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west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Friday, September 10, 2021  
WELL WORK PERMIT  
Horizontal 6A / New Drill

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

Re: Permit approval for HAGGARD 4H  
47-103-03430-00-00

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.

A blue ink signature of James A. Martin.

James A. Martin  
Chief

Operator's Well Number: HAGGARD 4H  
Farm Name: AMIE LEE HENDERSON  
U.S. WELL NUMBER: 47-103-03430-00-00  
Horizontal 6A New Drill  
Date Issued: 9/10/2021

Promoting a healthy environment.

09/10/2021

# 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

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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](mailto:DEPOOGNotify@wv.gov).

09/10/2021

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 ✓ Littleton ✓  
Operator ID County District Quadrangle

2) Operator's Well Number: 4H ✓ Well Pad Name: Haggard ✓

3) Farm Name/Surface Owner: Amie Lee Henderson ✓ Public Road Access: CR 8/2

4) Elevation, current ground: 1512' Elevation, proposed post-construction: 1512' ✓

5) Well Type (a) Gas X Oil \_\_\_\_\_ Underground Storage \_\_\_\_\_

Other \_\_\_\_\_

(b) If Gas Shallow X Deep \_\_\_\_\_

Horizontal X

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus, 7592', 47', 2620 PSI

8) Proposed Total Vertical Depth: 7592' ✓

9) Formation at Total Vertical Depth: Marcellus ✓

10) Proposed Total Measured Depth: 10,444' ✓

11) Proposed Horizontal Leg Length: 2,477' ✓

12) Approximate Fresh Water Strata Depths: 443' ✓

13) Method to Determine Fresh Water Depths: Offset Wells, 47-103-02236, 47-103-02647

14) Approximate Saltwater Depths: No deep water shows listed in offsets

15) Approximate Coal Seam Depths: 1317' - 1320', 1415' - 1420'

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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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 <sup>3</sup> / CTS
Fresh Water	13 3/8	New	J-55	54.5	1470	1470 ✓	1350 ft <sup>3</sup> / CTS
Coal							
Intermediate	9 5/8	New	J-55	36	2882	2882 ✓	1100 ft <sup>3</sup> / CTS
Production	5 1/2	New	P-110	20	10444	10444 ✓	500' above intermediate casing
Tubing							
Liners							

*Bryan Harris*  
6-23-21 ✓

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 well to the Marcellus formation. Drill the vertical, kickoff, and partially drill curve. This operation will be completed to accommodate future marcellus drilling.

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): 15.24 acres

22) Area to be disturbed for well pad only, less access road (acres): 8.84 acres

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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Office of Oil and Gas  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
(304) 926-0460  
(304) 926-0452 fax

Earl Ray Tomblin, Governor  
Randy C. Hoffman, 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

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Office of Oil and Gas  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
(304) 928-0450  
(304) 928-0452 fax

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

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

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

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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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June 16, 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 Haggard 4H

Dear Mr. Brewer,

The 13-3/8" surface casing will be set at 1,470' KB, 50' below the deepest workable coal seam and 1,027' below the deepest fresh water. The 9-5/8" intermediate string will be set at 2,882' 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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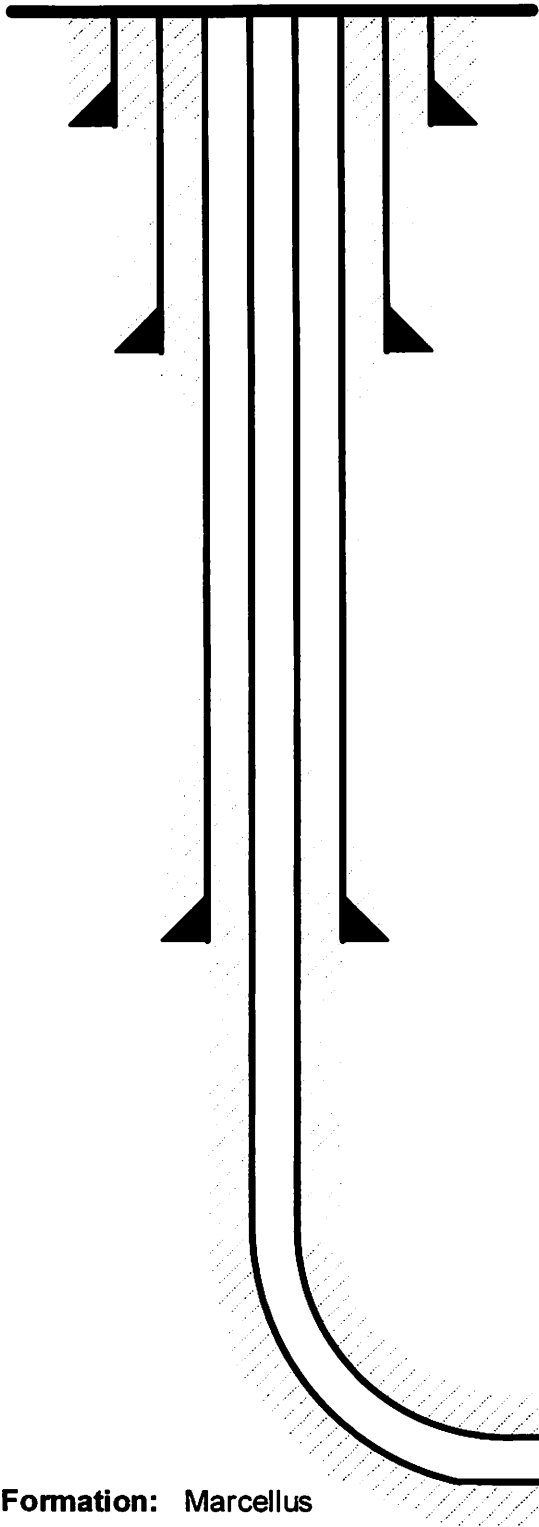
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**EQT Production**

**Wellbore Diagram**

Well: Haggard 4H  
Pad: Haggard  
Elevation: 1512' GL 1525' KB

County: Wetzel  
State: West Virginia



**Conductor @ 40'**

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

**Surface @ 1,470'**

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

**Intermediate @ 2,882'**

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

**Production @ 10,444' MD / 7,592' TVD**

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

**Formation: Marcellus**

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NOT TO SCALE

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4710303430

**WEST VIRGINIA GEOLOGICAL PROGNOSIS**

LIT68H4

Horizontal Well  
**HAGGARD 4H**  
**LIT68H4**  
**L-003871**

**Drilling Objectives:**

Marcellus  
 Littleton  
 Wetzel

**Quad:**

**County:**

**Elevation:**

**1525 KB**  
 Degrees

1512 GL

**Recommended Azimuth:**

**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

Formation	Determined from wells		Lithology	Comments
	Top (TVD)	Base (TVD)		
Fresh Water Zone	1	443		FW from offsets @ 443, . . . . .
Sewickley Coal	1317	1320	Coal	<b>RED ROCK SHOWS NOT LISTED IN OFFSETS</b>
Pittsburgh Coal	1415	1420	Coal	No deep water shows listed in offsets
Big Injun	2707	2832	Sandstone	Hydrocarbon prod show in offset @3170,3450,3603,3650, . . .
Int. csg pt	2882			50 ft below Big Injun
Berea	2981	3222	Sandstone	
Gantz	3340	3473	Silty sand	
Fifty foot	3495	3531	Silty sand	Outside of Storage Boundary
Thirty foot	3579	3600	Silty sand	<b>oil shows in offsets, see depths above</b>
Bayard	3647	3739	Sandstone	
Upper Speechley	4091	4152	Silty sand	
Speechley	4152	4236	Silty sand	
Balltown	4236	4566	Silty sand	
Bradford	4566	5709	Silty sand	
Benson	5709	6046	Silty sand	
Alexander	6046	6505	Silty sand	
Elk	6505	7196	Silty sand	
Sonyea	7196	7323	Gray shale	
Middlesex	7323	7357	Black Shale	
Genesee	7357	7424	Gray shale interbedded	
Genesee	7424	7453	Black Shale	
Tully	7453	7475	Limestone	
Hamilton	7475	7568	Gray shale with some	
Marcellus	7568	7615	Black Shale	
-Purcell	7588	7590	Limestone	
-Cherry Valley	7600	7602	Limestone	
<b>-Lateral Zone</b>	<b>7892</b>			
Onondaga	7615		Limestone	

Target Thickness	47 feet
Max Anticipated Rock Pressure	2620 PSI

**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
<b>Conductor:</b>	24"		40
<b>Freshwater / Coal:</b>	13 3/8"		1170 50' below deepest mineable coal
<b>Intermediate 1:</b>	9 5/8"		2882 50' below Big Injun
<b>Production:</b>	5 1/2"		@ TD <b>10444'</b>

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WW-9  
(4/16)

API Number 47 - 103 - 03430

Operator's Well No. Haggard 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) Lower West Virginia Fork Fish Creek Quadrangle Littleton

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) Erin Spine  
Company Official Title Supervisor - Subsurface Permitting

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Subscribed and sworn before me this 2<sup>nd</sup> day of July, 2021  
[Signature] Notary Public

My commission expires October 25, 2023

Commonwealth of Pennsylvania - Notary Seal  
Olivia Pishioneri, Notary Public  
Allegheny County  
My commission expires October 25, 2023  
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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Form WW-9

Operator's Well No. Haggard 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	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

