



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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Tuesday, May 14, 2019
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

TUG HILL OPERATING, LLC
380 SOUTHPOINTE BLVD

CANONSBURG, PA 15317

Re: Permit Modification Approval for TEN HIGH 1N-11HU
47-051-01960-00-00

Modified Bottom Hole Location

TUG HILL OPERATING, LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

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

Operator's Well Number: TEN HIGH 1N-11HU
Farm Name: LAWRENCE & SHIRLEY CONKLE ESTS
U.S. WELL NUMBER: 47-051-01960-00-00
Horizontal 6A New Drill
Date Modification Issued: May 14, 2019



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street SE, Charleston, WV 25304
304-926-0499 Ext 1274

Barry K. Lay, Chairman
dep.wv.gov

February 15, 2019

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

RE: Application for Deep Well Permit – API #47-051-01960

COMPANY: Tug Hill Operating, LLC

FARM: Lawrence & Shirley Conkle Ests Ten High 1N-11HU

COUNTY: Marshall DISTRICT: Meade QUAD: Glen Easton 7.5'

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? No.
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: 47-051-01967, 47-051-01969, 47-051-01968, 47-051-01961, 47-051-01965, 47-051-02021, 47-051-2016, 47-051-01966, 47-051-02027, 47-051-02028, 47-051-02033
4. Provided a plat showing that the proposed location is a distance of 400+ feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,

Susan Rose
Administrator

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: Ten High 1N-11HU Well Pad Name: Ten High

3) Farm Name/Surface Owner: Lawrence & Shirley Conkle, ests Public Road Access: Shepherd Ridge Lane CR 21/9

4) Elevation, current ground: 1310' Elevation, proposed post-construction: 1310'

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

(b) If Gas Shallow Deep
Horizontal

6) Existing Pad: Yes or No Yes

JW
1/17/19

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Point Pleasant is the target formation at a depth of 11,589' - 11,728' thickness of 139' and anticipated pressure of approx. 9500 psi

8) Proposed Total Vertical Depth: 11,878'

9) Formation at Total Vertical Depth: Trenton

10) Proposed Total Measured Depth: 20,628'

11) Proposed Horizontal Leg Length: 8,364.05

12) Approximate Fresh Water Strata Depths: 70', 1026'

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: Sewickly Coal - 935' and Pittsburgh Coal - 1020'

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

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

(a) If Yes, provide Mine Info: Name: Marshall County Coal Co. / Marshall County Mine
Depth: 1020' TVD and 300' subsea level
Seam: Pittsburgh #8
Owner: Murray Energy / Consolidated Coal Co.

05/17/2019

18) CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	30"	NEW	BW	BW	100'	100'	216FT^3(CTS)
Fresh Water	20"	NEW	J55	106.5#	1,126'	1,126'	1,785t^3(CTS)
Coal	13 3/8"	NEW	J55	54.5#	2,803'	2,803'	1,971ft^3(CTS)
Intermediate	9 5/8"	NEW	HPP110	47#	10,599'	10,599'	3,440ft^3(CTS)
Production	5 1/2"	NEW	HCP110	23#	20,628'	20,628'	4,906ft^3(CTS)
Tubing	2 7/8"	NEW	P110	6.5#		11,472'	
Liners							

Handwritten: JW 9/27/18

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	36"	1.0	2,333	1,866	CLASS A	1.2
Fresh Water	20"	26"	.5	2,410	1,928	SEE #24	1.2
Coal	13 3/8"	17 1/2"	.38	2,740	2,192	SEE#24	1.2
Intermediate	9 5/8"	12 1/4"	.472	10,730	6,968	SEE#24	1.99
Production	5 1/2"	8 1/2"	.415	13,580	10,864	SEE#24	1.18
Tubing	2 7/8"			14,530	11,624		
Liners							

PACKERS

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

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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. 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 20,907,500 lb proppant and 323,245 bbl of water. Max rate = 80 bpm; max psi = 9,000#.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 16.2

22) Area to be disturbed for well pad only, less access road (acres): 5.92

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

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

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*Note: Attach additional sheets as needed.

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Conductor and Fresh Water Casing Cement:

Premium NE-1 + 2% CaCl

- Premium NE-1 – Class A Portland API Spec
- CaCl – Calcium Chloride

Coal Casing Cement:

Premium NE-1 + 1.5% CaCl + Flake

- Premium NE-1 – Class A Portland API spec
- CaCl – Calcium Chloride
- CelloFlake

Intermediate Casing Cement:

Lead: *Premium NE-1 + 5% BA-90 + .85% R-3 + 3% KCl + .75 gals/100sk FP-13L + 1% MPA-170*

Tail: *Premium NE-1 + .1% R-3 + 5% KCl + 1% CD-32 + .4% FL-52 + .2% ASA-301 + .6% Sodium Metasilicate*

- Premium NE-1 – Class A Portland API spec
- BA-90 – Gas Migration Mitigator
- R-3 – Cement Retarder
- KCl – Potassium Chloride
- FP-13L – Anti-Foaming Agent
- MPA-170 – Gelling Agent
- CD-32 – Dispersant
- FL-52 – Fluid Loss Agent
- ASA-301 – Free Water Control Agent
- Sodium Metasilicate – Extending Agent

Kick Off Plug:

Class H Cement + 1% CD-32 + .7% Sodium Metasilicate + .1% R-3 + .75 gal/100sk FP-13L

- CD-32 – Dispersant
- Sodium Metasilicate – Extending Agent
- R-3 – Cement Retarder
- FP-13L – Anti-Foaming Agent

Production Casing Cement:

Lead: *50:50 (Poz:Class H) + .3% R-3 + .3% MPA-250 + .75 gal/100sk FP-13L*

Tail: *25:75 (Poz:Class H) + .3% R-3 + .3% MPA-250 + .375 gal/100sk FP-13L*

- R-3 – Cement Retarder
- MPA-250 – Gelling Agent
- FP-13L – Anti-Foaming Agent

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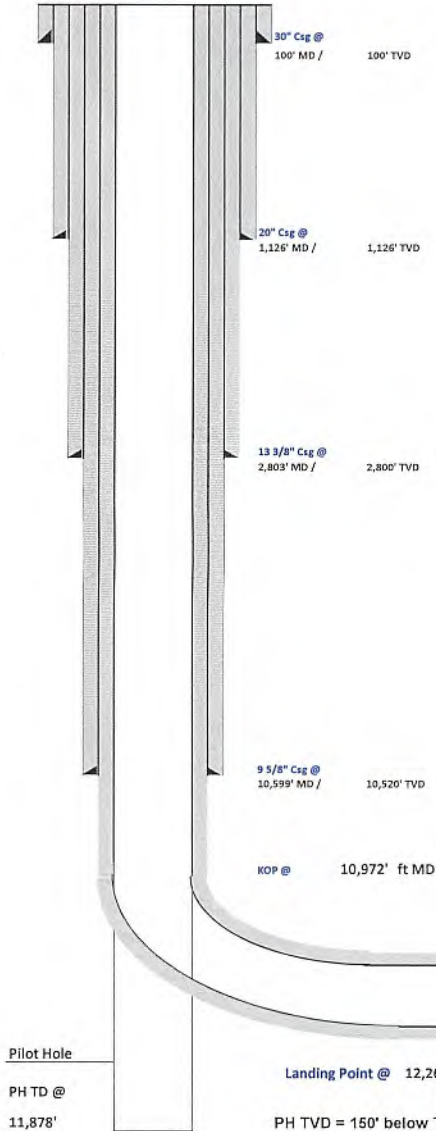


WELL NAME: Ten High 1N-11HU
 STATE: West Virginia COUNTY: Marshall
 DISTRICT: Meade
 DF Elev: 1,310' GL Elev: 1,310'
 TD: 20,628'
 TH Latitude: 39.80673723
 TH Longitude: -80.68094026
 BH Latitude: 39.827092
 BH Longitude: -80.700379

FORMATION TOPS	
Formation	Depth TVD
Deepest Fresh Water	1,026'
Sewickley Coal	935'
Pittsburgh Coal	1,020'
Big Lime	2,049'
Berea	2,673'
Tully	6,606'
Marcellus	6,713'
Onondaga	6,765'
Salina	7,497'
Lockport	8,562'
Utica	11,413'
Point Pleasant	11,589'
Landing Depth	11,631'
Trenton	11,728'
Pilot Hole TD	11,878'

CASING SUMMARY							
Type	Hole Size (in)	Csg Size (in)	Depth (MD)	Depth (TVD)	Weight (lb/ft)	Grade	Top of Cement
Conductor	36	30	100'	100'	BW	BW	Surface
Surface	26	20	1,126'	1,126'	106.5	J55	Surface
Intermediate 1	17 1/2	13 3/8	2,803'	2,800'	54.5	J55	Surface
Intermediate 2	12 1/4	9 5/8	10,599'	10,520'	47	HP110	Surface
Production	8 1/2	5 1/2	20,628'	11,485'	23	HCP110	Surface

CEMENT SUMMARY				DRILLING DETAILS	
	Sacks	Class	Density	Fluid Type	Centralizer Notes
Conductor	291	A	15.6	Air	None
Surface	1,938	A	15.6	Air	3 Centralizers at equal distance
Intermediate 1	2,141	A	15	Air	1 Centralizer every other jt
Intermediate 2	2,814	A	14.5	Air	1 Centralizer every other jt
Production	4,223	A	15	Air / SOBIM	1 every other joint in lateral; 1 per joint in curve; 1 every other jt to sfc



Joe
9/27/18

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Pilot Hole
 PH TD @ 11,878'
 Landing Point @ 12,265' MD / 11,631' TVD
 PH TVD = 150' below Trenton Top

Lateral TD @ 20,628' ft MD
 11,485' ft TVD

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Tug Hill Operating, LLC Casing and Cement Program

Ten High 1N-11HU

Casing

	String	Grade	Bit Size	Depth (Measured)	Cement Fill Up
Conductor	30"	BW	36"	100'	CTS
Surface	20"	J55	26"	1,126'	CTS
Intermediate 1	13 3/8"	J55	17 1/2"	2,803'	CTS
Intermediate 2	9 5/8"	HP110	12 1/4"	10,599'	CTS
Production	5 1/2"	HCP110	8 1/2"	20,628'	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

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TUG HILL
OPERATING

Well: Ten High 1N-11HU (L)
Site: Ten High
Project: Marshall County, West Virginia
Design: rev7
Rig: Nabors X08

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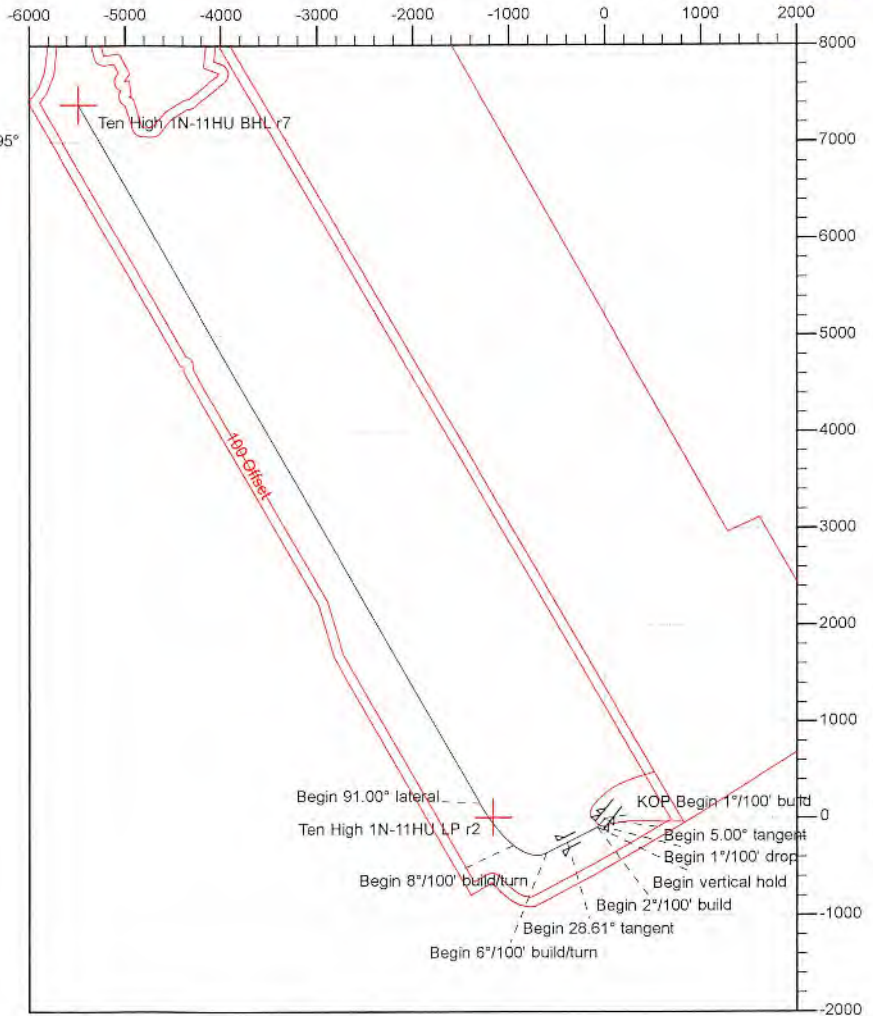
Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD83 West Virginia - HARN
Ellipsoid: GRS 1980
Zone: Zone 17N (84 W to 78 W)

System Datum: Mean Sea Level
Depth Reference: RKB=1310+33 @ 1343.00usft (Nabors X08)

Northing 14456519.59 Easting 1730021.13 Latitude 39.80673723 Longitude -80.68094026

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Subtract 8.95°

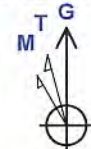
True Vertical Depth (1500 usft/in)



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 1°/100' build
2	1733.00	0.00	0.00	1733.00	0.00	0.00	0.00	0.00	0.00	Begin 5.00° tangent
3	2233.00	5.00	220.00	2232.37	-16.70	-14.01	1.00	220.00	-5.06	Begin 1°/100' drop
4	3133.00	5.00	220.00	3128.94	-76.79	-64.43	0.00	0.00	-23.29	Begin vertical hold
5	3633.00	0.00	220.00	3628.31	-93.49	-78.45	1.00	180.00	-28.35	Begin 2°/100' build
6	9037.69	0.00	220.00	9033.00	-93.49	-78.45	0.00	220.00	-28.35	Begin 28.61° tangent
7	10468.31	28.61	243.32	10404.89	-250.59	-391.04	2.00	243.32	31.71	Begin 6°/100' build/turn
8	10972.29	28.61	243.32	10847.33	-358.97	-606.68	0.00	0.00	73.14	Begin 8°/100' build/turn
9	11642.06	45.00	308.30	11401.00	-281.00	-950.00	6.00	96.77	340.30	Begin 91.00° lateral
10	12265.31	91.00	329.98	11630.60	153.10	-1301.24	8.00	28.90	898.21	
11	20627.80	91.00	329.98	11485.00	7392.91	-5483.99	0.00	0.00	9204.65	PBHLTD 20627.80 MD/11485.00 TVD

Begin 2°/100' build
Begin 28.61° tangent
Begin 6°/100' build/turn
Begin 8°/100' build/turn
Begin 91.00° lateral
Ten High 1N-11HU LP r2



Azimuths to Grid North
True North: -0.20°
Magnetic North: -8.95°

Magnetic Field
Strength: 52041.1nT
Dip Angle: 66.87°
Date: 9/1/2018
Model: IGRF2015

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Vertical Section at 323.43° (1500 usft/in)



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MOP

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-11HU (L)
Company:	Tug Hill Operating LLC	TVD Reference:	RKB=1310+33 @ 1343.00usft (Nabors X08)
Project:	Marshall County, West Virginia	MD Reference:	RKB=1310+33 @ 1343.00usft (Nabors X08)
Site:	Ten High	North Reference:	Grid
Well:	Ten High 1N-11HU (L)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev7		

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	Ten High				
Site Position:		Northing:	14,456,545.60 usft	Latitude:	39.80680885
From:	Lat/Long	Easting:	1,730,001.41 usft	Longitude:	-80.68101011
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.20 °

Well	Ten High 1N-11HU (L)					
Well Position	+N/-S	0.00 usft	Northing:	14,456,519.59 usft	Latitude:	39.80673723
	+E/-W	0.00 usft	Easting:	1,730,021.12 usft	Longitude:	-80.68094026
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	1,310.00 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/1/2018	-8.75	66.87	52,041.05857311

Design	rev7			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	323.43

Plan Survey Tool Program	Date	9/15/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	20,626.81 rev7 (Original Hole)	MWD MWD - Standard	

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MD

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-11HU (L)
Company:	Tug Hill Operating LLC	TVD Reference:	RKB=1310+33 @ 1343.00usft (Nabors X08)
Project:	Marshall County, West Virginia	MD Reference:	RKB=1310+33 @ 1343.00usft (Nabors X08)
Site:	Ten High	North Reference:	Grid
Well:	Ten High 1N-11HU (L)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev7		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,733.00	0.00	0.00	1,733.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,233.00	5.00	220.00	2,232.37	-16.70	-14.01	1.00	1.00	0.00	220.00	
3,133.00	5.00	220.00	3,128.94	-76.79	-64.43	0.00	0.00	0.00	0.00	
3,633.00	0.00	220.00	3,628.31	-93.49	-78.45	1.00	-1.00	0.00	180.00	
9,037.69	0.00	220.00	9,033.00	-93.49	-78.45	0.00	0.00	0.00	220.00	
10,468.31	28.61	243.32	10,404.89	-250.59	-391.04	2.00	2.00	1.63	243.32	
10,972.29	28.61	243.32	10,847.33	-358.97	-606.68	0.00	0.00	0.00	0.00	
11,642.06	45.00	308.30	11,401.00	-281.00	-950.00	6.00	2.45	9.70	96.77	
12,265.31	91.00	329.98	11,630.60	153.10	-1,301.24	8.00	7.38	3.48	28.90	
20,627.80	91.00	329.98	11,485.00	7,392.91	-5,483.99	0.00	0.00	0.00	0.00	Ten High 1N-11HU Bt

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Planning Report - Geographic

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05/17/2019
MOJ

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-11HU (L)
Company:	Tug Hill Operating LLC	TVD Reference:	RKB=1310+33 @ 1343.00usft (Nabors X08)
Project:	Marshall County, West Virginia	MD Reference:	RKB=1310+33 @ 1343.00usft (Nabors X08)
Site:	Ten High	North Reference:	Grid RECEIVED
Well:	Ten High 1N-11HU (L)	Survey Calculation Method:	Minimum Curvature Office of Oil and Gas
Wellbore:	Original Hole		
Design:	rev7		DEC 26 2018

Planned Survey										WV Department of Environmental Protection
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
100.00	0.00	0.00	100.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
200.00	0.00	0.00	200.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
300.00	0.00	0.00	300.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
400.00	0.00	0.00	400.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
500.00	0.00	0.00	500.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
600.00	0.00	0.00	600.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
700.00	0.00	0.00	700.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
800.00	0.00	0.00	800.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
900.00	0.00	0.00	900.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
1,733.00	0.00	0.00	1,733.00	0.00	0.00	14,456,519.59	1,730,021.12	39.80673723	-80.68094026	
KOP Begin 1°/100' build										
1,800.00	0.67	220.00	1,800.00	-0.30	-0.25	14,456,519.29	1,730,020.87	39.80673641	-80.68094116	
1,900.00	1.67	220.00	1,899.98	-1.86	-1.56	14,456,517.73	1,730,019.56	39.80673213	-80.68094585	
2,000.00	2.67	220.00	1,999.90	-4.76	-4.00	14,456,514.83	1,730,017.13	39.80672419	-80.68095456	
2,100.00	3.67	220.00	2,099.75	-9.00	-7.55	14,456,510.59	1,730,013.57	39.80671259	-80.68096727	
2,200.00	4.67	220.00	2,199.48	-14.57	-12.23	14,456,505.02	1,730,008.90	39.80669734	-80.68098398	
2,233.00	5.00	220.00	2,232.37	-16.70	-14.01	14,456,502.89	1,730,007.11	39.80669150	-80.68099037	
Begin 5.00° tangent										
2,300.00	5.00	220.00	2,299.11	-21.18	-17.77	14,456,498.42	1,730,003.36	39.80667925	-80.68100380	
2,400.00	5.00	220.00	2,398.73	-27.85	-23.37	14,456,491.74	1,729,997.75	39.80666097	-80.68102383	
2,500.00	5.00	220.00	2,498.35	-34.53	-28.97	14,456,485.06	1,729,992.15	39.80664269	-80.68104386	
2,600.00	5.00	220.00	2,597.97	-41.20	-34.57	14,456,478.39	1,729,986.55	39.80662441	-80.68106389	
2,700.00	5.00	220.00	2,697.59	-47.88	-40.18	14,456,471.71	1,729,980.95	39.80660613	-80.68108393	
2,800.00	5.00	220.00	2,797.21	-54.56	-45.78	14,456,465.04	1,729,975.35	39.80658785	-80.68110396	
2,900.00	5.00	220.00	2,896.83	-61.23	-51.38	14,456,458.36	1,729,969.74	39.80656957	-80.68112399	
3,000.00	5.00	220.00	2,996.45	-67.91	-56.98	14,456,451.68	1,729,964.14	39.80655129	-80.68114402	
3,100.00	5.00	220.00	3,096.07	-74.59	-62.59	14,456,445.01	1,729,958.54	39.80653301	-80.68116406	
3,133.00	5.00	220.00	3,128.94	-76.79	-64.43	14,456,442.80	1,729,956.69	39.80652698	-80.68117067	
Begin 1°/100' drop										
3,200.00	4.33	220.00	3,195.72	-80.96	-67.94	14,456,438.63	1,729,953.19	39.80651555	-80.68118319	
3,300.00	3.33	220.00	3,295.49	-86.08	-72.23	14,456,433.51	1,729,948.89	39.80650154	-80.68119855	
3,400.00	2.33	220.00	3,395.37	-89.86	-75.40	14,456,429.73	1,729,945.72	39.80649118	-80.68120989	
3,500.00	1.33	220.00	3,495.32	-92.31	-77.46	14,456,427.28	1,729,943.67	39.80648448	-80.68121723	
3,600.00	0.33	220.00	3,595.31	-93.42	-78.39	14,456,426.17	1,729,942.74	39.80648145	-80.68122056	
3,633.00	0.00	220.00	3,628.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
Begin vertical hold										
3,700.00	0.00	0.00	3,695.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
3,800.00	0.00	220.00	3,795.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
3,900.00	0.00	220.00	3,895.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
4,000.00	0.00	0.00	3,995.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
4,100.00	0.00	220.00	4,095.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
4,200.00	0.00	220.00	4,195.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
4,300.00	0.00	220.00	4,295.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
4,400.00	0.00	220.00	4,395.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
4,500.00	0.00	220.00	4,495.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	



Planning Report - Geographic

4705101060
05/17/2019
MOD

Database: DB_Jul2216dt_v14
Company: Tug Hill Operating LLC
Project: Marshall County, West Virginia
Site: Ten High
Well: Ten High 1N-11HU (L)
Wellbore: Original Hole
Design: rev7

Local Co-ordinate Reference: Well Ten High 1N-11HU (L)
TVD Reference: RKB=1310+33 @ 1343.00usft (Nabors X08)
MD Reference: RKB=1310+33 @ 1343.00usft (Nabors X08)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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Office of Oil and Gas
DEC 26 2018

