

WV Department of Environmental Protection

[Signature] Notary Public

My commission expires October 25, 2023

Commonwealth of Pennsylvania - Notary Seal
Olivia Pishoneri, Notary Public
Allegheny County
My commission expires October 25, 2021
Commission number 1359968
Member, Pennsylvania Association of Notaries

WW-9 Attachment

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

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

Additives to be used in drilling medium?

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

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4710303412

Form WW-9

Operator's Well No. Michael Kuhn 4H

EQT Production Company

Proposed Revegetation Treatment: Acres Disturbed _____ Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type Granular 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
KY-31	40
Alsike Clover	5
Annual Rye	15

Seed Type	lbs/acre
Orchard Grass	15
Alsike Clover	5

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Bryan Harris

Comments: Pre-seed/mulch all disturbed areas as soon as reasonably possible, per regulation. Upgrade E&S as necessary per WV DEP E&S Manual.

Title: Inspector Date: 5/13/21

Field Reviewed? () Yes () No

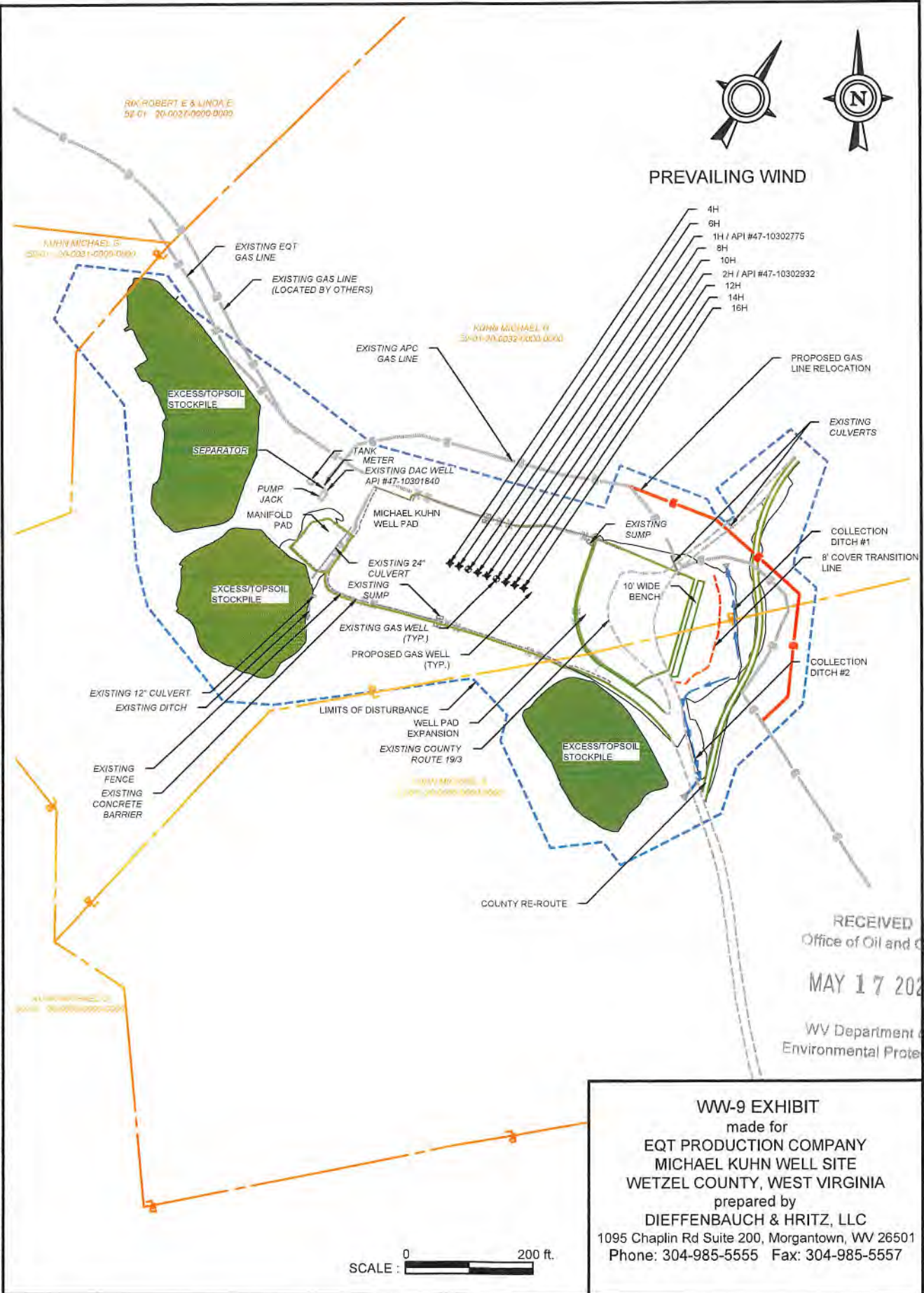
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WV Department of
Environmental Protection

06/25/2021

SCALE 1:200 PLOTTED: 6/24/2021 2:36 PM FILE: X:\OIL AND GAS\102020070-005 - MICHAEL KUHN\CAD\IC\DRIVE\ - PATO CLIENT\DWG\MICHAEL KUHN_WW-9 EXHIBIT.DWG



WW-9 EXHIBIT
 made for
EQT PRODUCTION COMPANY
MICHAEL KUHN WELL SITE
WETZEL COUNTY, WEST VIRGINIA
 prepared by
DIEFFENBAUCH & HRITZ, LLC
 1095 Chaplin Rd Suite 200, Morgantown, WV 26501
 Phone: 304-985-5555 Fax: 304-985-5557

06/25/2021

EQT Production Water Plan									
Offsite Disposals for Unconventional Wells									
Facility Name	Address	Address 2	City	State	Zip	Phone	County	State	Permit Number
CWS Trucking Inc.	P.O. Box 391		Williamstown	WV	26187	740-516-3586	Noble	OH	3390
Broad Street Energy LLC	37 West Broad Street	Suite 1100	Columbus	OH	43215	740-516-5381	Washington	OH	8462
LAD Liquid Assets Disposal Inc.	226 Rankin Road		Washington	PA	15301	724-350-2760	Ohio	WV	USEPA WV 0014
Triad Energy	PO Box 430		Reno	OH	45773	740-516-6021 740-374-2940	Noble	OH	4037
Tri County Waste Water Management, Inc.	1487 Toms Run Road		Holbrook	PA	15341	724-627-7178 724-499-5647	Greene	PA	TC-1009
King Excavating Co. Advance Waste Services	101 River Park Drive		New Castle	PA	16101		Lawrence	PA	PAR000029132
Waste Management - Meadowfill Landfill	Rt. 2, Box 68 Dawson Drive		Bridgeport	WV	16330	304-326-6027	Harrison	WV	SWF-1032-98 Approval #100785WV
Waste Management - Northwestern Landfill	512 E. Dry Road		Parkersburg	WV	26104	304-428-0602	Wood	WV	SWF-1025 WV-0109400
APEX Landfill	11 County Road 78	PO Box 57	Amsterdam	OH	43903	740-543-4389	Jefferson	OH	06-08438
Advanced Disposal - Chestnut Valley Landfill	1184 McClellandtown Road		McClellandtown	PA	15458	724-437-7336	Fayette	PA	100419
Westmoreland Sanitary Landfill	901 Tyrol Boulevard		Belle Vernon	PA	15012	724-929-7694	Westmoreland	PA	100277
Austin Master Services	801 North 1st Street		Martins Ferry	OH	43935	740-609-3800	Belmont	OH	2014-541
Belmont Solids Control	77505 Cadiz-New Athers Road		Cadiz	OH	43907	740-942-1739	Harrison	OH	2015-511
Diversified Resources	3111 Braun Rd.		Belpre	OH	45714	740-401-0413	Washington	OH	
Buckeye Brine	23986 Airport Road		Coshocton	OH	43812	740-610-1512 724-591-4393	Coshocton	OH	34-031-27177 34-031-27178 34-031-27241
Central Environmental Services	28333 West Belpre Pike		Coolville	OH	45723	304-488-0701	Athens	OH	
Nuverra - Nichols	10555 Veto Road		Belpre	OH	45714	330-232-5041	Washington	OH	34-119-2-8776
Nuverra - Goff	9350 East Pike Road		Norwich	OH	43767	330-232-5041	Muskingum	OH	34-167-2-3862
Nuverra - Wolf	5480 State Route 5		Newton Falls	OH	44444	330-232-5041	Trumbull	OH	34-155-2-1893
Nuverra - Pander	5310 State Route 5		Newton Falls	OH	44444	330-232-5041	Trumbull	OH	34-155-2-3795
Nuverra - AnnaRock D-1	3549 Warner Road		Fowler	OH	44418	330-232-5041	Trumbull	OH	34-155-2-2403

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FQ Helen	199 Bowersock Road		Reno	OH	45773	740-374-2940 412-443-4397 740-236-2135	Washington	OH	34-167-2-9577
FQ Dexter	38505 Marietta Rd.		Dexter City	OH	45727	740-374-2940 412-443-4397 740-236-2135	Noble	OH	34-121-24037 34-121-24086
FQ Ritchie	122 Lonesome Pine Rd		Ellenboro	WV	26346	740-374-2940 412-443-4397 740-236-2135	Ritchie	WV	47-085-09721
FQ Mills	53610 TS Rd 706		Portland	OH	45770	740-374-2940 412-443-4397 740-236-2135	Meigs	OH	34-105-2-3619 34-105-2-3652 34-105-2-3637 34-105-2-3651
Petta Enterprises - OH	745 North 3rd Street		Cambridge	OH	43725	614-477-1368	Guernsey	OH	Ohio Chiefs Order 25-019
Petta Enterprises - WV	38 Technology Dr.		Tridelpia	WV	26059	740-255-5727	Ohio	WV	
Deep Rock Disposal	2341 OH-821		Marietta	OH	45750	304-629-0176	Washington	OH	34-167-2-9766