**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

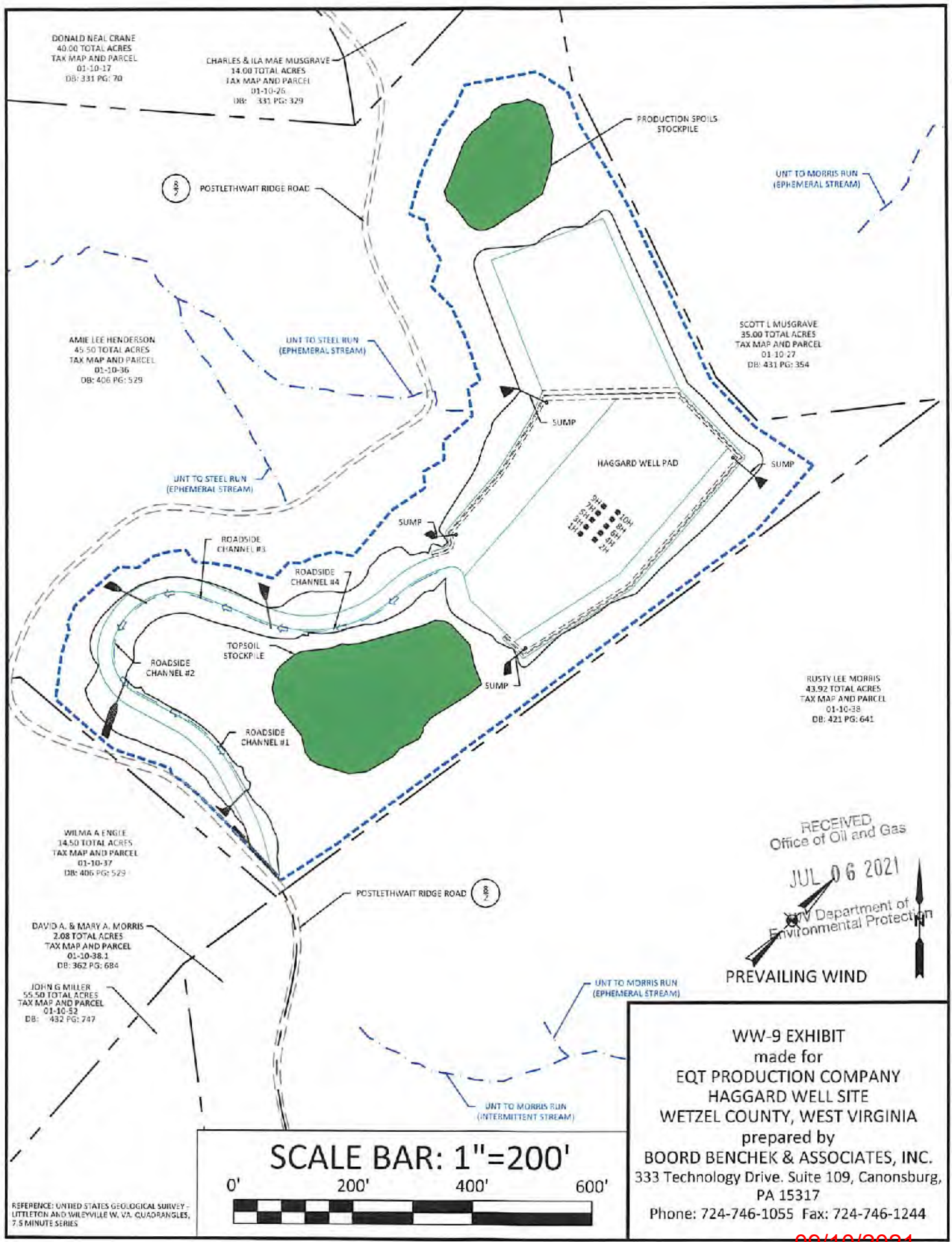
Comments: Pre-seed/mulch all disturbed areas as soon as reasonably possible, per regulation. Upgrade E&S as necessary per WV DEP E&S Manual.

Title: Inspector

Date: 6-23-21

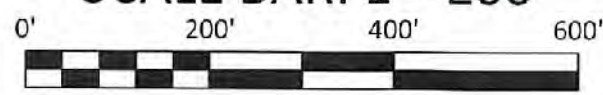
Field Reviewed? ( ) Yes ( X ) No

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PREVAILING WIND

SCALE BAR: 1"=200'



REFERENCE: UNITED STATES GEOLOGICAL SURVEY - LITTLETON AND WILEYVILLE W. VA. QUADRANGLES, 7.5 MINUTE SERIES

WW-9 EXHIBIT  
made for  
EQT PRODUCTION COMPANY  
HAGGARD WELL SITE  
WETZEL COUNTY, WEST VIRGINIA  
prepared by  
BOORD BENCHEK & ASSOCIATES, INC.  
333 Technology Drive, Suite 109, Canonsburg, PA 15317  
Phone: 724-746-1055 Fax: 724-746-1244



EQT Production  
Hydraulic Fracturing Monitoring Plan  
Pad ID: Haggard  
County: Wetzel

June 29, 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 Haggard pad: 2H, 4H, 6H, 8H, 10H.

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

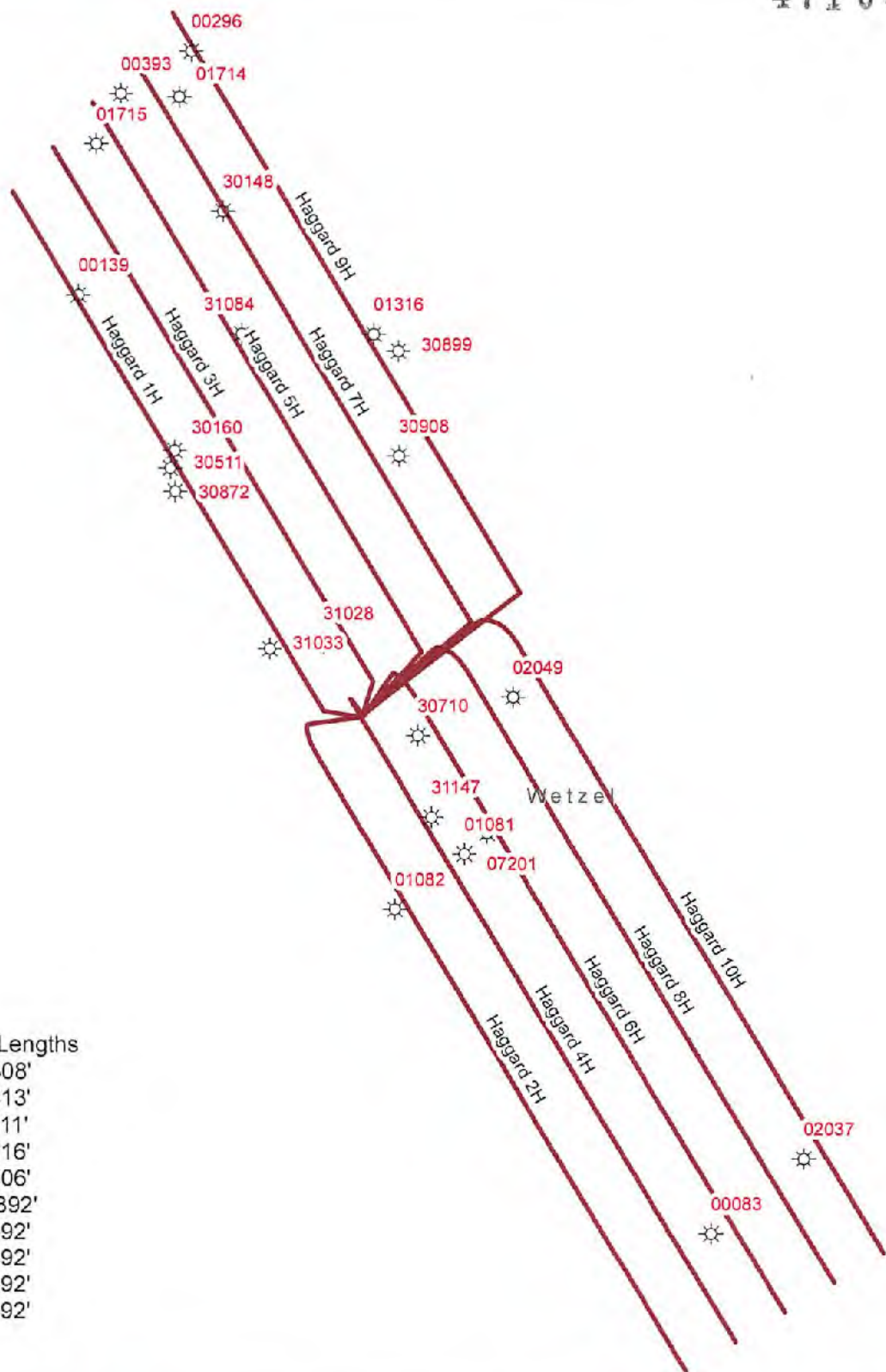
### 2. Reporting

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

- 3H - 10808'
- 7H - 11413'
- 5H - 11111'
- 9H - 11716'
- 1H - 10506'
- 10H - 12392'
- 8H - 12392'
- 6H - 12392'
- 4H - 12392'
- 2H - 12392'

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EQT Corporation  
825 Liberty Avenue  
Pittsburgh, PA 15222

Haggard

Vertical Offsets and  
Foreign Laterals  
within 500'

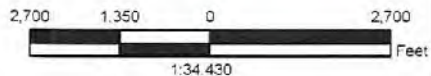
Legend

☀ Foreign Offset Wells

● Well Pad Sites

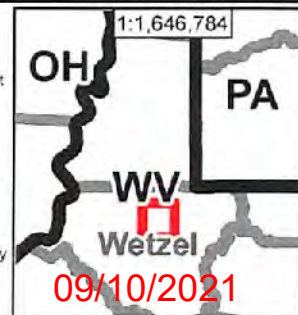
Well Lateral\_FM  
Formation

- Genesee
- 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.