Planned Survey										WV Department of Environmental Protection
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,600.00	0.00	220.00	4,595.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
4,700.00	0.00	220.00	4,695.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
4,800.00	0.00	220.00	4,795.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
4,900.00	0.00	220.00	4,895.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
5,000.00	0.00	220.00	4,995.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
5,100.00	0.00	220.00	5,095.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
5,200.00	0.00	220.00	5,195.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
5,300.00	0.00	0.00	5,295.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
5,400.00	0.00	220.00	5,395.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
5,500.00	0.00	220.00	5,495.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
5,600.00	0.00	0.00	5,595.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
5,700.00	0.00	220.00	5,695.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
5,800.00	0.00	220.00	5,795.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
5,900.00	0.00	220.00	5,895.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
6,000.00	0.00	220.00	5,995.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
6,100.00	0.00	220.00	6,095.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
6,200.00	0.00	220.00	6,195.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
6,300.00	0.00	220.00	6,295.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
6,400.00	0.00	220.00	6,395.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
6,500.00	0.00	0.00	6,495.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
6,600.00	0.00	220.00	6,595.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
6,700.00	0.00	220.00	6,695.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
6,800.00	0.00	220.00	6,795.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
6,900.00	0.00	220.00	6,895.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
7,000.00	0.00	220.00	6,995.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
7,100.00	0.00	220.00	7,095.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
7,200.00	0.00	220.00	7,195.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
7,300.00	0.00	220.00	7,295.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
7,400.00	0.00	0.00	7,395.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
7,500.00	0.00	220.00	7,495.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
7,600.00	0.00	220.00	7,595.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
7,700.00	0.00	220.00	7,695.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
7,800.00	0.00	220.00	7,795.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
7,900.00	0.00	220.00	7,895.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
8,000.00	0.00	220.00	7,995.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
8,100.00	0.00	220.00	8,095.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
8,200.00	0.00	220.00	8,195.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
8,300.00	0.00	0.00	8,295.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
8,400.00	0.00	220.00	8,395.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
8,500.00	0.00	220.00	8,495.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
8,600.00	0.00	220.00	8,595.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
8,700.00	0.00	220.00	8,695.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
8,800.00	0.00	220.00	8,795.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
8,900.00	0.00	220.00	8,895.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
9,000.00	0.00	220.00	8,995.31	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
9,037.69	0.00	220.00	9,033.00	-93.49	-78.45	14,456,426.10	1,729,942.68	39.80648125	-80.68122078	
Begin 2"/100' build										
9,100.00	1.25	243.32	9,095.30	-93.80	-79.05	14,456,425.80	1,729,942.07	39.80648042	-80.68122294	
9,200.00	3.25	243.32	9,195.22	-95.56	-82.56	14,456,424.04	1,729,938.57	39.80647562	-80.68123543	
9,300.00	5.25	243.32	9,294.94	-98.88	-89.17	14,456,420.71	1,729,931.95	39.80646655	-80.68125903	
9,400.00	7.25	243.32	9,394.34	-103.77	-98.89	14,456,415.83	1,729,922.23	39.80645323	-80.68129370	
9,500.00	9.25	243.32	9,493.30	-110.21	-111.71	14,456,409.39	1,729,909.42	39.80643567	-80.68133941	
9,600.00	11.25	243.32	9,591.70	-118.19	-127.60	14,456,401.40	1,729,893.52	39.80641389	-80.68139610	
9,700.00	13.25	243.32	9,689.42	-127.72	-146.55	14,456,391.87	1,729,874.57	39.80638792	-80.68146370	



Planning Report - Geographic

47051010 05/17/2019

Database: DB_Jul2216dt_v14
 Company: Tug Hill Operating LLC
 Project: Marshall County, West Virginia
 Site: Ten High
 Well: Ten High 1N-11HU (L)
 Wellbore: Original Hole
 Design: rev7

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Well Ten High 1N-11HU (L)
 RKB=1310+33 @ 1343.00usft (Nabors X08)
 RKB=1310+33 @ 1343.00usft (Nabors X08)
 Grid
 Minimum Curvature

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DEC 26 2018

Planned Survey

WV Department of Environmental Protection

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,800.00	15.25	243.32	9,786.34	-138.77	-168.54	14,456,380.82	1,729,852.59	39.80635779	-80.68154213
9,900.00	17.25	243.32	9,882.34	-151.33	-193.53	14,456,368.26	1,729,827.59	39.80632353	-80.68163129
10,000.00	19.25	243.32	9,977.31	-165.39	-221.51	14,456,354.20	1,729,799.62	39.80628520	-80.68173108
10,100.00	21.25	243.32	10,071.13	-180.93	-252.43	14,456,338.66	1,729,768.70	39.80624282	-80.68184137
10,200.00	23.25	243.32	10,163.68	-197.93	-286.25	14,456,321.66	1,729,734.87	39.80619647	-80.68196202
10,300.00	25.25	243.32	10,254.85	-216.37	-322.94	14,456,303.22	1,729,698.18	39.80614619	-80.68209290
10,400.00	27.25	243.32	10,344.54	-236.23	-362.45	14,456,283.37	1,729,658.67	39.80609204	-80.68223384
10,468.31	28.61	243.32	10,404.89	-250.59	-391.04	14,456,269.00	1,729,630.08	39.80605286	-80.68233581
Begin 28.61° tangent									
10,500.00	28.61	243.32	10,432.71	-257.41	-404.60	14,456,262.18	1,729,616.52	39.80603428	-80.68238417
10,600.00	28.61	243.32	10,520.50	-278.91	-447.39	14,456,240.68	1,729,573.74	39.80597564	-80.68253680
10,700.00	28.61	243.32	10,608.29	-300.42	-490.18	14,456,219.18	1,729,530.95	39.80591700	-80.68268943
10,800.00	28.61	243.32	10,696.08	-321.92	-532.96	14,456,197.67	1,729,488.16	39.80585836	-80.68284205
10,900.00	28.61	243.32	10,783.86	-343.43	-575.75	14,456,176.17	1,729,445.37	39.80579972	-80.68299468
10,972.29	28.61	243.32	10,847.33	-358.97	-606.68	14,456,160.62	1,729,414.44	39.80575733	-80.68310501
Begin 6°/100' build/turn									
11,000.00	28.46	246.78	10,871.67	-364.55	-618.68	14,456,155.04	1,729,402.44	39.80574212	-80.68314780
11,100.00	28.65	259.35	10,959.59	-378.39	-664.18	14,456,141.20	1,729,356.95	39.80570456	-80.68330998
11,200.00	29.96	271.33	11,046.87	-382.24	-712.75	14,456,137.35	1,729,308.38	39.80569445	-80.68348295
11,300.00	32.25	282.08	11,132.55	-376.07	-763.85	14,456,143.52	1,729,257.28	39.80571189	-80.68366483
11,400.00	35.34	291.35	11,215.70	-359.95	-816.92	14,456,159.65	1,729,204.20	39.80575669	-80.68385361
11,500.00	39.03	299.19	11,295.40	-334.04	-871.39	14,456,185.55	1,729,149.73	39.80582836	-80.68404724
11,600.00	43.16	305.82	11,370.78	-298.64	-926.66	14,456,220.96	1,729,094.46	39.80592613	-80.68424358
11,642.06	45.00	308.30	11,401.00	-281.00	-950.00	14,456,238.59	1,729,071.12	39.80597479	-80.68432646
Begin 8°/100' build/turn									
11,700.00	49.10	311.26	11,440.48	-253.85	-982.55	14,456,265.75	1,729,038.57	39.80604967	-80.68444203
11,800.00	56.32	315.60	11,501.04	-199.11	-1,040.17	14,456,320.48	1,728,980.96	39.80620055	-80.68464649
11,900.00	63.67	319.25	11,551.03	-135.33	-1,098.62	14,456,384.26	1,728,922.56	39.80637627	-80.68485383
12,000.00	71.10	322.47	11,589.47	-63.75	-1,156.78	14,456,455.84	1,728,864.34	39.80657341	-80.68506003
12,100.00	78.58	325.41	11,615.61	14.23	-1,213.52	14,456,533.83	1,728,807.61	39.80678812	-80.68526106
12,200.00	86.09	328.20	11,628.94	97.11	-1,267.72	14,456,616.70	1,728,753.40	39.80701624	-80.68545302
12,265.31	91.00	329.98	11,630.60	153.11	-1,301.25	14,456,672.70	1,728,719.88	39.80717035	-80.68557170
Begin 91.00° lateral									
12,300.00	91.00	329.98	11,630.00	183.14	-1,318.60	14,456,702.73	1,728,702.53	39.80725299	-80.68563311
12,400.00	91.00	329.98	11,628.26	269.71	-1,368.62	14,456,789.31	1,728,652.51	39.80749123	-80.68581013
12,500.00	91.00	329.98	11,626.51	356.29	-1,418.63	14,456,875.88	1,728,602.49	39.80772947	-80.68598715
12,600.00	91.00	329.98	11,624.77	442.86	-1,468.65	14,456,962.46	1,728,552.47	39.80796770	-80.68616417
12,700.00	91.00	329.98	11,623.03	529.44	-1,518.67	14,457,049.03	1,728,502.46	39.80820594	-80.68634119
12,800.00	91.00	329.98	11,621.29	616.01	-1,568.69	14,457,135.61	1,728,452.44	39.80844418	-80.68651821
12,900.00	91.00	329.98	11,619.55	702.59	-1,618.70	14,457,222.18	1,728,402.42	39.80868241	-80.68669524
13,000.00	91.00	329.98	11,617.81	789.16	-1,668.72	14,457,308.76	1,728,352.40	39.80892065	-80.68687226
13,100.00	91.00	329.98	11,616.07	875.74	-1,718.74	14,457,395.33	1,728,302.38	39.80915888	-80.68704929
13,200.00	91.00	329.98	11,614.33	962.31	-1,768.76	14,457,481.90	1,728,252.37	39.80939712	-80.68722632
13,300.00	91.00	329.98	11,612.59	1,048.89	-1,818.78	14,457,568.48	1,728,202.35	39.80963536	-80.68740334
13,400.00	91.00	329.98	11,610.84	1,135.46	-1,868.79	14,457,655.05	1,728,152.33	39.80987359	-80.68758037
13,500.00	91.00	329.98	11,609.10	1,222.04	-1,918.81	14,457,741.63	1,728,102.31	39.81011182	-80.68775741
13,600.00	91.00	329.98	11,607.36	1,308.61	-1,968.83	14,457,828.20	1,728,052.29	39.81035006	-80.68793444
13,700.00	91.00	329.98	11,605.62	1,395.19	-2,018.85	14,457,914.78	1,728,002.28	39.81058829	-80.68811147
13,800.00	91.00	329.98	11,603.88	1,481.76	-2,068.87	14,458,001.35	1,727,952.26	39.81082653	-80.68828851
13,900.00	91.00	329.98	11,602.14	1,568.33	-2,118.88	14,458,087.93	1,727,902.24	39.81106476	-80.68846554
14,000.00	91.00	329.98	11,600.40	1,654.91	-2,168.90	14,458,174.50	1,727,852.22	39.81130299	-80.68864258
14,100.00	91.00	329.98	11,598.66	1,741.48	-2,218.92	14,458,261.08	1,727,802.21	39.81154123	-80.68881962
14,200.00	91.00	329.98	11,596.92	1,828.06	-2,268.94	14,458,347.65	1,727,752.19	39.81177946	-80.68899666
14,300.00	91.00	329.98	11,595.17	1,914.63	-2,318.96	14,458,434.23	1,727,702.17	39.81201769	-80.68917370



Planning Report - Geographic

4705101960 MOD
05/17/2019

Database: DB_Jul2216dt_v14
Company: Tug Hill Operating LLC
Project: Marshall County, West Virginia
Site: Ten High
Well: Ten High 1N-11HU (L)
Wellbore: Original Hole
Design: rev7

Local Co-ordinate Reference: Well Ten High 1N-11HU (L)
TVD Reference: RKB=1310+33 @ 1343.00usft (Nabors X08)
MD Reference: RKB=1310+33 @ 1343.00usft (Nabors X08)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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Planned Survey

WV Department of
Environmental Protection

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
14,400.00	91.00	329.98	11,593.43	2,001.21	-2,368.97	14,458,520.80	1,727,652.15	39.81225592	-80.68935074
14,500.00	91.00	329.98	11,591.69	2,087.78	-2,418.99	14,458,607.38	1,727,602.13	39.81249416	-80.68952779
14,600.00	91.00	329.98	11,589.95	2,174.36	-2,469.01	14,458,693.95	1,727,552.12	39.81273239	-80.68970483
14,700.00	91.00	329.98	11,588.21	2,260.93	-2,519.03	14,458,780.53	1,727,502.10	39.81297062	-80.68988188
14,800.00	91.00	329.98	11,586.47	2,347.51	-2,569.04	14,458,867.10	1,727,452.08	39.81320885	-80.69005893
14,900.00	91.00	329.98	11,584.73	2,434.08	-2,619.06	14,458,953.67	1,727,402.06	39.81344708	-80.69023598
15,000.00	91.00	329.98	11,582.99	2,520.66	-2,669.08	14,459,040.25	1,727,352.04	39.81368531	-80.69041303
15,100.00	91.00	329.98	11,581.25	2,607.23	-2,719.10	14,459,126.82	1,727,302.03	39.81392354	-80.69059008
15,200.00	91.00	329.98	11,579.50	2,693.81	-2,769.12	14,459,213.40	1,727,252.01	39.81416177	-80.69076713
15,300.00	91.00	329.98	11,577.76	2,780.38	-2,819.13	14,459,299.97	1,727,201.99	39.81440000	-80.69094418
15,400.00	91.00	329.98	11,576.02	2,866.96	-2,869.15	14,459,386.55	1,727,151.97	39.81463823	-80.69112124
15,500.00	91.00	329.98	11,574.28	2,953.53	-2,919.17	14,459,473.12	1,727,101.95	39.81487646	-80.69129829
15,600.00	91.00	329.98	11,572.54	3,040.10	-2,969.19	14,459,559.70	1,727,051.94	39.81511469	-80.69147535
15,700.00	91.00	329.98	11,570.80	3,126.68	-3,019.21	14,459,646.27	1,727,001.92	39.81535292	-80.69165241
15,800.00	91.00	329.98	11,569.06	3,213.25	-3,069.22	14,459,732.85	1,726,951.90	39.81559114	-80.69182947
15,900.00	91.00	329.98	11,567.32	3,299.83	-3,119.24	14,459,819.42	1,726,901.88	39.81582937	-80.69200653
16,000.00	91.00	329.98	11,565.58	3,386.40	-3,169.26	14,459,906.00	1,726,851.87	39.81606760	-80.69218359
16,100.00	91.00	329.98	11,563.83	3,472.98	-3,219.28	14,459,992.57	1,726,801.85	39.81630583	-80.69236065
16,200.00	91.00	329.98	11,562.09	3,559.55	-3,269.29	14,460,079.15	1,726,751.83	39.81654405	-80.69253772
16,300.00	91.00	329.98	11,560.35	3,646.13	-3,319.31	14,460,165.72	1,726,701.81	39.81678228	-80.69271478
16,400.00	91.00	329.98	11,558.61	3,732.70	-3,369.33	14,460,252.30	1,726,651.79	39.81702051	-80.69289185
16,500.00	91.00	329.98	11,556.87	3,819.28	-3,419.35	14,460,338.87	1,726,601.78	39.81725873	-80.69306892
16,600.00	91.00	329.98	11,555.13	3,905.85	-3,469.37	14,460,425.44	1,726,551.76	39.81749696	-80.69324599
16,700.00	91.00	329.98	11,553.39	3,992.43	-3,519.38	14,460,512.02	1,726,501.74	39.81773519	-80.69342306
16,800.00	91.00	329.98	11,551.65	4,079.00	-3,569.40	14,460,598.59	1,726,451.72	39.81797341	-80.69360013
16,900.00	91.00	329.98	11,549.91	4,165.58	-3,619.42	14,460,685.17	1,726,401.70	39.81821164	-80.69377720
17,000.00	91.00	329.98	11,548.16	4,252.15	-3,669.44	14,460,771.74	1,726,351.69	39.81844986	-80.69395428
17,100.00	91.00	329.98	11,546.42	4,338.73	-3,719.46	14,460,858.32	1,726,301.67	39.81868809	-80.69413135
17,200.00	91.00	329.98	11,544.68	4,425.30	-3,769.47	14,460,944.89	1,726,251.65	39.81892631	-80.69430843
17,300.00	91.00	329.98	11,542.94	4,511.87	-3,819.49	14,461,031.47	1,726,201.63	39.81916453	-80.69448551
17,400.00	91.00	329.98	11,541.20	4,598.45	-3,869.51	14,461,118.04	1,726,151.62	39.81940276	-80.69466259
17,500.00	91.00	329.98	11,539.46	4,685.02	-3,919.53	14,461,204.62	1,726,101.60	39.81964098	-80.69483967
17,600.00	91.00	329.98	11,537.72	4,771.60	-3,969.55	14,461,291.19	1,726,051.58	39.81987921	-80.69501675
17,700.00	91.00	329.98	11,535.98	4,858.17	-4,019.56	14,461,377.77	1,726,001.56	39.82011743	-80.69519383
17,800.00	91.00	329.98	11,534.24	4,944.75	-4,069.58	14,461,464.34	1,725,951.54	39.82035565	-80.69537091
17,900.00	91.00	329.98	11,532.49	5,031.32	-4,119.60	14,461,550.92	1,725,901.53	39.82059387	-80.69554800
18,000.00	91.00	329.98	11,530.75	5,117.90	-4,169.62	14,461,637.49	1,725,851.51	39.82083210	-80.69572509
18,100.00	91.00	329.98	11,529.01	5,204.47	-4,219.63	14,461,724.07	1,725,801.49	39.82107032	-80.69590217
18,200.00	91.00	329.98	11,527.27	5,291.05	-4,269.65	14,461,810.64	1,725,751.47	39.82130854	-80.69607926
18,300.00	91.00	329.98	11,525.53	5,377.62	-4,319.67	14,461,897.21	1,725,701.45	39.82154676	-80.69625635
18,400.00	91.00	329.98	11,523.79	5,464.20	-4,369.69	14,461,983.79	1,725,651.44	39.82178498	-80.69643344
18,500.00	91.00	329.98	11,522.05	5,550.77	-4,419.71	14,462,070.36	1,725,601.42	39.82202320	-80.69661054
18,600.00	91.00	329.98	11,520.31	5,637.35	-4,469.72	14,462,156.94	1,725,551.40	39.82226142	-80.69678763
18,700.00	91.00	329.98	11,518.57	5,723.92	-4,519.74	14,462,243.51	1,725,501.38	39.82249964	-80.69696472
18,800.00	91.00	329.98	11,516.82	5,810.50	-4,569.76	14,462,330.09	1,725,451.36	39.82273786	-80.69714182
18,900.00	91.00	329.98	11,515.08	5,897.07	-4,619.78	14,462,416.66	1,725,401.35	39.82297608	-80.69731892
19,000.00	91.00	329.98	11,513.34	5,983.64	-4,669.80	14,462,503.24	1,725,351.33	39.82321430	-80.69749602
19,100.00	91.00	329.98	11,511.60	6,070.22	-4,719.81	14,462,589.81	1,725,301.31	39.82345252	-80.69767312
19,200.00	91.00	329.98	11,509.86	6,156.79	-4,769.83	14,462,676.39	1,725,251.29	39.82369074	-80.69785022
19,300.00	91.00	329.98	11,508.12	6,243.37	-4,819.85	14,462,762.96	1,725,201.28	39.82392896	-80.69802732
19,400.00	91.00	329.98	11,506.38	6,329.94	-4,869.87	14,462,849.54	1,725,151.26	39.82416718	-80.69820442
19,500.00	91.00	329.98	11,504.64	6,416.52	-4,919.89	14,462,936.11	1,725,101.24	39.82440540	-80.69838153
19,600.00	91.00	329.98	11,502.90	6,503.09	-4,969.90	14,463,022.69	1,725,051.22	39.82464361	-80.69855863
19,700.00	91.00	329.98	11,501.15	6,589.67	-5,019.92	14,463,109.26	1,725,001.20	39.82488183	-80.69873574
19,800.00	91.00	329.98	11,499.41	6,676.24	-5,069.94	14,463,195.84	1,724,951.19	39.82512005	-80.69891285

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-11HU (L)
Company:	Tug Hill Operating LLC	TVD Reference:	RKB=1310+33 @ 1343.00usft (Nabors X08)
Project:	Marshall County, West Virginia	MD Reference:	RKB=1310+33 @ 1343.00usft (Nabors X08)
Site:	Ten High	North Reference:	Grid
Well:	Ten High 1N-11HU (L)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev7		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
19,900.00	91.00	329.98	11,497.67	6,762.82	-5,119.96	14,463,282.41	1,724,901.17	39.82535826	-80.69908996	
20,000.00	91.00	329.98	11,495.93	6,849.39	-5,169.97	14,463,368.98	1,724,851.15	39.82559648	-80.69926707	
20,100.00	91.00	329.98	11,494.19	6,935.97	-5,219.99	14,463,455.56	1,724,801.13	39.82583470	-80.69944418	
20,200.00	91.00	329.98	11,492.45	7,022.54	-5,270.01	14,463,542.13	1,724,751.11	39.82607291	-80.69962129	
20,300.00	91.00	329.98	11,490.71	7,109.12	-5,320.03	14,463,628.71	1,724,701.10	39.82631113	-80.69979841	
20,400.00	91.00	329.98	11,488.97	7,195.69	-5,370.05	14,463,715.28	1,724,651.08	39.82654935	-80.69997552	
20,500.00	91.00	329.98	11,487.23	7,282.27	-5,420.06	14,463,801.86	1,724,601.06	39.82678756	-80.70015264	
20,600.00	91.00	329.98	11,485.48	7,368.84	-5,470.08	14,463,888.43	1,724,551.04	39.82702578	-80.70032976	
20,627.80	91.00	329.98	11,485.00	7,392.91	-5,483.99	14,463,912.50	1,724,537.14	39.82709200	-80.70037900	
PBHL/TD 20627.80 MD/11485.00 TVD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Ten High 1N-11HU BHL - hit/miss target - Shape - Point	0.00	0.01	11,485.00	7,392.91	-5,483.99	14,463,912.50	1,724,537.14	39.82709200	-80.70037900	
Ten High 1N-11HU LP r2 - plan misses target center by 47.52usft at 12073.60usft MD (11609.93 TVD, -6.89 N, -1198.74 E) - Point	0.00	0.00	11,634.00	11.62	-1,162.19	14,456,531.21	1,728,858.94	39.80678044	-80.68507833	

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")		
1,208.00	1,208.00	20" Casing @ 1175 TVD	20	24		
3,016.62	3,013.00	13 3/8" Casing @ 2980 TVD	13-3/8	17-1/2		
10,642.72	10,558.00	9 5/8" Casing @ 10525 TVD	9-5/8	12-1/4		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
1,733.00	1,733.00	0.00	0.00	KOP Begin 1°/100' build	
2,233.00	2,232.37	-16.70	-14.01	Begin 5.00° tangent	
3,133.00	3,128.94	-76.79	-64.43	Begin 1°/100' drop	
3,633.00	3,628.31	-93.49	-78.45	Begin vertical hold	
9,037.69	9,033.00	-93.49	-78.45	Begin 2°/100' build	
10,468.31	10,404.89	-250.59	-391.04	Begin 28.61° tangent	
10,972.29	10,847.33	-358.97	-606.68	Begin 6°/100' build/turn	
11,642.06	11,401.00	-281.00	-950.00	Begin 8°/100' build/turn	
12,265.31	11,630.60	153.11	-1,301.25	Begin 91.00° lateral	
20,627.80	11,485.00	7,392.91	-5,483.99	PBHL/TD 20627.80 MD/11485.00 TVD	

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 WV Department of
 Environmental Protection

05/17/2019

4705101960



Well Site Safety Plan

Tug Hill Operating, LLC

JM
12/18/18

Well Name: Ten High 1N-11HU

Pad Location: Ten High
Marshall County, West Virginia

UTM (meters), NAD83, Zone 17:

NORTHING -4,406,355.98

EASTING -527,311.49

January 2018

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Office of Oil and Gas

DEC 26 2018

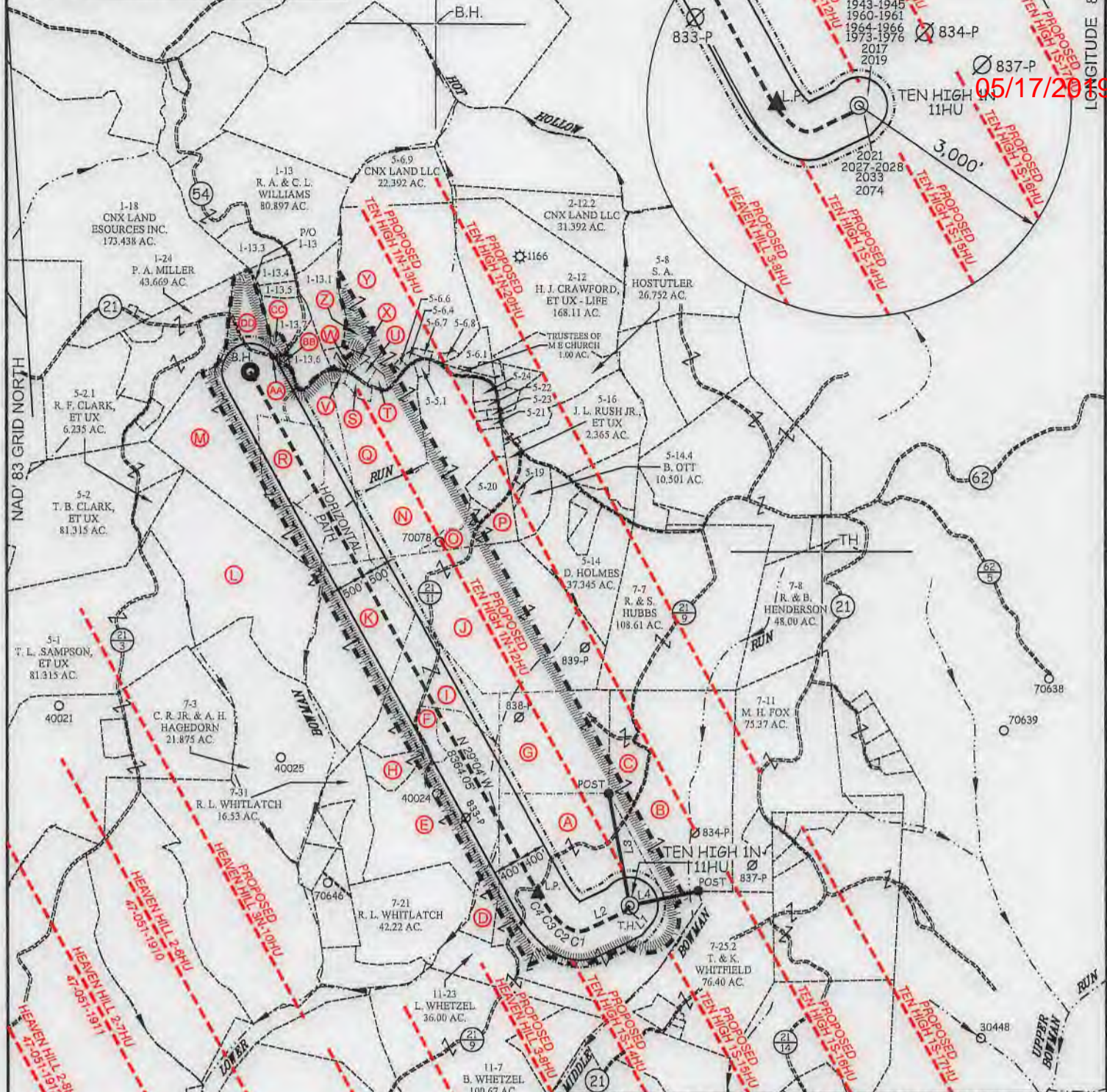
WV Department of
Environmental Protection