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EQT Production
Hydraulic Fracturing Monitoring Plan
Pad ID: Michael Kuhn (BIG467)
County: Wetzel

May 14, 2021

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Purpose

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operators near EQT hydraulic fracturing in Wetzel County, WV prior to hydraulic fracturing at the following EQT wells on the Michael Kuhn well pad: 4H, 6H, 8H, 10H, 12H, 14H, 16H

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

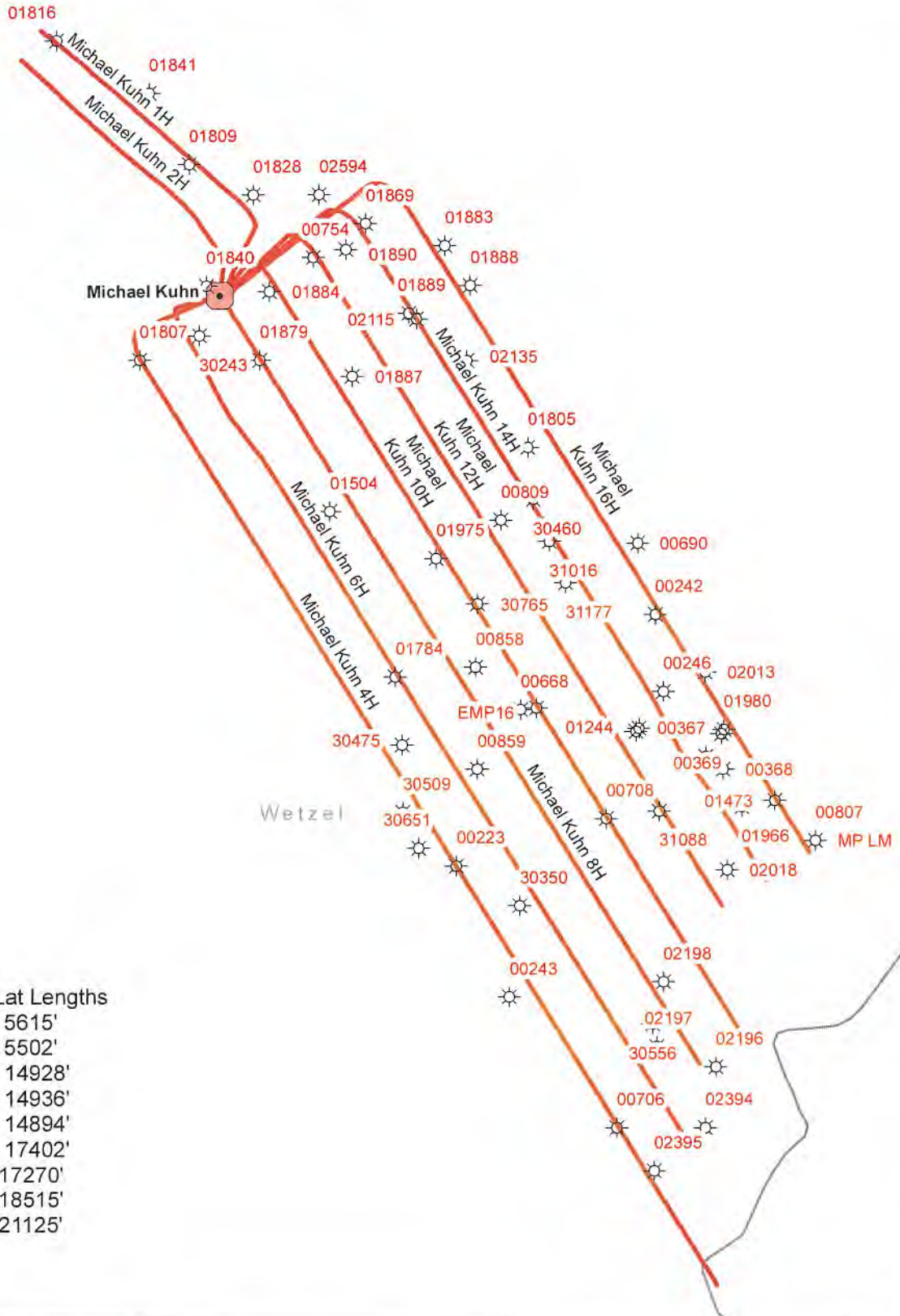
EQT will provide information relating to the hydraulic fracturing schedule, communication with other operators, and ongoing monitoring of the work upon request of OOG or immediately in the event of any noted abnormalities.

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- Planned Lat Lengths
- 1H - 5615'
 - 2H - 5502'
 - 16H - 14928'
 - 14H - 14936'
 - 12H - 14894'
 - 10H - 17402'
 - 8H - 17270'
 - 6H - 18515'
 - 4H - 21125'

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EQT
EQT Corporation
625 Liberty Avenue
Pittsburgh, PA 15222

Michael Kuhn

Vertical Offsets and
Foreign Laterals
within 500'

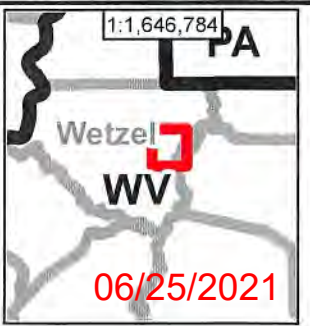
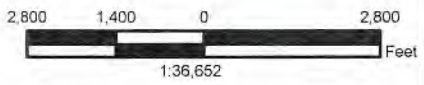
Created By: Kellen Waltman Printed By: McClayO on 4/20/2021

Legend

- Foreign Offset Wells
- Well Pad Sites
- Well Lateral_FM Formation**
- Geneseo
- Marcellus
- Utica

Disclaimer:

This map is confidential and is to be used only for the express informational purposes for which it was created. Unauthorized use, copying, or dissemination is strictly prohibited. EQT does not warrant the accuracy of the location of any items shown on this map, including, but not limited to, any structures, well or pipeline facilities, property boundaries, topography, roadways, or waterways. The items shown on the map may not have been placed on the map using survey lines or GPS coordinates. The specific location of any of the map items should be determined by a field survey performed by a licensed surveyor upon consultation with EQT.



WellID	WellStatus	date	FmatTD	Permit	RemarksPRO	Operator
4710101244	P&A	4/8/1982		01244		HADDAD & BROOKS
4710300223	P&A	11/22/1918		00223		EPC
4710300242	GAS-P	9/20/1940		00242	4SDBYD	CNG
4710300243	DRY	10/21/1940		00243	PTC	CNG
4710300246	DRY	12/19/1940		00246		CNG
4710300367	UNK	11/18/1950		00367		W S HINERMAN
4710300368	UNK	11/2/1950		00368		W S HINERMAN
4710300369	UNK	11/2/1950		00369		W S HINERMAN
4710300668	GAS	7/20/1909		00668	4SD5SD	EPC
4710300690	GAS	7/28/1915		00690	SL1	EPC
4710300706	GAS	8/7/1917		00706	4SD	CNG
4710300708	GAS	10/27/1952		00708	GDN4SD	EPC
4710300754	GAS	10/2/1903		00754	BNJ	MANUFACTURERS LIGHT
4710300807	P&A	2/18/1915		00807	NCR	EPC
4710300809	GAS-P			00809		EPC
4710300858	P&A	3/10/1916		00858		EQUITRANS
4710300859	P&A	11/29/1916		00859		EQUITRANS
4710301244	GAS	4/15/1982		01244	GDNBSNONDHBGSI	HADDAD&BROOKS
4710301473	GAS-P	1/19/1914		01473		CNG TRANSMISSION
4710301504	O&G	5/18/1992		01504	SOF	SHELDON & ASSOCIATES
4710301784	GAS	8/2/1999		01784	BNJGDNBYD	D A C
4710301805	GAS	8/12/2000		01805	BNJGDN	D A C
4710301807	GAS	8/23/2000		01807	BNJGDN	D A C
4710301809	GAS	10/20/2000		01809	BNJGDN	D A C
4710301816	GAS			01816		D A C
4710301828	GAS	7/30/2001		01828	BNJGDN	
4710301840	GAS	8/30/2001		01840	BYDBNJ	D A C
4710301841	UNK	8/21/2001		01841	BNJ4SD5SDBYD	D A C
4710301869	GAS	12/18/2001		01869	BNJGDN	D A C
4710301879	GAS	6/17/2002		01879	GDN	D A C
4710301883	GAS	8/7/2002		01883	BNJGDN	D A C
4710301884	GAS	8/14/2002		01884	BNJGDN	D A C
4710301887	GAS	8/22/2002		01887	BNJGDN	
4710301888	GAS	9/14/2002		01888	BNJGDN	
4710301889	GAS-P	9/6/2002		01889	SL	D A C
4710301890	GAS	8/29/2002		01890	GDNBNJ	
4710301966	GAS	8/26/2003		01966	BNJGDN	D A C
4710301975	GAS	9/7/2003		01975	GDN	D A C
4710301980	GAS	12/5/2003		01980	BNJGDN	D A C
4710302013	GAS	12/13/2003		02013	GDN4SD	D A C
4710302018	UNK	4/1/2004		02018	GDN	D A C
4710302115	UNK	9/16/2005		02115	BER	D A C
4710302135	UNK	11/1/2005		02135	BNJ	D A C
4710302196	GAS	9/20/2006		02196	BNJ/GDN	D A C
4710302197	GAS	9/25/2006		02197	BNJ/GDN	D A C
4710302198	GAS	10/1/2006		02198	BNJ/GDN	D A C
4710302394	GAS	9/6/2008		02394	BNJ5SD4SDGDN	D A C
4710302395	GAS	10/12/2008		02395	BNJ/GDS	D A C
4710302594	CBM	2/9/2011		02594		CONSOL GAS
4710330243	GAS	10/27/1905		30243	SLBNJGDN	PGH & WV GAS
4710330350	GAS	9/21/1916		30350	BNJ	HOPE NAT GAS
4710330460	GAS	9/8/1916	LOWER HURON SHALE	30460	MGSBNJ	MANUFACT LIGHT
4710330475	GAS	9/22/1916	LOWER HURON SHALE	30475	BNJ4SD	PGH & WV GAS
4710330509	GAS	6/20/1928		30509	BNJGDN	DUNN-MAR O & G
4710330556	UNK	10/17/1912		30556		DUNN-MAR O & G
4710330651	GAS	8/14/1919		30651	BNJGDN	PGH & WV GAS
4710330765	GAS	5/4/1916		30765	SL1	MANUFACT LIGHT
4710331016	GAS	7/10/1915		31016	MGSBDKSL1	MANUFACT LIGHT
4710331088	GAS	12/22/1908	LOWER HURON SHALE	31088	4SD	OPER IN MIN.OWN
4710331177	UNK			31177		HOPE NAT GAS
47103TEMP16	UNK			EMP16		
651391 TEMP LM	TEMP			MP LM		

