



west virginia department of environmental protection

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

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

Tuesday, February 23, 2021
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 HUDSON S-15HU
47-051-02328-00-00

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

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

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


James A. Martin
Chief

Operator's Well Number: HUDSON S-15HU
Farm Name: CNX LAND LLC
U.S. WELL NUMBER: 47-051-02328-00-00
Horizontal 6A New Drill
Date Issued: 2/23/2021

Promoting a healthy environment.



west virginia department of environmental protection

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

Randall M. Albert, Chairman
dep.wv.gov

January 7, 2021

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

RE: Application for Deep Well Permit – API #47-051-02328

COMPANY: Tug Hill Operating, LLC

FARM: CNX Land, LLC Hudson S-15HU

COUNTY: Marshall DISTRICT: Meade QUAD: Glen Easton

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; withdrawn prior to deep well approval.
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

** Hudson S-11HU 47-051-02296; Hudson S-13HU 47-051-02293; Hudson S-12HU 47-051-02292; Hudson S-14HU 47-051-02327, Hudson S-16HU 47-051-02329; Ten High 1N-20HU 47-051-02021, Ten High 1N-13HU 47-051-01965; Fitzgerald S-18HU 47-051-02325; Fitzgerald S-19HU 47-051-02326; Fitzgerald S-17HU 47-051-02324

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.

WW-6B
(04/15)

API NO. 47-4705102328
OPERATOR WELL NO. Hudson S-15HU
Well Pad Name: Hudson

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 Marshall Meade Glen Easton 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Hudson S-15HU Well Pad Name: Hudson

3) Farm Name/Surface Owner: CNX Land, LLC Public Road Access: Roberts Ridge Road (CR 21)

4) Elevation, current ground: 1370' Elevation, proposed post-construction: 1344.81'

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

(b) If Gas Shallow _____ Deep
Horizontal

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 11,707' - 11,840' - thickness of 133' and anticipated pressure of approx. 9500 psi.

8) Proposed Total Vertical Depth: 11,990'

9) Formation at Total Vertical Depth: Trenton, plug back to Reedsville

10) Proposed Total Measured Depth: 30,463' ✓

11) Proposed Horizontal Leg Length: 17,480.54'

12) Approximate Fresh Water Strata Depths: 70' ; 978'

13) Method to Determine Fresh Water Depths: Offset well reports or noticeable flow at the flowline or when need to start soaping

14) Approximate Saltwater Depths: 2,167'

15) Approximate Coal Seam Depths: Sewickley Coal - 886' ; Pittsburgh Coal - 972'

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

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

(a) If Yes, provide Mine Info: Name: Marshall County Coal Co./Marshall County Mine
Depth: 1059' TVD and 291' subsea level
Seam: Pittsburgh #8
Owner: Murray Energy / Consolidated Coal Co.

JW
3/11/2020

RECEIVED
Office of Oil and Gas
MAR 19 2020

WV Department of
Environmental Protection

18) CASING AND TUBING PROGRAM

<u>TYPE</u>	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	30"	NEW	BW	BW	120'	120' ✓	259FT^3(CTS)
Fresh Water	20"	NEW	J55	106.5#	1070'	1070' ✓	1,719FT^3(CTS)
Coal	13 3/8"	NEW	J55	54.5#	2850'	2850' ✓	2,009FT^3(CTS)
Intermediate	9 5/8"	NEW	HPP110	47#	10,770'	10,770'	3,514FT^3(CTS)
Production	5 1/2"	NEW	P110	23#	30,463'	30,463' ✓	7,162FT^3(CTS)
Tubing	2 7/8"	NEW	P110	6.5#		11,639'	
Liners							

JM 9/23/2020

<u>TYPE</u>	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	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	1.99
Production	5 1/2"	8 1/2"	.415	16,510	10,864	SEE #24	1.18
Tubing	2 7/8"			11,624	11,385		
Liners							

PACKERS

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

WW-6B
(10/14)

API NO. 47- 4705102328
OPERATOR WELL NO. Hudson S-15HU
Well Pad Name: Hudson

Ju
3/11/2020

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 (11,139'). Drill curve and lateral per proposed well plan, run and cement production casing. Perform CBL 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 43,692,500 lb proppant and 675,518 bbl of water. Max rate = 80 bpm; max psi = 12,000#.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 22.94 acres

22) Area to be disturbed for well pad only, less access road (acres): 6.18 acres

23) Describe centralizer placement for each casing string:

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

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

*See Attachment

RECEIVED
Office of Oil and Gas
MAR 19 2020

25) Proposed borehole conditioning procedures:

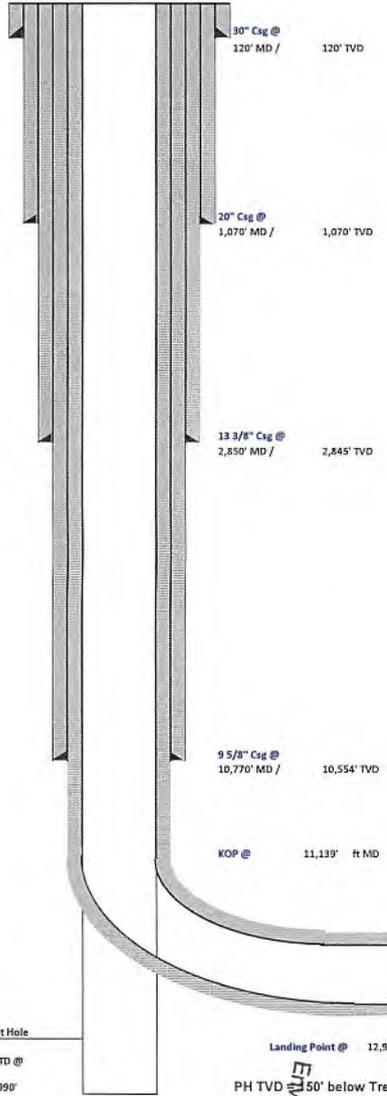
Will circulate a minimum of 3 hours at TD, short trip to curve, circulate bottoms up, check for flow, POOH

WV Department of
Environmental Protection

*Note: Attach additional sheets as needed.



WELL NAME: Hudson S-15HU
 STATE: WV COUNTY: Marshall
 DISTRICT: Meade
 DF Elev: 1,344' GL Elev: 1,344'
 TD: 30,463'
 TH Latitude: 39.828695
 TH Longitude: -80.67264
 BH Latitude: 39.790312
 BH Longitude: -80.632602



FORMATION TOPS	
Formation	Depth TVD
Deepest Fresh Water	978'
Sewickley Coal	886'
Pittsburgh Coal	972'
Blg Lime	2,156'
Berea	2,774'
Tully	5,720'
Marcellus	6,833'
Onondaga	6,885'
Salina	7,608'
Lockport	8,617'
Utica	11,439'
Point Pleasant	11,707'
Landing Depth	11,757'
Trenton	11,840'
Pilot Hole TD	11,990'

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	1,070'	1,070'	106.5	J55	Surface
Intermediate 1	17 1/2	13 3/8	2,850'	2,845'	54.5	J55	Surface
Intermediate 2	12 1/4	9 5/8	10,770'	10,554'	47	HPP110	Surface
Production	8 1/2	5 1/2	30,463'	12,063'	23	HCP110	Surface

CEMENT SUMMARY			DRILLING DETAILS		
	Sacks	Class	Density	Fluid Type	Centralizer Notes
Conductor	338	A	15.6	Air	None
Surface	1,854	A	15.6	Air	3 Centralizers at equal distance
Intermediate 1	2,177	A	15	Air	1 Centralizer every other jt
Intermediate 2	2,929	A	14.5	Air	1 Centralizer every other jt
Production	6,401	A	15	Air / SOBMM	1 every other joint in lateral; 1 per joint in curve; 1 every other jt to sfc

Jim
3/11/2020

Pilot Hole
 PH TD @ 11,990'
 Landing Point @ 12,985' MD / 11,757' TVD
 PH TVD @ 50' below Trenton Top

Lateral TD @ 30,463' ft MD
 12,063' ft TVD

RECEIVED
 Office of Oil and Gas
 MAR 19 2020
 WV Department of
 Environmental Protection

4705102328

4705102328



Tug Hill Operating, LLC Casing and Cement Program

Hudson S-15HU

Casing

	String	Grade	Bit Size	Depth (Measured)	Cement Fill Up
Conductor	30"	BW	36"	120'	CTS
Surface	20"	J55	26"	1,070'	CTS
Intermediate 1	13 3/8"	J55	17 1/2"	2,850'	CTS
Intermediate 2	9 5/8"	HPP110	12 1/4"	10,770'	CTS
Production	5 1/2"	HCP110	8 1/2"	30,463'	CTS

Cement

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 15.6 ppg, Y=1.99

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 15.2ppg, Y = 1.18

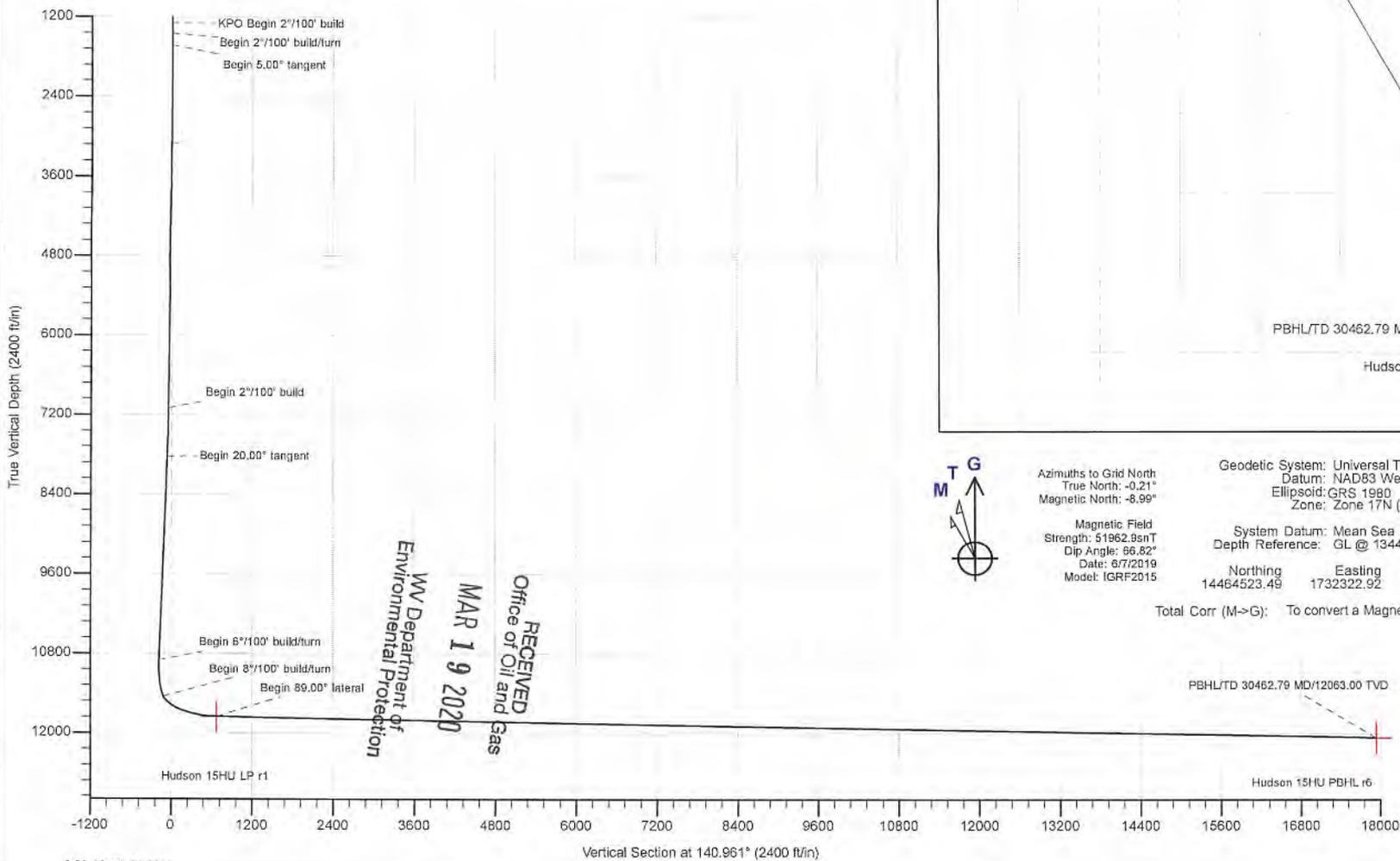
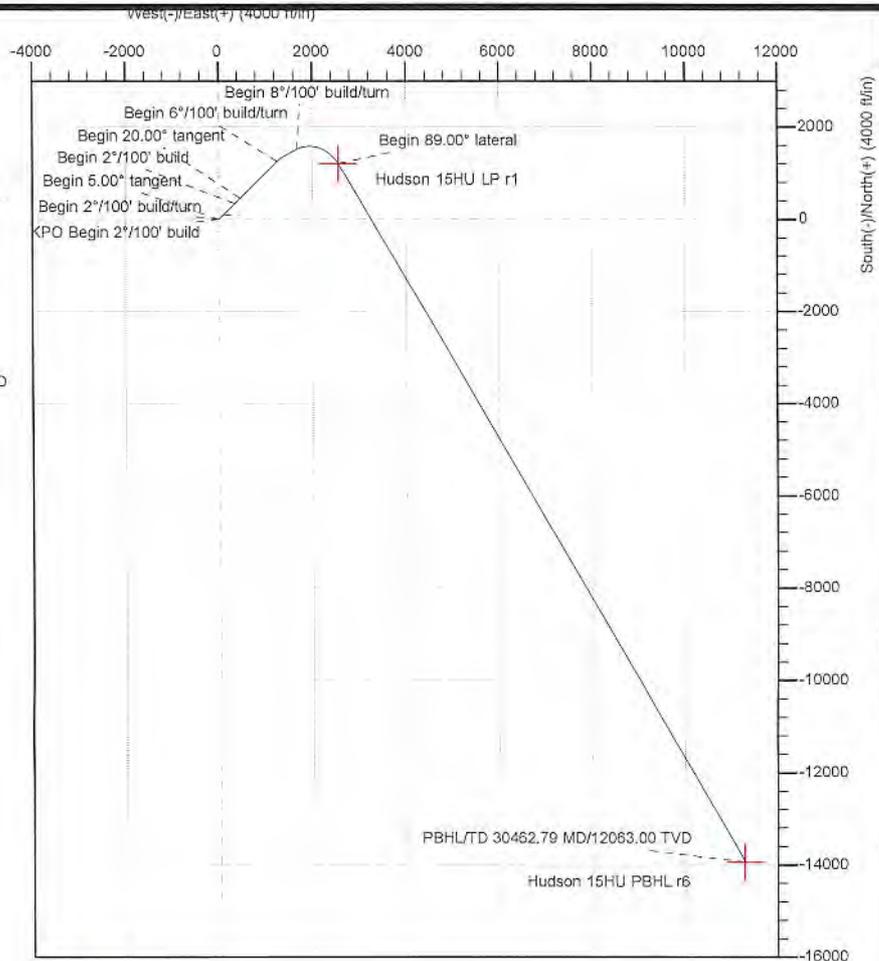
RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection



Well: Hudson S-15 HU (slot O)
 Site: Hudson Alt North
 Project: Marshall County, West Virginia
 Design: rev6
 Rig:

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.000	0.00	
2	1300.00	0.00	0.000	1300.00	0.00	0.00	0.00	0.000	0.00	KPO Begin 2°/100' build
3	1450.00	3.00	90.000	1449.93	0.00	3.93	2.00	90.000	2.47	Begin 2°/100' build/turn
4	1628.71	5.00	45.000	1628.24	5.51	14.11	2.00	-81.321	4.61	Begin 5.00° tangent
5	3106.10	5.00	45.000	3100.00	96.56	105.16	0.00	0.000	-8.76	
6	7121.37	5.00	45.000	7100.00	344.01	352.62	0.00	0.000	-45.11	Begin 2°/100' build
7	7871.37	20.00	45.000	7830.13	458.47	467.07	2.00	0.000	-61.92	Begin 20.00° tangent
8	11139.32	20.00	45.000	10901.00	1248.81	1257.41	0.00	0.000	-178.00	Begin 6°/100' build/turn
9	11899.16	64.36	62.973	11451.78	1510.25	1676.73	6.00	22.924	-116.97	Begin 8°/100' build/turn
10	12985.39	89.00	150.000	11757.25	1200.75	2560.65	8.00	89.617	680.16	Begin 89.00° lateral
11	30462.79	89.00	150.000	12063.00-13932.77	11298.09	0.00	0.000	7937.92		PBHL/TD 30462.79 MD/12063.00 TVD



Azimuths to Grid North
 True North: -0.21°
 Magnetic North: -8.99°

Magnetic Field
 Strength: 51962.95nT
 Dip Angle: 66.62°
 Date: 6/7/2019
 Model: IGRF2015

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 @ 1344.25ft

Northing: 14464523.49 Easting: 1732322.92 Latitude: 39.82869500 Longitude: -80.67264000

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Subtract 8.99°

RECEIVED
 Office of Oil and Gas
 MAR 19 2020
 WV Department of
 Environmental Protection



4705102928



Planning Report - Geographic

Database:	DB_Aug1919_v14	Local Co-ordinate Reference:	Well Hudson S-15 HU (slot O)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1344.25ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1344.25ft
Site:	Hudson Alt North	North Reference:	Grid
Well:	Hudson S-15 HU (slot O)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev6		

Project	Marshall County, West Virginia		
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	Hudson Alt North				
Site Position:		Northing:	14,464,552.10 usft	Latitude:	39.82877400
From:	Lat/Long	Easting:	1,732,278.45 usft	Longitude:	-80.67279800
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.210 °

Well	Hudson S-15 HU (slot O)					
Well Position	+N/-S	0.00 ft	Northing:	14,464,523.49 usft	Latitude:	39.82869500
	+E/-W	0.00 ft	Easting:	1,732,322.91 usft	Longitude:	-80.67264000
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	1,344.25 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/7/2019	-8.780	66.819	51,962.86506035

Design	rev6			
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	140.961

Plan Survey Tool Program	Date	3/6/2020		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	30,462.79 rev6 (Original Hole)	MWD	
			MWD - Standard	

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection

4705102328



Planning Report - Geographic

Database:	DB_Aug1919_v14	Local Co-ordinate Reference:	Well Hudson S-15 HU (slot O)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1344.25ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1344.25ft
Site:	Hudson Alt North	North Reference:	Grid
Well:	Hudson S-15 HU (slot O)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev6		

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	0.000	
1,300.00	0.00	0.000	1,300.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,450.00	3.00	90.000	1,449.93	0.00	3.93	2.00	2.00	0.00	90.000	
1,628.71	5.00	45.000	1,628.24	5.51	14.11	2.00	1.12	-25.18	-81.321	
3,106.10	5.00	45.000	3,100.00	96.56	105.16	0.00	0.00	0.00	0.000	
7,121.37	5.00	45.000	7,100.00	344.01	352.62	0.00	0.00	0.00	0.000	
7,871.37	20.00	45.000	7,830.13	458.47	467.07	2.00	2.00	0.00	0.000	
11,139.32	20.00	45.000	10,901.00	1,248.81	1,257.41	0.00	0.00	0.00	0.000	
11,899.16	64.36	62.973	11,451.78	1,510.25	1,676.73	6.00	5.84	2.37	22.924	
12,985.39	89.00	150.000	11,757.25	1,200.75	2,560.65	8.00	2.27	8.01	89.617	Hudson 15HU LP r1
30,462.79	89.00	150.000	12,063.00	-13,932.77	11,298.09	0.00	0.00	0.00	0.000	Hudson 15HU PBHL I

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection



Planning Report - Geographic

4705102328

Database:	DB_Aug1819_v14	Local Co-ordinate Reference:	Well Hudson S-15 HU (slot O)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1344.25ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1344.25ft
Site:	Hudson Alt North	North Reference:	Grid
Well:	Hudson S-15 HU (slot O)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev6		

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection

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	14,464,523.49	1,732,322.91	39.82869500	-80.67264000	
100.00	0.00	0.000	100.00	0.00	0.00	14,464,523.49	1,732,322.91	39.82869500	-80.67264000	
200.00	0.00	0.000	200.00	0.00	0.00	14,464,523.49	1,732,322.91	39.82869500	-80.67264000	
300.00	0.00	0.000	300.00	0.00	0.00	14,464,523.49	1,732,322.91	39.82869500	-80.67264000	
400.00	0.00	0.000	400.00	0.00	0.00	14,464,523.49	1,732,322.91	39.82869500	-80.67264000	
500.00	0.00	0.000	500.00	0.00	0.00	14,464,523.49	1,732,322.91	39.82869500	-80.67264000	
600.00	0.00	0.000	600.00	0.00	0.00	14,464,523.49	1,732,322.91	39.82869500	-80.67264000	
700.00	0.00	0.000	700.00	0.00	0.00	14,464,523.49	1,732,322.91	39.82869500	-80.67264000	
800.00	0.00	0.000	800.00	0.00	0.00	14,464,523.49	1,732,322.91	39.82869500	-80.67264000	
900.00	0.00	0.000	900.00	0.00	0.00	14,464,523.49	1,732,322.91	39.82869500	-80.67264000	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	14,464,523.49	1,732,322.91	39.82869500	-80.67264000	
1,100.00	0.00	0.000	1,100.00	0.00	0.00	14,464,523.49	1,732,322.91	39.82869500	-80.67264000	
1,200.00	0.00	0.000	1,200.00	0.00	0.00	14,464,523.49	1,732,322.91	39.82869500	-80.67264000	
1,300.00	0.00	0.000	1,300.00	0.00	0.00	14,464,523.49	1,732,322.91	39.82869500	-80.67264000	
KPO Begin 2°/100' build										
1,400.00	2.00	90.000	1,399.98	0.00	1.75	14,464,523.49	1,732,324.66	39.82869498	-80.67263378	
1,450.00	3.00	90.000	1,449.93	0.00	3.93	14,464,523.49	1,732,326.84	39.82869496	-80.67262602	
Begin 2°/100' build/turn										
1,500.00	3.30	72.572	1,499.86	0.43	6.61	14,464,523.93	1,732,329.52	39.82869612	-80.67261646	
1,600.00	4.55	49.301	1,599.63	3.88	12.36	14,464,527.38	1,732,335.28	39.82870554	-80.67259591	
1,628.71	5.00	45.000	1,628.24	5.51	14.11	14,464,529.00	1,732,337.03	39.82870999	-80.67258966	
Begin 5.00° tangent										
1,700.00	5.00	45.000	1,699.26	9.90	18.51	14,464,533.40	1,732,341.42	39.82872201	-80.67257396	
1,800.00	5.00	45.000	1,798.88	16.06	24.67	14,464,539.56	1,732,347.58	39.82873887	-80.67255192	
1,900.00	5.00	45.000	1,898.49	22.23	30.83	14,464,545.72	1,732,353.75	39.82875573	-80.67252989	
2,000.00	5.00	45.000	1,998.11	28.39	36.99	14,464,551.89	1,732,359.91	39.82877260	-80.67250786	
2,100.00	5.00	45.000	2,097.73	34.55	43.16	14,464,558.05	1,732,366.07	39.82878946	-80.67248583	
2,200.00	5.00	45.000	2,197.35	40.72	49.32	14,464,564.21	1,732,372.23	39.82880632	-80.67246380	
2,300.00	5.00	45.000	2,296.97	46.88	55.48	14,464,570.37	1,732,378.40	39.82882318	-80.67244177	
2,400.00	5.00	45.000	2,396.59	53.04	61.65	14,464,576.54	1,732,384.56	39.82884005	-80.67241974	
2,500.00	5.00	45.000	2,496.21	59.20	67.81	14,464,582.70	1,732,390.72	39.82885691	-80.67239770	
2,600.00	5.00	45.000	2,595.83	65.37	73.97	14,464,588.86	1,732,396.89	39.82887377	-80.67237567	
2,700.00	5.00	45.000	2,695.45	71.53	80.13	14,464,595.03	1,732,403.05	39.82889063	-80.67235364	
2,800.00	5.00	45.000	2,795.07	77.69	86.30	14,464,601.19	1,732,409.21	39.82890750	-80.67233161	
2,900.00	5.00	45.000	2,894.69	83.86	92.46	14,464,607.35	1,732,415.37	39.82892436	-80.67230958	
3,000.00	5.00	45.000	2,994.31	90.02	98.62	14,464,613.51	1,732,421.54	39.82894122	-80.67228755	
3,100.00	5.00	45.000	3,093.93	96.18	104.79	14,464,619.68	1,732,427.70	39.82895809	-80.67226552	
3,106.10	5.00	45.000	3,100.00	96.56	105.16	14,464,620.05	1,732,428.08	39.82895911	-80.67226417	
3,200.00	5.00	45.000	3,193.55	102.34	110.95	14,464,625.84	1,732,433.86	39.82897495	-80.67224348	
3,300.00	5.00	45.000	3,293.17	108.51	117.11	14,464,632.00	1,732,440.03	39.82899181	-80.67222145	
3,400.00	5.00	45.000	3,392.79	114.67	123.27	14,464,638.16	1,732,446.19	39.82900867	-80.67219942	
3,500.00	5.00	45.000	3,492.41	120.83	129.44	14,464,644.33	1,732,452.35	39.82902554	-80.67217739	
3,600.00	5.00	45.000	3,592.03	127.00	135.60	14,464,650.49	1,732,458.51	39.82904240	-80.67215536	
3,700.00	5.00	45.000	3,691.65	133.16	141.76	14,464,656.65	1,732,464.68	39.82905926	-80.67213333	
3,800.00	5.00	45.000	3,791.26	139.32	147.93	14,464,662.82	1,732,470.84	39.82907612	-80.67211129	
3,900.00	5.00	45.000	3,890.88	145.48	154.09	14,464,668.98	1,732,477.00	39.82909299	-80.67208926	
4,000.00	5.00	45.000	3,990.50	151.65	160.25	14,464,675.14	1,732,483.17	39.82910985	-80.67206723	
4,100.00	5.00	45.000	4,090.12	157.81	166.41	14,464,681.30	1,732,489.33	39.82912671	-80.67204520	
4,200.00	5.00	45.000	4,189.74	163.97	172.58	14,464,687.47	1,732,495.49	39.82914357	-80.67202317	
4,300.00	5.00	45.000	4,289.36	170.14	178.74	14,464,693.63	1,732,501.65	39.82916044	-80.67200114	
4,400.00	5.00	45.000	4,388.98	176.30	184.90	14,464,699.79	1,732,507.82	39.82917730	-80.67197911	
4,500.00	5.00	45.000	4,488.60	182.46	191.07	14,464,705.96	1,732,513.98	39.82919416	-80.67195707	
4,600.00	5.00	45.000	4,588.22	188.62	197.23	14,464,712.12	1,732,520.14	39.82921102	-80.67193504	
4,700.00	5.00	45.000	4,687.84	194.79	203.39	14,464,718.28	1,732,526.31	39.82922789	-80.67191301	

4705102328



Planning Report - Geographic

Database:	DB_Aug1919_v14	Local Co-ordinate Reference:	Well Hudson S-15 HU (slot O)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1344.25ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1344.25ft
Site:	Hudson Alt North	North Reference:	Grid
Well:	Hudson S-15 HU (slot O)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev6		

