

05/10/2019



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

Friday, May 10, 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-13HU
47-051-01965-00-00

Modified lateral for a TMD of 22,191'.

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.

A blue ink signature of James A. Martin, written in a cursive style.

James A. Martin
Chief

Operator's Well Number: TEN HIGH 1N-13HU
Farm Name: LAWRENCE & SHIRLEY CONKLE ESTS
U.S. WELL NUMBER: 47-051-01965-00-00
Horizontal 6A New Drill
Date Modification Issued: May 10, 2019

Promoting a healthy environment.



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 #47-051-01965

COMPANY: Tug Hill Operating, LLC

FARM: Lawrence & Shirley Conkle Ests Ten High 1N-13HU

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, 47-051-01960, 47-051-01961, 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,

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

Susan Rose
Administrator

WW-6B
(04/15)

05/10/2019

API NO. 47-051 - 01985 MOD
OPERATOR WELL NO. Ten High 1N-13HU
Well Pad Name: Ten High

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-13HU 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

Handwritten signature and date: 11/7/19

6) Existing Pad: Yes or No Yes

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: 11,898'

9) Formation at Total Vertical Depth: Trenton

10) Proposed Total Measured Depth: 22,191'

11) Proposed Horizontal Leg Length: 9,884.07'

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 290' subsea level
Seam: Pittsburgh #8
Owner: Murray Energy / Consolidated Coal Co.

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'	1,785ft^3(CTS)
Coal	13 3/8"	NEW	J55	54.5#	2,801'	2,801'	1,975ft^3(CTS)
Intermediate	9 5/8"	NEW	HPP110	47#	10,691'	10,691'	3,487ft^3(CTS)
Production	5 1/2"	NEW	HCP110	23#	22,191'	22,191'	5,265ft^3(CTS)
Tubing	2 7/8"	NEW	P110	6.5#		11,385'	
Liners							

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 24,705,000 lb proppant and 381,957 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.

WW6B Attachment to #24

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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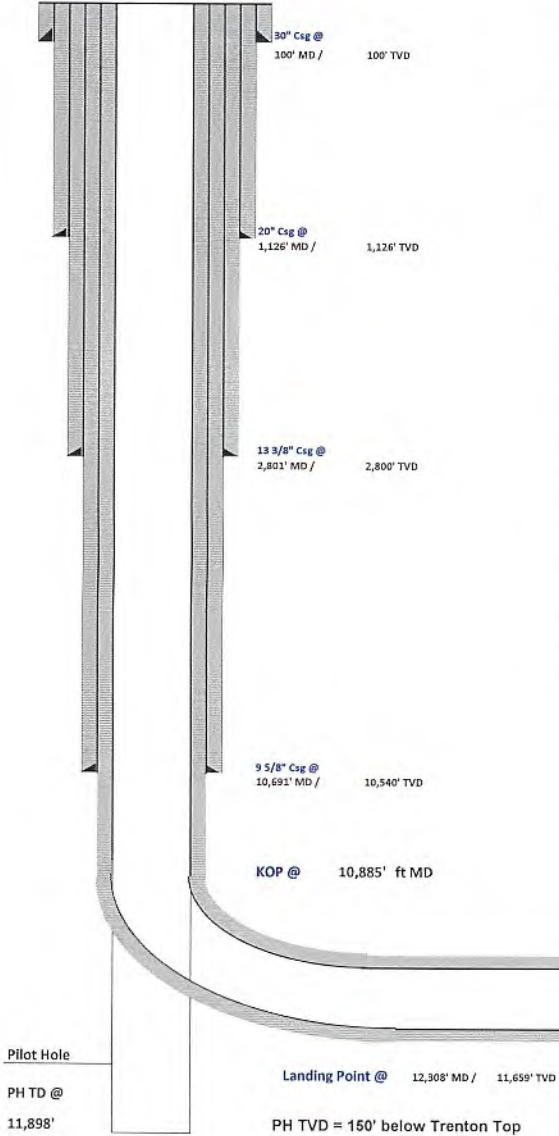


WELL NAME: Ten High 1N-13HU
STATE: West Virginia **COUNTY:** Marshall
DISTRICT: Meade
DF Elev: 1,310' **GL Elev:** 1,310'
TD: 22,191'
TH Latitude: 39.80677019
TH Longitude: -80.68079336
BH Latitude: 39.833418
BH Longitude: -80.694828