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Longitude	Latitude	TargetFm	DatumEleva	TotalDepth-SS	Total Depth
-80.5025	39.5919		973.0000	-7027.0000	8000.00
-80.5152	39.5846		1148.0000	-2082.0000	3230.00
-80.5013	39.5980		1244.0000	336.0000	908.00
-80.5116	39.5776		1272.0000	254.0000	1018.00
-80.5008	39.5939		1177.0000	332.0000	845.00
-80.4979	39.5904		968.0000	327.0000	641.00
-80.4967	39.5897		970.0000	-99999.0000	100969.00
-80.4968	39.5916		986.0000	345.0000	641.00
-80.5107	39.5930		920.0000	-1951.0000	2871.00
-80.5025	39.6018		0.0000	-1820.0000	1820.00
-80.5042	39.5706		979.0000	-2107.0000	3086.00
-80.5048	39.5871		0.0000	-3143.0000	3143.00
-80.5248	39.6172		0.0000	-2448.0000	2448.00
-80.4903	39.5858		0.0000	-2052.0000	2052.00
-80.5119	39.6031		0.0000	-2769.0000	2769.00
-80.5138	39.5952		1221.0000	-1044.0000	2265.00
-80.5137	39.5898		1245.0000	-1047.0000	2292.00
-80.5027	39.5918		983.0000	-7027.0000	8010.00
-80.4931	39.5880		1205.0000	-99999.0000	101204.00
-80.5238	39.6036		960.0000	-99999.0000	100959.00
-80.5194	39.5947		937.0000	-2370.0000	3307.00
-80.5101	39.6070		1450.0000	-2252.0000	3702.00
-80.5369	39.6118		1514.0000	-2159.0000	3673.00
-80.5333	39.6222		1182.0000	-2169.0000	3351.00
-80.5425	39.6290		1434.0000	-99999.0000	101433.00
-80.5289	39.6206		1288.0000	-2396.0000	3684.00
-80.5322	39.6157		1519.0000	-2240.0000	3759.00
-80.5361	39.6261		1400.0000	-2270.0000	3670.00
-80.5211	39.6190		1258.0000	-2295.0000	3553.00
-80.5286	39.6117		1545.0000	-2233.0000	3778.00
-80.5157	39.6178		1175.0000	-2450.0000	3625.00
-80.5279	39.6154		1576.0000	-2265.0000	3841.00
-80.5222	39.6108		1424.0000	-2234.0000	3658.00
-80.5139	39.6156		1381.0000	-2247.0000	3628.00
-80.5182	39.6142		1245.0000	-641.0000	1886.00
-80.5225	39.6176		1402.0000	-2271.0000	3673.00
-80.4954	39.5877		1029.0000	-2260.0000	3289.00
-80.5165	39.6011		1384.0000	-2209.0000	3593.00
-80.4966	39.5918		1027.0000	-2237.0000	3264.00
-80.4979	39.5949		1285.0000	-2221.0000	3506.00
-80.4965	39.5843		1299.0000	-1836.0000	3135.00
-80.5177	39.6138		1242.0000	-1970.0000	3212.00
-80.5142	39.6116		1574.0000	-2176.0000	3750.00
-80.4973	39.5738		0.0000	-3520.0000	3520.00
-80.5014	39.5749		0.0000	-3603.0000	3603.00
-80.5009	39.5784		0.0000	-3706.0000	3706.00
-80.4981	39.5706		1109.0000	-2173.0000	3282.00
-80.5016	39.5683		1064.0000	-2198.0000	3262.00
-80.5244	39.6206		1216.0000	636.0000	580.00
-80.5328	39.6131		1224.0000	-1789.0000	3013.00
-80.5108	39.5825		1427.0000	-1146.0000	2573.00
-80.5097	39.6042		1462.0000	-1995.0000	3457.00
-80.5189	39.5911		1120.0000	-1952.0000	3072.00
-80.5189	39.5875		1182.0000	-1920.0000	3102.00
-80.5017	39.5761		1365.0000	-2108.0000	3473.00
-80.5178	39.5856		1401.0000	-1896.0000	3297.00
-80.5136	39.5986		1165.0000	-446.0000	1611.00
-80.5086	39.6019		1223.0000	-457.0000	1680.00
-80.5011	39.5875		1328.0000	-2095.0000	3423.00
-80.5075	39.5997		1349.0000	-99999.0000	101348.00
-80.5096	39.5931		0.0000	-99999.0000	99999.00
-80.4903	39.5858		0.0000	-99999.0000	99999.00

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Topo Quad: Big Run Scale: 1" = 1000'
 County: Wetzel Date: August 19, 2020
 District: Center Project No: 49-34-C-20

Water

Michael Kuhn Well Pad

4 Potential Water Sources within 2500'



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LEGEND

Red Symbol - Declined Sampling
 Blue Symbol - Requested Sampling
 / Unable to Contact

- Well
- Spring
- Pond
- Building

NAD 27, North Zone
N:407833.78
E:1709459.12

WGS 84
LAT:39.615245
LONG:-80.531142
ELEV:1509'



SURVEYING AND MAPPING SERVICES PERFORMED BY:
ALLEGHENY SURVEYS, INC.

1-800-482-8606
 237 Birch River Road
 Birch River, WV 26610
 PH: (304) 649-8606
 FAX: (304) 649-8608

PREPARED FOR:

EQT Production Company

400 Woodcliff Drive
 Canonsburg, PA 15317

06/25/2021



Table 1 – Water Source Identification

EQT Well Pad Name: **Michael Kuhn (BIG 467)**

Submittal Date: **August 19, 2020**

EQT Well Number: 44

Survey / Engineering Company: **Allegheny Surveys, Inc.**

Site Number: **1** Distance from Gas Well (feet): **3336 ±**

Surface Owner / Occupant: **Robert & Linda Rix**

Address: **2053 Kodol Rd. Littleton WV 26581** Phone #: **304-775-2425**

Field Located Date: **07/22/2020** Owner home during survey (yes/no): **Yes**

Coordinates: **39.623072, -80.537462** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **07/21/2020** 2nd: _____ Door Hanger Left: _____

<input checked="" type="checkbox"/> Landowner Requested Sampling
<input type="checkbox"/> Landowner Decline Sampling
<input type="checkbox"/> Unable to Contact <small>(Further contact attempts to be made by EQT's third party pre-drill sampling lab)</small>

Comments: **POND - Located about 200 ft. from road. Certified mailed 7/21/2020. Field visit 07/22/2020. Spoke to Mr. Rix who indicated he has two water wells and three ponds.**

Site Number: **2** Distance from Gas Well (feet): **2801 ±**

Surface Owner / Occupant: **Robert & Linda Rix**

Address: **2053 Kodol Rd. Littleton WV 26581** Phone #: **304-775-2425**

Field Located Date: **07/22/2020** Owner home during survey (yes/no): **Yes**

Coordinates: **39.621728, -80.536503** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **07/21/2020** 2nd: _____ Door Hanger Left: _____

<input checked="" type="checkbox"/> Landowner Requested Sampling
<input type="checkbox"/> Landowner Decline Sampling
<input type="checkbox"/> Unable to Contact <small>(Further contact attempts to be made by EQT's third party pre-drill sampling lab)</small>

Comments: **WATER WELL - Well casing located by old home site. Certified mailed 7/21/2020. Field visit 07/22/2020.**

Site Number: **3** Distance from Gas Well (feet): **2500 ±**

Surface Owner / Occupant: **Robert & Linda Rix**

Address: **2053 Kodol Rd. Littleton WV 26581** Phone #: **304-775-2425**

Field Located Date: **07/22/2020** Owner home during survey (yes/no): **Yes**

Coordinates: **39.621464, -80.534911** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **07/21/2020** 2nd: _____ Door Hanger Left: _____

<input checked="" type="checkbox"/> Landowner Requested Sampling
<input type="checkbox"/> Landowner Decline Sampling
<input type="checkbox"/> Unable to Contact <small>(Further contact attempts to be made by EQT's third party pre-drill sampling lab)</small>

Comments: **WATER WELL - Currently being used in home. Certified mailed 7/21/2020. Field visit 07/22/2020.**

(Insert additional pages as needed)

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Site Number: 4 Distance from Gas Well (feet): 1471 ±

Surface Owner / Occupant: Robert & Linda Rix

Address: 2053 Kodol Rd. Littleton WV 26581 Phone #: 304-775-2425

Field Located Date: 07/22/2020 Owner home during survey (yes/no): Yes

Coordinates: 39.618749, -80.533719 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 07/21/2020 2nd: _____ Door Hanger Left: _____

Comments: POND - Certified mailed 7/21/2020. Field visit 07/22/2020.