RECEIVED
Office of Oil and Gas
MAR 19 2020

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,800.00	5.00	45.000	4,787.46	200.95	209.55	14,464,724.44	1,732,532.47	39.82924475	-80.67189098
4,900.00	5.00	45.000	4,887.08	207.11	215.72	14,464,730.61	1,732,538.63	39.82926161	-80.67186895
5,000.00	5.00	45.000	4,986.70	213.28	221.88	14,464,736.77	1,732,544.79	39.82927847	-80.67184692
5,100.00	5.00	45.000	5,086.32	219.44	228.04	14,464,742.93	1,732,550.96	39.82929533	-80.67182488
5,200.00	5.00	45.000	5,185.94	225.60	234.21	14,464,749.10	1,732,557.12	39.82931220	-80.67180285
5,300.00	5.00	45.000	5,285.56	231.76	240.37	14,464,755.26	1,732,563.28	39.82932906	-80.67178082
5,400.00	5.00	45.000	5,385.18	237.93	246.53	14,464,761.42	1,732,569.44	39.82934592	-80.67175879
5,500.00	5.00	45.000	5,484.80	244.09	252.69	14,464,767.58	1,732,575.61	39.82936278	-80.67173676
5,600.00	5.00	45.000	5,584.41	250.25	258.86	14,464,773.75	1,732,581.77	39.82937965	-80.67171472
5,700.00	5.00	45.000	5,684.03	256.42	265.02	14,464,779.91	1,732,587.93	39.82939651	-80.67169269
5,800.00	5.00	45.000	5,783.65	262.58	271.18	14,464,786.07	1,732,594.10	39.82941337	-80.67167066
5,900.00	5.00	45.000	5,883.27	268.74	277.35	14,464,792.24	1,732,600.26	39.82943023	-80.67164863
6,000.00	5.00	45.000	5,982.89	274.90	283.51	14,464,798.40	1,732,606.42	39.82944710	-80.67162660
6,100.00	5.00	45.000	6,082.51	281.07	289.67	14,464,804.56	1,732,612.58	39.82946396	-80.67160457
6,200.00	5.00	45.000	6,182.13	287.23	295.83	14,464,810.72	1,732,618.75	39.82948082	-80.67158253
6,300.00	5.00	45.000	6,281.75	293.39	302.00	14,464,816.89	1,732,624.91	39.82949768	-80.67156050
6,400.00	5.00	45.000	6,381.37	299.56	308.16	14,464,823.05	1,732,631.07	39.82951455	-80.67153847
6,500.00	5.00	45.000	6,480.99	305.72	314.32	14,464,829.21	1,732,637.24	39.82953141	-80.67151644
6,600.00	5.00	45.000	6,580.61	311.88	320.49	14,464,835.38	1,732,643.40	39.82954827	-80.67149441
6,700.00	5.00	45.000	6,680.23	318.04	326.65	14,464,841.54	1,732,649.56	39.82956513	-80.67147237
6,800.00	5.00	45.000	6,779.85	324.21	332.81	14,464,847.70	1,732,655.72	39.82958200	-80.67145034
6,900.00	5.00	45.000	6,879.47	330.37	338.97	14,464,853.86	1,732,661.89	39.82959886	-80.67142831
7,000.00	5.00	45.000	6,979.09	336.53	345.14	14,464,860.03	1,732,668.05	39.82961572	-80.67140628
7,100.00	5.00	45.000	7,078.71	342.70	351.30	14,464,866.19	1,732,674.21	39.82963258	-80.67138425
7,121.37	5.00	45.000	7,100.00	344.01	352.62	14,464,867.51	1,732,675.53	39.82963619	-80.67137954
Begin 2°/100' build									
7,200.00	6.57	45.000	7,178.22	349.62	358.22	14,464,873.11	1,732,681.14	39.82965152	-80.67135950
7,300.00	8.57	45.000	7,277.35	358.94	367.54	14,464,882.43	1,732,690.45	39.82967702	-80.67132619
7,400.00	10.57	45.000	7,375.95	370.69	379.30	14,464,894.19	1,732,702.21	39.82970919	-80.67128415
7,500.00	12.57	45.000	7,473.91	384.88	393.48	14,464,908.37	1,732,716.40	39.82974800	-80.67123345
7,600.00	14.57	45.000	7,571.11	401.47	410.08	14,464,924.97	1,732,732.99	39.82979340	-80.67117412
7,700.00	16.57	45.000	7,667.44	420.45	429.06	14,464,943.95	1,732,751.97	39.82984534	-80.67110627
7,800.00	18.57	45.000	7,762.77	441.80	450.40	14,464,965.29	1,732,773.32	39.82990375	-80.67102995
7,871.37	20.00	45.000	7,830.13	458.47	467.07	14,464,981.96	1,732,789.99	39.82994936	-80.67097036
Begin 20.00° tangent									
7,900.00	20.00	45.000	7,857.03	465.39	474.00	14,464,988.89	1,732,796.91	39.82996830	-80.67094561
8,000.00	20.00	45.000	7,951.00	489.58	498.18	14,465,013.07	1,732,821.09	39.83003447	-80.67085915
8,100.00	20.00	45.000	8,044.97	513.76	522.37	14,465,037.26	1,732,845.28	39.83010064	-80.67077269
8,200.00	20.00	45.000	8,138.94	537.95	546.55	14,465,061.44	1,732,869.46	39.83016681	-80.67068623
8,300.00	20.00	45.000	8,232.91	562.13	570.73	14,465,085.62	1,732,893.65	39.83023298	-80.67059977
8,400.00	20.00	45.000	8,326.88	586.31	594.92	14,465,109.81	1,732,917.83	39.83029916	-80.67051331
8,500.00	20.00	45.000	8,420.85	610.50	619.10	14,465,133.99	1,732,942.02	39.83036533	-80.67042685
8,600.00	20.00	45.000	8,514.82	634.68	643.29	14,465,158.18	1,732,966.20	39.83043150	-80.67034039
8,700.00	20.00	45.000	8,608.79	658.87	667.47	14,465,182.36	1,732,990.39	39.83049767	-80.67025393
8,800.00	20.00	45.000	8,702.76	683.05	691.66	14,465,206.55	1,733,014.57	39.83056384	-80.67016747
8,900.00	20.00	45.000	8,796.72	707.24	715.84	14,465,230.73	1,733,038.75	39.83063001	-80.67008101
9,000.00	20.00	45.000	8,890.69	731.42	740.03	14,465,254.92	1,733,062.94	39.83069618	-80.66999454
9,100.00	20.00	45.000	8,984.66	755.61	764.21	14,465,279.10	1,733,087.12	39.83076235	-80.66990808
9,200.00	20.00	45.000	9,078.63	779.79	788.39	14,465,303.28	1,733,111.31	39.83082852	-80.66982162
9,300.00	20.00	45.000	9,172.60	803.98	812.58	14,465,327.47	1,733,135.49	39.83089470	-80.66973516
9,400.00	20.00	45.000	9,266.57	828.16	836.76	14,465,351.65	1,733,159.68	39.83096087	-80.66964870
9,500.00	20.00	45.000	9,360.54	852.34	860.95	14,465,375.84	1,733,183.86	39.83102704	-80.66956224
9,600.00	20.00	45.000	9,454.51	876.53	885.13	14,465,400.02	1,733,208.05	39.83109321	-80.66947577
9,700.00	20.00	45.000	9,548.48	900.71	909.32	14,465,424.21	1,733,232.23	39.83115938	-80.66938931

WV Department of Environmental Protection

4705102328



Planning Report - Geographic

Database:	DB_Aug1919_v14	Local Co-ordinate Reference:	Well Hudson S-15 HU (slot O)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1344.25ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1344.25ft
Site:	Hudson Alt North	North Reference:	Grid
Well:	Hudson S-15 HU (slot O)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev6		

RECEIVED
Office of Oil and Gas
MAR 19 2020

WV Department of
Environmental Protection

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
9,800.00	20.00	45.000	9,642.45	924.90	933.50	14,465,448.39	1,733,256.41	39.83122555	-80.66930285	
9,900.00	20.00	45.000	9,736.42	949.08	957.69	14,465,472.58	1,733,280.60	39.83129172	-80.66921639	
10,000.00	20.00	45.000	9,830.39	973.27	981.87	14,465,496.76	1,733,304.78	39.83135789	-80.66912992	
10,100.00	20.00	45.000	9,924.36	997.45	1,006.06	14,465,520.94	1,733,328.97	39.83142406	-80.66904346	
10,200.00	20.00	45.000	10,018.33	1,021.64	1,030.24	14,465,545.13	1,733,353.15	39.83149023	-80.66895700	
10,300.00	20.00	45.000	10,112.29	1,045.82	1,054.42	14,465,569.31	1,733,377.34	39.83155640	-80.66887053	
10,400.00	20.00	45.000	10,206.26	1,070.00	1,078.61	14,465,593.50	1,733,401.52	39.83162257	-80.66878407	
10,500.00	20.00	45.000	10,300.23	1,094.19	1,102.79	14,465,617.68	1,733,425.71	39.83168874	-80.66869761	
10,600.00	20.00	45.000	10,394.20	1,118.37	1,126.98	14,465,641.87	1,733,449.89	39.83175491	-80.66861114	
10,700.00	20.00	45.000	10,488.17	1,142.56	1,151.16	14,465,666.05	1,733,474.07	39.83182108	-80.66852468	
10,800.00	20.00	45.000	10,582.14	1,166.74	1,175.35	14,465,690.23	1,733,498.26	39.83188725	-80.66843821	
10,900.00	20.00	45.000	10,676.11	1,190.93	1,199.53	14,465,714.42	1,733,522.44	39.83195342	-80.66835175	
11,000.00	20.00	45.000	10,770.08	1,215.11	1,223.72	14,465,738.60	1,733,546.63	39.83201959	-80.66826529	
11,100.00	20.00	45.000	10,864.05	1,239.30	1,247.90	14,465,762.79	1,733,570.81	39.83208576	-80.66817882	
11,139.32	20.00	45.000	10,901.00	1,248.81	1,257.41	14,465,772.30	1,733,580.32	39.83211178	-80.66814482	
Begin 6°/100' build/tum										
11,200.00	23.39	48.570	10,957.37	1,264.12	1,273.78	14,465,787.61	1,733,596.70	39.83215366	-80.66808629	
11,300.00	29.11	52.703	11,047.03	1,292.02	1,308.05	14,465,815.51	1,733,630.96	39.83222993	-80.66796387	
11,400.00	34.91	55.569	11,131.79	1,322.97	1,351.04	14,465,846.46	1,733,673.95	39.83231448	-80.66781032	
11,500.00	40.77	57.704	11,210.73	1,356.62	1,402.29	14,465,880.11	1,733,725.20	39.83240639	-80.66762733	
11,600.00	46.65	59.384	11,282.99	1,392.62	1,461.23	14,465,916.11	1,733,784.15	39.83250464	-80.66741689	
11,700.00	52.56	60.765	11,347.77	1,430.56	1,527.23	14,465,954.05	1,733,850.14	39.83260815	-80.66718132	
11,800.00	58.48	61.944	11,404.36	1,470.03	1,599.55	14,465,993.52	1,733,922.46	39.83271581	-80.66692319	
11,899.16	64.36	62.973	11,451.78	1,510.25	1,676.73	14,466,033.74	1,733,999.64	39.83282549	-80.66664774	
Begin 8°/100' build/tum										
11,900.00	64.36	63.047	11,452.15	1,510.60	1,677.40	14,466,034.09	1,734,000.31	39.83282642	-80.66664533	
12,000.00	64.68	71.903	11,495.24	1,545.12	1,760.68	14,466,068.61	1,734,083.59	39.83292039	-80.66634824	
12,100.00	65.53	80.673	11,537.40	1,566.57	1,848.69	14,466,090.06	1,734,171.60	39.83297839	-80.66603445	
12,200.00	66.88	89.292	11,577.82	1,574.53	1,939.72	14,466,098.02	1,734,262.63	39.83299931	-80.66571008	
12,300.00	68.68	97.711	11,615.69	1,568.84	2,032.01	14,466,092.33	1,734,354.92	39.83298273	-80.66538143	
12,400.00	70.89	105.905	11,650.29	1,549.61	2,123.75	14,466,073.10	1,734,446.66	39.83292899	-80.66505489	
12,500.00	73.45	113.865	11,680.95	1,517.22	2,213.17	14,466,040.71	1,734,536.08	39.83283911	-80.66473683	
12,600.00	76.31	121.606	11,707.06	1,472.30	2,298.51	14,465,995.79	1,734,621.42	39.83271486	-80.66443343	
12,700.00	79.40	129.154	11,728.13	1,415.71	2,378.13	14,465,939.20	1,734,701.04	39.83255865	-80.66415060	
12,800.00	82.67	136.546	11,743.73	1,348.57	2,450.46	14,465,872.06	1,734,773.37	39.83237352	-80.66389383	
12,900.00	86.05	143.830	11,753.56	1,272.18	2,514.11	14,465,795.67	1,734,837.02	39.83216308	-80.66366813	
12,985.39	89.00	150.000	11,757.25	1,200.74	2,560.65	14,465,724.23	1,734,883.56	39.83198641	-80.66350332	
Begin 89.00° lateral										
13,000.00	89.00	150.000	11,757.51	1,188.09	2,567.95	14,465,711.58	1,734,890.86	39.83193159	-80.66347747	
13,100.00	89.00	150.000	11,759.26	1,101.50	2,617.95	14,465,624.99	1,734,940.86	39.83169328	-80.66330056	
13,200.00	89.00	150.000	11,761.00	1,014.91	2,667.94	14,465,538.41	1,734,990.85	39.83145497	-80.66312365	
13,300.00	89.00	150.000	11,762.75	928.32	2,717.93	14,465,451.82	1,735,040.84	39.83121666	-80.66294674	
13,400.00	89.00	150.000	11,764.50	841.73	2,767.93	14,465,365.23	1,735,090.83	39.83097835	-80.66276983	
13,500.00	89.00	150.000	11,766.25	755.15	2,817.92	14,465,278.64	1,735,140.83	39.83074004	-80.66259292	
13,600.00	89.00	150.000	11,768.00	668.56	2,867.91	14,465,192.05	1,735,190.82	39.83050173	-80.66241601	
13,700.00	89.00	150.000	11,769.75	581.97	2,917.90	14,465,105.46	1,735,240.81	39.83026342	-80.66223911	
13,800.00	89.00	150.000	11,771.50	495.38	2,967.90	14,465,018.87	1,735,290.80	39.83002511	-80.66206220	
13,900.00	89.00	150.000	11,773.25	408.79	3,017.89	14,464,932.28	1,735,340.80	39.82978680	-80.66188530	
14,000.00	89.00	150.000	11,775.00	322.20	3,067.88	14,464,845.69	1,735,390.79	39.82954849	-80.66170849	
14,100.00	89.00	150.000	11,776.75	235.61	3,117.87	14,464,759.11	1,735,440.78	39.82931018	-80.66153150	
14,200.00	89.00	150.000	11,778.50	149.02	3,167.87	14,464,672.52	1,735,490.78	39.82907186	-80.66135460	
14,300.00	89.00	150.000	11,780.25	62.43	3,217.86	14,464,585.93	1,735,540.77	39.82883355	-80.66117770	
14,400.00	89.00	150.000	11,782.00	-24.16	3,267.85	14,464,499.34	1,735,590.76	39.82859524	-80.66100080	
14,500.00	89.00	150.000	11,783.75	-110.75	3,317.85	14,464,412.75	1,735,640.75	39.82835693	-80.66082391	



Planning Report - Geographic

Database:	DB_Aug1919_v14	Local Co-ordinate Reference:	Well Hudson S-15 HU (slot O)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1344.25ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1344.25ft
Site:	Hudson Alt North	North Reference:	Grid
Well:	Hudson S-15 HU (slot O)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev6		

RECEIVED
Office of Oil and Gas
MAR 19 2020

WV Department of
Environmental Protection

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
14,600.00	89.00	150.000	11,785.50	-197.33	3,367.84	14,464,326.16	1,735,690.75	39.82811861	-80.66064701	
14,700.00	89.00	150.000	11,787.25	-283.92	3,417.83	14,464,239.57	1,735,740.74	39.82789030	-80.66047012	
14,800.00	89.00	150.000	11,789.00	-370.51	3,467.82	14,464,152.98	1,735,790.73	39.82764199	-80.66029323	
14,900.00	89.00	150.000	11,790.74	-457.10	3,517.82	14,464,066.39	1,735,840.72	39.82740367	-80.66011634	
15,000.00	89.00	150.000	11,792.49	-543.69	3,567.81	14,463,979.81	1,735,890.72	39.82716536	-80.65993945	
15,100.00	89.00	150.000	11,794.24	-630.28	3,617.80	14,463,893.22	1,735,940.71	39.82692704	-80.65976256	
15,200.00	89.00	150.000	11,795.99	-716.87	3,667.80	14,463,806.63	1,735,990.70	39.82668873	-80.65958567	
15,300.00	89.00	150.000	11,797.74	-803.46	3,717.79	14,463,720.04	1,736,040.69	39.82645041	-80.65940878	
15,400.00	89.00	150.000	11,799.49	-890.05	3,767.78	14,463,633.45	1,736,090.69	39.82621210	-80.65923190	
15,500.00	89.00	150.000	11,801.24	-976.64	3,817.77	14,463,546.86	1,736,140.68	39.82597378	-80.65905502	
15,600.00	89.00	150.000	11,802.99	-1,063.22	3,867.77	14,463,460.27	1,736,190.67	39.82573546	-80.65887813	
15,700.00	89.00	150.000	11,804.74	-1,149.81	3,917.76	14,463,373.68	1,736,240.67	39.82549715	-80.65870125	
15,800.00	89.00	150.000	11,806.49	-1,236.40	3,967.75	14,463,287.09	1,736,290.66	39.82525883	-80.65852437	
15,900.00	89.00	150.000	11,808.24	-1,322.99	4,017.74	14,463,200.51	1,736,340.65	39.82502051	-80.65834749	
16,000.00	89.00	150.000	11,809.99	-1,409.58	4,067.74	14,463,113.92	1,736,390.64	39.82478220	-80.65817062	
16,100.00	89.00	150.000	11,811.74	-1,496.17	4,117.73	14,463,027.33	1,736,440.64	39.82454388	-80.65800374	
16,200.00	89.00	150.000	11,813.49	-1,582.76	4,167.72	14,462,940.74	1,736,490.63	39.82430556	-80.65782686	
16,300.00	89.00	150.000	11,815.24	-1,669.35	4,217.72	14,462,854.15	1,736,540.62	39.82406724	-80.65764999	
16,400.00	89.00	150.000	11,816.99	-1,755.94	4,267.71	14,462,767.56	1,736,590.61	39.82382893	-80.65747312	
16,500.00	89.00	150.000	11,818.73	-1,842.53	4,317.70	14,462,680.97	1,736,640.61	39.82359061	-80.65729625	
16,600.00	89.00	150.000	11,820.48	-1,929.11	4,367.69	14,462,594.38	1,736,690.60	39.82335229	-80.65711938	
16,700.00	89.00	150.000	11,822.23	-2,015.70	4,417.69	14,462,507.79	1,736,740.59	39.82311397	-80.65694251	
16,800.00	89.00	150.000	11,823.98	-2,102.29	4,467.68	14,462,421.21	1,736,790.58	39.82287565	-80.65676564	
16,900.00	89.00	150.000	11,825.73	-2,188.88	4,517.67	14,462,334.62	1,736,840.58	39.82263733	-80.65658877	
17,000.00	89.00	150.000	11,827.48	-2,275.47	4,567.67	14,462,248.03	1,736,890.57	39.82239901	-80.65641191	
17,100.00	89.00	150.000	11,829.23	-2,362.06	4,617.66	14,462,161.44	1,736,940.56	39.82216069	-80.65623504	
17,200.00	89.00	150.000	11,830.98	-2,448.65	4,667.65	14,462,074.85	1,736,990.56	39.82192237	-80.65605818	
17,300.00	89.00	150.000	11,832.73	-2,535.24	4,717.64	14,461,988.26	1,737,040.55	39.82168405	-80.65588132	
17,400.00	89.00	150.000	11,834.48	-2,621.83	4,767.64	14,461,901.67	1,737,090.54	39.82144573	-80.65570446	
17,500.00	89.00	150.000	11,836.23	-2,708.42	4,817.63	14,461,815.08	1,737,140.53	39.82120741	-80.65552760	
17,600.00	89.00	150.000	11,837.98	-2,795.01	4,867.62	14,461,728.50	1,737,190.53	39.82096909	-80.65535074	
17,700.00	89.00	150.000	11,839.73	-2,881.59	4,917.61	14,461,641.91	1,737,240.52	39.82073076	-80.65517388	
17,800.00	89.00	150.000	11,841.48	-2,968.18	4,967.61	14,461,555.32	1,737,290.51	39.82049244	-80.65499703	
17,900.00	89.00	150.000	11,843.23	-3,054.77	5,017.60	14,461,468.73	1,737,340.50	39.82025412	-80.65482017	
18,000.00	89.00	150.000	11,844.98	-3,141.36	5,067.59	14,461,382.14	1,737,390.50	39.82001580	-80.65464332	
18,100.00	89.00	150.000	11,846.73	-3,227.95	5,117.59	14,461,295.55	1,737,440.49	39.81977747	-80.65446647	
18,200.00	89.00	150.000	11,848.47	-3,314.54	5,167.58	14,461,208.96	1,737,490.48	39.81953915	-80.65428962	
18,300.00	89.00	150.000	11,850.22	-3,401.13	5,217.57	14,461,122.37	1,737,540.48	39.81930083	-80.65411277	
18,400.00	89.00	150.000	11,851.97	-3,487.72	5,267.56	14,461,035.78	1,737,590.47	39.81906250	-80.65393592	
18,500.00	89.00	150.000	11,853.72	-3,574.31	5,317.56	14,460,949.20	1,737,640.46	39.81882418	-80.65375907	
18,600.00	89.00	150.000	11,855.47	-3,660.90	5,367.55	14,460,862.61	1,737,690.45	39.81858585	-80.65358223	
18,700.00	89.00	150.000	11,857.22	-3,747.48	5,417.54	14,460,776.02	1,737,740.45	39.81834753	-80.65340538	
18,800.00	89.00	150.000	11,858.97	-3,834.07	5,467.54	14,460,689.43	1,737,790.44	39.81810920	-80.65322854	
18,900.00	89.00	150.000	11,860.72	-3,920.66	5,517.53	14,460,602.84	1,737,840.43	39.81787088	-80.65305170	
19,000.00	89.00	150.000	11,862.47	-4,007.25	5,567.52	14,460,516.25	1,737,890.42	39.81763255	-80.65287485	
19,100.00	89.00	150.000	11,864.22	-4,093.84	5,617.51	14,460,429.66	1,737,940.42	39.81739423	-80.65269801	
19,200.00	89.00	150.000	11,865.97	-4,180.43	5,667.51	14,460,343.07	1,737,990.41	39.81715590	-80.65252118	
19,300.00	89.00	150.000	11,867.72	-4,267.02	5,717.50	14,460,256.48	1,738,040.40	39.81691758	-80.65234434	
19,400.00	89.00	150.000	11,869.47	-4,353.61	5,767.49	14,460,169.90	1,738,090.39	39.81667925	-80.65216750	
19,500.00	89.00	150.000	11,871.22	-4,440.20	5,817.48	14,460,083.31	1,738,140.39	39.81644092	-80.65199067	
19,600.00	89.00	150.000	11,872.97	-4,526.79	5,867.48	14,459,996.72	1,738,190.38	39.81620260	-80.65181383	
19,700.00	89.00	150.000	11,874.72	-4,613.37	5,917.47	14,459,910.13	1,738,240.37	39.81596427	-80.65163700	
19,800.00	89.00	150.000	11,876.47	-4,699.96	5,967.46	14,459,823.54	1,738,290.37	39.81572594	-80.65146017	
19,900.00	89.00	150.000	11,878.21	-4,786.55	6,017.46	14,459,736.95	1,738,340.36	39.81548761	-80.65128334	
20,000.00	89.00	150.000	11,879.96	-4,873.14	6,067.45	14,459,650.36	1,738,390.35	39.81524929	-80.65110651	



Planning Report - Geographic

Database: DB_Aug1919_v14
 Company: Tug Hill Operating LLC
 Project: Marshall County, West Virginia
 Site: Hudson Alt North
 Well: Hudson S-15 HU (slot O)
 Wellbore: Original Hole
 Design: rev6

Local Co-ordinate Reference: Well Hudson S-15 HU (slot O)
 TVD Reference: GL @ 1344.25ft
 MD Reference: GL @ 1344.25ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

RECEIVED
 Office of Oil and Gas
 MAR 19 2020

WV Department of
 Environmental Protection

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
20,100.00	89.00	150.000	11,881.71	-4,959.73	6,117.44	14,459,563.77	1,738,440.34	39.81501096	-80.65091968	
20,200.00	89.00	150.000	11,883.46	-5,046.32	6,167.43	14,459,477.18	1,738,490.34	39.81477263	-80.65074286	
20,300.00	89.00	150.000	11,885.21	-5,132.91	6,217.43	14,459,390.60	1,738,540.33	39.81453430	-80.65056603	
20,400.00	89.00	150.000	11,886.96	-5,219.50	6,267.42	14,459,304.01	1,738,590.32	39.81429597	-80.65038921	
20,500.00	89.00	150.000	11,888.71	-5,306.09	6,317.41	14,459,217.42	1,738,640.31	39.81405764	-80.65021238	
20,600.00	89.00	150.000	11,890.46	-5,392.68	6,367.41	14,459,130.83	1,738,690.31	39.81381931	-80.65003556	
20,700.00	89.00	150.000	11,892.21	-5,479.27	6,417.40	14,459,044.24	1,738,740.30	39.81358098	-80.64985874	
20,800.00	89.00	150.000	11,893.96	-5,565.85	6,467.39	14,458,957.65	1,738,790.29	39.81334265	-80.64968192	
20,900.00	89.00	150.000	11,895.71	-5,652.44	6,517.38	14,458,871.06	1,738,840.29	39.81310432	-80.64950511	
21,000.00	89.00	150.000	11,897.46	-5,739.03	6,567.38	14,458,784.47	1,738,890.28	39.81286599	-80.64932829	
21,100.00	89.00	150.000	11,899.21	-5,825.62	6,617.37	14,458,697.88	1,738,940.27	39.81262766	-80.64915147	
21,200.00	89.00	150.000	11,900.96	-5,912.21	6,667.36	14,458,611.30	1,738,990.26	39.81238933	-80.64897466	
21,300.00	89.00	150.000	11,902.71	-5,998.80	6,717.36	14,458,524.71	1,739,040.26	39.81215099	-80.64879785	
21,400.00	89.00	150.000	11,904.46	-6,085.39	6,767.35	14,458,438.12	1,739,090.25	39.81191266	-80.64862103	
21,500.00	89.00	150.000	11,906.21	-6,171.98	6,817.34	14,458,351.53	1,739,140.24	39.81167433	-80.64844422	
21,600.00	89.00	150.000	11,907.95	-6,258.57	6,867.33	14,458,264.94	1,739,190.23	39.81143600	-80.64826741	
21,700.00	89.00	150.000	11,909.70	-6,345.16	6,917.33	14,458,178.35	1,739,240.23	39.81119766	-80.64809061	
21,800.00	89.00	150.000	11,911.45	-6,431.74	6,967.32	14,458,091.76	1,739,290.22	39.81095933	-80.64791380	
21,900.00	89.00	150.000	11,913.20	-6,518.33	7,017.31	14,458,005.17	1,739,340.21	39.81072100	-80.64773699	
22,000.00	89.00	150.000	11,914.95	-6,604.92	7,067.30	14,457,918.59	1,739,390.20	39.81048266	-80.64756019	
22,100.00	89.00	150.000	11,916.70	-6,691.51	7,117.30	14,457,832.00	1,739,440.20	39.81024433	-80.64738338	
22,200.00	89.00	150.000	11,918.45	-6,778.10	7,167.29	14,457,745.41	1,739,490.19	39.81000600	-80.64720658	
22,300.00	89.00	150.000	11,920.20	-6,864.69	7,217.28	14,457,658.82	1,739,540.18	39.80976766	-80.64702978	
22,400.00	89.00	150.000	11,921.95	-6,951.28	7,267.28	14,457,572.23	1,739,590.18	39.80952933	-80.64685298	
22,500.00	89.00	150.000	11,923.70	-7,037.87	7,317.27	14,457,485.64	1,739,640.17	39.80929099	-80.64667618	
22,600.00	89.00	150.000	11,925.45	-7,124.46	7,367.26	14,457,399.05	1,739,690.16	39.80905266	-80.64649939	
22,700.00	89.00	150.000	11,927.20	-7,211.05	7,417.25	14,457,312.46	1,739,740.15	39.80881432	-80.64632259	
22,800.00	89.00	150.000	11,928.95	-7,297.64	7,467.25	14,457,225.87	1,739,790.15	39.80857599	-80.64614580	
22,900.00	89.00	150.000	11,930.70	-7,384.22	7,517.24	14,457,139.29	1,739,840.14	39.80833765	-80.64596900	
23,000.00	89.00	150.000	11,932.45	-7,470.81	7,567.23	14,457,052.70	1,739,890.13	39.80809931	-80.64579221	
23,100.00	89.00	150.000	11,934.20	-7,557.40	7,617.23	14,456,966.11	1,739,940.12	39.80786098	-80.64561542	
23,200.00	89.00	150.000	11,935.94	-7,643.99	7,667.22	14,456,879.52	1,739,990.12	39.80762264	-80.64543863	
23,300.00	89.00	150.000	11,937.69	-7,730.58	7,717.21	14,456,792.93	1,740,040.11	39.80738430	-80.64526184	
23,400.00	89.00	150.000	11,939.44	-7,817.17	7,767.20	14,456,706.34	1,740,090.10	39.80714597	-80.64508505	
23,500.00	89.00	150.000	11,941.19	-7,903.76	7,817.20	14,456,619.75	1,740,140.09	39.80690763	-80.64490827	
23,600.00	89.00	150.000	11,942.94	-7,990.35	7,867.19	14,456,533.16	1,740,190.09	39.80666929	-80.64473148	
23,700.00	89.00	150.000	11,944.69	-8,076.94	7,917.18	14,456,446.57	1,740,240.08	39.80643095	-80.64455470	
23,800.00	89.00	150.000	11,946.44	-8,163.53	7,967.17	14,456,359.99	1,740,290.07	39.80619261	-80.64437791	
23,900.00	89.00	150.000	11,948.19	-8,250.11	8,017.17	14,456,273.40	1,740,340.07	39.80595427	-80.64420113	
24,000.00	89.00	150.000	11,949.94	-8,336.70	8,067.16	14,456,186.81	1,740,390.06	39.80571593	-80.64402435	
24,100.00	89.00	150.000	11,951.69	-8,423.29	8,117.15	14,456,100.22	1,740,440.05	39.80547760	-80.64384757	
24,200.00	89.00	150.000	11,953.44	-8,509.88	8,167.15	14,456,013.63	1,740,490.04	39.80523926	-80.64367080	
24,300.00	89.00	150.000	11,955.19	-8,596.47	8,217.14	14,455,927.04	1,740,540.04	39.80500092	-80.64349402	
24,400.00	89.00	150.000	11,956.94	-8,683.06	8,267.13	14,455,840.45	1,740,590.03	39.80476258	-80.64331724	
24,500.00	89.00	150.000	11,958.69	-8,769.65	8,317.12	14,455,753.86	1,740,640.02	39.80452424	-80.64314047	
24,600.00	89.00	150.000	11,960.44	-8,856.24	8,367.12	14,455,667.27	1,740,690.01	39.80428589	-80.64296370	
24,700.00	89.00	150.000	11,962.19	-8,942.83	8,417.11	14,455,580.69	1,740,740.01	39.80404755	-80.64278693	
24,800.00	89.00	150.000	11,963.94	-9,029.42	8,467.10	14,455,494.10	1,740,790.00	39.80380921	-80.64261015	
24,900.00	89.00	150.000	11,965.68	-9,116.00	8,517.10	14,455,407.51	1,740,839.99	39.80357087	-80.64243339	
25,000.00	89.00	150.000	11,967.43	-9,202.59	8,567.09	14,455,320.92	1,740,889.99	39.80333253	-80.64225662	
25,100.00	89.00	150.000	11,969.18	-9,289.18	8,617.08	14,455,234.33	1,740,939.98	39.80309419	-80.64207985	
25,200.00	89.00	150.000	11,970.93	-9,375.77	8,667.07	14,455,147.74	1,740,989.97	39.80285584	-80.64190309	
25,300.00	89.00	150.000	11,972.68	-9,462.36	8,717.07	14,455,061.15	1,741,039.96	39.80261750	-80.64172632	
25,400.00	89.00	150.000	11,974.43	-9,548.95	8,767.06	14,454,974.56	1,741,089.96	39.80237916	-80.64154956	
25,500.00	89.00	150.000	11,976.18	-9,635.54	8,817.05	14,454,887.97	1,741,139.95	39.80214082	-80.64137280	



Planning Report - Geographic

Database: DB_Aug1919_v14
 Company: Tug Hill Operating LLC
 Project: Marshall County, West Virginia
 Site: Hudson Alt North
 Well: Hudson S-15 HU (slot O)
 Wellbore: Original Hole
 Design: rev6

Local Co-ordinate Reference: Well Hudson S-15 HU (slot O)
 TVD Reference: GL @ 1344.25ft
 MD Reference: GL @ 1344.25ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

