



---

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)

Friday, July 22, 2022  
WELL WORK PERMIT  
Horizontal 6A / New Drill

TUG HILL OPERATING, LLC  
380 SOUTHPOINTE BOULEVARD, PLAZA II  
SUITE 200  
CANONSBURG, PA 15317

Re: Permit approval for ELMER N-15HU  
47-103-03503-00-00

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

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

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

A handwritten signature in blue ink, appearing to read 'James A. Martin', is written over a circular stamp.

James A. Martin  
Chief

Operator's Well Number: ELMER N-15HU  
Farm Name: ELNORA TUTTLE  
U.S. WELL NUMBER: 47-103-03503-00-00  
Horizontal 6A: New Drill  
Date Issued: 7/22/2022



---

west virginia department of environmental protection

---

Oil and Gas Conservation Commission  
601 57<sup>th</sup> Street SE, Charleston, WV 25304  
304-414-1239

Randall M. Albert, Chairman  
dep.wv.gov

July 21, 2022

Department of Environmental Protection  
Office of Oil and Gas  
Charleston, WV 25304

RE: Application for Deep Well Permit – API #47-103-03503

COMPANY: Tug Hill Operating, LLC

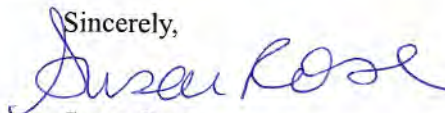
FARM: Elnora Tuttle Elmer N-15HU

COUNTY: Wetzel DISTRICT: Proctor QUAD: Wileyville

The deep well review of the application for the above company is **Approved to drill to Trenton for Point Pleasant completion.**

The applicant has complied with the provision of Chapter 22C-9, of the Code of West Virginia, nineteen hundred and thirty-one (1931), as amended, Oil and Gas Conservation Commission as follows:

1. Comments to Notice of Deviation filed? Yes, but withdrawn.
2. Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owners? Yes
3. Provided a tabulation of all deep wells within one mile of the proposed location, including the API number of all deep wells: \*\*yes
4. Provided a plat showing that the productive interval of the well meets the requirements of the Rules of the Commission W. Va. C.S.R. § 39-1-4.2.

Sincerely,  
  
Susan Rose  
Administrator

# PERMIT CONDITIONS

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

## CONDITIONS

---

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

API Number: \_\_\_\_\_

## PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to [DEPOOGNotify@wv.gov](mailto:DEPOOGNotify@wv.gov).

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

1) Well Operator: Tug Hill Operating, LLC      494510851      Wetzel      Proctor      Wileyville 7.5'  
Operator ID      County      District      Quadrangle

2) Operator's Well Number: Elmer N-15HU      Well Pad Name: Elmer

3) Farm Name/Surface Owner: Elnora Tuttle      Public Road Access: Proctor Creek Road

4) Elevation, current ground: 1,308.03'      Elevation, proposed post-construction: 1,276.50'

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

Other      \_\_\_\_\_

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

Horizontal    X      \_\_\_\_\_

6) Existing Pad: Yes or No    No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Point Pleasant is the target formation at a depth of 11,632' - 11,751', thickness of 119' and anticipated pressure of approx. 7,500 psi.

8) Proposed Total Vertical Depth: 11,901'      ✓

9) Formation at Total Vertical Depth: Trenton      ✓

10) Proposed Total Measured Depth: 12,766'      ✓

11) Proposed Horizontal Leg Length: 499.97'      ✓

12) Approximate Fresh Water Strata Depths: 70; 1,009'      ✓

13) Method to Determine Fresh Water Depths: Based on the depth of Pittsburgh Coal seam, per WVGES mapping contours

14) Approximate Saltwater Depths: 1,645'      ✓

15) Approximate Coal Seam Depths: Sewickley Coal - 909' and Pittsburgh Coal - 1,003'      ✓

16) Approximate Depth to Possible Void (coal mine, karst, other): None anticipated

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

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

Depth: \_\_\_\_\_

Seam: \_\_\_\_\_

Owner: \_\_\_\_\_

18)

**CASING AND TUBING PROGRAM**

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	30"	NEW	BW	BW	120'	120'	259ft <sup>3</sup> (CTS)
Fresh Water/Coal	20"	NEW	J55	106.5#	1,125'	1,125'	1,802ft <sup>3</sup> (CTS)
Intermediate 1	13 3/8"	NEW	J55	54.5#	2,950'	2,950'	2,079ft <sup>3</sup> (CTS)
Intermediate 2	9 5/8"	NEW	HPP110	47#	10,611'	10,611'	3,470ft <sup>3</sup> (CTS)
Production	5 1/2"	NEW	P110	23#	12,766'	12,766'	3,105ft <sup>3</sup> (CTS)
Tubing	2 7/8"	NEW	P110	6.5#		11,291'	
Liners							

*Harold L. Reynolds*  
7-21-22

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	36"	1.0	2,333	1,866	CLASS A	1.2
Fresh Water	20"	26"	.5	2,410	1,928	SEE #24	1.2
Coal	13 3/8"	17 1/2"	.38	2,740	2,192	SEE #24	1.2
Intermediate	9 5/8"	12 1/4"	.472	10,730	6,968	SEE #24	1.33
Production	5 1/2"	8 1/2"	.415	16,510	13,208	SEE #24	1.17/1.19
Tubing	2 7/8"			14,530	11,624		
Liners							

**PACKERS**

Kind:	N/A			
Sizes:	N/A			
Depths Set:	N/A			

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

Drill through the Point Pleasant and TD Pilot Hole 150' into the Trenton. Log vertical section and run a solid cement plug back to proposed KOP(10,791'). Drill curve and lateral per proposed well plan, run and cement production casing. Perform DBL from 60 deg to surface, make cleanout run, and stimulate.

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

Well to be completed with approximately 1,300,000 lb. proppant and 25,000 bbl of water. Max rate = 80bpm; max psi = 9,000#.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 26.11 acres

22) Area to be disturbed for well pad only, less access road (acres): 7.63 acres

23) Describe centralizer placement for each casing string:

Will run 3 centralizers on surface casing at equal distance. Intermediate strings will have 1 centralizer every other joint. Production casing will have one centralizer every other joint in lateral, one centralizer every joint through curve, one centralizer every other joint to surface.

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

Sfc - Premium NE-1 + 2% CaCl; Int1 - Premium NE-1 + 1.5% CaCL + Flake; Int2 - Lead: Premium NE-1 + 5% BA-90 + .85% R-3 + 3% KCl + .75 gals/100sk FP-13L + 1% MPA-170 Tail: Premium NE-1 + .1% R-3 + 5% KCl + 1% CD-32 + .4% FL-52 + .2% ASA-301 + .6% Sodium Metasilicate; Kick Plug - Class H Cement + 1% CD-32 + .7% Sodium Metasilicate + .1% R-3 + .75 gal/100sk FP-13L; Prod - Lead: 50:50 (Poz:Class H) + .3% R-3 + .3% MPA-250 + .75 gal/100sk FP-13L Tail: 25:75 (Poz:Class H) + .3% R-3 + .3% MPA-250 + .375 gal/100sk FP-13L

25) Proposed borehole conditioning procedures:

Will circulate a minimum of 3 hours at TD, short trip to curve, circulate bottoms up, check for flow, POOH

\*Note: Attach additional sheets as needed.



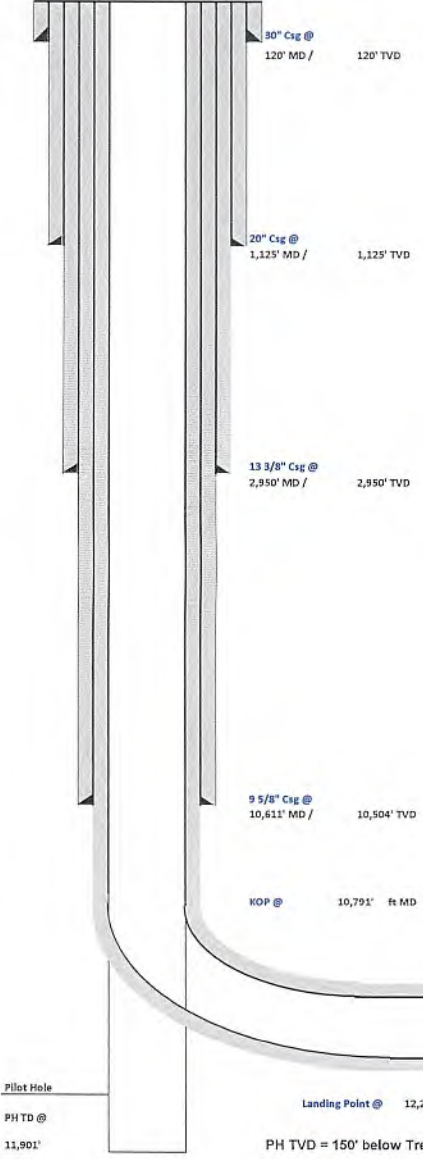


**WELL NAME:** Elmer N-15HU  
**STATE:** WV **COUNTY:** Wetzel  
**DISTRICT:** Proctor  
**DF Elev:** 1,277' **GL Elev:** 1,277'  
**TD:** 12,766'  
**TH Latitude:** 39.69391799  
**TH Longitude:** -80.73761049  
**BH Latitude:** 39.69482276  
**BH Longitude:** -80.74214566

FORMATION TOPS	
Formation	Depth TVD
Deepest Fresh Water	1,009'
Sewickley Coal	909'
Pittsburgh Coal	1,003'
Big Lime	2,175'
Berea	2,817'
Tully	6,729'
Marcellus	6,810'
Onondaga	6,860'
Salina	7,450'
Lockport	8,590'
Utica	11,397'
Point Pleasant	11,632'
Landing Depth	11,682'
Trenton	11,751'
Pilot Hole TD	11,901'

CASING SUMMARY							
Type	Hole Size (in)	Csg Size (in)	Depth (MD)	Depth (TVD)	Weight (lb/ft)	Grade	Top of Cement
Conductor	36	30	120'	120'	BW	BW	Surface
Surface	26	20	1,125'	1,125'	106.5	J55	Surface
Intermediate 1	17 1/2	13 3/8	2,950'	2,950'	54.5	J55	Surface
Intermediate 2	12 1/4	9 5/8	10,611'	10,504'	47	HPP110	Surface
Production	8 1/2	5 1/2	12,766'	11,673'	23	HCP110	Surface

CEMENT SUMMARY				DRILLING DETAILS	
Type	Sacks	Class	Density (ppg)	Fluid Type	Centralizer Notes
Conductor	338	A	15.6	Air	None
Surface	1,943	A	15.6	Air	3 Centralizers at equal distance
Intermediate 1	2,253	A	15.6	Air	1 Centralizer every other joint
Intermediate 2	3,150	A	14.5	Air	1 Centralizer every other joint
Production	3,067	A	16.5	Air / SOBMM	1 every other joint in lateral; 1 per joint in curve; 1 every other joint to surface



Pilot Hole  
 PH TD @ 11,901'  
 PH TVD = 150' below Trenton Top  
 Landing Point @ 12,266' MD / 11,682' TVD

Lateral TD @ 12,766' ft MD  
 11,673' ft TVD





## Tug Hill Operating, LLC Casing and Cement Program

### Elmer N-15HU

### Casing

	String	Grade	Bit Size	Depth (Measured)	Cement Fill Up
Conductor	30"	BW	36"	120'	CTS
Surface	20"	J55	26"	1,125'	CTS
Intermediate 1	13 3/8"	J55	17 1/2"	2,950'	CTS
Intermediate 2	9 5/8"	HPP110	12 1/4"	10,611'	CTS
Production	5 1/2"	HCP110	8 1/2"	12,766'	CTS

### Cement

Conductor:	Premium NE-1 + 2% bwoc CaC12 + 46.5% Fresh Water – Conductor Cement mixed at 15.6 ppg, Y=1.2
Surface:	Premium NE-1 + 2% bwoc CaC12 + 46.5% Fresh Water – Surface Cement mixed at 15.6 ppg, Y=1.2
Intermediate 1:	Premium NE-1 + 1% bwoc CaC12 + 46.5% Fresh Water – Intermediate Cement mixed at 15.6 ppg, Y=1.2
Intermediate 2:	Premium NE-1 + 1% bwoc CaC12 + 46.5% Fresh Water – Intermediate Cement mixed at 14.5 ppg, Y=1.35
Kick Off Plug:	Class H Cement + 1% CD-32 + .7% Sodium Metasilicate + .1% R-3 + .75 gal/100sk FP-13L - KOP Plug
Production:	50:50 Poz: Premium NE-1 + .1% bwoc ASA-301 + 60lb/sk ASCA-1 + .35% bwoc BA-10A + .25% bwoc MPA-170, 44 lb sack + .5% bwoc R-3 + .75 gals/100sk FP-13L – Production Cement mixed at 16.5 ppg, Y = 1.03



**TUG HILL**  
OPERATING

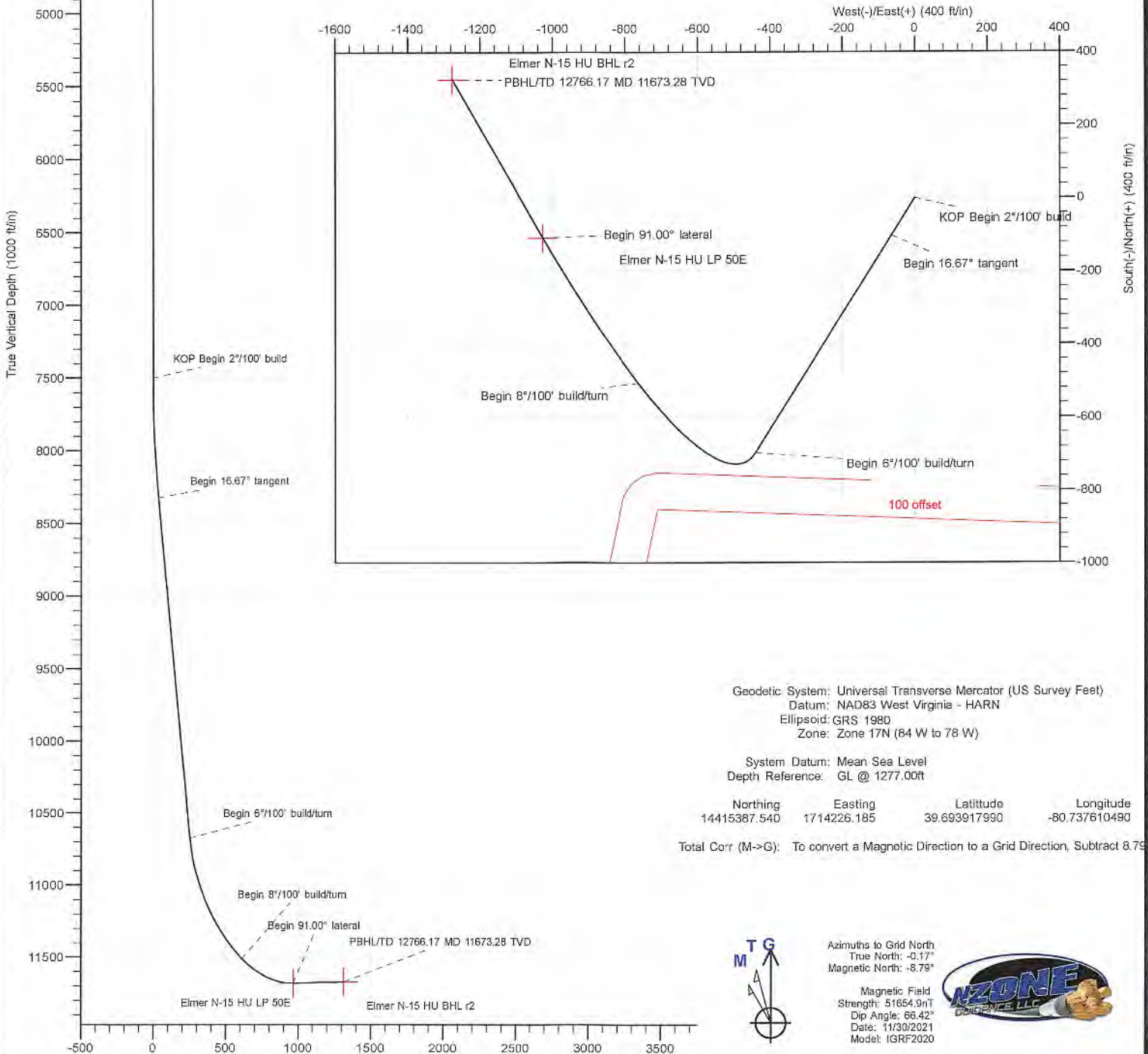
Well: Elmer N-15 HU (slot B)  
Site: Elmer  
Project: Wetzel County, West Virginia (UTM17 NAD83)  
Design: rev2

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	
2	7502.00	0.00	0.000	7502.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 2°/100' build
3	8335.31	16.67	212.231	8323.60	-101.80	-64.18	2.00	212.23	-37.02	Begin 16.67° tangent
4	10791.26	16.67	212.231	10676.39	-497.62	-439.84	0.00	0.00	253.71	Begin 6°/100' build/turn
5	11746.89	50.00	322.450	11512.01	-507.22	-763.39	6.00	121.35	614.29	Begin 8°/100' build/turn
6	12266.30	91.00	329.949	11682.00	-106.87	-1026.40	8.00	11.34	968.12	Begin 91.00° lateral
7	12766.17	91.00	329.949	11673.28	325.75	-1276.68	0.00	0.00	1317.59	PBHL/TD 12766.17 MD 11673.28 TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Elmer N-15 HU BHL r2	11673.28	325.75	-1276.68	14415713.287	1712949.504	39.694822760	-80.742145660
- plan hits target center							
Elmer N-15 HU LP 50E	11682.00	-107.26	-1026.65	14415280.278	1713199.537	39.693631604	-80.741261242
- plan misses target center by 0.41ft at 12266.08ft MD (11682.00 TVD, -107.06 N, -1026.29 E)							



Geodetic System: Universal Transverse Mercator (US Survey Feet)  
Datum: NAD83 West Virginia - HARN  
Ellipsoid: GRS 1980  
Zone: Zone 17N (84 W to 78 W)

System Datum: Mean Sea Level  
Depth Reference: GL @ 1277.00ft

Northing	Easting	Latitude	Longitude
14415387.540	1714226.185	39.693917990	-80.737610490

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Subtract 8.75°



Azimuths to Grid North  
True North: -0.17°  
Magnetic North: -8.79°

Magnetic Field  
Strength: 51654.9nT  
Dip Angle: 66.42°  
Date: 11/30/2021  
Model: IGRF2020







Planning Report - Geographic

Database:	DB_Feb2822	Local Co-ordinate Reference:	Well Elmer N-15 HU (slot B)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1277.00ft
Project:	Wetzel County, West Virginia (UTM17 NAD83)	MD Reference:	GL @ 1277.00ft
Site:	Elmer	North Reference:	Grid
Well:	Elmer N-15 HU (slot B)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

Project	Wetzel County, West Virginia (UTM17 NAD83)		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD83 West Virginia - HARN		
Map Zone:	Zone 17N (84 W to 78 W)		

Site	Elmer				
Site Position:		Northing:	14,415,313.835 usft	Latitude:	39.693715720
From:	Lat/Long	Easting:	1,714,207.744 usft	Longitude:	-80.737676810
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	Elmer N-15 HU (slot B)					
Well Position	+N/-S	0.00 ft	Northing:	14,415,387.540 usft	Latitude:	39.693917990
	+E/-W	0.00 ft	Easting:	1,714,226.184 usft	Longitude:	-80.737610490
Position Uncertainty	0.00 ft		Wellhead Elevation:	ft	Ground Level:	1,277.00 ft
Grid Convergence:						

