



west virginia department of environmental protection

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)

Monday, October 31, 2022  
WELL WORK PERMIT  
Horizontal 6A / New Drill

EQT PRODUCTION COMPANY  
625 LIBERTY AVE., SUITE 1700

PITTSBURGH, PA 15222

Re: Permit approval for Haggard 14 H  
47-103-03531-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0450.

James A. Martin  
Chief

A blue ink signature of James A. Martin, written in a cursive style, is positioned above the printed name and title.

Operator's Well Number: Haggard 14 H  
Farm Name: Amie Lee Henderson  
U.S. WELL NUMBER: 47-103-03531-00-00  
Horizontal 6A: New Drill  
Date Issued: 10/31/2022

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11/04/2022

## PERMIT CONDITIONS

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

### CONDITIONS

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

## 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).



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: 14H Well Pad Name: Haggard

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

4) Elevation, current ground: 1,512' Elevation, proposed post-construction: 1,512'

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

Other \_\_\_\_\_

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

Horizontal  \_\_\_\_\_

6) Existing Pad: Yes or No Yes - Currently Under Construction

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus, 7,618', 47', 2,620 psi

8) Proposed Total Vertical Depth: 6,898'

9) Formation at Total Vertical Depth: Elks

10) Proposed Total Measured Depth: 7,247'

11) Proposed Horizontal Leg Length: 0'

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: 1,317'-1,320'; 1,415'-1,420'

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

(a) If Yes, provide Mine Info: Name: \_\_\_\_\_  
Depth: \_\_\_\_\_  
Seam: \_\_\_\_\_  
Owner: \_\_\_\_\_

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**CASING AND TUBING PROGRAM**

<b>TYPE</b>	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	26	New	A252 GR3	85.6	40	40	50 ft <sup>3</sup> / CTS
Fresh Water	13 3/8	New	J-55	54.5	1470	1470	1325 ft <sup>3</sup> / CTS
Coal							
Intermediate	9 5/8	New	J-55	36	2908	2908	1100 ft <sup>3</sup> / CTS
Production	6	New	P-110	24	7247	7247	500' above intermediate casing
Tubing							
Liners							

Kenneth Greynolds Digitally signed by Kenneth Greynolds  
 DN: cn = Kenneth Greynolds, email = Kenneth.L.Greynolds@wv.gov, c = AD, o = WVDEP DU - Oil and Gas  
 Date: 2022.09.16 14:08:15 -0400

<b>TYPE</b>	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	26	30	0.312	1000	18	Class A/L	1.04 - 1.20
Fresh Water	13 3/8	17 1/2	0.380	2730	2184	Class A/L	1.04 - 1.20
Coal							
Intermediate	9 5/8	12 3/8	0.352	3520	2816	Class A/L	1.04 - 1.20
Production	6	8 1/2	0.400	14580	11664	Class A/H/L	1.04 - 2.10
Tubing							
Liners							

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**PACKERS**

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Kind:				
Sizes:				
Depths Set:				

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

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

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

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.1%) of chemicals (including 15% Hydrochloric acid, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 10,000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 350,000 gallons of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 200,000-600,000 pounds of proppant per stage.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 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, Anti-Settling/Suspension Agent

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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.

\*Note: Attach additional sheets as needed.



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west virginia department of environmental protection

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

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

March 18, 2014

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

Re: Cement Variance Request

Dear Sir or Madam,

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

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

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

Sincerely,

James Peterson  
Environmental Resources Specialist / Permitting

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

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

**REPORT OF THE OFFICE**

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

**FINDINGS OF FACT**

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

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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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August 15, 2022

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 14H

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 2,908' 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,

John Zavatchan  
Project Specialist - Permitting

Enc.

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

<b>IN THE MATTER OF A VARIANCE FROM LEGISLATIVE RULE 35CSR8, SECTION 9.2.H.2. RELATING TO THE CEMENTING OF OIL AND GAS WELLS</b>	) ) ) ) )	<b>ORDER NO. 2016-20</b>
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**REPORT OF THE OFFICE**

In response to industry requests, the West Virginia Department of Environmental Protection, Office of Oil and Gas, has reviewed the proposed use of the Lafarge OneCem cement blend (OneCem) on the coal, intermediate and production casing strings.

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**FINDINGS OF FACT**

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1. On July 24, 2015, EQT Production Company (EQT) submitted a variance request for the use of OneCem, from Legislative Rule 35CSR8, Section 9.2.h.2.
2. Laboratory analysis submitted by EQT on July 24, 2015, indicate OneCem meets or exceeds all other specific requirements found in Legislative Rule 35CSR8, Section 9.2.h.
3. On May 13, 2016, the Office of Oil and Gas provided public notice of acceptance of public comments on the variance request. During the 30-day public comment period, no comments were received.



## CONCLUSIONS OF LAW

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

Pursuant to Legislative Rule 35CSR8, Section 14, the Chief of the Office of Oil and Gas may grant a variance from any requirement of this rule.

## ORDER

It is ordered that the Lafarge OneCem cement blend, referenced in MSDS Version 1.0 issued on April 21, 2014, is approved for use on the coal, intermediate and production casing strings for well drilling subject to the provisions of Legislative Rule 35CSR8. This approval does not apply to cementing of freshwater casing strings.

Dated this, the 20th day of July, 2016.

IN THE NAME OF THE STATE OF WEST VIRGINIA

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



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James Martin, Chief  
Office of Oil and Gas





September 28, 2022

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

Re: Class L Cement Variance Request  
Haggard 14H Well  
Center District, Wetzel County

Dear Mr. Brewer,

EQT Production Company (EQT) has been notified by our cement providers that they will no longer be providing Class A cement. As a result of this, EQT is requesting the option to utilize Class L cement, if necessary, in place of Class A cement for its cement jobs.

The variance request from Legislative Rule 35CSR8, Section 9.2.h.8, related to the use of Class L Cement, was approved by the Office of Oil and Gas on September 13, 2022. A copy of the variance is included with this request.

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 'John Zavatchan'.

John Zavatchan  
Project Specialist - Permitting

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Enc.