**TEN HIGH 1N LEASE
UTICA UNIT - 537.97 AC±
WELL 11HU
TUG HILL OPERATING**

LINE	BEARING	DISTANCE
L1	S 40°58' W	122.09'
L2	S 64°16' W	591.39'
L3	N 10°39' W	1599.69'
L4	N 78°00' E	990.73'

LATITUDE 39°50'00"

LONGITUDE 80°40'00"



05/17/2019

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	180.70'	243.02'	S 87°00' W	176.57'
C2	191.29'	485.84'	N 60°43' W	190.06'
C3	253.99'	1184.35'	N 43°36' W	253.51'
C4	307.60'	1958.19'	N 33°25' W	307.29'

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P.S. 849 *C. Victor Moyers*

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

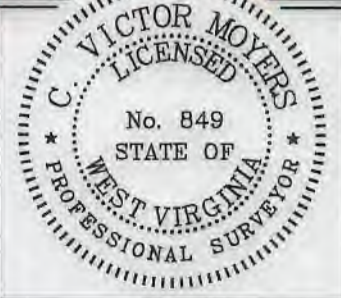
NAD83 S.P.C.(FT)	N. 478,135.39	E. 1,636,740.94
NAD83 GEO.	LAT-(N) 39.806737	LONG-(W) 80.680940
NAD83 UTM (M)	N. 4,406,355.98	E. 527,311.49

LANDING POINT

NAD83 S.P.C.(FT)	N. 478,310.3	E. 1,635,442.0
NAD83 GEO.	LAT-(N) 39.807170	LONG-(W) 80.685572
NAD83 UTM (M)	N. 4,406,402.7	E. 526,914.9

BOTTOM HOLE

NAD83 S.P.C.(FT)	N. 485,821.4	E. 1,631,379.4
NAD83 GEO.	LAT-(N) 39.827092	LONG-(W) 80.700379
NAD83 UTM (M)	N. 4,408,609.3	E. 525,640.0



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

LEGEND

UNIT BOUNDARY	
LEASED TRACTS INSIDE	
UNIT BOUNDARY	
SURFACE LINE	
DEED WELL LATERAL WITHIN 3000'	
WELL LATERAL	
400' OFFSET LINE	
500' OFFSET LINE	
TIE LINE	
CREEK	
ROAD	
COUNTY ROUTE	
PROPOSED WELL	
EXISTING WELL	
PERMITTED WELL	
SURFACE OWNER (SEE TABLE-SHEET 1)	
LEASE # (SEE ADDITIONAL SHEETS)	

SCALE 1" = 2000' FILE NO. 8655P11HU5.dwg
DATE JULY 21, 2017 TEN HIGH 1N 11HU Rev7
REVISED SEPTEMBER 26, 2018
OPERATORS WELL NO. TEN HIGH 1N-11HU
API WELL NO. 47 — 051 — 01960 MOD
NO. STATE COUNTY PERMIT

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

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

COUNTY NAME PERMIT

**TEN HIGH 1N LEASE
UTICA UNIT - 537.97 AC±
WELL 11HU
TUG HILL OPERATING**

LATITUDE 39°50'00"

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD'83 S.P.C.(FT) N. 478,135.39 E. 1,836,740.94
 NAD'83 GEO. LAT-(N) 39.806737 LONG-(W) 80.680940
 NAD'83 UTM (M) N. 4,408,355.98 E. 527,311.49
LANDING POINT
 NAD'83 S.P.C.(FT) N. 478,310.9 E. 1,635,442.0
 NAD'83 GEO. LAT-(N) 39.807170 LONG-(W) 80.685572
 NAD'83 UTM (M) N. 4,408,402.7 E. 526,914.9
BOTTOM HOLE
 NAD'83 S.P.C.(FT) N. 485,621.4 E. 1,631,379.4
 NAD'83 GEO. LAT-(N) 39.827092 LONG-(W) 80.570437
 NAD'83 UTM (M) N. 4,408,609.3 E. 525,640.0

B.H.

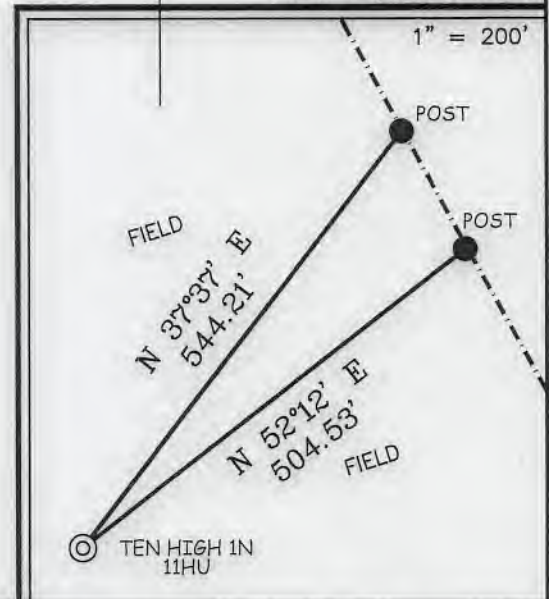
NOTES ON SURVEY

1. 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.
2. WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'
3. PROPOSED LATERAL OR TOP HOLE OF TEN HIGH 1N-11HU IS WITHIN 3000' OF THE TOP HOLES OR LATERALS OF PROPOSED WELLS HEAVEN HILL 3-6HU, HEAVEN HILL 3-7HU, HEAVEN HILL 3-8HU, HEAVEN HILL 3N-10HU, TEN HIGH 1S-14HU, TEN HIGH 1S-15HU, TEN HIGH 1S-16HU, TEN HIGH 1S-17HU, TEN HIGH 1N-12HU, TEN HIGH 1N-13HU, AND TEN HIGH 1N-20HU.

MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-1-13.1	BURDETTE L. BEUCKE	14.256
9-1-13.3	CNX LAND LLC	8.127
9-1-13.4	MACK L. CROW	4.273
9-1-13.5	MACK L. CROW	2.491
9-1-13.6	GERALD E. LOGSDON, ET UX	7.621
9-1-13.7	SHARON D. TUCKER	7.817
9-5-5.1	DAVID M. TOLER, ET UX	0.985
9-5-6.1	JON B. CRAWFORD	4.679
9-5-6.4	NANCY L. SNYDER	0.694
9-5-6.6	NANCY L. SNYDER	0.420
9-5-6.7	NANCY L. SNYDER	0.678
9-5-6.8	NANCY L. SNYDER	0.691
9-5-19	BETTY R. OTT	0.933
9-5-20	KEITH WILSON - DONALD E. LEACH (LIFE ESTATE)	6.924
9-5-21	RALPH E. WELLMAN, ET UX	1.00
9-5-22	RALPH E. WELLMAN, ET UX	0.5
9-5-23	RALPH E. WELLMAN, ET UX	1.00
9-5-24	ALVIE & MARCELLA DARRAH	1.986

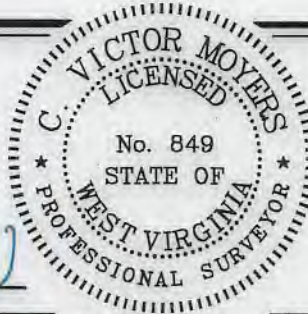
TAG	SURFACE OWNER	PARCEL	ACRES
A	LAWRENCE & SHIRLEY CONKLE ESTS	9-7-24	139.79
B	ROBERT G. HUBBS & SCARLETT E. OTTE	9-7-12.1	86.363
C	RONALD MOORE, ET UX	9-7-12	16.587
D	LAWRENCE & SHIRLEY CONKLE ESTS	9-7-22	12.00
E	RICKY L. WHITLATCH	9-7-30	72.82
F	ANDREW COREY WHITLATCH	9-7-30.1	4.55
G	RONALD MOORE, ET UX	9-7-13	51.49
H	RICKY L. WHITLATCH	9-7-15	7.54
I	ARNIE GOODNIGHT, ET UX	9-7-14	39.55
J	TERESA L. HORNER WITH JERRY G. & CAROLYN K. FLETCHER (LIFE ESTATE)	9-7-6	103.30
K	ARNIE GOODNIGHT, ET UX	9-7-5	62.18
L	HELEN ROBERTSON PAYNE	9-5-3	85.26
M	ELMER ASTON	9-5-4	108.225
N	MICHAEL JOSEPH SNYDER	9-5-5.4	64.00
O	KELLY WILSON WITH DONLD E. LEACH (LIFE ESTATE)	9-5-18	5.807
P	CARLA SUE CROW	9-5-17	6.341
Q	MICHAEL JOSEPH SNYDER	9-5-5	35.02
R	CONSOLIDATION COAL COMPANY	9-5-4.1	22.775
S	MICHAEL JOSEPH SNYDER & NANCY L. SNYDER	9-5-5.3	1.870
T	LINDA GORBY DELBERT	9-5-6.5	1.087
U	DEUTICHE BANK NATIONAL TRUST CO.	9-5-6.3	1.391
V	PETER PARKER	9-5-5.2	0.873
W	ALICIA JANE MARTIN	9-1-14	2.4602
X	ALICE J. & DOUGLAS J. MARTIN	9-1-14.1	0.905
Y	NANCY L. SNYDER	9-5-6	82.858
Z	MICHAEL JOSEPH SNYDER	9-5-6.2	2.82
AA	BOARD OF EDUCATION	NOT ASSD	NOT ASSD
BB	BOARD OF EDUCATION	NOT ASSD	NOT ASSD
CC	RANDALL A. KEREKES	9-1-13.2	1.518
DD	CNX LAND RESOURCES	NOT ASSD	10+/-

REFERENCES



SLS
Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5834
www.slsurveys.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 JULY 21, 20 17
 REVISED SEPTEMBER 26, 2018
 OPERATORS WELL NO. TEN HIGH 1N-11HU
 API WELL NO. 47-051-01960MOD
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8655P11HUR5.dwg
TEN HIGH 1N 11HU Rev7
 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 LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: GROUND = 1,321.10' ELEVATION PROPOSED = 1,310.06' WATERSHED MIDDLE BOWMAN RUN OF FISH CREEK (HUC-10)
 DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER LAWRENCE & SHIRLEY CONKLE ESTS ACREAGE 139.79±
 ROYALTY OWNER LARRY LEE CONKLE, ET AL - SEE ADDITIONAL SHEETS ACREAGE 139.79±
 PROPOSED WORK: LEASE NO. SEE ADDITIONAL SHEETS
 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: 11,878' / TMD: 20,628'

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

COUNTY NAME PERMIT

TEN HIGH 1N LEASE
 UTICA UNIT - 537.97 AC±
 WELL 11HU
 TUG HILL OPERATING



05/17/2019

No.	Lease Name or No.	Tag	Parcel	Oil & Gas Royalty Owners	Deed Book/Page
1	10*15662	A	9-7-24	LARRY LEE CONKLE	863 354
2	10*15663	A	9-7-24	ROY A CONKLE SR AND LORIE A CONKLE	863 311
3	10*15664	A	9-7-24	THERESA ANNE HUGHES	863 343
4	10*15666	A	9-7-24	BRENDA J WHETZEL	863 635
5	10*16049	A	9-7-24	DANNY SHAWN KERNS AND AMY LYNN KERNS	905 518
6	10*16138	A	9-7-24	LARRY W KUHN AND VICKIE B KUHN, HUSBAND AND WIFE	905 522
7	10*16139	A	9-7-24	HUBERT DEAN KUHN AND ANDREA KUHN	905 524
8	10*16140	A	9-7-24	ANDY PAUL KUHN & JACKIE KUHN	905 526
9	10*16141	A	9-7-24	HOWARD L KUHN AND MARY L KUHN	905 528
10	10*16820	A	9-7-24	ROBERTA ANN GIBB AND DAVID S GIBB	919 237
11	10*17365	A	9-7-24	MYSTI JOANNE GOODMAN	927 468
12	10*17370	A	9-7-24	KELLY JUNE GOODMAN	927 470
13	10*18256	A	9-7-24	JEFFREY STEPHEN GOODMAN	929 1
14	10*47051.295.10	A	9-7-24	DEENA J PALOMO	905 470
15	10*47051.295.11	A	9-7-24	REGINA D FIGUEROA AND DAVID FIGUEROA	905 435
16	10*47051.295.12	A	9-7-24	EARLD WELLMAN	905 432
17	10*47051.295.13	A	9-7-24	THE DOLLYE F WOOD REVOCABLE TRUST BY NICHOLAS CHARLES WOOD AS TRUSTEE	904 641
18	10*47051.295.3	A	9-7-24	HAZEL ARIZONA MOORE REYNOLDS	904 632
19	10*47051.295.4	A	9-7-24	LLOYD D MOORE	904 459
20	10*47051.295.5	A	9-7-24	DALE R MOORE	904 635
21	10*47051.295.6	A	9-7-24	MARY I BURKHART	904 638
22	10*47051.295.7	A	9-7-24	JEANNE V MELCHIORI	904 462
23	10*47051.295.9	A	9-7-24	JAMES E HIMELRICK JR AND KAREN HIMELRICK	904 465
24	10*15501	B	9-7-12.1	RONALD AND EDNA MOORE	661 449
25	10*15501	C	9-7-12	RONALD AND EDNA MOORE	661 449
26	10*15486	D	9-7-22	RICHARD NEAL NORRIS AND CAROL NORRIS	905 430
27	10*15487	D	9-7-22	WILLIAM C RUTAN	905 475
28	10*15489	D	9-7-22	DONALD T SNODGRASS AND LILA F SNODGRASS	915 189
29	10*15492	D	9-7-22	HEATHER WHORTON STILLION AND CHRISTOPHER STILLION	905 473
30	10*15609	D	9-7-22	MICHELLE R WILHELM	834 456
31	10*15610	D	9-7-22	SARAH STEVENS	834 432
32	10*15611	D	9-7-22	ROBERT S ZEHNDER	834 437
33	10*15612	D	9-7-22	VERA SHIRLENE & ARTHUR WORKMAN	837 361
34	10*15613	D	9-7-22	THOMAS L STEVENS	836 290
35	10*15614	D	9-7-22	DAVID F RINE	837 130
36	10*15615	D	9-7-22	PAUL WAYNE RINE	837 133
37	10*15616	D	9-7-22	PHILIP C RINE	836 332
38	10*15617	D	9-7-22	GLADYS M RINE	836 329
39	10*15618	D	9-7-22	CHARLES A RINE	835 22
40	10*15619	D	9-7-22	SHARON M REYNOLDS	840 322
41	10*15620	D	9-7-22	GLADYS RUCKMAN	840 319
42	10*15621	D	9-7-22	KATHERINE A STAINAKER	840 325
43	10*15622	D	9-7-22	JAY LEROY RINE	840 351
44	10*15623	D	9-7-22	SUSAN JANE WHEELER	847 473
45	10*15624	D	9-7-22	RONALD A ZEHNDER	847 213
46	10*15625	D	9-7-22	LAWRENCE W STIRLING	852 384
47	10*15626	D	9-7-22	ROBERT J SEAVER	854 77
48	10*15627	D	9-7-22	PAULA R SEAVER	853 483
49	10*15628	D	9-7-22	JENNIFER SEAVER	853 272
50	10*15629	D	9-7-22	DANIEL L RINE	860 86
51	10*15630	D	9-7-22	JANE L HELFER	836 342
52	10*15631	D	9-7-22	DAVID HEINZERTH	836 219
53	10*15632	D	9-7-22	MARIAN D JONES	835 38
54	10*15633	D	9-7-22	ROGER W GATTS	835 35
55	10*15634	D	9-7-22	JAMES W DAYTON	847 567
56	10*15635	D	9-7-22	ELLEN L BETTINAZZI	847 496
57	10*15636	D	9-7-22	JOSEPH ASTON JR BY HIS ATTORNEY-IN-FACT MELVIN J. ASTON	848 280
58	10*15637	D	9-7-22	DONALD ASTON	848 274
59	10*15638	D	9-7-22	PAUL J ASTON A/K/A JACK ASTON	848 277
60	10*15639	D	9-7-22	DELLA M BURKEY A/K/A MAXINE ASTON	848 435
61	10*15640	D	9-7-22	EMMA JANE DAVIS A/K/A EMA ASTON	848 271
62	10*15641	D	9-7-22	HENRY W ASTON	847 138
63	10*15642	D	9-7-22	KENNETH L DAYTON	852 366
64	10*15643	D	9-7-22	NORMAN G JOHNSON	848 363
65	10*15644	D	9-7-22	RONALD BEN LAUGHTON	852 360
66	10*15645	D	9-7-22	KAREN K OLDFIELD	854 111
67	10*15646	D	9-7-22	JUDITH A CIRONE	848 428
68	10*15647	D	9-7-22	KENNETH WENDELL OLDFIELD	861 589
69	10*15648	D	9-7-22	MARTHA CRAWFORD	863 542
70	10*15649	D	9-7-22	MARY JANE DANIEL	858 28
71	10*15650	D	9-7-22	MARY GLADYS KUHN BY ATTORNEY IN FACT CONNIE LYONS	860 89
72	10*15651	D	9-7-22	THOMAS G ASTON	860 83
73	10*15652	D	9-7-22	ISAAC R ASTON A/K/A IKE ASTON	866 136
74	10*15653	D	9-7-22	EMILY M HENCERTH	862 574
75	10*15654	D	9-7-22	GEORGE E HENNIGER	863 612
76	10*15655	D	9-7-22	ANNA EMERSON A/K/A ANNIE ASTON	864 603
77	10*15656	D	9-7-22	PATTY L MYERS	867 100
78	10*15657	D	9-7-22	MARY MARGARET ASTON	868 283
79	10*15658	D	9-7-22	GLEN MATTHEW LAUGHTON	873 324
80	10*15659	D	9-7-22	WILLIAM E DAYTON BY HIS AIF	871 190
81	10*15660	D	9-7-22	DOUGLAS PAUL HENCERTH BY HIS AIF	871 193
82	10*15662	D	9-7-22	LARRY LEE CONKLE	863 354
83	10*15663	D	9-7-22	ROY A CONKLE SR AND LORIE A CONKLE	863 311
84	10*15664	D	9-7-22	THERESA ANNE HUGHES	863 343
85	10*15666	D	9-7-22	BRENDA J WHETZEL	863 635
86	10*15673	D	9-7-22	DIANE B ASTON	864 595
87	10*15679	D	9-7-22	CARA BONAR FREESE AND GEORGE H FREESE	905 481
88	10*15680	D	9-7-22	ROBERTA JANE CLAYTON	905 485
89	10*15688	D	9-7-22	JOSH GARY AND CHRISTINA M GARY	905 487
90	10*15689	D	9-7-22	JOHN LEROY BAKER AND CYNTHIA A BAKER	905 491
91	10*15690	D	9-7-22	ROBERT WHORTON AND LINDSAY WHORTON	905 489
92	10*15728	D	9-7-22	MARY LOU KITTELBERGER AND FREDERICK W KITTELBERGER	905 483
93	10*15729	D	9-7-22	DONNA KAY ALLEN AND ROGER ALLEN	905 493
94	10*15747	D	9-7-22	WILLIAM H BAKER	905 499
95	10*15748	D	9-7-22	CAROLYN LEE FUREY AND MARTIN J FUREY	905 495
96	10*15749	D	9-7-22	DIANA SMITH KNIGHT	905 497
97	10*16019	D	9-7-22	ROGER E GALLAGHER AND CONIE M GALLAGHER	905 503
98	10*16029	D	9-7-22	MARTHA ASHWORTH KNIGHT	905 505
99	10*16049	D	9-7-22	DANNY SHAWN KERNS AND AMY LYNN KERNS	905 518
100	10*16050	D	9-7-22	WILLIAM L GALLAGHER	905 512

FILE NO. 8655P11HUR5.dwg
 TEN HIGH 1N 11HU Rev7

DATE JULY 21, 20 17

REVISED SEPTEMBER 26, 2018, 20 18

OPERATORS WELL NO. TEN HIGH 1N-11HU

API WELL NO. 47 — 051 — 01960
 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
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TEN HIGH 1N LEASE
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05/17/2019