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	11/30/2021	-8.63	66.42	51,654.86104830

Design	rev2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	284.314

Plan Survey Tool Program	Date			
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	12,766.17 rev2 (Original Hole)		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,502.00	0.00	0.000	7,502.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,335.31	16.67	212.231	8,323.60	-101.80	-64.18	2.00	2.00	0.00	212.23	
10,791.26	16.67	212.231	10,676.39	-697.62	-439.84	0.00	0.00	0.00	0.00	
11,746.69	50.00	322.450	11,512.01	-507.22	-763.39	6.00	3.49	11.54	121.35	
12,266.30	91.00	329.949	11,682.00	-106.87	-1,026.40	8.00	7.89	1.44	11.34	
12,766.17	91.00	329.949	11,673.28	325.75	-1,276.68	0.00	0.00	0.00	0.00	Elmer N-15 HU BHL r





Planning Report - Geographic

Database: DB\_Feb2822  
 Company: Tug Hill Operating LLC  
 Project: Wetzel County, West Virginia (UTM17 NAD83)  
 Site: Elmer  
 Well: Elmer N-15 HU (slot B)  
 Wellbore: Original Hole  
 Design: rev2

Local Co-ordinate Reference: Well Elmer N-15 HU (slot B)  
 TVD Reference: GL @ 1277.00ft  
 MD Reference: GL @ 1277.00ft  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.000	0.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
100.00	0.00	0.000	100.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
200.00	0.00	0.000	200.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
300.00	0.00	0.000	300.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
400.00	0.00	0.000	400.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
500.00	0.00	0.000	500.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
600.00	0.00	0.000	600.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
700.00	0.00	0.000	700.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
800.00	0.00	0.000	800.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
900.00	0.00	0.000	900.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
1,000.00	0.00	0.000	1,000.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
1,100.00	0.00	0.000	1,100.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
1,200.00	0.00	0.000	1,200.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
1,300.00	0.00	0.000	1,300.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
1,400.00	0.00	0.000	1,400.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
1,500.00	0.00	0.000	1,500.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
1,600.00	0.00	0.000	1,600.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
1,700.00	0.00	0.000	1,700.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
1,800.00	0.00	0.000	1,800.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
1,900.00	0.00	0.000	1,900.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
2,000.00	0.00	0.000	2,000.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
2,100.00	0.00	0.000	2,100.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
2,200.00	0.00	0.000	2,200.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
2,300.00	0.00	0.000	2,300.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
2,400.00	0.00	0.000	2,400.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
2,500.00	0.00	0.000	2,500.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
2,600.00	0.00	0.000	2,600.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
2,700.00	0.00	0.000	2,700.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
2,800.00	0.00	0.000	2,800.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
2,900.00	0.00	0.000	2,900.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
3,000.00	0.00	0.000	3,000.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
3,100.00	0.00	0.000	3,100.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
3,200.00	0.00	0.000	3,200.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
3,300.00	0.00	0.000	3,300.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
3,400.00	0.00	0.000	3,400.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
3,500.00	0.00	0.000	3,500.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
3,600.00	0.00	0.000	3,600.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
3,700.00	0.00	0.000	3,700.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
3,800.00	0.00	0.000	3,800.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
3,900.00	0.00	0.000	3,900.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
4,000.00	0.00	0.000	4,000.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
4,100.00	0.00	0.000	4,100.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
4,200.00	0.00	0.000	4,200.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
4,300.00	0.00	0.000	4,300.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
4,400.00	0.00	0.000	4,400.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
4,500.00	0.00	0.000	4,500.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
4,600.00	0.00	0.000	4,600.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
4,700.00	0.00	0.000	4,700.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
4,800.00	0.00	0.000	4,800.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
4,900.00	0.00	0.000	4,900.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
5,000.00	0.00	0.000	5,000.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
5,100.00	0.00	0.000	5,100.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
5,200.00	0.00	0.000	5,200.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
5,300.00	0.00	0.000	5,300.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
5,400.00	0.00	0.000	5,400.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490





Planning Report - Geographic

Database:	DB_Feb2822	Local Co-ordinate Reference:	Well Elmer N-15 HU (slot B)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1277.00ft
Project:	Wetzel County, West Virginia (UTM17 NAD83)	MD Reference:	GL @ 1277.00ft
Site:	Elmer	North Reference:	Grid
Well:	Elmer N-15 HU (slot B)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,500.00	0.00	0.000	5,500.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
5,600.00	0.00	0.000	5,600.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
5,700.00	0.00	0.000	5,700.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
5,800.00	0.00	0.000	5,800.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
5,900.00	0.00	0.000	5,900.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
6,000.00	0.00	0.000	6,000.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
6,100.00	0.00	0.000	6,100.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
6,200.00	0.00	0.000	6,200.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
6,300.00	0.00	0.000	6,300.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
6,400.00	0.00	0.000	6,400.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
6,500.00	0.00	0.000	6,500.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
6,600.00	0.00	0.000	6,600.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
6,700.00	0.00	0.000	6,700.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
6,800.00	0.00	0.000	6,800.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
6,900.00	0.00	0.000	6,900.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
7,000.00	0.00	0.000	7,000.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
7,100.00	0.00	0.000	7,100.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
7,200.00	0.00	0.000	7,200.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
7,300.00	0.00	0.000	7,300.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
7,400.00	0.00	0.000	7,400.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
7,502.00	0.00	0.000	7,502.00	0.00	0.00	14,415,387.540	1,714,226.184	39.693917990	-80.737610490
<b>KOP Begin 2°/100' build</b>									
7,600.00	1.96	212.231	7,599.98	-1.42	-0.89	14,415,386.122	1,714,225.290	39.693914103	-80.737613683
7,700.00	3.96	212.231	7,699.84	-5.79	-3.65	14,415,381.754	1,714,222.536	39.693902130	-80.737623518
7,800.00	5.96	212.231	7,799.46	-13.10	-8.26	14,415,374.441	1,714,217.926	39.693882082	-80.737639986
7,900.00	7.96	212.231	7,898.72	-23.35	-14.72	14,415,364.191	1,714,211.463	39.693853985	-80.737663066
8,000.00	9.96	212.231	7,997.50	-36.52	-23.03	14,415,351.017	1,714,203.157	39.693817872	-80.737692729
8,100.00	11.96	212.231	8,095.67	-52.60	-33.17	14,415,334.936	1,714,193.018	39.693773787	-80.737728941
8,200.00	13.96	212.231	8,193.11	-71.57	-45.13	14,415,315.965	1,714,181.057	39.693721785	-80.737771656
8,300.00	15.96	212.231	8,289.72	-93.41	-58.89	14,415,294.130	1,714,167.291	39.693661929	-80.737820823
8,335.31	16.67	212.231	8,323.60	-101.80	-64.18	14,415,285.741	1,714,162.002	39.693638933	-80.737839712
<b>Begin 16.67° tangent</b>									
8,400.00	16.67	212.231	8,385.58	-117.49	-74.08	14,415,270.046	1,714,152.106	39.693595910	-80.737875052
8,500.00	16.67	212.231	8,481.38	-141.75	-89.37	14,415,245.786	1,714,136.811	39.693529407	-80.737929679
8,600.00	16.67	212.231	8,577.18	-166.01	-104.67	14,415,221.526	1,714,121.515	39.693462904	-80.737984305
8,700.00	16.67	212.231	8,672.98	-190.27	-119.96	14,415,197.266	1,714,106.220	39.693396401	-80.738038931
8,800.00	16.67	212.231	8,768.78	-214.53	-135.26	14,415,173.006	1,714,090.924	39.693329898	-80.738093557
8,900.00	16.67	212.231	8,864.58	-238.79	-150.56	14,415,148.746	1,714,075.628	39.693263395	-80.738148182
9,000.00	16.67	212.231	8,960.38	-263.05	-165.85	14,415,124.486	1,714,060.333	39.693196892	-80.738202808
9,100.00	16.67	212.231	9,056.18	-287.31	-181.15	14,415,100.226	1,714,045.037	39.693130389	-80.738257434
9,200.00	16.67	212.231	9,151.97	-311.57	-196.44	14,415,075.966	1,714,029.742	39.693063886	-80.738312059
9,300.00	16.67	212.231	9,247.77	-335.83	-211.74	14,415,051.706	1,714,014.446	39.692997383	-80.738366685
9,400.00	16.67	212.231	9,343.57	-360.10	-227.03	14,415,027.446	1,713,999.151	39.692930880	-80.738421310
9,500.00	16.67	212.231	9,439.37	-384.36	-242.33	14,415,003.186	1,713,983.855	39.692864377	-80.738475935
9,600.00	16.67	212.231	9,535.17	-408.62	-257.63	14,414,978.926	1,713,968.559	39.692797873	-80.738530560
9,700.00	16.67	212.231	9,630.97	-432.88	-272.92	14,414,954.666	1,713,953.264	39.692731370	-80.738585185
9,800.00	16.67	212.231	9,726.77	-457.14	-288.22	14,414,930.406	1,713,937.968	39.692664867	-80.738639810
9,900.00	16.67	212.231	9,822.57	-481.40	-303.51	14,414,906.146	1,713,922.673	39.692598364	-80.738694435
10,000.00	16.67	212.231	9,918.37	-505.66	-318.81	14,414,881.886	1,713,907.377	39.692531860	-80.738749060
10,100.00	16.67	212.231	10,014.17	-529.92	-334.10	14,414,857.625	1,713,892.081	39.692465357	-80.738803684
10,200.00	16.67	212.231	10,109.97	-554.18	-349.40	14,414,833.365	1,713,876.786	39.692398854	-80.738858309
10,300.00	16.67	212.231	10,205.77	-578.44	-364.69	14,414,809.105	1,713,861.490	39.692332350	-80.738912933
10,400.00	16.67	212.231	10,301.57	-602.70	-379.99	14,414,784.845	1,713,846.195	39.692265847	-80.738967557
10,500.00	16.67	212.231	10,397.36	-626.96	-395.29	14,414,760.585	1,713,830.899	39.692199343	-80.739022181



Database:	DB_Feb2822	Local Co-ordinate Reference:	Well Elmer N-15 HU (slot B)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1277.00ft
Project:	Wetzel County, West Virginia (UTM17 NAD83)	MD Reference:	GL @ 1277.00ft
Site:	Elmer	North Reference:	Grid
Well:	Elmer N-15 HU (slot B)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
10,600.00	16.67	212.231	10,493.16	-651.22	-410.58	14,414,736.325	1,713,815.604	39.692132840	-80.739076805	
10,700.00	16.67	212.231	10,588.96	-675.48	-425.88	14,414,712.065	1,713,800.308	39.692066336	-80.739131429	
10,791.26	16.67	212.231	10,676.39	-697.62	-439.84	14,414,689.926	1,713,786.350	39.692005647	-80.739181278	
<b>Begin 6°/100' build/turn</b>										
10,800.00	16.40	213.818	10,684.77	-699.70	-441.19	14,414,687.840	1,713,784.994	39.691999930	-80.739186118	
10,850.00	15.13	223.837	10,732.90	-710.27	-449.64	14,414,677.268	1,713,776.546	39.691970963	-80.739216260	
10,900.00	14.36	235.258	10,781.26	-718.51	-459.26	14,414,669.027	1,713,766.929	39.691948406	-80.739250530	
10,950.00	14.19	247.425	10,829.73	-724.40	-470.01	14,414,663.138	1,713,756.171	39.691932320	-80.739288834	
11,000.00	14.63	259.387	10,878.16	-727.92	-481.88	14,414,659.619	1,713,744.301	39.691922749	-80.739331068	
11,050.00	15.64	270.214	10,926.44	-729.06	-494.83	14,414,658.478	1,713,731.350	39.691919720	-80.739377115	
11,100.00	17.11	279.517	10,974.42	-727.82	-508.83	14,414,659.719	1,713,717.356	39.691923241	-80.739426850	
11,150.00	18.93	287.239	11,021.97	-724.20	-523.83	14,414,663.339	1,713,702.356	39.691933301	-80.739480135	
11,200.00	21.01	293.566	11,068.97	-718.21	-539.79	14,414,669.328	1,713,686.391	39.691949875	-80.739536826	
11,250.00	23.29	298.753	11,115.28	-709.87	-556.68	14,414,677.668	1,713,669.505	39.691972915	-80.739596766	
11,300.00	25.71	303.040	11,160.78	-699.20	-574.44	14,414,688.338	1,713,651.745	39.692002359	-80.739659791	
11,350.00	28.23	306.621	11,205.34	-686.23	-593.03	14,414,701.308	1,713,633.158	39.692038127	-80.739725729	
11,400.00	30.83	309.652	11,248.84	-671.00	-612.39	14,414,716.542	1,713,613.797	39.692080120	-80.739794399	
11,450.00	33.50	312.249	11,291.17	-653.54	-632.47	14,414,734.000	1,713,593.713	39.692128223	-80.739865612	
11,500.00	36.21	314.502	11,332.20	-633.91	-653.22	14,414,753.632	1,713,572.963	39.692182304	-80.739939174	
11,550.00	38.95	316.480	11,371.82	-612.16	-674.58	14,414,775.385	1,713,551.602	39.692242215	-80.740014883	
11,600.00	41.73	318.235	11,409.92	-588.34	-696.50	14,414,799.200	1,713,529.690	39.692307792	-80.740092532	
11,650.00	44.53	319.809	11,446.41	-562.53	-718.90	14,414,825.010	1,713,507.286	39.692378855	-80.740171907	
11,700.00	47.35	321.233	11,481.18	-534.79	-741.73	14,414,852.747	1,713,484.453	39.692455209	-80.740252791	
11,746.69	50.00	322.450	11,512.01	-507.22	-763.39	14,414,880.321	1,713,462.796	39.692531109	-80.740329495	
<b>Begin 8°/100' build/turn</b>										
11,750.00	50.26	322.518	11,514.13	-505.21	-764.93	14,414,882.333	1,713,461.251	39.692536648	-80.740334966	
11,800.00	54.19	323.483	11,544.75	-473.65	-788.71	14,414,913.894	1,713,437.480	39.692623512	-80.740419144	
11,850.00	58.12	324.358	11,572.60	-440.09	-813.15	14,414,947.453	1,713,413.036	39.692715868	-80.740505694	
11,900.00	62.06	325.161	11,597.53	-404.69	-838.15	14,414,982.846	1,713,388.038	39.692813268	-80.740594192	
11,950.00	66.00	325.907	11,619.42	-367.64	-863.58	14,415,019.902	1,713,362.609	39.692915236	-80.740684210	
12,000.00	69.95	326.608	11,638.16	-329.10	-889.31	14,415,058.439	1,713,336.871	39.693021275	-80.740775307	
12,050.00	73.90	327.276	11,653.67	-289.27	-915.24	14,415,098.270	1,713,310.951	39.693130869	-80.740867041	
12,100.00	77.85	327.917	11,665.88	-248.34	-941.21	14,415,139.201	1,713,284.975	39.693243484	-80.740958965	
12,150.00	81.80	328.539	11,674.71	-206.51	-967.12	14,415,181.032	1,713,259.068	39.693358572	-80.741050630	
12,200.00	85.76	329.149	11,680.12	-163.98	-992.83	14,415,223.560	1,713,233.358	39.693475570	-80.741141590	
12,250.00	89.71	329.753	11,682.10	-120.96	-1,018.22	14,415,266.577	1,713,207.970	39.693593911	-80.741231401	
12,266.30	91.00	329.949	11,682.00	-106.87	-1,026.40	14,415,280.671	1,713,199.784	39.693632680	-80.741260356	
<b>Begin 91.00° lateral</b>										
12,300.00	91.00	329.949	11,681.41	-77.70	-1,043.28	14,415,309.837	1,713,182.910	39.693712915	-80.741320042	
12,400.00	91.00	329.949	11,679.67	8.84	-1,093.34	14,415,396.382	1,713,132.842	39.693950991	-80.741497145	
12,500.00	91.00	329.949	11,677.92	95.39	-1,143.41	14,415,482.928	1,713,082.773	39.694189067	-80.741674249	
12,600.00	91.00	329.949	11,676.18	181.93	-1,193.48	14,415,569.473	1,713,032.705	39.694427142	-80.741851355	
12,700.00	91.00	329.949	11,674.43	268.48	-1,243.55	14,415,656.018	1,712,982.636	39.694665217	-80.742028461	
12,766.17	91.00	329.949	11,673.28	325.75	-1,276.68	14,415,713.287	1,712,949.504	39.694822760	-80.742145660	

PBHL/TD 12766.17 MD 11673.28 TVD



<b>Database:</b>	DB_Feb2822	<b>Local Co-ordinate Reference:</b>	Well Elmer N-15 HU (slot B)
<b>Company:</b>	Tug Hill Operating LLC	<b>TVD Reference:</b>	GL @ 1277.00ft
<b>Project:</b>	Wetzel County, West Virginia (UTM17 NAD83)	<b>MD Reference:</b>	GL @ 1277.00ft
<b>Site:</b>	Elmer	<b>North Reference:</b>	Grid
<b>Well:</b>	Elmer N-15 HU (slot B)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev2		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Elmer N-15 HU BHL r2 - hit/miss target - Shape - Point	0.00	0.000	11,673.28	325.75	-1,276.68	14,415,713.287	1,712,949.504	39.694822760	-80.742145660
Elmer N-15 HU LP 50E - plan misses target center by 0.41ft at 12266.08ft MD (11682.00 TVD, -107.06 N, -1026.29 E) - Point	0.00	0.000	11,682.00	-107.26	-1,026.65	14,415,280.278	1,713,199.536	39.693631604	-80.741261241

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
7,502.00	7,502.00	0.00	0.00	KOP Begin 2°/100' build	
8,335.31	8,323.60	-101.80	-64.18	Begin 16.67° tangent	
10,791.26	10,676.39	-697.62	-439.84	Begin 6°/100' build/turn	
11,746.69	11,512.01	-507.22	-763.39	Begin 8°/100' build/turn	
12,266.30	11,682.00	-106.87	-1,026.40	Begin 91.00° lateral	
12,766.17	11,673.28	325.75	-1,276.68	PBHL/TD 12766.17 MD 11673.28 TVD	

## MEMORANDUM OF SURFACE USE AGREEMENT

This Memorandum of Surface Use Agreement ("Memorandum") made this 25 day of May, 2021 by and between Charles Lee & Betty Jean Huggins, husband and wife, whose address is 5352 Palmer Ridge Road, Proctor, WV 26055, (hereinafter collectively called "Surface Owner"), and TH EXPLORATION, LLC, a Texas limited liability company, with an address of 1320 S. University Drive, Suite 500, Fort Worth, TX 76107, (hereinafter called "Company").

WITNESSETH

For and in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound, Surface Owner did make and execute in favor of Company a Surface Use Agreement (the "Agreement") dated May 25, 2021 and made effective May 25, 2021 which provides for a five (5) year term ("Agreement Term") covering Surface Owner's interest in the following described lands (the "Lands"):

The Lands are located, all or part, in Proctor District, Wetzel County, State of West Virginia, and including lands identified as: 12-8-16, and described for the purposes of this Memorandum as containing 39.19 acres, and Lands located, all or part, in Proctor District, Wetzel County, State of West Virginia, and including all contiguous or appurtenant lands owned by Surface Owner, as described in that certain deed dated July 1, 1987 and recorded in the office of the County Clerk of the aforesaid County in Deed Book, 322-120.