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**WEST VIRGINIA GEOLOGICAL PROGNOSIS**

LIT68

**Drilling Objectives:**

**Quad:**

**County:**

**Elevation:**

**Recommended Azimuth**

Marcellus

Littleton

Wetzel

**1525 KB**

Degrees

Horizontal Well

**HAGGARD**

**LIT68**

**1512 GL**

**Recommended total wellbore length:**

**Proposed Logging Suite:**

-No Pilot Hole Needed

**Coal requirements:**

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

**ESTIMATED FORMATION TOPS**

**4710302236**

**4710302647**

Formation	Top (TVD)	Base (TVD)	Lithology	Comments
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	2733	2858 Sandstone		Hydrocarbon prod/show in offset @3170,3450,3603,3650, . . .
Int. csg pt	2908			50 ft below Big Injun
Berea	3007	3248 Sandstone		
Gantz	3366	3499 Silty sand		
Fifty foot	3521	3559 Silty sand		Outside of Storage Boundary
Thirty foot	3605	3626 Silty sand		<b>oil shows in offsets, see depths above</b>
Bayard	3673	3765 Sandstone		
Upper Speechley	4117	4178 Silty sand		
Speechley	4178	4262 Silty sand		
Balltown	4262	4592 Silty sand		
Bradford	4592	5735 Silty sand		
Benson	5735	6072 Silty sand		
Alexander	6072	6531 Silty sand		
Elk	6531	7222 Silty sand		
Sonyea	7222	7349 Gray shale		
Middlesex	7349	7383 Black Shale		
Genesee	7383	7450 Gray shale interbedded		
Genesee	7450	7479 Black Shale		
Tully	7479	7501 Limestone		
Hamilton	7501	7594 Gray shale with some		
Marcellus	7594	7641 Black Shale		
-Purcell	7614	7616 Limestone		
-Cherry Valley	7626	7628 Limestone		
<b>-Lateral Zone</b>	<b>7618</b>			
Onondaga	7641	Limestone		

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**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"			1470 50' below deepest mineable coal
<b>Intermediate 1:</b>	9 5/8"			2908 50' below Big Injun
<b>Production:</b>	5 1/2"			@ TD

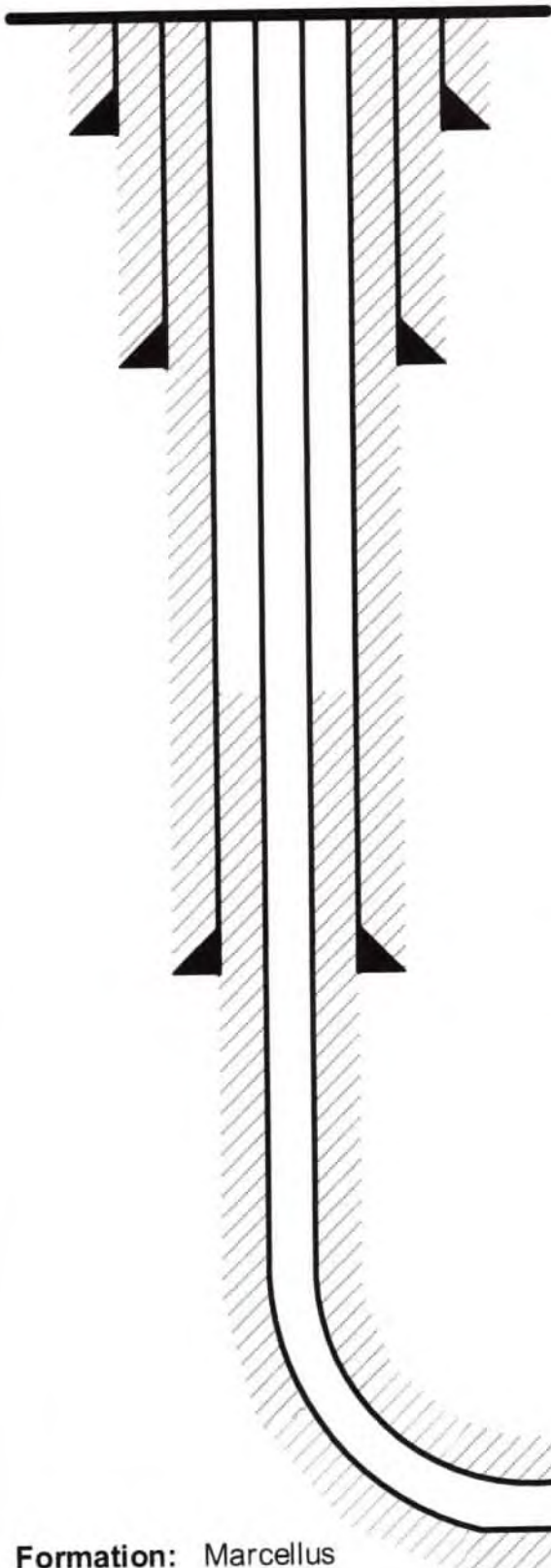
4710303531

**EQT Production**

**Wellbore Diagram**

Well: Haggard 14H  
Pad: Haggard  
Elevation: 1512' GL 1525' KB

County: Wetzel **47 10 303531**  
State: West Virginia



**Conductor @ 40'**

26", 85.6#, A252 GR3, cement to surface w/ Class A/L

**Surface @ 1,470'**

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

**Intermediate @ 2,908'**

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

**Production @ 7,247' MD / 6,898' TVD**

6", 24#, P-110, cement to 500' inside 9-5/8" w/ Class A/H/L

**Formation: Marcellus**

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Kenneth Greynolds  
Digitally signed by Kenneth Greynolds  
DN: cn = Kenneth Greynolds email = Kgreynolds@wv.gov c = AD G = WVDEP OU = Oil and Gas  
Date: 2022.09.16 14:07:02 -0400

11/04/2022  
NOT TO SCALE



WW-9  
(4/16)

4710303531

API Number 47 - \_\_\_\_\_  
Operator's Well No. Haggard 14H

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) John Zavatchan  
Company Official Title Project Specialist - Permitting

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AUG 22 2022  
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Subscribed and sworn before me this 18th day of August, 2022

[Signature] Notary Public

My commission expires March 9, 2024

Commonwealth of Pennsylvania - Notary Seal  
Rebecca Shrum, Notary Public  
Beaver County  
My commission expires March 9, 2024  
Commission number 1267706  
Member, Pennsylvania Association of Notaries  
11/04/2022



**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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**EQT Production Water Plan**

**Offsite Disposals for Unconventional Wells**

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

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

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**EQT Production 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: Kenneth Greynolds  
Digitally signed by Kenneth Greynolds  
DN: CN = Kenneth Greynolds email = Kenneth.L.Greynolds@wv.gov C = AD O = WVDEP DU = Oil and Gas  
Date: 2022.08.04 09:30:25 -0400

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: \_\_\_\_\_

Date: \_\_\_\_\_

Field Reviewed? ( ) Yes ( ) No

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DONALD NEAL CRANE  
40.00 TOTAL ACRES  
TAX MAP AND PARCEL  
01-10-17  
DB: 331 PG: 70

CHARLES & ILA MAE MUSGRAVE  
14.00 TOTAL ACRES  
TAX MAP AND PARCEL  
01-10-26  
DB: 331 PG: 329

AMIE LEE HENDERSON  
45.50 TOTAL ACRES  
TAX MAP AND PARCEL  
01-10-36  
DB: 406 PG: 529

SCOTT L MUSGRAVE  
35.00 TOTAL ACRES  
TAX MAP AND PARCEL  
01-10-27  
DB: 431 PG: 354

RUSTY LEE MORRIS  
43.92 TOTAL ACRES  
TAX MAP AND PARCEL  
01-10-38  
DB: 421 PG: 641

WILMA A ENGLE  
14.50 TOTAL ACRES  
TAX MAP AND PARCEL  
01-10-37  
DB: 406 PG: 529

DAVID A. & MARY A. MORRIS  
2.08 TOTAL ACRES  
TAX MAP AND PARCEL  
01-10-38.1  
DB: 362 PG: 684

JOHN G MILLER  
55.50 TOTAL ACRES  
TAX MAP AND PARCEL  
01-10-52  
DB: 432 PG: 747

PRODUCTION SPOILS STOCKPILE

UNIT TO MORRIS RUN  
(EPHEMERAL STREAM)