- Landowner Requested Sampling
- Landowner Decline Sampling
- Unable to Contact
(Further contact attempts to be made by EQT's third party pre-drill sampling lab)

Site Number: 5 Distance from Gas Well (feet): 2077 ±

Surface Owner / Occupant: Robert & Linda Rix

Address: 2053 Kodol Rd. Littleton WV 26581 Phone #: 304-775-2425

Field Located Date: 07/22/2020 Owner home during survey (yes/no): Yes

Coordinates: 39.620800, -80.529246 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 07/21/2020 2nd: _____ Door Hanger Left: _____

Comments: POND - Certified mailed 7/21/2020. Field visit 07/22/2020.

- Landowner Requested Sampling
- Landowner Decline Sampling
- Unable to Contact
(Further contact attempts to be made by EQT's third party pre-drill sampling lab)

Site Number: 6 Distance from Gas Well (feet): 951 ±

Surface Owner / Occupant: Rachel Elizabeth Wyatt & Sheldon R. Norris

Address: 1132 Kodol Rd. Wileyville WV 26581 Phone #: _____

Field Located Date: _____ Owner home during survey (yes/no): No

Coordinates: 39.613548, -80.534100 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 07/21/2020 2nd: _____ Door Hanger Left: _____

Comments: POND – Located with aerial imagery. Certified mailed 7/21/2020. No response or any further contact.

- Landowner Requested Sampling
- Landowner Decline Sampling
- Unable to Contact
(Further contact attempts to be made by EQT's third party pre-drill sampling lab)

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06/25/2021



SITE SAFETY AND ENVIRONMENTAL PLAN

Michael Kuhn (BIG467)
Well Site

Center District
Wetzel County, WV

Well Numbers 1H, 2H, 4H, 6H, 8H, 10H, 12H, 14H, 16H

Prepared By: Donny Prater, CSP, Health and Safety Sciences, LLC

Approved By: Scott M. Held, Senior Safety Coordinator

Created Date: 29-Jan-20

A handwritten signature in blue ink, appearing to read 'J. Zavatchan', is written over a horizontal line.

John Zavatchan
Project Specialist
EQT Production Company

A handwritten signature in black ink, appearing to read 'Derek M. Haught', is written over a horizontal line.

Derek Haught
Oil and Gas Specialist
West Virginia DEP

06/25/2021

Topo Quad: Big Run Scale: 1" = 1000'
 County: Wetzel Date: August 19, 2020
 District: Center Project No: 49-34-C-20

Water

Michael Kuhn Well Pad

4 Potential Water Sources within 2500'



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LEGEND

Red Symbol - Declined Sampling
 Blue Symbol - Requested Sampling
 / Unable to Contact

- Well
- Spring
- Pond
- Building

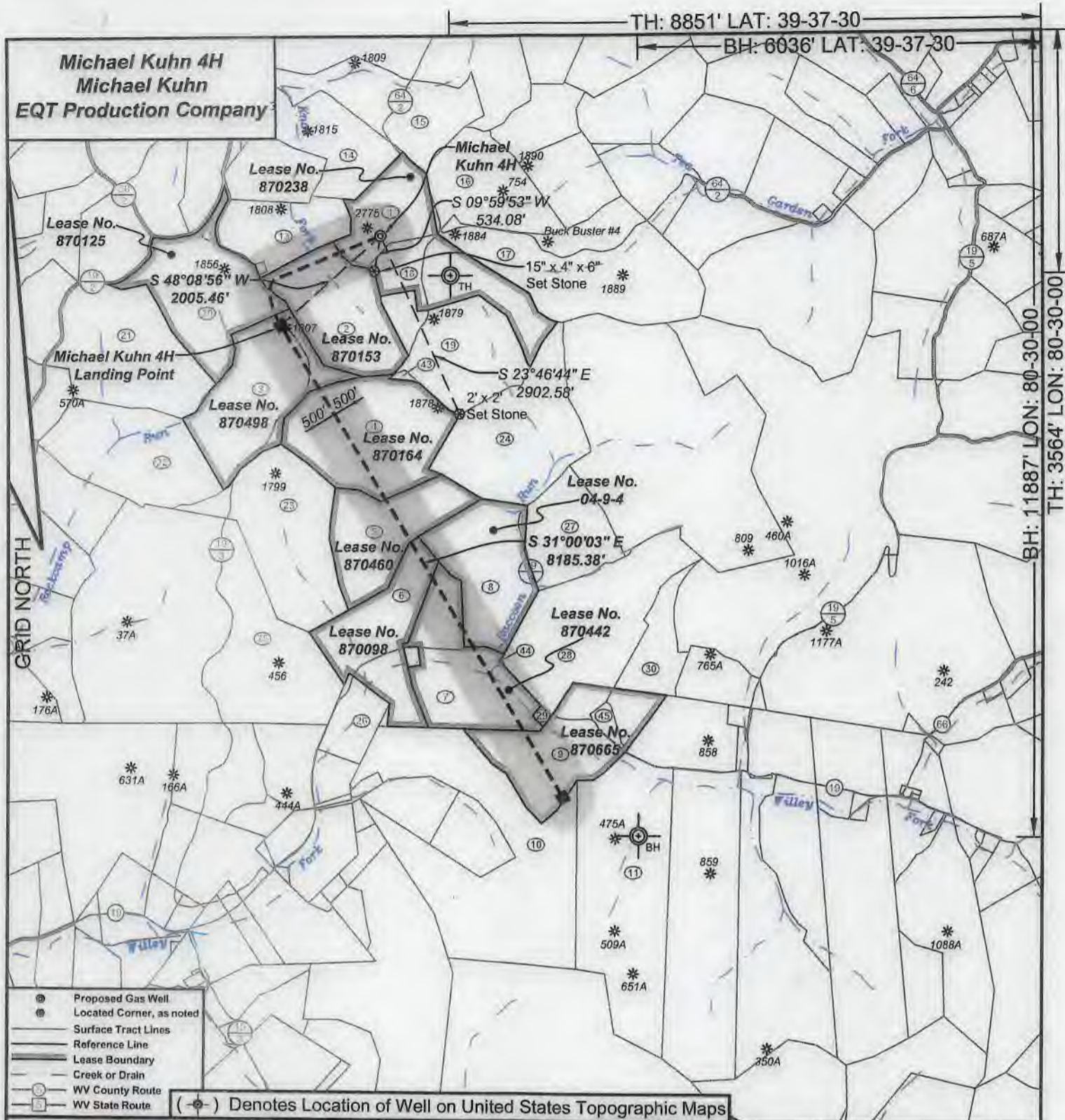
NAD 27, North Zone
N:407833.78
E:1709459.12

WGS 84
LAT:39.615245
LONG:-80.531142
ELEV:1509'



SURVEYING AND MAPPING SERVICES PERFORMED BY:
ALLEGHENY SURVEYS, INC.
 1-800-482-8606
 237 Birch River Road
 Birch River, WV 26610
 PH: (304) 649-8606
 FAX: (304) 649-8608

PREPARED FOR:
EQT Production Company
 400 Woodcliff Drive
 Canonsburg, PA 15317



- ⊙ Proposed Gas Well
- ⊙ Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- ⊙ WV County Route
- ⊙ WV State Route

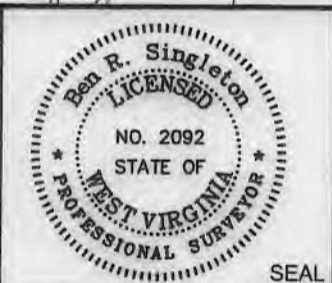
(⊙) Denotes Location of Well on United States Topographic Maps



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.