The Company desires to use the portion of Land labeled as "Limit of Disturbance - Pad" and "Limit of Disturbance - Access Road" on the attached Exhibit A for the construction and installation of access roads, drilling pads, tanks, fences, pits and any other facilities or equipment necessary or convenient for the drilling, completion, production, operation, and maintenance of the Company's operations on or off the Land as well as to lay, maintain, excavate, construct, survey, re-construct, operate, tie into, inspect, enlarge, repair, replace, alter, clear trees and other obstructions, and remove, one or more above and/or below ground pipelines, whether permanent or temporary, with fittings and appliances, for the transportation of potable and non-potable fresh water, produced water, completion backflow water, oil, gas and other liquid or gaseous products/substances to and from wells drilled, or to be drilled, on or off the Lands and the Surface Owner is agreeable to the same on the terms and conditions set out in the Agreement.

The Agreement also grants unto Company, Surface Owner's consent to and an easement for the drilling, production, and operation of shallow and deep horizontal or vertical oil and gas wells at any legal location(s) upon the surface of the Lands pursuant to W. Va. Code §§ 22-6A and 22C-9-7(b)(4) and applicable regulations.

The Agreement, with all of its terms, covenants and other provisions, is referred to and incorporated into this Memorandum for all purposes. This Memorandum is placed of record for the purpose of giving notice of the Agreement. Nothing contained in this Memorandum will alter or amend any of the terms and provisions of the Agreement. In the event of any conflict between this Memorandum and the Agreement, the terms and conditions of the Agreement shall control.

IN WITNESS WHEREOF this Memorandum of Surface Use Agreement is executed as of the date first above written.

Surface Owner: Charles Lee Huggins Betty Jean Huggins  
Charles Lee Huggins Betty Jean Huggins

Company: TH EXPLORATION, LLC

By: [Signature]  
Name: Benjamin J. Irwin  
Title: Attorney-in-Fact

RECEIVED  
Office of Oil and Gas  
APR 28 2022  
WV Department of  
Environmental Protection



ACKNOWLEDGEMENT

STATE OF WEST VIRGINIA )  
 ) SS:  
COUNTY OF WETZEL )

On this the 25 day of May, 2021, before me, a notary public, the undersigned authority, personally appeared Charles Lee Huggins, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he/she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires August 8, 2021 Signature: [Signature]  
Notary Public

Name/Notary Public (print): Mich Feather



ACKNOWLEDGEMENT

STATE OF WEST VIRGINIA )  
 ) SS:  
COUNTY OF WETZEL )

On this the 25 day of May, 2021, before me, a notary public, the undersigned authority, personally appeared Betty Jean Huggins, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he/she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires August 8, 2021 Signature: [Signature]  
Notary Public

Name/Notary Public (print): Mich Feather



ACKNOWLEDGEMENT

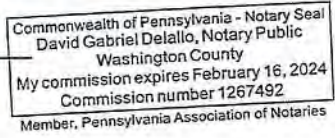
COMMONWEALTH OF PENNSYLVANIA )  
 ) SS:  
COUNTY OF WASHINGTON )

On this, the 25 day of May, 2021, before me a notary public, the undersigned authority, personally appeared Benjamin J. Irwin, who acknowledged himself to be the Attorney-In-Fact of TH EXPLORATION, LLC, a Texas limited liability company, and that he as such Attorney-In-Fact being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the limited liability company by himself as Attorney-In-Fact.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

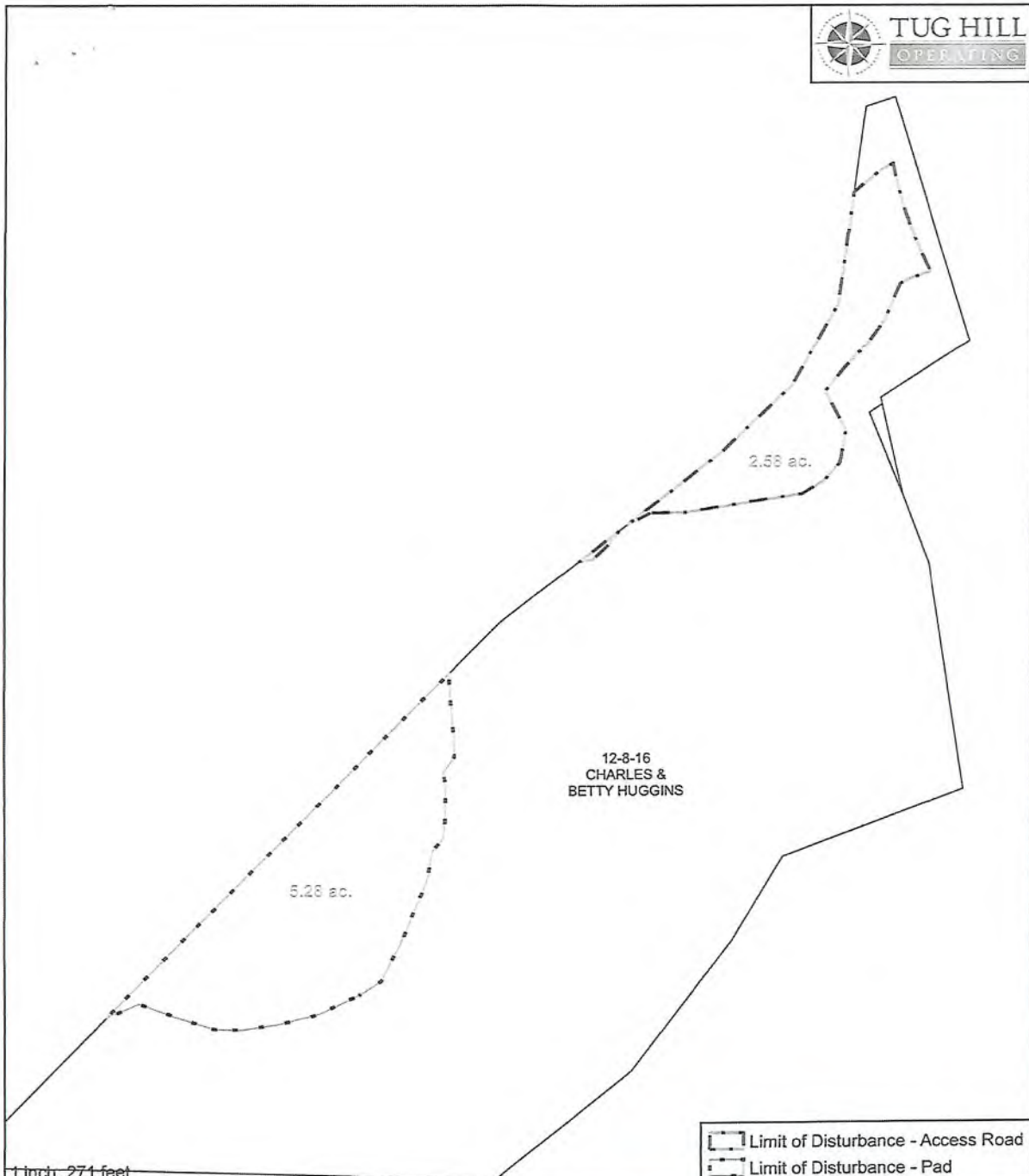
My Commission Expires: 2/16/24 Signature: [Signature]  
Notary Public

Name/Notary Public (print): David G. Delallo



Prepared by and please return to:  
TH Exploration, LLC  
1320 S. University Drive, Suite 500  
Fort Worth, TX 76107

RECEIVED  
Office of Oil and Gas  
APR 28 2022  
Department of Environmental Protection



0 80 160 320  
Feet

N

NOTE: THE APPROVED SITE LOCATION FOR THE SURFACE SITE, ACCESS ROAD, RIGHT OF WAY, AND THE LOCATION OF THE PROPERTY TAX PARCELS ARE AS SHOWN ON THIS MAP. THE ACTUAL PROPERTY BOUNDARIES, INCLUDING THE ACTUAL PROPERTY TAX PARCELS, SHALL BE AS SHOWN AND DESCRIBED IN THE DEEDS FILED IN THE COUNTY RECORDS AND THE APPROVED SITE LOCATION FOR THE SURFACE SITE, ACCESS ROAD AND RIGHT OF WAY SHALL BE THE LOCATION AS ACTUALLY CONSTRUCTED.

**Exhibit "A"**

**CHARLES & BETTY HUGGINS**  
Wetzel County, WV

Date: 5-25-21

Name: CLH

Name: Betty Ann Huggins



Date: 4/14/2021  
PCS: NAD 1983 UTM Zone 17N Foot US

RECEIVED  
Office of Oil and Gas

APR 28 2022

WV Department of  
Environmental Protection

Wetzel County  
Carol S. Haurdt, Clerk  
Instrument: 308767  
06/11/2021 @ 03:59:54 PM  
AGREEMENT  
Book 138 @ Page 714  
Pages Recorded 3  
Recording Cost \$  
11.00



## MEMORANDUM OF SURFACE USE AGREEMENT

This Memorandum of Surface Use Agreement ("Memorandum") made this 14 day of MAY 2021 by and between Elnora Tuttle, by her Power-of-Attorney whose address is 6768 Proctor Creek Road, Proctor, WV 26055, (hereinafter collectively called "Surface Owner"), and TH EXPLORATION, LLC, a Texas limited liability company, with an address of 1320 S. University Drive, Suite 500, Fort Worth, TX 76107, (hereinafter called "Company").

### WITNESSETH

For and in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound, Surface Owner did make and execute in favor of Company a Surface Use Agreement (the "Agreement") dated MAY 14, 2021 and made effective MAY 24, 2021 which provides for a ten (10) year term ("Agreement Term") covering Surface Owner's interest in the following described lands (the "Lands"):

The Lands are located, all or part, in Proctor District, Wetzel County, State of West Virginia, and including lands identified as: 12-8-15, and described for the purposes of this Memorandum as containing 39.2 acres, and Lands located, all or part, in Proctor District, Wetzel County, State of West Virginia, and including all contiguous or appurtenant lands owned by Surface Owner, as described in that certain deed dated July 25, 1985 and recorded in the office of the County Clerk of the aforesaid County in Deed Book, 315-62.

The Company desires to use the portion of Land labeled as "Limit of Disturbance - Pad" and "Limit of Disturbance - Access Road" on the attached Exhibit A for the construction and installation of access roads, drilling pads, tanks, fences, pits and any other facilities or equipment necessary or convenient for the drilling, completion, production, operation, and maintenance of the Company's operations on or off the Land as well as to lay, maintain, excavate, construct, survey, re-construct, operate, tie into, inspect, enlarge, repair, replace, alter, clear trees and other obstructions, and remove, one or more above and/or below ground pipelines, whether permanent or temporary, with fittings and appliances, for the transportation of potable and non-potable fresh water, produced water, completion backflow water, oil, gas and other liquid or gaseous products/substances to and from wells drilled, or to be drilled, on or off the Lands and the Surface Owner is agreeable to the same on the terms and conditions set out in the Agreement.

The Agreement also grants unto Company, Surface Owner's consent to and an easement for the drilling, production, and operation of shallow and deep horizontal or vertical oil and gas wells at any legal location(s) upon the surface of the Lands pursuant to W. Va. Code §§ 22-6A and 22C-9-7(b)(4) and applicable regulations.

The Agreement, with all of its terms, covenants and other provisions, is referred to and incorporated into this Memorandum for all purposes. This Memorandum is placed of record for the purpose of giving notice of the Agreement. Nothing contained in this Memorandum will alter or amend any of the terms and provisions of the Agreement. In the event of any conflict between this Memorandum and the Agreement, the terms and conditions of the Agreement shall control.

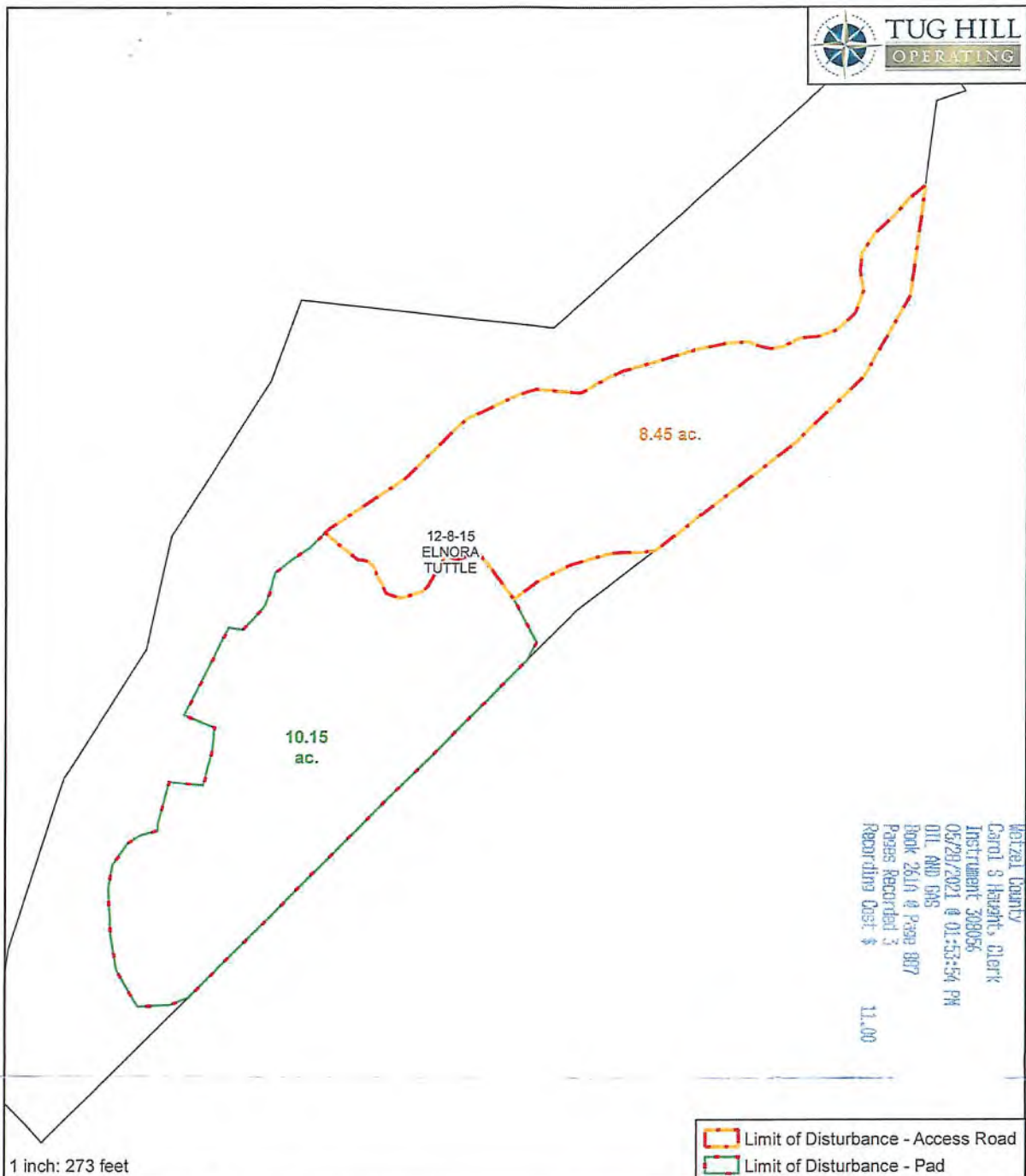
IN WITNESS WHEREOF this Memorandum of Surface Use Agreement is executed as of the date first above written.

Surface Owner: Sandra Murriner  
Sandra Murriner  
Power-of-Attorney

Company: TH EXPLORATION, LLC

By: Benjamin J. Irwin  
Name: Benjamin J. Irwin  
Title: Attorney-in-Fact

RECEIVED  
Office of Oil and Gas  
APR 28 2022  
WV Department of  
Environmental Protection



Weitzel County  
 Carol S. Herbert, Clerk  
 Instrument: 309056  
 05/29/2021 @ 01:53:54 PM  
 OIL AND GAS  
 Book 261A @ Page 987  
 Pages Recorded: 3  
 Recording Cost: \$ 11.00

1 inch: 273 feet

- Limit of Disturbance - Access Road
- Limit of Disturbance - Pad

0 80 160 320  
 Feet

NOTE: THE APPROVED SITE LOCATION FOR THE SURFACE SITE, ACCESS ROAD, POINT OF VIEW AND THE LOCATION OF THE PROPERTY TAX PARCELS ARE AS SHOWN ON THIS DRAWING. PROPERTY TAX PARCELS LOCATIONS MAY VARY AS THE EXHIBIT IS NOT AN OFFICIAL RECORD. THE ACTUAL PROPERTY TAX PARCELS SHALL BE AS SHOWN AND DESCRIBED IN THE DEED AS FILED IN THE COUNTY RECORDS AND THE APPROVED SITE LOCATION FOR THE SURFACE SITE, ACCESS ROAD AND POINT OF VIEW SHALL BE THE LOCATION AS ACTUALLY CONSTRUCTED.

## Exhibit "A"

ELNORA TUTTLE  
 Weitzel County, WV

Date: \_\_\_\_\_  
 Name: *Samuel D. Herbert*  
 Name: \_\_\_\_\_



Date: 4/14/2021  
 PCS: NAD 1983 UTM Zone 17N Feet US

RECEIVED  
 Office of Oil and Gas  
 APR 28 2022

WV Department of Environmental Protection  
 (770) 520-6200



WW-9  
(4/16)

API Number 47 - 103 - \_\_\_\_\_  
Operator's Well No. Elmer N-15HU

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Tug Hill Operating, LLC OP Code 494510851

Watershed (HUC 10) French Creek - Ohio River Quadrangle Wileyville 7.5'

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: AST Tanks with proper containment will be used for staging fresh water for frac and flow back water

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.? AST Tanks will be used with proper contain

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number UIC 2459, UIC 965, UIC 359, UIC 2D0732540, UIC 2D0732523 )
- Reuse (at API Number \_\_\_\_\_)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_)

Will closed loop system be used? If so, describe: Yes - For Vertical and Horizontal Drilling

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

-If oil based, what type? Synthetic, petroleum, etc. Synthetic Oil Base

Additives to be used in drilling medium? Barite for weight

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. All drill cuttings to be disposed of in a 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? Wetzel County Sanitary Landfill (SWF-1021 / WW/0109185) and Westmoreland Sanitary Landfill, LLC (SAN1405 / PA DEP EC#1386426)

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 Jim Pancake

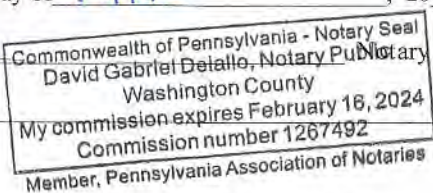
Company Official (Typed Name) Jim Pancake

Company Official Title Vice President Geoscience

Subscribed and sworn before me this 21 day of APRIL, 20 22

David Gabriel Detalle Notary Public

My commission expires 2/16/24



RECEIVED  
Office of Oil and Gas  
APR 28 2022  
WV Department of Environmental Protection

**Tug Hill Operating, LLC**

Proposed Revegetation Treatment: Acres Disturbed 26.11 Prevegetation pH 6.0

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20 or equivalent

Fertilizer amount 1/3 ton lbs/acre

Mulch 2.5 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Annual Ryegrass	40	Fox Tail / Grassy	40
		Perennial Rye	30
		Crown Vetch	20

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: *Hayme J Kn...*

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Title: Oil and Gas Inspector Date: 1/19/2022

Field Reviewed?  Yes  No

RECEIVED  
Office of Oil and Gas  
APR 28 2022  
WV Department of  
Environmental Protection



# PROPOSED ELMER PAD

DRAWING NOT TO SCALE

REFERENCE IS HEREBY MADE TO THE WV D.E.P. OFFICE OF OIL & GAS, "EROSION AND SEDIMENT CONTROL FIELD MANUAL" FOR REQUIREMENTS AND BMPs FOR AVERAGE FIELD CONDITIONS CONCERNING THE MAINTENANCE OF EXISTING ROADS AND THE CONSTRUCTION OF PROPOSED ROADS. FIELD CONDITIONS MAY REQUIRE VARIANCE FROM THESE GUIDELINES AND THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION TO THE INSPECTOR AND THE OPERATOR SHOULD THESE CONDITIONS OCCUR.