RECEIVED
 Office of Oil and Gas
 MAR 19 2020

WV Department of
 Environmental Protection

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
25,600.00	89.00	150.000	11,977.93	-9,722.13	8,867.04	14,454,801.39	1,741,189.94	39.80190247	-80.64119603
25,700.00	89.00	150.000	11,979.68	-9,808.72	8,917.04	14,454,714.80	1,741,239.93	39.80166413	-80.64101928
25,800.00	89.00	150.000	11,981.43	-9,895.31	8,967.03	14,454,628.21	1,741,289.93	39.80142578	-80.64084252
25,900.00	89.00	150.000	11,983.18	-9,981.90	9,017.02	14,454,541.62	1,741,339.92	39.80118744	-80.64066576
26,000.00	89.00	150.000	11,984.93	-10,068.48	9,067.02	14,454,455.03	1,741,389.91	39.80094910	-80.64048900
26,100.00	89.00	150.000	11,986.68	-10,155.07	9,117.01	14,454,368.44	1,741,439.90	39.80071075	-80.64031225
26,200.00	89.00	150.000	11,988.43	-10,241.66	9,167.00	14,454,281.85	1,741,489.90	39.80047241	-80.64013550
26,300.00	89.00	150.000	11,990.18	-10,328.25	9,216.99	14,454,195.26	1,741,539.89	39.80023406	-80.63995874
26,400.00	89.00	150.000	11,991.93	-10,414.84	9,266.99	14,454,108.68	1,741,589.88	39.79999571	-80.63978199
26,500.00	89.00	150.000	11,993.68	-10,501.43	9,316.98	14,454,022.09	1,741,639.88	39.79975737	-80.63960524
26,600.00	89.00	150.000	11,995.42	-10,588.02	9,366.97	14,453,935.50	1,741,689.87	39.79951902	-80.63942849
26,700.00	89.00	150.000	11,997.17	-10,674.61	9,416.97	14,453,848.91	1,741,739.86	39.79928068	-80.63925175
26,800.00	89.00	150.000	11,998.92	-10,761.20	9,466.96	14,453,762.32	1,741,789.85	39.79904233	-80.63907500
26,900.00	89.00	150.000	12,000.67	-10,847.79	9,516.95	14,453,675.73	1,741,839.85	39.79880398	-80.63889826
27,000.00	89.00	150.000	12,002.42	-10,934.37	9,566.94	14,453,589.14	1,741,889.84	39.79856563	-80.63872151
27,100.00	89.00	150.000	12,004.17	-11,020.96	9,616.94	14,453,502.55	1,741,939.83	39.79832729	-80.63854477
27,200.00	89.00	150.000	12,005.92	-11,107.55	9,666.93	14,453,415.96	1,741,989.82	39.79808894	-80.63836803
27,300.00	89.00	150.000	12,007.67	-11,194.14	9,716.92	14,453,329.38	1,742,039.82	39.79785059	-80.63819129
27,400.00	89.00	150.000	12,009.42	-11,280.73	9,766.92	14,453,242.79	1,742,089.81	39.79761224	-80.63801455
27,500.00	89.00	150.000	12,011.17	-11,367.32	9,816.91	14,453,156.20	1,742,139.80	39.79737389	-80.63783781
27,600.00	89.00	150.000	12,012.92	-11,453.91	9,866.90	14,453,069.61	1,742,189.80	39.79713555	-80.63766108
27,700.00	89.00	150.000	12,014.67	-11,540.50	9,916.89	14,452,983.02	1,742,239.79	39.79689720	-80.63748434
27,800.00	89.00	150.000	12,016.42	-11,627.09	9,966.89	14,452,896.43	1,742,289.78	39.79665885	-80.63730761
27,900.00	89.00	150.000	12,018.17	-11,713.68	10,016.88	14,452,809.84	1,742,339.77	39.79642050	-80.63713087
28,000.00	89.00	150.000	12,019.92	-11,800.27	10,066.87	14,452,723.25	1,742,389.76	39.79618215	-80.63695414
28,100.00	89.00	150.000	12,021.67	-11,886.85	10,116.86	14,452,636.66	1,742,439.76	39.79594380	-80.63677741
28,200.00	89.00	150.000	12,023.41	-11,973.44	10,166.86	14,452,550.08	1,742,489.75	39.79570545	-80.63660068
28,300.00	89.00	150.000	12,025.16	-12,060.03	10,216.85	14,452,463.49	1,742,539.74	39.79546709	-80.63642395
28,400.00	89.00	150.000	12,026.91	-12,146.62	10,266.84	14,452,376.90	1,742,589.74	39.79522874	-80.63624723
28,500.00	89.00	150.000	12,028.66	-12,233.21	10,316.84	14,452,290.31	1,742,639.73	39.79499039	-80.63607050
28,600.00	89.00	150.000	12,030.41	-12,319.80	10,366.83	14,452,203.72	1,742,689.72	39.79475204	-80.63589378
28,700.00	89.00	150.000	12,032.16	-12,406.39	10,416.82	14,452,117.13	1,742,739.71	39.79451369	-80.63571705
28,800.00	89.00	150.000	12,033.91	-12,492.98	10,466.81	14,452,030.54	1,742,789.71	39.79427534	-80.63554033
28,900.00	89.00	150.000	12,035.66	-12,579.57	10,516.81	14,451,943.95	1,742,839.70	39.79403698	-80.63536361
29,000.00	89.00	150.000	12,037.41	-12,666.16	10,566.80	14,451,857.36	1,742,889.69	39.79379863	-80.63518689
29,100.00	89.00	150.000	12,039.16	-12,752.74	10,616.79	14,451,770.78	1,742,939.69	39.79356028	-80.63501017
29,200.00	89.00	150.000	12,040.91	-12,839.33	10,666.79	14,451,684.19	1,742,989.68	39.79332192	-80.63483346
29,300.00	89.00	150.000	12,042.66	-12,925.92	10,716.78	14,451,597.60	1,743,039.67	39.79308357	-80.63465674
29,400.00	89.00	150.000	12,044.41	-13,012.51	10,766.77	14,451,511.01	1,743,089.66	39.79284522	-80.63448003
29,500.00	89.00	150.000	12,046.16	-13,099.10	10,816.76	14,451,424.42	1,743,139.66	39.79260686	-80.63430331
29,600.00	89.00	150.000	12,047.91	-13,185.69	10,866.76	14,451,337.83	1,743,189.65	39.79236851	-80.63412660
29,700.00	89.00	150.000	12,049.66	-13,272.28	10,916.75	14,451,251.24	1,743,239.64	39.79213015	-80.63394989
29,800.00	89.00	150.000	12,051.41	-13,358.87	10,966.74	14,451,164.65	1,743,289.63	39.79189180	-80.63377318
29,900.00	89.00	150.000	12,053.15	-13,445.46	11,016.73	14,451,078.06	1,743,339.63	39.79165344	-80.63359647
30,000.00	89.00	150.000	12,054.90	-13,532.05	11,066.73	14,450,991.48	1,743,389.62	39.79141509	-80.63341977
30,100.00	89.00	150.000	12,056.65	-13,618.63	11,116.72	14,450,904.89	1,743,439.61	39.79117673	-80.63324306
30,200.00	89.00	150.000	12,058.40	-13,705.22	11,166.71	14,450,818.30	1,743,489.60	39.79093838	-80.63306636
30,300.00	89.00	150.000	12,060.15	-13,791.81	11,216.71	14,450,731.71	1,743,539.60	39.79070002	-80.63288965
30,400.00	89.00	150.000	12,061.90	-13,878.40	11,266.70	14,450,645.12	1,743,589.59	39.79046166	-80.63271295
30,462.79	89.00	150.000	12,063.00	-13,932.77	11,298.09	14,450,590.75	1,743,620.98	39.79031200	-80.63260200

PBHL/TD 30462.79 MD/12063.00 TVD



Planning Report - Geographic

Database:	DB_Aug1919_v14	Local Co-ordinate Reference:	Well Hudson S-15 HU (slot O)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1344.25ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1344.25ft
Site:	Hudson Alt North	North Reference:	Grid
Well:	Hudson S-15 HU (slot O)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev6		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Hudson 15HU LP r1 - plan hits target center - Point	0.00	0.000	11,757.25	1,200.75	2,560.65	14,465,724.24	1,734,883.56	39.83196642	-80.66350333
Hudson 15HU PBHL r6 - plan hits target center - Point	0.00	0.000	12,063.00	-13,932.77	11,298.09	14,450,590.75	1,743,620.98	39.79031200	-80.63260200

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,300.00	1,300.00	0.00	0.00	KPO Begin 2°/100' build	
1,450.00	1,449.93	0.00	3.93	Begin 2°/100' build/turn	
1,628.71	1,628.24	5.51	14.11	Begin 5.00° tangent	
3,106.10	3,100.00	96.56	105.16		
7,121.37	7,100.00	344.01	352.62	Begin 2°/100' build	
7,871.37	7,830.13	458.47	467.07	Begin 20.00° tangent	
11,139.32	10,901.00	1,248.81	1,257.41	Begin 6°/100' build/turn	
11,899.16	11,451.78	1,510.25	1,676.73	Begin 8°/100' build/turn	
12,985.39	11,757.25	1,200.74	2,560.65	Begin 89.00° lateral	
30,462.79	12,063.00	-13,932.77	11,298.09	PBHL/TD 30462.79 MD/12063.00 TVD	

RECEIVED
Office of Oil and Gas

MAR 19 2020

WV Department of
Environmental Protection

API Number 47 - 051 - _____
Operator's Well No. Hudson S-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) Grave Creek Quadrangle Glen Easton 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 / WV0109185) and Westmoreland Sanitary Landfill, LLC (SAN1405 / PA DEP ECH1386426)

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 James A Pancake
Company Official (Typed Name) James Pancake
Company Official Title Vice President - Geoscience

RECEIVED
Office of Oil and Gas
MAR 19 2020

WV Department of
Environmental Protection

Subscribed and sworn before me this 25th day of February, 2020

Notary Public

My commission expires 2-10-2024

Commonwealth of Pennsylvania - Notary Seal
Chester Arthur West IV, Notary Public
Washington County
My commission expires February 10, 2024
Commission number 1267179
Member, Pennsylvania Association of Notaries

Tug Hill Operating, LLC

Proposed Revegetation Treatment: Acres Disturbed 22.94 Prevegetation pH 6.0

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2.5 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Annual Ryegrass	40	Orchard Grass	12
Spring Oats	96	Ladino	3
		White Clover	2

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: *Jan Unhahn*

Comments: _____

Title: Oil and Gas Inspector

Date: 3/11/2020

Field Reviewed? Yes No

RECEIVED
Office of Oil and Gas
MAR 19 2020

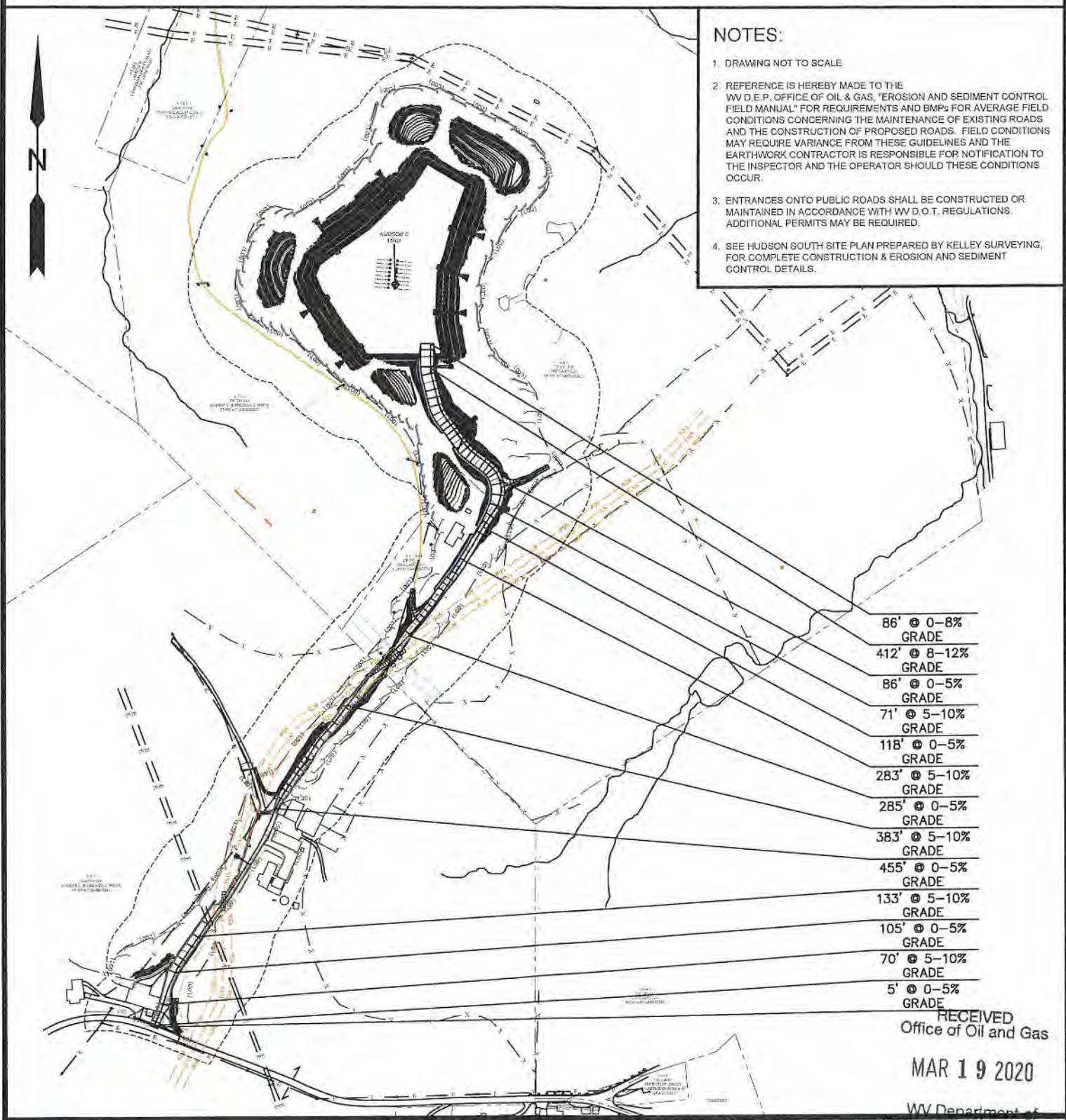
WV Department of
Environmental Protection

4705102328

WW-9

PROPOSED HUDSON S - 15HU

SUPPLEMENT PG. 1



NOTES:

1. DRAWING NOT TO SCALE
2. 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.
3. ENTRANCES ONTO PUBLIC ROADS SHALL BE CONSTRUCTED OR MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. ADDITIONAL PERMITS MAY BE REQUIRED.
4. SEE HUDSON SOUTH SITE PLAN PREPARED BY KELLEY SURVEYING, FOR COMPLETE CONSTRUCTION & EROSION AND SEDIMENT CONTROL DETAILS.

RECEIVED
Office of Oil and Gas

MAR 19 2020

WV Department of
Environmental Protection

12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
 1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
 254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
 slswv.com

TOPO SECTION:		OPERATOR:	
GLEN EASTON 7.5'		PREPARED FOR:	
COUNTY	DISTRICT	TUG HILL OPERATING, LLC	
MARSHALL	MEADE	380 SOUTHPOINTE BLVD	
		SUITE 200	
		CANONSBURG, PA 15317	
DRAWN BY	JOB NO.	DATE	SCALE
K.G.M.	8911	03/10/20	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. IHS 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 Devin Ducoeur 724-705-0444, dducoeur@dpslandservices.com DPS GIS (03/09/2020) to have him make maps of the wellbores with his information. DPS utilizes WVGES maps for their mapping seems it as the best publicly available. See attached map he provided.

Request maps for:

1. Wellbore with IHS 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

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection

Permit well - Hudson S-15HU

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
47-051-00614	Consolidation Coal Co.	Unknown	Unknown	Unknown	No, the well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation. Well is plugged.	Well was plugged 8/27/2001.
47-051-00622	Consolidation Coal Co.	2839' TVD	Gordon	Unknown	No, the well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation. Well is plugged.	Well was plugged 7/21/2004.
47-051-00840	McElroy Coal Company	Unknown	Pittsburgh Coal	Unknown	No, the well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation. Well is plugged.	Well was plugged 6/2/1999.
47-051-00887	Consolidation Coal Co.	2798' TVD	Gordon	Unknown	No, the well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation. Well is plugged.	Well was plugged 2/6/2003.
47-051-00914	Consolidation Coal Co.	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Point Pleasant well. Well is plugged.	Well was plugged 5/12/2004.
47-051-00933	Consolidation Coal Co.	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Point Pleasant well. Well is plugged.	Well was plugged 8/20/2004.
47-051-00936	Consolidation Coal Co.	2968' TVD	Gordon	Unknown	No, the well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation. Well is plugged.	Well was plugged 7/28/2004.
47-051-00951	Consolidation Coal Co.	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Point Pleasant well. Well is plugged.	Well was plugged 9/7/2004.
47-051-00960	Consolidation Coal Co.	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Point Pleasant well. Well is plugged.	Well was plugged 5/18/2004.
47-051-00961	Consolidation Coal Co.	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Point Pleasant well. Well is plugged.	Well was plugged 4/25/2005.
47-051-02232	Tug Hill Operating, LLC	None	None	None	No, existing Marcellus permit. The well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation.	Currently a permit.
47-051-02255	Tug Hill Operating, LLC	None	None	None	No, existing Marcellus permit. The well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation.	Currently a permit.
47-051-70054	South Penn Oil (S. Penn Nat. Gas)	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Point Pleasant well.	State records are incomplete.
47-051-70139	South Penn Oil (S. Penn Nat. Gas)	3100' TVD	Gordon	Unknown	No, the well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation.	State records are incomplete.
47-051-70602	Unknown	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Point Pleasant well.	State records are incomplete.

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection

47-051-70616	Unknown	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Point Pleasant well.	State records are incomplete.
--------------	---------	---------	---------	---------	---	-------------------------------

Page 2 of 7

47-051-70617	Unknown	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Point Pleasant well.	State records are incomplete.
47-051-70622	Unknown	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Point Pleasant well.	State records are incomplete.
47-051-02251	Tug Hill Operating, LLC	None	None	None	No, existing Marcellus permit. The well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation.	Currently a permit.
47-051-02250	Tug Hill Operating, LLC	None	None	None	No, existing Marcellus permit. The well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation.	Currently a permit.
47-051-02249	Tug Hill Operating, LLC	None	None	None	No, existing Marcellus permit. The well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation.	Currently a permit.
47-051-02248	Tug Hill Operating, LLC	None	None	None	No, existing Marcellus permit. The well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation.	Currently a permit.
47-051-02291	Tug Hill Operating, LLC	None	None	None	No, existing Marcellus permit. The well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation.	Currently a permit.

Page 3 of 7

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection

12/26/2019 10:00 AM

There is no Pay data for this well
There is no Production Gas data for this well
There is no Production Oil data for this well -- some operators may have reported NGL under Oil
There is no Production NGL data for this well -- some operators may have reported NGL under Oil
There is no Production Water data for this well
There is no Stratigraphy data for this well
There is no Wetness (S Log) data for this well
There is no Plugging data for this well
There is no Sample data for this well

WV Department of Environmental Protection

Well: County = 81 Permit # 02249

Report Time: Sunday, March 18, 2020 10:00:21 AM

Location Information: Well Name: COUNTY 81 PERMIT 02249
Operator: JACOBSON, JAMES L
County: 81
Permit: 02249

Well Information: Well Name: COUNTY 81 PERMIT 02249
Operator: JACOBSON, JAMES L
County: 81
Permit: 02249

Completion Information: Well Name: COUNTY 81 PERMIT 02249
Operator: JACOBSON, JAMES L
County: 81
Permit: 02249

There is no Pay data for this well
There is no Production Gas data for this well
There is no Production Oil data for this well -- some operators may have reported NGL under Oil
There is no Production NGL data for this well -- some operators may have reported NGL under Oil
There is no Production Water data for this well
There is no Stratigraphy data for this well
There is no Wetness (S Log) data for this well
There is no Plugging data for this well
There is no Sample data for this well

Report Time: Sunday, March 18, 2020 10:00:21 AM

WV Department of Environmental Protection

Well: County = 81 Permit # 02248

Location Information: Well Name: COUNTY 81 PERMIT 02248
Operator: JACOBSON, JAMES L
County: 81
Permit: 02248

Well Information: Well Name: COUNTY 81 PERMIT 02248
Operator: JACOBSON, JAMES L
County: 81
Permit: 02248

Completion Information: Well Name: COUNTY 81 PERMIT 02248
Operator: JACOBSON, JAMES L
County: 81
Permit: 02248

There is no Pay data for this well
There is no Production Gas data for this well
There is no Production Oil data for this well -- some operators may have reported NGL under Oil
There is no Production NGL data for this well -- some operators may have reported NGL under Oil
There is no Production Water data for this well
There is no Stratigraphy data for this well
There is no Wetness (S Log) data for this well
There is no Plugging data for this well
There is no Sample data for this well

Report Time: Sunday, March 18, 2020 10:00:21 AM

WV Department of Environmental Protection

Well: County = 81 Permit # 02251

Location Information: Well Name: COUNTY 81 PERMIT 02251
Operator: JACOBSON, JAMES L
County: 81
Permit: 02251

Well Information: Well Name: COUNTY 81 PERMIT 02251
Operator: JACOBSON, JAMES L
County: 81
Permit: 02251

Completion Information: Well Name: COUNTY 81 PERMIT 02251
Operator: JACOBSON, JAMES L
County: 81
Permit: 02251

There is no Pay data for this well
There is no Production Gas data for this well
There is no Production Oil data for this well -- some operators may have reported NGL under Oil
There is no Production NGL data for this well -- some operators may have reported NGL under Oil
There is no Production Water data for this well
There is no Stratigraphy data for this well
There is no Wetness (S Log) data for this well
There is no Plugging data for this well
There is no Sample data for this well

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection



March 18, 2020

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

RE: Hudson S-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, with the exception of the following tracts which we intend to force pool:

9-3-4.8	9-3-4	9-3-4.2
9-8-5.2	9-8-6.1	9-3-17
9-8-6	9-8-7.1	9-8-9
9-8-8	9-9-4	9-9-9.1
7-1-3		

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 amiller@tug-hill.com.

Sincerely,

Amy L. Miller
Permitting Specialist – Appalachia Region
Tug Hill Operating

CERTIFICATE OF CONSENT AND EASEMENT

The undersigned, for valuable consideration, the receipt and sufficiency of which is hereby acknowledged, being all the owners of the surface of that certain lot, tract or parcel of land located in Meade District, Marshall County, State of West Virginia, shown on the attached plat or survey, hereby consents and grants an easement, pursuant to West Virginia Code, Section 22C-9-7(b)(4) and Operating Rule 4.4 of the Rules and Regulations of the West Virginia Oil and Gas Conservation Commission, to TH Exploration LLC, its successors or assigns, for the drilling and operation of a deep well for the production of oil or gas at the location shown on the attached plat or survey (parcels 9-3-1 and 9-3-1.3).

Executed this 9th day of May, 2019.

LLC
CNX LAND, INC.

By:

[Signature]

Name:

Eric A. Large

Title:

Asst Vice President

Marshall County
Jan Pest, Clerk
Instrument 1454067
05/13/2019 @ 01:53:38 PM
RIGHT OF WAY W/O CONSIDERATION
Book 1040 @ Page 559
Pages Recorded 2
Recording Cost \$ 11.00

COMMONWEALTH OF PENNSYLVANIA

SS:

COUNTY OF WASHINGTON

On this, the 9th day of May, 2019, before me, a notary public, the undersigned officer, personally appeared Eric A. Large who acknowledged himself/herself to be the Assistant Vice President of CNX Land, Inc. and that he/she as such, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the company by himself/herself as Assistant Vice President.

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

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Mark W. Anderson, Notary Public
City of Pittsburgh, Allegheny County
My Commission Expires Sept. 14, 2021
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

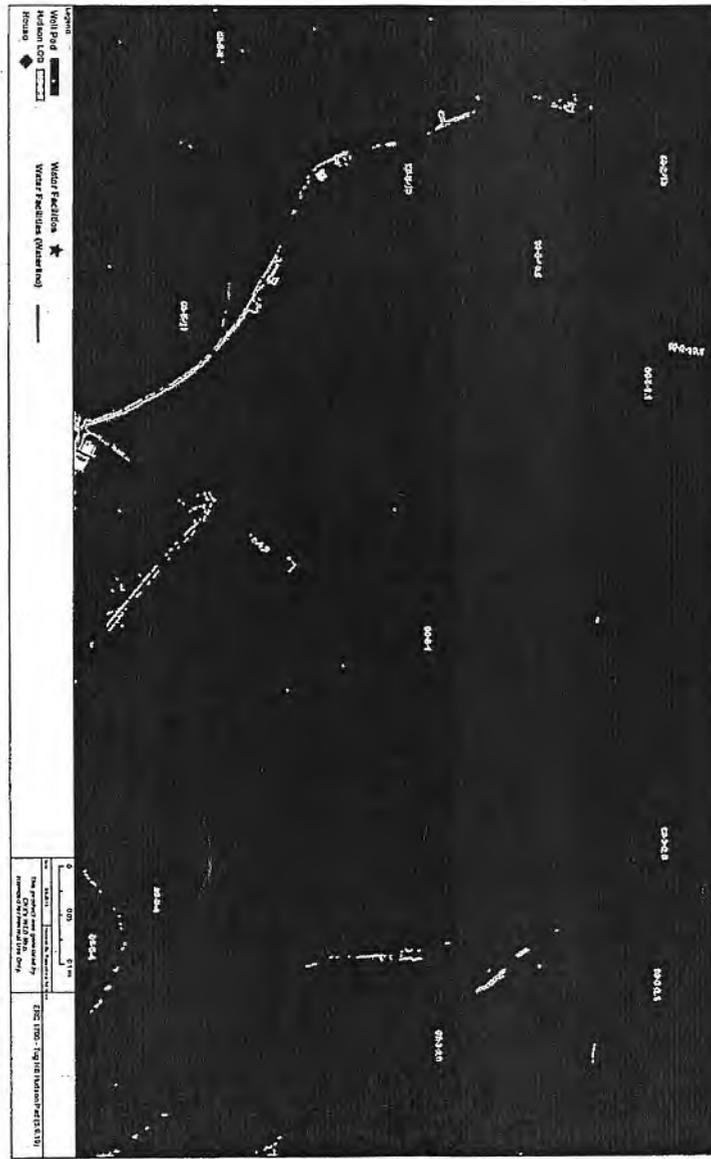
My Commission Expires: 9/14/2021

Signature/Notary Public: [Signature]

Name/Notary Public (print): Mark W. Anderson

This instrument prepared by:
WV Oil and Gas Conservation Commission
601 57th Street
Charleston, WV 25304

PLAT



4838-2618-8605v2

ERC 1706 – Hudson Pad

STATE OF WEST VIRGINIA, MARSHALL COUNTY, SCT.:

I, JAN PEST, Clerk of the County Commission of said County, do hereby certify that the annexed writing, bearing date on the 9th day of May, 2019, was presented for and by me, admitted to record in my office upon the above certificate as to the parties therein named this 13th day of May, 2019 at 1:53 o'clock P.M.

TESTE: Jan Pest Clerk

CERTIFICATE OF CONSENT AND EASEMENT

The undersigned, for valuable consideration, the receipt and sufficiency of which is hereby acknowledged, being all the owners of the surface of that certain lot, tract or parcel of land located in Meade District, Marshall County, State of West Virginia, shown on the attached plat or survey, hereby consents and grants an easement, pursuant to West Virginia Code, Section 22C-9-7(b)(4) and Operating Rule 4.4 of the Rules and Regulations of the West Virginia Oil and Gas Conservation Commission, to TH Exploration LLC, its successors or assigns, for the drilling and operation of a deep well for the production of oil or gas at the location shown on the attached plat or survey (parcels 9-3-1 and 9-3-1.3).

Executed this 9th day of May, 2019.

LLC
CNX LAND, INC.

By: 

Name: Eric A. Large
Title: Asst Vice President

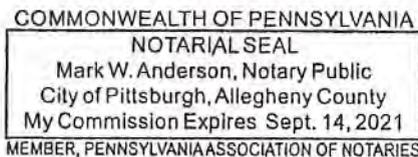
COMMONWEALTH OF PENNSYLVANIA

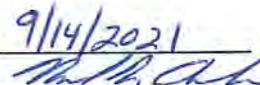
SS:

COUNTY OF WASHINGTON

On this, the 9th day of May, 2019, before me, a notary public, the undersigned officer, personally appeared Eric A. Large who acknowledged himself/herself to be the Assistant Vice President of CNX Land, Inc. and that he/she as such, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the company by himself/herself as Assistant Vice President.