Ben R. Singleton

P.S. 2092



FILE NO: 49-20
 DRAWING NO: Michael Kuhn 4H
 SCALE: 1" = 2000'
 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

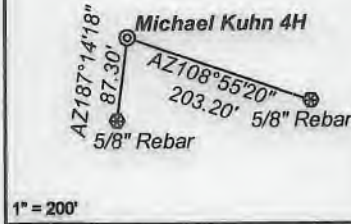
DATE: April 30 20 21
 OPERATOR'S WELL NO.: Michael Kuhn 4H
 API WELL NO 46A
 47 - 103 - 03412
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: 1509' WATERSHED: Knob Fork of West Virginia Fork Fishing Creek QUADRANGLE: Big Run
 DISTRICT: Center COUNTY: Wetzel 06/25/2021
 SURFACE OWNER: Rachel Elizabeth Wyatt & Sheldon R. Norris ACREAGE: 36.40
 ROYALTY OWNER: Michael G. Kuhn LEASE NO: 870238 ACREAGE: 202
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7751'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow
 ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280
 Canonsburg, PA 15317 Bridgeport, WV 26330

**Michael Kuhn 4H
Michael Kuhn
EQT Production Company**

Well References



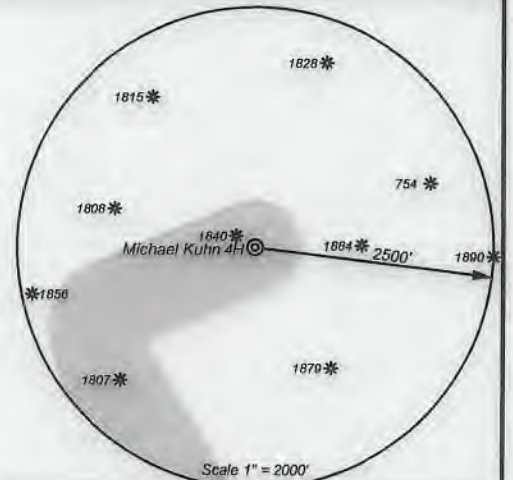
Notes:

Michael Kuhn 4H coordinates are
 NAD 27 N: 407,853.86 E: 1,709,435.53
 NAD 27 Lat: 39.615216 Long: -80.531418
 NAD 83 UTM N: 4,385,165.58 E: 540,238.12
 Michael Kuhn 4H Landing Point coordinates are
 NAD 27 N: 406,515.82 E: 1,707,941.70
 NAD 27 Lat: 39.611495 Long: -80.536665
 NAD 83 UTM N: 4,384,750.32 E: 539,789.79
 Michael Kuhn 4H Bottom Hole coordinates are
 NAD 27 N: 399,499.63 E: 1,712,157.58
 NAD 27 Lat: 39.592366 Long: -80.521419
 NAD 83 UTM N: 4,382,634.22 E: 541,109.82
 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.

Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	20	32	Wetzel	Center	Rachel Elizabeth Wyatt & Sheldon R. Norris	36.40
2	20	35	Wetzel	Center	Rachel Elizabeth Wyatt & Sheldon R. Norris	54.00
3	20	36	Wetzel	Center	William B. Francik Sr. & Pamela Spinosa	65.68
4	4	10	Wetzel	Grant	William B. & Pamela S. Francik	78.78
5	9	3	Wetzel	Grant	William B. & Pamela S. Francik	59.00
6	9	11	Wetzel	Grant	Elizabeth Amundson, et al.	53.37
7	9	21	Wetzel	Grant	Gregory & Michael Delaney	59.90
8	9	4	Wetzel	Grant	Gregory & Michael Delaney	59.00
9	9	27	Wetzel	Grant	Burt Barr	47.17
10	9	38	Wetzel	Grant	Terry L. & Carolyn M. Fry	155.08
11	9	39	Wetzel	Grant	Coastal Forest Resources Company	128.00
13	20	31	Wetzel	Center	Rachel Elizabeth Wyatt & Sheldon R. Norris	40.00
14	20	27	Wetzel	Center	Robert E. & Linda E. Rix	48.75
15	20	18	Wetzel	Center	Robert E. & Linda E. Rix	60.10
16	13	8	Wetzel	Church	William B. Francik Jr.	48.44
17	17	1	Wetzel	Church	Buck Buster Hunt Club of WV Inc.	100.00
18	20	36	Wetzel	Center	Rachel Elizabeth Wyatt & Sheldon R. Norris	45.00
19	20	37	Wetzel	Center	William B. & Pamela S. Francik	67.50
20	20	33	Wetzel	Center	Myrna L. Phelps Trust	68.00
21	4	5	Wetzel	Grant	Carney J. Stoneking, et al.	100.00
22	4	8	Wetzel	Grant	Jamie A. Yoho	53.00
23	9	2	Wetzel	Grant	Liberty Holding Company	74.50
24	4	11	Wetzel	Grant	Liberty Holding Company	89.05
25	9	10	Wetzel	Grant	William B. & Pamela S. Francik	233.37
26	9	62	Wetzel	Grant	William B. & Pamela S. Francik	30.50
27	9	5	Wetzel	Grant	John E. Selwell	30.50
28	9	12	Wetzel	Grant	Burt Barr	80.28
29	9	21.2	Wetzel	Grant	David W. & Barbara L. Anderson	1.00
30	9	64	Wetzel	Grant	Celvin N. Barr, et al.	32.92
43	20	37.1	Wetzel	Grant	William Francik	0.71
44	9	12.1	Wetzel	Grant	Michael Dimey	0.008
45	9	27.1	Wetzel	Grant	David Barr	3.70

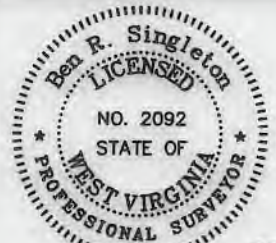


Lease No.	Owner	Acres
870153	Three Rivers Royalty II, LLC	54.00
870125	Miriam Knowles, et al.	68.00
870498	William B. Francik and Pamela S. Francik, Trustees of the William B. and Pamela S. Francik Joint Revocable Living Trust	67
870164	William B. Francik and Pamela S. Francik, Trustees of the William B. and Pamela S. Francik Joint Revocable Living Trust, et al.	76.78
870460	Mary L. Wood, et al.	50
870098	David L. Hostutler, et al.	93.875
870442	Emma Joyce Dahlin Anderson, et al.	62.25
04-9-4	Bounty Minerals, LLC	122
870665	Kevin Gump, et al.	60.75



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.

Ben R. Singleton
 P.S. 2092



SEAL

FILE NO: 49-20
 DRAWING NO: Michael Kuhn 4H
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1:2500
 PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: April 30 20 21
 OPERATOR'S WELL NO.: Michael Kuhn 4H
 API WELL NO 464
 47 - 103 - 03412
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: 1509' WATERSHED: Knob Fork of West Virginia Fork Fishing Creek QUADRANGLE: Big Run
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 WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow
 ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280
 Canonsburg, PA 15317 Bridgeport, WV 26330

06/25/2021

4710303412

WW-6A1
(5/13)

Operator's Well No. Michael Kuhn 4H

**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 Attachment

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

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

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

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

Well Operator: EQT Production Company
 By: John Zavatchan
 Its: Project Specialist - Permitting

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Lease No.	Grantor, Lessor, etc.	Acres	Grantee, Lessee, etc.	Royalty	Book/Page
870238	<u>Michael G. Kuhn</u> Michael G. Kuhn, a single man Drilling Appalachian Corporation Grenadier Energy Partners, LLC Drilling Appalachian Corporation Statoil USA Onshore Properties Inc.	202 ac	Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties Inc. Statoil USA Onshore Properties Inc. EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 77A/56 OG 118A/108 & 136A/538 OG 138A/1 OG 138A/54 OG 175A/707
870153	<u>Three Rivers Royalty II, LLC</u> James E. Newman, Executor Drilling Appalachian Corporation Grenadier Energy Partners, LLC Drilling Appalachian Corporation Statoil USA Onshore Properties Inc.	54.00 ac	Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties Inc. Statoil USA Onshore Properties Inc. EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 79A/120 OG 118A/108 & 136A/538 OG 138A/1 OG 138A/54 OG 175A/707
870125	<u>Miriam Knowles, et al.</u> Miriam Knowles and Philip G. Knowles, wife and husband Drilling Appalachian Corporation Grenadier Energy Partners, LLC Drilling Appalachian Corporation Statoil USA Onshore Properties Inc.	68.00 ac	Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties Inc. Statoil USA Onshore Properties Inc. EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 79A/138 & 79A/472 OG 118A/108 & 136A/538 OG 138A/1 OG 138A/54 OG 175A/707

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870498 William B. Francik and Pamela S. Francik, Trustees of the William B. and Pamela S. Francik Joint Revocable Living Trust

"at least 1/8th per WV Code 22-6-8"

William B. Francik, Sr. and Pamela S. Francik, husband and wife	67 ac	Drilling Appalachian Corporation	OG 77A/281
Drilling Appalachian Corporation		Grenadier Energy Partners, LLC	OG 126A/970 & 136A/538
Grenadier Energy Partners, LLC		Statoil USA Onshore Properties Inc.	OG 138A/1
Drilling Appalachian Corporation		Statoil USA Onshore Properties Inc.	OG 138A/54
Statoil USA Onshore Properties Inc.		EQT Production Company	OG 175A/707

870164 William B. Francik and Pamela S. Francik, Trustees of the William B. and Pamela S. Francik Joint Revocable Living Trust, et al.