UNIT TO STEEL RUN  
(EPHEMERAL STREAM)

UNIT TO STEEL RUN  
(EPHEMERAL STREAM)

HAGGARD WELL PAD

ROADSIDE CHANNEL #4

ROADSIDE CHANNEL #3

ROADSIDE CHANNEL #2

ROADSIDE CHANNEL #1

TOPSOIL STOCKPILE

SUMP

SUMP

SUMP

SUMP

91H  
71H  
31H  
11H  
41H (APP 47-103-03430)

11GH  
12GH  
13GH  
14GH  
15GH  
16GH  
17GH  
18GH  
19GH  
20GH

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PREVAILING WIND

SCALE BAR: 1"=200'

0' 200' 400' 600'



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

11/04/2022

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

August 15, 2022

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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, 12H, 14H and 16H.

Due to the requirements under 35CSR8 5.11, the permittee is required to review the area surrounding the proposed well pad so as to identify and evaluate potential conduits for unintended fracture propagation.

A report is required to be submitted along with a well work permit application.

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

### 1. Communications with Well Operators

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

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

EQT will recommend to these operators at a minimum to:

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

### 2. Reporting

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

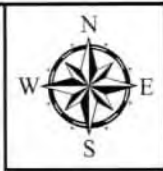
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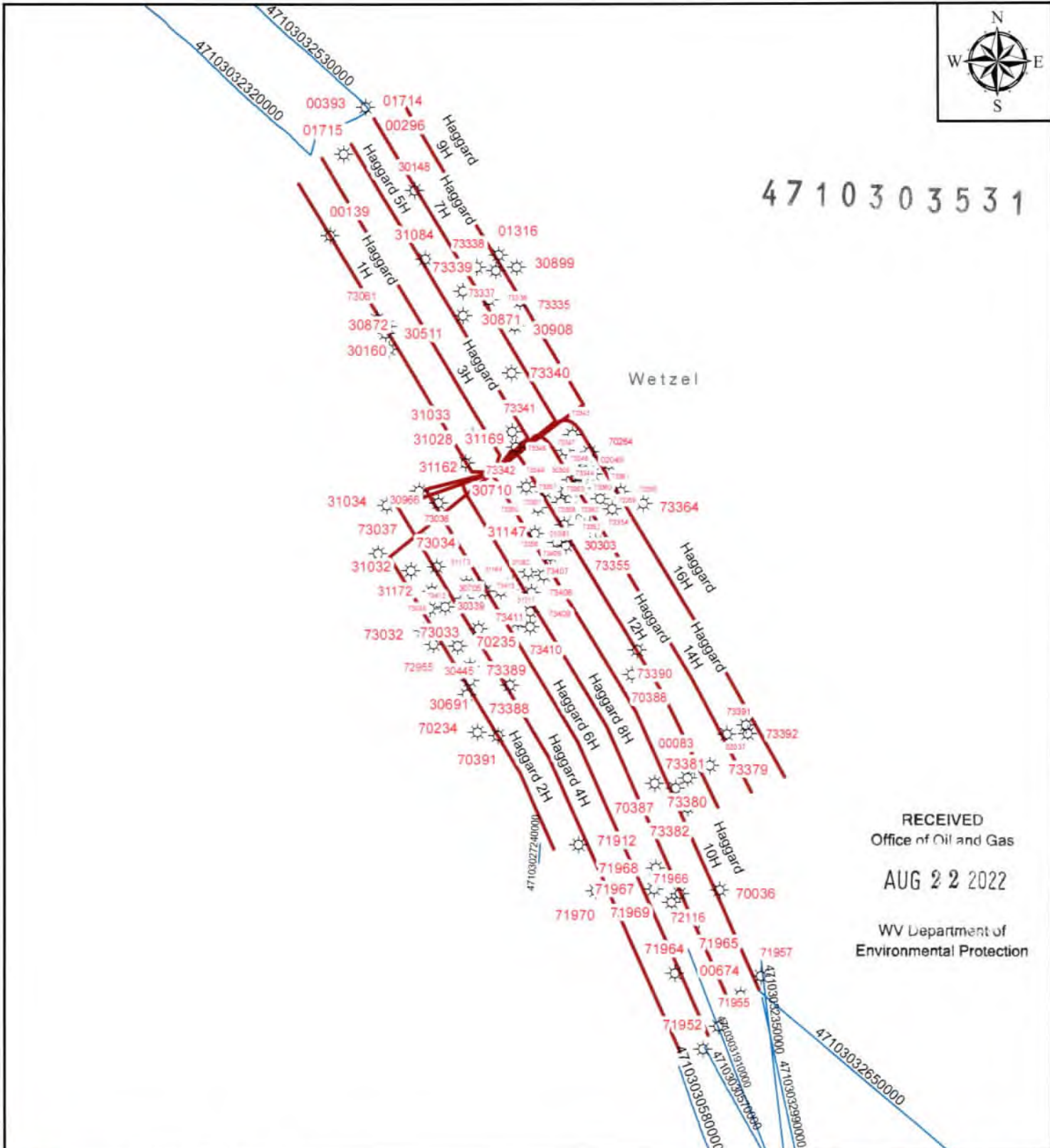
Page 2 of 2

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**EQT**  
EQT Corporation  
625 Liberty Avenue  
Pittsburgh, PA 15222

Haggard

Vertical Offsets and  
Foreign Laterals  
within 500'

Created By: Kellen Waltman    Printed By: McClay O on 8/15/2022

**Legend**

- Foreign Offset Wells
- Foreign Horizontals
- Well Lateral\_FM Formation**
- Genesee
- Marcellus
- Utica

3.750 1.875 0 3.750  
1.48,277 Feet

**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.



11/04/2022





## SITE SAFETY AND ENVIRONMENTAL PLAN

Haggard Well Pad

Littleton

Wetzel County, WV

Wells: 2H, 4H (47-103-03430), 6H, 8H, 10H, 12H, 14H, 16H

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

Approved By: Scott M. Held, Senior Safety Coordinator

Created Date: 7-Aug-20

*John F. Zavatchan Jr.*  
John Zavatchan  
Project Specialist - Permitting  
EQT Production Company

Kenneth  
Greynolds  
Ken Greynolds  
Oil and Gas Inspector  
West Virginia DEP

Digitally signed by: Kenneth Greynolds  
DN: CN = Kenneth Greynolds, email =  
Kenneth.L.Greynolds@wv.gov, C = AD, O =  
WVDEP, OU = Oil and Gas  
Date: 2022.08.04 08:55:59 -0500