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

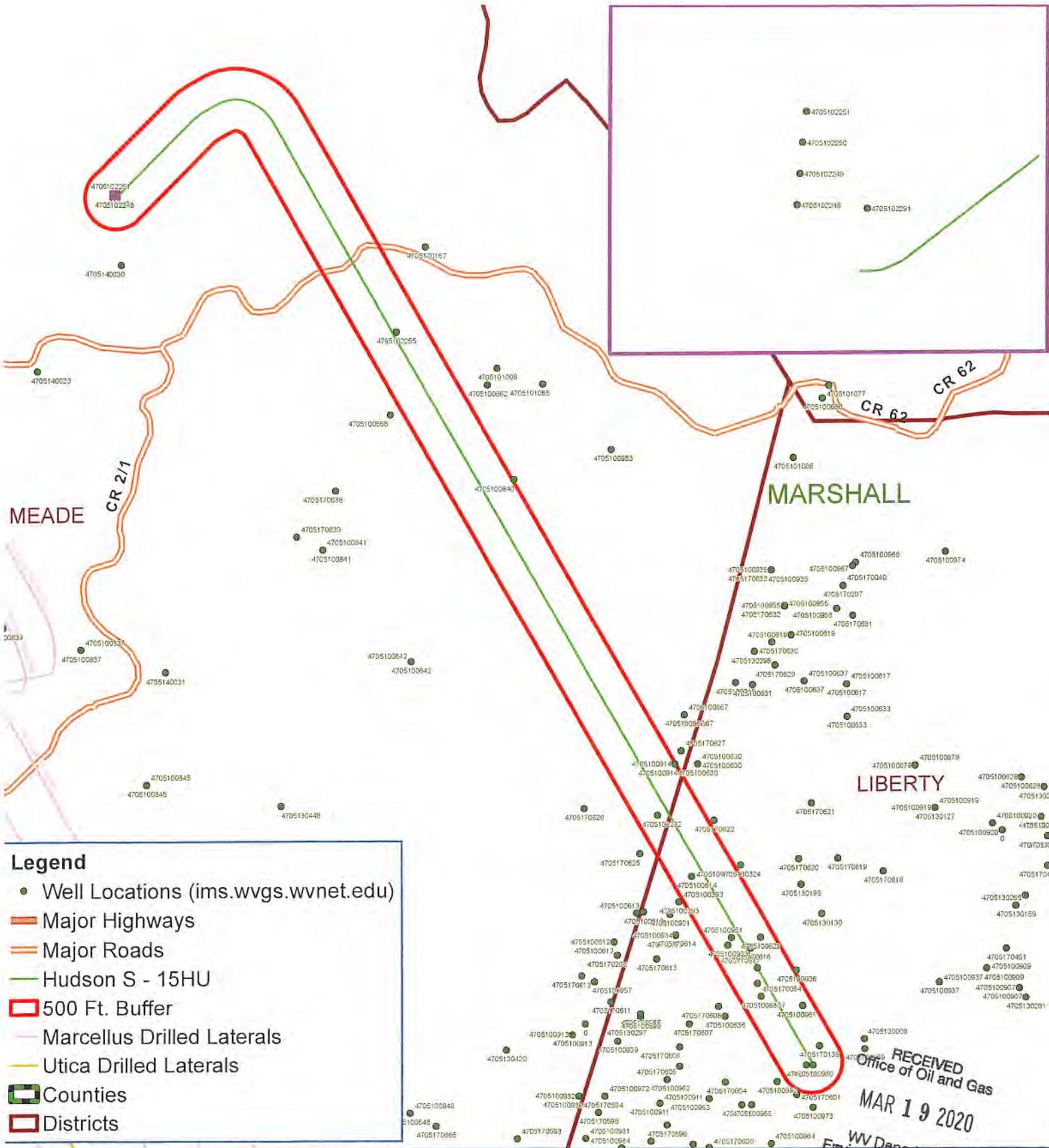


My Commission Expires: 9/14/2021
Signature/Notary Public: 
Name/Notary Public (print): Mark W. Anderson

This instrument prepared by:
WV Oil and Gas Conservation Commission
601 57th Street
Charleston, WV 25304

PLAT





Legend

- Well Locations (ims.wvgs.wvnet.edu)
- Major Highways
- Major Roads
- Hudson S - 15HU
- 500 Ft. Buffer
- Marcellus Drilled Laterals
- Utica Drilled Laterals
- ▭ Counties
- ▭ Districts

Hudson S - 15HU
 Meade District
 Marshall County, WV

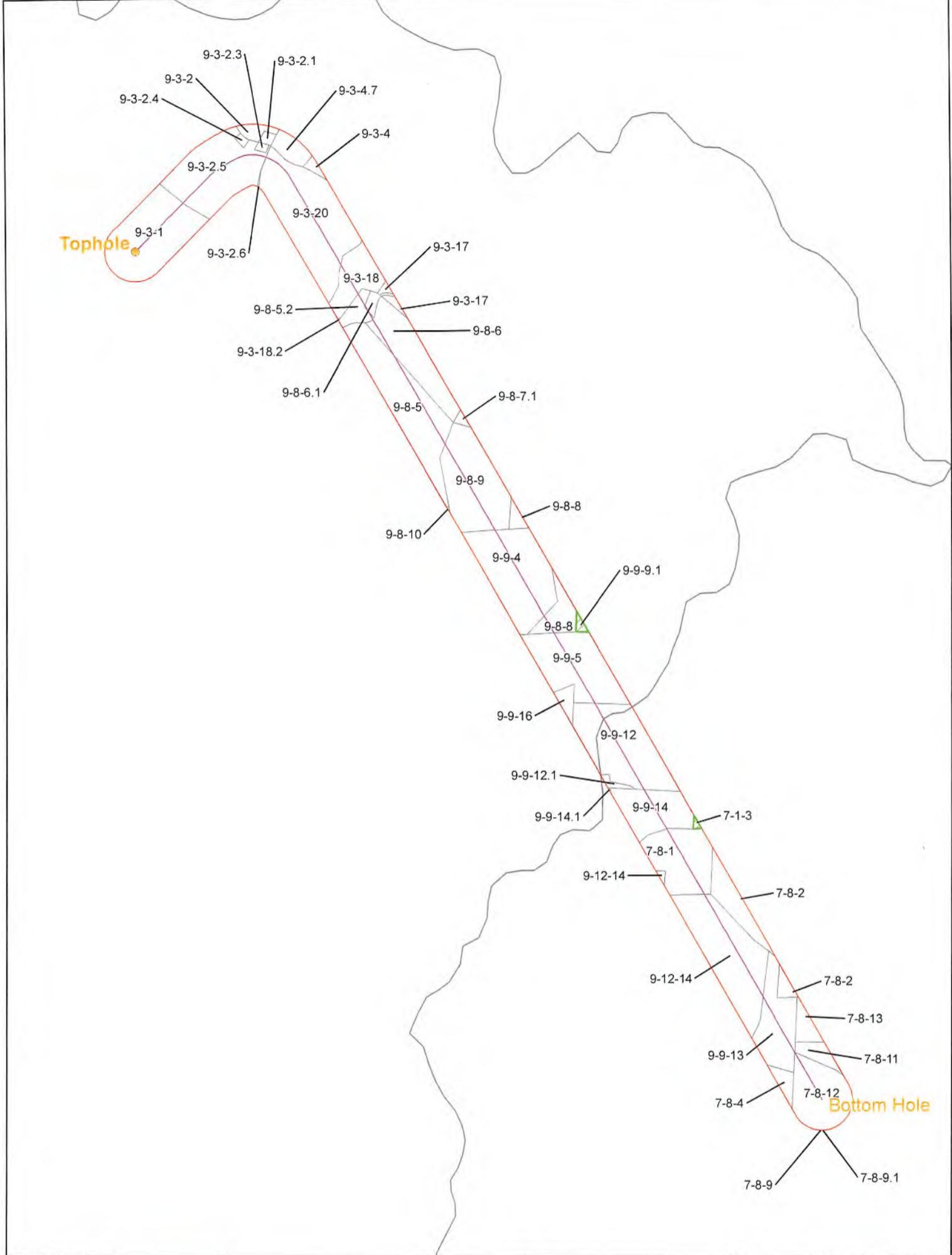


Notes:

RECEIVED
 Office of Oil and Gas
 MAR 19 2020
 WV Department of
 Environmental Protection



Hudson S-15HU



Coordinate System: NAD 1983 UTM Zone 17N
 Projection: Transverse Mercator
 Datum: North American 1983
 False Easting: 1,600,000.000
 False Northing: 0.000
 Central Meridian: -81.0000
 Scale Factor: 0.9996
 Latitude Off-Set: 0.0000
 Units: Feet US

CONFIDENTIAL



- Utica Well
- Force Pool
- 500' Buffer

Hudson S-15HU
 Operators within 500 Feet of Well Borehole



Offset Operators within 500'				
Hudson S - 15 HU				
County	District	Parcel	Owner	Address
MARSHALL	LIBERTY	7-1-3	TH EXPLORATION, LLC	1320 S. University Drive Suite 500 Fort Worth, TX 76107
MARSHALL	LIBERTY	7-1-3	EQT PRODUCTION COMPANY	625 Liberty Avenue Suite 1700 Pittsburgh, PA 15222
MARSHALL	LIBERTY	7-1-3	BLODWEN H. COURTNEY REVOCABLE TRUST OF 1989	First Union National Bank of Florida, Trustee (nka Wells Fargo) 130 N. Ridgewood Ave PO Drawer 2720 Daytona Beach, FL 32115
MARSHALL	LIBERTY	7-1-3	NANCY BROWN HEREFORD REVOCABLE LIVING TRUST	Philip B. Hereford, Trustee 4005 Capitol St. Suite 304 Charleston, WV 25301
MARSHALL	LIBERTY	7-1-3	JOSEPH HITE BILLES	2510 33rd Ave Astoria, NY 11106
MARSHALL	LIBERTY	7-1-3	PAIGE FRANCIS	1365 Valley Ranch Cir Prescott, AZ 86303
MARSHALL	LIBERTY	7-1-3	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	LIBERTY	7-8-1	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	LIBERTY	7-8-2	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	LIBERTY	7-8-4	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	LIBERTY	7-8-9	SOUTHWESTERN PRODUCTION COMPANY LLC	10000 Energy Drive Spring, TX 77389
MARSHALL	LIBERTY	7-8-9	EQUINOR USA ONSHORE PROPERTIES INC	2107 Citywest Blvd. Suite 100 Houston, TX 77042
MARSHALL	LIBERTY	7-8-9	COLUMBIA ENERGY VENTURES, LLC	700 Louisiana Street Suite 700 Houston, TX 77002
MARSHALL	LIBERTY	7-8-9.1	SOUTHWESTERN PRODUCTION COMPANY LLC	10000 Energy Drive Spring, TX 77389
MARSHALL	LIBERTY	7-8-9.1	EQUINOR USA ONSHORE PROPERTIES INC	2107 Citywest Blvd. Suite 100 Houston, TX 77042
MARSHALL	LIBERTY	7-8-9.1	COLUMBIA ENERGY VENTURES, LLC	700 Louisiana Street Suite 700 Houston, TX 77002
MARSHALL	LIBERTY	7-8-11	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	LIBERTY	7-8-12	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	LIBERTY	7-8-13	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-3-1	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107

MARSHALL	MEADE	9-3-2	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-3-2.1	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-3-2.3	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-3-2.4	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-3-2.5	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-3-2.6	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-3-4	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-3-4.7	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-3-4.7	SOUTHWESTERN PRODUCTION COMPANY LLC	10000 Energy Drive Spring, TX 77389
MARSHALL	MEADE	9-3-4.7	EQUINOR USA ONSHORE PROPERTIES INC	2107 Citywest Blvd. Suite 100 Houston, TX 77042
MARSHALL	MEADE	9-3-17	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-3-18	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-3-18.2	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-3-20	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-8-5	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-8-5.2	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-8-6	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-8-6.1	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-8-7.1	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-8-8	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-8-9	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107
MARSHALL	MEADE	9-8-10	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth, TX 76107

MARSHALL	MEADE	9-9-4	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth,TX 76107
MARSHALL	MEADE	9-9-5	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth,TX 76107
MARSHALL	MEADE	9-9-9.1	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth,TX 76107
MARSHALL	MEADE	9-9-9.1	BLACK GOLD GROUP, LTD	P.O. BOX 85 Strasburg, OH 44680
MARSHALL	MEADE	9-9-12	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth,TX 76107
MARSHALL	MEADE	9-9-12.1	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth,TX 76107
MARSHALL	MEADE	9-9-13	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth,TX 76107
MARSHALL	MEADE	9-9-14	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth,TX 76107
MARSHALL	MEADE	9-9-14.1	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth,TX 76107
MARSHALL	MEADE	9-9-16	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth,TX 76107
MARSHALL	MEADE	9-12-14	TH EXPLORATION LLC	1320 S. University Blvd. Suite 500 Fort Worth,TX 76107



west virginia department of environmental protection

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

Randall M. Albert, Chairman
dep.wv.gov

October 20, 2020

Black Gold Group, LTD
PO Box 85
Strasburg, OH 44680

9489 0090 0027 6201 3315 50

RE: Intentional Deviation of New Deep Well
Tug Hill Operating, LLC – Hudson S-15HU

Dear Sir or Ma'am:

Please be advised that Tug Hill Operating, LLC, has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commission's granting approval to the proposed deviations. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received within ten 10 days from the date of delivery, the application will be processed in the normal manner.

If you have any questions please call me at (304) 414-1239.

Sincerely,

A handwritten signature in black ink that reads "Susan Rose".

Susan Rose
Administrator

encl:



November 2, 2020

Dear Susan Rose:

The following is in response to your request for proof of delivery on your item with the tracking number:
9489 0090 0027 6201 3315 50.

Item Details

Status:	Delivered
Status Date / Time:	October 23, 2020, 9:02 am
Location:	STRASBURG, OH 44680
Postal Product:	First-Class Mail®
Extra Services:	Certified Mail™ Return Receipt Electronic

Shipment Details

Weight:	5lb, 12.5oz
----------------	-------------

Recipient Signature

Signature of Recipient:	
Address of Recipient:	Enrol PO BOX 85 <small>STRASBURG, OH 44680-0085</small>

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely,
United States Postal Service®
475 L'Enfant Plaza SW
Washington, D.C. 20260-0004



west virginia department of environmental protection

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

Randall M. Albert, Chairman
dep.wv.gov

April 7, 2020

TH Exploration, LLC
1320 S. University Dr Ste 500
Ft Worth TX 76107

9489 0090 0027 6201 4367 36

RE: Intentional Deviation of New Deep Well
Tug Hill Operating, LLC – Hudson S-15HU

Dear Sir or Ma'am:

Please be advised that Tug Hill Operating, LLC, has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commission's granting approval to the proposed deviations. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received within ten 10 days from the date of delivery, the application will be processed in the normal manner.

If you have any questions please call me at (304) 414-1239.

Sincerely,

A handwritten signature in black ink that reads "Susan Rose". The signature is written in a cursive, flowing style.

Susan Rose
Administrator

encl:



May 6, 2020

Dear Susan Rose:

The following is in response to your request for proof of delivery on your item with the tracking number:
9489 0090 0027 6201 4367 36.

Item Details

Status: Delivered, Front Desk/Reception/Mail Room
Status Date / Time: April 14, 2020, 12:41 pm
Location: FORT WORTH, TX 76107
Postal Product: First-Class Mail®
Extra Services: Certified Mail™
Return Receipt Electronic

Shipment Details

Weight: 11lb, 15.6oz

Recipient Signature

Signature of Recipient: 
JB R# 711 Covid-19
Address of Recipient: 1320 S University # 500
76107

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely,
United States Postal Service®
475 L'Enfant Plaza SW
Washington, D.C. 20260-0004



west virginia department of environmental protection

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

Randall M. Albert, Chairman
dep.wv.gov

April 7, 2020

EQT Production Company
625 Liberty Ave Ste 1700
Pittsburg PA 15222

9489 00900027 6201 4369 27

RE: Intentional Deviation of New Deep Well
Tug Hill Operating, LLC – Hudson S-15HU

Dear Sir or Ma'am:

Please be advised that Tug Hill Operating, LLC, has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commission's granting approval to the proposed deviations. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received within ten 10 days from the date of delivery, the application will be processed in the normal manner.

If you have any questions please call me at (304) 414-1239.

Sincerely,

A handwritten signature in black ink that reads "Susan Rose". The signature is written in a cursive, flowing style.

Susan Rose
Administrator

encl:



May 6, 2020

Dear Susan Rose:

The following is in response to your request for proof of delivery on your item with the tracking number:
9489 0090 0027 6201 4369 27.

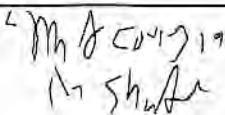
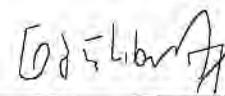
Item Details

Status: Delivered, Left with Individual
Status Date / Time: April 15, 2020, 8:05 am
Location: PITTSBURGH, PA 15222
Postal Product: First-Class Mail®
Extra Services: Certified Mail™
Return Receipt Electronic

Shipment Details

Weight: 8lb, 7.3oz

Recipient Signature

Signature of Recipient:	
Address of Recipient:	

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely,
United States Postal Service®
475 L'Enfant Plaza SW
Washington, D.C. 20260-0004



west virginia department of environmental protection

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

Randall M. Albert, Chairman
dep.wv.gov

April 7, 2020

Blodwen H. Courtney Revocable Living Trust of 1989
First Union National Bank of FL, Trustee nka Wells Fargo
130 N Ridgewood Ave
PO Drawer 2720
Daytona Beach FL 32115

9489 0090 0027 6201436934

RE: Intentional Deviation of New Deep Well
Tug Hill Operating, LLC – Hudson S-15HU

Dear Sir or Ma'am:

Please be advised that Tug Hill Operating, LLC, has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commission's granting approval to the proposed deviations. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received within ten 10 days from the date of delivery, the application will be processed in the normal manner.

If you have any questions please call me at (304) 414-1239.

Sincerely,

A handwritten signature in black ink that reads "Susan Rose". The signature is written in a cursive, flowing style.

Susan Rose
Administrator

encl:



May 6, 2020

Dear Susan Rose:

The following is in response to your request for proof of delivery on your item with the tracking number:
9489 0090 0027 6201 4369 34.

Item Details

Status: Delivered, Front Desk/Reception/Mail Room
Status Date / Time: April 15, 2020, 10:38 am
Location: DAYTONA BEACH, FL 32114
Postal Product: First-Class Mail®
Extra Services: Certified Mail™
Return Receipt Electronic

Shipment Details

Weight: 8lb, 6.7oz

Recipient Signature

Signature of Recipient:	<i>W. N. Taylor</i> <i>WN 1421 C-19</i>
Address of Recipient:	<i>130</i> <i>N. Ridgewood</i>

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely,
United States Postal Service®
475 L'Enfant Plaza SW
Washington, D.C. 20260-0004



west virginia department of environmental protection

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

Randall M. Albert, Chairman
dep.wv.gov

April 7, 2020

Nancy Brown Hereford Revocable Living Trust
Philip B. Hereford, Trustee
4005 Capitol St Ste 304
Charleston WV 25301

9489 0090 0027 6201 4369 41
no such #
see email from Tug

RE: Intentional Deviation of New Deep Well
Tug Hill Operating, LLC – Hudson S-15HU

Dear Sir:

Please be advised that Tug Hill Operating, LLC, has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commission's granting approval to the proposed deviations. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received within ten 10 days from the date of delivery, the application will be processed in the normal manner.

If you have any questions please call me at (304) 414-1239.

Sincerely,

A handwritten signature in cursive script that reads "Susan Rose". The signature is written in black ink and is positioned above the printed name and title.

Susan Rose
Administrator

encl:

Rose, Susan W

From: Amy Miller <amiller@tug-hilop.com>
Sent: Friday, April 17, 2020 10:17 AM
To: Rose, Susan W
Subject: RE: Fitzgerald

Yes.

From: Rose, Susan W <Susan.W.Rose@wv.gov>
Sent: Friday, April 17, 2020 10:16 AM
To: Amy Miller <amiller@tug-hilop.com>
Subject: RE: Fitzgerald

Is it a force pool parcel?

From: Amy Miller <amiller@tug-hilop.com>
Sent: Friday, April 17, 2020 10:11 AM
To: Rose, Susan W <Susan.W.Rose@wv.gov>
Subject: RE: Fitzgerald

Hey there. See note below from Buddy Shively, our Landman in charge of the Fitzgerald.

What do you want us to do?

For the Nancy Brown Hereford Revocable Living Trust, we contacted Phillip Hereford who stated he had resigned as a trustee years ago, then BB&T was trustee, the Trust was then dissolved, and neither know the whereabouts of the Dissolution of Trust / distribution paperwork. Per our heirship team, no further information about this Trust could be found in Mon County and with the heirs being unable to provide any documentation of the Trust status/dissolution, we believe this interest can be considered missing. They also have an interest in 7-1-3 which is part of the Hudson extension. So we may have to rely on public notice in the paper.

From: Rose, Susan W <Susan.W.Rose@wv.gov>
Sent: Friday, April 17, 2020 9:58 AM
To: Amy Miller <amiller@tug-hilop.com>
Subject: Fitzgerald

The notice on Nancy Brown Hereford Trustee came back as no such number. Do you have another address?

Susan Rose
West Virginia Oil and Gas Conservation Commission
601 57th Street SE
Charleston, WV 25304
(304) 414-1239 (office)
(304) 926-0452 (fax)

West Virginia Oil and Gas Conservation Commission
Mail Code 031361
601 57th Street SE
Charleston WV 25304



9489 0090 0027 6201 4369 41

Label 890-PB, Oct. 2015
Pitney Bowes



NSM

-R-T-S-

253012015-IN

04/21/20

RETURN TO SENDER
NO SUCH NUMBER
UNABLE TO FORWARD
RETURN TO SENDER



Nancy Brown Hereford Revocable Living Trust
Philip B. Hereford, Trustee
4005 Capitol St Ste 304
Charleston WV 25301



west virginia department of environmental protection

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

Randall M. Albert, Chairman
dep.wv.gov

April 7, 2020

Joseph Hite Billes
2510 33rd Ave
Astoria NY 11106

9489 0090 00276201 436958
in transit 4-18

RE: Intentional Deviation of New Deep Well
Tug Hill Operating, LLC – Hudson S-15HU

Dear Sir:

Please be advised that Tug Hill Operating, LLC, has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commission's granting approval to the proposed deviations. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received within ten 10 days from the date of delivery, the application will be processed in the normal manner.

If you have any questions please call me at (304) 414-1239.

Sincerely,

A handwritten signature in black ink that reads "Susan Rose". The signature is written in a cursive, flowing style.

Susan Rose
Administrator

encl:

Track Another Package ✕

Enter up to 35 tracking numbers separated by commas

Track

Tracking Number: 9489009000276201436958

Remove Feedback

Your package is moving within the USPS network and is on track to be delivered to its final destination. It is currently in transit to the next facility.

In-Transit

April 18, 2020
In Transit to Next Facility

Get Updates ▾

Text & Email Updates



Return Receipt Electronic



Confirmation

We regret there is no record of delivery for your item. This will be indicated in the letter provided.

Your confirmation will be sent to the following:

Susan.W.Rose@wv.gov

Tracking History

April 18, 2020

In Transit to Next Facility

Your package is moving within the USPS network and is on track to be delivered to its final destination. It is currently in transit to the next facility.

April 14, 2020, 6:38 am

Departed USPS Regional Destination Facility
BROOKLYN NY DISTRIBUTION CENTER

April 13, 2020, 10:49 am

Arrived at USPS Regional Destination Facility
BROOKLYN NY DISTRIBUTION CENTER

April 10, 2020, 4:35 am

Departed USPS Regional Facility
CHARLESTON WV PROCESSING CENTER

April 9, 2020, 11:37 pm

Arrived at USPS Regional Origin Facility
CHARLESTON WV PROCESSING CENTER

April 9, 2020, 10:22 pm

Accepted at USPS Origin Facility
CHARLESTON, WV 25311

April 9, 2020

Pre-Shipment Info Sent to USPS, USPS Awaiting Item

Feedback

Product Information

See Less 



west virginia department of environmental protection

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

Randall M. Albert, Chairman
dep.wv.gov

April 7, 2020

Paige Francis
1365 Valley Ranch Cir
Prescott AZ 86303

9489 0090 0027 6201 4369 65
refused

RE: Intentional Deviation of New Deep Well
Tug Hill Operating, LLC – Hudson S-15HU

Dear Sir or Ma'am:

Please be advised that Tug Hill Operating, LLC, has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commission's granting approval to the proposed deviations. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received within ten 10 days from the date of delivery, the application will be processed in the normal manner.

If you have any questions please call me at (304) 414-1239.

Sincerely,

A handwritten signature in black ink that reads "Susan Rose". The signature is written in a cursive, flowing style.

Susan Rose
Administrator

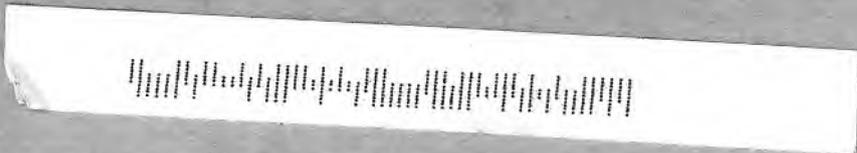
encl:

West Virginia Oil and Gas Conservation Commission
Mail Code 031361
601 57th Street SE
Charleston WV 25304



9489 0090 0027 6201 4369 65

Label 890-PB, Oct. 201
Pitney Bowes



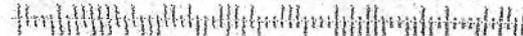
Refused

Paige Francis
1365 Valley Ranch Cir
Prescott AZ 86303

NIXIE 851 SE 1 0104/16/20

RETURN TO SENDER
REFUSED
UNABLE TO FORWARD

01: 0104/16/20 210416/16/20





west virginia department of environmental protection

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

Randall M. Albert, Chairman
dep.wv.gov

April 7, 2020

Southwestern Production Company, LLC
10000 Energy Dr
Spring TX 77389

9489 0090 0027 6201 436781

RE: Intentional Deviation of New Deep Well
Tug Hill Operating, LLC – Hudson S-15HU

Dear Sir or Ma'am:

Please be advised that Tug Hill Operating, LLC, has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commission's granting approval to the proposed deviations. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received within ten 10 days from the date of delivery, the application will be processed in the normal manner.

If you have any questions please call me at (304) 414-1239.

Sincerely,

A handwritten signature in black ink that reads "Susan Rose". The signature is written in a cursive, flowing style.

Susan Rose
Administrator

encl:



May 6, 2020

Dear Susan Rose:

The following is in response to your request for proof of delivery on your item with the tracking number:
9489 0090 0027 6201 4367 81.

Item Details

Status: Delivered, Front Desk/Reception/Mail Room
Status Date / Time: April 15, 2020, 11:06 am
Location: MORGANTOWN, WV 26508
Postal Product: First-Class Mail®
Extra Services: Certified Mail™
Return Receipt Electronic

Shipment Details

Weight: 12lb, 0.6oz

Recipient Signature

Signature of Recipient:	CD-19 MN 24
Address of Recipient:	1300 Fort Pierpont #201

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely,
United States Postal Service®
475 L'Enfant Plaza SW
Washington, D.C. 20260-0004



west virginia department of environmental protection

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

Randall M. Albert, Chairman
dep.wv.gov

April 7, 2020

Equinor USA Onshore Properties, Inc.
2107 Citywest Blvd. Ste 100
Houston TX 77042

9489 0090 0027 6201 4367 98

RE: Intentional Deviation of New Deep Well
Tug Hill Operating, LLC – Hudson S-15HU

Dear Sir or Ma'am:

Please be advised that Tug Hill Operating, LLC, has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commission's granting approval to the proposed deviations. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received within ten 10 days from the date of delivery, the application will be processed in the normal manner.

If you have any questions please call me at (304) 414-1239.

Sincerely,

A handwritten signature in black ink that reads "Susan Rose". The signature is written in a cursive, flowing style.

Susan Rose
Administrator

encl:



west virginia department of environmental protection

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

Randall M. Albert, Chairman
dep.wv.gov

April 7, 2020

Equinor USA Onshore Properties, Inc.
2107 Citywest Blvd. Ste 100
Houston TX 77042

9489 0090 0027 6201 4367 98

RE: Intentional Deviation of New Deep Well
Tug Hill Operating, LLC – Hudson S-15HU

Dear Sir or Ma'am:

Please be advised that Tug Hill Operating, LLC, has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commission's granting approval to the proposed deviations. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received within ten 10 days from the date of delivery, the application will be processed in the normal manner.

If you have any questions please call me at (304) 414-1239.

Sincerely,

A handwritten signature in cursive script that reads "Susan Rose". The signature is written in black ink and is positioned above the printed name and title.

Susan Rose
Administrator

encl:



May 6, 2020

Dear Susan Rose:

The following is in response to your request for proof of delivery on your item with the tracking number:
9489 0090 0027 6201 4367 98.

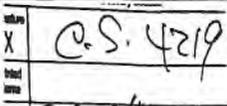
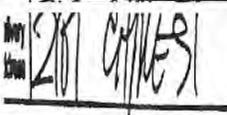
Item Details

Status: Delivered, Left with Individual
Status Date / Time: April 14, 2020, 9:17 am
Location: HOUSTON, TX 77042
Postal Product: First-Class Mail®
Extra Services: Certified Mail™
Return Receipt Electronic

Shipment Details

Weight: 12lb, 0.9oz

Recipient Signature

Signature of Recipient:	
Address of Recipient:	

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely,
United States Postal Service®
475 L'Enfant Plaza SW
Washington, D.C. 20260-0004



west virginia department of environmental protection

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

Randall M. Albert, Chairman
dep.wv.gov

April 7, 2020

Columbia Energy Ventures, LLC
700 Louisiana St Ste 700
Houston TX 77002

9489 0090 0027 6201 4368 04

RE: Intentional Deviation of New Deep Well
Tug Hill Operating, LLC – Hudson S-15HU

Dear Sir or Ma'am:

Please be advised that Tug Hill Operating, LLC, has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commission's granting approval to the proposed deviations. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received within ten 10 days from the date of delivery, the application will be processed in the normal manner.

If you have any questions please call me at (304) 414-1239.

Sincerely,

A handwritten signature in black ink that reads "Susan Rose". The signature is written in a cursive, flowing style.

Susan Rose
Administrator

encl:



May 6, 2020

Dear Susan Rose:

The following is in response to your request for proof of delivery on your item with the tracking number:
9489 0090 0027 6201 4368 04.

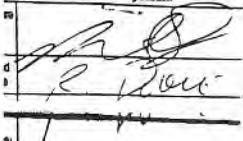
Item Details

Status:	Delivered
Status Date / Time:	April 14, 2020, 11:04 am
Location:	HOUSTON, TX 77002
Postal Product:	First-Class Mail®
Extra Services:	Certified Mail™ Return Receipt Electronic

Shipment Details

Weight:	12lb, 0.1oz
----------------	-------------

Recipient Signature

Signature of Recipient:	
Address of Recipient:	

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely,
United States Postal Service®
475 L'Enfant Plaza SW
Washington, D.C. 20260-0004



Well Site Safety Plan
Tug Hill Operating, LLC

*Dr
2/11/2020*

Well Name: Hudson S-15HU

Location: Hudson Pad

Marshall County, West Virginia

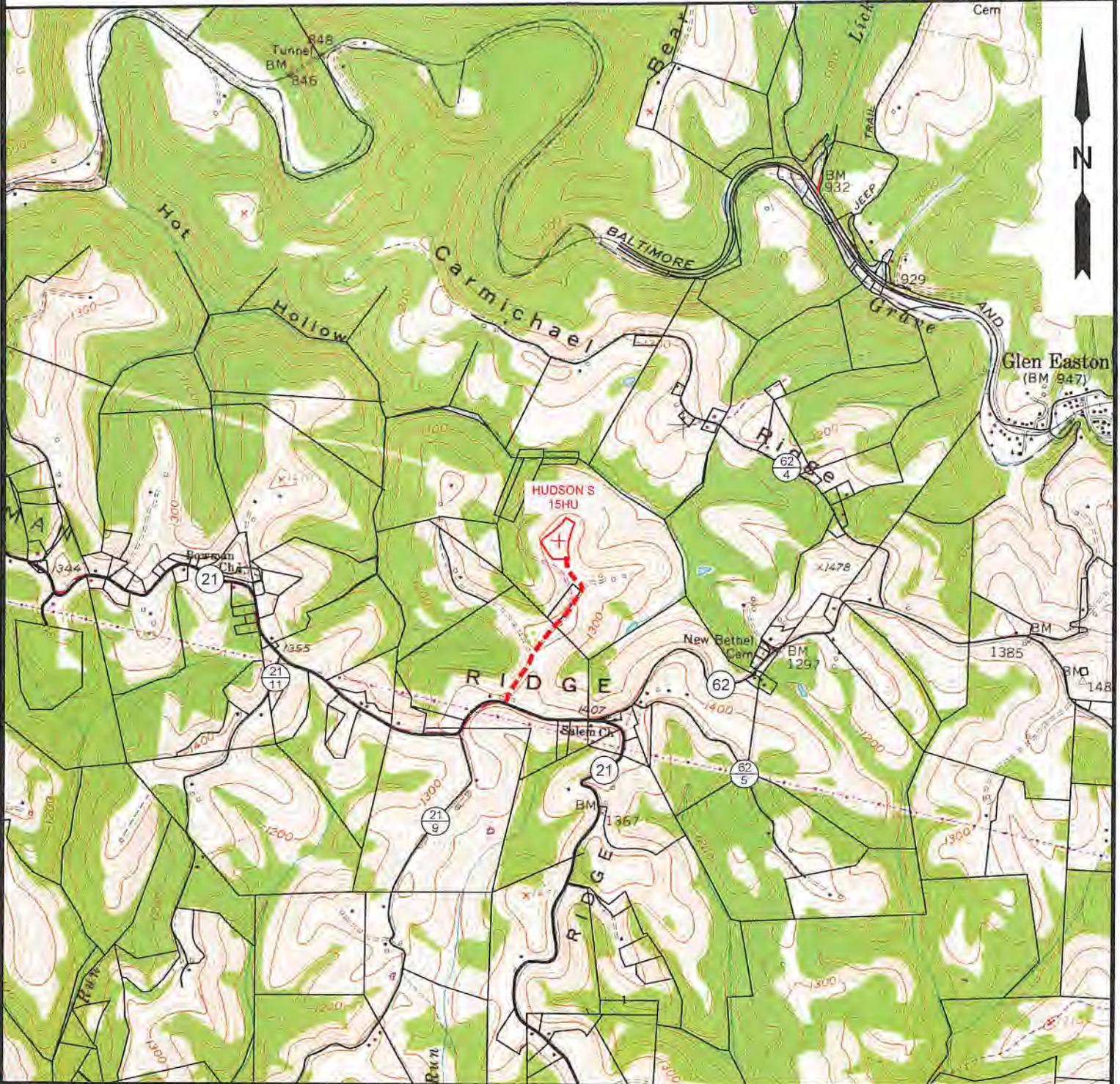
UTM (meters), NAD83, Zone 17:

Northing: 4,408,795.62

Easting: 528,013.09

February 2020

PROPOSED HUDSON S - 15HU



NOTE: CLOSEST WATER PURVEYOR
CITY OF CAMERON - FRANK WALKER RESERVOIR
CAMDEN, WV

LAT: 39.829865
LON: -80.573724
LOCATED: N 89°55'26" E AT 27,779.45' FROM THE CENTER OF HUDSON S WELL PAD LOCATION.