No.	Lease Name or No.	Tag	Parcel	Oil & Gas Royalty Owners	Deed Book/Page
101	10*16114	D	9-7-22	ROBERT SANDFORD BLACK AND JOAN BLACK	905 510
102	10*16123	D	9-7-22	PHYLLIS R GATTO	905 520
103	10*16138	D	9-7-22	LARRY W KUHN AND VICKIE B KUHN, HUSBAND AND WIFE	905 522
104	10*16139	D	9-7-22	HUBERT DEAN KUHN AND ANDREA KUHN	905 524
105	10*16140	D	9-7-22	ANDY PAUL KUHN & JACKIE KUHN	905 525
106	10*16141	D	9-7-22	HOWARD L KUHN AND MARY L KUHN	905 528
107	10*16177	D	9-7-22	JOSEPHINE BROWN	905 530
108	10*16179	D	9-7-22	DANA BERRY COPELAND	905 532
109	10*16287	D	9-7-22	CHARLINE M ENGLE AND KEVIN E ENGLE	905 534
110	10*16384	D	9-7-22	DANIELLE BONAR OSTER AND LOUIS MICHAEL OSTER	905 501
111	10*16389	D	9-7-22	CHARLES BERRY	905 508
112	10*16423	D	9-7-22	GAILL VAUGHN AND LARRY VAUGHN	905 536
113	10*16426	D	9-7-22	RENE J RUTAN	905 538
114	10*16440	D	9-7-22	MELANIE C WILKINS AND ROBERT WILKINS	927 462
115	10*16513	D	9-7-22	LOWELL D AND JANICE L KNIGHT	927 458
116	10*16546	D	9-7-22	WALTER C RINE AND CHERYL A RINE	927 456
117	10*16558	D	9-7-22	PAUL BONAR KNIGHT AND SUZANNE L HOPKINS-KNIGHT	927 460
118	10*16820	D	9-7-22	ROBERTA ANN GIBB AND DAVID S GIBB	919 237
119	10*16844	D	9-7-22	HOLLY A LONGFELLOW	927 454
120	10*16845	D	9-7-22	TRACY L AND KEITH W BARNBY	927 452
121	10*16896	D	9-7-22	MARTHA J BLACK	927 450
122	10*17365	D	9-7-22	MYSTI JOANNE GOODMAN	927 468
123	10*17370	D	9-7-22	KELLY JUNE GOODMAN	927 470
124	10*17497	D	9-7-22	SUZANNA DODUNG AND MICHAEL DODUNG	927 464
125	10*17584	D	9-7-22	WILLIAM THOMAS BONAR AND MONICA BONAR	927 466
126	10*17625	D	9-7-22	CHARLES E BROWN	929 624
127	10*18256	D	9-7-22	JEFFREY STEPHEN GOODMAN	929 1
128	10*18415	D	9-7-22	CHAD LONGFELLOW	932 575
129	10*18514	D	9-7-22	JOHN R BERRY	933 569
130	10*18522	D	9-7-22	MARTIN REED BROWN AND DOLORES BROWN	933 558
131	10*19391	D	9-7-22	JEFF BERRY AND AMY BERRY	940 340
132	10*19406	D	9-7-22	WILLIAM KENT BROWN AND KAYLEEN BROWN	939 289
133	10*21960	D	9-7-22	AKRON BAPTIST TEMPLE	960 22
134	10*47051.295.10	D	9-7-22	DEENA J PALOMO	905 470
135	10*47051.295.11	D	9-7-22	REGINA D FIGUEROA AND DAVID FIGUEROA	905 435
136	10*47051.295.12	D	9-7-22	EARL D WELLMAN	905 432
137	10*47051.295.13	D	9-7-22	THE DOLLY F WOOD REVOCABLE TRUST BY NICHOLAS CHARLES WOOD AS TRUSTEE	904 641
138	10*47051.295.3	D	9-7-22	HAZEL ARIZONA MOORE REYNOLDS	904 632
139	10*47051.295.4	D	9-7-22	LLOYD D MOORE	904 459
140	10*47051.295.5	D	9-7-22	DALE R MOORE	904 635
141	10*47051.295.6	D	9-7-22	MARY I BURKHART	904 638
142	10*47051.295.7	D	9-7-22	JEANNE V MELCHIORI	904 462
143	10*47051.295.9	D	9-7-22	JAMES E HIMELRICK JR AND KAREN HIMELRICK	904 465
144	10*15957	E	9-7-30	RICKY L WHITLATCH ET AL	780 226
145	10*15957	F	9-7-30.1	RICKY L WHITLATCH ET AL	780 226
146	10*15901	G	9-7-13	RONALD AND EDNA MOORE	961 449
147	10*15957	H	9-7-15	RICKY L WHITLATCH ET AL	780 226
148	10*15958	I	9-7-14	ARNIE AND BOBBIE B GOODNIGHT	777 59
149	10*15900	J	9-7-6	JERRY FLETCHER AND CAROLYN FLETCHER, HUSBAND AND WIFE	661 154
150	10*15902	J	9-7-6	SHERWOOD YEATER	748 268
151	10*15958	K	9-7-5	ARNIE AND BOBBIE B GOODNIGHT	777 59
152	10*21588	L	9-5-3	WAYT LAWRENCE ALLEN	687 233
153	10*21591	L	9-5-3	BEATRICE ANN KIDD	687 230
154	10*15481	M	9-5-4	DEAN P RIGBY AND SUSAN RIGBY	908 197
155	10*15482	M	9-5-4	SUSAN NELSON	908 203
156	10*15994	M	9-5-4	IVAN F GORBY	695 527
157	10*15994	M	9-5-4	GORBY IVAN F	695 527
158	10*15995	M	9-5-4	JOSEPH D DAKAN	695 519
159	10*15995	M	9-5-4	DAKAN JOSEPH D	695 519
160	10*15996	M	9-5-4	JOHN E GORBY	695 523
161	10*15996	M	9-5-4	GORBY JOHN E	695 523
162	10*15997	M	9-5-4	KAREN S GAST	694 534
163	10*15997	M	9-5-4	GAST KAREN S	694 534
164	10*15998	M	9-5-4	ADA HAZEL GONTA	695 183
165	10*15998	M	9-5-4	GONTA ADA HAZEL	695 183
166	10*15999	M	9-5-4	PATSY JO RAJU	694 561
167	10*15999	M	9-5-4	RAJU PATSY JO	694 561
168	10*15686	M	9-5-4	JOHN OMER BOLTZ	908 160
169	10*15750	M	9-5-4	SANDRA K TRULL	908 229
170	10*16058	M	9-5-4	MATTIE RUTH JACKSON PRESCOTT	908 231
171	10*16118	M	9-5-4	RUBY RIDDLE JACKSON	908 233
172	10*16383	M	9-5-4	ROBERT STEPHEN DRIGGERS	908 224
173	10*16414	M	9-5-4	MARY ELIZABETH DRIGGERS	908 208
174	10*16416	M	9-5-4	CYNTHIA HUDSON	908 219
175	10*16424	M	9-5-4	ROBERT J RIGBY	908 241
176	10*16448	M	9-5-4	RALPH L AND JUANITA L CRIM	908 584
177	10*16478	M	9-5-4	MARION L AND EMILY CAMPBELL	908 245
178	10*16514	M	9-5-4	ALEX R CAMPBELL & JOYCE A CAMPBELL	908 248
179	10*16515	M	9-5-4	ANNA MARIE JACKSON	908 251
180	10*16516	M	9-5-4	WILSON ANDREW JACKSON	908 253
181	10*16545	M	9-5-4	ROBERT G FOUNDS AND ELLEN FOUNDS	908 260
182	10*16662	M	9-5-4	RICHARD THOMAS MIMS & VICKIE J MIMS	908 263
183	10*16666	M	9-5-4	MICHAEL P PYLE	908 255
184	10*16667	M	9-5-4	CHARLES F PYLE AND GAIL ANN PYLE	908 266
185	10*16668	M	9-5-4	JACK I PYLE AND MERRILEE ANN PYLE	908 257
186	10*16669	M	9-5-4	JOHN S DAGO AND PATRICIA S DAGO	908 269
187	10*16686	M	9-5-4	CHERYLE M TRACEY	927 475
188	10*16688	M	9-5-4	SHERRYL PYLE BAIR	927 481
189	10*16689	M	9-5-4	JOHN C FOUNDS	927 478
190	10*16690	M	9-5-4	RICARDO ORTIZ	921 352
191	10*16720	M	9-5-4	DONNA ELAINE BRASKETT	921 152
192	10*16738	M	9-5-4	CHARLES A RINE AND RUTH K RINE	908 274
193	10*16747	M	9-5-4	WILLIAM DALE BRASKETT	921 96
194	10*16787	M	9-5-4	HERBERT B CAMPBELL & DONNA D CAMPBELL	942 451
195	10*16798	M	9-5-4	PATRICK A RANKIN AND ROBIN A RANKIN	921 364
196	10*16800	M	9-5-4	JAMES KENNETH JACKSON AND JULIE JACKSON	921 93
197	10*16802	M	9-5-4	CHRISTOPHER RICHARDSON AND TAMMY RICHARDSON	921 495
198	10*16804	M	9-5-4	WILLIAM N TAYLOR AND SHERRY D TAYLOR	921 510
199	10*16806	M	9-5-4	VIRGINIA WHITMAN TRUST DTD 7-25-1984 JON WHITMAN TRUSTEE	921 528
200	10*16807	M	9-5-4	DAVID TULLER AND SUSAN STORTS TULLER	921 513

FILE NO. 8655P11HUR5.dwg
 TEN HIGH 1N 11HU Rev7
 DATE JULY 21, 20 17
 REVISED SEPTEMBER 26, 2018, 20 18
 OPERATORS WELL NO. TEN HIGH 1N-11HU
 API WELL NO. 47 — 051 — 01960M00
 STATE COUNTY PERMIT
 HUA



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

COUNTY NAME PERMIT

**TEN HIGH 1N LEASE
UTICA UNIT - 537.97 AC±
WELL 11HU
TUG HILL OPERATING**



05/17/2019

No.	Lease Name or No.	Tag	Parcel	Oil & Gas Royalty Owners	Deed Book/Page
201	10*16808	M	9-5-4	MICHAEL LORTIZ	921 349
202	10*16815	M	9-5-4	HAROLD W PYLE	921 357
203	10*16819	M	9-5-4	TERESA ORTIZ BIGGS	921 147
204	10*16821	M	9-5-4	SHEILA BRASKETT WEICHEY	921 516
205	10*16836	M	9-5-4	RICK A STORTS AND LENORE A STORTS	921 507
206	10*16837	M	9-5-4	TERRY L POFF AND THELMA A POFF	927 472
207	10*16838	M	9-5-4	ROBERT G FUNARI	821 82
208	10*16839	M	9-5-4	JAMES B FOUNDS AND LYNN M MOWERY	921 73
209	10*16863	M	9-5-4	TINA MOORE	921 334
210	10*16868	M	9-5-4	MICHAEL W STORTS AND JESSICA M STORTS	921 504
211	10*16879	M	9-5-4	MARK E STORTS AND LESLEY A STORTS	921 501
212	10*16880	M	9-5-4	BEVERLY ANN STORTS	921 498
213	10*16902	M	9-5-4	MARY BARCAW DUKE	921 105
214	10*16962	M	9-5-4	DENNIS P FLORY AND BARBARA EZELL FLORY	921 70
215	10*16976	M	9-5-4	LESTER G AND CONSTANCE B NICKOLSON	921 343
216	10*16977	M	9-5-4	JEREMY COCHENOUR	921 102
217	10*16987	M	9-5-4	LAURIE EZELL PERRY	921 355
218	10*16989	M	9-5-4	BRITTANY RICHARDSON	916 135
219	10*16991	M	9-5-4	MARYELLEN FOUNDS AND LAUREN FOUNDS	921 79
220	10*16996	M	9-5-4	THOMAS RANKIN	917 75
221	10*17130	M	9-5-4	CINDY L BARGER	921 137
222	10*17155	M	9-5-4	JESSE LEON JR AND TERESA GAIL EZELLE	921 118
223	10*17156	M	9-5-4	HENRI NELL JACKSON KENT BARNES	921 139
224	10*17157	M	9-5-4	JAMES N REEVES JR AND RITA M REEVES	921 367
225	10*17198	M	9-5-4	THOMAS G AND DIANE W BAYLESS	921 141
226	10*17205	M	9-5-4	SANDRA JEAN WILSON	921 524
227	10*17208	M	9-5-4	PATRICK S GALLAGHER AND JOYCE ANN FOUNDS	921 86
228	10*17274	M	9-5-4	DAVID H WILSON	921 474
229	10*17275	M	9-5-4	JOHN R REEVES AND MONA G REEVES	921 373
230	10*17276	M	9-5-4	BERTHA EZELL WYATT	921 526
231	10*17278	M	9-5-4	MICHAEL L EZELLE	921 121
232	10*17339	M	9-5-4	JOSEPH W FOUNDS	921 76
233	10*17377	M	9-5-4	MILTON HOWARD EZELLE JR AND EUZABETH A EZELLE	921 123
234	10*17416	M	9-5-4	ANDREW M ORTIZ	921 346
235	10*17438	M	9-5-4	DENNIS M WILSON	921 476
236	10*17440	M	9-5-4	KENDRA WALISA	927 484
237	10*17441	M	9-5-4	RALPH J WILSON	921 522
238	10*17442	M	9-5-4	SHANE ALLEN AND MENDY JEAN ALLEN	921 134
239	10*17443	M	9-5-4	MICHELLE MORROW-BACK	921 337
240	10*17444	M	9-5-4	KELLY FOUNDS CAMPBELL	921 99
241	10*17449	M	9-5-4	PHYLIS J BLAKE	921 150
242	10*17482	M	9-5-4	TERESA EZELLE RALYA AND DAVID L RALYA	927 487
243	10*17483	M	9-5-4	RICHARD I PYLE	921 359
244	10*17484	M	9-5-4	NELDA S JACKSON	921 330
245	10*17485	M	9-5-4	MARGIE ANN JACKSON ROBBINS GRAHAM	921 91
246	10*17526	M	9-5-4	JEFFREY L REEVES AND JODY L REEVES	921 370
247	10*17527	M	9-5-4	JAMES MICHAEL EZELL AND LUCILLE D EZELL	921 111
248	10*17538	M	9-5-4	CHERYL RANKIN-KING	952 160
249	10*17552	M	9-5-4	JOHN BEVACQUA AND PATRICIA A BEVACQUA	921 144
250	10*17554	M	9-5-4	MICHAEL T RANKIN	921 361
251	10*17561	M	9-5-4	ROGER L TYRELL AND KATHRYN L TYRELL	921 519
252	10*17564	M	9-5-4	JAMES RONALD NICKOLSON AND TRACEY E NICKOLSON	921 340
253	10*17565	M	9-5-4	JESSE ALLEN JACKSON AND ELIZABETH D JACKSON	921 327
254	10*17566	M	9-5-4	NATHAN P ERDOSSY AND BARBARA T ERDOSSY	921 108
255	10*17588	M	9-5-4	JAMES M JACKSON	921 325
256	10*17589	M	9-5-4	MARY CHRISTINE MCKENNA	921 332
257	10*17744	M	9-5-4	SAM PRESLEY EZELL	921 116
258	10*17983	M	9-5-4	HOLLY SUE CUTHBERT	925 380
259	10*18021	M	9-5-4	CHRISTOPHER A HANIFAN AND JACKIE F HANIFAN	927 267
260	10*18022	M	9-5-4	DALE P WARD AND CYNTHIA J WARD	927 264
261	10*19524	M	9-5-4	THE ESTATE OF AGNES IRENE EZELL CLARK BY DAVID M EDWARDS, EXECUTOR	942 633
262	10*19692	M	9-5-4	KENDRA WALISA	924 484
263	10*19693	M	9-5-4	MARIO R FUNARI AIF ROBERT G FUNARI	936 145
264	10*19695	M	9-5-4	VIRGINIA P FOUNDS KASSERMAN ET	944 333
265	10*19939	M	9-5-4	ROBERT J MILLS & SHERRA SUE MILLS	949 212
266	10*47051.223.1	M	9-5-4	STORCH JEAN A AIF JOHN HERMAN STORCH	877 216
267	10*47051.223.15	M	9-5-4	LARRY D TAUNT AND NANCY L TAUNT	908 14
268	10*47051.223.2	M	9-5-4	SCHIEFER STEPHANIE L ET VIR	885 321
269	10*47051.223.20	M	9-5-4	BARBARA A BUZZARD	908 24
270	10*47051.223.21	M	9-5-4	GARY T WARD AND SHARON D WARD	908 19
271	10*47051.223.24	M	9-5-4	JO DEE K DAVIS	908 136
272	10*47051.223.25	M	9-5-4	JOANNE WELCH	908 141
273	10*47051.223.26	M	9-5-4	WENDY L SMARKEL	908 69
274	10*47051.223.27	M	9-5-4	TIMI J HOBBS	908 277
275	10*47051.223.3	M	9-5-4	LEADBETTER ROBERT A ET UX	885 324
276	10*47051.223.30	M	9-5-4	LAURIE DRIGGERS MANDERSON	908 165
277	10*47051.223.33	M	9-5-4	NANCY C HOUSLEY	908 187
278	10*47051.223.35	M	9-5-4	DEBRA L CIAFFAGLIONE	908 192
279	10*47051.223.6	M	9-5-4	JOSHUA RINE AND REBECCA RINE	907 634
280	10*15481	N	9-5-5.4	DEAN P RIGBY AND SUSAN RIGBY	908 197
281	10*15482	N	9-5-5.4	SUSAN NELSON	908 203
282	10*15668	N	9-5-5.4	MICHAEL J SNYDER	865 186
283	10*15668	N	9-5-5.4	MICHAEL J SNYDER	865 186
284	10*15686	N	9-5-5.4	JOHN OMER BOLTZ	908 160
285	10*15750	N	9-5-5.4	SANDRA K TRULL	908 229
286	10*16058	N	9-5-5.4	MATTIE RUTH JACKSON PRESCOTT	908 231
287	10*16118	N	9-5-5.4	RUBY RIDDLE JACKSON	908 233
288	10*16383	N	9-5-5.4	ROBERT STEPHEN DRIGGERS	908 224
289	10*16414	N	9-5-5.4	MARY ELIZABETH DRIGGERS	908 208
290	10*16416	N	9-5-5.4	CYNTHIA HUDSON	908 219
291	10*16424	N	9-5-5.4	ROBERT J RIGBY	908 241
292	10*16448	N	9-5-5.4	RALPH L AND JUANITA L CRIM	908 584
293	10*16478	N	9-5-5.4	MARION LAND EMILY CAMPBELL	908 245
294	10*16514	N	9-5-5.4	ALEX R CAMPBELL & JOYCE A CAMPBELL	908 248
295	10*16515	N	9-5-5.4	ANNA MARIE JACKSON	908 251
296	10*16516	N	9-5-5.4	WILSON ANDREW JACKSON	908 253
297	10*16662	N	9-5-5.4	RICHARD THOMAS MIMS & VICKIE J MIMS	908 263
298	10*16738	N	9-5-5.4	CHARLES A RINE AND RUTH K RINE	908 274
299	10*16787	N	9-5-5.4	HERBERT B CAMPBELL & DONNA D CAMPBELL	942 451
300	10*16800	N	9-5-5.4	JAMES KENNETH JACKSON AND JULIE JACKSON	921 93

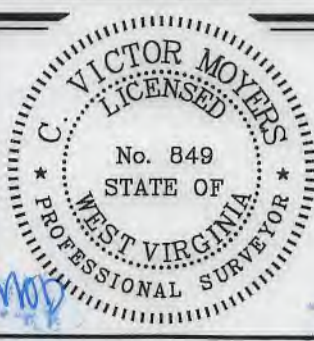
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TEN HIGH 1N 11HU Rev7

DATE JULY 21, 20 17

REVISED SEPTEMBER 26, 2018, 20 18

OPERATORS WELL NO. TEN HIGH 1N-11HU

API WELL NO. 47 - 051 - 01960
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

TEN HIGH 1N LEASE
UTICA UNIT - 537.97 AC±
WELL 11HU
TUG HILL OPERATING



05/17/2019

No.	Lease Name or No.	Tag	Parcel	Oil & Gas Royalty Owners	Deed Book/Page
301	10*16806	N	9-5-5.4	VIRGINIA WHITMAN TRUST DTD 7-25-1984 JON WHITMAN TRUSTEE	921 528
302	10*16952	N	9-5-5.4	DENNIS P FLORY AND BARBARA EZELL FLORY	921 70
303	10*16976	N	9-5-5.4	LESTER G AND CONSTANCE B NICKOLSON	921 343
304	10*16987	N	9-5-5.4	LAURIE EZELL PERRY	921 355
305	10*17130	N	9-5-5.4	CINDY L BARGER	921 137
306	10*17155	N	9-5-5.4	JESSE LEON JR AND TERESA GAIL EZELLE	921 118
307	10*17156	N	9-5-5.4	HENRI NELL JACKSON KENT BARNES	921 139
308	10*17157	N	9-5-5.4	JAMES N REEVES JR AND RITA M REEVES	921 367
309	10*17198	N	9-5-5.4	THOMAS G AND DIANE W BAYLESS	921 141
310	10*17205	N	9-5-5.4	SANDRA JEAN WILSON	921 524
311	10*17274	N	9-5-5.4	DAVID H WILSON	921 474
312	10*17275	N	9-5-5.4	JOHN R REEVES AND MONA G REEVES	921 373
313	10*17276	N	9-5-5.4	BERTHA EZELL WYATT	921 526
314	10*17278	N	9-5-5.4	MICHAEL L EZELLE	921 121
315	10*17377	N	9-5-5.4	MILTON HOWARD EZELLE JR AND ELIZABETH A EZELLE	921 123
316	10*17438	N	9-5-5.4	DENNIS M WILSON	921 476
317	10*17441	N	9-5-5.4	RALPH J WILSON	921 522
318	10*17449	N	9-5-5.4	PHYLLIS J BLAKE	921 150
319	10*17482	N	9-5-5.4	TERESA EZELLE RALYA AND DAVID L RALYA	927 487
320	10*17484	N	9-5-5.4	NELDA S JACKSON	921 330
321	10*17485	N	9-5-5.4	MARGIE ANN JACKSON ROBBINS GRAHAM	921 91
322	10*17526	N	9-5-5.4	JEFFREY L REEVES AND JODY L REEVES	921 370
323	10*17527	N	9-5-5.4	JAMES MICHAEL EZELL AND LUCILLE D EZELL	921 111
324	10*17561	N	9-5-5.4	ROGER L TYRELL AND KATHRYN L TYRELL	921 519
325	10*17564	N	9-5-5.4	JAMES RONALD NICKOLSON AND TRACEY E NICKOLSON	921 340
326	10*17565	N	9-5-5.4	JESSE ALLEN JACKSON AND ELIZABETH D JACKSON	921 327
327	10*17566	N	9-5-5.4	NATHAN P ERDOSSY AND BARBARA T ERDOSSY	921 108
328	10*17588	N	9-5-5.4	JAMES M JACKSON	921 325
329	10*17589	N	9-5-5.4	MARY CHRISTINE MCKENNA	921 332
330	10*17744	N	9-5-5.4	SAM PRESLEY EZELL	921 116
331	10*17983	N	9-5-5.4	HOLLY SUE CUTHBERT	925 380
332	10*18021	N	9-5-5.4	CHRISTOPHER A HANIFAN AND JACKIE F HANIFAN	927 267
333	10*18022	N	9-5-5.4	DALE P WARD AND CYNTHIA J WARD	927 254
334	10*19524	N	9-5-5.4	THE ESTATE OF AGNES IRENE EZELL CLARK BY DAVID M EDWARDS, EXECUTOR	942 633
335	10*19695	N	9-5-5.4	VIRGINIA P FOUNDS KASSERMAN ET	944 333
336	10*19939	N	9-5-5.4	ROBERT J MILLS & SHERRA SUE MILLS	949 212
337	10*47051.223.1	N	9-5-5.4	JEAN ANNE GORBY STORCH AIF JOHN HERMAN STORCH	877 216
338	10*47051.223.15	N	9-5-5.4	LARRY D TAUNT AND NANCY L TAUNT	908 14
339	10*47051.223.2	N	9-5-5.4	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
340	10*47051.223.20	N	9-5-5.4	BARBARA A BUZZARD	908 24
341	10*47051.223.21	N	9-5-5.4	GARY T WARD AND SHARON D WARD	908 19
342	10*47051.223.24	N	9-5-5.4	JO DEE K DAVIS	908 136
343	10*47051.223.25	N	9-5-5.4	JOANNE WELCH	908 141
344	10*47051.223.26	N	9-5-5.4	WENDY L SMARKEL	908 69
345	10*47051.223.27	N	9-5-5.4	TIMI J HOBBS	908 277
346	10*47051.223.29	N	9-5-5.4	PATSY JO RAJU	908 155
347	10*47051.223.3	N	9-5-5.4	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
348	10*47051.223.30	N	9-5-5.4	LAURIE DRIGGERS MANDERSON	908 165
349	10*47051.223.33	N	9-5-5.4	NANCY C HOUSLEY	908 187
350	10*47051.223.35	N	9-5-5.4	DEBRA L CIAFFAGLIONE	908 192
351	10*47051.223.6	N	9-5-5.4	JOSHUA RINE AND REBECCA RINE	907 634
352	10*15481	O	9-5-18	DEAN P RIGBY AND SUSAN RIGBY	908 197
353	10*15482	O	9-5-18	SUSAN NELSON	908 203
354	10*15674	O	9-5-18	DONALD F LEACH ET AL	882 209
355	10*15686	O	9-5-18	JOHN OMER BOLTZ	908 160
356	10*15750	O	9-5-18	SANDRA K TRULL	908 229
357	10*16058	O	9-5-18	MATTIE RUTH JACKSON PRESCOTT	908 231
358	10*16118	O	9-5-18	RUBY RIDDLE JACKSON	908 233
359	10*16383	O	9-5-18	ROBERT STEPHEN DRIGGERS	908 224
360	10*16414	O	9-5-18	MARY ELIZABETH DRIGGERS	908 208
361	10*16416	O	9-5-18	CYNTHIA HUDSON	908 219
362	10*16424	O	9-5-18	ROBERT J RIGBY	908 241
363	10*16448	O	9-5-18	RALPH L AND JUANITA L CRIM	908 584
364	10*16478	O	9-5-18	MARION L AND EMILY CAMPBELL	908 245
365	10*16514	O	9-5-18	ALEX R CAMPBELL & JOYCE A CAMPBELL	908 248
366	10*16515	O	9-5-18	ANNA MARIE JACKSON	908 251
367	10*16516	O	9-5-18	WILSON ANDREW JACKSON	908 253
368	10*16662	O	9-5-18	RICHARD THOMAS MIMS & VICKIE J MIMS	908 263
369	10*16738	O	9-5-18	CHARLES A RINE AND RUTH K RINE	908 274
370	10*16787	O	9-5-18	HERBERT B CAMPBELL & DONNA D CAMPBELL	942 451
371	10*16800	O	9-5-18	JAMES KENNETH JACKSON AND JULIE JACKSON	921 93
372	10*16806	O	9-5-18	VIRGINIA WHITMAN TRUST DTD 7-25-1984 JON WHITMAN TRUSTEE	921 528
373	10*16962	O	9-5-18	DENNIS P FLORY AND BARBARA EZELL FLORY	921 70
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380	10*17198	O	9-5-18	THOMAS G AND DIANE W BAYLESS	921 141
381	10*17205	O	9-5-18	SANDRA JEAN WILSON	921 524
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383	10*17275	O	9-5-18	JOHN R REEVES AND MONA G REEVES	921 373
384	10*17276	O	9-5-18	BERTHA EZELL WYATT	921 526
385	10*17278	O	9-5-18	MICHAEL L EZELLE	921 121
386	10*17377	O	9-5-18	MILTON HOWARD EZELLE JR AND ELIZABETH A EZELLE	921 123
387	10*17438	O	9-5-18	DENNIS M WILSON	921 476
388	10*17441	O	9-5-18	RALPH J WILSON	921 522
389	10*17449	O	9-5-18	PHYLLIS J BLAKE	921 150
390	10*17482	O	9-5-18	TERESA EZELLE RALYA AND DAVID L RALYA	927 487
391	10*17484	O	9-5-18	NELDA S JACKSON	921 330
392	10*17485	O	9-5-18	MARGIE ANN JACKSON ROBBINS GRAHAM	921 91
393	10*17526	O	9-5-18	JEFFREY L REEVES AND JODY L REEVES	921 370
394	10*17527	O	9-5-18	JAMES MICHAEL EZELL AND LUCILLE D EZELL	921 111
395	10*17561	O	9-5-18	ROGER L TYRELL AND KATHRYN L TYRELL	921 519
396	10*17564	O	9-5-18	JAMES RONALD NICKOLSON AND TRACEY E NICKOLSON	921 340
397	10*17565	O	9-5-18	JESSE ALLEN JACKSON AND ELIZABETH D JACKSON	921 327
398	10*17566	O	9-5-18	NATHAN P ERDOSSY AND BARBARA T ERDOSSY	921 108
399	10*17588	O	9-5-18	JAMES M JACKSON	921 325
400	10*17589	O	9-5-18	MARY CHRISTINE MCKENNA	921 332