"at least 1/8th per WV Code 22-6-8"

Pamela Francik	76.78 ac	Drilling Appalachian Corporation	OG 81A/475
Drilling Appalachian Corporation		Grenadier Energy Partners, LLC	OG 118A/108 & 136A/538
Grenadier Energy Partners, LLC		Statoil USA Onshore Properties Inc.	OG 138A/1
Drilling Appalachian Corporation		Statoil USA Onshore Properties Inc.	OG 138A/54
Statoil USA Onshore Properties Inc.		EQT Production Company	OG 175A/707

870460 Mary L. Wood, et al.

"at least 1/8th per WV Code 22-6-8"

Mary L. Wood, married dealing in her sole and separate property	50 ac	EQT Production Company	OG 184A/929
---	-------	------------------------	-------------

870098 David L. Hostutler, et al.

"at least 1/8th per WV Code 22-6-8"

Pershing R. Taylor, widower, James L. Taylor, widower Dolly Hostutler, widow, Leonard C. Taylor, widower, Norma L. Ott and Harlin R. Ott, wife and husband	93.875 ac	Drilling Appalachian Corporation	OG 77A/86
Drilling Appalachian Corporation		Grenadier Energy Partners, LLC	OG 118A/108 & 136A/538
Grenadier Energy Partners, LLC		Statoil USA Onshore Properties Inc.	OG 138A/1
Drilling Appalachian Corporation		Statoil USA Onshore Properties Inc.	OG 138A/54
Statoil USA Onshore Properties Inc.		EQT Production Company	OG 175A/707

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870442	<u>Emma Joyce Dahlin Anderson, et al.</u> Emma D. Anderson, widow Statoil USA Onshore Properties Inc.	62.25 ac	Statoil USA Onshore Properties, Inc. EQT Production Company	"at least 1/8th per WV Code 22-6-8" OG 161A/872 OG 175A/707
04-9-4	<u>Bounty Minerals, LLC</u> Florence Dulaney and Jimmy A. Dulaney, husband and wife Royal Resources Corporation Sheldon and Associates, Inc. Diversified Resources, Inc. Tri-County Oil & Gas, Inc. Leatherwood, Inc. CNX Gas Company LLC Noble Energy, Inc.	122 ac	Royal Resources Corporation Sheldon and Associates, Inc. Diversified Resources, Inc. Tri-County Oil & Gas, Inc. Leatherwood, Inc. CNX Gas Company LLC Noble Energy, Inc. CNX Gas Company LLC See Attached Letter	"at least 1/8th per WV Code 22-6-8" OG 74A/174 Unrecorded WV SOS OG 81A/595 WV SOS OG 125A/435 OG 126A/486 OG 180A/285
870665	<u>Kevin Gump, et al.</u> Spencer P. Dodd and Wilda Dodd, husband and wife Drilling Appalachian Corporation Grenadier Energy Partners, LLC Drilling Appalachian Corporation Statoil USA Onshore Properties Inc.	60.75 ac	Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties Inc. Statoil USA Onshore Properties Inc. EQT Production Company	"at least 1/8th per WV Code 22-6-8" OG 77A/706 OG 126A/970 & 136A/538 OG 138A/1 OG 138A/54 OG 175A/707

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DRILLING LETTER AGREEMENT

May 11, 2021

CNX Gas Company LLC
Attn: Peter Binotto
1000 CONSOL Energy Drive
Canonsburg, PA 15317
Phone: (724) 485-3206
e-mail: PeterBinotto@cnx.com

RE: Drilling Letter Issued Pursuant to Acreage Trade Agreement

Dear Mr. Binotto:

1. Reference is made to that certain Acreage Trade Agreement dated February 12, 2021 (the "**Trade Agreement**") between EQT Production Company, a Pennsylvania corporation, and Rice Drilling B LLC, a Delaware limited liability company (collectively "**EQT**"), and CNX Gas Company LLC, a Virginia limited liability company ("**CNX**"), governing an exchange of certain oil and gas leases in Armstrong, Greene, and Washington Counties, Pennsylvania and Doddridge, Marion, Marshall, Monongalia, Tyler, and Wetzel Counties, West Virginia (the "**Exchange**"). All capitalized terms used but not otherwise defined herein shall have the meanings (if any) ascribed to them in the Trade Agreement.

2. Pursuant to Section V.C of the Trade Agreement, EQT ("**Drilling Party**") issued a Drilling Letter Request to CNX ("**Assignor**") identifying its need to drill, complete and produce wells upon those certain Oil and Gas Leases of Assignor set forth on Exhibit A hereto (the "**Drilling Leases**") prior to the Closing. This letter is the Drilling Letter resulting from the aforementioned Drilling Letter Request. Assignor will assign the Drilling Leases as to the Target Formation to Drilling Party on or before June 17, 2021, subject to the terms of the Trade Agreement.

3. Subject to Section V.C of the Trade Agreement, Assignor hereby grants Drilling Party and/or its designated affiliates the rights to make regulatory permit applications and, upon receipt of all necessary permits and government approvals, to horizontally drill, complete and produce one (1) or more wellbore laterals ("**Wells**") through and in the Target Formation of the lands covered by the Drilling Leases and to extract, produce and market the hydrocarbons therefrom; **provided, however**, that Assignor hereby expressly withholds to itself and its successors and assigns, and does not grant Drilling Party and/or its designated affiliates, the right to access the surface of or to conduct surface operations on the lands covered by the Drilling Leases. Drilling Party hereby agrees to indemnify, defend and hold harmless Assignor for, from and against any and all Claims (as defined below) sustained by Assignor or its affiliates or related companies resulting from or in connection with Drilling Party's activities with respect to the Drilling Leases, including, without limitation, the drilling of the Wells and Drilling Party's development and operation of the Drilling Leases, that arise on or after the date of this Drilling Letter. "**Claims**" shall mean any and all losses, suits, proceedings, actions, causes of action, in law or at equity, demands, penalties, fines, fees, charges, assessments, liabilities (including environmental liabilities), damages (including environmental and natural resources damages), claims, judgments, executions, costs and expenses of any kind (including, without limitation, attorney's fees, expert's fees, court costs and other out-of-pocket fees and disbursements), taxes, and interest, whether existing or incurred or asserted in the future, in connection with (a) any such claim or the defense thereof, (b) amounts paid in settlement, orders, liens, or decrees, or (c) any injury or damage of any kind and nature to persons (including sickness, illness and/or death), mines,

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wells, or property claims or to the Drilling Leases, or natural resources, and with respect to any of the foregoing, whether sustained or brought by or against Assignor or any third party. Notwithstanding any of the foregoing, in the event that any Claims arise from the joint or concurrent negligence of Assignor, the loss shall be borne by Drilling Party and Assignor proportionately to their degree of negligence, and Drilling Party shall have no obligation to indemnify Assignor against Assignor's negligence or willful misconduct.

4. This Drilling Letter is specifically made subject to the terms and conditions of the Trade Agreement. In the event of any conflict between the terms of this Drilling Letter and the terms of the Trade Agreement, the terms of the Trade Agreement shall control.

5. This Drilling Letter shall be governed by, construed, interpreted and applied in accordance with the laws of the State or Commonwealth in which the Drilling Leases are located, excluding any choice of law rules which would refer the matter to the laws of another jurisdiction.

6. This Drilling Letter may be executed in any number of counterparts, each of which shall be considered an original for all purposes, and all of which, when taken together, shall constitute one and the same instrument, provided that this Drilling Letter but shall not be binding upon either of Drilling Party or Assignor until fully executed by both of them.

If the above meets your approval, please execute in the space provided below and return one signed copy to my attention. Should you have any questions, please contact John Zavatchan at (412) 584-3132 or jzavatchan@eqt.com.

Sincerely,

EQT Production Company

DocuSigned by:
By: Corey Peck DS DS
JMD MCB
Name: Corey C. Peck
Title: Authorized Agent

Rice Drilling B LLC

DocuSigned by:
By: Corey Peck DS DS
JMD MCB
Name: Corey C. Peck
Title: Authorized Agent

Acknowledged, Accepted and Agreed to
this 12th day of May, 2021.

CNX Gas Company LLC

By: [Signature]
Name: Peter J. Bando
Title: Regional Vice President

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**EXHIBIT A
TO DRILLING LETTER**

DRILLING LEASES

Property Type	Agreement #	Original Lessor/Grantor	Original Lessee/Grantee	Effective Date	Gross Acres	Net Acres to be Conveyed	Recording Book/Page	State	County	Township	Tax Parcel Numbers (s)
Lease	249539000	FLORENCE DULANEY ET VIR	ROYAL RESOURCES CORPORATION	11/18/1991	122.0000	122.0000	74A/174	WEST VIR	Wetzel	Grant	04-9-21, 04-9-4

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EQT PRODUCTION COMPANY
400 Woodcliff Drive | Canonsburg, PA 15317

May 10, 2021

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

Re: Michael Kuhn 4H
Center District, Wetzel County, WV

Dear Mr. Brewer,

EQT Production Company is applying for a new well work permit for the well referenced above. Upon information and belief, the 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,

A handwritten signature in blue ink, appearing to read 'J. Zavatchan'.

John Zavatchan
Project Specialist - Permitting

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06/25/2021

4710303412

WW-6AC
(1/12)

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

Date of Notice Certification: 05/14/2021

API No. 47- 163 - 03412
Operator's Well No. ^{4H}
Well Pad Name: Michael Kuhn

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>540238.12</u>
County:	<u>Wetzel</u>		Northing:	<u>4385165.58</u>
District:	<u>Center</u>	Public Road Access:		<u>CR 19/3</u>
Quadrangle:	<u>Big Run</u>	Generally used farm name:		<u>Rachel Elizabeth Wyatt & Sheldon R Norris</u>
Watershed:	<u>Knob Fork of West Virginia Fork Fishing Creek</u>			

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:

*PLEASE CHECK ALL THAT APPLY

- 1. NOTICE OF SEISMIC ACTIVITY or NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED
- 2. NOTICE OF ENTRY FOR PLAT SURVEY or NO PLAT SURVEY WAS CONDUCTED
- 3. NOTICE OF INTENT TO DRILL or NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)
- 4. NOTICE OF PLANNED OPERATION
- 5. PUBLIC NOTICE
- 6. NOTICE OF APPLICATION

OOG OFFICE USE ONLY

- RECEIVED/ NOT REQUIRED
- RECEIVED
- RECEIVED/ NOT REQUIRED
- RECEIVED
- RECEIVED
- 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.