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5295
slswv.com

TOPO SECTION:		OPERATOR:	
GLEN EASTON 7.5'		PREPARED FOR:	
COUNTY	DISTRICT	TUG HILL OPERATING, LLC	
MARSHALL	MEADE	380 SOUTHPOINTE BLVD	
		SUITE 200	
		CANONSBURG, PA 15317	
DRAWN BY	JOB NO.	DATE	SCALE
K.G.M.	8911	03/10/2020	1" = 2000'



**TUG HILL
OPERATING**

WW-6A1
(5/13)

Operator's Well No. Hudson S-15HU

**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

***Co-tenancy utilization – At least 7 mineral owners in tract. At least 75% of the royalty owners have executed a lease on the tract. The interests of the remaining co-tenants were acquired pursuant to the Co-tenancy Modernization and Majority Protection Act.**

**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

Non-Well Bore Tracts

WW-6A1 Supplement

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment
10*28190	9-3-2.4	C	J RUSSELL LOGSDON	TH EXPLORATION LLC	1/8+	1068 309	N/A	N/A	N/A	N/A	N/A
10*28191	9-3-2.4	C	JANICE L EARNEST	TH EXPLORATION LLC	1/8+	1068 307	N/A	N/A	N/A	N/A	N/A
10*28192	9-3-2.4	C	SHAREE SAMS	TH EXPLORATION LLC	1/8+	1068 305	N/A	N/A	N/A	N/A	N/A
10*28193	9-3-2.4	C	SHIRLEY E BURTON AND OKLA D BURTON	TH EXPLORATION LLC	1/8+	1068 303	N/A	N/A	N/A	N/A	N/A
10*28194	9-3-2.4	C	LLOYD L & DONNA F EARNEST	TH EXPLORATION LLC	1/8+	1068 301	N/A	N/A	N/A	N/A	N/A
10*28442	9-3-2.4	C	WILLIAM N LOSDON AND SHIRLEY A LOGSDON	TH EXPLORATION LLC	1/8+	1072 377	N/A	N/A	N/A	N/A	N/A
10*28190	9-3-2	D	J RUSSELL LOGSDON	TH EXPLORATION LLC	1/8+	1068 309	N/A	N/A	N/A	N/A	N/A
10*28191	9-3-2	D	JANICE L EARNEST	TH EXPLORATION LLC	1/8+	1068 307	N/A	N/A	N/A	N/A	N/A
10*28192	9-3-2	D	SHAREE SAMS	TH EXPLORATION LLC	1/8+	1068 305	N/A	N/A	N/A	N/A	N/A
10*28193	9-3-2	D	SHIRLEY E BURTON AND OKLA D BURTON	TH EXPLORATION LLC	1/8+	1068 303	N/A	N/A	N/A	N/A	N/A
10*28194	9-3-2	D	LLOYD L & DONNA F EARNEST	TH EXPLORATION LLC	1/8+	1068 301	N/A	N/A	N/A	N/A	N/A
10*28442	9-3-2	D	WILLIAM N LOSDON AND SHIRLEY A LOGSDON	TH EXPLORATION LLC	1/8+	1072 377	N/A	N/A	N/A	N/A	N/A
10*28190	9-3-2.1	E	J RUSSELL LOGSDON	TH EXPLORATION LLC	1/8+	1068 309	N/A	N/A	N/A	N/A	N/A
10*28191	9-3-2.1	E	JANICE L EARNEST	TH EXPLORATION LLC	1/8+	1068 307	N/A	N/A	N/A	N/A	N/A
10*28192	9-3-2.1	E	SHAREE SAMS	TH EXPLORATION LLC	1/8+	1068 305	N/A	N/A	N/A	N/A	N/A
10*28193	9-3-2.1	E	SHIRLEY E BURTON AND OKLA D BURTON	TH EXPLORATION LLC	1/8+	1068 303	N/A	N/A	N/A	N/A	N/A
10*28194	9-3-2.1	E	LLOYD L & DONNA F EARNEST	TH EXPLORATION LLC	1/8+	1068 301	N/A	N/A	N/A	N/A	N/A
10*28442	9-3-2.1	E	WILLIAM N LOSDON AND SHIRLEY A LOGSDON	TH EXPLORATION LLC	1/8+	1072 377	N/A	N/A	N/A	N/A	N/A
10*28190	9-3-2.3	F	J RUSSELL LOGSDON	TH EXPLORATION LLC	1/8+	1068 309	N/A	N/A	N/A	N/A	N/A
10*28191	9-3-2.3	F	JANICE L EARNEST	TH EXPLORATION LLC	1/8+	1068 307	N/A	N/A	N/A	N/A	N/A
10*28192	9-3-2.3	F	SHAREE SAMS	TH EXPLORATION LLC	1/8+	1068 305	N/A	N/A	N/A	N/A	N/A
10*28193	9-3-2.3	F	SHIRLEY E BURTON AND OKLA D BURTON	TH EXPLORATION LLC	1/8+	1068 303	N/A	N/A	N/A	N/A	N/A
10*28194	9-3-2.3	F	LLOYD L & DONNA F EARNEST	TH EXPLORATION LLC	1/8+	1068 301	N/A	N/A	N/A	N/A	N/A
10*28442	9-3-2.3	F	WILLIAM N LOSDON AND SHIRLEY A LOGSDON	TH EXPLORATION LLC	1/8+	1072 377	N/A	N/A	N/A	N/A	N/A
NA	9-3-4.7	H	WILLIAM N. LOGSDON	CHESAPEAKE APPALACHIA LLC	1/8+	690 347	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4.7	H	SHIRLEY E. BURTON	CHESAPEAKE APPALACHIA LLC	1/8+	690 344	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4.7	H	DOROTHY L. HARRIS	CHESAPEAKE APPALACHIA LLC	1/8+	690 483	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4.7	H	JANICE LEE EARNEST	CHESAPEAKE APPALACHIA LLC	1/8+	690 350	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4.7	H	J. RUSSELL LOGSDON	CHESAPEAKE APPALACHIA LLC	1/8+	688 580	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4.7	H	DONNA FAYE EARNEST	CHESAPEAKE APPALACHIA LLC	1/8+	690 341	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4	I	WILLIAM N. LOGSDON	CHESAPEAKE APPALACHIA LLC	1/8+	690 347	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76

RECEIVED
Office of Oil and Gas

FEB 22 2021

NA	9-3-4	I	SHIRLEY E. BURTON	CHESAPEAKE APPALACHIA LLC	1/8+	690	344	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4	I	DOROTHY L. HARRIS	CHESAPEAKE APPALACHIA LLC	1/8+	690	483	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4	I	JANICE LEE EARNEST	CHESAPEAKE APPALACHIA LLC	1/8+	690	350	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4	I	J. RUSSELL LOGSDON	CHESAPEAKE APPALACHIA LLC	1/8+	688	580	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4	I	DONNA FAYE EARNEST	CHESAPEAKE APPALACHIA LLC	1/8+	690	341	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4.2	K	WILLIAM N. LOGSDON	CHESAPEAKE APPALACHIA LLC	1/8+	690	347	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4.2	K	SHIRLEY E. BURTON	CHESAPEAKE APPALACHIA LLC	1/8+	690	344	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4.2	K	DOROTHY L. HARRIS	CHESAPEAKE APPALACHIA LLC	1/8+	690	483	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4.2	K	JANICE LEE EARNEST	CHESAPEAKE APPALACHIA LLC	1/8+	690	350	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4.2	K	J. RUSSELL LOGSDON	CHESAPEAKE APPALACHIA LLC	1/8+	688	580	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
NA	9-3-4.2	K	DONNA FAYE EARNEST	CHESAPEAKE APPALACHIA LLC	1/8+	690	341	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/31	Chesapeake Appalachia LLC to SWN Production Company, LLC: 33/110	Statoil USA Onshore Properties Inc to Equinor USA Onshore Properties Inc: 30/427	SWN Production Company LLC to TH Exploration LLC: 46/87	Equinor USA Onshore Properties Inc to TH Exploration LLC: 46/76
10*21412	9-3-18.1	L	GARY DOBBS AND SUSAN DOBBS	TH EXPLORATION LLC	1/8+	957	270	N/A	N/A	N/A	N/A	N/A
10*22474	9-3-18.1	L	DAVID W PHILLIPS AND ROSEMARIE PHILLIPS	TH EXPLORATION LLC	1/8+	964	17	N/A	N/A	N/A	N/A	N/A
10*22820	9-3-18.1	L	ROBERT J APPEGATE AND JOANNE APPEGATE	TH EXPLORATION LLC	1/8+	983	603	N/A	N/A	N/A	N/A	N/A
10*22821	9-3-18.1	L	GILMER B JOHNSON AND ELIZABETH D JOHNSON	TH EXPLORATION LLC	1/8+	983	609	N/A	N/A	N/A	N/A	N/A
10*22867	9-3-18.1	L	ALAN J MOORE AND BARBARA A MOORE	TH EXPLORATION LLC	1/8+	977	73	N/A	N/A	N/A	N/A	N/A
10*22868	9-3-18.1	L	JAMES L PHILLIPS AND CHERYL A PHILLIPS	TH EXPLORATION LLC	1/8+	977	77	N/A	N/A	N/A	N/A	N/A
10*22869	9-3-18.1	L	ERIC J GONZALES AND DIANA J GONZALES	TH EXPLORATION LLC	1/8+	977	81	N/A	N/A	N/A	N/A	N/A
10*25747	9-3-18.1	L	RUTH MARY RIGGS DARNLEY CONNERS	TH EXPLORATION LLC	1/8+	1037	432	N/A	N/A	N/A	N/A	N/A
10*21412	9-3-18.2	N	GARY DOBBS AND SUSAN DOBBS	TH EXPLORATION LLC	1/8+	957	270	N/A	N/A	N/A	N/A	N/A
10*22474	9-3-18.2	N	DAVID W PHILLIPS AND ROSEMARIE PHILLIPS	TH EXPLORATION LLC	1/8+	964	17	N/A	N/A	N/A	N/A	N/A

RECEIVED
Office of Oil and Gas
FEB 22 2021

10*22820	9-3-18.2	N	ROBERT J APPLGATE AND JOANNE APPLGATE	TH EXPLORATION LLC	1/8+	983	603	N/A	N/A	N/A	N/A	N/A
10*22821	9-3-18.2	N	GILMER B JOHNSON AND ELIZABETH D JOHNSON	TH EXPLORATION LLC	1/8+	983	609	N/A	N/A	N/A	N/A	N/A
10*22867	9-3-18.2	N	ALAN J MOORE AND BARBARA A MOORE	TH EXPLORATION LLC	1/8+	977	73	N/A	N/A	N/A	N/A	N/A
10*22868	9-3-18.2	N	JAMES L PHILLIPS AND CHERYL A PHILLIPS	TH EXPLORATION LLC	1/8+	977	77	N/A	N/A	N/A	N/A	N/A
10*22869	9-3-18.2	N	ERIC J GONZALES AND DIANA J GONZALES	TH EXPLORATION LLC	1/8+	977	81	N/A	N/A	N/A	N/A	N/A
10*25747	9-3-18.2	N	RUTH MARY RIGGS DARNLEY CONNERS	TH EXPLORATION LLC	1/8+	1037	432	N/A	N/A	N/A	N/A	N/A
10*28092	9-3-18.2	N	WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION C	TH EXPLORATION LLC	1/8+	1073	370	N/A	N/A	N/A	N/A	N/A
10*21602	9-3-17	Q	CAROL STACY SAUNDERS	TH EXPLORATION LLC	1/8+	959	289	N/A	N/A	N/A	N/A	N/A
10*21604	9-3-17	Q	WILLIAM EDWARD STACY AND JACQUELINE L STACY	TH EXPLORATION LLC	1/8+	958	428	N/A	N/A	N/A	N/A	N/A
10*22616	9-3-17	Q	JAMES YOHO AND SANDRA YOHO	TH EXPLORATION LLC	1/8+	968	281	N/A	N/A	N/A	N/A	N/A
10*22618	9-3-17	Q	DANIEL YOHO	TH EXPLORATION LLC	1/8+	966	636	N/A	N/A	N/A	N/A	N/A
10*22721	9-3-17	Q	WINIFRED G TURNER	TH EXPLORATION LLC	1/8+	988	134	N/A	N/A	N/A	N/A	N/A
10*22796	9-3-17	Q	MARLENE YOHO	TH EXPLORATION LLC	1/8+	972	87	N/A	N/A	N/A	N/A	N/A
10*22880	9-3-17	Q	GREGORY K GLOVER	TH EXPLORATION LLC	1/8+	977	85	N/A	N/A	N/A	N/A	N/A
10*22881	9-3-17	Q	MARLIS GLOVER	TH EXPLORATION LLC	1/8+	977	87	N/A	N/A	N/A	N/A	N/A
10*23033	9-3-17	Q	MAXINE BEYSER	TH EXPLORATION LLC	1/8+	977	346	N/A	N/A	N/A	N/A	N/A
10*23034	9-3-17	Q	NINA L KOVACS	TH EXPLORATION LLC	1/8+	977	348	N/A	N/A	N/A	N/A	N/A
10*23107	9-3-17	Q	JOEL DAMON GLOVER	TH EXPLORATION LLC	1/8+	983	620	N/A	N/A	N/A	N/A	N/A
10*23141	9-3-17	Q	DEBORAH A LOMBARDO	TH EXPLORATION LLC	1/8+	984	7	N/A	N/A	N/A	N/A	N/A
10*23142	9-3-17	Q	KIMBERLY S GLOVER	TH EXPLORATION LLC	1/8+	984	5	N/A	N/A	N/A	N/A	N/A
10*23161	9-3-17	Q	KATHLEEN J GLOVER	TH EXPLORATION LLC	1/8+	983	618	N/A	N/A	N/A	N/A	N/A
10*23162	9-3-17	Q	AARON BOYLES AND TRACI BOYLES	TH EXPLORATION LLC	1/8+	983	622	N/A	N/A	N/A	N/A	N/A
10*23163	9-3-17	Q	EDWIN WOOLLEY AND DEBORAH L WOOLLEY	TH EXPLORATION LLC	1/8+	983	571	N/A	N/A	N/A	N/A	N/A
10*23176	9-3-17	Q	CAROL M YOHO	TH EXPLORATION LLC	1/8+	984	9	N/A	N/A	N/A	N/A	N/A
10*23181	9-3-17	Q	MICHAEL L GREENWOOD AND PEGGY ANNE GREENWOOD	TH EXPLORATION LLC	1/8+	983	627	N/A	N/A	N/A	N/A	N/A
10*23192	9-3-17	Q	JEFFREY C YOHO	TH EXPLORATION LLC	1/8+	984	472	N/A	N/A	N/A	N/A	N/A
10*23313	9-3-17	Q	DIANE DEVAULT	TH EXPLORATION LLC	1/8+	988	136	N/A	N/A	N/A	N/A	N/A
10*23419	9-3-17	Q	GARY MCPHERON AND SHELLEY ANN MCPHERON	TH EXPLORATION LLC	1/8+	988	492	N/A	N/A	N/A	N/A	N/A
10*23420	9-3-17	Q	SALLY LEE ORTIZ RIVERA	TH EXPLORATION LLC	1/8+	988	490	N/A	N/A	N/A	N/A	N/A
10*24781	9-3-17	Q	DENISE MARIE ROGERS AND GEORGE M ROGERS	TH EXPLORATION LLC	1/8+	1027	578	N/A	N/A	N/A	N/A	N/A
10*24782	9-3-17	Q	RICHARD A HEUSER	TH EXPLORATION LLC	1/8+	1027	572	N/A	N/A	N/A	N/A	N/A
10*24783	9-3-17	Q	BRUCE W JOHNSON AND TERRI L JOHNSON	TH EXPLORATION LLC	1/8+	1027	569	N/A	N/A	N/A	N/A	N/A
10*25224	9-3-17	Q	MAUREEN WILSON	TH EXPLORATION LLC	1/8+	1030	141	N/A	N/A	N/A	N/A	N/A
10*25701	9-3-17	Q	TIMOTHY KRUS AND BARBARA KRUS	TH EXPLORATION LLC	1/8+	1034	239	N/A	N/A	N/A	N/A	N/A
10*25716	9-3-17	Q	RUSSELL BREDBENNER	TH EXPLORATION LLC	1/8+	1035	23	N/A	N/A	N/A	N/A	N/A
10*26406	9-3-17	Q	PURPLEBURGH VENTURES, LLC	TH EXPLORATION LLC	1/8+	1033	117	N/A	N/A	N/A	N/A	N/A
10*26410	9-3-17	Q	MARCELLUS TX MINERAL PRTRN LTD	TH EXPLORATION LLC	1/8+	1034	242	N/A	N/A	N/A	N/A	N/A
10*26411	9-3-17	Q	PENNMARC RESOURCES II LP	TH EXPLORATION LLC	1/8+	1034	244	N/A	N/A	N/A	N/A	N/A
10*26412	9-3-17	Q	MCCROW ENERGY PARTNERS II LLC	TH EXPLORATION LLC	1/8+	1034	247	N/A	N/A	N/A	N/A	N/A
10*26413	9-3-17	Q	WILDES MINERAL INTERESTS LLC	TH EXPLORATION LLC	1/8+	1034	250	N/A	N/A	N/A	N/A	N/A
10*26414	9-3-17	Q	APPALACHIAN BASIN MINERALS LP	TH EXPLORATION LLC	1/8+	1034	218	N/A	N/A	N/A	N/A	N/A
10*26631	9-3-17	Q	JOSEPH R ZBOZIEN	TH EXPLORATION LLC	1/8+	1039	322	N/A	N/A	N/A	N/A	N/A
10*27106	9-3-17	Q	JASMINE LEIGH HALL PENA C/O ROBERT HALL	TH EXPLORATION LLC	1/8+	1050	217	N/A	N/A	N/A	N/A	N/A
10*27229	9-3-17	Q	ESTATE OF KENNETH R ANDERSON	TH EXPLORATION LLC	1/8+	1068	311	N/A	N/A	N/A	N/A	N/A
10*28092	9-3-17	Q	WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION C	TH EXPLORATION LLC	1/8+	1073	370	N/A	N/A	N/A	N/A	N/A
10*28647	9-3-17	Q	BRYAN S LEHNER	TH EXPLORATION LLC	1/8+	1076	65	N/A	N/A	N/A	N/A	N/A
10*31002	9-3-17	Q	MARK F HEUSER	CHEVRON USA INC	1/8+	791	247	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31005	9-3-17	Q	GARY KEITH BERGER	CHEVRON USA INC	1/8+	793	358	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31006	9-3-17	Q	JAMES S WILSON	CHEVRON USA INC	1/8+	793	375	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31007	9-3-17	Q	CAROL D ELMORE	CHEVRON USA INC	1/8+	793	383	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593

RECEIVED
Office of Oil and Gas

FEB 22 2021

10*31008	9-3-17	Q	NORMA V PRATICO	CHEVRON USA INC	1/8+	794	532	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31009	9-3-17	Q	MARGARET LEE HALL	CHEVRON USA INC	1/8+	795	414	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31010	9-3-17	Q	JULIANNE ERDOS	CHEVRON USA INC	1/8+	795	57	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31011	9-3-17	Q	MARVIN C WILSON	CHEVRON USA INC	1/8+	795	350	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31012	9-3-17	Q	JAMES P OVIES	CHEVRON USA INC	1/8+	797	368	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31013	9-3-17	Q	BERTHA LYNN KLUG	CHEVRON USA INC	1/8+	797	548	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31014	9-3-17	Q	CHERYL FOX BRAUCH	CHEVRON USA INC	1/8+	800	489	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31015	9-3-17	Q	CAROL FOX VALLANDINGHAM	CHEVRON USA INC	1/8+	800	564	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31016	9-3-17	Q	JESSICA M CHAVEZ	CHEVRON USA INC	1/8+	804	393	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31017	9-3-17	Q	PHILLIP A WILSON	CHEVRON USA INC	1/8+	805	421	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31018	9-3-17	Q	JUANITA S HATCH LIVING TRUST	CHEVRON USA INC	1/8+	831	438	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31019	9-3-17	Q	EDWARD F WILSON	CHEVRON USA INC	1/8+	813	564	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31020	9-3-17	Q	MATTHEW L GROSSAINT	CHEVRON USA INC	1/8+	818	6	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31021	9-3-17	Q	TROY THOMAS WILSON	CHEVRON USA INC	1/8+	828	352	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31022	9-3-17	Q	ELLA JEAN MCCARDLE	CHEVRON USA INC	1/8+	828	374	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31027	9-3-17	Q	LOU ANN GROSSAINT	CHEVRON USA INC	1/8+	829	470	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31029	9-3-17	Q	JESSE ALLEN WILSON	CHEVRON USA INC	1/8+	831	355	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31034	9-3-17	Q	APRIL DAWN HOGAN	CHEVRON USA INC	1/8+	835	248	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31035	9-3-17	Q	KIMBERLY SUE PIERSON	CHEVRON USA INC	1/8+	835	271	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31036	9-3-17	Q	JOSEPH RICHARD FOX	CHEVRON USA INC	1/8+	800	546	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31043	9-3-17	Q	DIANE M BAYLESS	CHEVRON USA INC	1/8+	798	97	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31044	9-3-17	Q	DENNIS M WILSON	CHEVRON USA INC	1/8+	798	97	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31045	9-3-17	Q	DAVID H WILSON	CHEVRON USA INC	1/8+	798	77	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31046	9-3-17	Q	SANDRA J WILSON	CHEVRON USA INC	1/8+	794	605	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31047	9-3-17	Q	MARY C MCKENNA	CHEVRON USA INC	1/8+	795	49	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31048	9-3-17	Q	LAURENCE E WILSON JR	CHEVRON USA INC	1/8+	800	154	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31049	9-3-17	Q	ROBERT L ARCHER	CHEVRON USA INC	1/8+	803	45	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593

RECEIVED
Office of Oil and Gas

FEB 22 2021

10*31050	9-3-17	Q	KATHERINE JEAN CONNELLY	CHEVRON USA INC	1/8+	803	30	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31051	9-3-17	Q	STEVEN M ARCHER	CHEVRON USA INC	1/8+	803	38	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31052	9-3-17	Q	WILLIAM R WISE	CHEVRON USA INC	1/8+	805	407	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*29616	9-3-17	Q	HARRY RICHARDSON*	TH EXPLORATION LLC	1/8+	1096	339	N/A	N/A	N/A	N/A	N/A
10*29622	9-3-17	Q	JANET M. SMITH*	TH EXPLORATION LLC	1/8+	1096	359	N/A	N/A	N/A	N/A	N/A
10*29626	9-3-17	Q	RACHAEL MARIE MCLARDY*	TH EXPLORATION LLC	1/8+	1096	365	N/A	N/A	N/A	N/A	N/A
10*29628	9-3-17	Q	REV. JANE D. BEARDEN*	TH EXPLORATION LLC	1/8+	1096	347	N/A	N/A	N/A	N/A	N/A
10*29624	9-3-17	Q	ROBERT WISE LIVING TRUST*	TH EXPLORATION LLC	1/8+	1096	353	N/A	N/A	N/A	N/A	N/A
10*29614	9-3-17	Q	BERNARD E. KURLICH FAMILY TRUST*	TH EXPLORATION LLC	1/8+	1096	371	N/A	N/A	N/A	N/A	N/A
10*29632	9-3-17	Q	HEIRS OF LAWRENCE OSTRY*	TH EXPLORATION LLC	1/8+	1096	323	N/A	N/A	N/A	N/A	N/A
10*28092	9-8-7.1	T	WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION	TH EXPLORATION LLC	1/8+	1073	370	N/A	N/A	N/A	N/A	N/A
10*28808	9-8-7.1	T	HOLLY MARIE EBERSOLE	TH EXPLORATION LLC	1/8+	1078	47	N/A	N/A	N/A	N/A	N/A
10*21246	9-8-10	V	THE ESTATE OF THERESA M ROGERSON CHARLES J ROGERSON E	TH EXPLORATION LLC	1/8+	952	422	N/A	N/A	N/A	N/A	N/A
10*21326	9-8-10	V	DENISE L FASSETT AND RONALD L FASSETT	TH EXPLORATION LLC	1/8+	952	424	N/A	N/A	N/A	N/A	N/A
10*21331	9-8-10	V	DAVID E MYSLIWIEC	TH EXPLORATION LLC	1/8+	952	426	N/A	N/A	N/A	N/A	N/A
10*22745	9-8-10	V	BONNIE J JENKINS	TH EXPLORATION LLC	1/8+	968	288	N/A	N/A	N/A	N/A	N/A
10*22764	9-8-10	V	GARY D OLSON AND ILENE J OLSON	TH EXPLORATION LLC	1/8+	970	74	N/A	N/A	N/A	N/A	N/A
10*22765	9-8-10	V	KRIS E OLSON AND BOBBI L OLSON	TH EXPLORATION LLC	1/8+	970	72	N/A	N/A	N/A	N/A	N/A
10*22766	9-8-10	V	TOD E OLSON AND COLLEEN G OLSON	TH EXPLORATION LLC	1/8+	970	70	N/A	N/A	N/A	N/A	N/A
10*23314	9-8-10	V	CYNTHIA WATSON	TH EXPLORATION LLC	1/8+	988	499	N/A	N/A	N/A	N/A	N/A
10*23353	9-8-10	V	SHARON E MCDONALD AND HAROLD S MCDONALD	TH EXPLORATION LLC	1/8+	988	495	N/A	N/A	N/A	N/A	N/A
10*24552	9-8-10	V	KELLI S CALKINS	TH EXPLORATION LLC	1/8+	1025	415	N/A	N/A	N/A	N/A	N/A
10*25718	9-8-10	V	KATHLEEN JEANNE B JENKINS	TH EXPLORATION LLC	1/8+	1035	13	N/A	N/A	N/A	N/A	N/A
10*25719	9-8-10	V	NICHOLE M JENKINS	TH EXPLORATION LLC	1/8+	1035	17	N/A	N/A	N/A	N/A	N/A
10*26025	9-8-10	V	DAVID D MURRAY	CHEVRON USA INC	1/8+	791	45	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26026	9-8-10	V	JUDITH ELLEN DOTY	CHEVRON USA INC	1/8+	787	249	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26027	9-8-10	V	DANIEL W CHAPMAN	CHEVRON USA INC	1/8+	788	111	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26028	9-8-10	V	DAVID W CHAPMAN	CHEVRON USA INC	1/8+	788	104	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26029	9-8-10	V	GREGORY L CHAPMAN	CHEVRON USA INC	1/8+	788	96	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26030	9-8-10	V	DONALD CARMICHAEL	CHEVRON USA INC	1/8+	787	471	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26031	9-8-10	V	SARAH LEONA MCGLONE	CHEVRON USA INC	1/8+	787	478	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26032	9-8-10	V	MARGARET ANN JONES	CHEVRON USA INC	1/8+	787	364	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26033	9-8-10	V	LINDA S COLEMAN	CHEVRON USA INC	1/8+	791	143	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

RECEIVED
Office of Oil and Gas
FEB 22 2021

10*26034	9-8-10	V	LUANN N HIMMELFARB	CHEVRON USA INC	1/8+	791	205	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26035	9-8-10	V	PATRICK P TRUEX	CHEVRON USA INC	1/8+	791	219	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26038	9-8-10	V	DOUGLAS A WAYSON	CHEVRON USA INC	1/8+	811	440	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26039	9-8-10	V	DAWNETTA M WAYSON	CHEVRON USA INC	1/8+	807	420	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26040	9-8-10	V	ROBERT BRANDT WAYSON	CHEVRON USA INC	1/8+	808	524	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26042	9-8-10	V	SHARON ANN PETERSON	CHEVRON USA INC	1/8+	838	396	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26043	9-8-10	V	GREGORY A CHAPMAN	CHEVRON USA INC	1/8+	834	354	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26204	9-8-10	V	COLE DALE GRIMM	CHEVRON USA INC	1/8+	889	244	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26494	9-8-10	V	JOHN P JENKINS	TH EXPLORATION LLC	1/8+	1037	434	N/A	N/A	N/A	N/A	N/A
10*27140	9-8-10	V	ROGER C PATTAN AND TARA I PATTAN	TH EXPLORATION LLC	1/8+	1052	498	N/A	N/A	N/A	N/A	N/A
10*27466	9-8-10	V	TANICE J SCHNIER	CHEVRON USA INC	1/8+	898	273	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 44/357
10*27467	9-8-10	V	ROBIN K JASA	CHEVRON USA INC	1/8+	899	502	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 44/357
10*27468	9-8-10	V	PETER J & JUDY B MYSLIWIEC	CHEVRON USA INC	1/8+	882	200	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 44/357
10*27469	9-8-10	V	KEVIN A MYSLIWIEC AND SANDY L MYSLIWIEC	CHEVRON USA INC	1/8+	882	197	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 44/357
10*27470	9-8-10	V	HARLAN OLSON AND LYNNETTE OLSON	CHEVRON USA INC	1/8+	899	244	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 44/357
10*27471	9-8-10	V	KENNETH IREY	CHEVRON USA INC	1/8+	904	341	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 44/357
10*27472	9-8-10	V	KAREN K KRUSE	CHEVRON USA INC	1/8+	899	258	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 44/357
10*27473	9-8-10	V	JOYCE A NELSEN	CHEVRON USA INC	1/8+	902	538	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 44/357
10*27474	9-8-10	V	DANNY OLSON	CHEVRON USA INC	1/8+	902	535	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 44/357
10*27475	9-8-10	V	ALAN S PALLAS	CHEVRON USA INC	1/8+	898	470	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 44/357
10*27515	9-8-10	V	WILLIAM L MCKINLEY	CHEVRON USA INC	1/8+	899	517	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 44/357
10*27755	9-8-10	V	*THE UNKNOWN HEIRS OF WILLIAM CLIFFORD OLSON ET AL	TH EXPLORATION LLC	1/8+	1060	468	N/A	N/A	N/A	N/A	N/A
10*28301	9-8-10	V	*NADINE I STEVENSON	TH EXPLORATION LLC	1/8+	1067	374	N/A	N/A	N/A	N/A	N/A
10*29833	9-9-9.1	CC	SkyPoint Resources, LLC	TH EXPLORATION LLC	1/8+	1103	556	N/A	N/A	N/A	N/A	N/A
10*22745	9-9-9.1	Y	BONNIE J JENKINS	TH EXPLORATION LLC	1/8+	968	288	N/A	N/A	N/A	N/A	N/A
10*23314	9-9-9.1	Y	CYNTHIA WATSON	TH EXPLORATION LLC	1/8+	988	499	N/A	N/A	N/A	N/A	N/A