09/10/2021

4710303430

WellID	WellStatus	date	FmsID	Permit	Remarks:PRO	Operator	Longitude	Latitude	Targetm	DatumElev	TotalDepth-SS	Total Depth
471030083	DRY	3/29/1935		00083		PAUL J BLANK	-80.5989	39.6293		1036.0000	-99999.0000	101035.00
4710300139	DRY	11/2/1936		00139		G EAGON	-80.6379	39.6741		1340.0000	-2022.0000	3382.00
4710300296	O&G	3/3/1944		00296		PENNZOIL	-80.6308	39.6857		1348.0000	-2252.0000	3600.00
4710300393	GAS-P	6/22/1926		00393		COLUMBIA	-80.6352	39.6837		1289.0000	-1971.0000	3260.00
4710301081	OIL	12/31/1903		01081		PENNZOIL	-80.6341	39.6874		1318.0000	-1935.0000	3453.00
4710301082	OIL	7/5/1904		01082		PENNZOIL	-80.6184	39.6448		1575.0000	-1975.0000	3500.00
4710301316	O&G	12/7/1984		01316		CHASE PETROLEUM	-80.6196	39.6722		1328.0000	-3072.0000	4200.00
4710301714	O&G	5/10/1929		01714	GDN	HORMER OIL & GAS	-80.6316	39.6835		1350.0000	-1930.0000	3280.00
4710301715	O&G	4/28/1925		01715	GDN	HORMER OIL & GAS	-80.6367	39.6813		1380.0000	-2021.0000	3401.00
4710302037	GAS	9/26/2004		02037	BNGDN	D A C	-80.5932	39.6329		1240.0000	-2194.0000	3434.00
4710302049	GAS	11/19/2004		02049	GDN	D A C	-80.6111	39.6549		1162.0000	-2408.0000	3570.00
471030307201	GAS	10/30/2015		07201		ASCENT RESOURCES-MARCELLUS	-80.6127	39.6484		1664.0000	-15458.0000	16822.00
47103030148	OIL GS			30148		OPER IN MINLOWN	-80.6289	39.6780		1560.0000	-2015.0000	3595.00
4710303160	GAS			30160		SOUTH PENN	-80.6319	39.6667		1218.0000	-1977.0000	3195.00
4710300511	OIL	7/14/1920		30511		RAAD SUPPLY	-80.6322	39.6658		1313.0000	-2056.0000	3269.00
471030710	OIL	7/10/1908		30710		RAAD SUPPLY	-80.6169	39.6531		1355.0000	-1935.0000	3190.00
4710300872	OIL	1/18/1906		30872		QUAKER STATE	-80.6319	39.6647		1311.0000	-1999.0000	3310.00
4710300899	OIL	3/12/1901		30899		QUAKER STATE	-80.6181	39.6714		1351.0000	-1996.0000	3247.00
4710300908	OIL	5/19/1901		30908		QUAKER STATE	-80.6181	39.6664		1000.0000	-3285.0000	3286.00
471031028	OIL	4/22/1905	LOWER HURON SHALE	31028		HOPE NAT GAS	-80.6228	39.6575		1365.0000	-1968.0000	3453.00
471031033	OIL	1/15/1903	LOWER HURON SHALE	31033		WILLIAM MOSES	-80.6263	39.6572		1377.0000	-1967.0000	3134.00
471031084	OIL		LOWER HURON SHALE	31084		OPER IN MINLOWN	-80.6278	39.6722		1310.0000	-1815.0000	3125.00
471031147	O&G	7/5/1904		31147		QUAKER STATE	-80.6161	39.6492		1468.0000	-1939.0000	3407.00

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Topo Quad: Littleton

Scale: 1"=1000'

County: Wetzel

Date: January 25, 2021

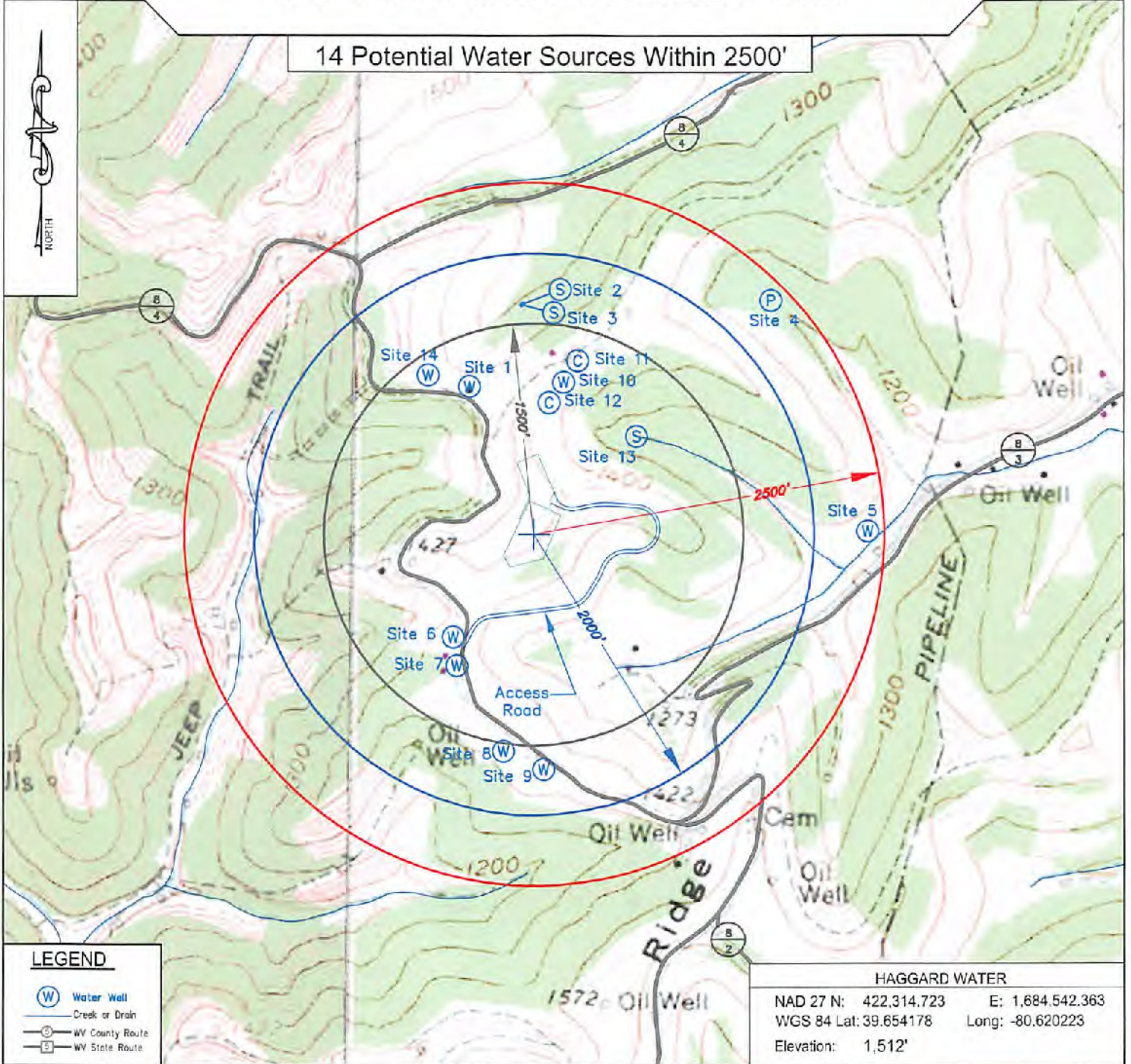
District: Center

Project NO: \_\_\_\_\_

# HAGGARD WELL PAD

Water

14 Potential Water Sources Within 2500'



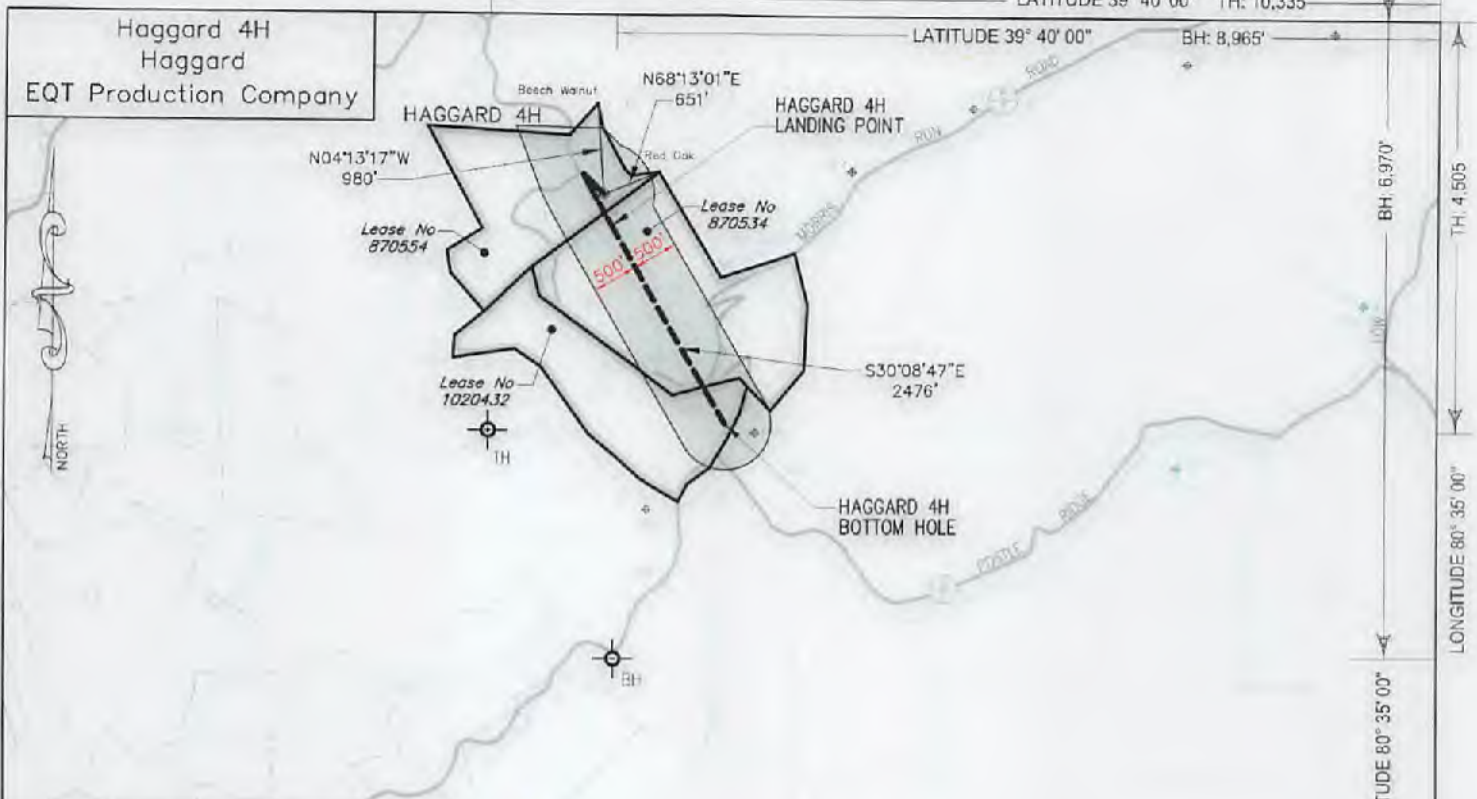
Keystone Consultants, LLC  
32 East Main Street  
Carnegie, PA 15106  
412 278-2100

Prepared For:  
EQT Production Company  
400 Woodcliff Drive  
Canonsburg, PA 15317



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09/10/2021



- NOTES ON SURVEY**
- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
  - SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
  - THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
  - NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED OF CENTER OF PAD.
  - NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
  - NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
  - NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

- LEGEND**
- (Symbol) 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.