FILE NO. 8655P11HUR5.dwg
TEN HIGH 1N 11HU Rev7

DATE JULY 21, 20 17

REVISED SEPTEMBER 26, 2018, 20 18

OPERATORS WELL NO. TEN HIGH 1N-11HU

API WELL NO. 47 STATE 051 COUNTY 01960 HGA 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

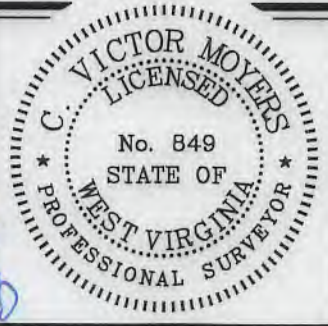
TEN HIGH 1N LEASE
 UTICA UNIT - 537.97 AC±
 WELL 11HU
 TUG HILL OPERATING



05/17/2019

No.	Lease Name or No.	Tag	Parcel	Oil & Gas Royalty Owners	Deed Book/Page
401	10*17744	O	9-5-18	SAM PRESLEY EZELL	921 116
402	10*17983	O	9-5-18	HOLLY SUE CUTHBERT	925 380
403	10*18021	O	9-5-18	CHRISTOPHER A HANIFAN AND JACKIE F HANIFAN	927 267
404	10*18022	O	9-5-18	DALE P WARD AND CYNTHIA J WARD	927 264
405	10*19524	O	9-5-18	THE ESTATE OF AGNES IRENE EZELL CLARK BY DAVID M EDWARDS, EXECUTOR	942 633
406	10*19695	O	9-5-18	VIRGINIA P FOUNDS KASSERMAN ET	944 333
407	10*19939	O	9-5-18	ROBERT J MILLS & SHERRA SUE MILLS	949 212
408	10*47051.223.1	O	9-5-18	JEAN ANNE GORBY STORCH AIF JOHN HERMAN STORCH	877 216
409	10*47051.223.15	O	9-5-18	LARRY D TAUNT AND NANCY L TAUNT	908 14
410	10*47051.223.2	O	9-5-18	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
411	10*47051.223.20	O	9-5-18	BARBARA A BUZZARD	908 24
412	10*47051.223.21	O	9-5-18	GARY T WARD AND SHARON D WARD	908 19
413	10*47051.223.24	O	9-5-18	JO DEE K DAVIS	908 136
414	10*47051.223.25	O	9-5-18	JOANNE WELCH	908 141
415	10*47051.223.26	O	9-5-18	WENDY L SMARKEL	908 69
416	10*47051.223.27	O	9-5-18	TIMI J HOBBS	908 277
417	10*47051.223.29	O	9-5-18	PATSY JO RAJU	908 155
418	10*47051.223.3	O	9-5-18	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
419	10*47051.223.30	O	9-5-18	LAURIE DRIGGERS MANDERSON	908 165
420	10*47051.223.33	O	9-5-18	NANCY C HOUSLEY	908 187
421	10*47051.223.35	O	9-5-18	DEBRA L CIAFFAGLIONE	908 192
422	10*47051.223.6	O	9-5-18	JOSHUA RINE AND REBECCA RINE	907 634
423	10*15481	P	9-5-17	DEAN P RIGBY AND SUSAN RIGBY	908 197
424	10*15482	P	9-5-17	SUSAN NELSON	908 203
425	10*15522	P	9-5-17	CARLA S CROW	728 412
426	10*15686	P	9-5-17	JOHN OMER BOLTZ	908 160
427	10*15750	P	9-5-17	SANDRA K TRULL	908 229
428	10*16058	P	9-5-17	MATTIE RUTH JACKSON PRESCOTT	908 231
429	10*16118	P	9-5-17	RUBY RIDDLE JACKSON	908 233
430	10*16383	P	9-5-17	ROBERT STEPHEN DRIGGERS	908 224
431	10*16414	P	9-5-17	MARY ELIZABETH DRIGGERS	908 208
432	10*16416	P	9-5-17	CYNTHIA HUDSON	908 219
433	10*16424	P	9-5-17	ROBERT J RIGBY	908 241
434	10*16448	P	9-5-17	RALPH L AND JUANITA L CRIM	908 584
435	10*16478	P	9-5-17	MARION L AND EMILY CAMPBELL	908 245
436	10*16514	P	9-5-17	ALEX R CAMPBELL & JOYCE A CAMPBELL	908 248
437	10*16515	P	9-5-17	ANNA MARIE JACKSON	908 251
438	10*16516	P	9-5-17	WILSON ANDREW JACKSON	908 253
439	10*16662	P	9-5-17	RICHARD THOMAS MIMS & VICKIE J MIMS	908 263
440	10*16738	P	9-5-17	CHARLES A RINE AND RUTH K RINE	908 274
441	10*16787	P	9-5-17	HERBERT B CAMPBELL & DONNA D CAMPBELL	942 451
442	10*16800	P	9-5-17	JAMES KENNETH JACKSON AND JULIE JACKSON	921 93
443	10*16806	P	9-5-17	VIRGINIA WHITMAN TRUST DTD 7-25-1984 JON WHITMAN TRUSTEE	921 528
444	10*16962	P	9-5-17	DENNIS P FLORY AND BARBARA EZELL FLORY	921 70
445	10*16976	P	9-5-17	LESTER G AND CONSTANCE B NICKOLSON	921 343
446	10*16987	P	9-5-17	LAURIE EZELL PERRY	921 355
447	10*17130	P	9-5-17	CINDY L BARGER	921 137
448	10*17155	P	9-5-17	JESSE LEON JR AND TERESA GAIL EZELLE	921 118
449	10*17155	P	9-5-17	HENRI NELL JACKSON KENT BARNES	921 139
450	10*17157	P	9-5-17	JAMES N REEVES JR AND RITA M REEVES	921 367
451	10*17198	P	9-5-17	THOMAS G AND DIANE W BAYLESS	921 141
452	10*17206	P	9-5-17	SANDRA JEAN WILSON	921 524
453	10*17274	P	9-5-17	DAVID H WILSON	921 474
454	10*17275	P	9-5-17	JOHN R REEVES AND MONA G REEVES	921 373
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464	10*17526	P	9-5-17	JEFFREY L REEVES AND JODY L REEVES	921 370
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480	10*47051.223.15	P	9-5-17	LARRY D TAUNT AND NANCY L TAUNT	908 14
481	10*47051.223.2	P	9-5-17	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
482	10*47051.223.20	P	9-5-17	BARBARA A BUZZARD	908 24
483	10*47051.223.21	P	9-5-17	GARY T WARD AND SHARON D WARD	908 19
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487	10*47051.223.27	P	9-5-17	TIMI J HOBBS	908 277
488	10*47051.223.29	P	9-5-17	PATSY JO RAJU	908 155
489	10*47051.223.3	P	9-5-17	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
490	10*47051.223.30	P	9-5-17	LAURIE DRIGGERS MANDERSON	908 165
491	10*47051.223.33	P	9-5-17	NANCY C HOUSLEY	908 187
492	10*47051.223.35	P	9-5-17	DEBRA L CIAFFAGLIONE	908 192
493	10*47051.223.6	P	9-5-17	JOSHUA RINE AND REBECCA RINE	907 634
494	10*15481	Q	9-5-5	DEAN P RIGBY AND SUSAN RIGBY	908 197
495	10*15482	Q	9-5-5	SUSAN NELSON	908 203
496	10*15668	Q	9-5-5	MICHAEL J SNYDER	865 186
497	10*15668	Q	9-5-5	MICHAEL J SNYDER	865 186
498	10*15686	Q	9-5-5	JOHN OMER BOLTZ	908 160
499	10*15750	Q	9-5-5	SANDRA K TRULL	908 229
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 API WELL NO. 47 — 051 — 01960 HGA
 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

**TEN HIGH 1N LEASE
UTICA UNIT - 537.97 AC±
WELL 11HU
TUG HILL OPERATING**



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503	10*16434	Q	9-5-5	MARY ELIZABETH DRIGGERS	908 208
504	10*16436	Q	9-5-5	CYNTHIA HUDSON	908 219
505	10*16424	Q	9-5-5	ROBERT J RIGBY	908 241
506	10*16448	Q	9-5-5	RALPH L AND JUANITA L CRIM	908 584
507	10*16478	Q	9-5-5	MARION L AND EMILY CAMPBELL	908 245
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541	10*17566	Q	9-5-5	NATHAN P ERDOSSY AND BARBARA T ERDOSSY	921 108
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552	10*47051.223.15	Q	9-5-5	LARRY D TAUNT AND NANCY L TAUNT	908 34
553	10*47051.223.2	Q	9-5-5	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
554	10*47051.223.20	Q	9-5-5	BARBARA A BUZZARD	908 24
555	10*47051.223.21	Q	9-5-5	GARY T WARD AND SHARON D WARD	908 19
556	10*47051.223.24	Q	9-5-5	JO DEE K DAVIS	908 136
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559	10*47051.223.27	Q	9-5-5	TIMI J HORBS	908 277
560	10*47051.223.29	Q	9-5-5	PATSY JO RAJU	908 155
561	10*47051.223.3	Q	9-5-5	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
562	10*47051.223.30	Q	9-5-5	LAURIE DRIGGERS MANDERSON	908 165
563	10*47051.223.33	Q	9-5-5	NANCY C HOUSLEY	908 187
564	10*47051.223.35	Q	9-5-5	DEBRA L CIAFFAGLIONE	908 192
565	10*47051.223.6	Q	9-5-5	JOSHUA RINE AND REBECCA RINE	907 634
566	10*15594	R	9-5-4.1	GORBY IVAN F	695 527
567	10*15595	R	9-5-4.1	DAKAN JOSEPH D	695 519
568	10*15596	R	9-5-4.1	GORBY JOHN E	695 523
569	10*15597	R	9-5-4.1	GAST KAREN S	694 534
570	10*15598	R	9-5-4.1	GONTA ADA HAZEL	695 183
571	10*15599	R	9-5-4.1	RAJU PATSY JO	694 561
572	47051.223.1	R	9-5-4.1	STORCH JEAN A AIF JOHN HERMAN STORCH	877 216
573	47051.223.2	R	9-5-4.1	SCHIEFER STEPHANIE LET VIR	885 321
574	47051.223.3	R	9-5-4.1	LEADBETTER ROBERT A ET UX	885 324
575	10*47051.223.1	S	9-5-5.3	JEAN ANNE GORBY STORCH AIF JOHN HERMAN STORCH	877 216
576	10*47051.223.2	S	9-5-5.3	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
577	10*47051.223.3	S	9-5-5.3	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
578	10*21696	T	9-5-6.5	DAKAN JOSEPH D	694 71
579	10*21698	T	9-5-6.5	RAJU PATSY JO	695 175
580	10*21718	T	9-5-6.5	LUNDA S DELBERT	695 187
581	10*47051.223.2	T	9-5-6.5	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
582	10*47051.223.3	T	9-5-6.5	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
583	10*21696	U	9-5-6.3	DAKAN JOSEPH D	694 71
584	10*21698	U	9-5-6.3	RAJU PATSY JO	695 175
585	10*47051.223.2	U	9-5-6.3	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
586	10*47051.223.3	U	9-5-6.3	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
587	10*21712	V	9-5-5.2	PETER PARKER	886 260
588	10*47051.223.1	V	9-5-5.2	JEAN ANNE GORBY STORCH AIF JOHN HERMAN STORCH	877 216
589	10*47051.223.2	V	9-5-5.2	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
590	10*47051.223.3	V	9-5-5.2	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
591	10*23864	W	9-1-14	STONE HILL MINERAL HOLDINGS	PENDING
592	10*23881	X	9-1-14.1	ALICE J MARTIN ET VIR	893 250
593	10*21696	Y	9-5-6	DAKAN JOSEPH D	694 71
594	10*21698	Y	9-5-6	RAJU PATSY JO AKA GORBY PATSY JO	695 175
595	10*21702	Y	9-5-6	NANCY L SNYDER	695 191
596	10*21696	Z	9-5-6.2	DAKAN JOSEPH D	694 71
597	10*21698	Z	9-5-6.2	RAJU PATSY JO AKA GORBY PATSY JO	695 175
598	10*47051.223.2	Z	9-5-6.2	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
599	10*47051.223.3	Z	9-5-6.2	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
600	10*24536	AA	(NOT ASSESSED)	MARSHALL COUNTY BOARD OF EDUCATION	1026 67
601	10*24536	BB	(NOT ASSESSED)	MARSHALL COUNTY BOARD OF EDUCATION	1026 67
602	10*23769	CC	9-1-23.2	ROBERT A. WILLIAMS & CHERYL L. WILLIAMS, HIS WIFE	1014 500
603	10*21695	DD	NOT ASSESSED	ROBERT A. WILLIAMS & CHERYL L. WILLIAMS, HIS WIFE	847 521

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TEN HIGH 1N 11HU Rev7
DATE JULY 21, 20 17
REVISED SEPTEMBER 26, 2018, 20 18
OPERATORS WELL NO. TEN HIGH 1N-11HU
API WELL NO. 47 STATE 051 COUNTY 01960 PERMIT H-6A MOD



STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
P.S. 849
C. Victor Moyers

COUNTY NAME
PERMIT

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

4705101960
05/17/2019
Med

WW-6A1
(5/13)

Operator's Well No. Ten High 1N-11HU

**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
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*See attached pages

RECEIVED
Office of Oil and Gas

DEC 26 2018

WV Department of
Environmental Protection

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

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

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

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

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

Tag	Tax-ID	Lessor	Lessee	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	
10*15662	A	9-7-24	LARRY LEE CONKLE	CHEVRON USA INC	1/8+	863 354	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15663	A	9-7-24	ROY A CONKLE SR AND LORIE A CONKLE	CHEVRON USA INC	1/8+	863 311	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15664	A	9-7-24	THERESA ANNE HUGHES	CHEVRON USA INC	1/8+	863 343	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15666	A	9-7-24	BRENDA J WHETZEL	CHEVRON USA INC	1/8+	863 635	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*16049	A	9-7-24	DANNY SHAWN KERNS AND AMY LYNN KERNS	TH EXPLORATION LLC	1/8+	905 518	N/A	N/A	N/A	N/A	N/A	N/A
10*16138	A	9-7-24	LARRY W KUHN AND VICKIE B KUHN, HUSBAND AND WIFE	TH EXPLORATION LLC	1/8+	905 522	N/A	N/A	N/A	N/A	N/A	N/A
10*16139	A	9-7-24	HUBERT DEAN KUHN AND ANDREA KUHN	TH EXPLORATION LLC	1/8+	905 524	N/A	N/A	N/A	N/A	N/A	N/A
10*16140	A	9-7-24	ANDY PAUL KUHN & JACKIE KUHN	TH EXPLORATION LLC	1/8+	905 526	N/A	N/A	N/A	N/A	N/A	N/A
10*16141	A	9-7-24	HOWARD L KUHN AND MARY L KUHN	TH EXPLORATION LLC	1/8+	905 528	N/A	N/A	N/A	N/A	N/A	N/A
10*16820	A	9-7-24	ROBERTA ANN GIBB AND DAVID S GIBB	TH EXPLORATION LLC	1/8+	919 237	N/A	N/A	N/A	N/A	N/A	N/A
10*17365	A	9-7-24	MYSTI JOANNE GOODMAN	TH EXPLORATION LLC	1/8+	927 468	N/A	N/A	N/A	N/A	N/A	N/A
10*17370	A	9-7-24	KELLY JUNE GOODMAN	TH EXPLORATION LLC	1/8+	927 470	N/A	N/A	N/A	N/A	N/A	N/A
10*18256	A	9-7-24	JEFFREY STEPHEN GOODMAN	TH EXPLORATION LLC	1/8+	929 1	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.295.10	A	9-7-24	DEENA J PALOMO	TH EXPLORATION LLC	1/8+	905 470	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.295.11	A	9-7-24	REGINA D FIGUEROA AND DAVID FIGUEROA	TH EXPLORATION LLC	1/8+	905 435	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.295.12	A	9-7-24	EARL D WELLMAN	TH EXPLORATION LLC	1/8+	905 432	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.295.13	A	9-7-24	THE DOLLYE F WOOD REVOCABLE TRUST BY NICHOLAS CHARLES WOOD	TH EXPLORATION LLC	1/8+	904 641	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.295.3	A	9-7-24	HAZEL ARIZONA MOORE REYNOLDS	TH EXPLORATION LLC	1/8+	904 632	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.295.4	A	9-7-24	LLOYD D MOORE	TH EXPLORATION LLC	1/8+	904 459	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.295.5	A	9-7-24	DALE R MOORE	TH EXPLORATION LLC	1/8+	904 635	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.295.6	A	9-7-24	MARY I BURKHART	TH EXPLORATION LLC	1/8+	904 638	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.295.7	A	9-7-24	JEANNE V MELCHIORI	TH EXPLORATION LLC	1/8+	904 462	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.295.9	A	9-7-24	JAMES E HIMELRICK JR AND KAREN HIMELRICK	TH EXPLORATION LLC	1/8+	904 465	N/A	N/A	N/A	N/A	N/A	N/A
10*15501	B	9-7-12.1	RONALD AND EDNA MOORE	TRIENERGY INC	1/8+	661 449	N/A	N/A	N/A	TriEnergy to AB Resources: 20/252	AB Resources to Chevron: 756/379	Chevron to Tug Hill: 36/148
10*15501	C	9-7-12	RONALD AND EDNA MOORE	TRIENERGY INC	1/8+	661 449	N/A	N/A	N/A	TriEnergy to AB Resources: 20/252	AB Resources to Chevron: 756/379	Chevron to Tug Hill: 36/148
10*15486	D	9-7-22	RICHARD NEAL NORRIS AND CAROL NORRIS	TH EXPLORATION LLC	1/8+	905 430	N/A	N/A	N/A	N/A	N/A	N/A
10*15487	D	9-7-22	WILLIAM C RUTAN	TH EXPLORATION LLC	1/8+	905 475	N/A	N/A	N/A	N/A	N/A	N/A
10*15489	D	9-7-22	DONALD T SNODGRASS AND LILA F SNODGRASS	TH EXPLORATION LLC	1/8+	915 189	N/A	N/A	N/A	N/A	N/A	N/A
10*15492	D	9-7-22	HEATHER WHORTON STILLION AND CHRISTOPHER STILLION	TH EXPLORATION LLC	1/8+	905 473	N/A	N/A	N/A	N/A	N/A	N/A
10*15609	D	9-7-22	MICHELLE R WILHELM	CHEVRON USA INC	1/8+	834 456	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15610	D	9-7-22	SARAH STEVENS	CHEVRON USA INC	1/8+	834 432	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15611	D	9-7-22	ROBERT S ZEHNDER	CHEVRON USA INC	1/8+	834 437	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15612	D	9-7-22	VERA SHIRLENE & ARTHUR WORKMAN	CHEVRON USA INC	1/8+	837 361	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15613	D	9-7-22	THOMAS L STEVENS	CHEVRON USA INC	1/8+	836 290	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15614	D	9-7-22	DAVID F RINE	CHEVRON USA INC	1/8+	837 130	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15615	D	9-7-22	PAUL WAYNE RINE	CHEVRON USA INC	1/8+	837 133	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15616	D	9-7-22	PHILLIP C RINE	CHEVRON USA INC	1/8+	836 332	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15617	D	9-7-22	GLADYS M RINE	CHEVRON USA INC	1/8+	836 329	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15618	D	9-7-22	CHARLES A RINE	CHEVRON USA INC	1/8+	835 22	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15619	D	9-7-22	SHARON M REYNOLDS	CHEVRON USA INC	1/8+	840 322	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15620	D	9-7-22	GLADYS RUCKMAN	CHEVRON USA INC	1/8+	840 319	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15621	D	9-7-22	KATHERINE A STALNAKER	CHEVRON USA INC	1/8+	840 325	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15622	D	9-7-22	JAY LEROY RINE	CHEVRON USA INC	1/8+	840 351	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15623	D	9-7-22	SUSAN JANE WHEELER	CHEVRON USA INC	1/8+	847 473	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15624	D	9-7-22	RONALD A ZEHNDER	CHEVRON USA INC	1/8+	847 213	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15625	D	9-7-22	LAWRENCE W STIRLING	CHEVRON USA INC	1/8+	852 384	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15626	D	9-7-22	ROBERT J SEAVER	CHEVRON USA INC	1/8+	854 77	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15627	D	9-7-22	PAULA R SEAVER	CHEVRON USA INC	1/8+	853 483	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15628	D	9-7-22	JENNIFER SEAVER	CHEVRON USA INC	1/8+	853 272	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15629	D	9-7-22	DANIEL L RINE	CHEVRON USA INC	1/8+	860 86	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15630	D	9-7-22	JANE L HELFER	CHEVRON USA INC	1/8+	836 342	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15631	D	9-7-22	DAVID HEINZEROTH	CHEVRON USA INC	1/8+	836 219	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15632	D	9-7-22	MARIAN D JONES	CHEVRON USA INC	1/8+	835 38	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15633	D	9-7-22	ROGER W GATTS	CHEVRON USA INC	1/8+	835 35	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15634	D	9-7-22	JAMES W DAYTON	CHEVRON USA INC	1/8+	847 567	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15635	D	9-7-22	ELLEN L BETTINAZZI	CHEVRON USA INC	1/8+	847 496	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15636	D	9-7-22	JOSEPH ASTON JR BY HIS ATTORNEY-IN-FACT MELVIN J. ASTON	CHEVRON USA INC	1/8+	848 280	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15637	D	9-7-22	DONALD ASTON	CHEVRON USA INC	1/8+	848 274	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15638	D	9-7-22	PAUL J ASTON A/K/A JACK ASTON	CHEVRON USA INC	1/8+	848 277	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15639	D	9-7-22	DELLA M BURKEY A/K/A MAXINE ASTON	CHEVRON USA INC	1/8+	848 435	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15640	D	9-7-22	EMMA JANE DAVIS A/K/A EMA ASTON	CHEVRON USA INC	1/8+	848 271	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15641	D	9-7-22	HENRY W ASTON	CHEVRON USA INC	1/8+	847 138	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15642	D	9-7-22	KENNETH L DAYTON	CHEVRON USA INC	1/8+	852 366	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15643	D	9-7-22	NORMAN G JOHNSON	CHEVRON USA INC	1/8+	848 363	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15644	D	9-7-22	RONALD BEN LAUGHTON	CHEVRON USA INC	1/8+	852 360	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15645	D	9-7-22	KAREN K OLDFIELD	CHEVRON USA INC	1/8+	854 111	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15646	D	9-7-22	JUDITH A CIRONE	CHEVRON USA INC	1/8+	848 428	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148