FORMATION TOPS	
Formation	Depth TVD
Deepest Fresh Water	1,026'
Sewickley Coal	935'
Pittsburgh Coal	1,020'
Big Lime	2,069'
Berea	2,693'
Tully	6,626'
Marcellus	6,733'
Onondaga	6,785'
Salina	7,517'
Lockport	8,582'
Utica	11,433'
Point Pleasant	11,609'
Landing Depth	11,659'
Trenton	11,748'
Pilot Hole TD	11,898'

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	2,801'	2,800'	54.5	J55	Surface
Intermediate 2	12 1/4	9 5/8	10,691'	10,540'	47	HP110	Surface
Production	8 1/2	5 1/2	22,191'	11,486'	23	HCP110	Surface

CEMENT SUMMARY				DRILLING DETAILS	
	Sacks	Class	Density	Fluid Type	Centralizer Notes
Conductor	291	A	15.6	Air	None
Surface	1,939	A	15.6	Air	3 Centralizers at equal distance
Intermediate 1	2,145	A	15	Air	1 Centralizer every other jt
Intermediate 2	2,892	A	14.5	Air	1 Centralizer every other jt
Production	4,539	A	15	Air / SOBMM	1 every other joint in lateral; 1 per joint in curve; 1 every other jt to sfc



J.K. 12/27/18

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Lateral TD @ 22,191' ft MD
 11,486' ft TVD

51-01965 MDW

51-01965 mon
05/10/2019



Tug Hill Operating, LLC Casing and Cement Program

Ten High 1N-13HU

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"	2,801'	CTS
Intermediate 2	9 5/8"	HP110	12 1/4"	10,691'	CTS
Production	5 1/2"	HCP110	8 1/2"	22,191'	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-13HU (F) **SI-05/15/2019**
Site: Ten High
Project: Marshall County, West Virginia
Design: rev8
Rig: Nabors X08