### RECORD OF REVISION AND CHANGES

Revision #	Date	Change/s
1	1/29/2020	Plan total revision and reformat.
Plan Administrator: Scott M. Held, CSP Senior Safety Coordinator	Approver: Michael Lauderbaugh Vice President of EHS	



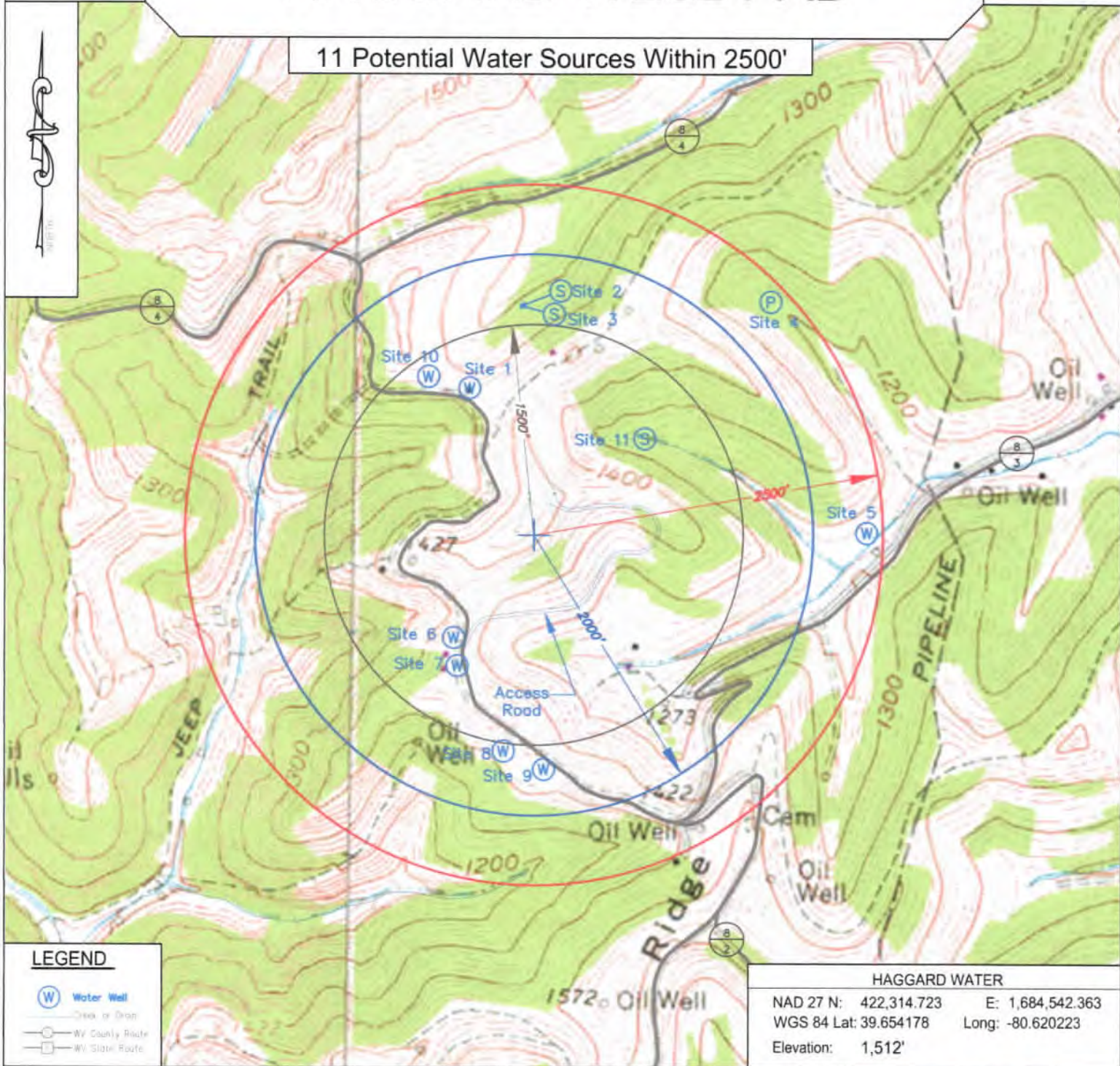
Topo Quad: Littleton  
County: Wetzel  
District: Center

Scale: 1"=1000'  
Date: June 24, 2021  
Project NO:

# HAGGARD WELL PAD

Water

11 Potential Water Sources Within 2500'



### LEGEND

- W Water Well
- S Creek or Stream
- W WV County Route
- W 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



EQT PRODUCTION COMPANY  
 400 WOODCLIFF DRIVE  
 CANONSBURG, PA 15317

11/04/2022



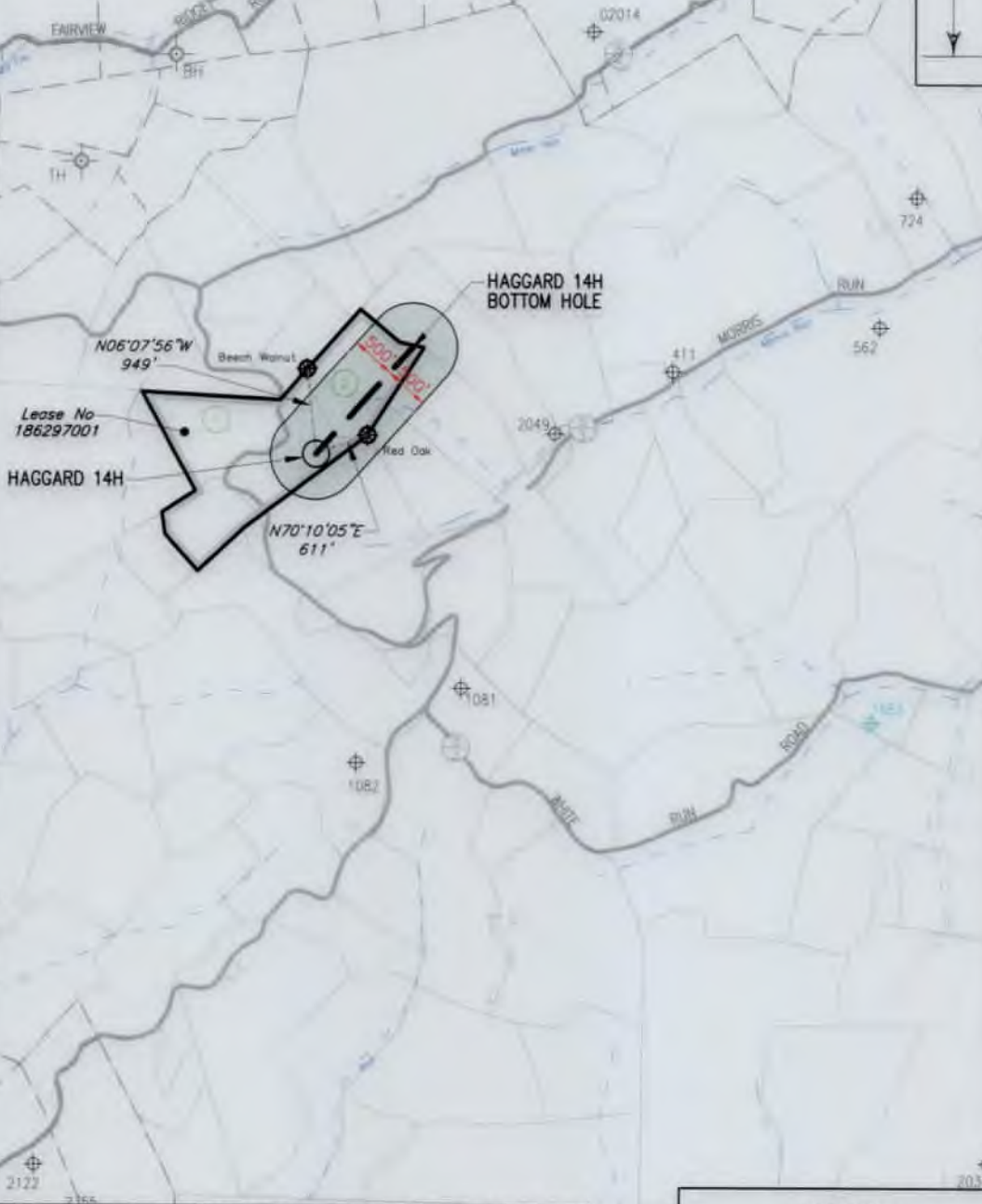
LATITUDE 39° 40' 00" TH: 10.325'