INSTALL CULVERTS AS SHOWN ON RECLAMATION PLAN OR AS FIELD CONDITIONS REQUIRE.

ENTRANCES ONTO PUBLIC ROADS SHALL BE CONSTRUCTED OR MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. ADDITIONAL PERMITS MAY BE REQUIRED.

TEMPORARILY SEED AND MULCH ALL SLOPES UPON CONSTRUCTION OF LOCATION.

ALL CUT AND FILL SLOPES ARE 2H: 1V SLOPE.

ALL TREES 6-INCHES AND ABOVE ARE TO BE CUT AND STACKED. BRUSH SLASHINGS ARE TO UTILIZED DOWN SLOPE OF SITE AND STRUCTURES TO ACT AS A CONTROL BARRIER IF AVAILABLE.

DRAWING NOT TO SCALE

12-8-15  
ELNORA TUTTLE  
DB 315/ 62  
39.19 Ac.

88.78' @ 0.00%  
58.08' @ 12.00%  
55.14' @ 0.00%

270.59' @ -12.00%  
65.70' @ -10.00%  
71.72' @ -10.00%  
31.35' @ 1.45%  
27.86' @ 0.10%

ACCESS ROAD

TS

ELMER PAD

12-8-16  
CHARLES + BETTY  
HUGGINS  
DB 322/ 120  
39.13 Ac.

PREVAILING WIND

Ephemeral Stream

Ephemeral Stream

CLEARING LIMITS

Ephemeral Stream

Pg. 1 of 2

### LEGEND

Note:  
⊙ - Denotes existing culvert with appropriate sediment outlet control (Rip Rap splash pad).

- Silt Fence and or Sediment and Erosion Control Measure.
- - - Surface Boundary
- ... LOD
- x - Fenceline

RECEIVED  
Office of Oil and Gas  
APR 28 2022  
WV Department of Environmental Protection

TOPO SECTION:

WILEYVILLE 7.5'

OPERATOR:

PREPARED FOR:

TUG HILL OPERATING, LLC  
380 SOUTHPOINTE BLVD  
SUITE 200  
CANONSBURG, PA 15317



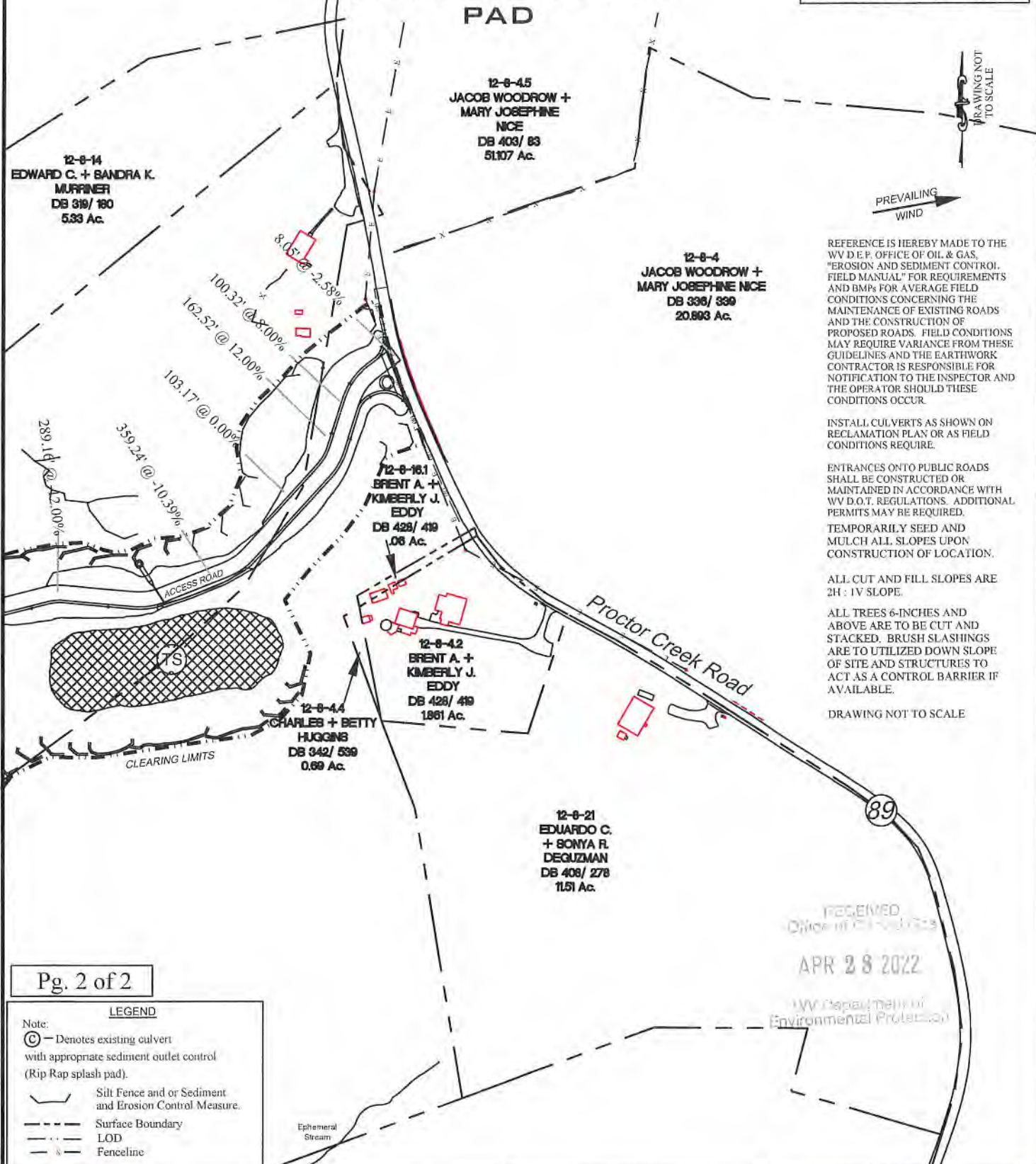
Jackson Surveying Inc.  
2418 E. Pike St. #112  
Clarksburg, WV 26301  
Phone: 304-623-5861



COUNTY	DISTRICT	DATE	SCALE
WETZEL	PROCTOR	11-30-2021	NONE
DRAWN BY	OPERATOR NO.		
J.D.C	494510851		



**PROPOSED ELMER PAD**



REFERENCE IS HEREBY MADE TO THE WV D.E.P. OFFICE OF OIL & GAS, "EROSION AND SEDIMENT CONTROL FIELD MANUAL" FOR REQUIREMENTS AND BMPs FOR AVERAGE FIELD CONDITIONS CONCERNING THE MAINTENANCE OF EXISTING ROADS AND THE CONSTRUCTION OF PROPOSED ROADS. FIELD CONDITIONS MAY REQUIRE VARIANCE FROM THESE GUIDELINES AND THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION TO THE INSPECTOR AND THE OPERATOR SHOULD THESE CONDITIONS OCCUR.

INSTALL CULVERTS AS SHOWN ON RECLAMATION PLAN OR AS FIELD CONDITIONS REQUIRE.

ENTRANCES ONTO PUBLIC ROADS SHALL BE CONSTRUCTED OR MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. ADDITIONAL PERMITS MAY BE REQUIRED.

TEMPORARILY SEED AND MULCH ALL SLOPES UPON CONSTRUCTION OF LOCATION.

ALL CUT AND FILL SLOPES ARE 2H : 1V SLOPE.

ALL TREES 6-INCHES AND ABOVE ARE TO BE CUT AND STACKED. BRUSH SLASHINGS ARE TO UTILIZED DOWN SLOPE OF SITE AND STRUCTURES TO ACT AS A CONTROL BARRIER IF AVAILABLE.

DRAWING NOT TO SCALE

RECEIVED  
 Office of Conservation  
 APR 28 2022  
 WV Department of Environmental Protection

**LEGEND**

Note:  
 © - Denotes existing culvert with appropriate sediment outlet control (Rip Rap splash pad).

- Silt Fence and/or Sediment and Erosion Control Measure.
- Surface Boundary
- LOD
- Fenceline

**Jackson Surveying Inc.**  
 2418 E. Pike St. #112  
 Clarksburg, WV 26301  
 Phone: 304-625-5801

TOPO SECTION:		OPERATOR:	
WILEYVILLE 7.5'		TUG HILL OPERATING, LLC	
COUNTY	DISTRICT	300 SOUTHPOINTE BLVD	
WETZEL	PROCTOR	SUITE 200	
DRAWN BY	OPERATOR NO.	DATE	SCALE
J.O.C.	494510851	11-30-2021	NONE

**TUG HILL OPERATING**

## Area of Review

### Sources of information to Support 35CSR8 - 5.11: 9.3 et seq.

Description of process to identify potential pathways for well communication during hydraulic fracturing activities.

#### Data Sources Reviewed:

1. Enverus and RS Energy Group Well Data service: Public nationwide data service that pulls directly from State agency Oil and Gas databases
2. Farm Maps
3. Topo Maps: Recent and older (contact WVGES)
4. Check with DPS

Contacted Adam Picard 724-485-9331, [apicard@dpslandservices.com](mailto:apicard@dpslandservices.com), DPS GIS (7/18/2022) to have him make maps of the wellbores with his information. DPS utilizes WVGES maps for their mapping seems it is the best publicly available. See attached map he provided.

#### Request maps for:

1. Wellbore with Enverus All Wells Layer
2. Map with Farm lines overlain and any well spots identified on Farm Maps
3. More recent (1970s vintage) topos and older topos

#### Discussion with Phil Dinterman WVGES GIS Department (7/15/2016)

- WVGES has plotted every well spot they have access to and are aware of with that contains a coordinate. 30000, 70000, and 90000 series wells are available via the WVGES online map. Some locations aren't great due to vintage and manipulation of maps through time
- 30000 series – any well drilled prior to 1929 – APIs were not assigned to original wells
- 70000 series – Well spots pulled from old Farm line maps that the WVGES has access to
- 90000 series – Any sources that the WVGES has access that shows a well spot but has no additional supporting information. DEP does not have 90000 series on their maps.
- There can be duplication between wells in the 3 series
- Phil indicated that other Operators are providing a screenshot of the WVGES map with their planned well and using that for permits



## Area of Review

### Sources of information to Support 35CSR8 - 5.11: 9.3 et seq.

Description of process to identify potential pathways for well communication during hydraulic fracturing activities.

#### Data Sources Reviewed:

1. Enverus and RS Energy Group Well Data service: Public nationwide data service that pulls directly from State agency Oil and Gas databases
2. Farm Maps
3. Topo Maps: Recent and older (contact WVGES)
4. Check with DPS

Contacted Adam Picard 724-485-9331, [apicard@dpslandservices.com](mailto:apicard@dpslandservices.com), DPS GIS (7/18/2022) to have him make maps of the wellbores with his information. DPS utilizes WVGES maps for their mapping seems it is the best publicly available. See attached map he provided.

#### Request maps for:

1. Wellbore with Enverus All Wells Layer
2. Map with Farm lines overlain and any well spots identified on Farm Maps
3. More recent (1970s vintage) topos and older topos

#### Discussion with Phil Dinterman WVGES GIS Department (7/15/2016)

- WVGES has plotted every well spot they have access to and are aware of with that contains a coordinate. 30000, 70000, and 90000 series wells are available via the WVGES online map. Some locations aren't great due to vintage and manipulation of maps through time
- 30000 series – any well drilled prior to 1929 – APIs were not assigned to original wells
- 70000 series – Well spots pulled from old Farm line maps that the WVGES has access to
- 90000 series – Any sources that the WVGES has access that shows a well spot but has no additional supporting information. DEP does not have 90000 series on their maps.
- There can be duplication between wells in the 3 series
- Phil indicated that other Operators are providing a screenshot of the WVGES map with their planned well and using that for permits



**Wells within 500' Buffer**

Note: Well spots depicted on Area of Review map are derived from State held coordinates. The spots may differ from those depicted on the Well Plat because the Plat locations represent actual field surveyed locations. Please refer to the Plat for surveyed well spots.

API Number	Operator Name	Total Depth	Perforated Fms	Producing zones not perforated	Is this well "known or reasonably expected to penetrate a depth that could be within the range of Fracture propagation"? 1000' is max limit I would assign to wells that might be within in range of fracture propagation	Comments
4710303467	Tug Hill Operating, LLC	12004' TVD (proposed)	Point Pleasant (proposed)	none	Yes, this is a permitted well in the Point Pleasant Formation. Once completed, this well will be within the expected fracture propagation from the proposed Point Pleasant stimulation. Proper casing and cement should prevent migration of fluids between wellbores.	Permitted Point Pleasant well by Tug Hill Operating, LLC., located on same well pad as the proposed well.
4710373094	unknown	unknown	unknown	unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be affected by fracturing in the planned Point Pleasant well.	State records are incomplete.
4710373099	unknown	unknown	unknown	unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be affected by fracturing in the planned Point Pleasant well.	State records are incomplete.

WV Geological &amp; Economic Survey:

Well: County = 103 Permit = 03467

Report Time: Tuesday, July 19, 2022 11:40:14 AM

Location Information: [View Map](#)

API	COUNTY	PERMIT	TAX_DISTRICT	QUAD_75	QUAD_15	LAT_DD	LON_DD	UTME	UTMN
4710303467	Wetzel	3467	Proctor	Wileyville	Littleton	39.693904	-80.737538	522503.4	4393817.4

## Bottom Hole Location Information:

API	EP_FLAG	UTME	UTMN	LON_DD	LAT_DD
4710303467	1 As Proposed	521799.7	4396712	-80.74565	39.720003

## Owner Information:

API	CMP_DT	SUFFIX	STATUS	SURFACE_OWNER	WELL_NUM	CO_NUM	LEASE	LEASE_NUM	MINERAL_OWN	OPERATOR_AT_COMPLETION	PROP_VD	PROP_TRGT_FM	TFM_EST_PR
4710303467	-/-	Dvid Orgnl Loc	Permitted	Elнора Tuttle		N-18HU	Elmer		Elнора Tuttle	Tug Hill Operating, LLC	12004	Pt Pleasant Fm	

## Completion Information:

API	CMP_DT	SPUD_DT	ELEV	DATUM	FIELD	DEEPEST_FM	DEEPEST_FMT	INITIAL_CLASS	FINAL_CLASS	TYPE	RIG	CMP_MTHD	TVD	TMD	NEW_FTG	KOD	G_BEF	G_AFT	O_BEF	O_AFT	NGL_BEI
4710303467	-/-	-/-	1275	Ground Level																	

WV Geological &amp; Economic Survey:

Well: County = 103 Permit = 73094

Report Time: Tuesday, October 19, 2021 1:56:42 PM

Location Information: [View Map](#)

API	COUNTY	PERMIT	TAX_DISTRICT	QUAD_75	QUAD_15	LAT_DD	LON_DD	UTME	UTMN
4710373094	Wetzel	73094	Proctor	Wileyville	Littleton	39.690995	-80.738175	522449.7	4393494.4

There is no Bottom Hole Location data for this well

## Owner Information:

API	CMP_DT	SUFFIX	STATUS	SURFACE_OWNER	WELL_NUM	CO_NUM	LEASE	LEASE_NUM	MINERAL_OWN	OPERATOR_AT_COMPLETION	PROP_VD	PROP_TRGT_FM	TFM_EST_PR
4710373094	-/-	unknown	Prpty Map	Rachel M Veater	1					----- unknown -----			

## Completion Information:

API	CMP_DT	SPUD_DT	ELEV	DATUM	FIELD	DEEPEST_FM	DEEPEST_FMT	INITIAL_CLASS	FINAL_CLASS	TYPE	RIG	CMP_MTHD	TVD	TMD	NEW_FTG	KOD	G_BEF	G_AFT	O_BEF	O_AFT	NGL
4710373094	-/-	-/-						unclassified	unclassified	not available	unknown	unknown									

WV Geological & Economic Survey:

**Well: County = 103 Permit = 73099**

Report Time: Tuesday, October 19, 2021 1:57:02 PM

Location Information: [View Map](#)

API	COUNTY	PERMIT	TAX_DISTRICT	QUAD_75	QUAD_15	LAT_DD	LON_DD	UTME	UTMN
4710373099	Wetzel	73099	Proctor	Wileyville	Littleton	39.694479	-80.741554	522158.9	4393880.2

There is no Bottom Hole Location data for this well

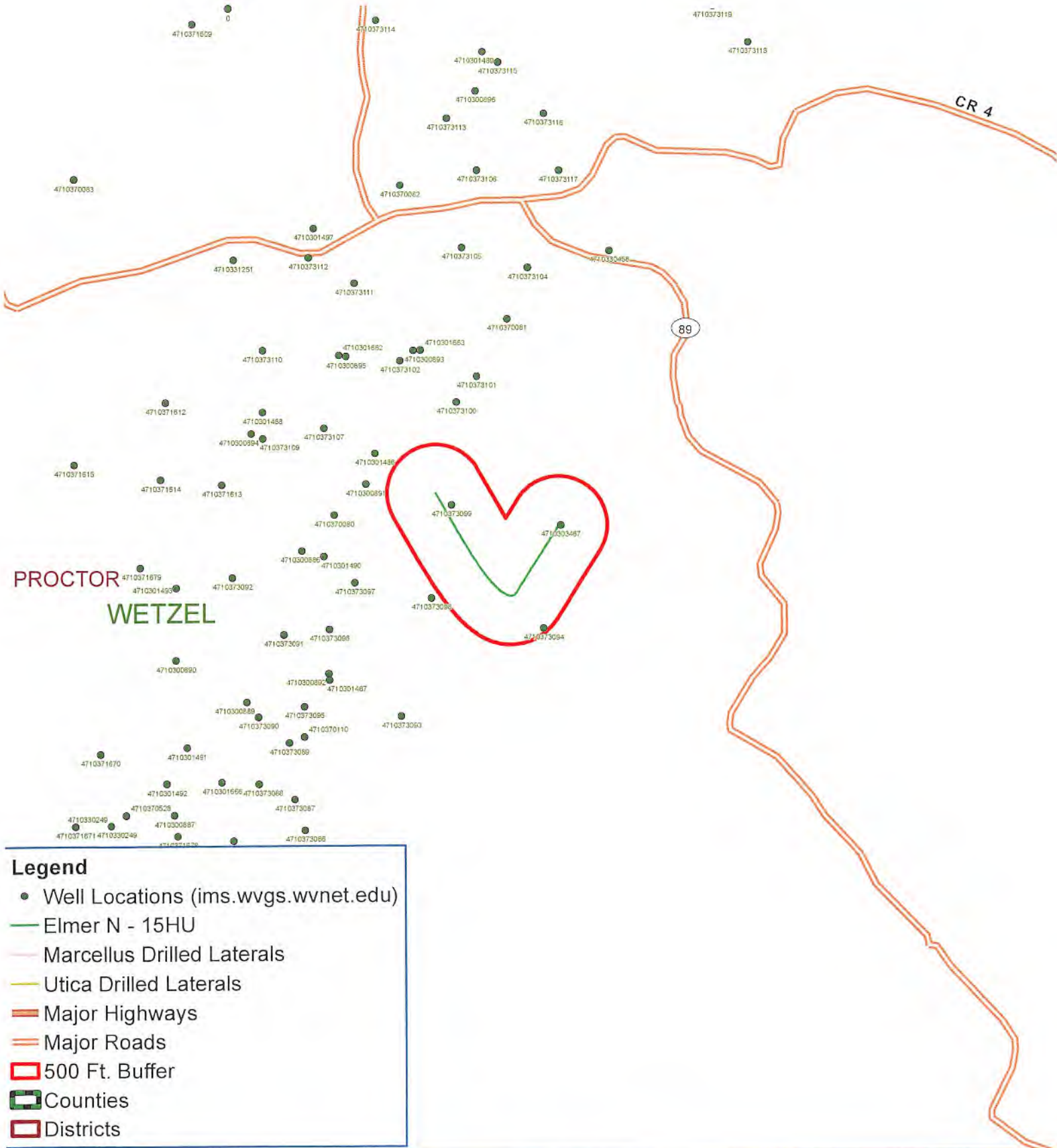
Owner Information:

API	CMP_DT	SUFFIX	STATUS	SURFACE_OWNER	WELL_NUM	CO_NUM	LEASE	LEASE_NUM	MINERAL_OWN	OPERATOR_AT_COMPLETION	PROP_VD	PROP_TRGT_FM	TFM_EST_PR
4710373099	-/-	unknown	Prpty Map	Nancy J Garner	10					----- unknown -----			

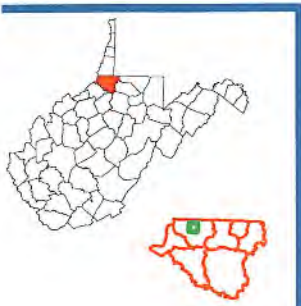
Completion Information:

API	CMP_DT	SPUD_DT	ELEV	DATUM	FIELD	DEEPEST_FM	DEEPEST_FMT	INITIAL_CLASS	FINAL_CLASS	TYPE	RIG	CMP_MTHD	TVD	TMD	NEW_FTG	KOD	G_BEF	G_AFT	O_BEF	O_AFT	NGL
4710373099	-/-	-/-						unclassified	unclassified	not available	unknown	unknown									





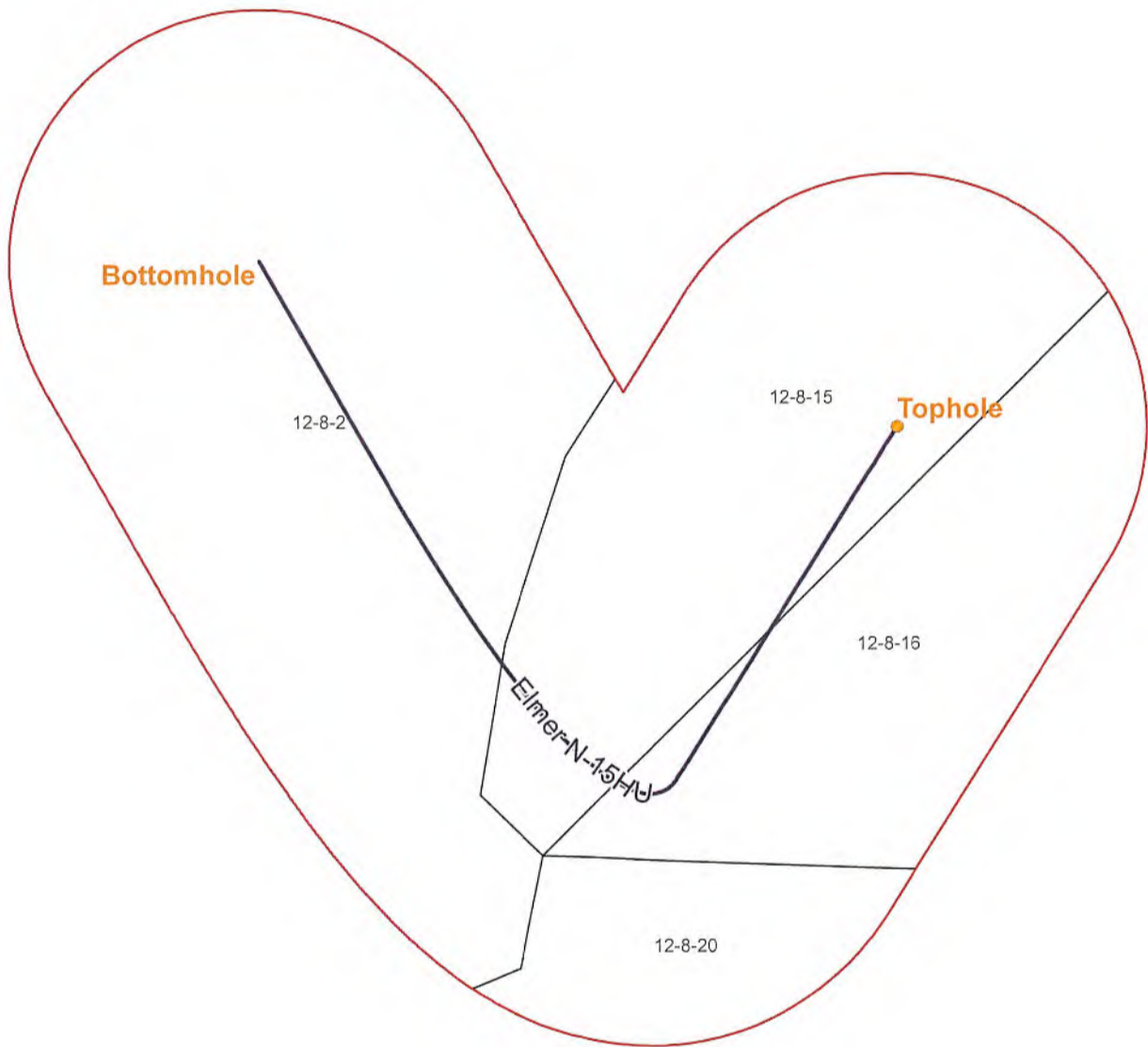
- Legend**
- Well Locations (ims.wvgs.wvnet.edu)
  - Elmer N - 15HU
  - Marcellus Drilled Laterals
  - Utica Drilled Laterals
  - Major Highways
  - Major Roads
  - 500 Ft. Buffer
  - Counties
  - Districts



# Elmer N - 15HU Proctor District Wetzel County, WV



Elmer N-15HU



Coordinate System: NAD 1983 UTM Zone 18N  
 Projection: Transverse Mercator  
 Datum: North American 1983  
 False Easting: 156549.65627  
 False Northing: 0.00000  
 Central Meridian: -81.00000  
 Scale Factor: 0.99999  
 Units: Feet US

**CONFIDENTIAL**



- Well of Interest
- 500' Buffer

Elmer N-15HU  
 Operators within 500 Feet of Well Borehole



Operators within 500' of Well Borehole  
Elmer N-15HU

COUNTY	DISTRICT	TMP	MINERAL OWNER OR LESSEE	ADDRESS
WETZEL	PROCTOR	12-8-2	TH EXPLORATION LLC	1320 S. University Blvd Suite 500 Fort Worth, TX 76107
WETZEL	PROCTOR	12-8-15	TH EXPLORATION LLC	1320 S. University Blvd Suite 500 Fort Worth, TX 76107
WETZEL	PROCTOR	12-8-16	TH EXPLORATION LLC	1320 S. University Blvd Suite 500 Fort Worth, TX 76107
WETZEL	PROCTOR	12-8-20	SWN PRODUCTION COMPANY LLC	10000 Energy Drive Spring, TX 77389
WETZEL	PROCTOR	12-8-20	EQUINOR USA ONSHORE PROPERTIES INC	6300 Bridge Point Pkwy Building 2, Ste 100 Austin, TX 78730





**TUG HILL**  
**OPERATING**

**Well Site Safety Plan**  
**Part A – Site Specific Data and Figures**

**Well Name: Elmer N-15HU**

**Pad Name: Elmer**

**County: Marshall**

*Elmer N-15HU*  
*1/19/2022*

UTM (meters), NAD83, Zone 17

Northing: 4393818.91

Easting: 522497.19

**KEY CONTACT FOR WELL SITE SAFETY PLAN  
DEVELOPMENT AND MAINTENANCE**

**Jerry V. DeRosa, Director EH&S Affairs**

**(724) 338-2029 (office)**

**(412) 736-5767 (cellular)**

**24-HOUR EMERGENCY PHONE NUMBER**

**(800) 921-9745**

RECEIVED  
Office of Oil and Gas  
APR 28 2022  
WV Department of  
Environmental Protection



WW-9

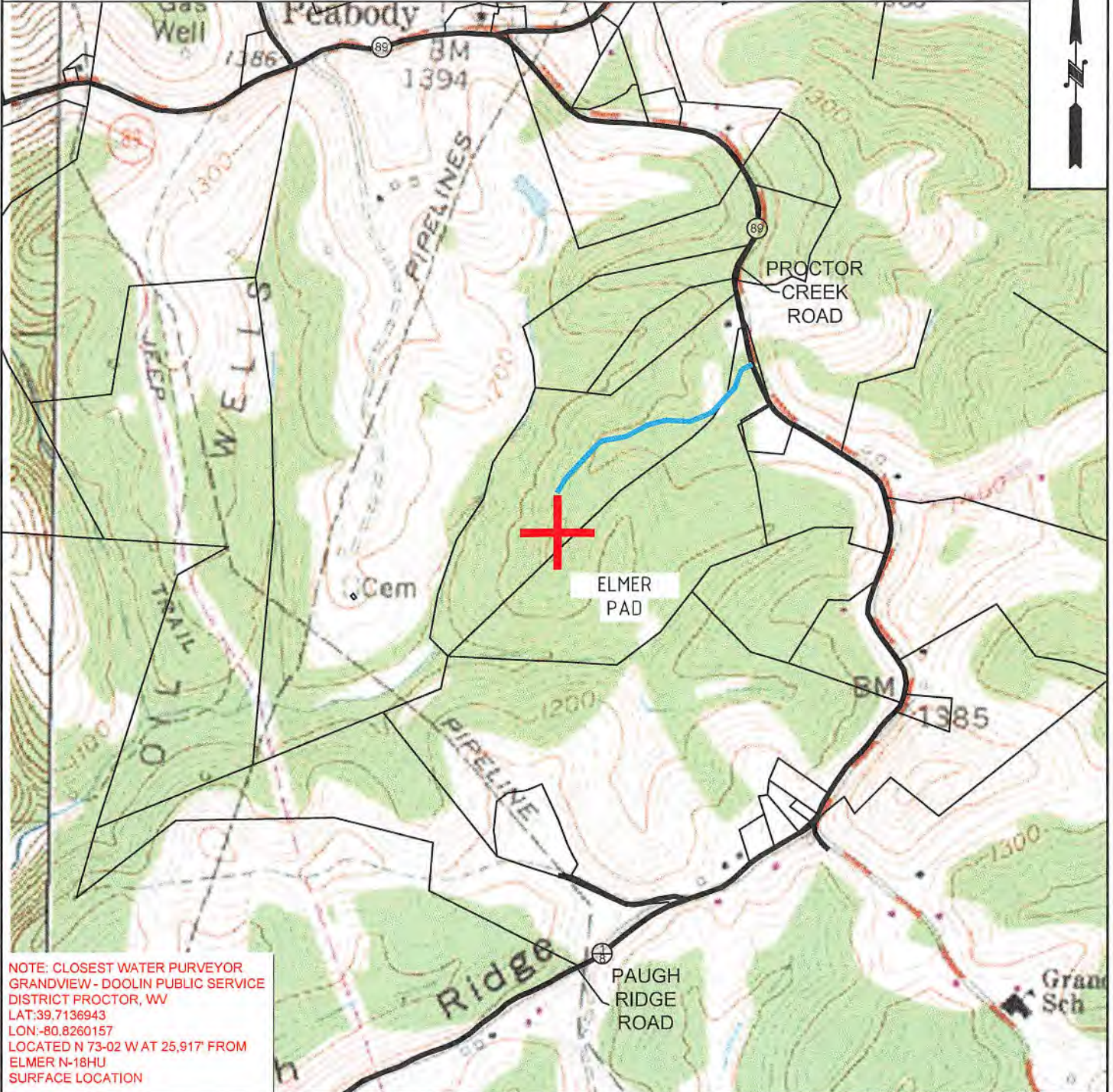
# PROPOSED ELMER PAD

SUPPLEMENT PG 2

RECEIVED  
Office of Oil and Gas

APR 28 2022

NY Department of  
Environmental Protection



NOTE: CLOSEST WATER PURVEYOR  
 GRANDVIEW - DOOLIN PUBLIC SERVICE  
 DISTRICT PROCTOR, WV  
 LAT:39.7136943  
 LON:-80.8260157  
 LOCATED N 73-02 W AT 25,917' FROM  
 ELMER N-18HU  
 SURFACE LOCATION



**TUG HILL**  
OPERATING

OPERATOR	494510851	TOPO SECTION	LEASE NAME
TUG HILL OPERATING, LLC 380 SOUTHPOINTE BLVD SUITE 200 CANONSBURG, PA 15317		WILEYVILLE 7.5'	ELMER
		SCALE: 1" = 1000'	DATE: DATE: 10-30-2021





July 20, 2022

WV Department of Environmental Protection  
Office of Oil & Gas  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Attention: Susan Rose

RE: Elmer N-15HU

Subject: Proposed Voluntary Pooling and Unitization

Dear Susan:

Tug Hill Operating, LLC is authorized through, either lease or other agreement, to unitize and pool all lands falling within the boundaries of the proposed voluntary unit included with this submission.

If your office has any questions or concerns regarding the contents of this letter, please do not hesitate to contact me directly at 724-749-8388, or by email at [amorris@tug-hilop.com](mailto:amorris@tug-hilop.com).

Sincerely,

A handwritten signature in blue ink that reads "Amy L. Morris".

**Amy L. Morris**  
Permitting Specialist – Appalachia Region  
Tug Hill Operating





July 20, 2022

WV Department of Environmental Protection  
Office of Oil & Gas  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Attention: Susan Rose

RE: Elmer N-15HU

Subject: Proposed Voluntary Pooling and Unitization

Dear Susan:

Tug Hill Operating, LLC is authorized through, either lease or other agreement, to unitize and pool all lands falling within the boundaries of the proposed voluntary unit included with this submission.

If your office has any questions or concerns regarding the contents of this letter, please do not hesitate to contact me directly at 724-749-8388, or by email at [amorris@tug-hilop.com](mailto:amorris@tug-hilop.com).

Sincerely,

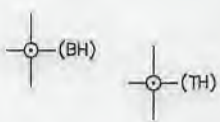
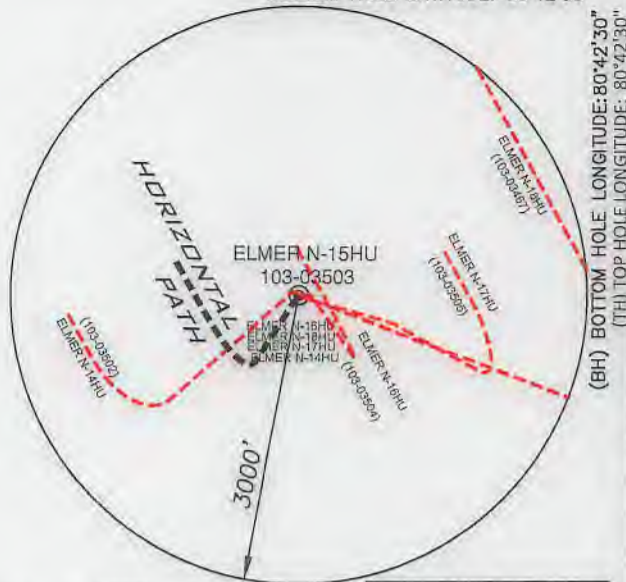
A handwritten signature in blue ink that reads "Amy L. Morris".

**Amy L. Morris**  
Permitting Specialist – Appalachia Region  
Tug Hill Operating



**ELMER LEASE  
WELL N-15HU  
28.3305± ACRES**

TOP HOLE LATITUDE: 39°42'30"  
BOTTOM HOLE LATITUDE: 39°42'30"



**6A1 INFORMATION**

Lease ID	TMP	Tag	Grantor, Lessor, Etc.	Deed Book/Page	
10*31435	12-8-15	A	HENRY AND NANCY GARNER	55	394
10*31435	12-8-16	B	HENRY AND NANCY GARNER	55	394
10*31435	12-8-2	C	HENRY AND NANCY GARNER	55	394
10*31435	12-8-1	D	HENRY AND NANCY GARNER	55	394

**NOTES**

- BORE PATH BASED ON GRID NORTH.
- NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 625' OF PAD CENTER WERE FOUND.
- OWNERSHIP TAKEN FROM PUBLIC RECORDS OF WETZEL COUNTY, WV IN APRIL, 2022. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
- WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
- ALL DEEP WELLS WITHIN 1,000' ARE SHOWN ON THIS PLAT.
- BOUNDARIES ALONG ROADWAYS ARE BASED UPON MEMORANDUM BY DICKIE, MCCAMEY & CHILCOTE, P.C. FILE 0058904, 0401147

**LEGEND**

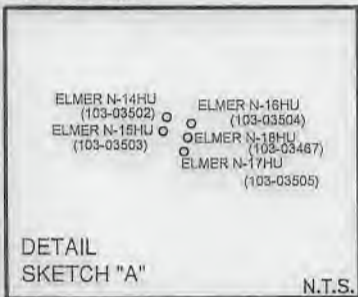
- LEASD TRACTS
- SURFACE TRACTS
- WELL LATERAL
- POINT PLEASANT LEGS
- UNIT BOUNDARY
- LEASE # (SEE 6A1 FORM)
- 400' BORE PATH OFFSET
- 500' WELL BORE OFFSET
- (FTP) PROPOSED FIRST TAKE POINT
- (LTP) PROPOSED LAST TAKE POINT

**SURFACE HOLE**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,393,818.91  
E) 522,497.19

**LANDING POINT 1**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,393,786.34  
E) 522,184.34

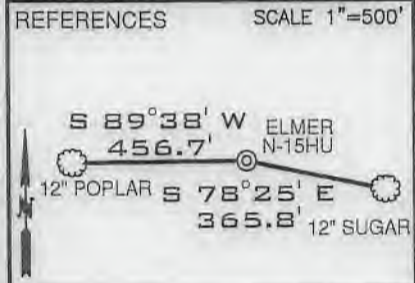
**BOTTOM HOLE**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,393,918.20  
E) 522,108.05

(+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS



DEEP WELLS WITHIN 2400' OF PROPOSED WELL'S SURFACE LOCATION AND/ OR WITHIN 500' OF WELL.