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Tag	Tax-ID	Lessor	Lessee	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	
10*15647	D	9-7-22	KENNETH WENDELL OLDFIELD	CHEVRON USA INC	1/8+	861	589	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15648	D	9-7-22	MARTHA CRAWFORD	CHEVRON USA INC	1/8+	863	542	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15649	D	9-7-22	MARY JANE DANIEL	CHEVRON USA INC	1/8+	858	28	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15650	D	9-7-22	MARY GLADYS KUHN BY ATTORNEY IN FACT CONNIE LYONS	CHEVRON USA INC	1/8+	860	89	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15651	D	9-7-22	THOMAS G ASTON	CHEVRON USA INC	1/8+	860	83	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15652	D	9-7-22	ISAAC R ASTON A/K/A IKE ASTON	CHEVRON USA INC	1/8+	886	136	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15653	D	9-7-22	EMILY M HENCEROOTH	CHEVRON USA INC	1/8+	862	574	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15654	D	9-7-22	GEORGE F HENNINGER	CHEVRON USA INC	1/8+	863	612	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15655	D	9-7-22	ANNA EMERSON A/K/A ANNIE ASTON	CHEVRON USA INC	1/8+	864	603	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15656	D	9-7-22	PATTY L MYERS	CHEVRON USA INC	1/8+	867	100	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15657	D	9-7-22	MARY MARGARET ASTON	CHEVRON USA INC	1/8+	868	283	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15658	D	9-7-22	GLEN MATTHEW LAUGHTON	CHEVRON USA INC	1/8+	873	324	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15659	D	9-7-22	WILLIAM E DAYTON BY HIS AIF	CHEVRON USA INC	1/8+	871	190	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15660	D	9-7-22	DOUGLAS PAUL HENCEROOTH BY HIS AIF	CHEVRON USA INC	1/8+	871	193	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15662	D	9-7-22	LARRY LEE CONKLE	CHEVRON USA INC	1/8+	863	354	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15663	D	9-7-22	ROY A CONKLE SR AND LORIE A CONKLE	CHEVRON USA INC	1/8+	863	311	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15664	D	9-7-22	THERESA ANNE HUGHES	CHEVRON USA INC	1/8+	863	343	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15666	D	9-7-22	BRENDA J WHETZEL	CHEVRON USA INC	1/8+	863	635	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15673	D	9-7-22	DIANE B ASTON	CHEVRON USA INC	1/8+	864	595	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15679	D	9-7-22	CARA BONAR FREESE AND GEORGE H FREESE	TH EXPLORATION LLC	1/8+	905	481	N/A	N/A	N/A	N/A	N/A
10*15680	D	9-7-22	ROBERTA JANE CLAYTON	TH EXPLORATION LLC	1/8+	905	485	N/A	N/A	N/A	N/A	N/A
10*15688	D	9-7-22	JOSH GARY AND CHRISTINA M GARY	TH EXPLORATION LLC	1/8+	905	487	N/A	N/A	N/A	N/A	N/A
10*15689	D	9-7-22	JOHN LEROY BAKER AND CYNTHIA A BAKER	TH EXPLORATION LLC	1/8+	905	491	N/A	N/A	N/A	N/A	N/A
10*15690	D	9-7-22	ROBERT WHORTON AND LINDSAY WHORTON	TH EXPLORATION LLC	1/8+	905	489	N/A	N/A	N/A	N/A	N/A
10*15728	D	9-7-22	MARY LOU KITTELBERGER AND FREDERICK W KITTELBERGER	TH EXPLORATION LLC	1/8+	905	483	N/A	N/A	N/A	N/A	N/A
10*15729	D	9-7-22	DONNA KAY ALLEN AND ROGER ALLEN	TH EXPLORATION LLC	1/8+	905	493	N/A	N/A	N/A	N/A	N/A
10*15747	D	9-7-22	WILLIAM H BAKER	TH EXPLORATION LLC	1/8+	905	499	N/A	N/A	N/A	N/A	N/A
10*15748	D	9-7-22	CAROLYN LEE FUREY AND MARTIN J FUREY	TH EXPLORATION LLC	1/8+	905	495	N/A	N/A	N/A	N/A	N/A
10*15749	D	9-7-22	DIANA SMITH KNIGHT	TH EXPLORATION LLC	1/8+	905	497	N/A	N/A	N/A	N/A	N/A
10*16019	D	9-7-22	ROGER E GALLAGHER AND CONIE M GALLAGHER	TH EXPLORATION LLC	1/8+	905	503	N/A	N/A	N/A	N/A	N/A
10*16029	D	9-7-22	MARTHA ASHWORTH KNIGHT	TH EXPLORATION LLC	1/8+	905	505	N/A	N/A	N/A	N/A	N/A
10*16049	D	9-7-22	DANNY SHAWN KERNS AND AMY LYNN KERNS	TH EXPLORATION LLC	1/8+	905	518	N/A	N/A	N/A	N/A	N/A
10*16050	D	9-7-22	WILLIAM L GALLAGHER	TH EXPLORATION LLC	1/8+	905	512	N/A	N/A	N/A	N/A	N/A
10*16114	D	9-7-22	ROBERT SANDFORD BLACK AND JOAN BLACK	TH EXPLORATION LLC	1/8+	905	510	N/A	N/A	N/A	N/A	N/A
10*16123	D	9-7-22	PHYLLIS R GATTO	TH EXPLORATION LLC	1/8+	905	520	N/A	N/A	N/A	N/A	N/A
10*16138	D	9-7-22	LARRY W KUHN AND VICKIE B KUHN, HUSBAND AND WIFE	TH EXPLORATION LLC	1/8+	905	522	N/A	N/A	N/A	N/A	N/A
10*16139	D	9-7-22	HUBERT DEAN KUHN AND ANDREA KUHN	TH EXPLORATION LLC	1/8+	905	524	N/A	N/A	N/A	N/A	N/A
10*16140	D	9-7-22	ANDY PAUL KUHN & JACKIE KUHN	TH EXPLORATION LLC	1/8+	905	526	N/A	N/A	N/A	N/A	N/A
10*16141	D	9-7-22	HOWARD L KUHN AND MARY L KUHN	TH EXPLORATION LLC	1/8+	905	528	N/A	N/A	N/A	N/A	N/A
10*16177	D	9-7-22	JOSEPHINE BROWN	TH EXPLORATION LLC	1/8+	905	530	N/A	N/A	N/A	N/A	N/A
10*16179	D	9-7-22	DANA BERRY COPELAND	TH EXPLORATION LLC	1/8+	905	532	N/A	N/A	N/A	N/A	N/A
10*16287	D	9-7-22	CHARLINE M ENGLE AND KEVIN E ENGLE	TH EXPLORATION LLC	1/8+	905	534	N/A	N/A	N/A	N/A	N/A
10*16384	D	9-7-22	DANIELLE BONAR OSTER AND LOUIS MICHAEL OSTER	TH EXPLORATION LLC	1/8+	905	501	N/A	N/A	N/A	N/A	N/A
10*16389	D	9-7-22	CHARLES BERRY	TH EXPLORATION LLC	1/8+	905	508	N/A	N/A	N/A	N/A	N/A
10*16423	D	9-7-22	GAIL L VAUGHN AND LARRY VAUGHN	TH EXPLORATION LLC	1/8+	905	536	N/A	N/A	N/A	N/A	N/A
10*16426	D	9-7-22	RENE J RUTAN	TH EXPLORATION LLC	1/8+	905	538	N/A	N/A	N/A	N/A	N/A
10*16440	D	9-7-22	MELANIE C WILKINS AND ROBERT WILKINS	TH EXPLORATION LLC	1/8+	927	462	N/A	N/A	N/A	N/A	N/A
10*16513	D	9-7-22	LOWELL D AND JANICE L KNIGHT	TH EXPLORATION LLC	1/8+	927	458	N/A	N/A	N/A	N/A	N/A
10*16546	D	9-7-22	WALTER C RINE AND CHERYL A RINE	TH EXPLORATION LLC	1/8+	927	456	N/A	N/A	N/A	N/A	N/A
10*16558	D	9-7-22	PAUL BONAR KNIGHT AND SUZANNE L HOPKINS-KNIGHT	TH EXPLORATION LLC	1/8+	927	460	N/A	N/A	N/A	N/A	N/A
10*16820	D	9-7-22	ROBERTA ANN GIBB AND DAVID S GIBB	TH EXPLORATION LLC	1/8+	919	237	N/A	N/A	N/A	N/A	N/A
10*16844	D	9-7-22	HOLLY A LONGFELLOW	TH EXPLORATION LLC	1/8+	927	454	N/A	N/A	N/A	N/A	N/A
10*16845	D	9-7-22	TRACY L AND KEITH W BARNBY	TH EXPLORATION LLC	1/8+	927	452	N/A	N/A	N/A	N/A	N/A
10*16896	D	9-7-22	MARTHA J BLACK	TH EXPLORATION LLC	1/8+	927	450	N/A	N/A	N/A	N/A	N/A
10*17365	D	9-7-22	MYSTIJOANNE GOODMAN	TH EXPLORATION LLC	1/8+	927	468	N/A	N/A	N/A	N/A	N/A
10*17370	D	9-7-22	KELLY JUNE GOODMAN	TH EXPLORATION LLC	1/8+	927	470	N/A	N/A	N/A	N/A	N/A
10*17497	D	9-7-22	SUZANNA DOOLING AND MICHAEL DOOLING	TH EXPLORATION LLC	1/8+	927	464	N/A	N/A	N/A	N/A	N/A
10*17584	D	9-7-22	WILLIAM THOMAS BONAR AND MONICA BONAR	TH EXPLORATION LLC	1/8+	927	466	N/A	N/A	N/A	N/A	N/A
10*17625	D	9-7-22	CHARLES E BROWN	TH EXPLORATION LLC	1/8+	929	624	N/A	N/A	N/A	N/A	N/A
10*18256	D	9-7-22	JEFFREY STEPHEN GOODMAN	TH EXPLORATION LLC	1/8+	929	1	N/A	N/A	N/A	N/A	N/A
10*18415	D	9-7-22	CHAD LONGFELLOW	TH EXPLORATION LLC	1/8+	932	575	N/A	N/A	N/A	N/A	N/A
10*18514	D	9-7-22	JOHN R BERRY	TH EXPLORATION LLC	1/8+	933	569	N/A	N/A	N/A	N/A	N/A
10*18522	D	9-7-22	MARTIN REED BROWN AND DOLORES BROWN	TH EXPLORATION LLC	1/8+	933	558	N/A	N/A	N/A	N/A	N/A
10*19391	D	9-7-22	JEFF BERRY AND AMY BERRY	TH EXPLORATION LLC	1/8+	940	340	N/A	N/A	N/A	N/A	N/A
10*19406	D	9-7-22	WILLIAM KENT BROWN AND KAYLEEN BROWN	TH EXPLORATION LLC	1/8+	939	289	N/A	N/A	N/A	N/A	N/A
10*21960	D	9-7-22	AKRON BAPTIST TEMPLE	TH EXPLORATION LLC	1/8+	960	22	N/A	N/A	N/A	N/A	N/A
10*47051.295.10	D	9-7-22	DFENA J PALOMO	TH EXPLORATION LLC	1/8+	905	470	N/A	N/A	N/A	N/A	N/A

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10*16807	M	9-5-4	DAVID TULLER AND SUSAN STORTS TULLER	TH EXPLORATION LLC	1/8+	921 513	N/A	N/A	N/A	N/A	N/A	N/A
10*16808	M	9-5-4	MICHAEL L ORTIZ	TH EXPLORATION LLC	1/8+	921 349	N/A	N/A	N/A	N/A	N/A	N/A
10*16815	M	9-5-4	HAROLD W PYLE	TH EXPLORATION LLC	1/8+	921 357	N/A	N/A	N/A	N/A	N/A	N/A
10*16819	M	9-5-4	TERESA ORTIZ BIGGS	TH EXPLORATION LLC	1/8+	921 147	N/A	N/A	N/A	N/A	N/A	N/A
10*16821	M	9-5-4	SHEILA BRASKETT WEICHEY	TH EXPLORATION LLC	1/8+	921 516	N/A	N/A	N/A	N/A	N/A	N/A
10*16836	M	9-5-4	RICK A STORTS AND LENORE A STORTS	TH EXPLORATION LLC	1/8+	921 507	N/A	N/A	N/A	N/A	N/A	N/A
10*16837	M	9-5-4	TERRY L POFF AND THELMA A POFF	TH EXPLORATION LLC	1/8+	927 472	N/A	N/A	N/A	N/A	N/A	N/A
10*16838	M	9-5-4	ROBERT G FUNARI	TH EXPLORATION LLC	1/8+	821 82	N/A	N/A	N/A	N/A	N/A	N/A
10*16839	M	9-5-4	JAMES B FOUNDS AND LYNN M MOWERY	TH EXPLORATION LLC	1/8+	921 73	N/A	N/A	N/A	N/A	N/A	N/A
10*16863	M	9-5-4	TINA MOORE	TH EXPLORATION LLC	1/8+	921 334	N/A	N/A	N/A	N/A	N/A	N/A
10*16868	M	9-5-4	MICHAEL W STORTS AND JESSICA M STORTS	TH EXPLORATION LLC	1/8+	921 504	N/A	N/A	N/A	N/A	N/A	N/A
10*16879	M	9-5-4	MARK E STORTS AND LESLEY A STORTS	TH EXPLORATION LLC	1/8+	921 501	N/A	N/A	N/A	N/A	N/A	N/A
10*16880	M	9-5-4	BEVERLY ANN STORTS	TH EXPLORATION LLC	1/8+	921 498	N/A	N/A	N/A	N/A	N/A	N/A
10*16902	M	9-5-4	MARY BARCAW DUKE	TH EXPLORATION LLC	1/8+	921 105	N/A	N/A	N/A	N/A	N/A	N/A
10*16962	M	9-5-4	DENNIS P FLORY AND BARBARA EZELL FLORY	TH EXPLORATION LLC	1/8+	921 70	N/A	N/A	N/A	N/A	N/A	N/A
10*16976	M	9-5-4	LESTER G AND CONSTANCE B NICKOLSON	TH EXPLORATION LLC	1/8+	921 343	N/A	N/A	N/A	N/A	N/A	N/A
10*16977	M	9-5-4	JEREMY COCHENOUR	TH EXPLORATION LLC	1/8+	921 102	N/A	N/A	N/A	N/A	N/A	N/A
10*16987	M	9-5-4	LAURIE EZELL PERRY	TH EXPLORATION LLC	1/8+	921 355	N/A	N/A	N/A	N/A	N/A	N/A
10*16989	M	9-5-4	BRITTANY RICHARDSON	TH EXPLORATION LLC	1/8+	916 135	N/A	N/A	N/A	N/A	N/A	N/A
10*16991	M	9-5-4	MARYELLEN FOUNDS AND LAUREN FOUNDS	TH EXPLORATION LLC	1/8+	921 79	N/A	N/A	N/A	N/A	N/A	N/A
10*16996	M	9-5-4	THOMAS RANKIN	TH EXPLORATION LLC	1/8+	917 75	N/A	N/A	N/A	N/A	N/A	N/A
10*17130	M	9-5-4	CINDY L BARGER	TH EXPLORATION LLC	1/8+	921 137	N/A	N/A	N/A	N/A	N/A	N/A
10*17155	M	9-5-4	JESSE LEON JR AND TERESA GAIL EZELLE	TH EXPLORATION LLC	1/8+	921 118	N/A	N/A	N/A	N/A	N/A	N/A
10*17156	M	9-5-4	HENRI NELL JACKSON KENT BARNES	TH EXPLORATION LLC	1/8+	921 139	N/A	N/A	N/A	N/A	N/A	N/A
10*17157	M	9-5-4	JAMES N REEVES JR AND RITA M REEVES	TH EXPLORATION LLC	1/8+	921 367	N/A	N/A	N/A	N/A	N/A	N/A
10*17198	M	9-5-4	THOMAS G AND DIANE W BAYLESS	TH EXPLORATION LLC	1/8+	921 141	N/A	N/A	N/A	N/A	N/A	N/A
10*17205	M	9-5-4	SANDRA JEAN WILSON	TH EXPLORATION LLC	1/8+	921 524	N/A	N/A	N/A	N/A	N/A	N/A
10*17208	M	9-5-4	PATRICK S GALLAGHER AND JOYCE ANN FOUNDS	TH EXPLORATION LLC	1/8+	921 86	N/A	N/A	N/A	N/A	N/A	N/A
10*17274	M	9-5-4	DAVID H WILSON	TH EXPLORATION LLC	1/8+	921 474	N/A	N/A	N/A	N/A	N/A	N/A
10*17275	M	9-5-4	JOHN R REEVES AND MONA G REEVES	TH EXPLORATION LLC	1/8+	921 373	N/A	N/A	N/A	N/A	N/A	N/A
10*17276	M	9-5-4	BERTHA EZELL WYATT	TH EXPLORATION LLC	1/8+	921 526	N/A	N/A	N/A	N/A	N/A	N/A
10*17278	M	9-5-4	MICHAEL L EZELLE	TH EXPLORATION LLC	1/8+	921 121	N/A	N/A	N/A	N/A	N/A	N/A
10*17339	M	9-5-4	JOSEPH W FOUNDS	TH EXPLORATION LLC	1/8+	921 76	N/A	N/A	N/A	N/A	N/A	N/A
10*17377	M	9-5-4	MILTON HOWARD EZELLE JR AND ELIZABETH A EZELLE	TH EXPLORATION LLC	1/8+	921 123	N/A	N/A	N/A	N/A	N/A	N/A
10*17416	M	9-5-4	ANDREW M ORTIZ	TH EXPLORATION LLC	1/8+	921 346	N/A	N/A	N/A	N/A	N/A	N/A
10*17438	M	9-5-4	DENNIS M WILSON	TH EXPLORATION LLC	1/8+	921 476	N/A	N/A	N/A	N/A	N/A	N/A
10*17440	M	9-5-4	KENDRA WALISA	TH EXPLORATION LLC	1/8+	927 484	N/A	N/A	N/A	N/A	N/A	N/A
10*17441	M	9-5-4	RALPH J WILSON	TH EXPLORATION LLC	1/8+	921 522	N/A	N/A	N/A	N/A	N/A	N/A
10*17442	M	9-5-4	SHANE ALLEN AND MENDY JEAN ALLEN	TH EXPLORATION LLC	1/8+	921 134	N/A	N/A	N/A	N/A	N/A	N/A
10*17443	M	9-5-4	MICHELLE MORROW-BACK	TH EXPLORATION LLC	1/8+	921 337	N/A	N/A	N/A	N/A	N/A	N/A
10*17444	M	9-5-4	KELLY FOUNDS CAMPBELL	TH EXPLORATION LLC	1/8+	921 99	N/A	N/A	N/A	N/A	N/A	N/A
10*17449	M	9-5-4	PHYLLIS J BLAKE	TH EXPLORATION LLC	1/8+	921 150	N/A	N/A	N/A	N/A	N/A	N/A
10*17482	M	9-5-4	TERESA EZELLE RALYA AND DAVID L RALYA	TH EXPLORATION LLC	1/8+	927 487	N/A	N/A	N/A	N/A	N/A	N/A
10*17483	M	9-5-4	RICHARD I PYLE	TH EXPLORATION LLC	1/8+	921 359	N/A	N/A	N/A	N/A	N/A	N/A
10*17484	M	9-5-4	NELDA S JACKSON	TH EXPLORATION LLC	1/8+	921 330	N/A	N/A	N/A	N/A	N/A	N/A
10*17485	M	9-5-4	MARGIE ANN JACKSON ROBBINS GRAHAM	TH EXPLORATION LLC	1/8+	921 91	N/A	N/A	N/A	N/A	N/A	N/A
10*17526	M	9-5-4	JEFFREY L REEVES AND JODY L REEVES	TH EXPLORATION LLC	1/8+	921 370	N/A	N/A	N/A	N/A	N/A	N/A
10*17527	M	9-5-4	JAMES MICHAEL EZELL AND LUCILLE D EZELL	TH EXPLORATION LLC	1/8+	921 111	N/A	N/A	N/A	N/A	N/A	N/A
10*17538	M	9-5-4	CHERYL RANKIN-KING	TH EXPLORATION LLC	1/8+	952 160	N/A	N/A	N/A	N/A	N/A	N/A
10*17552	M	9-5-4	JOHN BEVACQUA AND PATRICIA A BEVACQUA	TH EXPLORATION LLC	1/8+	921 144	N/A	N/A	N/A	N/A	N/A	N/A
10*17554	M	9-5-4	MICHAEL T RANKIN	TH EXPLORATION LLC	1/8+	921 361	N/A	N/A	N/A	N/A	N/A	N/A
10*17561	M	9-5-4	ROGER L TYRELL AND KATHRYN L TYRELL	TH EXPLORATION LLC	1/8+	921 519	N/A	N/A	N/A	N/A	N/A	N/A
10*17564	M	9-5-4	JAMES RONALD NICKOLSON AND TRACEY E NICKOLSON	TH EXPLORATION LLC	1/8+	921 340	N/A	N/A	N/A	N/A	N/A	N/A
10*17565	M	9-5-4	JESSE ALLEN JACKSON AND ELIZABETH D JACKSON	TH EXPLORATION LLC	1/8+	921 327	N/A	N/A	N/A	N/A	N/A	N/A
10*17566	M	9-5-4	NATHAN P ERDOSSY AND BARBARA T ERDOSSY	TH EXPLORATION LLC	1/8+	921 108	N/A	N/A	N/A	N/A	N/A	N/A
10*17588	M	9-5-4	JAMES M JACKSON	TH EXPLORATION LLC	1/8+	921 325	N/A	N/A	N/A	N/A	N/A	N/A
10*17589	M	9-5-4	MARY CHRISTINE MCKENNA	TH EXPLORATION LLC	1/8+	921 332	N/A	N/A	N/A	N/A	N/A	N/A
10*17744	M	9-5-4	SAM PRESLEY EZELL	TH EXPLORATION LLC	1/8+	921 116	N/A	N/A	N/A	N/A	N/A	N/A
10*17983	M	9-5-4	HOLLY SUE CUTHBERT	TH EXPLORATION LLC	1/8+	925 380	N/A	N/A	N/A	N/A	N/A	N/A
10*18021	M	9-5-4	CHRISTOPHER A HANIFAN AND JACKIE F HANIFAN	TH EXPLORATION LLC	1/8+	927 267	N/A	N/A	N/A	N/A	N/A	N/A
10*18022	M	9-5-4	DALE P WARD AND CYNTHIA J WARD	TH EXPLORATION LLC	1/8+	927 264	N/A	N/A	N/A	N/A	N/A	N/A
10*19524	M	9-5-4	THE ESTATE OF AGNES IRENE EZELL CLARK BY DAVID M EDWARDS, EXEC	TH EXPLORATION LLC	1/8+	942 633	N/A	N/A	N/A	N/A	N/A	N/A
10*19692	M	9-5-4	KENDRA WALISA	TH EXPLORATION LLC	1/8+	924 484	N/A	N/A	N/A	N/A	N/A	N/A
10*19693	M	9-5-4	MARIO R FUNARI AIF ROBERT G FUNARI	TH EXPLORATION LLC	1/8+	936 145	N/A	N/A	N/A	N/A	N/A	N/A
10*19695	M	9-5-4	VIRGINIA P FOUNDS KASSERMAN ET	TH EXPLORATION LLC	1/8+	944 333	N/A	N/A	N/A	N/A	N/A	N/A
10*19939	M	9-5-4	ROBERT J MILLS & SHERRA SUE MILLS	TH EXPLORATION LLC	1/8+	949 212	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.1	M	9-5-4	STORCH JEAN A AIF JOHN HERMAN STORCH	TH EXPLORATION LLC	1/8+	877 216	N/A	N/A	N/A	N/A	N/A	N/A