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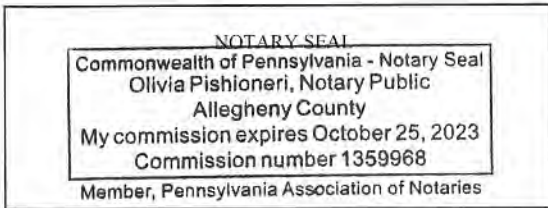
MAY 17 2021

WV Department of
Environmental Protection
06/25/2021

Certification of Notice is hereby given:

THEREFORE, I John Zavatchan, 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:	<u>EQT Production Company</u>	Address:	<u>400 Woodcliff Drive</u>
By:	<u>John Zavatchan</u>		<u>Canonsburg, PA 15317</u>
Its:	<u>Project Specialist - Permitting</u>	Facsimile:	<u>412-395-2974</u>
Telephone:	<u>724-746-9073</u>	Email:	<u>jzavatchan@eqt.com</u>



Subscribed and sworn before me this 14th day of May 2021

[Signature] Notary Public

My Commission Expires October 25, 2023

Oil and Gas Privacy Notice:

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

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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: 5/14/2021 **Date Permit Application Filed:** 5/14/2021

Notice of:

- PERMIT FOR ANY WELL WORK CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE REGISTERED MAIL METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)

Name: See Attached List
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: See Attached List
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: See Attached List
Address: _____

COAL OPERATOR

Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: See Attached List
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
Address: _____

*Please attach additional forms if necessary

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4710303412

Michael Kuhn Well Site

Surface Owners (All Disturbance):

Rachel Elizabeth Wyatt and Sheldon R Norris
/ 1132 Kodol Rd
Wileyville, WV 26581

Coal Owners

/ New Gauley Coal Corp
5260 Irwin Road
Huntington, WV 25705

/ Margaret Kuhn
1045 N Sabal Palm Way
Inverness, FL 34453

/ John Kuhn
1045 N Sabal Palm Way
Inverness, FL 34453

Water Supply Owners Within 1,500'

/ Robert & Linda Rix
2053 Kodol Rd
Littleton, WV 26581

/ Rachel Elizabeth Wyatt & Sheldon R Norris
1132 Kodol Rd
Wileyville, WV 26581

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Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A 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

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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.**

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Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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WW-6A
(8-13)

API NO. 47- 103 - 03412
OPERATOR WELL NO. 4H
Well Pad Name: Michael Kuhn

Notice is hereby given by:

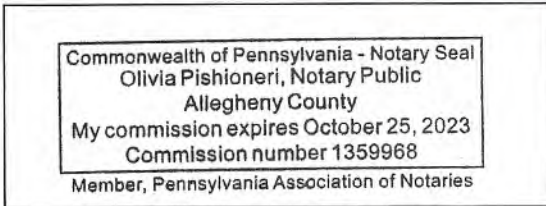
Well Operator: EQT Production Company
Telephone: 724-746-9073
Email: jzavatchan@eqt.com



Address: 400 Woodcliff Drive
Canonsburg, PA 15317
Facsimile: 412-395-2974

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 deprivacyofficer@wv.gov.



Subscribed and sworn before me this 14th day of May 2021.
Olivia Pishioneri Notary Public
My Commission Expires October 25, 2023

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47 10303412

Topo Quad: Big Run Scale: 1" = 1000'

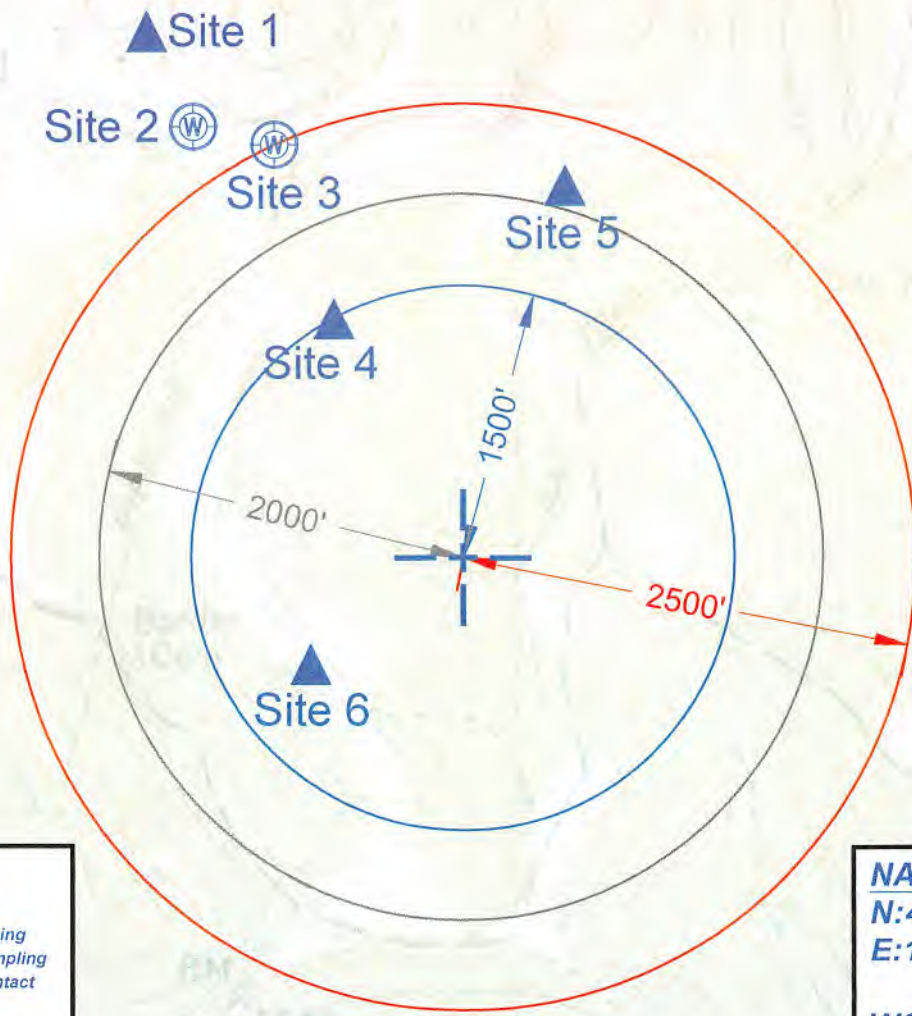
County: Wetzel Date: August 19, 2020

District: Center Project No: 49-34-C-20

Water

Michael Kuhn Well Pad

4 Potential Water Sources within 2500'



LEGEND

Red Symbol - Declined Sampling
 Blue Symbol - Requested Sampling / Unable to Contact

- Well
- Spring
- Pond
- Building

NAD 27, North Zone
N:407833.78
E:1709459.12

WGS 84
LAT:39.615245
LONG:-80.531142
ELEV:1509'



SURVEYING AND MAPPING SERVICES PERFORMED BY:
ALLEGHENY SURVEYS, INC.

1-800-482-8606
 237 Birch River Road
 Birch River, WV 26610
 PH: (304) 649-8606
 FAX: (304) 649-8608

PREPARED FOR:

EQT Production Company

400 Woodcliff Drive
 Canonsburg, PA 15317

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WW-6A4
(1/12)

Operator Well No. Michael Kuhn 4H

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.

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

Date of Notice: 04/30/2021 **Date Permit Application Filed:** 05/14/2021

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

- HAND DELIVERY
- CERTIFIED MAIL RETURN RECEIPT REQUESTED

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

Notice is hereby provided to the SURFACE OWNER(s):

Name: Rachel Elizabeth Wyatt and Sheldon R. Norris
Address: 1132 Kodol Rd.
Wileyville, WV 26581

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>540,238.12</u>
County:	<u>Wetzel</u>		Northing:	<u>4,385,165.58</u>
District:	<u>Center</u>	Public Road Access:	<u>CR 19/3</u>	
Quadrangle:	<u>Big Run</u>	Generally used farm name:	<u>Michael Kuhn</u>	
Watershed:	<u>Knob Fork of West Virginia Fork Fishing Creek</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: EQT Production Company
Address: 400 Woodcliff Drive
Canonsburg, PA 15317
Telephone: 724-746-9073
Email: jzavatchan@eqt.com
Facsimile: 412-395-2974

Authorized Representative: John Zavatchan
Address: 400 Woodcliff Drive
Canonsburg, PA 15317
Telephone: 724-746-9073
Email: jzavatchan@eqt.com
Facsimile: 412-395-2974

Oil and Gas Privacy Notice:

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

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Byrd E. White, III
Secretary of Transportation/
Commissioner of Highways

March 18, 2021

Jimmy Wriston, P. E.
Deputy Secretary/
Deputy Commissioner

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 Michael Kuhn Pad, Wetzel County
Michael Kuhn WTZ 4H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2012-0113 which has been issued to EQT Production Company for access to the State Road for a well site located off Wetzel County Route 19/3 SLS MP 2.34.