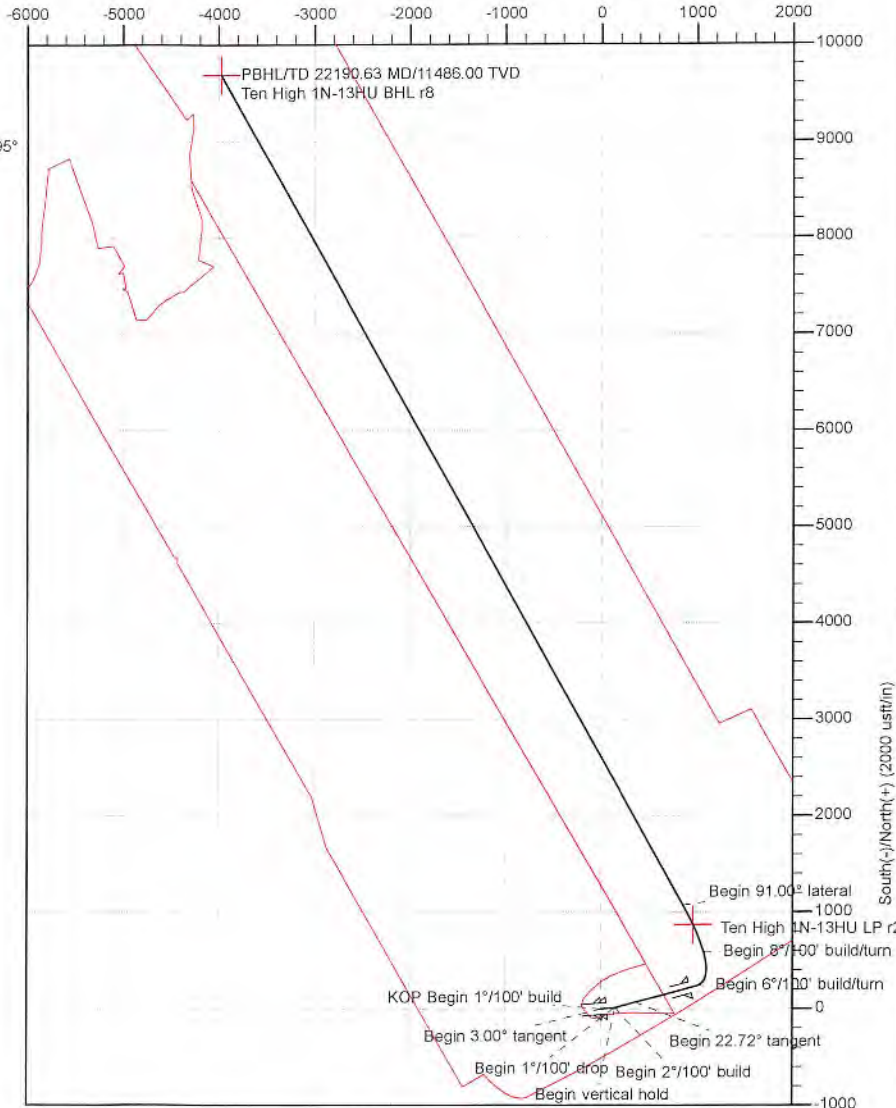
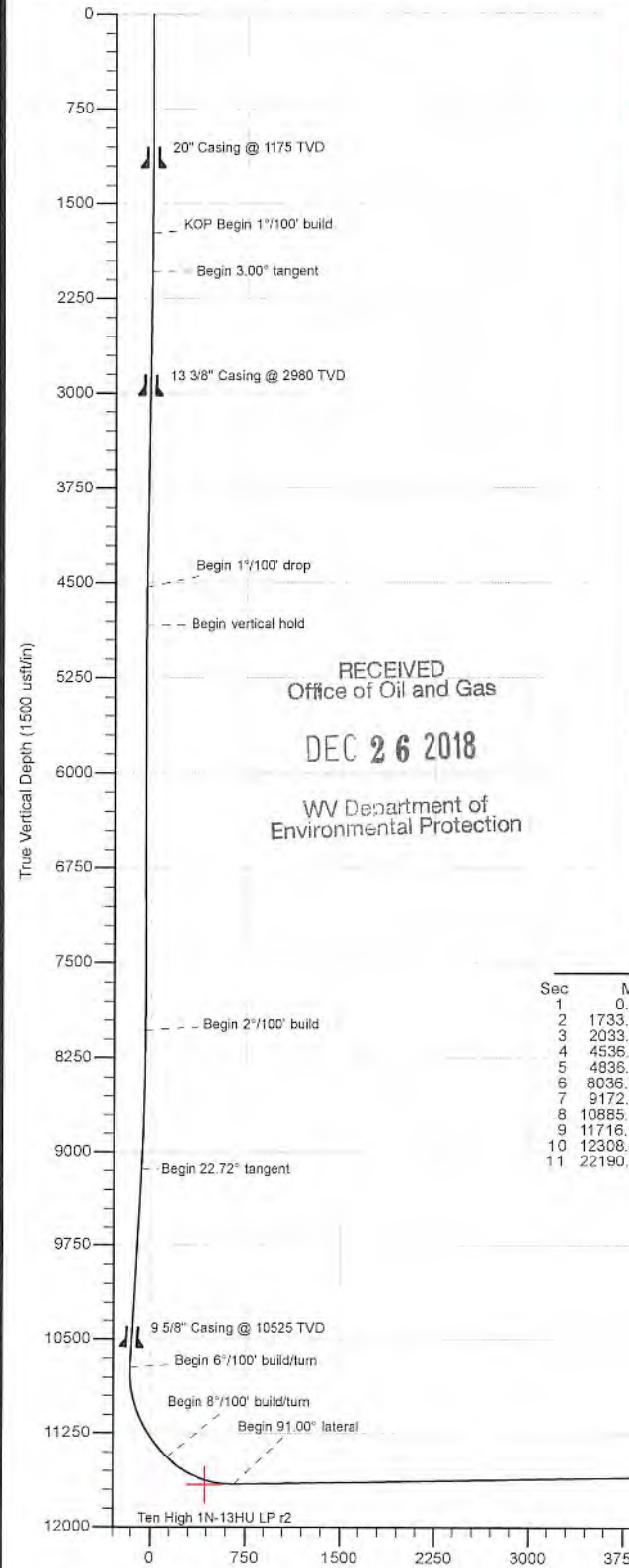
Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD83 West Virginia - HARN
Ellipsoid: GRS 1980
Zone: Zone 17N (84 W to 78 W)

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

Northing 14456531.74 Easting 1730062.34 Latitude 39.80677019 Longitude -80.68079336

West(-)/East(+) (2000 usft/in)