BH: 9.265'

BH: 3.270'

LONGITUDE 80° 35' 00"

Haggard 14H  
Haggard  
EQT Production Company



- NOTES ON SURVEY**
1. COORDINATES SYSTEM IS UTM, NAD 83 DATUM ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
  2. 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.
  3. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
  4. NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED OF CENTER OF PAD.
  5. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
  6. NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
  7. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

- LEGEND**
- ⊕ Active Well Location
  - ⊕ (with red outline) Plugged Well Location
  - ⊕ (with blue outline) Abandoned Well
  - (with red outline) Surface Tract Identification
  - Proposed Gas Well
  - Located Corner, as noted
  - Surface Tract Lines (Surveyed)
  - Surface Tract Lines (Tax Map)
  - Reference Line
  - Lease Boundary
  - Creek or Drain
  - 5 WV County Route
  - 5 WV State Route

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



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

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



SEAL

FILE NO: \_\_\_\_\_  
 DRAWING NO: \_\_\_\_\_  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: 1:2500  
 PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: AUGUST 3 20 22  
 OPERATORS WELL NO: Haggard 14H  
 API WELL NO: **H4A**  
 47 - 103 - **03531**  
 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: Earnest Howard Cadle, et al. LEASE NO: 186297001 ACREAGE: 95 ±  
 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: 6,898'

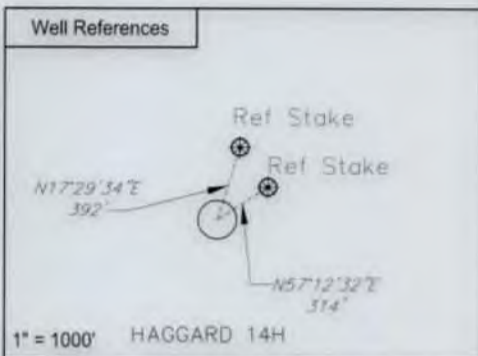
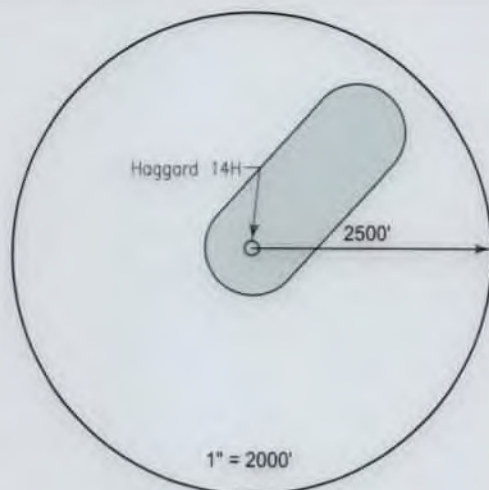
11/04/2022

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C Mallow  
 ADDRESS: 400 Woodcliff Drive ADDRESS: 427 Midstate Drive  
 Canonsburg, PA 15317 Clarksburg, WV 26301



Haggard 14H  
Haggard  
EQT Production Company

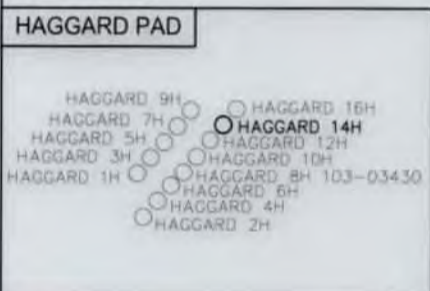
Tract ID.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	10	36.0	Wetzel	Center	Amie Lee Henderson	45.50
2	10	27.0	Wetzel	Center	Scott L. Musgrave	35.00
Lease		Owner			Acres	
186297001		Earnest Howard Cadle, et al.			95	



**Notes:**  
 HAGGARD 14H coordinates are  
 NAD 27 N: 422,400.254 E: 1,684,603.996  
 NAD 27 Lat: 39.654334 Long: -80.620197  
 NAD 83 UTM N: 4,389,470.780 E: 532,598.973

HAGGARD 14H Landing Point coordinates are  
 NAD 27 N: 423,580.817 E: 1,685,678.424  
 NAD 27 Lat: 39.657611 Long: -80.616434  
 NAD 83 UTM N: 4,389,835.926 E: 532,920.321

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: \_\_\_\_\_  
 SCALE: 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY: 1:2500  
 PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: AUGUST 3 20 22  
 OPERATORS WELL NO: Haggard 14H  
 API WELL NO: HGA  
 47 - 103 - 03531  
 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: Earnest Howard Cadle, et al. LEASE NO: 186297001 ACREAGE: 95 ±

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: 6,898'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C Mallow  
 ADDRESS: 400 Woodcliff Drive ADDRESS: 427 Midstate Drive  
 Canonsburg, PA 15317 Clarksburg, WV 26301

11/04/2022



WW-6A1  
(5/13)

Operator's Well No. Haggard 14H

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

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

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

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
-------------------------	-----------------------	-----------------------	---------	-----------

See attached

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Office of Oil and Gas  
AUG 22 2022  
WV Department of  
Environmental Protection

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

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

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

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

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

WW-6A1 attachment

Operator's Well No.

Haggard 14H

Lease No.	Grantor, Lessor, etc.	Acres	Grantee, Lessee, etc.	Royalty	Book/Page
<u>186297001</u>	<u>Earnest Howard Cadle, et al.</u> Earnest Howard Cadle, married dealing in his sole and separate property	95 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 273A/121

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AUG 22 2022  
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Environmental Protection

4710303531



4710303531

August 15, 2022

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

Re: Haggard 14H 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,

John Zavatchan  
Project Specialist - Permitting

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Office of Oil and Gas

AUG 22 2022

WV Department of  
Environmental Protection

11/04/2022

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

Date of Notice Certification: 08/18/2022

API No. 47- \_\_\_\_\_

Operator's Well No. <sup>14H</sup> \_\_\_\_\_

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>532598.97</u>
County:	<u>Wetzel</u>		Northing:	<u>4389470.78</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.