*Thomas C. Smit*  
L. L. S. 687



FILE NO:  
DRAWING NO: Haggard 4H  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: SG-GPS (OPUS)



DATE: JUNE 10 20 21  
OPERATORS WELL NO: Haggard 4H  
API WELL NO: **464**  
47 - 103 - **03430**  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION ELEVATION: 1512' WATERSHED: LOWER WEST VIRGINIA FORK FISH CREEK QUADRANGLE: LITTLETON  
DISTRICT: Center COUNTY: Wetzel

SURFACE OWNER: Amie Lee Henderson ACREAGE: 45.5 ±  
ROYALTY OWNER: Amie Lee Henderson, et al. LEASE NO: 870554 ACREAGE: 1.16

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

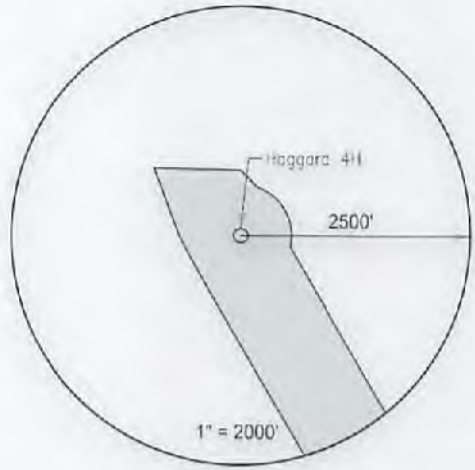
PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,592'

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

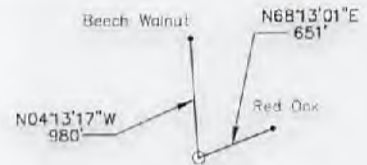
Haggard 4H  
Haggard  
EQT Production Company

Tract ID	Tax Map No	Parcel No.	County	District	Surface Tract Owner	Acres
1	10	36.0	Wetzel	Center	Amie Lee Henderson	45.50
2	10	36.0	Wetzel	Center	Charles & La Mae Musgrave	14.00
3	10	17.0	Wetzel	Center	Donald Neal Crane	40.00
4	10	27.0	Wetzel	Center	Scott L. Musgrave & Charles & La Mae Musgrave	35.00
5	10	35.0	Wetzel	Center	Sharon J. McMillen	82.00
6	10	51.0	Wetzel	Center	Sharon J. McMillen	10.00
7	10	37.0	Wetzel	Center	Amie Lee Henderson	14.50
8	10	38.1	Wetzel	Center	David A & Mary A Morris	2.08
9	10	38.0	Wetzel	Center	Rusty Lee Morris	43.92
10	10	39.0	Wetzel	Center	Rusty Lee Morris	25.12
11	10	54.0	Wetzel	Center	Ronnie & Yvonne MWade	66.79
12	10	53.0	Wetzel	Center	Wilma Morris	24.10
13	10	52.2	Wetzel	Center	John G Miller	3.02
14	10	49.0	Wetzel	Center	Sharon J. McMillen	33.00
15	14	5.0	Wetzel	Center	Coastal Forest Resources Co	56.15
16	10	52.1	Wetzel	Center	Rusty Lee Morris	3.48
17	14	6.0	Wetzel	Center	John W Furlong	29.70
18	14	19.0	Wetzel	Center	Eugene Arnold Postlethwait	132.68
19	10	52.0	Wetzel	Center	John G Miller EIAL	59.50
20	14	8.0	Wetzel	Center	Joan E & Arthur Miller	20.86
21	10	30.1	Wetzel	Center	John & Ruth A Reilly	26.00

Lease	Owner	Acres
870554	Amie Lee Henderson, et al.	45.5
870534	Goldie Poole, et al.	95.7
1020432	John G. Miller, et al.	55.5



Well References



1" = 1500' HAGGARD 4H

Notes:

HAGGARD 4H coordinates are

NAD 27 N: 422,366.002 E: 1,584,574.814  
 NAD 27 Lat: 39.654239 Long: -80.619972  
 NAD 83 UTM N: 4,389,460.196 E: 532,590.256

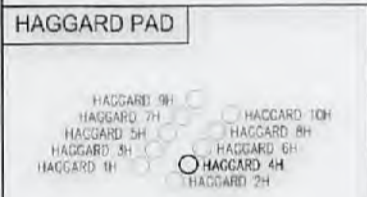
HAGGARD 4H Landing Point coordinates are

NAD 27 N: 422,023.990 E: 1,684,662.761  
 NAD 27 Lat: 39.653303 Long: -80.619972  
 NAD 83 UTM N: 4,389,356.447 E: 532,618.786

HAGGARD 4H Bottom Hole coordinates are

NAD 27 N: 419,882.581 E: 1,685,906.463  
 NAD 27 Lat: 39.647486 Long: -80.615461  
 NAD 83 UTM N: 4,388,710.381 E: 533,008.567

West Virginia Coordinates 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.



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.

*Thomas C. Smit*  
L. L. S. 687



FILE NO:  
DRAWING NO: Haggard 4H  
SCALE: 1" = 1000'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: JUNE 10 20 21  
OPERATORS WELL NO: Haggard 4H  
API WELL NO: 464  
47 - 103 - 03430  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION ELEVATION: 1512' WATERSHED: LOWER WEST VIRGINIA FORK FISH CREEK QUADRANGLE: LITTLETON  
 DISTRICT: Center COUNTY: Wetzel

SURFACE OWNER: Amie Lee Henderson ACREAGE: 45.5 ±  
 ROYALTY OWNER: Amie Lee Henderson, et al. LEASE NO: 870554 ACREAGE: 45.5 ±

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: 7,592'

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

09/10/2021



WW-6A1  
(5/13)

Operator's Well No. Haggard 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
870554	See Attached			

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

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

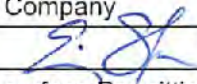
- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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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: Erin Spine   
 Its: Supervisor - Subsurface Permitting

4710303430

WW-6A1 attachment

Operator's Well No.

Haggard #4H

Lease No.	Grantor, Lessor, etc.	Acres	Grantee, Lessee, etc.	Royalty	
<u>870554</u>	<u>Amie Lee Henderson, et al.</u> Amie Lee Henderson, a married woman dealing in her sole and separate property	45.5 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 215A/785
<u>870534</u>	<u>Goldie Poole, et al.</u> Goldie Poole, a single woman	95.7 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 183A/894
<u>1020432</u>	<u>John G. Miller, et al.</u> John G. Miller, a married man dealing in his sole and separate property	55.495 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 192A/811

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 JUL 06 2021  
 WV Department of  
 Environmental Protection

4710303430



EQT PRODUCTION COMPANY  
400 Woodcliff Drive | Canonsburg, PA 15317

June 29, 2021

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

Re: Haggard 4H Gas Well  
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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WV Department of  
Environmental Protection

09/10/2021

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

Date of Notice Certification: 7/1/2021

API No. 47- 103 - 03430  
Operator's Well No. 4H \_\_\_\_\_  
Well Pad Name: Haggard

**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>532590.256</u>
County: <u>Wetzel</u>		Northing: <u>4389460.196</u>
District: <u>Center</u>	Public Road Access: <u>CR 8/2</u>	
Quadrangle: <u>Littleton</u>	Generally used farm name: <u>Haggard</u>	
Watershed: <u>Lower West Virginia Fork Fish 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		<b>OOG OFFICE USE ONLY</b>
<input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED		<input type="checkbox"/> RECEIVED/ NOT REQUIRED
<input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED		<input type="checkbox"/> RECEIVED
<input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or  <input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)		<input type="checkbox"/> RECEIVED/ NOT REQUIRED
<input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION		<input type="checkbox"/> RECEIVED
<input checked="" type="checkbox"/> 5. PUBLIC NOTICE		<input type="checkbox"/> RECEIVED
<input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION		<input type="checkbox"/> 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 notified 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.

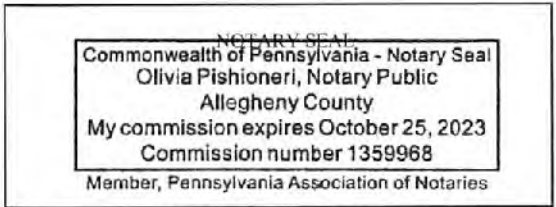
RECEIVED  
Office of Oil and Gas  
JUL 06 2021  
WV Department of  
Environmental Protection  
**09/10/2021**

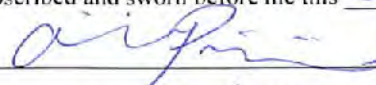
WW-6AC  
(1/12)

**Certification of Notice is hereby given:**

THEREFORE, I Erin Spine, 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>Erin Spine</u> 		<u>Canonsburg, PA 15317</u>
Its:	<u>Supervisor - Subsurface Permitting</u>	Facsimile:	<u>412-395-2974</u>
Telephone:	<u>724-809-5469</u>	Email:	<u>espine@eqt.com</u>



Subscribed and sworn before me this 2<sup>nd</sup> day of July, 2021.  
  
 \_\_\_\_\_ 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](mailto: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:** 7/11/21 **Date Permit Application Filed:** 7/21/21

**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: \_\_\_\_\_

COAL OWNER OR LESSEE  
Name: See Attached List  
Address: \_\_\_\_\_  
 COAL OPERATOR  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Road and/or Other Disturbance)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)  
Name: See Attached List  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Impoundments or Pits)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\*Please attach additional forms if necessary

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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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/and-jms/pages/default.aspx](http://www.dep.wv.gov/and-jms/pages/default.aspx).