This operator is in compliance with §22-6A-20 of the WV Code. 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 October 1, 2018. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office O&G Coordinator

Cc: John Zavatchan
EQT Production Company
CH, OM, D-6
File

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Anticipated Frac Additives
Chemical Names and CAS numbers

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

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WV Department of
Environmental Protection
06/25/2021

MICHAEL KUHN WELL LOCATIONS								
ASSUMED WELL ID	AP #	LAT(NAD83)	LONG(NAD83)	SOUTHING(NAD83)	EASTING(NAD83)	NORTHING(NAD83)	EASTING(NAD83)	NORTHING(NAD83)
01	42 1030275	37° 54' 59.051"	81° 31' 52.04843"	407881.9520	167675.841	407844.848	170043.982	438132.825
02	42 1030275	37° 54' 59.051"	81° 31' 51.46251"	407862.3832	167670.036	407825.576	170048.171	438136.191
03	42 1030275	37° 55' 05.07731"	81° 31' 52.41840"	407891.4617	167795.748	407819.846	170045.580	438135.576
04	42 1030275	37° 55' 05.07731"	81° 31' 52.21850"	407866.2688	1678011.821	407849.533	170049.256	438134.200
05	42 1030275	37° 55' 05.07731"	81° 31' 51.86671"	407876.5200	1678044.872	407839.336	170049.002	438131.171
06	42 1030275	37° 55' 05.07731"	81° 31' 51.67837"	407871.1755	1678055.098	407844.571	170049.213	438129.900
07	42 1030275	37° 55' 05.07731"	81° 31' 51.79030"	407892.1508	1678064.024	407834.185	170052.109	438137.136
08	42 1030275	37° 55' 05.07731"	81° 31' 51.08527"	407874.856	1678059.200	407839.810	170052.835	438133.781
09	42 1030275	37° 55' 05.07731"	81° 31' 50.92634"	407892.6887	1678113.817	407835.075	170053.331	438134.354

EROSION & SEDIMENT CONTROL PLAN

MICHAEL KUHN WELL SITE

WETZEL COUNTY, WV

FOR

EQT PRODUCTION COMPANY

APPROVED
WVDEP OOG

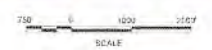
 1/27/2021

DISTURBANCE BREAKDOWN				
STOCKPILES	COUNTY ROUTE	WELL PAD ACCESS	WELL PAD EXPANSION	TOTAL DISTURBANCE
5.90 AC	1.33 AC	0.48 AC	5.34 AC	13.25 AC

LANDOWNER	LANDOWNER DISTURBANCE BREAKDOWN				TOTAL DISTURBANCE
	DISTURBANCE FROM STOCKPILES	DISTURBANCE FROM COUNTY ROUTE	DISTURBANCE FROM ACCESS ROAD	DISTURBANCE FROM WELL PAD EXPANSION	
KUHN MICHAEL G. 12-01-29 0015-0000-0000	0.21 AC	N/A	N/A	N/A	0.21 AC
KUHN MICHAEL G. 12-01-29 0017-0000-0000	5.30 AC	0.57 AC	0.01 AC	4.53 AC	9.23 AC
KUHN MICHAEL G. 12-01-30 0016-0000-0000	1.33 AC	0.65 AC	0.47 AC	0.37 AC	3.00 AC



REFERENCES UNITED STATES GEOLOGICAL SURVEY - 81G RUN AND LITTLETON QUADRANGLES, WV 7.5 MINUTE SERIES



PROJECT NO. 20070-005
JANUARY 2021

DIEFFENBAUCH & HRITZ, LLC



INDEX	
DRAWING NO.	TITLE
1	TITLE SHEET
2	AS-BUILT SITE PLAN
3	PROPOSED SITE PLAN
4	PROPOSED RESTORATION PLAN
5	COUNTY ROUTE AND ACCESS ROAD PROFILES
6	COUNTY ROUTE CROSS SECTIONS
7	ACCESS ROAD CROSS SECTIONS
8, 10	EAS TYPICAL SECTIONS
11-13	EAS DETAILS

811
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PROJECT	MICHAEL KUHN WELL SITE
TITLE	TITLE SHEET
DATE	1
CLIENT	EQT PRODUCTION COMPANY
DESIGNER	DIEFFENBAUCH & HRITZ, LLC 1520 CHINA ROAD, SUITE 200 WETZEL COUNTY, WV 26061 P: 304.865.1555 F: 304.865.1567
APPROVED	1/27/2021
DATE	1/27/2021
PROJECT NO.	20070-005
PROJECT NAME	MICHAEL KUHN

4716303412

APPROVED
WVDEP OOG
1/27/2021

EARTHWORK QUANTITIES (CY)

	CUT	FILL
WELL PAD EXPANSION & UTIL. PAD	25.143	525
RELOCATED ROAD	329	280
OVERALL CUT/FILL BALANCE	25.472	674
	28.858	
SILT STOCKPILE		28.858
GRAVE		1.386

1. MEANS MATERIAL STOCKPILES DESIGNED ASSUMING AT LEAST A 3% SLOPE FACTOR IN ADDITION TO THE QUANTITIES LISTED ABOVE.
2. EARTHWORK QUANTITIES REFLECT SUBGRADE ELEVATIONS IN AREAS PLANNED TO BE STOCKED.

- NOTES:**
1. SURVEY AND STAKE OUT ARE ASSUMED TO BE COMPLETE.
 2. AREAS THAT ARE NOT TO BE DISTURBED DURING CONSTRUCTION ARE TO BE CLEARLY MARKED BEFORE BEGINNING WORK ON SITE.
 3. MAKE ONE CALL TO MARK UTILITIES. CONTRACTORS SHALL BE RESPONSIBLE FOR ANY PRIVATE UTILITY LINES ON SITE THAT HAVE NOT BEEN MARKED BY THE UTILITY COMPANIES.
 4. FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 12 INCHES AND SHALL CONSIST OF MATERIAL HAVING A PARTICLE SIZE NO LARGER THAN 6 INCHES. FILL MATERIAL CONSISTING OF ROCK SHALL BE PLACED IN LIFTS NOT TO EXCEED 6 INCHES. FILL MATERIAL SHALL BE FREE OF WET, FROZEN, FROZEN AND/OR OBJECTIVE MATERIAL WHEN PLACED AND COMPACTED TO 98% OF STANDARD PROCTOR DENSITY (ASTM D4955).
 5. THERE WILL BE NO DISCHARGE FROM THE SUMPS DURING OPERATIONS.
 6. A FACE OF BERM OR AREAS OF LOWER AREAS EXISTING SUMPS TO BE USED TO ENSURE IMPERMEABLE SURFACE.
- CONSTRUCTION SEQUENCE:**
1. SILT FENCES ARE TO BE INSTALLED PER THE ATTACHED PLAN SET.
 2. WELL PAD EXPANSION.
 3. PLACE FABRIC AND STONE ON PAD EXPANSION AREA.
 4. STONE WILL BE USED TO ACHIEVE PAD GRADE.
 5. INSTALL COLLECTION DITCH #1 AND RP RAP APPROX #1.
 6. INSTALL COLLECTION DITCH #2 AND RP RAP APPROX #2.
3. COUNTY RE-ROUTE CONSTRUCTION SHALL CONSIST OF:
A. BERM CUT AND FILL PROCESS ON THE ROAD.
B. PLACE FABRIC AND STONE ON THE ROAD.

LEGEND

EXISTING TREE LINE	EXISTING INDEX CONTOUR LINE (10')
EXISTING ROAD	EXISTING INTERMEDIATE CONTOUR LINE
PROPOSED RIGHT-OF-WAY	PROPOSED INDEX CONTOUR LINE (10')
PROPERTY LINE	PROPOSED INTERMEDIATE CONTOUR LINE
MUNICIPAL BOUNDARY	CHANNEL FLOW DIRECTION
EXISTING FENCE	STEAM
EXISTING ELECTRIC LINE	DEGRADED STREAM
EXISTING GAS LINE	DEGRADED WETLAND BOUNDARY
PROPOSED GAS LINE	FLOODWAY BOUNDARY
PROPOSED WATER LINE	SPRINKLER BUFFER
FILL LIMITS	SILT FENCE (3')
CUT LIMITS	TRIPLE OF STACK (C/S) SEDIMENT TRAP
TOE BENCH WITH DRAIN	EXISTING SPOT ELEVATION
ROADWAY CENTERLINE	PROPOSED SPOT ELEVATION
SAFETY BERM	EXISTING STRUCTURE
LIMITS OF DISTURBANCE	PERMANENT PAVED
EXISTING UTILITY PAD	TEMPORARY GRAVEL
	PERMANENT GRAVEL

MICHAEL KUHN WELL LOCATIONS

ASSIGNED WELL ID	API #	LAT/NAD83	LONG/NAD83	NORTHING/NAD83 (EASTING IN METERS)	EASTING/NAD83 (NORTHING IN METERS)	NORTHING/NAD83 (EASTING IN METERS)	EASTING/NAD83 (NORTHING IN METERS)
14	47-80382725	39° 30' 54.888347" N	80° 11' 51.888417" W	402981.9528	1678025.1647	402984.348	170463.082
21	47-80382782	39° 30' 54.847611" N	80° 11' 51.862617" W	402987.1850	1678070.038	402989.578	170508.373
44		39° 30' 54.877749" N	80° 11' 52.451840" W	402991.6172	1677990.084	402984.858	170465.530
46		39° 30' 55.013347" N	80° 11' 52.249517" W	402986.2628	1678014.121	402984.101	170468.756
86		39° 30' 54.918614" N	80° 11' 51.856717" W	402976.9382	1678003.872	402989.126	170475.087
104		39° 30' 54.899255" N	80° 11' 51.784217" W	402972.1755	1678005.088	402984.571	170494.333
120		39° 30' 54.797390" N	80° 11' 51.290817" W	402964.1064	1678084.574	402974.285	170552.109
144		39° 30' 54.752587" N	80° 11' 51.128617" W	402957.4365	1678099.208	402970.818	170471.419
164		39° 30' 54.302260" N	80° 11' 50.938617" W	402952.8807	1678113.427	402951.075	170551.581



PROPOSED SITE PLAN

MICHAEL KUHN WELL SITE
WETTER, COUNTY, WV

DIFFENBAUGH & HEITZ LLC
TOTAL PROJECT AREA: 27.1 AC
WV PROFESSIONAL ENGINEER
P. 000481558 P. 000481557

EOT PRODUCTION COMPANY

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