RECEIVED
Office of Oil and Gas
FEB 22 2021

10*23353	9-9-9.1	Y	SHARON E MCDONALD AND HAROLD S MCDONALD	TH EXPLORATION LLC	1/8+	988	495	N/A	N/A	N/A	N/A	N/A
10*25718	9-9-9.1	Y	KATHLEEN JEANNE B JENKINS	TH EXPLORATION LLC	1/8+	1035	13	N/A	N/A	N/A	N/A	N/A
10*25719	9-9-9.1	Y	NICHOLE M JENKINS	TH EXPLORATION LLC	1/8+	1035	17	N/A	N/A	N/A	N/A	N/A
10*26494	9-9-9.1	Y	JOHN P JENKINS	TH EXPLORATION LLC	1/8+	1037	434	N/A	N/A	N/A	N/A	N/A
10*29231	9-9-9.1	Y	COLE DALE GRIMM	TH EXPLORATION LLC	1/8+	1078	45	N/A	N/A	N/A	N/A	N/A
10*29244	9-9-9.1	Y	SHARON ANN PETERSON	TH EXPLORATION LLC	1/8+	871	204	N/A	N/A	N/A	N/A	N/A
10*31023	9-9-9.1	Y	LUANN N HIMMELFARB	CHEVRON USA INC	1/8+	828	403	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31024	9-9-9.1	Y	DOUGLAS A WAYSON	CHEVRON USA INC	1/8+	828	610	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31025	9-9-9.1	Y	DAWNETTA MARIE WAYSON	CHEVRON USA INC	1/8+	828	616	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31026	9-9-9.1	Y	DONALD CARMICHAEL	CHEVRON USA INC	1/8+	829	225	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31028	9-9-9.1	Y	DAVID W CHAPMAN	CHEVRON USA INC	1/8+	829	470	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31030	9-9-9.1	Y	ROBERT BRANDT WAYSON	CHEVRON USA INC	1/8+	831	362	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31031	9-9-9.1	Y	GREGORY L CHAPMAN	CHEVRON USA INC	1/8+	831	490	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31032	9-9-9.1	Y	SARAH LEONA MCGLONE	CHEVRON USA INC	1/8+	831	537	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31033	9-9-9.1	Y	JUDITH ELLEN DOTY	CHEVRON USA INC	1/8+	834	426	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31037	9-9-9.1	Y	LINDA S COLEMAN FKA FINEGAN	CHEVRON USA INC	1/8+	836	319	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31038	9-9-9.1	Y	MARGARET ANN JONES	CHEVRON USA INC	1/8+	837	364	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31039	9-9-9.1	Y	PATRICK PAUL TRUEX	CHEVRON USA INC	1/8+	847	514	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31040	9-9-9.1	Y	JOSEPH B & JUDITH M PATRELLO	CHEVRON USA INC	1/8+	848	472	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31041	9-9-9.1	Y	COLE DALE GRIMM	CHEVRON USA INC	1/8+	889	419	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*31042	9-9-9.1	Y	DANIEL W CHAPMAN	CHEVRON USA INC	1/8+	915	564	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC: 45/593
10*19987	9-9-16	AA	LESLEY D BALLA	TH EXPLORATION LLC	1/8+	955	103	N/A	N/A	N/A	N/A	N/A
10*19993	9-9-16	AA	DIANA D COSLICK	TH EXPLORATION LLC	1/8+	955	105	N/A	N/A	N/A	N/A	N/A
10*19994	9-9-16	AA	ELAINE A FONTES	TH EXPLORATION LLC	1/8+	960	36	N/A	N/A	N/A	N/A	N/A
10*21117	9-9-16	AA	JOELLYN JOHNSON	TH EXPLORATION LLC	1/8+	952	392	N/A	N/A	N/A	N/A	N/A
10*21322	9-9-16	AA	PHILLIP H WAYT AND BILLIE A WAYT	TH EXPLORATION LLC	1/8+	953	293	N/A	N/A	N/A	N/A	N/A
10*22199	9-9-16	AA	DONALD BROOKS WESLEY	BLUE ROAN RESOURCES LLC	1/8+	926	424	N/A	N/A	N/A	N/A	Blue Roan Resources LLC to TH Exploration LLC: 41/405
10*22201	9-9-16	AA	FREDERICK MAXWELL YEATER	BLUE ROAN RESOURCES LLC	1/8+	926	422	N/A	N/A	N/A	N/A	Blue Roan Resources LLC to TH Exploration LLC: 41/405
10*22202	9-9-16	AA	MARK DAVID HUNT	BLUE ROAN RESOURCES LLC	1/8+	935	109	N/A	N/A	N/A	N/A	Blue Roan Resources LLC to TH Exploration LLC: 41/405
10*22203	9-9-16	AA	MELISSA ELAINE SCHROTH	BLUE ROAN RESOURCES LLC	1/8+	934	471	N/A	N/A	N/A	N/A	Blue Roan Resources LLC to TH Exploration LLC: 41/405
10*22526	9-9-16	AA	BARBARA FURFARI	TH EXPLORATION LLC	1/8+	964	528	N/A	N/A	N/A	N/A	N/A

RECEIVED
Office of Oil and Gas
FEB 22 2021

10*22528	9-9-16	AA	RONALD DAKAN	TH EXPLORATION LLC	1/8+	964	530	N/A	N/A	N/A	N/A	N/A
10*22553	9-9-16	AA	DAVID H DAKAN	TH EXPLORATION LLC	1/8+	966	130	N/A	N/A	N/A	N/A	N/A
10*22783	9-9-16	AA	SUZANNE SWIFT	TH EXPLORATION LLC	1/8+	972	85	N/A	N/A	N/A	N/A	N/A
10*23315	9-9-16	AA	TIM A WILLIS AND DIANE CLARE WILLIS	TH EXPLORATION LLC	1/8+	988	138	N/A	N/A	N/A	N/A	N/A
10*24047	9-9-16	AA	BESSIE CARMICHAEL ET AL SHANE M MALLET, SPECIAL COMM	TH EXPLORATION LLC	1/8+	1021	117	N/A	N/A	N/A	N/A	N/A
10*24397	9-9-16	AA	MARK D CHAMBERS AND SHERYL CHAMBERS	TH EXPLORATION LLC	1/8+	1023	163	N/A	N/A	N/A	N/A	N/A
10*24398	9-9-16	AA	TODD SCHERICH AND WANDA D SCHERICH	TH EXPLORATION LLC	1/8+	1023	160	N/A	N/A	N/A	N/A	N/A
10*24413	9-9-16	AA	BRADLEY S SCHERICH AND LEIGH SCHERICH	TH EXPLORATION LLC	1/8+	1023	157	N/A	N/A	N/A	N/A	N/A
10*28170	9-9-12.1	CC	DAVID ALAN DEMPEWOLF II AND JESSICA R DEMPEWOLF	TH EXPLORATION LLC	1/8+	1067	391	N/A	N/A	N/A	N/A	N/A
10*28697	9-9-14.1	DD	DANNY S KERNS	TH EXPLORATION LLC	1/8+	1075	134	N/A	N/A	N/A	N/A	N/A
10*28698	9-9-14.1	DD	DEENA JANINE PALOMO	TH EXPLORATION LLC	1/8+	1075	140	N/A	N/A	N/A	N/A	N/A
10*28699	9-9-14.1	DD	REGINA D FIGUEROA	TH EXPLORATION LLC	1/8+	1075	137	N/A	N/A	N/A	N/A	N/A
10*21859	9-9-11	EE	GARY WAYNE MORRIS	TH EXPLORATION LLC	1/8+	960	192	N/A	N/A	N/A	N/A	N/A
PENDING	7-1-3	II	STONE HILL MINERALS HOLDINGS LLC	TH EXPLORATION LLC	1/8+	1097	513	N/A	N/A	N/A	N/A	N/A
10*29904	7-1-3	GG	PAIGE FRANCIS*	TH EXPLORATION LLC	1/8+	1104	212	N/A	N/A	N/A	N/A	N/A
10*29905	7-1-3	GG	NANCY BROWN HEREFORD REVOCABLE TRUST*	TH EXPLORATION LLC	1/8+	1102	309	N/A	N/A	N/A	N/A	N/A
10*29906	7-1-3	GG	JOSEPH HITE BILLES*	TH EXPLORATION LLC	1/8+	1102	309	N/A	N/A	N/A	N/A	N/A
10*29907	7-1-3	GG	BLODWEN H COURTNEY REVOCABLE TRUST*	TH EXPLORATION LLC	1/8+	1102	309	N/A	N/A	N/A	N/A	N/A
10*29908	7-1-3	GG	EQT PRODUCTION COMPANY	TH EXPLORATION LLC	1/8+	1100	528	N/A	N/A	N/A	N/A	N/A
10*17969	7-1-3	GG	BOUNTY MINERALS LLC	TH EXPLORATION LLC	1/8+	928	424	N/A	N/A	N/A	N/A	N/A
10*26562	7-1-3	GG	MARTHA SUE FORBES	TH EXPLORATION LLC	1/8+	1038	510	N/A	N/A	N/A	N/A	N/A
10*26563	7-1-3	GG	SCOTT SHOTT AIF JOY A SHOTT	TH EXPLORATION LLC	1/8+	1038	513	N/A	N/A	N/A	N/A	N/A
10*26632	7-1-3	GG	MORGAN GIBSON	TH EXPLORATION LLC	1/8+	1039	319	N/A	N/A	N/A	N/A	N/A
10*26636	7-1-3	GG	THOMAS SHOTT	TH EXPLORATION LLC	1/8+	1039	316	N/A	N/A	N/A	N/A	N/A
10*26691	7-1-3	GG	DANIEL C SHOTT	TH EXPLORATION LLC	1/8+	1041	218	N/A	N/A	N/A	N/A	N/A
10*26970	7-1-3	GG	THE ESTATE OF JOHN C SHOTT	TH EXPLORATION LLC	1/8+	1046	190	N/A	N/A	N/A	N/A	N/A
10*26971	7-1-3	GG	GRACE R SHOTT-CLARDY	TH EXPLORATION LLC	1/8+	1046	194	N/A	N/A	N/A	N/A	N/A
10*27090	7-1-3	GG	HUGH I SHOTT II AIF BETTY SHOTT	TH EXPLORATION LLC	1/8+	1053	9	N/A	N/A	N/A	N/A	N/A
10*27091	7-1-3	GG	BRIDGITTE BLAYKE JONES	TH EXPLORATION LLC	1/8+	1050	204	N/A	N/A	N/A	N/A	N/A
10*27092	7-1-3	GG	JAMES H SHOTT III	TH EXPLORATION LLC	1/8+	1050	201	N/A	N/A	N/A	N/A	N/A
10*28172	7-1-3	GG	BETTY BROWN GORDON	TH EXPLORATION LLC	1/8+	1067	394	N/A	N/A	N/A	N/A	N/A
10*25518	7-8-2	JJ	DANNY S KERNS	AMERICAN PETROLEUM PARTNERS LLC	1/8+	1010	532	N/A	N/A	N/A	N/A	American Petroleum Partners Operating LLC to TH Exploration LLC: 43/515
10*25520	7-8-2	JJ	DEENA J PALOMO	AMERICAN PETROLEUM PARTNERS LLC	1/8+	1009	357	N/A	N/A	N/A	N/A	American Petroleum Partners Operating LLC to TH Exploration LLC: 43/515
10*25522	7-8-2	JJ	REGINA D FIGUEROA	AMERICAN PETROLEUM PARTNERS LLC	1/8+	1010	535	N/A	N/A	N/A	N/A	American Petroleum Partners Operating LLC to TH Exploration LLC: 43/515
10*25501	7-8-13	LL	AMP FUND III LP	AMERICAN PETROLEUM PARTNERS LLC	1/8+	925	459	N/A	N/A	N/A	N/A	American Petroleum Partners Operating LLC to TH Exploration LLC: 43/503
10*25514	7-8-13	LL	FREDERICK S MARCO & REBECCA J MARCO	BLUE ROAN RESOURCES LLC	1/8+	911	244	N/A	N/A	N/A	Blue Roan Resources LLC to American Petroleum Partners Operating LLC: 38/174	American Petroleum Partners Operating LLC to TH Exploration LLC: 43/503

Office of Oil and Gas

FEB 22 2021

WV Department of Environmental Protection

10*25528	7-8-13	LL	KAREN JEAN CHAMBERS	BLUE ROAN RESOURCES LLC	1/8+	911	246	N/A	N/A	N/A	Blue Roan Resources LLC to American Petroleum Partners Operating LLC: 38/174	American Petroleum Partners Operating LLC to TH Exploration LLC: 43/503
10*25556	7-8-13	LL	RIDGETOP ROYALTIES LLC	AMERICAN PETROLEUM PARTNERS LLC	1/8+	910	11	N/A	N/A	N/A	N/A	American Petroleum Partners Operating LLC to TH Exploration LLC: 43/503
10*18988	7-8-4	NN	MICHAEL R DOBBS AND LEANNE DOBBS	TH EXPLORATION LLC	1/8+	957	307	N/A	N/A	N/A	N/A	N/A
10*18989	7-8-4	NN	GREGG ALAN MILLER AND BETH ANN MILLER	TH EXPLORATION LLC	1/8+	940	238	N/A	N/A	N/A	N/A	N/A
10*19499	7-8-4	NN	CARLTON DOBBS JR AND MIKHAIL PROKOPENKO	TH EXPLORATION LLC	1/8+	940	236	N/A	N/A	N/A	N/A	N/A
10*21875	7-8-4	NN	MELVIN J FRANCIS	TH EXPLORATION LLC	1/8+	957	175	N/A	N/A	N/A	N/A	N/A
10*21876	7-8-4	NN	JAMES L STOUT	TH EXPLORATION LLC	1/8+	943	21	N/A	N/A	N/A	N/A	N/A
10*21877	7-8-4	NN	THOMAS BRIAN WARRICK	TH EXPLORATION LLC	1/8+	960	113	N/A	N/A	N/A	N/A	N/A
10*22061	7-8-4	NN	WILLIAM A WESTEN AND VICKIE D WESTEN	TH EXPLORATION LLC	1/8+	960	117	N/A	N/A	N/A	N/A	N/A
10*22062	7-8-4	NN	TIMMY LEE STOUT AND DOROTHY MARIE STOUT	TH EXPLORATION LLC	1/8+	960	115	N/A	N/A	N/A	N/A	N/A
10*22063	7-8-4	NN	CHARLOTTE E MARRINER	TH EXPLORATION LLC	1/8+	960	50	N/A	N/A	N/A	N/A	N/A
10*22087	7-8-4	NN	CHESTNUT HOLDINGS INC	TH EXPLORATION LLC	1/8+	960	56	N/A	N/A	N/A	N/A	N/A
10*22145	7-8-4	NN	WAYLON L MURPHREE AND ANGELA J MURPHREE	TH EXPLORATION LLC	1/8+	963	483	N/A	N/A	N/A	N/A	N/A
10*22146	7-8-4	NN	GLADYS E DOBBS	TH EXPLORATION LLC	1/8+	963	520	N/A	N/A	N/A	N/A	N/A
10*22148	7-8-4	NN	ROBERT E ROUSH AND SARAH M ROUSH	TH EXPLORATION LLC	1/8+	961	522	N/A	N/A	N/A	N/A	N/A
10*22197	7-8-4	NN	GARY DOBBS AND PEGGY LEE DOBBS	TH EXPLORATION LLC	1/8+	961	528	N/A	N/A	N/A	N/A	N/A
10*22251	7-8-4	NN	BRIAN WILLIAM DOBBS AND LISA DOBBS	TH EXPLORATION LLC	1/8+	953	545	N/A	N/A	N/A	N/A	N/A
10*22262	7-8-4	NN	EDWARD S ROSENTHAL AND NANCY ANN GOLDBERG ROSENTHAL	TH EXPLORATION LLC	1/8+	961	530	N/A	N/A	N/A	N/A	N/A
10*22298	7-8-4	NN	JAMES C DORIA AND DEIRDE G DORIA	TH EXPLORATION LLC	1/8+	961	524	N/A	N/A	N/A	N/A	N/A
10*22299	7-8-4	NN	PAUL RUSSELL AND MARY LOU RUSSELL	TH EXPLORATION LLC	1/8+	961	526	N/A	N/A	N/A	N/A	N/A
10*22306	7-8-4	NN	KAREN SUE BLAKE	TH EXPLORATION LLC	1/8+	962	219	N/A	N/A	N/A	N/A	N/A
10*22383	7-8-4	NN	CHARLES S CUNNINGHAM AND CORA CUNNINGHAM	TH EXPLORATION LLC	1/8+	962	416	N/A	N/A	N/A	N/A	N/A
10*22390	7-8-4	NN	JANA K PARRY AND AARON R PARRY	TH EXPLORATION LLC	1/8+	962	582	N/A	N/A	N/A	N/A	N/A
10*22391	7-8-4	NN	PAUL CRAIG CUNNINGHAM	TH EXPLORATION LLC	1/8+	962	580	N/A	N/A	N/A	N/A	N/A
10*22392	7-8-4	NN	KEVIN W RANDOLPH AND BONNIE J RANDOLPH	TH EXPLORATION LLC	1/8+	964	481	N/A	N/A	N/A	N/A	N/A
10*22393	7-8-4	NN	CAREY J KENDALL AND HAZEL M KENDALL	TH EXPLORATION LLC	1/8+	963	94	N/A	N/A	N/A	N/A	N/A
10*22398	7-8-4	NN	JERRY L AND DONNA J GOLDBERG	TH EXPLORATION LLC	1/8+	962	584	N/A	N/A	N/A	N/A	N/A
10*22421	7-8-4	NN	DAVD LEE SCOTT AND MARGARET TANISE SCOTT	TH EXPLORATION LLC	1/8+	963	101	N/A	N/A	N/A	N/A	N/A
10*22423	7-8-4	NN	KATHARYN ANNETTE LILLY LAING AND FREDDIE JOE LAING	TH EXPLORATION LLC	1/8+	963	103	N/A	N/A	N/A	N/A	N/A
10*22428	7-8-4	NN	WILLIAM C WEST AND DEBRA WEST	TH EXPLORATION LLC	1/8+	963	426	N/A	N/A	N/A	N/A	N/A
10*22475	7-8-4	NN	JAMES D KIMBREL AND PORTIA CONWAY KIMBREL	TH EXPLORATION LLC	1/8+	965	532	N/A	N/A	N/A	N/A	N/A
10*22476	7-8-4	NN	ROBERT E WEST	TH EXPLORATION LLC	1/8+	965	515	N/A	N/A	N/A	N/A	N/A
10*22483	7-8-4	NN	BEVERLY A LEDBETTER	TH EXPLORATION LLC	1/8+	965	517	N/A	N/A	N/A	N/A	N/A
10*22486	7-8-4	NN	RUDOLPH H PARSONS	TH EXPLORATION LLC	1/8+	965	530	N/A	N/A	N/A	N/A	N/A
10*22529	7-8-4	NN	MARY V DOBBS	TH EXPLORATION LLC	1/8+	965	534	N/A	N/A	N/A	N/A	N/A
10*22530	7-8-4	NN	MARK A CUNNINGHAM AND JOAN CUNNINGHAM	TH EXPLORATION LLC	1/8+	964	479	N/A	N/A	N/A	N/A	N/A
10*22532	7-8-4	NN	CHRISTOPHER L WRIGHT	TH EXPLORATION LLC	1/8+	964	483	N/A	N/A	N/A	N/A	N/A
10*22552	7-8-4	NN	DENNIS LEE WRIGHT AND MELINDA ANN WRIGHT	TH EXPLORATION LLC	1/8+	966	179	N/A	N/A	N/A	N/A	N/A
10*22554	7-8-4	NN	HARRY R WRIGHT JR	TH EXPLORATION LLC	1/8+	966	181	N/A	N/A	N/A	N/A	N/A
10*22555	7-8-4	NN	ANNA M WRIGHT	TH EXPLORATION LLC	1/8+	966	184	N/A	N/A	N/A	N/A	N/A
10*22621	7-8-4	NN	WILLIAM K MERRITT AND LINDA J MERRITT	TH EXPLORATION LLC	1/8+	966	186	N/A	N/A	N/A	N/A	N/A
10*22622	7-8-4	NN	RONALD L CROW AND GLENDA F CROW	TH EXPLORATION LLC	1/8+	965	507	N/A	N/A	N/A	N/A	N/A
10*22623	7-8-4	NN	ROGER L GARRISON AND MARILYN L GARRISON	TH EXPLORATION LLC	1/8+	965	505	N/A	N/A	N/A	N/A	N/A
10*22624	7-8-4	NN	CHARLES WARRICK AND LISA WARRICK	TH EXPLORATION LLC	1/8+	965	503	N/A	N/A	N/A	N/A	N/A
10*22625	7-8-4	NN	MARVIN JERRY BLAKE AND LINDA D BLAKE	TH EXPLORATION LLC	1/8+	965	512	N/A	N/A	N/A	N/A	N/A
10*22626	7-8-4	NN	BRIAN K MASTERS AND MELINDA D MASTERS	TH EXPLORATION LLC	1/8+	965	509	N/A	N/A	N/A	N/A	N/A

RECEIVED
Office of Oil and Gas

FEB 22 2021

10*22722	7-8-4	NN	DOROTHY L CUNNINGHAM	TH EXPLORATION LLC	1/8+	968	266	N/A	N/A	N/A	N/A	N/A
10*22798	7-8-4	NN	TREVOR HOOKS	TH EXPLORATION LLC	1/8+	970	80	N/A	N/A	N/A	N/A	N/A
10*22799	7-8-4	NN	ELIZABETH HALEY LEEK	TH EXPLORATION LLC	1/8+	972	100	N/A	N/A	N/A	N/A	N/A
10*22805	7-8-4	NN	DILLEN HENRY	TH EXPLORATION LLC	1/8+	972	91	N/A	N/A	N/A	N/A	N/A
10*22806	7-8-4	NN	KIMBERLY HENRY	TH EXPLORATION LLC	1/8+	972	94	N/A	N/A	N/A	N/A	N/A
10*22807	7-8-4	NN	DUSTIN HENRY	TH EXPLORATION LLC	1/8+	972	97	N/A	N/A	N/A	N/A	N/A
10*22823	7-8-4	NN	RONALD A WYCINSKI	TH EXPLORATION LLC	1/8+	974	192	N/A	N/A	N/A	N/A	N/A
10*22838	7-8-4	NN	JOHN THOMAS ERAZMUS AND JEAN R ERAZMUS	TH EXPLORATION LLC	1/8+	974	194	N/A	N/A	N/A	N/A	N/A
10*22985	7-8-4	NN	KURT J WENNEMAN & DEBRA A WENNEMAN	TH EXPLORATION LLC	1/8+	977	344	N/A	N/A	N/A	N/A	N/A
10*23095	7-8-4	NN	CHARLES B MASTER AND KIMBERLY MASTERS	TH EXPLORATION LLC	1/8+	983	564	N/A	N/A	N/A	N/A	N/A
10*23104	7-8-4	NN	STEVEN D MASTERS AND MONICA M MASTERS	TH EXPLORATION LLC	1/8+	983	567	N/A	N/A	N/A	N/A	N/A
10*23147	7-8-4	NN	FRANCES V CARPENTER	TH EXPLORATION LLC	1/8+	983	643	N/A	N/A	N/A	N/A	N/A
10*23151	7-8-4	NN	BRADY J MCCORT	TH EXPLORATION LLC	1/8+	983	645	N/A	N/A	N/A	N/A	N/A
10*23153	7-8-4	NN	BENJAMIN MATHER AND REBECCA MATHER	TH EXPLORATION LLC	1/8+	983	647	N/A	N/A	N/A	N/A	N/A
10*23177	7-8-4	NN	JOSEPH F CHMIELEWSKI AND SANDRA CHMIELEWSKI	TH EXPLORATION LLC	1/8+	984	1	N/A	N/A	N/A	N/A	N/A
10*23182	7-8-4	NN	SHIRLEY ANN DOBBS	TH EXPLORATION LLC	1/8+	984	545	N/A	N/A	N/A	N/A	N/A
10*23267	7-8-4	NN	KATHARYN DAY LILLY	TH EXPLORATION LLC	1/8+	984	534	N/A	N/A	N/A	N/A	N/A
10*23281	7-8-4	NN	ALLEN R L DAVIS AND DIANA LEE PATTERSON DAVIS	TH EXPLORATION LLC	1/8+	984	543	N/A	N/A	N/A	N/A	N/A
10*23282	7-8-4	NN	CARL J CHMIELEWSKI AND KATHLEEN A CHMIELEWSKI	TH EXPLORATION LLC	1/8+	984	3	N/A	N/A	N/A	N/A	N/A
10*23283	7-8-4	NN	DEAN E GARRISON	TH EXPLORATION LLC	1/8+	984	539	N/A	N/A	N/A	N/A	N/A
10*23351	7-8-4	NN	BONNIE SUE PATTERSON SWISHER	TH EXPLORATION LLC	1/8+	988	109	N/A	N/A	N/A	N/A	N/A
10*23352	7-8-4	NN	KENNETH R DOBBS	TH EXPLORATION LLC	1/8+	988	111	N/A	N/A	N/A	N/A	N/A
10*23354	7-8-4	NN	LAWRENCE W CROW JR AND WANDA F CROW	TH EXPLORATION LLC	1/8+	984	541	N/A	N/A	N/A	N/A	N/A
10*23417	7-8-4	NN	JOHN RUSSELL BECKER	TH EXPLORATION LLC	1/8+	1008	26	N/A	N/A	N/A	N/A	N/A
10*23418	7-8-4	NN	PAULA BANKS AND PAUL BANKS	TH EXPLORATION LLC	1/8+	1008	28	N/A	N/A	N/A	N/A	N/A
10*23636	7-8-4	NN	JAMES MATHER	TH EXPLORATION LLC	1/8+	1009	116	N/A	N/A	N/A	N/A	N/A
10*23641	7-8-4	NN	BARBARA L ANDERSON	TH EXPLORATION LLC	1/8+	1009	114	N/A	N/A	N/A	N/A	N/A
10*23689	7-8-4	NN	STEPHEN B LEEK AND CYNTHIA S LEEK	TH EXPLORATION LLC	1/8+	1010	334	N/A	N/A	N/A	N/A	N/A
10*23758	7-8-4	NN	LUCY P SULLIVAN	TH EXPLORATION LLC	1/8+	1012	199	N/A	N/A	N/A	N/A	N/A
10*23898	7-8-4	NN	JAMES W CUNNINGHAM JR	TH EXPLORATION LLC	1/8+	1017	590	N/A	N/A	N/A	N/A	N/A
10*23899	7-8-4	NN	JORDAN LEE CUNNINGHAM	TH EXPLORATION LLC	1/8+	1017	588	N/A	N/A	N/A	N/A	N/A
10*23919	7-8-4	NN	EDDA JO DOBBS	TH EXPLORATION LLC	1/8+	1019	479	N/A	N/A	N/A	N/A	N/A
10*23950	7-8-4	NN	JUSTIN VAN METER	TH EXPLORATION LLC	1/8+	1020	362	N/A	N/A	N/A	N/A	N/A
10*23951	7-8-4	NN	CHRISTOPHER VAN METER	TH EXPLORATION LLC	1/8+	1020	201	N/A	N/A	N/A	N/A	N/A
10*24015	7-8-4	NN	SCOTT D GOLDMAN	TH EXPLORATION LLC	1/8+	1019	477	N/A	N/A	N/A	N/A	N/A
10*24036	7-8-4	NN	PAULA JO WRIGHT	TH EXPLORATION LLC	1/8+	1020	203	N/A	N/A	N/A	N/A	N/A
10*24037	7-8-4	NN	CHRISTOPHER A KELLY & MICHELLE A WRIGHT	TH EXPLORATION LLC	1/8+	1020	205	N/A	N/A	N/A	N/A	N/A
10*24038	7-8-4	NN	CHARLES GREGORY WRIGHT	TH EXPLORATION LLC	1/8+	1020	207	N/A	N/A	N/A	N/A	N/A
10*24084	7-8-4	NN	EDWIN M MICHEL AND KIMBERLY B MICHEL	TH EXPLORATION LLC	1/8+	1020	364	N/A	N/A	N/A	N/A	N/A
10*24201	7-8-4	NN	PATRICIA RUTTER	TH EXPLORATION LLC	1/8+	1023	510	N/A	N/A	N/A	N/A	N/A
10*24348	7-8-4	NN	BARBARA H SIMMONS	TH EXPLORATION LLC	1/8+	1024	307	N/A	N/A	N/A	N/A	N/A
10*24649	7-8-4	NN	WILLIAM L LEEK	TH EXPLORATION LLC	1/8+	1026	215	N/A	N/A	N/A	N/A	N/A
10*24660	7-8-4	NN	LARRY D FROST AND LORAIN L FROST	TH EXPLORATION LLC	1/8+	1026	217	N/A	N/A	N/A	N/A	N/A
10*24662	7-8-4	NN	RAMONA K SPRINGER AND RICHARD D SPRINGER	TH EXPLORATION LLC	1/8+	1026	220	N/A	N/A	N/A	N/A	N/A
10*24664	7-8-4	NN	LISA L SHEAKS AND JAMES C SHEAKS	TH EXPLORATION LLC	1/8+	1026	226	N/A	N/A	N/A	N/A	N/A
10*24670	7-8-4	NN	SUZANNE FROST	TH EXPLORATION LLC	1/8+	1026	223	N/A	N/A	N/A	N/A	N/A
10*24692	7-8-4	NN	DAVID ROSARIO JR AND JULIE A ROSARIO	TH EXPLORATION LLC	1/8+	1027	130	N/A	N/A	N/A	N/A	N/A
10*24915	7-8-4	NN	BETTY G TREMELLING	TH EXPLORATION LLC	1/8+	1028	594	N/A	N/A	N/A	N/A	N/A
10*24916	7-8-4	NN	BRENDA L NEUHART	TH EXPLORATION LLC	1/8+	1028	591	N/A	N/A	N/A	N/A	N/A
10*25003	7-8-4	NN	LINDA L POTTS AND DONALD D POTTS	TH EXPLORATION LLC	1/8+	1028	621	N/A	N/A	N/A	N/A	N/A
10*25572	7-8-4	NN	ERICA S OWEN AND MATTHEW J OWEN	TH EXPLORATION LLC	1/8+	1033	121	N/A	N/A	N/A	N/A	N/A
10*25653	7-8-4	NN	GLADYS FRAZIER KING	TH EXPLORATION LLC	1/8+	1033	308	N/A	N/A	N/A	N/A	N/A
10*25717	7-8-4	NN	DONALD A FRAZIER	TH EXPLORATION LLC	1/8+	1034	581	N/A	N/A	N/A	N/A	N/A
10*26501	7-8-4	NN	DAVID GIBSON AND REBECCA FRAZIER GIBSON	TH EXPLORATION LLC	1/8+	1037	444	N/A	N/A	N/A	N/A	N/A