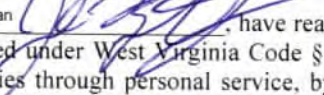
Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:  *PLEASE CHECK ALL THAT APPLY  <input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED  <input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED  <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 checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION  <input checked="" type="checkbox"/> 5. PUBLIC NOTICE  <input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION		<b>OOG OFFICE USE ONLY</b>  <input type="checkbox"/> RECEIVED/ NOT REQUIRED  <input type="checkbox"/> RECEIVED  <input type="checkbox"/> RECEIVED/ NOT REQUIRED  <input type="checkbox"/> RECEIVED  <input type="checkbox"/> RECEIVED  <input type="checkbox"/> RECEIVED
		RECEIVED Office of Oil and Gas  AUG 22 2022  WV Department of Environmental Protection

**Required Attachments:**

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

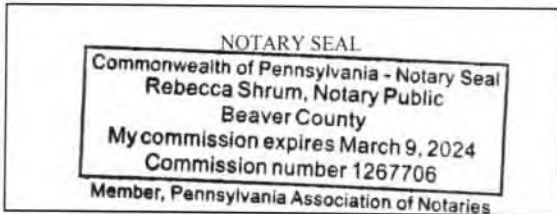


**Certification of Notice is hereby given:**

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

Well Operator: EQT Production Company  
By: John Zavatchan  
Its: Project Specialist - Permitting  
Telephone: 412-584-3132

Address: 400 Woodcliff Drive  
Canonsburg, PA 15317  
Facsimile: 412-395-2974  
Email: jzavatchan@eqt.com



Subscribed and sworn before me this 18<sup>th</sup> day of August, 2022.  
Rebecca Shrum Notary Public  
My Commission Expires March 9, 2024

**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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Environmental Protection

**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:** 08/18/2022 **Date Permit Application Filed:** 8/19/22

Notice of:

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

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

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

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

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

SURFACE OWNER(s)

Name: See Attached List  
Address: \_\_\_\_\_

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

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

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

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

SURFACE OWNER(s) (Impoundments or Pits)

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

COAL OWNER OR LESSEE

Name: See Attached List  
Address: \_\_\_\_\_

COAL OPERATOR

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

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

Name: See Attached List  
Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

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

\*Please attach additional forms if necessary

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**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/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Well Location Restrictions**

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



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

**Water Well Testing:**

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

**Water Testing Laboratories:**

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

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

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

**Written Comment:**

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

Chief, Office of Oil and Gas  
Department of Environmental Protection  
601 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.**

11/04/2022



**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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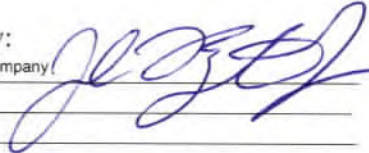
WW-6A  
(8-13)

API NO. 47- \_\_\_\_\_  
OPERATOR WELL NO. 14H \_\_\_\_\_  
Well Pad Name: Haggard \_\_\_\_\_

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**Notice is hereby given by:**

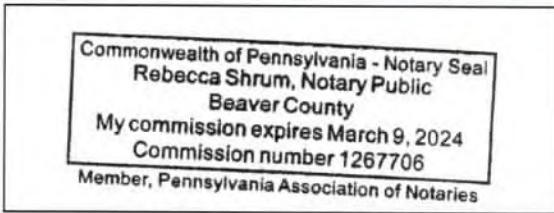
Well Operator: EQT Production Company  
Telephone: 412-584-3132  
Email: jzavatchan@eqt.com



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

**Oil and Gas Privacy Notice:**

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



Subscribed and sworn before me this 18<sup>th</sup> day of August, 2022.

Rebecca Shrum Notary Public

My Commission Expires March 9, 2024

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WV Department of  
Environmental Protection

11/04/2022



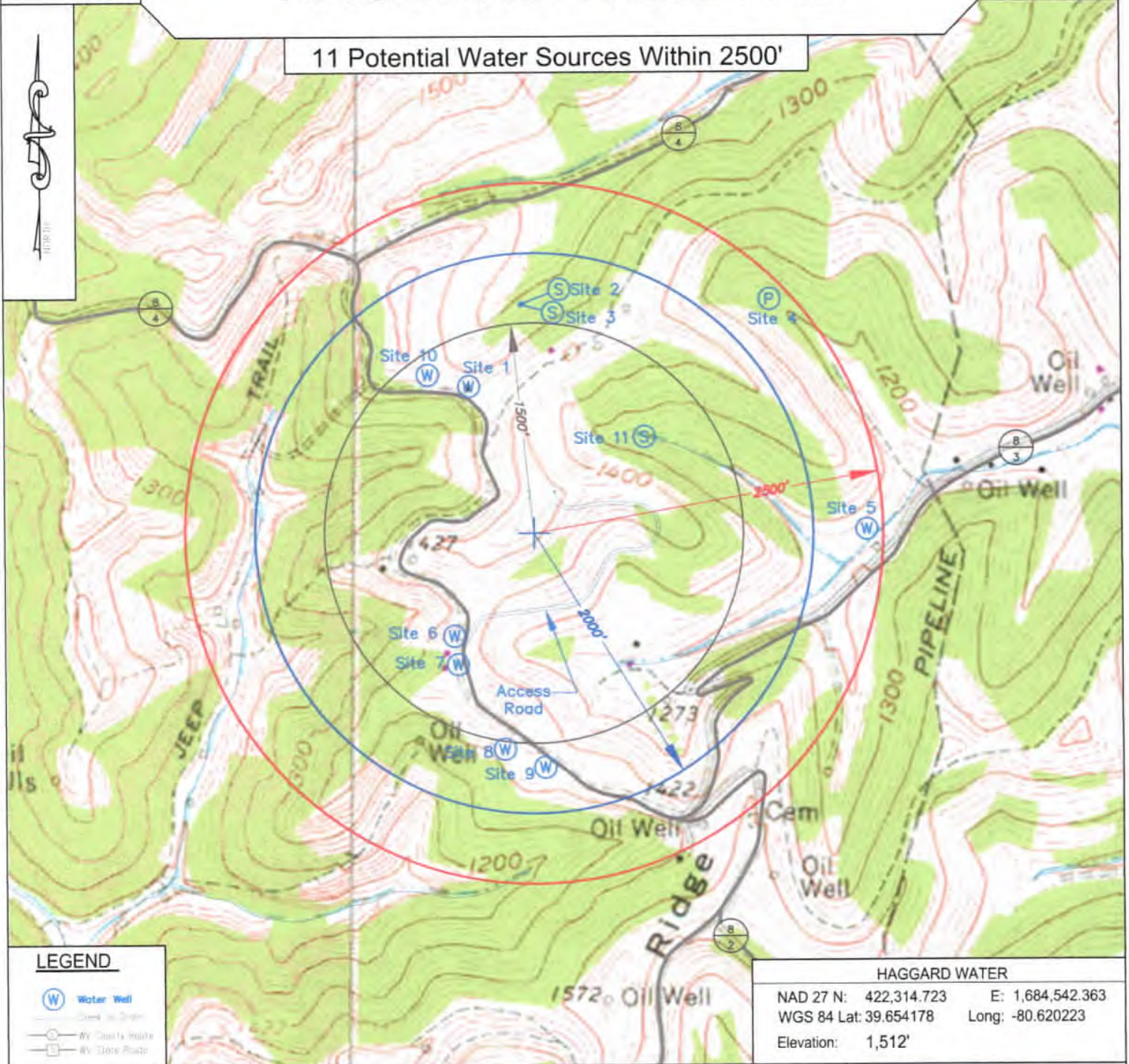
Topo Quad: Littleton  
County: Wetzel  
District: Center