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**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 one 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

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

**Water Well Testing:**

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

**Water Testing Laboratories:**

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

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

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

**Written Comment:**

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

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

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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.**



**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 - 03430  
OPERATOR WELL NO. 4H  
Well Pad Name: Haggard

**Notice is hereby given by:**

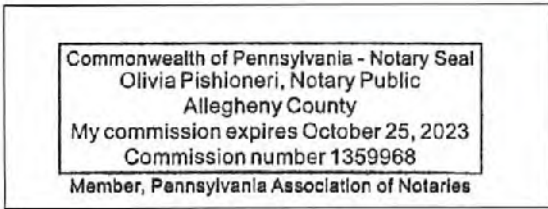
Well Operator: EQT Production Company  
Telephone: 724-809-5489  
Email: espine@eqt.com



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 [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).



Subscribed and sworn before me this 2<sup>nd</sup> day of July, 2021.  
[Signature] Notary Public  
My Commission Expires October 25, 2023

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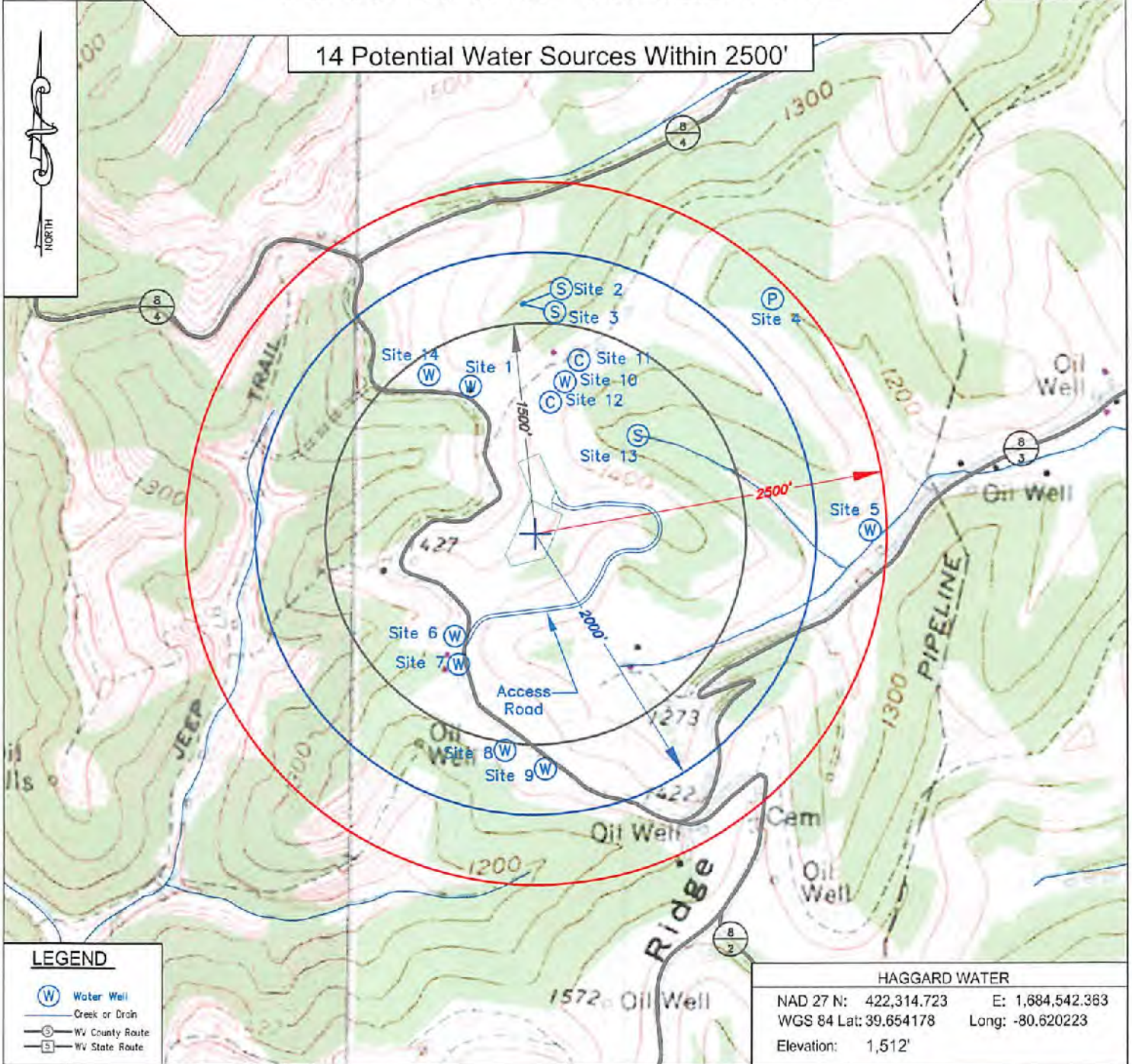
Topo Quad: Littleton  
 County: Wetzel  
 District: Center

Scale: 1"=1000'  
 Date: January 25, 2021  
 Project NO: \_\_\_\_\_

# HAGGARD WELL PAD

Water

14 Potential Water Sources Within 2500'



**LEGEND**

- W Water Well
- Creek or Drain
- S WV County Route
- P WV State Route

**HAGGARD WATER**

NAD 27 N: 422,314.723      E: 1,684,542.363  
 WGS 84 Lat: 39.654178      Long: -80.620223  
 Elevation: 1,512'



Keystone Consultants, LLC  
 32 East Main Street  
 Carnegie, PA 15106  
 412 278-2100

Prepared For:  
 EQT Production Company  
 400 Woodcliff Drive  
 Canonsburg, PA 15317



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 EQT PRODUCTION COMPANY  
 400 WOODCLIFF DRIVE  
 CANONSBURG, PA 15317

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## Haggard

4710303430

### Surface Owner (All Disturbance):

Amie Lee Henderson  
470 Travis Drive  
Bridgeport, WV 26330

### Water Supply Owners within 1,500'

Charles & Ila Mae Musgrave  
5050 Postlethwait Ridge Rd,  
Wileyville, WV 26581

David A & Mary A Morris  
4459 Postlethwait PDG Road,  
Wileyville, WV 26581

### Coal Owners

Consol RCPC LLC  
1000 Consol Energy Drive  
Canonsburg, PA 15317

Blackrock Enterprises, LLC  
PO Box 342  
Salem, WV 26424

Amie Lee Henderson  
470 Travis Drive  
Bridgeport, WV 26330

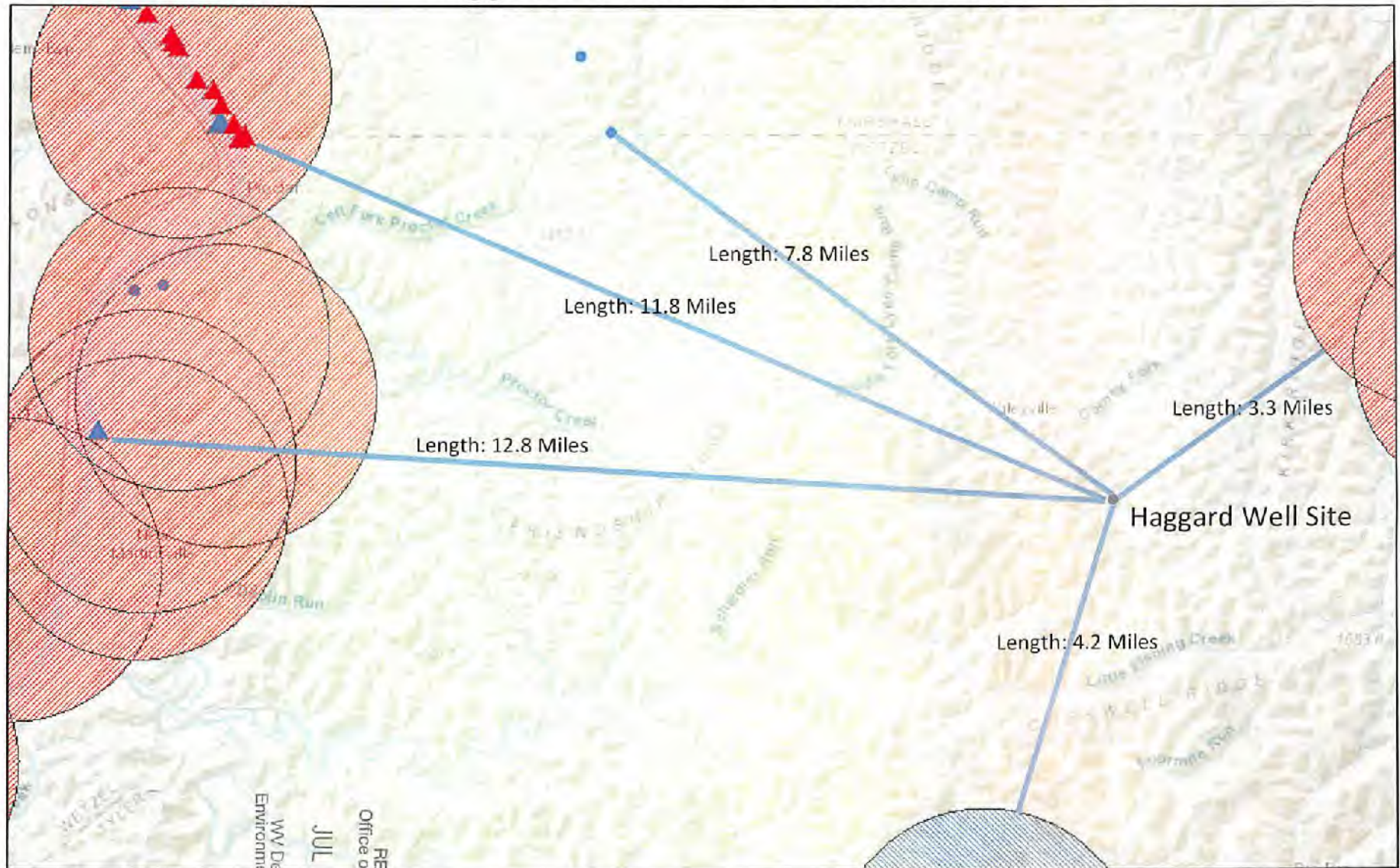
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# Haggard Well Site Water Resources



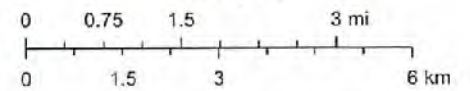
6/21/2021, 12:11:26 PM

-  Surface Water Intake (public water supply)
-  Groundwater Intake (public water supply)
-  Surface Water Intake (non-public water supply)

-  Groundwater Intake (non-public water supply)
-  Documented Springs

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1:144,448



West Virginia GIS, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

West Virginia GIS, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS | see layers |  
 Web App Builder for ArcGIS



### Table 1 - Water Source Identification

EQT Well Pad Name:	Haggard (4H)	Submittal Date:	1/15/2021
EQT Well Number:			
Survey/Engineering Company:	Keystone Consultants, LLC.		