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10*47051.223.15	M	9-5-4	LARRY D TAUNT AND NANCY L TAUNT	1/8+	908 14	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.2	M	9-5-4	SCHIEFER STEPHANIE L ET VIR	1/8+	908 24	N/A	N/A	N/A	N/A	Tug Hill to Chevron: 36/168	Chevron to Tug Hill: 42/435
10*47051.223.20	M	9-5-4	BARBARA A BUZZARD	1/8+	908 19	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.21	M	9-5-4	GARY T WARD AND SHARON D WARD	1/8+	908 136	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.24	M	9-5-4	JO DEE K DAVIS	1/8+	908 141	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.25	M	9-5-4	JOANNE WELCH	1/8+	908 69	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.26	M	9-5-4	WENDY L SMARKEL	1/8+	908 277	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.27	M	9-5-4	TIMI J HOBBS	1/8+	885 324	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.3	M	9-5-4	LEADBETTER ROBERT A ET UX	1/8+	908 165	N/A	N/A	N/A	N/A	Tug Hill to Chevron: 36/168	Chevron to Tug Hill: 42/435
10*47051.223.30	M	9-5-4	LAURIE DRIGGERS MANDERSON	1/8+	908 187	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.33	M	9-5-4	NANCY C HOUSLEY	1/8+	908 192	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.35	M	9-5-4	DEBRA L CIAFFAGLIONE	1/8+	907 634	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.6	M	9-5-4	JOSHUA RINE AND REBECCA RINE	1/8+	908 197	N/A	N/A	N/A	N/A	N/A	N/A
10*15481	N	9-5-5.4	DEAN P RIGBY AND SUSAN RIGBY	1/8+	908 203	N/A	N/A	N/A	N/A	N/A	N/A
10*15482	N	9-5-5.4	SUSAN NELSON	1/8+	865 186	N/A	N/A	N/A	N/A	N/A	N/A
10*15668	N	9-5-5.4	MICHAEL J SNYDER	1/8+	865 186	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15668	N	9-5-5.4	MICHAEL J SNYDER	1/8+	908 160	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 42/435
10*15686	N	9-5-5.4	JOHN OMER BOLTZ	1/8+	908 229	N/A	N/A	N/A	N/A	N/A	N/A
10*15750	N	9-5-5.4	SANDRA K TRULL	1/8+	908 231	N/A	N/A	N/A	N/A	N/A	N/A
10*16058	N	9-5-5.4	MATTIE RUTH JACKSON PRESCOTT	1/8+	908 233	N/A	N/A	N/A	N/A	N/A	N/A
10*16118	N	9-5-5.4	RUBY RIDDLE JACKSON	1/8+	908 224	N/A	N/A	N/A	N/A	N/A	N/A
10*16383	N	9-5-5.4	ROBERT STEPHEN DRIGGERS	1/8+	908 208	N/A	N/A	N/A	N/A	N/A	N/A
10*16414	N	9-5-5.4	MARY ELIZABETH DRIGGERS	1/8+	908 219	N/A	N/A	N/A	N/A	N/A	N/A
10*16416	N	9-5-5.4	CYNTHIA HUDSON	1/8+	908 241	N/A	N/A	N/A	N/A	N/A	N/A
10*16424	N	9-5-5.4	ROBERT J RIGBY	1/8+	908 584	N/A	N/A	N/A	N/A	N/A	N/A
10*16448	N	9-5-5.4	RALPH L AND JUANITA L CRIM	1/8+	908 245	N/A	N/A	N/A	N/A	N/A	N/A
10*16478	N	9-5-5.4	MARION L AND EMILY CAMPBELL	1/8+	908 248	N/A	N/A	N/A	N/A	N/A	N/A
10*16514	N	9-5-5.4	ALEX R CAMPBELL & JOYCE A CAMPBELL	1/8+	908 251	N/A	N/A	N/A	N/A	N/A	N/A
10*16515	N	9-5-5.4	ANNA MARIE JACKSON	1/8+	908 253	N/A	N/A	N/A	N/A	N/A	N/A
10*16516	N	9-5-5.4	WILSON ANDREW JACKSON	1/8+	908 263	N/A	N/A	N/A	N/A	N/A	N/A
10*16662	N	9-5-5.4	RICHARD THOMAS MIMS & VICKIE J MIMS	1/8+	908 274	N/A	N/A	N/A	N/A	N/A	N/A
10*16738	N	9-5-5.4	CHARLES A RINE AND RUTH K RINE	1/8+	942 451	N/A	N/A	N/A	N/A	N/A	N/A
10*16787	N	9-5-5.4	HERBERT B CAMPBEL & DONNA D CAMPBELL	1/8+	921 93	N/A	N/A	N/A	N/A	N/A	N/A
10*16800	N	9-5-5.4	JAMES KENNETH JACKSON AND JULIE JACKSON	1/8+	921 528	N/A	N/A	N/A	N/A	N/A	N/A
10*16806	N	9-5-5.4	VIRGINIA WHITMAN TRUST DTD 7-25-1984 JON WHITMAN TRUSTEE	1/8+	921 70	N/A	N/A	N/A	N/A	N/A	N/A
10*16962	N	9-5-5.4	DENNIS P FLORY AND BARBARA EZELL FLORY	1/8+	921 343	N/A	N/A	N/A	N/A	N/A	N/A
10*16976	N	9-5-5.4	LESTER G AND CONSTANCE B NICKOLSON	1/8+	921 355	N/A	N/A	N/A	N/A	N/A	N/A
10*16987	N	9-5-5.4	LAURIE EZELL PERRY	1/8+	921 137	N/A	N/A	N/A	N/A	N/A	N/A
10*17130	N	9-5-5.4	CINDY L BARGER	1/8+	921 118	N/A	N/A	N/A	N/A	N/A	N/A
10*17155	N	9-5-5.4	JESSE LEON JR AND TERESA GAIL EZELLE	1/8+	921 139	N/A	N/A	N/A	N/A	N/A	N/A
10*17156	N	9-5-5.4	HENRI NELL JACKSON KENT BARNES	1/8+	921 367	N/A	N/A	N/A	N/A	N/A	N/A
10*17157	N	9-5-5.4	JAMES N REEVES JR AND RITA M REEVES	1/8+	921 141	N/A	N/A	N/A	N/A	N/A	N/A
10*17198	N	9-5-5.4	THOMAS G AND DIANE W BAYLESS	1/8+	921 524	N/A	N/A	N/A	N/A	N/A	N/A
10*17205	N	9-5-5.4	SANDRA JEAN WILSON	1/8+	921 474	N/A	N/A	N/A	N/A	N/A	N/A
10*17274	N	9-5-5.4	DAVID H WILSON	1/8+	921 373	N/A	N/A	N/A	N/A	N/A	N/A
10*17275	N	9-5-5.4	JOHN R REEVES AND MONA G REEVES	1/8+	921 526	N/A	N/A	N/A	N/A	N/A	N/A
10*17276	N	9-5-5.4	BERTHA EZELL WYATT	1/8+	921 121	N/A	N/A	N/A	N/A	N/A	N/A
10*17278	N	9-5-5.4	MICHAEL L EZELLE	1/8+	921 123	N/A	N/A	N/A	N/A	N/A	N/A
10*17377	N	9-5-5.4	MILTON HOWARD EZELLE JR AND ELIZABETH A EZELLE	1/8+	921 476	N/A	N/A	N/A	N/A	N/A	N/A
10*17438	N	9-5-5.4	DENNIS M WILSON	1/8+	921 522	N/A	N/A	N/A	N/A	N/A	N/A
10*17441	N	9-5-5.4	RALPH J WILSON	1/8+	921 150	N/A	N/A	N/A	N/A	N/A	N/A
10*17449	N	9-5-5.4	PHYLLIS J BLAKE	1/8+	927 487	N/A	N/A	N/A	N/A	N/A	N/A
10*17482	N	9-5-5.4	TERESA EZELLE RALYA AND DAVID L RALYA	1/8+	921 330	N/A	N/A	N/A	N/A	N/A	N/A
10*17484	N	9-5-5.4	NELDA S JACKSON	1/8+	921 91	N/A	N/A	N/A	N/A	N/A	N/A
10*17485	N	9-5-5.4	MARGIE ANN JACKSON ROBBINS GRAHAM	1/8+	921 370	N/A	N/A	N/A	N/A	N/A	N/A
10*17526	N	9-5-5.4	JEFFREY L REEVES AND JODY L REEVES	1/8+	921 111	N/A	N/A	N/A	N/A	N/A	N/A
10*17527	N	9-5-5.4	JAMES MICHAEL EZELL AND LUCILLE D EZELL	1/8+	921 519	N/A	N/A	N/A	N/A	N/A	N/A
10*17561	N	9-5-5.4	ROGER L TYRELL AND KATHRYN L TYRELL	1/8+	921 340	N/A	N/A	N/A	N/A	N/A	N/A
10*17564	N	9-5-5.4	JAMES RONALD NICKOLSON AND TRACEY E NICKOLSON	1/8+	921 327	N/A	N/A	N/A	N/A	N/A	N/A
10*17565	N	9-5-5.4	JESSE ALLEN JACKSON AND ELIZABETH D JACKSON	1/8+	921 108	N/A	N/A	N/A	N/A	N/A	N/A
10*17566	N	9-5-5.4	NATHAN P ERDOSSY AND BARBARA T ERDOSSY	1/8+	921 325	N/A	N/A	N/A	N/A	N/A	N/A
10*17588	N	9-5-5.4	JAMES M JACKSON	1/8+	921 332	N/A	N/A	N/A	N/A	N/A	N/A
10*17589	N	9-5-5.4	MARY CHRISTINE MCKENNA	1/8+	921 116	N/A	N/A	N/A	N/A	N/A	N/A
10*17744	N	9-5-5.4	SAM PRESLEY EZELL	1/8+	925 380	N/A	N/A	N/A	N/A	N/A	N/A
10*17983	N	9-5-5.4	HOLLY SUE CUTHBERT	1/8+	927 267	N/A	N/A	N/A	N/A	N/A	N/A
10*18021	N	9-5-5.4	CHRISTOPHER A HANIFAN AND JACKIE F HANIFAN	1/8+	927 264	N/A	N/A	N/A	N/A	N/A	N/A
10*18022	N	9-5-5.4	DALE P WARD AND CYNTHIA J WARD	1/8+		N/A	N/A	N/A	N/A	N/A	N/A

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Tag	Tax-ID	Lessor	Lessee	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*19524	N	9-5-5.4	THE ESTATE OF AGNES IRENE EZELL CLARK BY DAVID M EDWARDS, EXEC	1/8+	942 633	N/A	N/A	N/A	N/A	N/A	N/A
10*19695	N	9-5-5.4	VIRGINIA P FOUNDS KASSERMAN ET	1/8+	944 333	N/A	N/A	N/A	N/A	N/A	N/A
10*19939	N	9-5-5.4	ROBERT J MILLS & SHERRA SUE MILLS	1/8+	949 212	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.1	N	9-5-5.4	JEAN ANNE GORBY STORCH AIF JOHN HERMAN STORCH	1/8+	877 216	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.15	N	9-5-5.4	LARRY D TAUNT AND NANCY L TAUNT	1/8+	908 14	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.2	N	9-5-5.4	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	1/8+	885 321	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.20	N	9-5-5.4	BARBARA A BUZZARD	1/8+	908 24	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.21	N	9-5-5.4	GARY T WARD AND SHARON D WARD	1/8+	908 19	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.24	N	9-5-5.4	JO DEE K DAVIS	1/8+	908 136	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.25	N	9-5-5.4	JOANNE WELCH	1/8+	908 141	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.26	N	9-5-5.4	WENDY L SMARKEL	1/8+	908 69	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.27	N	9-5-5.4	TIMI J HOBBS	1/8+	908 277	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.29	N	9-5-5.4	PATSY JO RAJU	1/8+	908 155	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.3	N	9-5-5.4	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	1/8+	885 324	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.30	N	9-5-5.4	LAURIE DRIGGERS MANDERSON	1/8+	908 165	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.33	N	9-5-5.4	NANCY C HOUSLEY	1/8+	908 187	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.35	N	9-5-5.4	DEBRA L CIAFFAGLIONE	1/8+	908 192	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.6	N	9-5-5.4	JOSHUA RINE AND REBECCA RINE	1/8+	907 634	N/A	N/A	N/A	N/A	N/A	N/A
10*15481	O	9-5-18	DEAN P RIGBY AND SUSAN RIGBY	1/8+	908 197	N/A	N/A	N/A	N/A	N/A	N/A
10*15482	O	9-5-18	SUSAN NELSON	1/8+	908 203	N/A	N/A	N/A	N/A	N/A	N/A
10*15674	O	9-5-18	DONALD E LEACH ET AL	1/8+	882 209	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15686	O	9-5-18	JOHN OMER BOLTZ	1/8+	908 160	N/A	N/A	N/A	N/A	N/A	N/A
10*15750	O	9-5-18	SANDRA K TRULL	1/8+	908 229	N/A	N/A	N/A	N/A	N/A	N/A
10*16058	O	9-5-18	MATTIE RUTH JACKSON PRESCOTT	1/8+	908 231	N/A	N/A	N/A	N/A	N/A	N/A
10*16118	O	9-5-18	RUBY RIDDLE JACKSON	1/8+	908 233	N/A	N/A	N/A	N/A	N/A	N/A
10*16383	O	9-5-18	ROBERT STEPHEN DRIGGERS	1/8+	908 224	N/A	N/A	N/A	N/A	N/A	N/A
10*16414	O	9-5-18	MARY ELIZABETH DRIGGERS	1/8+	908 208	N/A	N/A	N/A	N/A	N/A	N/A
10*16416	O	9-5-18	CYNTHIA HUDSON	1/8+	908 219	N/A	N/A	N/A	N/A	N/A	N/A
10*16424	O	9-5-18	ROBERT J RIGBY	1/8+	908 241	N/A	N/A	N/A	N/A	N/A	N/A
10*16448	O	9-5-18	RALPH L AND JUANITA L CRIM	1/8+	908 584	N/A	N/A	N/A	N/A	N/A	N/A
10*16478	O	9-5-18	MARION L AND EMILY CAMPBELL	1/8+	908 245	N/A	N/A	N/A	N/A	N/A	N/A
10*16514	O	9-5-18	ALEX R CAMPBELL & JOYCE A CAMPBELL	1/8+	908 248	N/A	N/A	N/A	N/A	N/A	N/A
10*16515	O	9-5-18	ANNA MARIE JACKSON	1/8+	908 251	N/A	N/A	N/A	N/A	N/A	N/A
10*16516	O	9-5-18	WILSON ANDREW JACKSON	1/8+	908 253	N/A	N/A	N/A	N/A	N/A	N/A
10*16662	O	9-5-18	RICHARD THOMAS MIMS & VICKIE J MIMS	1/8+	908 263	N/A	N/A	N/A	N/A	N/A	N/A
10*16738	O	9-5-18	CHARLES A RINE AND RUTH K RINE	1/8+	908 274	N/A	N/A	N/A	N/A	N/A	N/A
10*16787	O	9-5-18	HERBERT B CAMPBEL & DONNA D CAMPBELL	1/8+	942 451	N/A	N/A	N/A	N/A	N/A	N/A
10*16800	O	9-5-18	JAMES KENNETH JACKSON AND JULIE JACKSON	1/8+	921 93	N/A	N/A	N/A	N/A	N/A	N/A
10*16806	O	9-5-18	VIRGINIA WHITMAN TRUST DTD 7-25-1984 JON WHITMAN TRUSTEE	1/8+	921 528	N/A	N/A	N/A	N/A	N/A	N/A
10*16962	O	9-5-18	DENNIS P FLORY AND BARBARA EZELL FLORY	1/8+	921 70	N/A	N/A	N/A	N/A	N/A	N/A
10*16976	O	9-5-18	LESTER G AND CONSTANCE B NICKOLSON	1/8+	921 343	N/A	N/A	N/A	N/A	N/A	N/A
10*16987	O	9-5-18	LAURIE EZELL PERRY	1/8+	921 355	N/A	N/A	N/A	N/A	N/A	N/A
10*17130	O	9-5-18	CINDY L BARGER	1/8+	921 137	N/A	N/A	N/A	N/A	N/A	N/A
10*17155	O	9-5-18	JESSE LEON JR AND TERESA GAIL EZELLE	1/8+	921 118	N/A	N/A	N/A	N/A	N/A	N/A
10*17156	O	9-5-18	HENRI NELL JACKSON KENT BARNES	1/8+	921 139	N/A	N/A	N/A	N/A	N/A	N/A
10*17157	O	9-5-18	JAMES N REEVES JR AND RITA M REEVES	1/8+	921 367	N/A	N/A	N/A	N/A	N/A	N/A
10*17198	O	9-5-18	THOMAS G AND DIANE W BAYLESS	1/8+	921 141	N/A	N/A	N/A	N/A	N/A	N/A
10*17205	O	9-5-18	SANDRA JEAN WILSON	1/8+	921 524	N/A	N/A	N/A	N/A	N/A	N/A
10*17274	O	9-5-18	DAVID H WILSON	1/8+	921 474	N/A	N/A	N/A	N/A	N/A	N/A
10*17275	O	9-5-18	JOHN R REEVES AND MONA G REEVES	1/8+	921 373	N/A	N/A	N/A	N/A	N/A	N/A
10*17276	O	9-5-18	BERTHA EZELL WYATT	1/8+	921 526	N/A	N/A	N/A	N/A	N/A	N/A
10*17278	O	9-5-18	MICHAEL L EZELLE	1/8+	921 121	N/A	N/A	N/A	N/A	N/A	N/A
10*17377	O	9-5-18	MILTON HOWARD EZELLE JR AND ELIZABETH A EZELLE	1/8+	921 123	N/A	N/A	N/A	N/A	N/A	N/A
10*17438	O	9-5-18	DENNIS M WILSON	1/8+	921 476	N/A	N/A	N/A	N/A	N/A	N/A
10*17441	O	9-5-18	RALPH J WILSON	1/8+	921 522	N/A	N/A	N/A	N/A	N/A	N/A
10*17449	O	9-5-18	PHYLLIS J BLAKE	1/8+	921 150	N/A	N/A	N/A	N/A	N/A	N/A
10*17482	O	9-5-18	TERESA EZELLE RALYA AND DAVID L RALYA	1/8+	927 487	N/A	N/A	N/A	N/A	N/A	N/A
10*17484	O	9-5-18	NELDA S JACKSON	1/8+	921 330	N/A	N/A	N/A	N/A	N/A	N/A
10*17485	O	9-5-18	MARGIE ANN JACKSON ROBBINS GRAHAM	1/8+	921 91	N/A	N/A	N/A	N/A	N/A	N/A
10*17526	O	9-5-18	JEFFREY L REEVES AND JODY L REEVES	1/8+	921 370	N/A	N/A	N/A	N/A	N/A	N/A
10*17527	O	9-5-18	JAMES MICHAEL EZELL AND LUCILLE D EZELL	1/8+	921 111	N/A	N/A	N/A	N/A	N/A	N/A
10*17561	O	9-5-18	ROGER L TYRELL AND KATHRYN L TYRELL	1/8+	921 519	N/A	N/A	N/A	N/A	N/A	N/A
10*17564	O	9-5-18	JAMES RONALD NICKOLSON AND TRACEY E NICKOLSON	1/8+	921 340	N/A	N/A	N/A	N/A	N/A	N/A
10*17565	O	9-5-18	JESSE ALLEN JACKSON AND ELIZABETH D JACKSON	1/8+	921 327	N/A	N/A	N/A	N/A	N/A	N/A
10*17566	O	9-5-18	NATHAN P ERDOSSY AND BARBARA T ERDOSSY	1/8+	921 108	N/A	N/A	N/A	N/A	N/A	N/A
10*17588	O	9-5-18	JAMES M JACKSON	1/8+	921 325	N/A	N/A	N/A	N/A	N/A	N/A
10*17589	O	9-5-18	MARY CHRISTINE MCKENNA	1/8+	921 332	N/A	N/A	N/A	N/A	N/A	N/A

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Tag	Tax-ID	Lessor	Lessee	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment		
10*17744	O	9-5-18	SAM PRESLEY EZELL	TH EXPLORATION LLC	1/8+	921	116	N/A	N/A	N/A	N/A	N/A	
10*17983	O	9-5-18	HOLLY SUE CUTHBERT	TH EXPLORATION LLC	1/8+	925	380	N/A	N/A	N/A	N/A	N/A	
10*18021	O	9-5-18	CHRISTOPHER A HANIFAN AND JACKIE F HANIFAN	TH EXPLORATION LLC	1/8+	927	267	N/A	N/A	N/A	N/A	N/A	
10*18022	O	9-5-18	DALE P WARD AND CYNTHIA J WARD	TH EXPLORATION LLC	1/8+	927	264	N/A	N/A	N/A	N/A	N/A	
10*19524	O	9-5-18	THE ESTATE OF AGNES IRENE EZELL CLARK BY DAVID M EDWARDS, EXEC	TH EXPLORATION LLC	1/8+	942	633	N/A	N/A	N/A	N/A	N/A	
10*19695	O	9-5-18	VIRGINIA P FOUNDS KASSERMAN ET	TH EXPLORATION LLC	1/8+	944	333	N/A	N/A	N/A	N/A	N/A	
10*19939	O	9-5-18	ROBERT J MILLS & SHERRA SUE MILLS	TH EXPLORATION LLC	1/8+	949	212	N/A	N/A	N/A	N/A	N/A	
10*47051.223.1	O	9-5-18	JEAN ANNE GORBY STORCH AIF JOHN HERMAN STORCH	TH EXPLORATION LLC	1/8+	877	216	N/A	N/A	N/A	N/A	N/A	
10*47051.223.15	O	9-5-18	LARRY D TAUNT AND NANCY L TAUNT	TH EXPLORATION LLC	1/8+	908	14	N/A	N/A	N/A	N/A	N/A	
10*47051.223.2	O	9-5-18	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	TH EXPLORATION LLC	1/8+	885	321	N/A	N/A	N/A	N/A	N/A	
10*47051.223.20	O	9-5-18	BARBARA A BUZZARD	TH EXPLORATION LLC	1/8+	908	24	N/A	N/A	N/A	N/A	N/A	
10*47051.223.21	O	9-5-18	GARY T WARD AND SHARON D WARD	TH EXPLORATION LLC	1/8+	908	19	N/A	N/A	N/A	N/A	N/A	
10*47051.223.24	O	9-5-18	JO DEE K DAVIS	TH EXPLORATION LLC	1/8+	908	136	N/A	N/A	N/A	N/A	N/A	
10*47051.223.25	O	9-5-18	JOANNE WELCH	TH EXPLORATION LLC	1/8+	908	141	N/A	N/A	N/A	N/A	N/A	
10*47051.223.26	O	9-5-18	WENDY L SMARKEL	TH EXPLORATION LLC	1/8+	908	69	N/A	N/A	N/A	N/A	N/A	
10*47051.223.27	O	9-5-18	TIMI J HOBBS	TH EXPLORATION LLC	1/8+	908	277	N/A	N/A	N/A	N/A	N/A	
10*47051.223.29	O	9-5-18	PATSY JO RAJU	TH EXPLORATION LLC	1/8+	908	155	N/A	N/A	N/A	N/A	N/A	
10*47051.223.3	O	9-5-18	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	TH EXPLORATION LLC	1/8+	885	324	N/A	N/A	N/A	N/A	N/A	
10*47051.223.30	O	9-5-18	LAURIE DRIGGERS MANDERSON	TH EXPLORATION LLC	1/8+	908	165	N/A	N/A	N/A	N/A	N/A	
10*47051.223.33	O	9-5-18	NANCY C HOUSLEY	TH EXPLORATION LLC	1/8+	908	187	N/A	N/A	N/A	N/A	N/A	
10*47051.223.35	O	9-5-18	DEBRA L CIAFFAGLIONE	TH EXPLORATION LLC	1/8+	908	192	N/A	N/A	N/A	N/A	N/A	
10*47051.223.6	O	9-5-18	JOSHUA RINE AND REBECCA RINE	TH EXPLORATION LLC	1/8+	907	634	N/A	N/A	N/A	N/A	N/A	
10*15481	P	9-5-17	DEAN P RIGBY AND SUSAN RIGBY	TH EXPLORATION LLC	1/8+	908	197	N/A	N/A	N/A	N/A	N/A	
10*15482	P	9-5-17	SUSAN NELSON	TH EXPLORATION LLC	1/8+	908	203	N/A	N/A	N/A	N/A	N/A	
10*15522	P	9-5-17	CARLA S CROW	TRIENERGY HOLDINGS LLC	1/8+	728	412	N/A	N/A	N/A	TriEnergy to NPAR LLC: 25/463	NPAR to Chevron: 756/307	Chevron to Tug Hill: 36/148
10*15686	P	9-5-17	JOHN OMER BOLTZ	TH EXPLORATION LLC	1/8+	908	160	N/A	N/A	N/A	N/A	N/A	N/A
10*15750	P	9-5-17	SANDRA K TRULL	TH EXPLORATION LLC	1/8+	908	229	N/A	N/A	N/A	N/A	N/A	N/A
10*16058	P	9-5-17	MATTIE RUTH JACKSON PRESCOTT	TH EXPLORATION LLC	1/8+	908	231	N/A	N/A	N/A	N/A	N/A	N/A
10*16118	P	9-5-17	RUBY RIDDLIE JACKSON	TH EXPLORATION LLC	1/8+	908	233	N/A	N/A	N/A	N/A	N/A	N/A
10*16383	P	9-5-17	ROBERT STEPHEN DRIGGERS	TH EXPLORATION LLC	1/8+	908	224	N/A	N/A	N/A	N/A	N/A	N/A
10*16414	P	9-5-17	MARY ELIZABETH DRIGGERS	TH EXPLORATION LLC	1/8+	908	208	N/A	N/A	N/A	N/A	N/A	N/A
10*16416	P	9-5-17	CYNTHIA HUDSON	TH EXPLORATION LLC	1/8+	908	219	N/A	N/A	N/A	N/A	N/A	N/A
10*16424	P	9-5-17	ROBERT J RIGBY	TH EXPLORATION LLC	1/8+	908	241	N/A	N/A	N/A	N/A	N/A	N/A
10*16448	P	9-5-17	RALPH L AND JUANITA L CRIM	TH EXPLORATION LLC	1/8+	908	584	N/A	N/A	N/A	N/A	N/A	N/A
10*16478	P	9-5-17	MARION L AND EMILY CAMPBELL	TH EXPLORATION LLC	1/8+	908	245	N/A	N/A	N/A	N/A	N/A	N/A
10*16514	P	9-5-17	ALEX R CAMPBELL & JOYCE A CAMPBELL	TH EXPLORATION LLC	1/8+	908	248	N/A	N/A	N/A	N/A	N/A	N/A
10*16515	P	9-5-17	ANNA MARIE JACKSON	TH EXPLORATION LLC	1/8+	908	251	N/A	N/A	N/A	N/A	N/A	N/A
10*16516	P	9-5-17	WILSON ANDREW JACKSON	TH EXPLORATION LLC	1/8+	908	253	N/A	N/A	N/A	N/A	N/A	N/A
10*16662	P	9-5-17	RICHARD THOMAS MIMS & VICKIE J MIMS	TH EXPLORATION LLC	1/8+	908	263	N/A	N/A	N/A	N/A	N/A	N/A
10*16738	P	9-5-17	CHARLES A RINE AND RUTH K RINE	TH EXPLORATION LLC	1/8+	908	274	N/A	N/A	N/A	N/A	N/A	N/A
10*16787	P	9-5-17	HERBERT B CAMPBELL & DONNA D CAMPBELL	TH EXPLORATION LLC	1/8+	942	451	N/A	N/A	N/A	N/A	N/A	N/A
10*16800	P	9-5-17	JAMES KENNETH JACKSON AND JULIE JACKSON	TH EXPLORATION LLC	1/8+	921	93	N/A	N/A	N/A	N/A	N/A	N/A
10*16806	P	9-5-17	VIRGINIA WHITMAN TRUST DTD 7-25-1984 JON WHITMAN TRUSTEE	TH EXPLORATION LLC	1/8+	921	528	N/A	N/A	N/A	N/A	N/A	N/A
10*16962	P	9-5-17	DENNIS P FLORY AND BARBARA EZELL FLORY	TH EXPLORATION LLC	1/8+	921	70	N/A	N/A	N/A	N/A	N/A	N/A
10*16976	P	9-5-17	LESTER G AND CONSTANCE B NICKOLSON	TH EXPLORATION LLC	1/8+	921	343	N/A	N/A	N/A	N/A	N/A	N/A
10*16987	P	9-5-17	LAURIE EZELL PERRY	TH EXPLORATION LLC	1/8+	921	355	N/A	N/A	N/A	N/A	N/A	N/A
10*17130	P	9-5-17	CINDY L BARGER	TH EXPLORATION LLC	1/8+	921	137	N/A	N/A	N/A	N/A	N/A	N/A
10*17155	P	9-5-17	JESSE LEON JR AND TERESA GAIL EZELLE	TH EXPLORATION LLC	1/8+	921	118	N/A	N/A	N/A	N/A	N/A	N/A
10*17156	P	9-5-17	HENRI NELL JACKSON KENT BARNES	TH EXPLORATION LLC	1/8+	921	139	N/A	N/A	N/A	N/A	N/A	N/A
10*17157	P	9-5-17	JAMES N REEVES JR AND RITA M REEVES	TH EXPLORATION LLC	1/8+	921	367	N/A	N/A	N/A	N/A	N/A	N/A
10*17198	P	9-5-17	THOMAS G AND DIANE W BAYLESS	TH EXPLORATION LLC	1/8+	921	141	N/A	N/A	N/A	N/A	N/A	N/A
10*17205	P	9-5-17	SANDRA JEAN WILSON	TH EXPLORATION LLC	1/8+	921	524	N/A	N/A	N/A	N/A	N/A	N/A
10*17274	P	9-5-17	DAVID H WILSON	TH EXPLORATION LLC	1/8+	921	474	N/A	N/A	N/A	N/A	N/A	N/A
10*17275	P	9-5-17	JOHN R REEVES AND MONA G REEVES	TH EXPLORATION LLC	1/8+	921	373	N/A	N/A	N/A	N/A	N/A	N/A
10*17276	P	9-5-17	BERTHA EZELL WYATT	TH EXPLORATION LLC	1/8+	921	526	N/A	N/A	N/A	N/A	N/A	N/A
10*17278	P	9-5-17	MICHAEL L EZELLE	TH EXPLORATION LLC	1/8+	921	121	N/A	N/A	N/A	N/A	N/A	N/A
10*17377	P	9-5-17	MILTON HOWARD EZELLE JR AND ELIZABETH A EZELLE	TH EXPLORATION LLC	1/8+	921	123	N/A	N/A	N/A	N/A	N/A	N/A
10*17438	P	9-5-17	DENNIS M WILSON	TH EXPLORATION LLC	1/8+	921	476	N/A	N/A	N/A	N/A	N/A	N/A
10*17441	P	9-5-17	RALPH J WILSON	TH EXPLORATION LLC	1/8+	921	522	N/A	N/A	N/A	N/A	N/A	N/A
10*17449	P	9-5-17	PHYLLIS J BLAKE	TH EXPLORATION LLC	1/8+	921	150	N/A	N/A	N/A	N/A	N/A	N/A
10*17482	P	9-5-17	TERESA EZELLE RALYA AND DAVID L RALYA	TH EXPLORATION LLC	1/8+	927	487	N/A	N/A	N/A	N/A	N/A	N/A
10*17484	P	9-5-17	NELDA S JACKSON	TH EXPLORATION LLC	1/8+	921	330	N/A	N/A	N/A	N/A	N/A	N/A
10*17485	P	9-5-17	MARGIE ANN JACKSON ROBBINS GRAHAM	TH EXPLORATION LLC	1/8+	921	91	N/A	N/A	N/A	N/A	N/A	N/A
10*17526	P	9-5-17	JEFFREY L REEVES AND JODY L REEVES	TH EXPLORATION LLC	1/8+	921	370	N/A	N/A	N/A	N/A	N/A	N/A
10*17527	P	9-5-17	JAMES MICHAEL EZELL AND LUCILLE D EZELL	TH EXPLORATION LLC	1/8+	921	111	N/A	N/A	N/A	N/A	N/A	N/A
10*17561	P	9-5-17	ROGER L TYRELL AND KATHRYN L TYRELL	TH EXPLORATION LLC	1/8+	921	519	N/A	N/A	N/A	N/A	N/A	N/A