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



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1733.00	0.00	0.00	1733.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 1°/100' build
3	2033.00	3.00	85.00	2032.86	0.68	7.82	1.00	85.00	-2.34	Begin 3.00° tangent
4	4536.57	3.00	85.00	4533.00	12.10	138.35	0.00	0.00	-41.31	Begin 1°/100' drop
5	4836.57	0.00	85.00	4832.86	12.79	146.17	1.00	180.00	-43.64	Begin vertical hold
6	8036.71	0.00	85.00	8033.00	12.79	146.17	0.00	85.00	-43.64	Begin 2°/100' build
7	9172.49	22.72	75.10	9139.26	69.93	360.91	2.00	75.10	-72.27	Begin 22.72° tangent
8	10885.07	22.72	75.10	10719.00	240.00	1000.00	0.00	0.00	-157.47	Begin 6°/100' build/turn
9	11716.09	45.00	343.50	11442.33	585.03	1076.50	6.00	-112.39	132.71	Begin 8°/100' build/turn
10	12308.40	91.00	330.71	11659.05	1072.15	859.65	8.00	-17.51	665.69	Begin 8°/100' lateral
11	22190.64	91.00	330.71	11486.00	9689.52	-3974.58	0.00	0.00	0.473.01	PBHL/TD 22190.63 MD/11486.00 TVD



Magzone
Azimuths to Grid North
True North: -0.23°
Magnetic North: -8.95°
Magnetic Field
Strength: 52041.1nT
Dip Angle: 66.87°
Date: 9/1/2018
Model: IGRF2015

PBHL/TD 22190.63 MD/11486.00 TVD

Ten High 1N-13HU BHL r8

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-13HU (F)
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-13HU (F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev8		

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-13HU (F)					
Well Position	+N/-S	0.00 usft	Northing:	14,456,531.74 usft	Latitude:	39.80677019
	+E/-W	0.00 usft	Easting:	1,730,062.34 usft	Longitude:	-80.68079336
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	52,041.05888730

Design	rev8			
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	337.70

Plan Survey Tool Program	Date	9/15/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	22,190.60 rev8 (Original Hole)	MWD MWD - Standard	

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Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-13HU (F)
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-13HU (F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev8		

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	
2,033.00	3.00	85.00	2,032.86	0.68	7.82	1.00	1.00	0.00	85.00	
4,536.57	3.00	85.00	4,533.00	12.10	138.35	0.00	0.00	0.00	0.00	
4,836.57	0.00	85.00	4,832.86	12.79	146.17	1.00	-1.00	0.00	180.00	
8,036.71	0.00	85.00	8,033.00	12.79	146.17	0.00	0.00	0.00	85.00	
9,172.49	22.72	75.10	9,139.26	69.93	360.91	2.00	2.00	-0.87	75.10	
10,885.07	22.72	75.10	10,719.00	240.00	1,000.00	0.00	0.00	0.00	0.00	
11,716.09	45.00	343.50	11,442.33	585.03	1,076.50	6.00	2.68	-11.02	-112.39	
12,308.40	91.00	330.71	11,659.05	1,072.15	859.65	8.00	7.77	-2.16	-17.51	
22,190.64	91.00	330.71	11,486.00	9,689.52	-3,974.58	0.00	0.00	0.00	0.00	Ten High 1N-13HU Bf

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Planning Report - Geographic

51-01965 MOD

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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-13HU (F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev8		