Site Number:	1	<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 3rd party pre-drill sampling lab)</small>
Distance from Gas Well (Ft):	1191±	
Surface Owner/ Occupant:	Charles & Ila Mae Musgrave	
Address:	5050 Postlethwait Ridge Rd, Wileyville, WV 26581	
Phone #:	304-775-2392	
Field Located Date:	11/2/2020	
Owner Home during Survey (Y/N)	No	
Coordinates: (decimal degrees NAD83)	39.657040, -80.621911	
Contact Attempts (Date):	1st: 8/25/2020    2nd: 10/30/2020    Door Hanger Left:	
Comments:	WATER WELL - Located about 81 ft. from road. Certified mail sent 7/23/2020. Field visit 11/02/2020.	

Site Number:	2	<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 3rd party pre-drill sampling lab)</small>
Distance from Gas Well (Ft):	1678±	
Surface Owner/ Occupant:	Charles & Ila Mae Musgrave	
Address:	5050 Postlethwait Ridge Rd, Wileyville, WV 26581	
Phone #:	304-775-2392	
Field Located Date:	11/2/2020	
Owner Home during Survey (Y/N)	Yes	
Coordinates: (decimal degrees NAD83)	39.658674, -80.620565	
Contact Attempts (Date):	1st: 8/25/2020    2nd: 10/30/2020    Door Hanger Left:	
Comments:	SPRING - Located near spring holding tank. Certified mail sent 7/23/2020. Field visit 11/02/2020.	

Site Number:	3	<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 3rd party pre-drill sampling lab)</small>
Distance from Gas Well (Ft):	1671±	
Surface Owner/ Occupant:	Charles & Ila Mae Musgrave	
Address:	5050 Postlethwait Ridge Rd, Wileyville, WV 26581	
Phone #:	304-775-2392	
Field Located Date:	11/2/2020	
Owner Home during Survey (Y/N)	Yes	
Coordinates: (decimal degrees NAD83)	39.658652, -80.620613	
Contact Attempts (Date):	1st: 8/25/2020    2nd: 10/30/2020    Door Hanger Left:	
Comments:	SPRING HOLDING TANK - Near spring. Certified mail sent 7/23/2020. Field visit 11/02/2020.	

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Site Number:	4	<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 3rd party pre-drill sampling lab)</small>
Distance from Gas Well (Ft):	2377±	
Surface Owner/ Occupant:	Calvin T Jr. & Monica L Morris	
Address:	711 Morris Run Road, Wileyville, WV 26581	
Phone #:	304-775-2029	
Field Located Date:	1/11/2021	
Owner Home during Survey (Y/N)	Yes	
Coordinates: (decimal degrees NAD83)	39.658803, -80.614285	
Contact Attempts (Date):	1st: 8/25/2020 2nd: Door Hanger Left:	
Comments:	POND - Certified mail sent 7/23/2020. Field visit 1/11/2021.	

Site Number:	5	<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 3rd party pre-drill sampling lab)</small>
Distance from Gas Well (Ft):	2352±	
Surface Owner/ Occupant:	Calvin T Jr. & Monica L Morris	
Address:	711 Morris Run Road, Wileyville, WV 26581	
Phone #:	304-775-2029	
Field Located Date:	1/11/2021	
Owner Home during Survey (Y/N)	Yes	
Coordinates: (decimal degrees NAD83)	39.654314, -80.611764	
Contact Attempts (Date):	1st: 8/25/2020 2nd: 1/8/2021 Door Hanger Left:	
Comments:	WATER WELL - Certified mail sent 7/23/2020. Field visit 01/11/2021.	

Site Number:	6	<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 3rd party pre-drill sampling lab)</small>
Distance from Gas Well (Ft):	924±	
Surface Owner/ Occupant:	David A & Mary A Morris	
Address:	4459 Postlethwait PDG Road, Wileyville, WV 26581	
Phone #:	304-775-4301	
Field Located Date:	8/27/2020	
Owner Home during Survey (Y/N)	Yes	
Coordinates: (decimal degrees NAD83)	39.652150, -80.622240	
Contact Attempts (Date):	1st: 8/25/2020 2nd: Door Hanger Left:	
Comments:	WATER WELL - Located about 85 ft. from road. Certified mail sent 7/23/2020. Field visit 08/27/2020/.	

Site Number:	7	<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 3rd party pre-drill sampling lab)</small>
Distance from Gas Well (Ft):	1070±	
Surface Owner/ Occupant:	David A & Mary A Morris	
Address:	4459 Postlethwait PDG Road, Wileyville, WV 26581	
Phone #:	304-775-4301	
Field Located Date:	8/27/2020	
Owner Home during Survey (Y/N)	Yes	
Coordinates: (decimal degrees NAD83)	39.651594, -80.622136	
Contact Attempts (Date):	1st: 8/25/2020 2nd: Door Hanger Left:	
Comments:	WATER WELL - Located about 54 ft. from road. Certified mail sent 7/23/2020. Field visit 08/27/2020.	

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Site Number:	8			<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 3rd party pre-drill sampling lab)</small>
Distance from Gas Well (Ft):	1528±			
Surface Owner/ Occupant:	John G. Miller, et al			
Address:	4337 Postlethwait Ridge Rd, Wileyville, WV 26581			
Phone #:	304-775-5373			
Field Located Date:	1/11/2021			
Owner Home during Survey (Y/N)	Yes			
Coordinates: (decimal degrees NAD83)	39.649936, -80.620934			
Contact Attempts (Date):	1st: 8/25/2020	2nd:	Door Hanger Left:	
Comments:	WATER WELL - Located about 150 ft. from road. Certified mail sent 7/23/2020. Field visit 01/11/2021.			

Site Number:	9			<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 3rd party pre-drill sampling lab)</small>
Distance from Gas Well (Ft):	1636±			
Surface Owner/ Occupant:	John G. Miller			
Address:	4337 Postlethwait Ridge Rd, Wileyville, WV 26581			
Phone #:	304-775-5373			
Field Located Date:	1/11/2021			
Owner Home during Survey (Y/N)	Yes			
Coordinates: (decimal degrees NAD83)	39.649592, -80.619899			
Contact Attempts (Date):	1st: 8/25/2020	2nd: 1/8/2021	Door Hanger Left:	
Comments:	WATER WELL - Located about 70 ft. from road. Certified mail sent 7/23/2020. Field visit 1/11/2021.			

Site Number:	10			<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 3rd party pre-drill sampling lab)</small>
Distance from Gas Well (Ft):	±			
Surface Owner/ Occupant:	Donald Neal Crane			
Address:	Postlethwait Ridge Rd Littleton, WV 26581			
Phone #:	234-567-0889			
Field Located Date:				
Owner Home during Survey (Y/N)				
Coordinates: (decimal degrees NAD83)				
Contact Attempts (Date):	1st: 8/25/2020	2nd: 1/8/2021	Door Hanger Left:	
Comments:	WATER WELL - 1 Water well. Not field located. Landowner listed 5 springs on Questionnaire. They were not field located. Certified mail sent 7/23/2020.			

Site Number:	11			<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 3rd party pre-drill sampling lab)</small>
Distance from Gas Well (Ft):	±			
Surface Owner/ Occupant:	Scott L Musgrave & Charles & Ila Musgrave			
Address:	5050 Postlethwait Ridge Rd, Wileyville, WV 26581			
Phone #:	304-775-2392			
Field Located Date:				
Owner Home during Survey (Y/N)				
Coordinates: (decimal degrees NAD83)	39.656092, -80.617445			
Contact Attempts (Date):	1st: 8/25/2020	2nd: 1/8/2021	Door Hanger Left:	
Comments:	STREAM - Certified mail sent 7/23/2020. Not Field Located, Taken From Aerial			

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 WV Department of  
 Environmental Protection  
 09/10/2021



WW-6A4  
(1/12)

Operator Well No. Haggard 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:** 06/11/2021 **Date Permit Application Filed:** 7/2/21

**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: Amie Lee Henderson ✓ Name: \_\_\_\_\_  
Address: 326 Ridgeway Dr Address: \_\_\_\_\_  
Bridgeport, WV 26330

**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>532590.256</u> ✓
County:	<u>Wetzel</u> ✓		Northing:	<u>4389460.196</u> ✓
District:	<u>Center</u> ✓	Public Road Access:	<u>CR 8/2</u>	
Quadrangle:	<u>Littleton</u> ✓	Generally used farm name:	<u>Haggard</u> ✓	
Watershed:	<u>Lower West Virginia Fork Fish 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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Notice is hereby given by:**

Well Operator:	<u>EQT Production Company</u>	Authorized Representative:	<u>Erin Spine</u>
Address:	<u>400 Woodcliff Drive</u>	Address:	<u>400 Woodcliff Drive</u>
	<u>Canonsburg, PA 15317</u>		<u>Canonsburg, PA 15317</u>
Telephone:	<u>724-809-5469</u>	Telephone:	<u>724-809-5469</u>
Email:	<u>espine@eqt.com</u>	Email:	<u>espine@eqt.com</u>
Facsimile:	<u>412-395-2974</u>	Facsimile:	<u>412-395-2974</u>

**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](mailto:depprivacyofficer@wv.gov).

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WW-6A5  
(1/12)

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

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

**Date of Notice:** 07/01/2021      **Date Permit Application Filed:** 7/2/21

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

CERTIFIED MAIL                       HAND  
RETURN RECEIPT REQUESTED              DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

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

(at the address listed in the records of the sheriff at the time of notice):

Name: Amia Lee Henderson ✓

Address: 470 Travis Drive

Bridgeport, WV 26330

Name: \_\_\_\_\_

Address: \_\_\_\_\_

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on 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>532590.256</u> ✓
County:	<u>Wetzel</u> ✓		Northing:	<u>4389480.196</u> ✓
District:	<u>Center</u> ✓	Public Road Access:		<u>CR 8/2</u>
Quadrangle:	<u>Littleton</u> ✓	Generally used farm name:		<u>Haggard</u> ✓
Watershed:	<u>Lower West Virginia Fork Fish Creek</u> ✓			

**This Notice Shall Include:**

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Well Operator: FQT Production Company  
Telephone: 724-809-5469  
Email: espine@fqt.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 [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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4710303430

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

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

June 16, 2021 ✓

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

Subject: DOH Permit for the Haggard Pad, Wetzel County ✓  
Haggard 4H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2021-0206 which has been issued to EQT Production Company for access to the State Road for a well site located off Wetzel County Route 8/2 SLS MP 0.80.