API	OPERATOR
47-051-03502	Tug Hill Operating, LLC
47-051-03504	Tug Hill Operating, LLC
47-051-03505	Tug Hill Operating, LLC
47-103-03467	Tug Hill Operating, LLC



LINE	BEARING	DISTANCE
L1	N 42°22' E	1853.68'
L2	N 67°31' E	1415.65'
L3	S 33°11' W	824.97'

CURVE	CHORD BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C1	S 55°10' W	51.84'	62.51'	53.45'
C2	N 83°59' W	42.14'	91.21'	42.52'
C3	N 60°18' W	78.93'	240.04'	79.29'
C4	N 46°48' W	110.20'	651.01'	110.33'
C5	N 39°17' W	137.56'	1333.85'	137.62'
C6	N 32°21' W	479.17'	3485.26'	479.55'

FILE NUMBER \_\_\_\_\_

DRAWING NUMBER ELMER\_N-15HU\_REV2

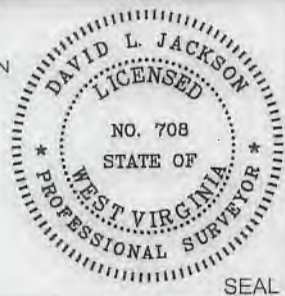
SCALE 1" = 2000'

MINIMUM DEGREE OF ACCURACY 1/200

PROVEN SOURCE OF ELEVATION SUBMETER MAPPING  
GRADE GPS

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 RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

P.S. 708  
*David L Jackson*



JACKSON SURVEYING INC.  
P.O. Box 1460  
Clarksburg, WV 26302  
304-623-5851

WVDEP  
OFFICE OF OIL & GAS  
601 57TH STREET, SE  
CHARLESTON, WV 25304

DATE: JULY 20, 2022

OPERATORS WELL NO. ELMER N-15HU

API WELL NO. 47-103-03503

STATE WV COUNTY WETZEL PERMIT \_\_\_\_\_

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

LOCATION ELEVATION 1276.50' WATERSHED (HUC 10) PROCTOR CREEK OF FRENCH CREEK - OHIO RIVER (HUC-10)

DISTRICT PROCTOR COUNTY WETZEL

QUADRANGLE WILEYVILLE 7.5' LEASE NUMBER SEE WW-6A1 FORM

SURFACE OWNER ELNORA TUTTLE ACREAGE 39.19

OIL & GAS ROYALTY OWNER ELNORA TUTTLE - SEE WW-6A1 LEASE ACREAGE 39.19

PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_\_  
PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE (SPECIFY) \_\_\_\_\_

TARGET FORMATION POINT PLEASANT ESTIMATED DEPTH TVD: 11,901' TMD: 12,766'

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DARREN BROWN, CT CORP

ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 FORT WORTH, TX 76107 ADDRESS 5098 WASHINGTON STREET WEST, SUITE 407 CHARLESTON, WV 25313-1561

COUNTY NAME  
PERMIT



# ELMER LEASE WELL N-15HU 28.3305± ACRES

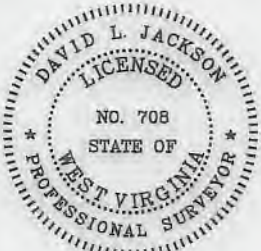
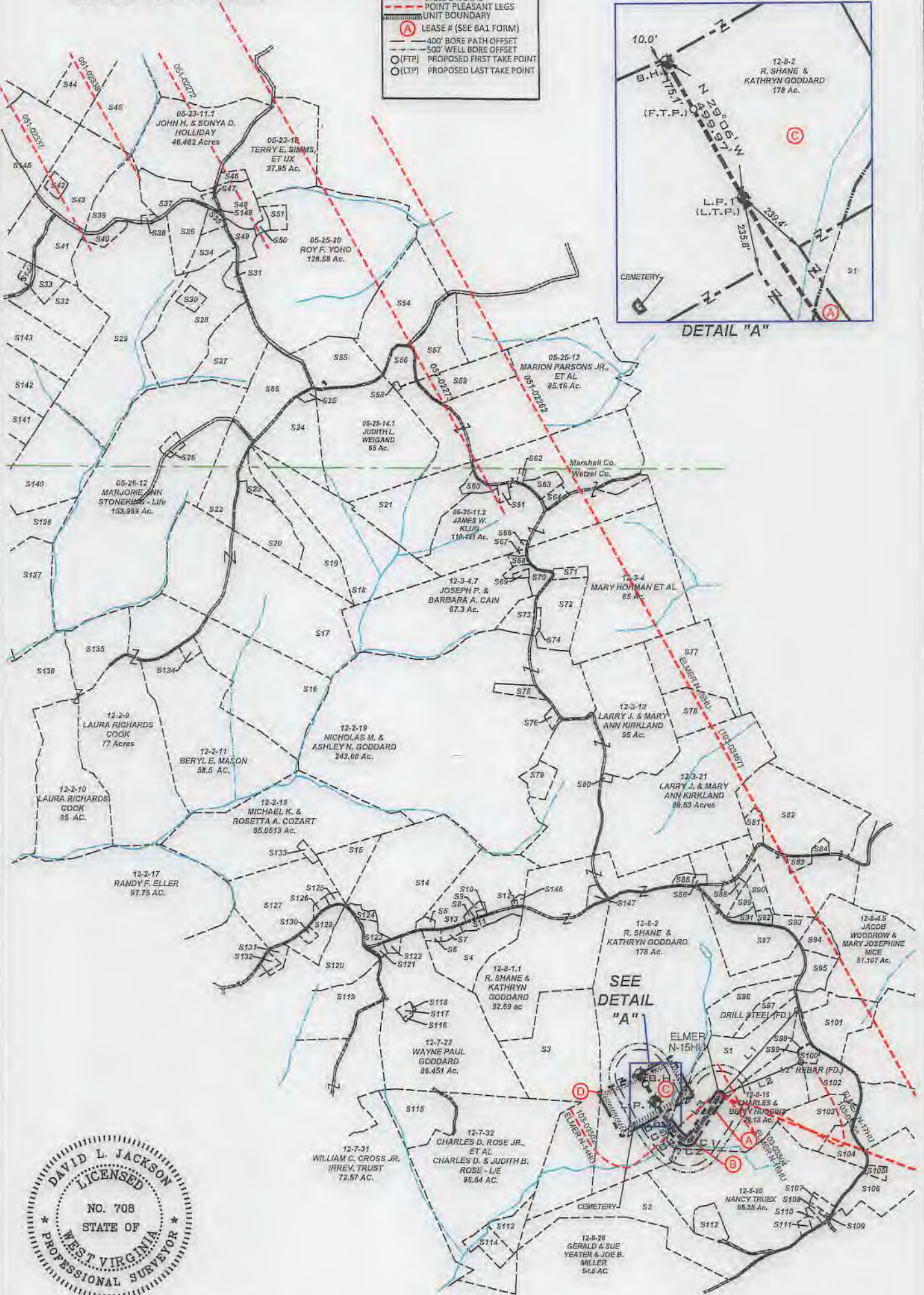
**LEGEND**

- LEASED TRACTS
- SURFACE TRACTS
- WELL LATERAL
- - - POINT PLEASANT LEGS
- - - UNIT BOUNDARY
- Ⓐ LEASE # (SEE 6A1 FORM)
- 400' BORE PATH OFFSET
- 500' WELL BORE OFFSET
- (FTP) PROPOSED FIRST TAKE POINT
- (LTP) PROPOSED LAST TAKE POINT

SCALE 1" = 2000'



DETAIL "A"



P.S. 708 *David L Jackson*



## TUG HILL OPERATING

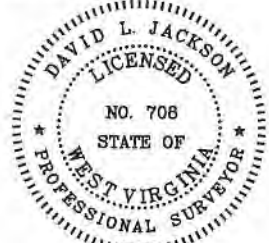
OPERATOR'S	
WELL #:	ELMER N-15HU
DISTRICT:	Proctor
COUNTY:	Weizel
STATE:	WV
API #:	47-103-03503

WELL PLAT
PAGE 2 OF 3
DATE: 07/20/2022



**ELMER LEASE  
WELL N-15HU  
28.3305± ACRES**

Tags	Number	Tax Map -Parcel	Surface Owner	Acres
A	S1	12-8-15	ELNORA TUTTLE	39.19
	S2	12-8-20.5	JOE MILLER, GERALD & SUE YEATER	44.85
D	S3	12-8-1	R. SHANE & KATHRYN GODDARD	77
	S4	12-7-13.1	WAYNE PAUL GODDARD	18
	S5	12-2-22.2	DAVID A. & MANDY L. TRUEX	1.186
	S6	12-7-11	JOSEPH R. VILLERS	1.5
	S7	12-7-12	JOSEPH R. VILLERS	1.6
	S8	12-2-23.4	SHARON HOWELL ET AL: GLORIA A. NICE - L/E	0.422
	S9	12-2-23.3	KENNETH W. GODDARD	0.766
	S10	12-2-23.1	KENNETH W. GODDARD	0.36
	S11	12-3-26.1	JOSEPH MARK KLUG	3.242
	S12	12-3-27	CATHY A. PURPURA	0.227
	S13	12-2-23	DAVID A. NICE	21.7
	S14	12-2-22.1	DAVID A. NICE	54.66
	S15	12-2-21	MICHAEL KENNETH & ROSETTA ANNETTE COZART	11.4
	S16	12-2-12	BERYL E. MASON	59.9
	S17	12-2-13	JAY S. BOOTH; DANIEL T. BOOTH & DIANE BETH OVERDORFF	100
	S18	12-2-14	DAVID L. CUNNINGHAM	56.23
	S19	12-2-14.2	JOHN G. JR & GERALDINE M. ROGERS	22.007
	S20	12-2-14.1	SAMMY J. GREATHOUSE JR. : SAMMY J. GREATHOUSE SR. - L/E	18.67
	S21	05-25-11.4	EDWARD W. KLUG, ETUX	32.787
	S22	05-25-15	ROBERT S. KELLER, ETAL	15.073
	S23	12-2-14.3	QUEENNA BENNETT	3.093
	S24	05-25-16.1	DAVID L. CUNNINGHAM	6.34
	S25	05-25-16.2	RODNEY J. LDY	1.087
	S26	05-26-12.1	ALVIN F. JR. & KRISTA R. STONEKING	2.011
	S27	05-25-17	CRAIG & ASHLEY FERRELL	22.79
	S28	05-25-18	JOSEPH JOHNSON, ETUX - LIFE	37.746
	S29	05-26-11	MARK A. YOHO	89.25
	S30	05-25-18.1	PAMELA JOAN FERRELL, ET VIR	2.491
	S31	05-25-19	JOSEPH JOHNSON ET UX - LIFE	1.973
	S32	05-26-8	RICHARD JOSEPH OTTE	18.27
	S33	05-26-20	RICHARD J. OTTE	4.2
	S34	05-23-11.5	ZACHARY R. STEVEN	7
	S35	05-23-11.8	ROY F. YOHO	2.25
	S36	05-23-11.3	COLIN R. YOHO	11.29
	S37	05-23-11.4	EVELYN L. HUDSON	10.879
	S38	05-23-13.1	JAMES R. & PAMELA J. FERRELL	0.7625
	S39	05-23-13	LINDA D. GREATHOUSE	14.24
	S40	05-23-12	MARK A. YOHO	3.05
	S41	05-23-9.1	JOHN W. VAN ORDEN, ETUX	23.376
	S42	05-23-9.4	JACKSON R. DAVIS, JR.	2.087
	S43	05-23-9.2	LINDA D. GREATHOUSE	25.58
	S44	05-23-8	CARL DAVID & SUZANNE L. GUSEMAN	29.5
	S45	05-23-9.3	LINDA D. GREATHOUSE	17.5
	S46	05-23-11.6	T.H. EXPLORATION II, LLC	0.094
	S47	05-23-11.2	EVELYN HUDSON	1.154
	S48	05-23-11	ROY F. YOHO	7
	S49	05-25-20.3	JAMES A. & JO C. ESTEP	4.49
	S50	05-25-20.2	JAMES M. ZAMBOTTI	1.347
	S51	05-25-20.1	JAMES M. ZAMBOTTI	2.746
	S54	05-25-1	MICHAEL L. MASON	35.43
	S55	05-25-14	ROY F. YOHO	23
	S56	05-25-13.2	DAVID A. KLUG	5.89
	S57	05-25-13	WILLIAM M. FERDA, JR., ETAL	16.014
	S58	05-25-13.4	PARSONS CEMETERY	0.382
	S59	05-25-12.1	KENT & BETTY MASON	15
	S60	05-25-11.1	EDWARD W. & DIANNA KLUG	2.343
	S61	12-3-44	JAMES A. & JO C. ESTEP	1.1
	S62	12-3-47	WETZEL CO. EMERGENCY AMBULANCE	0.5
	S63	12-3-49	LOGAN & AMY TAYLOR	3.814
	S64	12-3-43	ADAM W. FERRELL & BRITTANY M. LOY	1.97
	S65	05-25-16	CRAIG R. & ASHLEY FERRELL	23.5
	S66	12-3-1	JAMES W. KLUG	0.375



P.S. 708 *David L Jackson*

Tags	Number	Tax Map -Parcel	Surface Owner	Acres
	S67	12-3-4.5	HAZEL M. BLAIR	0.451
	S68	12-3-4.6	STEVEN P. WAYMAN	1.009
	S69	12-3-4.8	ERIN HUBBS	0.621
	S70	12-3-4.3	JOSEPH P. & BARBARA A. CAIN	3.619
	S71	12-3-2	ROBERT LEE & DIANA G. SMITH	2.48
	S72	12-3-3.1	DIANA & ROBERT L. SMITH	15.78
	S73	12-3-4.2	DEREK L. BAKER	5.21
	S74	12-3-3	ANITA LARELL SLOUGH	1.12
	S75	12-3-12	RODNEY DEAN JACKSON	3.625
	S76	12-3-48	RONALD W. & JULIE A. NICE	1
	S77	12-3-14	ROBERT W. BAXTER, FREDERICK J. BAXTER & ANN C. LINGER	27
	S78	12-3-14.1	MATTHEW D. HALL	13
	S79	12-3-13.1	ZACHARY J. KIRKLAND	5
	S80	12-3-21.1	LARRY J. & MARY ANN KIRKLAND	0.47
	S81	12-3-29	FRIEND V. ESTEP : RAYMOND F. ESTEP - L/E	2.9
	S82	12-3-30.4	FRIEND V. ESTEP, MICHAEL & JOAN ESTEP & DOUGLAS & JOAN ESTEP (RAYMOND ESTEP - L/E)	81.82
	S83	12-3-30.2	APRIL ROSE & DONALD ALLEN POSTLETHWAIT	1.67
	S84	12-3-30	MARY ROSE YOHO - L/E APRIL ROSE POSTLETHWAIT	0.48
	S85	12-3-28	ANTIOCH CHURCH	1
	S86	12-3-45	ANTIOCH CHURCH	0.774
	S87	12-8-3	R. SHANE & KATHRYN GODDARD	31.13
	S88	12-3-30.3	TIMOTHY L. SUMMERS	0.61
	S89	12-3-32	TIMOTHY L. SUMMERS	2.32
	S90	12-3-39	FRIEND V. ESTEP, MICHAEL & JOAN ESTEP & DOUGLAS & JOAN ESTEP (RAYMOND ESTEP - L/E)	4.69
	S91	12-3-32.1	TIMOTHY L. & LEA ANN SUMMERS	1.78
	S92	12-3-39.1	COLLIN S. & MORGAN BATES	1.31
	S93	12-3-31	DOUGLAS & SUZANNA ESTEP	3.25
	S94	12-8-4.3	BRADY G. & SHARD N. L. HOWELL	5.59
	S95	12-8-4.1	MARY JOSEPHINE & JACOB WOODROW NICE	6.171
	S96	12-8-13	EDWARD C. & SANDRA K MURRINER	15
	S97	12-8-14	EDWARD C. & SANDRA K MURRINER	5.33
	S98	12-8-16.1	BRENT A. & KIMBERLY J. EDDY	0.06
	S99	12-8-4.4	CHARLES & BETTY HUGGINS	0.69
	S100	12-8-4.2	BRENT A. & KIMBERLY J. EDDY	1.861
	S101	12-8-4	JACOB WOODROW & MARY JOSEPHINE NICE	20.893
	S102	12-8-21	EDUARDO C. & SONYA R. DEGUZMAN	11.51
	S103	12-8-21.1	LINDA M. STOUT	15.26
	S104	12-8-22.1	BARRY C. KIRKLAND	7.401
	S105	12-8-32.6	CHARLES W. THOMAS JR.	1.309
	S106	12-8-32	CHARLES M. THOMAS, DAVID TODD & CINDY L. BATES	27.287
	S107	12-8-20.1	PAUL J. BLAKE	1.5
	S108	12-8-20.9	JOSHUA M. & COURTNEY R. NEFF	0.4
	S109	12-8-20.3	PAUL J. BLAKE	0.25
	S110	12-8-20.8	JOSHUA M. & COURTNEY R. NEFF	0.59
	S111	12-8-20.6	JOHN G. & DEBRA D. THROCKMORTON	1.046
	S112	12-8-20.7	RON JR. & SHANA CAMPBELL	5.44
	S113	12-8-18	CHARLES D. ROSE JR., ETAL: CHARLES & JUDITH ROSE - L/E	6.4
	S114	12-7-33	CHARLES D. ROSE JR., ETAL: CHARLES & JUDITH ROSE - L/E	5.75
	S115	12-7-32.1	CHARLES D. ROSE JR., ETAL: CHARLES & JUDITH ROSE - L/E	18
	S116	12-7-22.3	TIMOTHY ROGER FERGUSON	0.239
	S117	12-7-22.2	TIMOTHY ROGER FERGUSON	0.908
	S118	12-7-22.4	WAYNE PAUL GODDARD	0.084
	S119	12-7-9	MICHAEL J. & ALENA R. FAYAD	22.526
	S120	12-7-9.1	JAMES T. EDDY	17.47
	S121	12-7-22.1	NANCY C. MURPHY - LE: KARI KIM CLARK	0.82
	S122	12-7-10	WAYNE PAUL GODDARD	1.5
	S123	12-2-22	MARY JOSEPHINE NICE	2.95
	S124	12-2-22.3	DAVID L. & KIMBERLY L. NICE	1.65
	S125	12-2-20.2	MICHAEL K. COZART	1.025
	S126	12-2-20.1	SHIRLEY L. & KENNETH L. HAUGHT	1
	S127	12-2-20	MICHAEL K. & ROSETTA A. COZART	34.063
	S128	12-8-1.2	JOSH GODDARD	1.81
	S129	12-7-8.1	BRIAN & CHRISTINE L. NICE	7.628
	S130	12-7-8	MARK E. ELLER	1.012
	S131	12-7-7.5	MARK E. ELLER	1.94
	S132	12-7-7.1	MARK E. ELLER	1.41
	S133	12-2-25	MICHAEL K. & ROSETTA A. COZART	1.265
	S134	12-2-11.1	BERYL E. MASON	1.7
	S135	12-2-9	LAURA RICHARDS COOK	77
	S136	12-2-10	LAURA RICHARDS COOK	95
	S137	12-2-5	CUFFORD W. & ALBERTA B. JOHNSON	75.96
	S138	12-2-6	CUFFORD W. & ALBERTA B. JOHNSON	36
	S139	12-3-46	CATHY A. PURPURA	0.514
	S140	05-26-13	MARJORIE ANN STONEKING - LIFE	40
	S141	05-26-14	THERESA H. WALTON, AS TRUSTEE OF THE ROBERT D. & BONNIE L. OLIVER TRUST	27.56
	S142	05-26-10	THERESA H. WALTON, AS TRUSTEE OF THE ROBERT D. & BONNIE L. OLIVER TRUST	24.94
	S143	05-26-9	THERESA H. WALTON, AS TRUSTEE OF THE ROBERT D. & BONNIE L. OLIVER TRUST	21.75
	S144	05-26-21	RICHARD JOSEPH OTTE	1.25
	S145	05-23-14	DOMINION ENERGY TRANSMISSION, INC.	59.5
	S146	12-3-46	CATHY A. PURPURA	3.242
	S147	12-8-1.2	JOSH GODDARD	1.81
	S148	05-23-11.8	ROY F. YOHO	2.25