RECEIVED
Office of Oil and Gas
FEB 22 2021

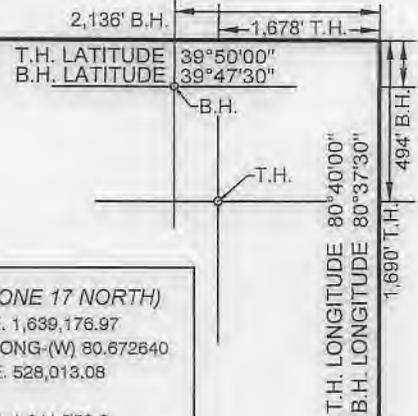
10*26561	7-8-4	NN	GARI JO STACKHOUSE	TH EXPLORATION LLC	1/8+	1038	508	N/A	N/A	N/A	N/A	N/A
10*26894	7-8-4	NN	PATRICK T HOWELL	TH EXPLORATION LLC	1/8+	1045	446	N/A	N/A	N/A	N/A	N/A
10*27139	7-8-4	NN	BRENDA LOU BOYD	TH EXPLORATION LLC	1/8+	1052	500	N/A	N/A	N/A	N/A	N/A
10*27246	7-8-4	NN	CARROLL W FRAZIER*	TH EXPLORATION LLC	1/8+	1053	7	N/A	N/A	N/A	N/A	N/A
10*27351	7-8-4	NN	ELBERT ROBERT FRAZIER	TH EXPLORATION LLC	1/8+	1058	393	N/A	N/A	N/A	N/A	N/A
10*27620	7-8-4	NN	ANNABELL B CROW ET AL *	TH EXPLORATION LLC	1/8+	1058	529	N/A	N/A	N/A	N/A	N/A
10*27942	7-8-4	NN	STONE HILL MINERALS HOLDINGS LLC	TH EXPLORATION LLC	1/8+	1063	559	N/A	N/A	N/A	N/A	N/A
10*28114	7-8-4	NN	BETTY LOU NOBLE	TH EXPLORATION LLC	1/8+	1067	414	N/A	N/A	N/A	N/A	N/A
10*28115	7-8-4	NN	JANICE L KUHN	TH EXPLORATION LLC	1/8+	1067	412	N/A	N/A	N/A	N/A	N/A
10*28116	7-8-4	NN	BARBARA DOBBS GORBY	TH EXPLORATION LLC	1/8+	1067	410	N/A	N/A	N/A	N/A	N/A
10*28117	7-8-4	NN	SHERRILL R DOBBS AND ELLA V DOBBS	TH EXPLORATION LLC	1/8+	1067	408	N/A	N/A	N/A	N/A	N/A
10*28118	7-8-4	NN	CHARLES R PETERS AND SHARON DOBBS PETERS	TH EXPLORATION LLC	1/8+	1067	406	N/A	N/A	N/A	N/A	N/A
10*28184	7-8-4	NN	DORIS DOBBS	TH EXPLORATION LLC	1/8+	1067	397	N/A	N/A	N/A	N/A	N/A
10*28360	7-8-4	NN	GLENDA COFFIELD AKA GLENDA G DOBBS	SOUTHWESTERN ENERGY COMPANY	1/8+	956	126	N/A	N/A	N/A	SWN Production Company LLC to TH Exploration LLC: 44/620	Equinor USA Onshore Properties Inc to TH Exploration LLC: 44/626
10*28374	7-8-4	NN	DAVID DOBBS	SOUTHWESTERN ENERGY COMPANY	1/8+	956	122	N/A	N/A	N/A	SWN Production Company LLC to TH Exploration LLC: 44/620	Equinor USA Onshore Properties Inc to TH Exploration LLC: 44/626
10*28375	7-8-4	NN	RONALD D DOBBS SOLE & SEPARATE PROPERTY	SOUTHWESTERN ENERGY COMPANY	1/8+	956	118	N/A	N/A	N/A	SWN Production Company LLC to TH Exploration LLC: 44/620	Equinor USA Onshore Properties Inc to TH Exploration LLC: 44/626
10*28531	7-8-4	NN	GREGG S GOLDMAN*	TH EXPLORATION LLC	1/8+	1071	586	N/A	N/A	N/A	N/A	N/A
10*28575	7-8-4	NN	DIANE LACKEY*	TH EXPLORATION LLC	1/8+	1071	580	N/A	N/A	N/A	N/A	N/A
10*28577	7-8-4	NN	RUSSELL S CONNER AND CATHY SUE CONNER*	TH EXPLORATION LLC	1/8+	1071	568	N/A	N/A	N/A	N/A	N/A
10*28579	7-8-4	NN	THE BETTY J DOBBS TRUST SUE ELLEN GOLDSTEIN*	TH EXPLORATION LLC	1/8+	1071	562	N/A	N/A	N/A	N/A	N/A
10*28581	7-8-4	NN	AUGUSTA L SPIHER*	TH EXPLORATION LLC	1/8+	1071	556	N/A	N/A	N/A	N/A	N/A
10*28584	7-8-4	NN	THE VIRGINIA L RAPOZA LIVING TRUST DOUGLAS J HOLLOBAUGH	TH EXPLORATION LLC	1/8+	1071	592	N/A	N/A	N/A	N/A	N/A
10*28586	7-8-4	NN	DAVID J MINOR*	TH EXPLORATION LLC	1/8+	1071	574	N/A	N/A	N/A	N/A	N/A
10*28190	9-3-2.2	PP	J RUSSELL LOGSDON	TH EXPLORATION LLC	1/8+	1068	309	N/A	N/A	N/A	N/A	N/A
10*28191	9-3-2.2	PP	JANICE L EARNEST	TH EXPLORATION LLC	1/8+	1068	307	N/A	N/A	N/A	N/A	N/A
10*28192	9-3-2.2	PP	SHAREE SAMS	TH EXPLORATION LLC	1/8+	1068	305	N/A	N/A	N/A	N/A	N/A
10*28193	9-3-2.2	PP	SHIRLEY E BURTON AND OKLA D BURTON	TH EXPLORATION LLC	1/8+	1068	303	N/A	N/A	N/A	N/A	N/A
10*28194	9-3-2.2	PP	LLOYD L & DONNA F EARNEST	TH EXPLORATION LLC	1/8+	1068	301	N/A	N/A	N/A	N/A	N/A
10*28442	9-3-2.2	PP	WILLIAM N LOSDON AND SHIRLEY A LOGSDON	TH EXPLORATION LLC	1/8+	1072	377	N/A	N/A	N/A	N/A	N/A

RECEIVED
Office of Oil and Gas

FEB 22 2021

WV Department of
Environmental Protection

**HUDSON S LEASE
UTICA UNIT - 581.83 AC±
WELL 15HU
TUG HILL OPERATING**

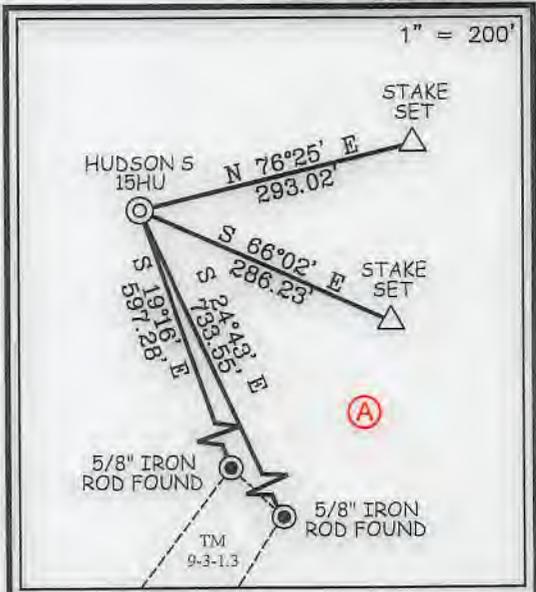


TAG	SURFACE OWNER	PARCEL	ACRES
A	CNX LAND LLC	9-3-1	106.935
B	JOHN W. & RACHEL A. HOLPP	9-3-2.5	56.259
C	JOHN W. & RACHEL A. HOLPP	9-3-2.4	0.618
D	JAMES & GINGER REGIEC	9-3-2	29.49
E	KENNETH F. LIGHTNER, ET UX	9-3-2.1	0.940
F	STEPHEN W. JOHNSON	9-3-2.3	0.591
G	RAYMOND E. & CINDY L. WHITE	9-3-2.6	0.619
H	JAMES & GINGER REGIEC	9-3-4.7	25.025
I	GRANT M. & MALISSA D. CARTER	9-3-4	7.507
J	RAYMOND E. & CINDY L. WHITE	9-3-20	127.00
K	GRANT M. & MALISSA D. CARTER	9-3-4.2	0.720
L	LLOYD ANDREW BEE, ET UX	9-3-18.1	1.010
M	LLOYD ANDREW BEE, ET UX	9-3-18	19.921
N	RAYMOND E. & CINDY L. WHITE	9-3-18.2	2.103
O	CNX LAND RESOURCES, INC.	9-8-5.2	4.586
P	MARK E. WOOD & SUNNI H. HARTLEY	9-8-6.1	1.423
Q	CNX LAND LLC	9-3-17	77.66
R	CNX LAND LLC	9-8-6	27.596
S	CNX LAND LLC	9-8-5	110.37
T	LARRY S. NEELY	9-8-7.1	76.055
U	JAMES RICHARD BLAKE, ET UX	9-8-9	42.49
V	JUDY KAY MCKINLEY	9-8-10	34.00
W	JAMES RICHARD BLAKE, ET UX	9-8-8	49.86
X	MARY LOU RUBINI, ET AL	9-9-4	268.39
Y	JOSEPH B. & JUDITH PATRELLO	9-9-9.1	149.924
Z	MARVIN D. & ADA C. DOBBS (LIFE), ET AL	9-9-5	76.25
AA	TODD L. SCHERICH, ET AL	9-9-16	168.204
BB	GARY W. MORRIS	9-9-12	54.74
CC	JESSICA R. & DAVID A. II DEMPWOLF	9-9-12.1	1.26
DD	AMERICAN ENERGY-MARCELLUS LLC	9-9-14.1	0.40
EE	GARY W. MORRIS	9-9-11	14.00
FF	DANNY R. & FRANCES V. KERNS ESTATE	9-9-14	48.308
GG	DANNY R. & FRANCES V. KERNS ESTATE	7-1-3	58.00
HH	DANNY R. & FRANCES V. KERNS ESTATE	7-8-1	27.00
II	CONSOL MINING CO., LLC	9-12-14	127.61
JJ	DANNY R. & FRANCES V. KERNS ESTATE	7-8-2	94.00
KK	DANNY R. & FRANCES V. KERNS ESTATE	9-9-13	25 AC, 47 P.
LL	BLAINE E. STERN, JR.	7-8-13	104.92
MM	BLAINE E. STERN, JR.	7-8-11	60.62
NN	JOHN ALFRED & LEORA JEAN DOBBS - LIFE	7-8-4	65.63
OO	BLAINE E. STERN, JR.	7-8-12	33.00
PP	JOHN W. & RACHEL A. HOLPP	9-3-2.2	0.483

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD'83 S.P.C.(FT) N. 486,102.89 E. 1,639,176.97
 NAD'83 GEO. LAT-(N) 39.828695 LONG-(W) 80.672640
 NAD'83 UTM (M) N. 4,408,795.58 E. 528,013.08
LANDING POINT
 NAD'83 S.P.C.(FT) N. 487,280.6 E. 1,641,758.2
 NAD'83 GEO. LAT-(N) 39.831966 LONG-(W) 80.663503
 NAD'83 UTM (M) N. 4,409,161.6 E. 528,793.6
BOTTOM HOLE
 NAD'83 S.P.C.(FT) N. 471,978.1 E. 1,650,244.3
 NAD'83 GEO. LAT-(N) 39.790312 LONG-(W) 80.632602
 NAD'83 UTM (M) N. 4,404,548.9 E. 531,456.7

MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-3-9.2	CONSOLIDATION COAL CO.	1.00
9-2-9.3	RAYMOND E. & CINDY WHITE, ET AL	1.008
9-3-1.1	CONSOLIDATION COAL CO.	5.00
9-3-1.2	CONSOLIDATION COAL CO.	1.00
9-3-1.3	CNX LAND CO. LLC	2.245
9-3-4.3	JOHN W. & RACHEL A. HOLPP	0.870
9-3-4.4	JIM & GINGER REGIEC	1.004
9-3-6.1	JOSEPH L. MILETO, II	1.0468
9-3-18.3	RAYMOND & CINDY WHITE	0.086
9-3-19	CNX LAND CO. LLC	0.5
9-5-10	ROBERT J. & MELINDA J. WHITE	27.957
9-8-5.1	CNX LAND CO. LLC	1.040

REFERENCES



NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE ARE 1"=2000'
- PROPOSED LATERAL OR TOP HOLE OF HUDSON S-15HU (47-051-02328) IS WITHIN 3000' OF THE TOP HOLES OR LATERALS OF HUDSON S-11HU (47-051-02296), HUDSON S-12HU (47-051-02292), HUDSON S-13HU (47-051-02293), HUDSON S-14HU (47-051-02327), HUDSON S-16HU (47-051-02329), FITZGERALD S-19HU (47-051-02328).
- MINIMUM OFFSET SPACING REQUIREMENTS EXEMPTED BY WAIVER WITH THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS AND OFFSET LEASEHOLDER AGREEMENTS AS PROVIDED BY TUG HILL OPERATING.



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
 1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
 254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
 slsvw.com



I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 849 *C. Victor Moyers*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE APRIL 1, 20 20
 REVISED 04-17-20, 07-14-20, 07/15/20, 07-16-20, 08-12-20, 09-16-20, 09-22-20, 12-22-20

OPERATORS WELL NO. HUDSON S-15HU
 API WELL NO. 47 - 051 - 02328
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8911P15HUR9.dwg
 HUDSON S-15HU REV6
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK)
 SCALE 1" = 2000'

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

WELL TYPE: OIL ___ GAS INJECTION ___ WASTE DISPOSAL ___ IF "GAS" PRODUCTION STORAGE ___ DEEP SHALLOW ___

LOCATION: GROUND = 1,366.80' ELEVATION PROPOSED = 1,344.81' WATERSHED HOT HOLLOW OF GRAVE CREEK (HUC 10)
 DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER CNX LAND LLC ACREAGE 106.935±
 ROYALTY OWNER CHARLENE L. BAKER, ET AL ACREAGE 106.935±
 PROPOSED WORK: LEASE NO. SEE WW-6A1

DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___
 PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION POINT PLEASANT
 ESTIMATED DEPTH TVD: 11,990' / TMD: 30,463'

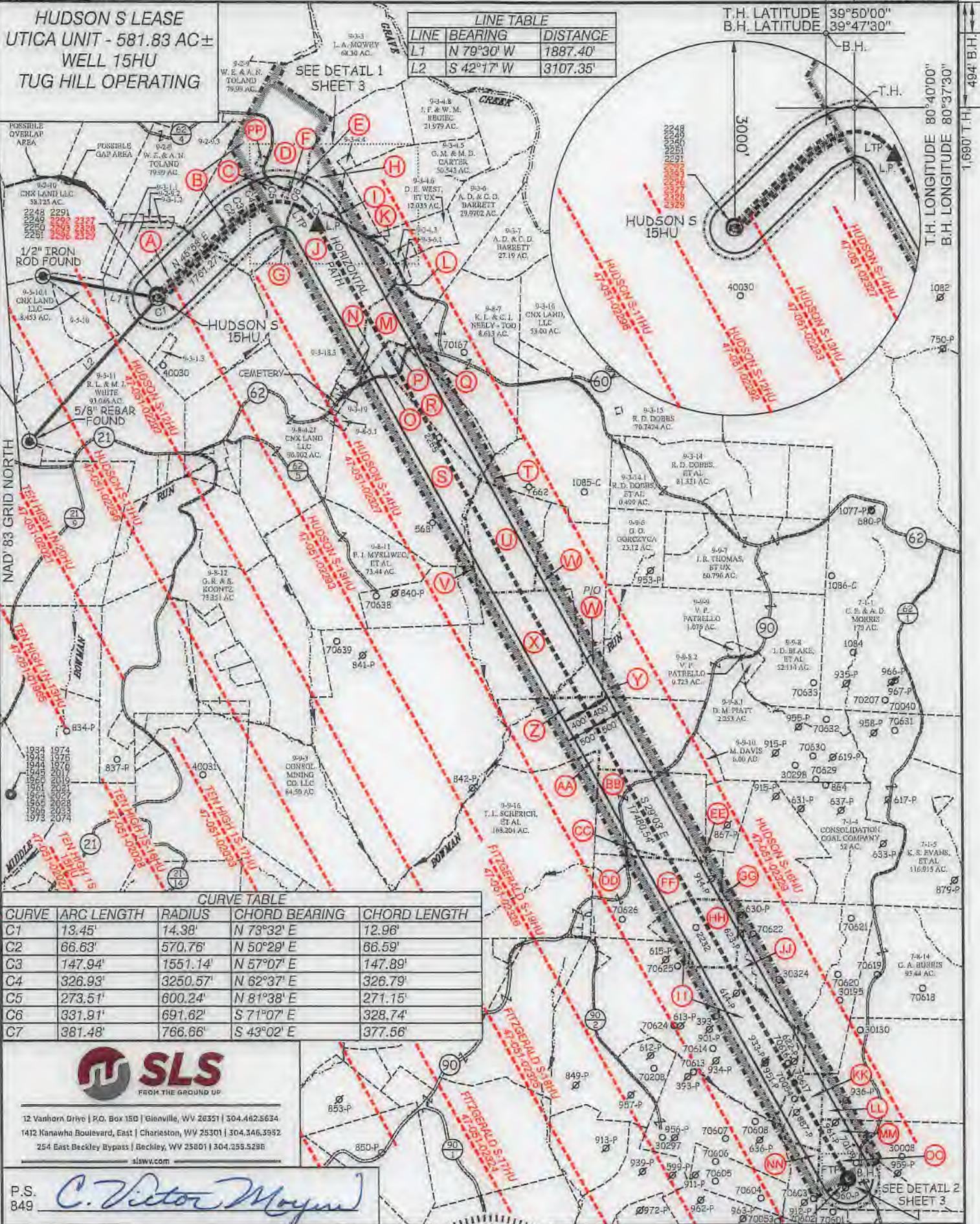
WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER
 ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS 5400 D BIG TYLER ROAD
 FORT WORTH, TX 76107 CHARLESTON, WV 25313

COUNTY NAME PERMIT

**HUDSON S LEASE
UTICA UNIT - 581.83 AC ±
WELL 15HU
TUG HILL OPERATING**

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 79°30' W	1887.40'
L2	S 42°17' W	3107.35'

T.H. LATITUDE 39°50'00"
B.H. LATITUDE 39°47'30"



CURVE TABLE

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	13.45'	14.38'	N 73°32' E	12.96'
C2	66.63'	570.76'	N 50°29' E	66.59'
C3	147.94'	1551.14'	N 57°07' E	147.89'
C4	326.93'	3250.57'	N 62°37' E	326.79'
C5	273.51'	600.24'	N 81°38' E	271.15'
C6	331.91'	691.62'	S 71°07' E	328.74'
C7	381.48'	766.66'	S 43°02' E	377.56'



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5295
slaw.com

P.S. 849 *C. Victor Moyers*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

LEGEND

- UNIT BOUNDARY
- LEASED TRACTS INSIDE UNIT BOUNDARY
- SURFACE LINE
- PROPOSED UTICA WELL LATERAL
- 400' OFFSET LINE
- 500' OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- PROPOSED FIRST TAKE POINT
- PROPOSED LAST TAKE POINT
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- SURFACE OWNER (SEE TABLE)
- LEASE # (SEE ADDITIONAL SHEETS)

SCALE 1" = 2000' FILE NO. 8911P15HUR9.dwg
HUDSON S-15HU REV6
DATE APRIL 1, 2020
REVISED 04-17-20, 07-14-20, 07-15-20, 07-16-20, 08-12-20, 09-16-20, 09-22-20, 12-22-20
OPERATORS WELL NO. HUDSON S-15HU
API WELL NO. 47 — 051 — 02328
NO. STATE COUNTY PERMIT

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

DIANNA STAMPER
CT CORPORATION SYSTEM
ADDRESS 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

WELL OPERATOR TUG HILL OPERATING, LLC
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

COUNTY NAME PERMIT

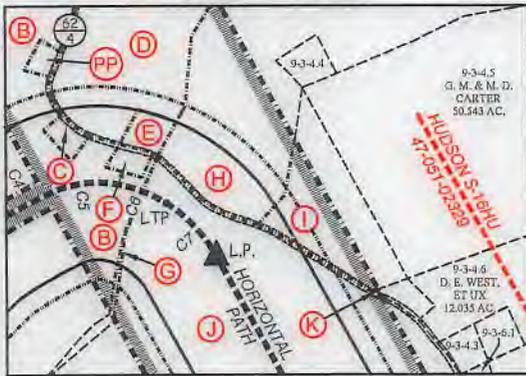
**HUDSON S LEASE
UTICA UNIT - 581.83 AC±
WELL 15HU
TUG HILL OPERATING**



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25901 | 304.255.5296
slswv.com

NO.	Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Deed Book/Page	
1	10*26041	9-3-1	A	FREDDIE C WHITE AND VIOLET L WHITE, ET AL	728	527
2	10*28190	9-3-2.5	B	J RUSSELL LOGSDON, ET AL	1068	309
3	10*28190	9-3-2.4	C	J RUSSELL LOGSDON, ET AL	1068	309
4	10*28190	9-3-2	D	J RUSSELL LOGSDON, ET AL	1068	309
5	10*28190	9-3-2.1	E	J RUSSELL LOGSDON, ET AL	1068	309
6	10*28190	9-3-2.3	F	J RUSSELL LOGSDON, ET AL	1068	309
7	10*28190	9-3-2.6	G	J RUSSELL LOGSDON, ET AL	1068	309
8	NA	9-3-4.7	H	WILLIAM N. LOGSDON, ET AL	690	347
9	NA	9-3-4	I	WILLIAM N. LOGSDON, ET AL	690	347
10	10*21345	9-3-20	J	AARON PARRY SR AND JANA PARRY TRUSTEES AARON PARRY SR & JANA PARRY REV LIV TRUS, ET AL	957	280
11	NA	9-3-4.2	K	WILLIAM N. LOGSDON, ET AL	690	347
12	10*21412	9-3-18.1	L	GARY DOBBS AND SUSAN DOBBS, ET AL	957	270
13	10*21412	9-3-18	M	GARY DOBBS AND SUSAN DOBBS, ET AL	957	270
14	10*21412	9-3-18.2	N	GARY DOBBS AND SUSAN DOBBS, ET AL	957	270
15	10*21602	9-8-5.2	O	CAROL STACY SAUNDERS, ET AL	959	289
16	10*21602	9-8-6.1	P	CAROL STACY SAUNDERS, ET AL	959	289
17	10*21602	9-3-17	Q	CAROL STACY SAUNDERS, ET AL	959	289
18	10*21602	9-8-6	R	CAROL STACY SAUNDERS, ET AL	959	289
19	10*23739	9-8-5	S	APPALACHIAN BASIN MINERALS LP, ET AL	1011	538
20	10*28092	9-8-7.1	T	WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	1073	370
21	10*22055	9-8-9	U	STONE HILL MINERALS HOLDINGS LLC, ET AL	1010	226
22	10*21246	9-8-10	V	THE ESTATE OF THERESA M ROGERSON CHARLES J ROGERSON EXECUTOR	952	422
23	10*22055	9-8-8	W	STONE HILL MINERALS HOLDINGS LLC, ET AL	1010	226
24	10*31001	9-9-4	X	ERIC KATZMEYER, ET AL	791	226
25	10*22615	9-9-9.1	Y	DAVID D MURRAY AND MARY ANN MURRAY, ET AL	965	591
26	10*28244	9-9-5	Z	MICHAEL D DOBBS AND STEPHANIE J DOBBS, ET AL	1068	569
27	10*19987	9-9-16	AA	LESLEY D BALLA, ET AL	955	103
28	10*21859	9-9-12	BB	GARY WAYNE MORRIS	960	192
29	10*28170	9-9-12.1	CC	DAVID ALAN DEMPEWOLF II AND JESSICA R DEMPEWOLF	1067	391
30	10*28697	9-9-14.1	DD	DANNY S KERNS, ET AL, ET AL	1075	134
31	10*21859	9-9-11	EE	GARY WAYNE MORRIS	960	192
32	10*28697	9-9-14	FF	DANNY S KERNS, ET AL	1075	134
33	**	7-1-3	GG	SUSAN SHRIVER, ET AL	NA	NA
34	10*25518	7-8-1	HH	DANNY S KERNS, ET AL	1010	532
35	10*18339	9-12-14	II	RESOURCE MINERALS HEADWATER I LP, ET AL	940	448
36	10*25518	7-8-2	JJ	DANNY S KERNS, ET AL	1010	532
37	10*25518	9-9-13	KK	DANNY S KERNS, ET AL	1010	532
38	10*25501	7-8-13	LL	AMP FUND III LP, ET AL	925	459
39	10*23026	7-8-11	MM	BLAINE E STERN JR AND CONNIE J STERN	977	339
40	10*18988	7-8-4	NN	MICHAEL R DOBBS AND LEANNE DOBBS, ET AL	957	307
41	10*23026	7-8-12	OO	BLAINE E STERN JR AND CONNIE J STERN	977	339
42	10*28190	9-3-2.2	PP	J RUSSELL LOGSDON, ET AL	1068	309

DETAIL 1
SCALE: 1" = 1000'



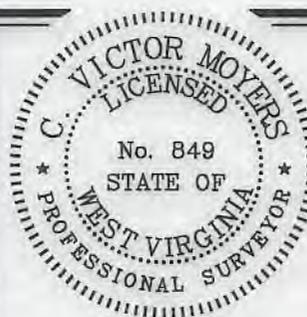
DETAIL 2
SCALE: 1" = 500'



FILE NO. 8911P15HUR9.dwg
HUDSON S-15HU REV6

DATE APRIL 1, 20 20
REVISED 04-17-20, 07-14-20, 07-15-20, 07-16-20, 08-12-20,
09-16-20, 09-22-20, 12-22-20

OPERATORS WELL NO. HUDSON S-15HU
API WELL NO. 47 — 051 — 02328
STATE COUNTY PERMIT



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



P.S. 849

C. Victor Moyers

WELL OPERATOR TUG HILL OPERATING, LLC
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
ADDRESS CT CORPORATION SYSTEM
5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

COUNTY NAME PERMIT

DPS LAND SERVICES CORP
6000 TOWN CENTER BOULEVARD, SUITE 145
CANNONBURG PA 15317-5841

BOOK-0043 PAGE0095

STATE OF WEST VIRGINIA §
 §
COUNTY OF MARSHALL §

ASSIGNMENT AND BILL OF SALE

This ASSIGNMENT AND BILL OF SALE (this "Assignment") dated as of February 7, 2019 (the "Signing Date"), but effective from and after 7:00 a.m., Eastern Standard Time on February 1, 2019 (the "Effective Date"), is made by Chevron U.S.A. Inc., a Pennsylvania corporation, with an address at 700 Cherrington Parkway, Coraopolis, PA 15108 ("Chevron" or "Assignor") to TH Exploration II, LLC and TH Exploration, LLC, Texas limited liability companies, with an address at 1320 S. University Drive, Suite 500, Fort Worth, TX 76107 (collectively "Assignee") and is accepted by Assignee upon the following terms and conditions.

RECITALS

- A. Assignor desires to sell, convey, transfer, assign and deliver to Assignee Assignor's Crawford 1 well and certain related assets, including certain leasehold interests, located in Marshall County, West Virginia.
- B. Through an Acreage Trade Agreement to be executed contemporaneously with this Assignment, Assignor desires to transfer, convey and assign to Assignee certain of Assignor's oil and gas leasehold interests located in Marshall County, West Virginia in exchange for the transfer, conveyance and assignment to Assignor by Assignee certain of Assignee's oil and gas leasehold interests located in Marshall County, West Virginia.
- C. In consideration of the mutual promises set out in this Assignment, including execution of the Acreage Trade Agreement, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree to be bound by the terms of this Assignment.

1. DEFINITIONS

1.1 **Definitions.** As used in this Assignment, these words and expressions have the following meanings:

"Acreage Trade Agreement" means that certain Acreage Trade Agreement by and between Chevron U.S.A. Inc. and TH Exploration, LLC with an Effective Date of February 1, 2019 to be contemporaneously executed with this Assignment.

"Act" has the meaning given to such term in Section 9.1(C).

"Affiliate" means any legal entity which controls, is controlled by, or is under common control with, another legal entity. An entity is deemed to "control" another if it owns directly or indirectly at least fifty percent of either of the following: (A) the shares entitled to vote at a general election of directors of such

STATE OF WEST VIRGINIA §
 §
COUNTY OF MARSHALL §

ASSIGNMENT AND CONVEYANCE

THIS ASSIGNMENT AND CONVEYANCE (the "**Assignment**") is made and entered into this 24th day of June 2020 (the "**Effective Date**"), by and between CHEVRON U.S.A. INC., a Pennsylvania corporation, with an address at 700 Cherrington Parkway, Coraopolis, PA 15108 (hereinafter "**Assignor**") and TH EXPLORATION II, LLC, a Texas limited liability company, with an address at 1320 S. University Drive, Suite 500, Fort Worth, TX 76107 (hereinafter "**Assignee**").

WITNESSETH:

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to those certain oil and gas Leases situated in Marshall County, West Virginia, as described in Exhibit "A", attached hereto and made a part hereof (hereinafter the "**Leases**"), subject to any applicable overriding royalty interests and midstream obligations;

NOW, THEREFORE, for good and valuable consideration, and subject to the limited warranties, restrictions and conditions hereinafter mentioned, the parties hereto, intending to be legally bound, do covenant and agree as follows:

1. **Assignment.** Assignor does hereby grant, bargain, sell, convey, deliver, assign, set over and transfer, as of the Effective Date, to Assignee, its respective successors and assigns, forever, all of Assignor's right, title and interest in and to the Leases, and the lands covered thereby, together with all rights incident thereto and appurtenances thereon.