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: Olivia Wilson  
EQT Production Company  
CH, OM, D-6  
File

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09/10/2021

4710303430

**Anticipated Frac Additives  
Chemical Names and CAS Numbers**

<u>Material</u>	<u>Ingredient</u>	<u>CAS Number</u>
Sand (Proppant)	Silica Substrate	14808-60-7
Water	Water	7732-18-5
Hydrochloric Acid (HCl)	Hydrogen Chloride	7647-01-0
Friction Reducer	Copolymer of 2-propenamide	Proprietary
	Petroleum Distillate	64742-47-8
	Oleic Acid Diethanolamide	93-83-4
	Alcohols, C12-16, ethoxylated	68551-12-2
	Ammonium chloride ((NH4)Cl)	12125-02-9
Biocide	Glutaraldehyde	111-30-8
	Alkyl dimethyl benzyl ammonium chloride	68391-01-5
	Didecyl dimethyl ammonium chloride	7173-51-5
	Non-hazardous substances	Proprietary
Scale Control	Bis(HexaMethylene Triamine Penta(Methylene Phosphonic Acid)(BHMT)	34690-00-1
	Non-hazardous substances	Proprietary
Acid Chelating Agent	Citric Acid	77-92-9
Corrosion Inhibitor	Methanol	67-56-1
	pyridinium, 1-(phenylmethyl)-, ethyl methyl derivs., chlorides	68909-18-2
	Nonoxynol-9	127087-87-0
	2-ethyl-1-hexanol	104-76-7
	4-nonylphenyl, ethoxylated	26027-38-3

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# HAGGARD WELL SITE CENTER DISTRICT, WETZEL COUNTY, WV APRIL 2021



TWO WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR MUST CONTACT THE WV ONE CALL SYSTEM, INC., 1-800-245-4848 (WV ONE CALL TICKET #2005785596)

OWNER



EQT PRODUCTION COMPANY  
400 WOODCLIFF DRIVE  
CANDLERBURG, PA 15317



SHEET INDEX

1. TITLE SHEET
- 2-3. EVACUATION ROUTE/PREVAILING WIND
4. E&S CONTROL LAYOUT OVERVIEW
- 5-6. E&S CONTROL LAYOUT
7. E&S CONTROL AND SITE PLAN OVERVIEW
- 8-9. E&S CONTROL AND SITE PLAN
10. WELL PAD PROFILES
11. ACCESS ROAD PROFILE
- 12-15. ACCESS ROAD CROSS SECTIONS
- 16-19. DETAILS
20. RECLAMATION PLAN OVERVIEW
- 21-22. RECLAMATION PLAN

TOTAL LIMITS OF DISTURBANCE: 15.24 AC  
ACCESS ROAD DISTURBANCE AREA: 6.40 AC  
WELL PAD DISTURBANCE AREA: 8.84 AC

PROPERTY PROJECT BOUNDARY ACREAGE  
KSH LEE HENDERSON (TAX MAP AND PARCEL ID: 10-361-15-24-8)

PLANS PREPARED BY:  
**BOORD BENCHEK & ASSOCIATES, INC.**  
ENGINEERING SURVEYING, CONSTRUCTION AND MINING SERVICES  
SOUTHPOINTE, PA 15317 PHONE: 724-746-1055

*Boord Benchek*  
6-23-21



ANDREW BENCHEK  
P.E.



WELL HEADS

UTM (NAD83) ZONE 17 METERS			
11	21		
N: 4185459.242	N: 4185456.698		
E: 532587.019	E: 532587.151		
11			
N: 4185463.275	N: 4185460.516		
E: 532587.925	E: 532590.205		
21			
N: 4185466.883	N: 4185463.724		
E: 532589.827	E: 532593.102		
74			
N: 4185470.331	N: 4185467.252		
E: 532589.715	E: 532590.697		
104			
N: 4185473.850	N: 4185470.280		
E: 532592.680	E: 532598.973		

COORDINATES

CENTER OF PAD  
(NAD 83)  
LAT: 39 65 44.20"  
LONG: 80 62 02.09"  
(NAD 27)  
LAT: 39 65 40.69"  
LONG: 80 62 04.62"

SITE ENTRANCE  
(NAD 83)  
LAT: 39 65 27.91"  
LONG: 80 62 21.02"  
(NAD 27)  
LAT: 39 65 19.55"  
LONG: 80 62 21.31"



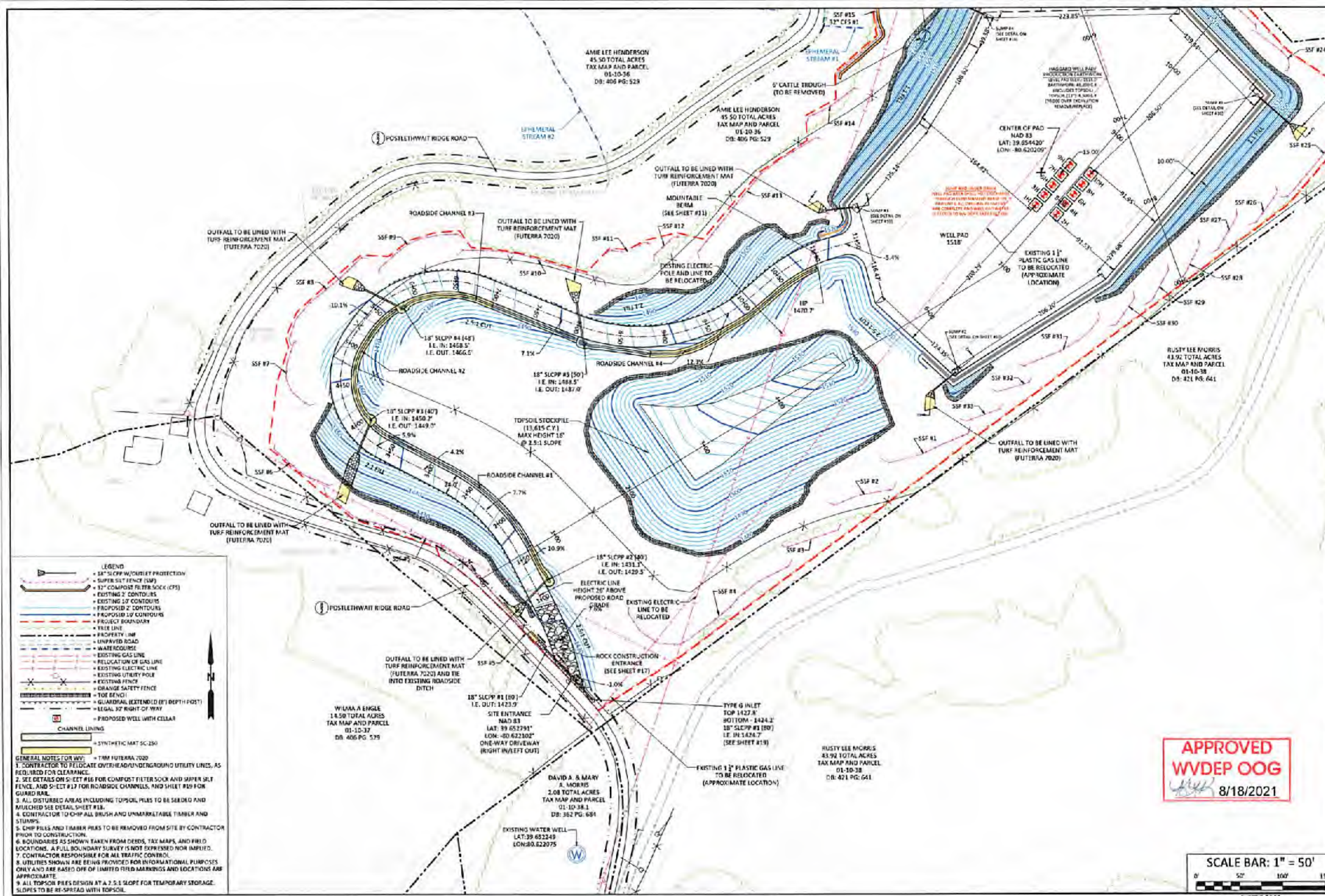
IN ACCORDANCE WITH WV 35 CSR 8  
THE FOLLOWING EROSION & SEDIMENT CONTROL PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES ESTABLISHED BY THE CHIEF AND PROVIDED IN THE OFFICE'S EROSION AND SEDIMENT CONTROL 4-180 MANUAL. A GENERAL CONSTRUCTION SEQUENCE, DESCRIPTION OF STABILIZATION METHODS, AND DETAILS & SPECIFICATIONS FOR EROSION & SEDIMENT CONTROL MANAGEMENT PRACTICES HAVE BEEN INCLUDED IN THE PROVIDED DETAIL SHEETS.