OPERATOR'S  
WELL #: ELMER N-15HU  
DISTRICT: Proctor  
COUNTY: Wetzel  
STATE: WV  
API #: 47-103-03503

WELL PLAT  
PAGE 3 OF 3  
DATE: 07/20/2022





**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 pages

**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: Tug Hill Operating, LLC  
 By: Amy L. Morris *Amy L. Morris*  
 Its: Permitting Specialist - Appalachia Region

Lease ID	TMP	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page		Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	
10*31435	12-8-15	A	HENRY AND NANCY GARNER	J A PHILLIPS	1/8+	55	394	J A Phillips to South Penn Oil Company: 56/284	South Penn Oil Company to South Penn Natural Gas Company: 33A/455	South Penn Natural Gas Company to Dallis Snyder & Sam Beren & Beren: 39A/33	Dallis Snyder & Muriel C Snyder, Sam Beren & Sarah Beren, dba Snyder and Beren to John H Robinson & George F Eagon: 39A/38	John H Robinson, Blanche Eagon, Est of George F Eagon, decd, Mildred M Lartigue, Carl L Eagon, Elva Robinson, Est of John H Robinson, decd, & Mary Ellen Davis to Elva Robinson & Mary Ellen Davis: 43A/440	Elva Robinson & Mary Ellen Davis to Andrew L Henry, Charles E Reed & Harry R Cronin: 44A/92	Katherine A & Harry R Cronin Jr to Charles E & Kathryn C Reed: 51A/241	Kathryn C Reed to Carl Perkins: 55A/54	Carl & Dorothy Louise Perkins to Perkins Oil and Gas Inc: 84A/9	Perkins Oil & Gas Inc to TH Exploration LLC: 251A/463
10*31435	12-8-16	B	HENRY AND NANCY GARNER	J A PHILLIPS	1/8+	55	394	J A Phillips to South Penn Oil Company: 56/284	South Penn Oil Company to South Penn Natural Gas Company: 33A/455	South Penn Natural Gas Company to Dallis Snyder & Sam Beren dba Snyder & Beren: 39A/33	Dallis Snyder & Muriel C Snyder, Sam Beren & Sarah Beren, dba Snyder and Beren to John H Robinson & George F Eagon: 39A/38	John H Robinson, Blanche Eagon, Est of George F Eagon, decd, Mildred M Lartigue, Carl L Eagon, Elva Robinson, Est of John H Robinson, decd, & Mary Ellen Davis to Elva Robinson & Mary Ellen Davis: 43A/440	Elva Robinson & Mary Ellen Davis to Andrew L Henry, Charles E Reed & Harry R Cronin: 44A/92	Katherine A & Harry R Cronin Jr to Charles E & Kathryn C Reed: 51A/241	Kathryn C Reed to Carl Perkins: 55A/54	Carl & Dorothy Louise Perkins to Perkins Oil and Gas Inc: 84A/9	Perkins Oil & Gas Inc to TH Exploration LLC: 251A/463
10*31435	12-8-2	C	HENRY AND NANCY GARNER	J A PHILLIPS	1/8+	55	394	J A Phillips to South Penn Oil Company: 56/284	South Penn Oil Company to South Penn Natural Gas Company: 33A/455	South Penn Natural Gas Company to Dallis Snyder & Sam Beren dba Snyder & Beren: 39A/33	Dallis Snyder & Muriel C Snyder, Sam Beren & Sarah Beren, dba Snyder and Beren to John H Robinson & George F Eagon: 39A/38	John H Robinson, Blanche Eagon, Est of George F Eagon, decd, Mildred M Lartigue, Carl L Eagon, Elva Robinson, Est of John H Robinson, decd, & Mary Ellen Davis to Elva Robinson & Mary Ellen Davis: 43A/440	Elva Robinson & Mary Ellen Davis to Andrew L Henry, Charles E Reed & Harry R Cronin: 44A/92	Katherine A & Harry R Cronin Jr to Charles E & Kathryn C Reed: 51A/241	Kathryn C Reed to Carl Perkins: 55A/54	Carl & Dorothy Louise Perkins to Perkins Oil and Gas Inc: 84A/9	Perkins Oil & Gas Inc to TH Exploration LLC: 251A/463
10*31435	12-8-1	D	HENRY AND NANCY GARNER	J A PHILLIPS	1/8+	55	394	J A Phillips to South Penn Oil Company: 56/284	South Penn Oil Company to South Penn Natural Gas Company: 33A/455	South Penn Natural Gas Company to Dallis Snyder & Sam Beren dba Snyder & Beren: 39A/33	Dallis Snyder & Muriel C Snyder, Sam Beren & Sarah Beren, dba Snyder and Beren to John H Robinson & George F Eagon: 39A/38	John H Robinson, Blanche Eagon, Est of George F Eagon, decd, Mildred M Lartigue, Carl L Eagon, Elva Robinson, Est of John H Robinson, decd, & Mary Ellen Davis to Elva Robinson & Mary Ellen Davis: 43A/440	Elva Robinson & Mary Ellen Davis to Andrew L Henry, Charles E Reed & Harry R Cronin: 44A/92	Katherine A & Harry R Cronin Jr to Charles E & Kathryn C Reed: 51A/241	Kathryn C Reed to Carl Perkins: 55A/54	Carl & Dorothy Louise Perkins to Perkins Oil and Gas Inc: 84A/9	Perkins Oil & Gas Inc to TH Exploration LLC: 251A/463





April 26, 2022

WV Department of Environmental Protection  
Office of Oil & Gas  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Attention: Charles Brewer

RE: Elmer N-15HU

Subject: Road Crossing Letter

Dear Taylor:

Tug Hill Operating, LLC (THO) hereby submits this letter as confirmation that THO has obtained the right to drill, extract and produce the minerals under Wetzel County Route 89, CR 82 and CR 29 in the area reflected on the Elmer N-15HU well plat. THO has conducted a full title search in the relevant Court House to confirm its ownership under said County Route and is not currently aware of any recorded document that would suggest an ownership other than THO.

If your office has any questions or concerns regarding the contents of this letter, please do not hesitate to contact me directly at 304-376-0111, or by email at [amorris@tug-hillop.com](mailto:amorris@tug-hillop.com).

Sincerely,

Amy L. Morris  
Permitting Specialist – Appalachia Region

RECEIVED  
Office of Oil and Gas  
APR 28 2022  
WV Department of  
Environmental Protection

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

**Date of Notice Certification:** 04/21/2022

**API No.** 47- 103 -

**Operator's Well No.** Elmer N-15HU

**Well Pad Name:** Elmer

**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>522,497.19</u>
County: <u>Wetzel</u>		Northing: <u>4,393,818.91</u>
District: <u>Proctor</u>	Public Road Access: <u>Proctor Creek Road</u>	
Quadrangle: <u>Wileyville 7.5'</u>	Generally used farm name: <u>Elnora Tuttle</u>	
Watershed: <u>Proctor Creek of French Creek - HUC 10</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.

<p>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:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 100px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p><b>OOG OFFICE USE ONLY</b></p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
--	---

RECEIVED  
Office of Oil and Gas  
**APR 28 2022**  
WV Department of  
Environmental Protection

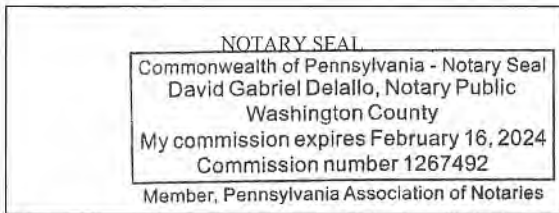
**Required Attachments:**

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

Well Operator:	<u>Tug Hill Operating, LLC</u>	Address:	<u>380 Southpointe Boulevard, Plaza II, Suite 200</u>
By:	<u>Amy L. Morris <i>Amy L. Morris</i></u>		<u>Canonsburg, PA 15317</u>
Its:	<u>Permitting Specialist - Appalachia Region</u>	Facsimile:	<u>724-338-2030</u>
Telephone:	<u>724-749-8388</u>	Email:	<u>amorris@tug-hillop.com</u>



Subscribed and sworn before me this 21 day of April, 2022.

*David Gabriel Delallo* Notary Public

My Commission Expires 2/16/24

**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).

RECEIVED  
Office of Oil and Gas

APR 28 2022

WV Department of  
Environmental Protection



WW-6A  
(9-13)

API NO. 47- 103 -  
OPERATOR WELL NO. Elmer N-15HU  
Well Pad Name: Elmer

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:** 4/21/2022 **Date Permit Application Filed:** 4/26/2022

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: Elnora Tuttle (Pad & Access Road)
  - Address: 6768 Proctor Creek Road  
Proctor, WV 26055
  - Name: Charles Lee & Betty Jean Huggins (Pad & Access Road)
  - Address: 5352 Palmer Ridge Road  
Proctor, WV 26055
- 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: Consol Energy, Inc. Attn: Casey Saunders
  - Address: 275 Technology Drive, Suite 101  
Canonsburg, PA 15317-9565
- COAL OPERATOR
  - Name: Consol Energy, Inc. Attn: Casey Saunders
  - Address: 275 Technology Drive, Suite 101  
Canonsburg, PA 15317-9565
- 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

RECEIVED  
 Office of Oil and Gas  
 APR 28 2022  
 WV Dept. of Environmental Protection



**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

APR 28 2022



WW-6A  
(8-13)

API NO. 47- 103 - \_\_\_\_\_  
OPERATOR WELL NO. Elmer N-15HU  
Well Pad Name: Elmer

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

**Water Well Testing:**

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

**Water Testing Laboratories:**

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

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

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

**Written Comment:**

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

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

RECEIVED  
Office of Oil and Gas

APR 28 2022

WV Department of  
Environmental Protection

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

**Time Limits and Methods for Filing Comments.**

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

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

**Comment Requirements**

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

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

**Permit Denial or Condition**

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

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

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

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

RECEIVED  
Office of Oil and Gas  
APR 28 2022  
WV Dept. of Environmental Protection



WW-6A  
(8-13)

API NO. 47- 103 -  
OPERATOR WELL NO. Elmer N-15HU  
Well Pad Name: Elmer

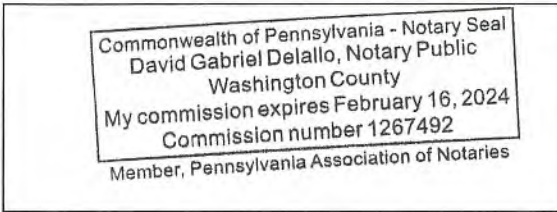
**Notice is hereby given by:**

Well Operator: Tug Hill Operating, LLC  
Telephone: 724-749-8388  
Email: amorris@tug-hilltop.com *amy amorris*

Address: 380 Southpointe Boulevard, Plaza II, Suite 200  
Canonsburg, PA 15317  
Facsimile: 724-338-2030

**Oil and Gas Privacy Notice:**

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



Subscribed and sworn before me this 21 day of APRIL, 2022.

*[Signature]* Notary Public

My Commission Expires 2/16/24

RECEIVED  
Office of Oil and Gas  
APR 28 2022  
WV Energy and Environmental Protection

WW-6A

# PROPOSED ELMER

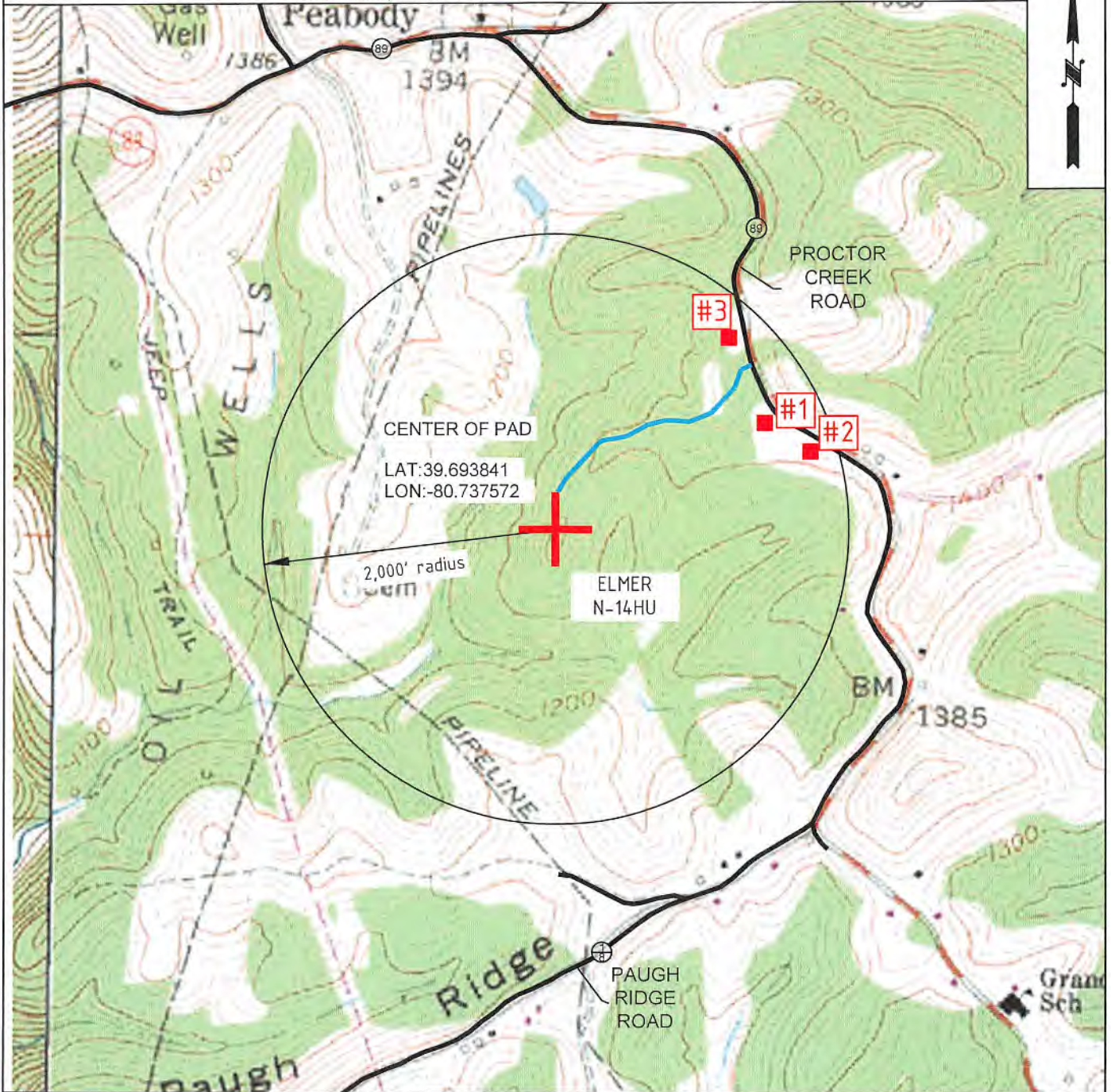
SUPPLEMENT PG 1

Office of Oil and Gas

APR 28 2022

West Virginia Department of Environmental Protection

THERE APPEAR TO BE THREE (3) RESIDENCES, AND NO (0) BUSINESSES, CHURCHES, SCHOOLS, OR EMERGENCY FACILITIES WITHIN 2000'.



**TUG HILL**  
OPERATING

OPERATOR	494510851	TOPO SECTION	LEASE NAME
TUG HILL OPERATING, LLC 380 SOUTHPOINTE BLVD SUITE 200 CANONSBURG, PA 15317		WILEYVILLE 7.5'	ELMER
		SCALE:	DATE:
		1" = 2000'	DATE: 12-08-2021



**Exhibit 3A**

Tug Hill Oil & Gas Inc.  
380 Southpointe Blvd, Suite 200  
Canonsburg, PA 15137

**RESIDENCES WITHIN 2000' OF ELMER WELL PAD**

Well: Elmer  
District: Proctor  
County: Wetzel  
State: WV

There appears to be Three (3) Residences, No Businesses, No Schools and No Emergency Facilities within 2000' of the center of well pad for the above referenced well location.

Topo Spot # 1 (House/Cabin) TM 12-8-4.2 Brent A. & Kimberly J. Eddy 6882 Proctor Creek Rd. Proctor, WV 26055 304-455-1510 (h)	Topo Spot # 2 (House/Cabin) TM 12-8-21 Eduardo C. & Sonya R. Deguzman PO Box 1102 Solomons, MD 20688 410-326-0190 (h)	Topo Spot # 3 (House/Cabin) TM 12-8-15 Elnora Tuttle 6768 Proctor Creek Rd. Proctor, WV 26055 304-455-4575 (h)
---	---	--

RECEIVED  
Office of Oil and Gas  
APR 28 2022  
WV Department of  
Environmental Protection

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF ENTRY FOR PLAT SURVEY**

**Notice Time Requirement:** Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry

**Date of Notice:** 4/12/2022      **Date of Planned Entry:** 4/19/2022

**Delivery method pursuant to West Virginia Code § 22-6A-10a**

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

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

**Notice is hereby provided to:**

SURFACE OWNER(s)

Name: Elhora Tuttle (Pad & Access Road)

Address: 6768 Proctor Creek Road  
Proctor, WV 26055

Name: Charles Lee & Betty Jean Huggins (Pad & Access Road)

Address: 5352 Palmer Ridge Road  
Proctor, WV 26055

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

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

COAL OWNER OR LESSEE

Name: Consol Energy, Inc. Attn: Casey Saunders

Address: 275 Technology Drive, Suite 101  
Canonsburg, PA 15317-9565

MINERAL OWNER(s)

Name: \*See attached list

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

RECEIVED  
Office of Oil and Gas  
APR 28 2022  
WV Department of  
Environmental Protection

\*please attach additional forms if necessary

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.69384130; -80.73757155</u>
County: <u>Wetzel</u>	Public Road Access: <u>Proctor Creek Road</u>
District: <u>Proctor</u>	Watershed: <u>French Creek - Ohio River (HUC 10)</u>
Quadrangle: <u>Wileyville 7.5'</u>	Generally used farm name: <u>Elhora Tuttle</u>

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production 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). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Notice is hereby given by:**

Well Operator: <u>Tug Hill Operating, LLC</u>	Address: <u>380 Southpointe Boulevard, Plaza II, Suite 200</u>
Telephone: <u>724-749-8388</u>	<u>Canonsburg, PA 15317</u>
Email: <u>amorris@tug-hillop.com</u>	Facsimile: <u>724-338-2030</u>

**Oil and Gas Privacy Notice:**

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



## Additional Parties to Notice

### Elmer Pad

Anita Louise Croghan  
46 Fox Lane  
Winnetka, IL 60093

Charles W. Kolish, Jr.  
4353 Rudy Lane  
Louisville, KY 40207

Christopher Palmer  
37 Eton Rd.  
Montgomery, AL 36109

David M. Eddy  
60090 Kiowa Ln.  
Montrose, CO 81403

Ellen Kay Shook  
1706 Virginia St.  
Moundsville, WV 26041

John Richard Nuzum  
2728 Cypress Street  
Columbia, SC 29205

Linda L. Simmons Nuzum  
98 Michigan Ave.  
Asheville, NC 28806

Mary Margaret Sterling  
372 Ruddles Mill Rd.  
Paris, KY 40361

Perkins Oil & Gas Inc.  
2966 Northwest Turnpike  
Pennsboro, WV 26415

Richard H. Arman  
724 Mitchell Point Rd.  
Mineral, VA 23117

Roger E. Woodington  
11 North Point Drive  
Portsmouth, VA 23703

Susain Rosier  
665 W. Maryland Ave  
Sebring, OH 44672

Thelma N. Palmer  
P.O. Box 188  
Pine Grove, WV 26419

Thomas E. Garner  
413 Tomlinson Ave.  
Glen Dale, WV 26038

Vicki S. Voorhis and Norman K. Voorhis  
802 Highland Ave.  
New Martinsville, WV 26155