TO HAVE AND TO HOLD such right, title and interest in and to the Leases unto Assignee or its designee, and their respective successors and assigns, forever, in accordance with the provisions of this Assignment.

2. **Payment.** Within 15 days of execution of this Assignment by both parties, Assignee agrees to tender payment to Assignor in the amount and manner described in Exhibit "B".

3. **No Warranty.** The Assignment is made on an "as is, where is" basis without warranty of any kind and is subject to any existing liens, encumbrances or burdens, including specifically any overriding royalty interests or midstream dedications, attached to or affecting the Leases. Assignor makes no, and expressly disclaims any, representation or warranty to Assignee regarding the Leases or title thereto, whether express, statutory or implied, in fact, at law, common law, in equity or otherwise.

4. **Existing Obligations.** This Assignment is made subject to and Assignee agrees to accept and perform all obligations under any existing agreements that affect the Leases, including Assignor's remaining obligations under any gathering, processing or other midstream contracts as those contracts relate specifically to the Leases.

ASSIGNMENT OF OIL AND GAS LEASES

This **ASSIGNMENT OF OIL AND GAS LEASES** (the "**Assignment**") is made and entered into this 8th day of March, 2018 (the "**Effective Date**"), from **Blue Roan Resources, LLC**, a West Virginia limited liability company, having an address at 3437 University Avenue, Morgantown, WV, 26505 (hereinafter "**Assignor**"), and **TH Exploration, LLC**, a Texas limited liability company, having an address at 1320 S. University Drive, Suite 500, Fort Worth, TX 76107 (hereinafter "**Assignee**").

WITNESSETH:

WHEREAS, Assignor is the owner of the right, title, and interest in those certain Oil and Gas Leases situated in Marshall County, West Virginia, which are described in Exhibit "A" attached hereto and made a part hereof (hereinafter the "**Leases**"); and

WHEREAS, subject to the exceptions and reservations herein contained, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to the Leases.

NOW, THEREFORE, for and in consideration of the sum of Ten Dollars (\$10.00), cash in hand paid, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and subject to the limited warranties, restrictions and conditions hereinafter mentioned, the parties hereto, intending to be legally bound, do covenant and agree as follows:

1. **Assignment.** Assignor does hereby grant, bargain, sell, convey, deliver, assign, set over and transfer, as of the Effective Date, to Assignee, its respective successors and assigns, forever, subject to the terms, reservations, waivers and provisions as hereinafter set forth, an undivided interest of all of Assignor's right, title and interest in and to the Leases and all oil, natural gas, natural gas liquids, condensate, casinghead gas and other liquefied or gaseous hydrocarbons or products ("**Hydrocarbons**") thereby held, in any and all depths and formations ("**Assigned Formations**"), together with any and all other rights that are reasonably necessary or convenient to explore for and produce Hydrocarbons from the Assigned Formations, including, but not limited to, the right of surface access, use and occupancy, the right of ingress and egress, the right to conduct geophysical and other exploratory activities, the right to lay pipeline, the right to drill through, but not perforate or stimulate, all other depths and formations necessary for the purpose of reaching the Assigned Formations and to conduct operations therein.

TO HAVE AND TO HOLD such right, title and interest in and to the Leases unto Assignees or their designee, and their respective successors and assigns, forever, in accordance with the provisions of this Assignment.

2. **Representations and Warranties.** Assignor represents and warrants that such Assignor has not conveyed or otherwise encumbered its interest in the Leases since the time that Assignor obtained its interests in the Leases.

Assignor represents and warrants that, as to its interests in the Leases, Assignor has paid all royalties, overriding royalties, and other payments required by the Leases which were due for the period in which Assignor held its interests in the Leases, including, but not limited to, the interests assigned hereunder, and that Assignor has fully performed all conditions necessary to maintain the Leases in full force and effect during such period.

3. **Successors and Assigns.** The terms of this Assignment shall be binding upon and inure to the benefit of the parties hereto and each of their respective successors and assigns, and such terms shall be covenants running with the land, and with each subsequent transfer or assignment thereof.

4. **Further Assurances.** Assignor and Assignee hereby agree to take all actions and execute, acknowledge, and deliver all such instruments as are necessary or advisable to effectuate the purposes of this Assignment.

ASSIGNMENT AND CONVEYANCE

This Assignment and Conveyance (this "*Assignment*") is from **EQUINOR USA ONSHORE PROPERTIES INC.**, a Delaware corporation ("*Assignor*"), to **TH Exploration, LLC**, a Texas limited liability company ("*Assignee*"), and is executed on December 9, 2019 (the "*Effective Date*"). Assignor and Assignee may be referred to herein collectively as the "*Parties*," or individually as a "*Party*." Capitalized terms used herein but not otherwise defined herein (including in Section 3.7) shall have the meanings given such terms in that certain Acreage Trade Agreement between the Assignor and the Assignee dated November 1, 2019 (the "*Acreage Trade Agreement*").

ARTICLE 1
ASSIGNMENT OF ASSETS

Section 1.1 Assignment. For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor hereby **GRANTS, BARGAINS, ASSIGNS, CONVEYS AND TRANSFERS** unto Assignee all of Assignor's right, title and interest in and to (i) the oil and gas leases described in more detail on Exhibit A attached hereto (the "*Leases*") INsofar AND ONLY INsofar as they cover those lands described on Exhibit A (the "*Leasehold Rights*") and (ii) any surface use agreements that relate to such Leasehold Rights (collectively with the Leasehold Rights, the "*Conveyed Assets*").

TO HAVE AND TO HOLD the Conveyed Assets, together with all and singular the rights, privileges, contracts and appurtenances, in any way appertaining or belonging thereto, unto Assignee, its successors and assigns, forever, subject, to the terms and conditions of this Assignment.

Section 1.2 Assignment Subject to Acreage Trade Agreement. This Assignment is made in accordance with and is subject to the terms, covenants and conditions contained in that certain Acreage Trade Agreement. In the event of a conflict between the provisions of the Acreage Trade Agreement and this Assignment, the provisions of the Acreage Trade Agreement shall control. The execution and delivery of this Assignment by Assignor, and the execution and acceptance of this Assignment by Assignee, shall not operate to release or impair any surviving rights or obligations of either Party with respect to the other under the Acreage Trade Agreement.

ARTICLE 2
SPECIAL WARRANTY OF TITLE AND DISCLAIMERS

Section 2.1 Special Warranty of Title. Assignor hereby agrees to warrant and defend Defensible Title to the Leases unto Assignee, its successors and assigns, against every Person whomsoever lawfully claiming or to claim the same or any part thereof by, through or under Assignor or any of its Affiliates, but not otherwise.

Section 2.2 Disclaimers of Warranties and Representations.

(a) EXCEPT AS EXPRESSLY REPRESENTED OTHERWISE IN SECTION VI OF THE ACREAGE TRADE AGREEMENT OR THIS ASSIGNMENT, ASSIGNOR MAKES NO, AND HEREBY EXPRESSLY DISCLAIMS, ANY REPRESENTATION OR WARRANTY, EXPRESS, IMPLIED OR STATUTORY, INCLUDING AS TO (I) TITLE TO THE LEASEHOLD RIGHTS, (II) THE CONTENTS, CHARACTER OR NATURE OF ANY DESCRIPTIVE MEMORANDUM, OR ANY REPORT OF ANY OF ITS PETROLEUM ENGINEERING CONSULTANTS, OR ANY GEOLOGICAL OR SEISMIC DATA OR INTERPRETATION, RELATING TO THE LEASEHOLD RIGHTS, (III) THE QUANTITY, QUALITY OR RECOVERABILITY OF PETROLEUM SUBSTANCES IN OR FROM THE LEASEHOLD RIGHTS, (IV) THE EXISTENCE OF ANY PROSPECT, OR ANY RECOMPLETION, INFILL OR STEP-OUT DRILLING OPPORTUNITIES, (V) ANY ESTIMATES OF THE VALUE OF THE LEASEHOLD RIGHTS, (VI) THE PRODUCTION OF PETROLEUM SUBSTANCES FROM THE LEASEHOLD RIGHTS, OR ANY PRODUCTION OR DECLINE RATES, (VII) THE MAINTENANCE, REPAIR, CONDITION, QUALITY, SUITABILITY, DESIGN OR MARKETABILITY OF THE LEASEHOLD RIGHTS, (VIII) INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHT, AND (IX) ANY OTHER MATERIALS OR INFORMATION THAT MAY HAVE BEEN MADE AVAILABLE OR COMMUNICATED TO ASSIGNEE OR ITS AFFILIATES, OR ITS OR THEIR RESPECTIVE

ASSIGNMENT AND CONVEYANCE

This Assignment and Conveyance (this "*Assignment*") is from EQUINOR USA ONSHORE PROPERTIES INC., a Delaware Corporation ("*Assignor*"), to TH Exploration, L.L.C, a Texas limited liability company ("*Assignee*"), and is executed on August 26th, 2020 (the "*Effective Date*"). Assignor and Assignee may be referred to herein collectively as the "*Parties*," or individually as a "*Party*." Capitalized terms used herein but not otherwise defined herein (including in Section 3.7) shall have the meanings given such terms in that certain Acreage Trade Agreement between the Assignor and the Assignee dated May 18, 2020 (the "*Acreage Trade Agreement*").

**ARTICLE 1
ASSIGNMENT OF ASSETS**

Section 1.1 Assignment. For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor hereby GRANTS, BARGAINS, ASSIGNS, CONVEYS AND TRANSFERS unto Assignee all of Assignor's right, title and interest in and to (i) the oil and gas leases described in more detail on Exhibit A attached hereto (the "*Leases*") IN SO FAR AND ONLY IN SO FAR as they cover those lands described on Exhibit A and Exhibit A-1 (the "*Leasehold Rights*") and (ii) any surface use agreements that relate to such Leasehold Rights (collectively with the Leasehold Rights, the "*Conveyed Assets*").

TO HAVE AND TO HOLD the Conveyed Assets, together with all and singular the rights, privileges, contracts and appurtenances, in any way appertaining or belonging thereto, unto Assignee, its successors and assigns, forever, subject, to the terms and conditions of this Assignment.

Section 1.2 Assignment Subject to Acreage Trade Agreement. This Assignment is made in accordance with and is subject to the terms, covenants and conditions contained in that certain Acreage Trade Agreement. In the event of a conflict between the provisions of the Acreage Trade Agreement and this Assignment, the provisions of the Acreage Trade Agreement shall control. The execution and delivery of this Assignment by Assignor, and the execution and acceptance of this Assignment by Assignee, shall not operate to release or impair any surviving rights or obligations of either Party with respect to the other under the Acreage Trade Agreement.

In the event that the Marcellus Shale Formation (as further described in the definition of "Marcellus" below) or the Utica/Point Pleasant Formation (as further described in the definition of "Utica" below) is defined within the vesting language of the Leases or any other associated documents vesting Assignor with rights in such formations to a greater extent than the definitions of "Marcellus" or "Utica" as provided in this Assignment, this Assignment shall convey all right, title, and interest into the Conveyed Depths (as listed on the attached Exhibit A and Exhibit A-1) to the greatest extent possible whether as defined in this Assignment or as defined in the Leases or any other associated documents, whichever is broader.

**ARTICLE 2
SPECIAL WARRANTY OF TITLE AND DISCLAIMERS**

Section 2.1 Special Warranty of Title. Assignor hereby agrees to warrant and defend Defensible Title to the Leases unto Assignee, its successors and assigns, against every Person whomsoever lawfully claiming or to claim the same or any part thereof by, through or under Assignor or any of its Affiliates, but not otherwise.

Section 2.2 Disclaimers of Warranties and Representations.

(a) EXCEPT AS EXPRESSLY REPRESENTED OTHERWISE IN SECTION VI OF THE ACREAGE TRADE AGREEMENT OR THIS ASSIGNMENT, ASSIGNOR MAKES NO, AND HEREBY EXPRESSLY DISCLAIMS, ANY REPRESENTATION OR WARRANTY, EXPRESS, IMPLIED OR STATUTORY, INCLUDING AS TO (I) TITLE TO THE LEASEHOLD RIGHTS, (II) THE CONTENTS, CHARACTER OR NATURE OF ANY DESCRIPTIVE MEMORANDUM, OR ANY REPORT OF ANY OF ITS PETROLEUM ENGINEERING CONSULTANTS, OR ANY GEOLOGICAL OR SEISMIC DATA OR INTERPRETATION, RELATING TO THE LEASEHOLD RIGHTS, (III) THE QUANTITY,



4705102328
D

March 18, 2020

WV Department of Environmental Protection
Office of Oil & Gas
601 57th Street, SE
Charleston, WV 25304
Attention: Laura Adkins

RE: Hudson S-15HU

Subject: Marshall County Route 62 and County Route 90 Road Crossing Letter

Dear Laura:

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 Marshall County Route 62 and County Route 90 in the area reflected on the Hudson S-15HU well plat. THO has conducted a full title search in the relevant Court House to confirm its ownership under said County Routes 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 amiller@tug-hilop.com.

Sincerely,

Amy Miller
Permit Specialist – Appalachia Region
Cell 304-376-0111
Email: amiller@tug-hilop.com

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection

4705102328

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

Date of Notice Certification: 03/18/2020

API No. 47- 051 -
Operator's Well No. Hudson S-15HU
Well Pad Name: Hudson

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>528,013.09</u>
County:	<u>Marshall</u>		Northing:	<u>4,408,795.62</u>
District:	<u>Meade</u>	Public Road Access:	<u>Roberts Ridge Road (CR 21)</u>	
Quadrangle:	<u>Glén Easton 7.5'</u>	Generally used farm name:	<u>CNX Land, LLC</u>	
Watershed:	<u>Grave 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: (i) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (h), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following: *PLEASE CHECK ALL THAT APPLY <input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED <input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED <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 <input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH) <input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION <input checked="" type="checkbox"/> 5. PUBLIC NOTICE <input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION		<p align="center">OOG OFFICE USE ONLY</p> <input type="checkbox"/> RECEIVED/ NOT REQUIRED <input type="checkbox"/> RECEIVED <input type="checkbox"/> RECEIVED/ NOT REQUIRED <input type="checkbox"/> RECEIVED <input type="checkbox"/> RECEIVED <input type="checkbox"/> RECEIVED
--	--	---

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 Environmental 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.

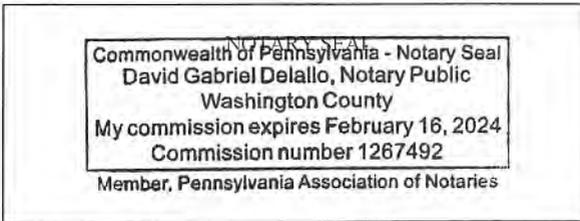
RECEIVED
 Office of Oil and Gas
MAR 19 2020
 WV Department of Environmental Protection

4705102328

Certification of Notice is hereby given:

THEREFORE, I Amy L. Miller, 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. Miller <i>Amy L. Miller</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>amiller@tug-hillop.com</u>



Subscribed and sworn before me this 18 day of MARCH, 2020.

David Gabriel Delallo Notary Public

My Commission Expires 2/16/2024

Oil and Gas Privacy Notice:

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

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection

WW-6A
(9-13)

API NO. 47-05102328
OPERATOR WELL NO. Hudson S-15HU
Well Pad Name: Hudson

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

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

Date of Notice: 3/16/2020 **Date Permit Application Filed:** 3/18/2020

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: CNX Land Resources, LLC Attn: Casey Saunders (Well Pad)
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

Name: _____
Address: _____

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

Name: Robert L. and Melinda J. White (Access Road)
Address: 129 Freddie's Lane
Glen Easton, WV 26039

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: Consolidation Coal Company
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

COAL OPERATOR
Name: Murray American Energy, Inc. attn: Mason Smith
Address: 46226 National Road
St. Clairsville, OH 43905

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
MAR 19 2020
WV Department 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 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/Oil-and-gas/pages/default.aspx.

Well Location Restrictions

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

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Dept of Environmental Protection

WW-6A
(8-13)

4705102328
API NO. 47-051 -
OPERATOR WELL NO. Hudson S-15HU
Well Pad Name: Hudson

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection

WW-6A
(8-13)

API NO. 47-⁰³¹**4705102328**
OPERATOR WELL NO. Hudson S-15HU
Well Pad Name: Hudson

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
MAR 19 2020
WV Department of
Environmental Protection

4705102328

WW-6A
(8-13)

API NO. 47-051
OPERATOR WELL NO. Hudson S-15HU
Well Pad Name: Hudson

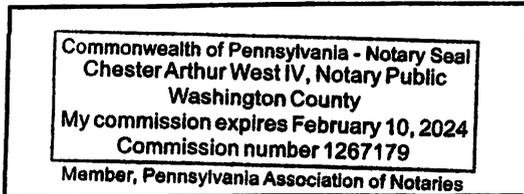
Notice is hereby given by:

Well Operator: Tug Hill Operating, LLC
Telephone: 724-749-8388
Email: amiller@tug-hill-op.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 dcpprivacyofficer@wv.gov.



Subscribed and sworn before me this 16th day of March, 2020.

[Signature] Notary Public

My Commission Expires 2-10-2024

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection

Exhibit WW-6A**Supplement Pg. 1A**

Tug Hill Operating, LLC
 380 Southpointe Blvd, Suite 200
 Cannonsburg, PA 15137

Residences within Two-Thousand Feet (2,000')

Well: Hudson S – 15HU
 District: Meade
 State: WV

There are four (4) residences, no business or commercial sites, no churches, no schools or no emergency facilities within two-thousand feet (2,000') of the above referenced well location.

Residence (#1) TM 3 Pcl. 1.3 CNX Land LLC Phone: None Found Physical Address: 143 Freddies Ln Proctor, WV 26055 Tax Address: 1000 Consol Energy Dr. Canonsburg, PA 15317-6506	Residence (#2) TM 5 Pcl. 11 Robert L. & Melinda J. White Phone: 740-667-3018; 304-845-2703 (Robert Andrew Williams – Reverse Address); 304-845-3756 (Melinda J. White); 304-845-4858 (Robert L. White) Physical Address: 129 Freddies Ln Proctor, WV 26055 Tax Address: 129 Freddies Ln Glen Easton, WV 26039	Residence (#3) TM 5 Pcl. 10 Robert L. & Melinda J. White Phone: 304-845-0562 (Charlotte A. Streight – Reverse Address) Physical Address: 443 Freddies Ln Proctor, WV 26055 Tax Address: 129 Freddies Ln Glen Easton, WV 26039
Residence (#4) TM 5 Pcl. 10 Robert L. & Melinda J. White Phone: 304-845-6068; 304-845-3756 (Robert L. White Jr. – Reverse Address); 304-845-3759 (Melinda J. White) Physical Address: 642 Freddies Ln Proctor, WV 26055 Tax Address: 129 Freddies Ln Glen Easton, WV 26039		

RECEIVED
 Office of Oil and Gas
 MAR 19 2020
 WV Department of
 Environmental Protection

PROPOSED HUDSON S - 15HU



NOTE: THERE APPEARS TO BE FOUR (4) POSSIBLE WATER SOURCES WITHIN 2,000'.

RECEIVED
Office of Oil and Gas

MAR 19 2020



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.9286
s|swv.com

TOPO SECTION:		OPERATOR:	
GLEN EASTON 7.5'		PREPARED FOR:	
COUNTY	DISTRICT	TUG HILL OPERATING, LLC	
MARSHALL	MEADE	380 SOUTHPOINTE BLVD	
		SUITE 200	
		CANONSBURG, PA 15317	
DRAWN BY	JOB NO.	DATE	SCALE
K.G.M.	8911	03/10/2020	1" = 1000'



WV Department of Environmental Protection
TUG HILL OPERATING

4705102328

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: 6/4/2019 **Date of Planned Entry:** 6/11/2019

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: CNX Land Resources, LLC. Altn. Casey Saunders (Well Pad)

Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

Name: Robert L. and Melinda J. White (Access Road)

Address: 129 Freddies Lane
Glen Easton, WV 26039

Name: _____

Address: _____

COAL OWNER OR LESSEE

Name: Consolidation Coal Company

Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

MINERAL OWNER(S)

Name: Charlene L. Baker *See attached list

Address: 5523 Roberts Ridge Road
Moundsville, WV 26041

*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>39.82881036, -80.67262857</u>
County: <u>Marshall</u>	Public Road Access: <u>Co. Route 21</u>
District: <u>Meade</u>	Watershed: <u>Grave Creek</u>
Quadrangle: <u>Glen Easton</u>	Generally used farm name: <u>CNX Land Resources, LLC</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 57th 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.

Notice is hereby given by:

Well Operator: Tug Hill Operating, LLC

Telephone: 724-749-8388

Email: amiller@tug-hilltop.com

Address: 380 Southpointe Boulevard, Plaza II, Suite 200
Canonsburg, PA 15317

Facsimile: 724-338-2030

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection

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.

4705102328

Additional Mineral Owners for Notice

WW-6A3

Hudson Pad

Black Gold Group
P.O. Box 85
Strasburg, OH 44680

Catherine Lee Blake
101 Tomlinson Ave.
Moundsville, WV 26041

Ivan R. Blake
2315 Wolf Run Rd.
Cameron, WV 26033

Judith L. Blake
515 Meade Ave.
Akron, OH 44305

Robert C. Blake
1400 Third St.
Moundsville, WV 26041

Terry L. Blake
213 Birch Ave.
Moundsville, WV 26041

Betty Joan Cecil
200 Simmons Dr.
Moundsville, WV 26041

Bernard R. Crow
78 Dwight Ave.
Moundsville, WV 26041

Mark L. Curry
14 Pilgrims Way
Bentonville, VA 22619

Lois J. Elias
17 East Paxton Ave.
Wheeling, WV 26033

Dorothy J. Harris
2212 Turkey Run Rd.
Buckhannon, WV 26201

Jane Lynn Hendrickson
236 Westwood Dr.
Circleville, OH 43113

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection

Betty J. Blake
2 Portsmouth Rd.
Front Royal, VA 22630

Gary F. Blake
3801 Needham Rd.
Mansfield, OH 44904

James L. Blake
P.O. Box 124
Farson, WY 82932

Rebecca J. Blake
1506 6th St.
Moundsville, WV 26041

Robert D. Blake
3757 Main St.
Weirton, WV 26062

William S. Blake Jr.
P.O. Box 349
Comfort, WV 25049

Shawn J. Crews
39 Branch Ln.
Broadway, NC 27505

Jay C. Curry
635 Minebanck Rd.
Middletown, VA 22645

Cynthia A. Davidson
7079 Hayes Orangeville Road NE
Burghill, OH 44404

Daunetta B. Fromhart
1309 Center St.
Moundsville, WV 26041

Velma Ruth Harris
3307 Bowman Ridge Rd.
Glen Easton, WV 26039

Jill Lori Hennen
2004 Baxter Ave.
Orlando, FL 32806

Additional Mineral Owners for Notice**WW-6A3****Hudson Pad**

Black Gold Group
P.O. Box 85
Strasburg, OH 44680

Catherine Lee Blake
101 Tomlinson Ave.
Moundsville, WV 26041

Ivan R. Blake
2315 Wolf Run Rd.
Cameron, WV 26033

Judith L. Blake
515 Meade Ave.
Akron, OH 44305

Robert C. Blake
1400 Third St.
Moundsville, WV 26041

Terry L. Blake
213 Birch Ave.
Moundsville, WV 26041

Betty Joan Cecil
200 Simmons Dr.
Moundsville, WV 26041

Bernard R. Crow
78 Dwight Ave.
Moundsville, WV 26041

Mark L. Curry
14 Pilgrims Way
Bentonville, VA 22610

Lois J. Elias
17 East Paxton Ave.
Wheeling, WV 26033

Dorothy J. Harris
2212 Turkey Run Rd.
Buckhannon, WV 26201

Jane Lynn Hendrickson
236 Westwood Dr.
Circleville, OH 43113

Betty J. Blake
2 Portsmouth Rd.
Front Royal, VA 22630

Gary F. Blake
3801 Needham Rd.
Mansfield, OH 44904

James L. Blake
P.O. Box 124
Farson, WY 82932

Rebecca J. Blake
1506 6th St.
Moundsville, WV 26041

Robert D. Blake
3757 Main St.
Weirton, WV 26062

William S. Blake Jr.
P.O. Box 349
Comfort, WV 25049

Shawn J. Crews
39 Branch Ln.
Broadway, NC 27505

Jay C. Curry
635 Minebanck Rd.
Middletown, VA 22645

Cynthia A. Davidson
7079 Hayes Orangeville Road NE
Burghill, OH 44404

Daunetta B. Fromhart
1309 Center St.
Moundsville, WV 26041

Velma Ruth Harris
3307 Bowman Ridge Rd.
Glen Easton, WV 26039

Jill Lori Hennen
2004 Baxter Ave.
Orlando, FL 32806

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection

4705102328

Alva L. Higgins
4466 Templeton Road NW
Warren, OH 44481

H. Dean Higgins
9729 Gladstone Rd.
North Jackson, OH 44451

Jerry L. Higgins
3460 Park Avenue Ext
Warren, OH 44481

Kimberly J. Holder
5815 Highway 217
Erwin, NC 28339

Rodney W. Hubbs
305 Sentimental Dr.
Moundsville, WV 26041

Robert W. Kidner
7757 Hansgrove Ct.
Dublin, OH 43016

Brian C. Lutz
364 Roseberry Ln.
Wheeling, WV 26003

Barbara A. Mason
363 Ridgeview Lane
Moundsville, WV 26041

Joseph L. Maupin
34626 Morning Glory Glen
Zephyrhills, FL 33541

Christina C. Munson
14 Pilgrims Way
Bentonville, VA 22610

Brenda S. Purdy
1404 Third St.
Moundsville, WV 26041

Carol J. Trowbridge
34710 Morning Glory Glen
Zephyrhills, FL 33541

Carol Jean Wood
106 Arlington Ave.
Moundsville, WV 26041

Clyde R. Higgins
2601 Milton Newton Rd.
Newton Falls, OH 44444

Delmas W. Higgins
7316 Elm St.
Newton Falls, OH 44444

Shirl W. Higgins
5241 Pritchard Ohltown Rd.
Newton Falls, OH 44444

Mary H. Hubbs
17 Hubbs Ln.
Moundsville, WV 26041

Shannon Roger Hubbs
27 Bowman Ridge
Moundsville, WV 26041

Mary O. Louden
10 Sandy Ave.
Moundsville, WV 26041

Jolene M. Mann
494 Longfellow Ave.
Worthington, OH 43085

Master Mineral Holdings II, L.P.
P.O. Box 10886
Midland, TX 79702

Diana L. McKinney
275 Skyline Dr.
Moundsville, WV 26041

Potomac Mineral Group LLC
615 Washington Rd. Ste 201
Pittsburgh, PA 15228

Patty L. Rine
801 Benton St.
Apt. 2204
Searcy, AR 72143

Cynthia Jean Wilson
1709 Bennis Church Place
Virginia Beach, VA 23455

Betty Bryner
P.O. Box 270
Bruceton Mills, WV 26525

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection

4705102328

Betty Wilkinson
9271 Barn Swallow Lane
Marshall, VA 20115

Carl Caldwell
501 Morgantown Avenue
Apartment 201
Barnesville, OH 43713

Doris Garrison
28 Hickory Avenue
Moundsville, WV 26041

Crystal Thomas
1402 Sixth Street
Moundsville, WV 26041

Arthur Lee Waryck
912 Tomlinson Avenue
Glen Dale, WV 26038

Hiram Vernon Moore
609 Pink Apartment Rd
Davenport, FL 33837

Larry Vernon Moore, Sr.
135 Clover Hill Ln
Newport, VA 24128

Ronald Wayne Moore
434 Moores Ln
New Cumberland, WV 26047

Dennis F. Moore
471 Peal Dr, 104
Proctor, WV 26055

Anthony T. Moore
215 Ash Avenue
Moundsville, WV 26041

Freda L. Campbell
307 Elizabeth Street
Glen Dale, WV 26038

James D. Yocum
5200 NW 31st Avenue
Apartment B 38
Ft. Lauderdale, FL 33309

Joan A. Gieger
621 Pepperdine Avenue
Edmond, OK 33013

Joyce Elaine Cone
1831 Old Westminster Pike
Finksburg, MD 21048

Mary W. Holmes
197 Spindle Lane
Moundsville, WV 26041

Marilyn Sue Reilly
197 Spindle Lane
Moundsville, WV 26041

Freddie C. White
RR 1 Box 59A
Glen Easton, WV 26039

Sharon Diane Jahn
2802 Spindle Lane
Bowie, MD 20715

Joyce A. Wallace
4107 Shoemaker Hollow Road
New Philadelphia, OH 44663

Tamala Schollick
112 Jennifer Drive
Moundsville, WV 26041

Linda G. Moore
720 3rd Avenue
Apt. 312
New Cumberland, WV 26047

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection

4705102328

Operator Well No. Hudson S-15HU

WW-6A5
(1/12)

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

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

Date of Notice: 03/18/2020 **Date Permit Application Filed:** 03/18/2020

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: CNX Land Resources, LLC Attn: Casey Saunders(Well Pad)
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

Name: Robert L. and Melinda J. White (Access Road)
Address: 129 Freddie's Lane
Glen Easton, WV 26039

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>4,408,795.62</u>
County:	<u>Marshall</u>		Northing:	<u>528,013.09</u>
District:	<u>Meade</u>	Public Road Access:	<u>Roberts Ridge Road (CR 21)</u>	
Quadrangle:	<u>Glen Easton 7.5'</u>	Generally used farm name:	<u>CNX Land, LLC</u>	
Watershed:	<u>Grave Creek (HUC 10)</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 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

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

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

RECEIVED
Office of Oil and Gas
MAR 19 2020

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 if 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.

WV Department of
Environmental Protection



4705102328

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

January 30, 2020

Byrd E. White, III
Secretary of Transportation

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

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

Subject: DOH Permit for the Hudson Pad, Marshall County
Hudson S-15HU Well site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2019-0353 issued to Tug Hill Operating for access to the State Road for a well site located off Marshall County Route 21 SLS.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a DISTRICT WIDE 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.

Very Truly Yours,

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

Cc: Amy Miller
Tug Hill Operating
CH, OM, D-6
File

RECEIVED
Office of Oil and Gas
MAR 19 2020
WV Department of
Environmental Protection



TUG HILL

4705102328

PLANNED ADDITIVES TO BE USED IN FRACTURING OR STIMULATION

Well No. Hudson S-15HU

PRODUCT NAME:	CHEMICAL DESCRIPTION:	PRODUCT USE:	HAZARDOUS COMPONENT:
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
MAR 19 2020
WV Department of
Environmental Protection