Scale: 1"=1000'  
Date: June 24, 2021  
Project NO: \_\_\_\_\_

# HAGGARD WELL PAD

Water

11 Potential Water Sources Within 2500'



### LEGEND

- Water Well
- Spring
- Oil Well
- Access Road

### 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



**Haggard****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

Donald Neal Crane  
47980 Fredricktown Clarkson Rd  
Negley, Ohio 44441

Scott L Musgrave & Charles & Ila Mae Musgrave  
5050 Postlethwait Ridge Rd,  
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





### 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
Distance from Gas Well (Ft):	1191±			<input type="checkbox"/> Landowner Decline Sampling
Surface Owner/ Occupant:	Charles & Ila Mae Musgrave			<input type="checkbox"/> Unable to Contact <small>(Further Contact attempts to be made by EQT's 3rd party pre-drill sampling lab)</small>
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
Distance from Gas Well (Ft):	1678±			<input type="checkbox"/> Landowner Decline Sampling
Surface Owner/ Occupant:	Charles & Ila Mae Musgrave			<input type="checkbox"/> Unable to Contact <small>(Further Contact attempts to be made by EQT's 3rd party pre-drill sampling lab)</small>
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
Distance from Gas Well (Ft):	1671±			<input type="checkbox"/> Landowner Decline Sampling
Surface Owner/ Occupant:	Charles & Ila Mae Musgrave			<input type="checkbox"/> Unable to Contact <small>(Further Contact attempts to be made by EQT's 3rd party pre-drill sampling lab)</small>
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
Distance from Gas Well (Ft):	2377±	<input type="checkbox"/> Landowner Decline Sampling
Surface Owner/ Occupant:	Calvin T Jr. & Monica L Morris	<input type="checkbox"/> Unable to Contact (Further Contact attempts to be made by EQT's 3rd party pre-drill sampling lab)
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
Distance from Gas Well (Ft):	2352±	<input type="checkbox"/> Landowner Decline Sampling
Surface Owner/ Occupant:	Calvin T Jr. & Monica L Morris	<input type="checkbox"/> Unable to Contact (Further Contact attempts to be made by EQT's 3rd party pre-drill sampling lab)
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
Distance from Gas Well (Ft):	924±	<input type="checkbox"/> Landowner Decline Sampling
Surface Owner/ Occupant:	David A & Mary A Morris	<input type="checkbox"/> Unable to Contact (Further Contact attempts to be made by EQT's 3rd party pre-drill sampling lab)
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
Distance from Gas Well (Ft):	1070±	<input type="checkbox"/> Landowner Decline Sampling
Surface Owner/ Occupant:	David A & Mary A Morris	<input type="checkbox"/> Unable to Contact (Further Contact attempts to be made by EQT's 3rd party pre-drill sampling lab)
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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**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:** 06/24/2022      **Date Permit Application Filed:** 08/15/2022

**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  
Address: 470 Travis Drive  
Bridgeport, WV 26330

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

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AUG 22 2022  
WV Department of  
Environmental Protection

**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: West Virginia      UTM NAD 83      Easting: 532598.97  
County: Wetzel      Northing: 4389470.78  
District: Center      Public Road Access: CR 8/2  
Quadrangle: Littleton      Generally used farm name: Haggard  
Watershed: Lower West Virginia Fork Fish Creek

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

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

**Oil and Gas Privacy Notice:**

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



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

4710303531

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

**Date of Notice:** 08/18/2022      **Date Permit Application Filed:** 08/18/2022

**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: Amie 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>532598.97</u>
County:	<u>Wetzel</u>		Northing:	<u>4389470.78</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: EQT Production Company  
Telephone: 412-584-3132  
Email: jzavatchar@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).

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

**Division of Highways**

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

D. Alan Reed, P.E.  
State Highway Engineer

Jimmy Wriston, P. E.  
Secretary of Transportation  
Commissioner of Highways

June 21, 2022

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 14H 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: John Zavatchan  
EQT Production Company  
CH, OM, D-6  
File

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

<u>Material</u>	<u>Ingredient</u>	<u>CAS Number</u>
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 ((NH <sub>4</sub> )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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OPERATOR: EQT Production Company WELL NO: 14H

PAD NAME: Haggard

REVIEWED BY: John Zavatchan

SIGNATURE: 

### WELL RESTRICTIONS CHECKLIST

#### HORIZONTAL 6A WELL

#### Well Restrictions

- At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR
  - DEP Waiver and Permit Conditions
- At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR
  - DEP Waiver and Permit Conditions
- At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR
  - DEP Waiver and Permit Conditions
- At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR
  - Surface Owner Waiver and Recorded with County Clerk, OR
  - DEP Variance and Permit Conditions
- At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR
  - Surface Owner Waiver and Recorded with County Clerk, OR
  - DEP Variance and Permit Conditions
- At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR
  - Surface Owner Waiver and Recorded with County Clerk, OR
  - DEP Variance and Permit Conditions

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

**WEST VIRGINIA 811**

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 WOODCREEK DRIVE  
CANONSBURG, PA 15317

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

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

APRIL 18, 2021 (TAX MAP AND PARCELS 01-10-06-15-29 AC)

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.