Barbara K. Eddy  
P.O. Box 483  
Centre Hall, PA 16828

Charles W. Kolish, Sr.  
307 Bramton Road  
Louisville, KY 40207

Daria F. Palmer Brooks  
5500 Prytania St., PMB #601  
New Orleans, LA 70115

Debra K. Eddy  
60090 Kiowa Ln.  
Montrose, CO 81403

James Arman  
2048 Bridal Rd.  
Fernandina Beach, FL 32757

Larry D. Garner  
5130 Hampton Court  
Zanesville, OH 43701

Lisa Marian Palmer Beers  
2832 Woodley Rd.  
Montgomery, AL 36111

Michelle Sherwood  
4725 Milford Rd.  
Wilmington, NC 28405

R. Shane Goddard and Kathryn Goddard  
5904 Proctor Creek Road  
Proctor, WV 26055

Ridgetop Royalties, LLC  
Attn: Chris Coonfare  
380 Southpointe Blvd, Ste. 405  
Canonsburg, PA 15317  
Sharon Burton  
314 N. 1st Ave.  
Paden City, WV 26159

Tamela P. Wood and James G. Wood  
215 McBride Ridge Rd.  
Wileyville, WV 26581

Thomas Arman  
840 Blue Bird Lane  
Wake Forest, NC 27587

Vanita and Cordova Holding Company, LLC  
356 Nicholson Loop Rd.  
Morgantown, WV 26508

RECEIVED  
Office of Oil and Gas

APR 28 2022

WV Department of  
Environmental Protection

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

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

**Date of Notice:** 04/21/2022      **Date Permit Application Filed:** 04/26/2022

**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: Elnora Tuttle (Pad & Access Road)  
Address: 6768 Proctor Creek Road  
Proctor, WV 26055

Name: Charles Lee & Betty Jean Huggins (Pad & Access Road)  
Address: 5352 Palmer Ridge Road  
Proctor, WV 26055

**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>522,497.19</u>
County:	<u>Wetzel</u>		Northing:	<u>4,393,818.91</u>
District:	<u>Proctor</u>	Public Road Access:	<u>Proctor Creek Road</u>	
Quadrangle:	<u>Wileyville 7.5'</u>	Generally used farm name:	<u>Elnora Tuttle</u>	
Watershed:	<u>French Creek - Ohio River</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: Tug Hill Operating, LLC  
Telephone: 724-749-8388  
Email: amorris@tug-hillop.com

Address: 380 Southpointe Boulevard, Plaza II, Suite 200  
Canonsburg, PA 15317  
Facsimile: 724-338-2030

**Oil and Gas Privacy Notice:**

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

RECEIVED  
Office of Oil and Gas  
APR 28 2022  
West Virginia Department of  
Environmental Protection





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

October 29, 2021

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

Subject: DOH Permit for the Elmer Pad, Wetzel County  
Elmer N-15HU Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2021-0381 which has been issued to Tug Hill Operating LLC for access to the State Road for a well site located off Wetzel County Route 89 SLS MP 6.84.

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: Amy Morris  
Tug Hill Operating LLC  
CH, OM, D-6  
File

RECEIVED  
Office of Oil and Gas

APR 28 2022

WV Department of  
Environmental Protection



**PLANNED ADDITIVES TO BE USED IN FRACTURING OR STIMULATION**

**Elmer Wells**

<b>PRODUCT NAME:</b>	<b>CHEMICAL DESCRIPTION:</b>	<b>PRODUCT USE:</b>	<b>HAZARDOUS COMPONENT:</b>
GBW-20C	Hemicellulase Breaker	Breaker - Water	None
ALPHA 1427		Biocide	Glutaraldehyde – CAS#000111-30-8 Quaternary ammonium chloride CAS# 007173-51-5 Alky dimethyl benzyl ammonium Chloride (C12-16) – CAS#068424-85-1 Ethanol – CAS# 000064-17-5 Water – CAS# 007732-18-5
FRAC SAND	Silica Sand (various Mesh sizes)	Proppant	Crystalline silica (quartz) CAS# 14808-60-7
S-8C, Sand	Silica Sand (100 mesh)	Sand	Silica – CAS# 14808-60-7
GW-3LDF		Gellant - Water	Petroleum Distillate Blend – Proprietary, (Not Associated with Diesel Fuel) Guar gum – CAS# 009000-30-0
FRW-18		Friction Reducer	Hydrotreated light distillate CAS# 064742-47-8
Scaletrol		Scale Inhibitor	Ethylene glycol – CAS# 000107-21-1 Diethylene glycol – CAS# 000111-46-6

RECEIVED  
Office of Oil and Gas

APR 28 2022

PAW Department of  
Environmental Protection





**APPROVED**  
**WVDEP OOG**  
2/11/2022

# Elmer Well Site

## Site Design, Construction Plan, & Erosion and Sediment Control Plans

### Tug Hill Operating Wetzel County Proctor District

Latitude 39.69384130°  
Longitude -80.73757155°  
Proctor Creek Watershed

**Pertinent Site Information**  
Elmer Well Site  
Emergency Number: 304-455-6066  
Proctor District, Wetzel County, WV  
Watershed: Proctor Watershed  
Site #11 Address:  
Tug Hill Contact Number: 1-817-632-3400

Property Owner Information - Elmer Well Site									
Owner	EM	Permit	Well Pad	Well Pad Access Road	Access Road	Access Road (AS)	Access Road (AS)	Well Pad	Well Pad
Charles R. Barty Light	132	132	132	132	132	132	132	132	132
Thomas Price	132	132	132	132	132	132	132	132	132
<b>Total (Acres)</b>	<b>132</b>	<b>132</b>	<b>132</b>	<b>132</b>	<b>132</b>	<b>132</b>	<b>132</b>	<b>132</b>	<b>132</b>

### Exhibit A: Final Design: Issue for Construction



Access Road			
Start Chain Station	End Chain Station	Length (ft)	Type
132+00.00	132+100.00	100.00	Gravel
132+100.00	132+200.00	100.00	Gravel
132+200.00	132+300.00	100.00	Gravel

Disturbed Area	
Well Pad Construction	7,323.22
Production Pad Construction	2,100.00
Access Road Construction	3,187.50
Gravel Production	2,800.00
Additional Clearing	1,178.28
Total Disturbed Area	16,598.00
Total Wetland Area Disturbed	21.50 ac
Total Wetland Area of Project	124.25 ac

Elmer Well Site Quantities							
Item	Quantity	Unit	Notes	Min. Depth	Length of Slope	Notes	Notes
Well Pad	1,320.00	Sq. Yds.		12.00	132.00	12.00	12.00
Well Pad Access Road	1,187.50	Sq. Yds.		12.00	118.75	12.00	12.00
Production Pad Access Road	2,100.00	Sq. Yds.		12.00	210.00	12.00	12.00
Gravel Production	2,800.00	Sq. Yds.		12.00	280.00	12.00	12.00
Additional Clearing	1,178.28	Sq. Yds.		12.00	117.83	12.00	12.00
<b>Total</b>	<b>8,688.00</b>	<b>Sq. Yds.</b>					

Site Location (NAD 27)	Site Location (NAD 83)
132+00.00	132+00.00
132+01.00	132+01.00
132+02.00	132+02.00
132+03.00	132+03.00
132+04.00	132+04.00
132+05.00	132+05.00
132+06.00	132+06.00
132+07.00	132+07.00
132+08.00	132+08.00
132+09.00	132+09.00
132+10.00	132+10.00
132+11.00	132+11.00
132+12.00	132+12.00
132+13.00	132+13.00
132+14.00	132+14.00
132+15.00	132+15.00
132+16.00	132+16.00
132+17.00	132+17.00
132+18.00	132+18.00
132+19.00	132+19.00
132+20.00	132+20.00
132+21.00	132+21.00
132+22.00	132+22.00
132+23.00	132+23.00
132+24.00	132+24.00
132+25.00	132+25.00
132+26.00	132+26.00
132+27.00	132+27.00
132+28.00	132+28.00
132+29.00	132+29.00
132+30.00	132+30.00
132+31.00	132+31.00
132+32.00	132+32.00
132+33.00	132+33.00
132+34.00	132+34.00
132+35.00	132+35.00
132+36.00	132+36.00
132+37.00	132+37.00
132+38.00	132+38.00
132+39.00	132+39.00
132+40.00	132+40.00
132+41.00	132+41.00
132+42.00	132+42.00
132+43.00	132+43.00
132+44.00	132+44.00
132+45.00	132+45.00
132+46.00	132+46.00
132+47.00	132+47.00
132+48.00	132+48.00
132+49.00	132+49.00
132+50.00	132+50.00
132+51.00	132+51.00
132+52.00	132+52.00
132+53.00	132+53.00
132+54.00	132+54.00
132+55.00	132+55.00
132+56.00	132+56.00
132+57.00	132+57.00
132+58.00	132+58.00
132+59.00	132+59.00
132+60.00	132+60.00
132+61.00	132+61.00
132+62.00	132+62.00
132+63.00	132+63.00
132+64.00	132+64.00
132+65.00	132+65.00
132+66.00	132+66.00
132+67.00	132+67.00
132+68.00	132+68.00
132+69.00	132+69.00
132+70.00	132+70.00
132+71.00	132+71.00
132+72.00	132+72.00
132+73.00	132+73.00
132+74.00	132+74.00
132+75.00	132+75.00
132+76.00	132+76.00
132+77.00	132+77.00
132+78.00	132+78.00
132+79.00	132+79.00
132+80.00	132+80.00
132+81.00	132+81.00
132+82.00	132+82.00
132+83.00	132+83.00
132+84.00	132+84.00
132+85.00	132+85.00
132+86.00	132+86.00
132+87.00	132+87.00
132+88.00	132+88.00
132+89.00	132+89.00
132+90.00	132+90.00
132+91.00	132+91.00
132+92.00	132+92.00
132+93.00	132+93.00
132+94.00	132+94.00
132+95.00	132+95.00
132+96.00	132+96.00
132+97.00	132+97.00
132+98.00	132+98.00
132+99.00	132+99.00
132+100.00	132+100.00

Site Location (NAD 27)			Site Location (NAD 83)		
Station	Latitude (DD)	Longitude (DD)	Station	Latitude (DD)	Longitude (DD)
132+00.00	39.69384130	-80.73757155	132+00.00	39.69384130	-80.73757155
132+100.00	39.69384130	-80.73757155	132+100.00	39.69384130	-80.73757155

**Approach Route:**  
From the intersection of WV Rt 2 and OH Rt 1 near Mannsville, WV, Travel North on WV Rt 2 for 0.0 mi. Turn Right onto Co Rt 22 (Wells Hill Rd). Follow Co Rt 22 for 2.3 mi. Turn Right onto Co Rt 78 (Hogpen Ridge). Follow Co Rt 78 for 0.8 mi. Turn Right onto Co Rt 29 (Hunch Ridge). Follow Co Rt 29 for 2.3 mi. Turn Right onto Co Rt 29 (Coffield Rd). Follow Co Rt 29 for 1.5 mi. Continue straight onto Co Rt 17 (Coffield Rd). Follow Co Rt 17 for 1.7 mi. Turn Left onto Co Rt 89 (Proctor Creek Rd). Follow Co Rt 89 for 0.5 mi. The site entrance will be on the Right (West) side of the road.



- Well Location Restrictions**
- All Pad construction complies with the following restrictions:
    - \*50' from an existing well or developed spring used for human or domestic animals.
    - \*75' from an existing dwelling or large garage that is 2000' or less in area or depth measured from the center of the pad.
    - \*50' from the edge of a distance to a nearby neighboring land owner.
    - \*1000' to a nearby or potential water source or a public water supply.



**Project Contacts**

**The Tug Hill Operating**  
Kathleen Miller - Site Development Lead  
Chris Dunning - Construction Manager  
Mandy Smith - Construction Manager

**Wetzel County Engineer**  
Kathleen Miller  
Chris Dunning  
Mandy Smith

**Tug Hill Operating, LLC**  
280 Sanderson Blvd.  
Cassopolis, West Virginia 26026  
Cassopolis, WV 26026

**Environmental**  
Wetzel County Engineer is provided by Andrew Enright  
April March 26, 2022

**Preparation Information**  
The computer information shown herein is based on data developed by the Blue Mountains Aerial Mapping, Harlow, WV

**MISCELLANEOUS**  
WEST VIRGINIA  
1-800-243-4444  
www.wv.gov

**811**  
Know what's below. Call before you dig.

**The WV Mine Safety and Health Division**  
The WV Mine Safety and Health Division has reviewed this plan and approves its use for the construction of any new or existing mine.

**WVDEP Website**  
WVDEP Website files show that there are no active and/or abandoned gas wells within the AOI.

Sheet	Description
1	Cover Sheet
2	Schedule of Quantities
3	Site Notes
4	Pre-Construction Site Conditions
5	Site Soil Map
6	Clearing Exhibit
7	Overall Plan View
8	EAS Plan View
9	The Key Exhibit
10	Site View
11-12	Cross Sections - Well Pad
13	Cross Sections - Access Road
14-15	Geotechnical Exhibit
16	Landowner Disturbed Area Exhibit
17	Site Erosion
18-19	Production Exhibit
20-21	Erosion and Sediment Control Details
22	Access Road Details
23	Pad Details

**TUG HILL OPERATING**

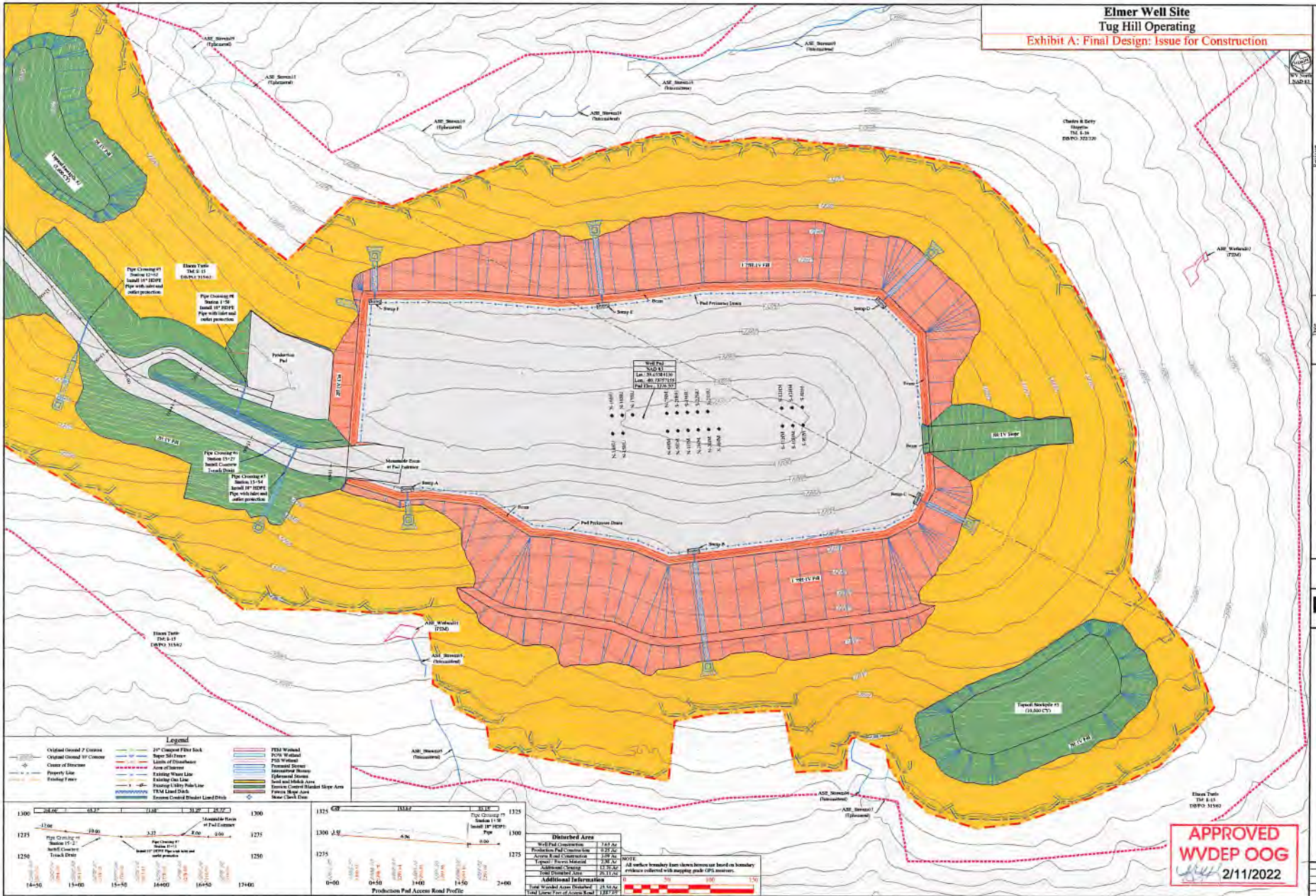
**Elmer Well Site**  
Proctor District  
Wetzel County, WV

Date: 10/27/2021  
Scale: As Shown  
Designed by: ZS  
File No:  
Sheet 1 of 13



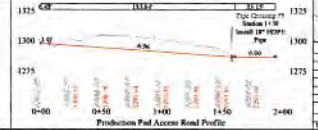
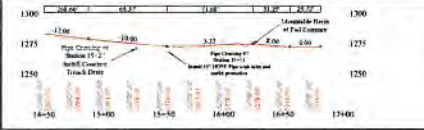
**Elmer Well Site**  
**Tug Hill Operating**  
**Exhibit A: Final Design: Issue for Construction**

Charles & Deby  
 Inc. & Co.  
 DEP PG 322130



**Legend**

Original Gravel Pit Contour	24" Concrete Fiber Deck	TEM Walkway
Original Gravel Pit Contour	Super 50 Pavement	POW Wellpad
Center of Structure	Limbs of Disturbance	POW Wellpad
Property Line	Area of Disturbance	Forward Drives
Fencing Face	Existing Water Line	Intermittent Drains
	Existing Gas Line	Gravel Road
	Existing Utility Pole Line	Rock and Gravel Area
	TEM Lead Ditch	Gravel Road Shoulder Slope Area
	Storm Control Shoulder Lead Ditch	Fence Sign Area
		New Track Drive



**Disturbed Area**

Well Pad Construction	7.67 AC
Production Pad Construction	17.22 AC
Access Road Construction	2.89 AC
Leisure / Power Material	2.86 AC
Additional / Other	17.76 AC
Total Disturbed Area	48.40 AC
Total Wetland Area (Wetland) - 18.34 AC	
Total Linear Feet of Access Road	1287.28'

All wetland boundaries from stream buffers are based on boundary evidence collected with mapping grade GPS measures.

**APPROVED**  
**WVDEP OOG**  
 2/11/2022

**TUG HILL OPERATING**

THIS DOCUMENT PREPARED FOR TUG HILL OPERATING

**Kelly S. Sorenson**  
 Project Manager  
 Tug Hill Operating

**Elmer Well Site**  
 Project District  
 West Virginia

**Elmer Well Site**  
 Tug Hill Operating  
 Project District  
 West Virginia

Issue: 19-237631  
 Scale: As Shown  
 Designed By: ZS  
 File No:  
 Sheet 7 of 13