NO.	RELATIONS

TITLE SHEET  
HAGGARD WELL SITE  
CENTER DISTRICT, WETZEL COUNTY, WV

SHEET  
1  
OF  
22

1"=1000'



**LEGEND**

- 34" CPW/OUTLET PROTECTION
- SUPER SILT FENCE (SSF)
- 32" COMPOST FILTER SOCK (CFS)
- EXISTING 2" CONTOURS
- EXISTING 10" CONTOURS
- PROPOSED 2" CONTOURS
- PROPOSED 10" CONTOURS
- PROJECT BOUNDARY
- TREE LINE
- PROPERTY LINE
- UNPAVED ROAD
- WATER COURSE
- EXISTING GAS LINE
- RELOCATED GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING UTILITY POLE
- EXISTING FENCE
- ORANGE SAFETY FENCE
- TOE BENCH
- GUARDRAIL (EXTENDED 18" DEPTH POST)
- LEGAL 32' RIGHT OF WAY
- PROPOSED WELL WITH CELLAR

**CHANNEL LINING**

- SYNTHETIC MAT SC-250

**GENERAL NOTES FOR WY:** = TRM FUTERRA 7020

- CONTRACTOR TO FIELD-CARE OVERHEAD/UNDERGROUND UTILITY LINES, AS REQUIRED FOR CLEARANCE.
- SEE DETAILS ON SHEET #16 FOR COMPOST FILTER SOCK AND SUPER SILT FENCE, AND SHEET #17 FOR ROADSIDE CHANNELS, AND SHEET #18 FOR GUARD RAIL.
- ALL DISTURBED AREAS INCLUDING TOPSOIL PILES TO BE SEEDED AND MULCHED SEE DETAIL SHEET #18.
- CONTRACTOR TO CHIP ALL BRUSH AND UNMARKETABLE TIMBER AND STUMPS.
- CHIP PILES AND TIMBER PILES TO BE REMOVED FROM SITE BY CONTRACTOR PRIOR TO CONSTRUCTION.
- BOUNDARIES AS SHOWN TAKEN FROM DEEDS, TAX MAPS, AND FIELD LOCATIONS. A FULL BOUNDARY SURVEY IS NOT EXPRESSED NOR IMPLIED.
- CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC CONTROL.
- UTILITIES SHOWN ARE BEING PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND ARE BASED OFF OF UNMARKED FIELD MARKINGS AND LOCATIONS ARE APPROXIMATE.
- ALL TOPSOIL PILES DESIGN AT A 2.5:1 SLOPE FOR TEMPORARY STORAGE. SLOPES TO BE RE-SPRIG WITH TOPSOIL.

**BOARD, BENCHEK and ASSOC., INC.**  
 Engineering, Surveying, Construction,  
 and Mining Services  
 Southpointe, PA 15317 Phone: 724-746-1055

**E&S CONTROL AND SITE PLAN**

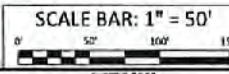
THIS DOCUMENT WAS PREPARED BY:  
 BOARD, BENCHEK AND ASSOC., INC.  
 FOR: EQT PRODUCTION COMPANY

DATE:  
 APRIL 2021

HAGGARD WELL SITE  
 CENTER DISTRICT,  
 WETZEL COUNTY, WV

NO.	DATE	DESCRIPTION

**APPROVED**  
**WVDEP OOG**  
 8/18/2021



**APPROVED**  
**WVDEP OOG**  
*[Signature]*  
 8/18/2021

**LEGEND**

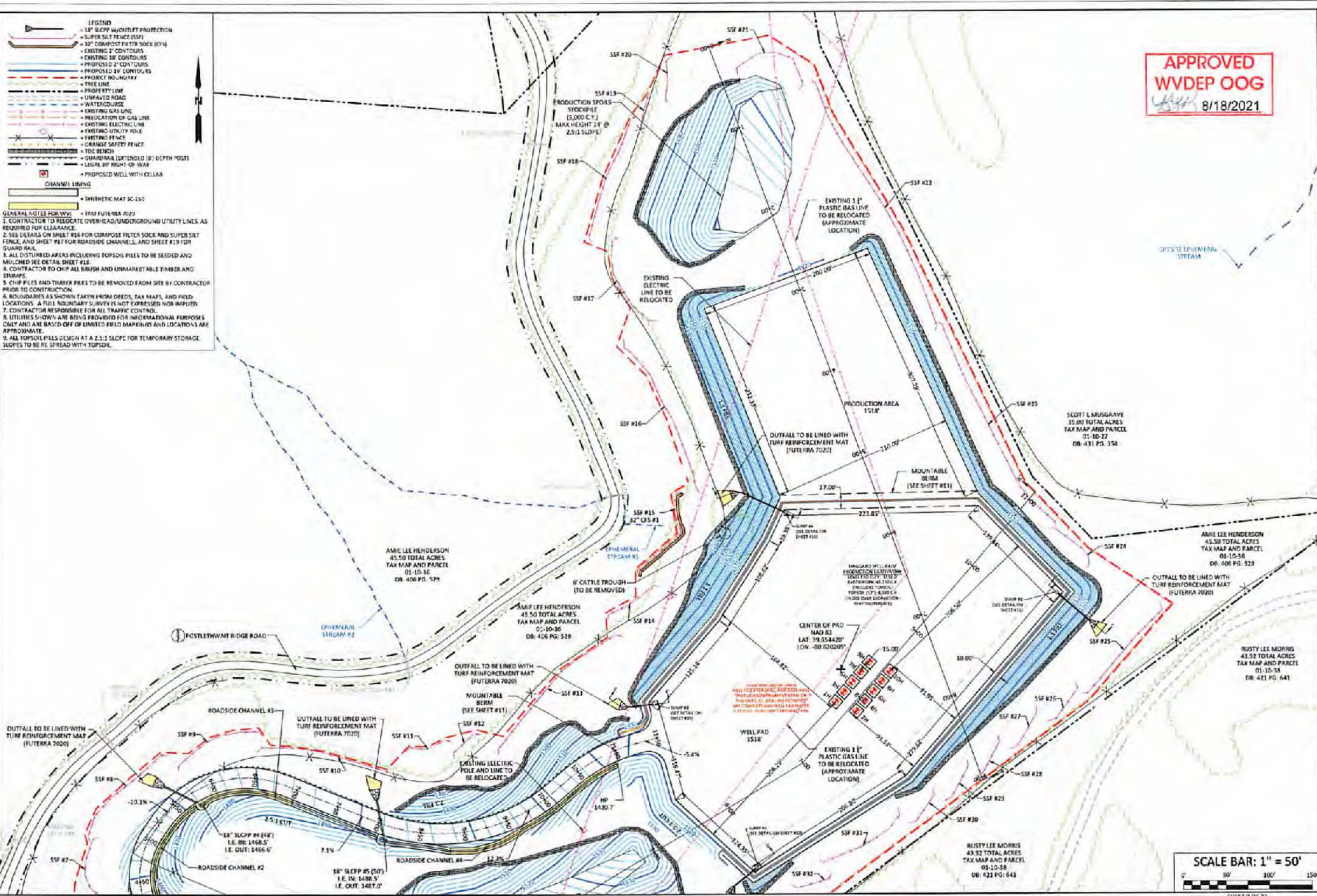
- 18" SLCCP W/OUTLET PROTECTION
- 5" PER SILT FENCE (SSF)
- 32" COMPOST FILTER SOCK (CFS)
- EXISTING 2" CONTOURS
- EXISTING 10" CONTOURS
- PROPOSED 2" CONTOURS
- PROPOSED 10" CONTOURS
- PROJECT BOUNDARY
- TRAIL LINE
- PRIDE STRY LINE
- UNPAVED ROAD
- WATERCOURSE
- EXISTING GAS LINE
- RELOCATION OF GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING UTILITY POLE
- ORANGE SAFETY FENCE
- TOE BEHIND
- QUADRANT (EXTENDED 10' DEPTH 7022)
- LEGAL 80' RIGHT-OF-WAY
- PROPOSED WELL WITH CELLAR

**CHANNEL LINING**

- SYNTHETIC MAT SC-250
- FRM FUTERRA 7020

**GENERAL NOTES FOR WW:**

- CONTRACTOR TO RELOCATE OVERHEAD/UNDERGROUND UTILITY LINES, AS REQUIRED FOR CLEARANCE.
- SEE DETAILS ON SHEET #106 FOR COMPOST FILTER SOCK AND SUPER SILT FENCE, AND SHEET #17 FOR ROADSIDE CHANNELS, AND SHEET #19 FOR GUARD RAIL.
- ALL DISTURBED AREAS INCLUDING TOPSOIL PILES TO BE SEEDED AND MULCHED SEE DETAIL SHEET #18.
- CONTRACTOR TO CHIP ALL BRUSH AND UNMARKETABLE TIMBER AND STRIPS.
- CHIP PILES AND TIMBER PILES TO BE REMOVED FROM SITE BY CONTRACTOR PRIOR TO CONSTRUCTION.
- BOUNDARIES AS SHOWN TAKEN FROM DEEDS, TAX MAPS, AND FIELD LOCATIONS. A FULL BOUNDARY SURVEY IS NOT EXPRESSED NOR IMPLIED.
- CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC CONTROL.
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- ALL TOPSOIL PILES DESIGN AT A 2.5:1 SLOPE FOR TEMPORARY STORAGE. SLOPES TO BE RE SPREAD WITH TOPSOIL.



**E&S CONTROL AND SITE PLAN**

**BOARD, BENCHEK and ASSOC., INC.**  
 Engineering, Surveying, Construction,  
 and Mining Services  
 Southpointe, PA 15317 Phone: 724-746-1055

THIS DOCUMENT WAS PREPARED BY:  
**BOARD, BENCHEK and ASSOC., INC.**  
 FOR: EQT PRODUCTION COMPANY

DATE:  
 APRIL 2021  
 HAGGARD WELL SITE  
 CENTER DISTRICT,  
 WETZEL COUNTY, WV

NO.	DATE	DESCRIPTION