UTM (NAD83) ZONE 17 METERS

WELL #A15		WELL #A16	
10N	20N	10N	20N
N 438455.742	N 438470.668	N 532587.351	N 532592.264
E 532580.018	E 532585.929	E 532590.264	E 532595.177
30N	40N	30N	40N
N 438460.275	N 438465.729	N 532585.929	N 532590.264
E 532582.923	E 532587.351	E 532587.351	E 532591.767
50N	60N	50N	60N
N 438464.807	N 438469.251	N 532582.923	N 532587.351
E 532580.018	E 532584.436	E 532580.018	E 532584.436
70N	80N	70N	80N
N 438470.155	N 438474.609	N 532584.436	N 532588.870
E 532588.715	E 532593.162	E 532588.715	E 532593.162
90N	00N	90N	00N
N 438475.850	N 438480.300	N 532592.264	N 532596.711
E 532591.940	E 532596.407	E 532596.407	E 532601.319

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 FIELD MANUAL, A GENERAL CONSTRUCTION SEQUENCE, DESCRIPTION OF STABILIZATION METHODS, AND DETAILS & SPECIFICATIONS FOR EROSION & SEDIMENT BEST MANAGEMENT PRACTICES HAVE BEEN INCLUDED IN THE PROVIDED DETAIL SHEETS

NO.	REVISIONS

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

**SHEET**  
1  
OF  
22



**COORDINATES**

CENTER OF PAD  
(NAD 83)  
LAT: 39 654420"  
LONG: 80 620309"  
(NAD 27)  
LAT: 39 654069"  
LONG: 80 620462"

SITE ENTRANCE  
(NAD 83)  
LAT: 39 652791"  
LONG: 80 622102"  
(NAD 27)  
LAT: 39 651938"  
LONG: 80 622131"

1"=1000'



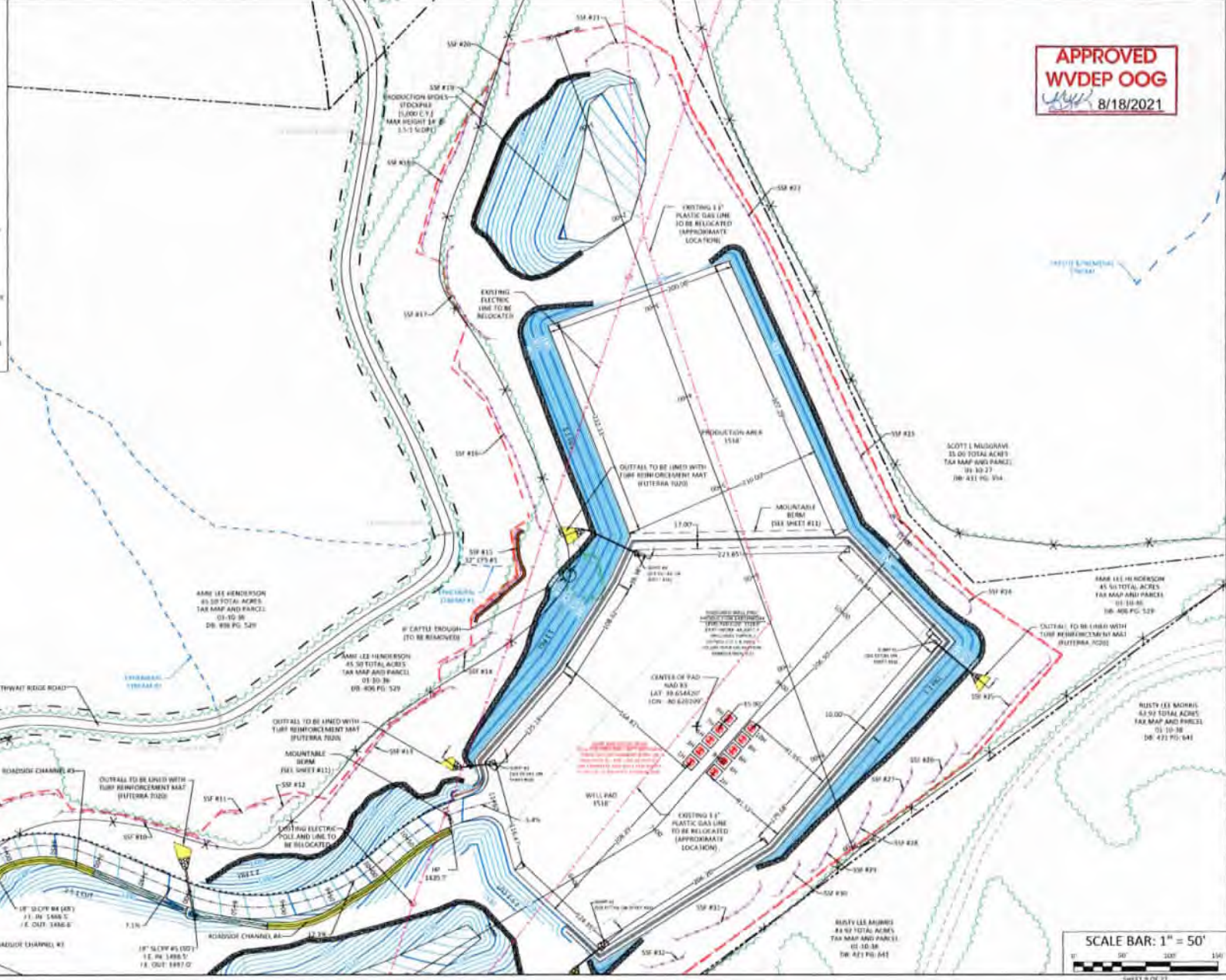






- LEGEND**
- 12" SLOPE BUCKLE PROTECTION
  - SUPER SILT FENCE (SSF)
  - 32" COMPOST FILTER SOCK (CFC)
  - EXISTING 2" CONTOURS
  - PROPOSED 2" CONTOURS
  - PROPOSED BY CONTRACTOR
  - PRODUCT BOUNDARY
  - TREE LINE
  - PROPERTY LINE
  - UNPAVED ROAD
  - PAVED ROAD
  - EXISTING GAS LINE
  - REGULATION OF GAS LINE
  - EXISTING ELECTRIC LINE
  - EXISTING UTILITY POLE
  - EXISTING FENCE
  - CHANGE SAFETY FENCE
  - TRE BENCH
  - QUADRANT EXTENSION (2' DEPTH FOOT)
  - LEGAL 20' RIGHT-OF-WAY
  - PROPOSED WELL WITH ULLAGE
- CHANNEL LINING**
- SYNTHETIC MAT 30-20
  - TRM FUTERRA T200

- GENERAL NOTES FOR BIDDING**
- 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 #117 FOR ROADSIDE CHANNELS, AND SHEET #118 FOR SCUMPS.
  - ALL DISTURBED AREAS INCLUDING FORDING PILES TO BE SEEDING AND MULCHED SEE DETAIL SHEET #116.
  - 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 QUAD, TAX MAPS, AND FIELD LOCATIONS. A FULL BOUNDARY SURVEY IS NOT EXPRESSED NOR IMPLIED.
  - CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC CONTROL.
  - UTILITY SHOWN ARE BEING PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND ARE BASED OFF OF LIMITED FIELD MARKINGS AND LOCATIONS ARE APPROXIMATE.
  - ALL TOPSOIL PILES DESIGN BY 4.5:1 SLOPE FOR TEMPORARY STORAGE SLOPES TO BE RE-SPEAD WITH TOPSOIL.



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

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

**E&S CONTROL AND SITE PLAN**

THIS DOCUMENT WAS PREPARED BY:  
**BOORD, BENCHEK AND ASSOC., INC.**  
 FOR: ECT PRODUCTION COMPANY

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

NO.	DATE	DESCRIPTION