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10*17564	P	9-5-17	JAMES RONALD NICKOLSON AND TRACEY E NICKOLSON	1/8+	921 340	N/A	N/A	N/A	N/A	N/A	N/A
10*17565	P	9-5-17	JESSE ALLEN JACKSON AND ELIZABETH D JACKSON	1/8+	921 327	N/A	N/A	N/A	N/A	N/A	N/A
10*17566	P	9-5-17	NATHAN P ERDOSSY AND BARBARA T ERDOSSY	1/8+	921 108	N/A	N/A	N/A	N/A	N/A	N/A
10*17588	P	9-5-17	JAMES M JACKSON	1/8+	921 325	N/A	N/A	N/A	N/A	N/A	N/A
10*17589	P	9-5-17	MARY CHRISTINE MCKENNA	1/8+	921 332	N/A	N/A	N/A	N/A	N/A	N/A
10*17744	P	9-5-17	SAM PRESLEY EZELL	1/8+	921 116	N/A	N/A	N/A	N/A	N/A	N/A
10*17983	P	9-5-17	HOLLY SUE CUTHBERT	1/8+	925 380	N/A	N/A	N/A	N/A	N/A	N/A
10*18021	P	9-5-17	CHRISTOPHER A HANIFAN AND JACKIE F HANIFAN	1/8+	927 267	N/A	N/A	N/A	N/A	N/A	N/A
10*18022	P	9-5-17	DALE P WARD AND CYNTHIA J WARD	1/8+	927 264	N/A	N/A	N/A	N/A	N/A	N/A
10*19524	P	9-5-17	THE ESTATE OF AGNES IRENE EZELL CLARK BY DAVID M EDWARDS, EXEC	1/8+	942 633	N/A	N/A	N/A	N/A	N/A	N/A
10*19695	P	9-5-17	VIRGINIA P FOUNDS KASSERMAN ET	1/8+	944 333	N/A	N/A	N/A	N/A	N/A	N/A
10*19939	P	9-5-17	ROBERT J MILLS & SHERRA SUE MILLS	1/8+	949 212	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.1	P	9-5-17	JEAN ANNE GORBY STORCH AIF JOHN HERMAN STORCH	1/8+	877 216	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.15	P	9-5-17	LARRY D TAUNT AND NANCY L TAUNT	1/8+	908 14	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.2	P	9-5-17	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	1/8+	885 321	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.20	P	9-5-17	BARBARA A BUZZARD	1/8+	908 24	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.21	P	9-5-17	GARY T WARD AND SHARON D WARD	1/8+	908 19	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.24	P	9-5-17	JO DEE K DAVIS	1/8+	908 136	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.25	P	9-5-17	JOANNE WELCH	1/8+	908 141	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.26	P	9-5-17	WENDY L SMARKEL	1/8+	908 69	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.27	P	9-5-17	TIMI J HOBBS	1/8+	908 277	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.29	P	9-5-17	PATSY JO RAJU	1/8+	908 155	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.3	P	9-5-17	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	1/8+	885 324	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.30	P	9-5-17	LAURIE DRIGGERS MANDERSON	1/8+	908 165	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.33	P	9-5-17	NANCY C HOUSLEY	1/8+	908 187	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.35	P	9-5-17	DEBRA L CIAFFAGLIONE	1/8+	908 192	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.6	P	9-5-17	JOSHUA RINE AND REBECCA RINE	1/8+	907 634	N/A	N/A	N/A	N/A	N/A	N/A
10*15481	Q	9-5-5	DEAN P RIGBY AND SUSAN RIGBY	1/8+	908 197	N/A	N/A	N/A	N/A	N/A	N/A
10*15482	Q	9-5-5	SUSAN NELSON	1/8+	908 203	N/A	N/A	N/A	N/A	N/A	N/A
10*15668	Q	9-5-5	MICHAEL J SNYDER	1/8+	865 186	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15668	Q	9-5-5	MICHAEL J SNYDER	1/8+	865 186	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 42/435
10*15686	Q	9-5-5	JOHN OMER BOLTZ	1/8+	908 160	N/A	N/A	N/A	N/A	N/A	N/A
10*15750	Q	9-5-5	SANDRA K TRULL	1/8+	908 229	N/A	N/A	N/A	N/A	N/A	N/A
10*16058	Q	9-5-5	MATTIE RUTH JACKSON PRESCOTT	1/8+	908 231	N/A	N/A	N/A	N/A	N/A	N/A
10*16118	Q	9-5-5	RUBY RIDDLE JACKSON	1/8+	908 233	N/A	N/A	N/A	N/A	N/A	N/A
10*16383	Q	9-5-5	ROBERT STEPHEN DRIGGERS	1/8+	908 224	N/A	N/A	N/A	N/A	N/A	N/A
10*16414	Q	9-5-5	MARY ELIZABETH DRIGGERS	1/8+	908 208	N/A	N/A	N/A	N/A	N/A	N/A
10*16416	Q	9-5-5	CYNTHIA HUDSON	1/8+	908 219	N/A	N/A	N/A	N/A	N/A	N/A
10*16424	Q	9-5-5	ROBERT J RIGBY	1/8+	908 241	N/A	N/A	N/A	N/A	N/A	N/A
10*16448	Q	9-5-5	RALPH L AND JUANITA L CRIM	1/8+	908 584	N/A	N/A	N/A	N/A	N/A	N/A
10*16478	Q	9-5-5	MARION L AND EMILY CAMPBELL	1/8+	908 245	N/A	N/A	N/A	N/A	N/A	N/A
10*16514	Q	9-5-5	ALEX R CAMPBELL & JOYCE A CAMPBELL	1/8+	908 248	N/A	N/A	N/A	N/A	N/A	N/A
10*16515	Q	9-5-5	ANNA MARIE JACKSON	1/8+	908 251	N/A	N/A	N/A	N/A	N/A	N/A
10*16516	Q	9-5-5	WILSON ANDREW JACKSON	1/8+	908 253	N/A	N/A	N/A	N/A	N/A	N/A
10*16662	Q	9-5-5	RICHARD THOMAS MIMS & VICKIE J MIMS	1/8+	908 263	N/A	N/A	N/A	N/A	N/A	N/A
10*16738	Q	9-5-5	CHARLES A RINE AND RUTH K RINE	1/8+	908 274	N/A	N/A	N/A	N/A	N/A	N/A
10*16787	Q	9-5-5	HERBERT B CAMPBEL & DONNA D CAMPBELL	1/8+	942 451	N/A	N/A	N/A	N/A	N/A	N/A
10*16800	Q	9-5-5	JAMES KENNETH JACKSON AND JULIE JACKSON	1/8+	921 93	N/A	N/A	N/A	N/A	N/A	N/A
10*16806	Q	9-5-5	VIRGINIA WHITMAN TRUST DTD 7-25-1984 JON WHITMAN TRUSTEE	1/8+	921 528	N/A	N/A	N/A	N/A	N/A	N/A
10*16962	Q	9-5-5	DENNIS P FLORY AND BARBARA EZELL FLORY	1/8+	921 70	N/A	N/A	N/A	N/A	N/A	N/A
10*16976	Q	9-5-5	LESTER G AND CONSTANCE B NICKOLSON	1/8+	921 343	N/A	N/A	N/A	N/A	N/A	N/A
10*16987	Q	9-5-5	LAURIE EZELL PERRY	1/8+	921 355	N/A	N/A	N/A	N/A	N/A	N/A
10*17130	Q	9-5-5	CINDY L BARGER	1/8+	921 137	N/A	N/A	N/A	N/A	N/A	N/A
10*17155	Q	9-5-5	JESSE LEON JR AND TERESA GAIL EZELLE	1/8+	921 118	N/A	N/A	N/A	N/A	N/A	N/A
10*17156	Q	9-5-5	HENRI NELL JACKSON KENT BARNES	1/8+	921 139	N/A	N/A	N/A	N/A	N/A	N/A
10*17157	Q	9-5-5	JAMES N REEVES JR AND RITA M REEVES	1/8+	921 367	N/A	N/A	N/A	N/A	N/A	N/A
10*17198	Q	9-5-5	THOMAS G AND DIANE W BAYLESS	1/8+	921 141	N/A	N/A	N/A	N/A	N/A	N/A
10*17205	Q	9-5-5	SANDRA JEAN WILSON	1/8+	921 524	N/A	N/A	N/A	N/A	N/A	N/A
10*17274	Q	9-5-5	DAVID H WILSON	1/8+	921 474	N/A	N/A	N/A	N/A	N/A	N/A
10*17275	Q	9-5-5	JOHN R REEVES AND MONA G REEVES	1/8+	921 373	N/A	N/A	N/A	N/A	N/A	N/A
10*17276	Q	9-5-5	BERTHA EZELL WYATT	1/8+	921 526	N/A	N/A	N/A	N/A	N/A	N/A
10*17278	Q	9-5-5	MICHAEL L EZELLE	1/8+	921 121	N/A	N/A	N/A	N/A	N/A	N/A
10*17377	Q	9-5-5	MILTON HOWARD EZELLE JR AND ELIZABETH A EZELLE	1/8+	921 123	N/A	N/A	N/A	N/A	N/A	N/A
10*17438	Q	9-5-5	DENNIS M WILSON	1/8+	921 476	N/A	N/A	N/A	N/A	N/A	N/A
10*17441	Q	9-5-5	RALPH J WILSON	1/8+	921 522	N/A	N/A	N/A	N/A	N/A	N/A
10*17449	Q	9-5-5	PHYLLIS J BLAKE	1/8+	921 150	N/A	N/A	N/A	N/A	N/A	N/A

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10*17482	Q	9-5-5	TERESA EZELLE RALYA AND DAVID L RALYA	1/8+	927 487	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*17484	Q	9-5-5	NELDA S JACKSON	1/8+	921 330	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*17485	Q	9-5-5	MARGIE ANN JACKSON ROBBINS GRAHAM	1/8+	921 91	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*17526	Q	9-5-5	JEFFREY L REEVES AND JODY L REEVES	1/8+	921 370	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*17527	Q	9-5-5	JAMES MICHAEL EZELL AND LUCILLE D EZELL	1/8+	921 111	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*17561	Q	9-5-5	ROGER L TYRELL AND KATHRYN L TYRELL	1/8+	921 519	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*17564	Q	9-5-5	JAMES RONALD NICKOLSON AND TRACEY E NICKOLSON	1/8+	921 340	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*17565	Q	9-5-5	JESSE ALLEN JACKSON AND ELIZABETH D JACKSON	1/8+	921 327	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*17566	Q	9-5-5	NATHAN P ERDOSSY AND BARBARA T ERDOSSY	1/8+	921 108	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*17588	Q	9-5-5	JAMES M JACKSON	1/8+	921 325	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*17589	Q	9-5-5	MARY CHRISTINE MCKENNA	1/8+	921 332	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*17744	Q	9-5-5	SAM PRESLEY EZELL	1/8+	921 116	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*17983	Q	9-5-5	HOLLY SUE CUTHBERT	1/8+	925 380	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18021	Q	9-5-5	CHRISTOPHER A HANIFAN AND JACKIE F HANIFAN	1/8+	927 267	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18022	Q	9-5-5	DALE P WARD AND CYNTHIA J WARD	1/8+	927 264	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19524	Q	9-5-5	THE ESTATE OF AGNES IRENE EZELL CLARK BY DAVID M EDWARDS, EXECUTOR	1/8+	942 633	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19695	Q	9-5-5	VIRGINIA P FOUNDS KASSERMAN ET	1/8+	944 333	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19939	Q	9-5-5	ROBERT J MILLS & SHERRA SUE MILLS	1/8+	949 212	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.1	Q	9-5-5	JEAN ANNE GORBY STORCH AIF JOHN HERMAN STORCH	1/8+	877 216	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.15	Q	9-5-5	LARRY D TAUNT AND NANCY L TAUNT	1/8+	908 14	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.2	Q	9-5-5	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	1/8+	885 321	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.20	Q	9-5-5	BARBARA A BUZZARD	1/8+	908 24	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.21	Q	9-5-5	GARY T WARD AND SHARON D WARD	1/8+	908 19	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.24	Q	9-5-5	JO DEE K DAVIS	1/8+	908 136	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.25	Q	9-5-5	JOANNE WELCH	1/8+	908 141	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.26	Q	9-5-5	WENDY L SMARKEL	1/8+	908 69	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.27	Q	9-5-5	TIMI J HOBBS	1/8+	908 277	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.29	Q	9-5-5	PATSY JO RAJU	1/8+	908 155	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.3	Q	9-5-5	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	1/8+	885 324	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.30	Q	9-5-5	LAURIE DRIGGERS MANDERSON	1/8+	908 165	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.33	Q	9-5-5	NANCY C HOUSLEY	1/8+	908 187	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.35	Q	9-5-5	DEBRA L CIAFFAGLIONE	1/8+	908 192	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.6	Q	9-5-5	JOSHUA RINE AND REBECCA RINE	1/8+	907 634	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*15594	R	9-5-4.1	GORBY IVAN F	1/8+	695 527	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 36/148	Chevron to Tug Hill: 42/435	
10*15595	R	9-5-4.1	DAKAN JOSEPH D	1/8+	695 519	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 36/148	Chevron to Tug Hill: 42/435	
10*15596	R	9-5-4.1	GORBY JOHN E	1/8+	695 523	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 36/148	Chevron to Tug Hill: 42/435	
10*15597	R	9-5-4.1	GAST KAREN S	1/8+	694 534	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 36/148	Chevron to Tug Hill: 42/435	
10*15598	R	9-5-4.1	GONTA ADA HAZEL	1/8+	695 183	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 36/148	Chevron to Tug Hill: 42/435	
10*15599	R	9-5-4.1	RAJU PATSY JO	1/8+	694 561	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 36/148	Chevron to Tug Hill: 42/435	
47051.223.1	R	9-5-4.1	STORCH JEAN A AIF JOHN HERMAN STORCH	1/8+	877 216	N/A	N/A	N/A	N/A	Tug Hill to Chevron: 36/168	Chevron to Tug Hill: 42/435	
47051.223.2	R	9-5-4.1	SCHIEFER STEPHANIE L ET VIR	1/8+	885 321	N/A	N/A	N/A	N/A	Tug Hill to Chevron: 36/168	Chevron to Tug Hill: 42/435	
47051.223.3	R	9-5-4.1	LEADBETTER ROBERT A ET UX	1/8+	885 324	N/A	N/A	N/A	N/A	Tug Hill to Chevron: 36/168	Chevron to Tug Hill: 42/435	
10*47051.223.1	S	9-5-5.3	JEAN ANNE GORBY STORCH AIF JOHN HERMAN STORCH	1/8+	877 216	N/A	N/A	N/A	N/A	N/A	N/A	
10*47051.223.2	S	9-5-5.3	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	1/8+	885 321	N/A	N/A	N/A	N/A	N/A	N/A	
10*47051.223.3	S	9-5-5.3	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	1/8+	885 324	N/A	N/A	N/A	N/A	N/A	N/A	
10*21696	T	9-5-6.5	DAKAN JOSEPH D	1/8+	694 71	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435	
10*21698	T	9-5-6.5	RAJU PATSY JO	1/8+	695 175	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435	
10*21718	T	9-5-6.5	LINDA S DELBERT	1/8+	695 187	N/A	N/A	N/A	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/479	Statoil to Chevron USA Inc: 30/427	Chesapeake to Statoil: 30/461	Chevron to Tug Hill: 36/148
10*47051.223.2	T	9-5-6.5	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	1/8+	885 321	N/A	N/A	N/A	N/A	N/A	N/A	
10*47051.223.3	T	9-5-6.5	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	1/8+	885 324	N/A	N/A	N/A	N/A	N/A	N/A	
10*21696	U	9-5-6.3	DAKAN JOSEPH D	1/8+	694 71	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435	
10*21698	U	9-5-6.3	RAJU PATSY JO	1/8+	695 175	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435	
10*47051.223.2	U	9-5-6.3	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	1/8+	885 321	N/A	N/A	N/A	N/A	N/A	N/A	
10*47051.223.3	U	9-5-6.3	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	1/8+	885 324	N/A	N/A	N/A	N/A	N/A	N/A	
10*21712	V	9-5-5.2	PETER PARKER	1/8+	889 260	N/A	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 42/435
10*47051.223.1	V	9-5-5.2	DAKAN JOSEPH D	1/8+	877 216	N/A	N/A	N/A	N/A	N/A	N/A	
10*47051.223.2	V	9-5-5.2	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	1/8+	885 321	N/A	N/A	N/A	N/A	N/A	N/A	
10*47051.223.3	V	9-5-5.2	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	1/8+	885 324	N/A	N/A	N/A	N/A	N/A	N/A	
10*23884	W	9-1-14	STONE HILL MINERAL HOLDINGS	1/8+	PENDING	N/A	N/A	N/A	N/A	N/A	N/A	
10*23881	X	9-1-14.1	ALICE J MARTIN ET VIR	1/8+	893 250	N/A	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 42/435
10*21696	Y	9-5-6	DAKAN JOSEPH D	1/8+	694 71	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435	
10*21698	Y	9-5-6	RAJU PATSY JO AKA GORBY PATSY JO	1/8+	695 175	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435	
10*21702	Y	9-5-6	NANCY L SNYDER	1/8+	865 191	N/A	N/A	N/A	N/A	N/A	N/A	
10*21696	Z	9-5-6.2	DAKAN JOSEPH D	1/8+	694 71	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435	
10*21698	Z	9-5-6.2	RAJU PATSY JO AKA GORBY PATSY JO	1/8+	695 175	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435	

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10*47051.223.2	Z	9-5-6.2	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	TH EXPLORATION LLC	1/8+	885	321	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.3	Z	9-5-6.2	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	TH EXPLORATION LLC	1/8+	885	324	N/A	N/A	N/A	N/A	N/A	N/A
10*24536	AA	(NOT ASSESSED)	MARSHALL COUNTY BOARD OF EDUCATION	TH EXPLORATION LLC	1/8+	1026	67	N/A	N/A	N/A	N/A	N/A	N/A
10*24536	BB	(NOT ASSESSED)	MARSHALL COUNTY BOARD OF EDUCATION	TH EXPLORATION LLC	1/8+	1026	67	N/A	N/A	N/A	N/A	N/A	N/A
10*23769	CC	9-1-13.2	ROBERT A. WILLIAMS & CHERYL L. WILLIAMS, HIS WIFE	TH EXPLORATION LLC	1/8+	1014	500	N/A	N/A	N/A	N/A	N/A	N/A
10*21695	DD	NOT ASSESSED	ROBERT A. WILLIAMS & CHERYL L. WILLIAMS, HIS WIFE	CHEVRON USA INC	1/8+	847	521	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 42/435

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