Planned Survey										
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	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
100.00	0.00	0.00	100.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
200.00	0.00	0.00	200.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
300.00	0.00	0.00	300.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
400.00	0.00	0.00	400.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
500.00	0.00	0.00	500.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
600.00	0.00	0.00	600.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
700.00	0.00	0.00	700.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
800.00	0.00	0.00	800.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
900.00	0.00	0.00	900.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
1,733.00	0.00	0.00	1,733.00	0.00	0.00	14,456,531.74	1,730,062.34	39.80677019	-80.68079336	
KOP Begin 1°/100' build										
1,800.00	0.67	85.00	1,800.00	0.03	0.39	14,456,531.78	1,730,062.73	39.80677028	-80.68079197	
1,900.00	1.67	85.00	1,899.98	0.21	2.42	14,456,531.95	1,730,064.76	39.80677075	-80.68078473	
2,000.00	2.67	85.00	1,999.90	0.54	6.20	14,456,532.28	1,730,068.53	39.80677162	-80.68077129	
2,033.00	3.00	85.00	2,032.86	0.68	7.82	14,456,532.43	1,730,070.16	39.80677199	-80.68076550	
Begin 3.00° tangent										
2,100.00	3.00	85.00	2,099.77	0.99	11.32	14,456,532.73	1,730,073.65	39.80677280	-80.68075306	
2,200.00	3.00	85.00	2,199.63	1.45	16.53	14,456,533.19	1,730,078.87	39.80677400	-80.68073449	
2,300.00	3.00	85.00	2,299.50	1.90	21.74	14,456,533.64	1,730,084.08	39.80677520	-80.68071592	
2,400.00	3.00	85.00	2,399.36	2.36	26.96	14,456,534.10	1,730,089.29	39.80677640	-80.68069735	
2,500.00	3.00	85.00	2,499.22	2.81	32.17	14,456,534.56	1,730,094.51	39.80677761	-80.68067878	
2,600.00	3.00	85.00	2,599.09	3.27	37.38	14,456,535.01	1,730,099.72	39.80677881	-80.68066021	
2,700.00	3.00	85.00	2,698.95	3.73	42.60	14,456,535.47	1,730,104.93	39.80678001	-80.68064164	
2,800.00	3.00	85.00	2,798.81	4.18	47.81	14,456,535.92	1,730,110.15	39.80678121	-80.68062307	
2,900.00	3.00	85.00	2,898.67	4.64	53.02	14,456,536.38	1,730,115.36	39.80678241	-80.68060450	
3,000.00	3.00	85.00	2,998.54	5.10	58.24	14,456,536.84	1,730,120.58	39.80678361	-80.68058593	
3,100.00	3.00	85.00	3,098.40	5.55	63.45	14,456,537.29	1,730,125.79	39.80678482	-80.68056735	
3,200.00	3.00	85.00	3,198.26	6.01	68.67	14,456,537.75	1,730,131.00	39.80678602	-80.68054878	
3,300.00	3.00	85.00	3,298.13	6.46	73.88	14,456,538.21	1,730,136.22	39.80678722	-80.68053021	
3,400.00	3.00	85.00	3,397.99	6.92	79.09	14,456,538.66	1,730,141.43	39.80678842	-80.68051164	
3,500.00	3.00	85.00	3,497.85	7.38	84.31	14,456,539.12	1,730,146.64	39.80678962	-80.68049307	
3,600.00	3.00	85.00	3,597.72	7.83	89.52	14,456,539.57	1,730,151.86	39.80679082	-80.68047450	
3,700.00	3.00	85.00	3,697.58	8.29	94.73	14,456,540.03	1,730,157.07	39.80679202	-80.68045593	
3,800.00	3.00	85.00	3,797.44	8.74	99.95	14,456,540.49	1,730,162.29	39.80679323	-80.68043736	
3,900.00	3.00	85.00	3,897.30	9.20	105.16	14,456,540.94	1,730,167.50	39.80679443	-80.68041879	
4,000.00	3.00	85.00	3,997.17	9.66	110.38	14,456,541.40	1,730,172.71	39.80679563	-80.68040022	
4,100.00	3.00	85.00	4,097.03	10.11	115.59	14,456,541.85	1,730,177.93	39.80679683	-80.68038165	
4,200.00	3.00	85.00	4,196.89	10.57	120.80	14,456,542.31	1,730,183.14	39.80679803	-80.68036308	
4,300.00	3.00	85.00	4,296.76	11.03	126.02	14,456,542.77	1,730,188.35	39.80679923	-80.68034451	
4,400.00	3.00	85.00	4,396.62	11.48	131.23	14,456,543.22	1,730,193.57	39.80680044	-80.68032594	
4,500.00	3.00	85.00	4,496.48	11.94	136.44	14,456,543.68	1,730,198.78	39.80680164	-80.68030737	
4,536.57	3.00	85.00	4,533.00	12.10	138.35	14,456,543.85	1,730,200.69	39.80680208	-80.68030058	
Begin 1°/100' drop										
4,600.00	2.37	85.00	4,596.36	12.36	141.31	14,456,544.10	1,730,203.65	39.80680276	-80.68029005	
4,700.00	1.37	85.00	4,696.31	12.65	144.55	14,456,544.39	1,730,206.89	39.80680351	-80.68027849	



WV Department of Environmental Protection
Planning Report - Geographic

SI-01965 MOD

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-13HU (F)
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-13HU (F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev8		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,800.00	0.37	85.00	4,796.30	12.78	146.06	14,456,544.52	1,730,208.39	39.80680385	-80.68027313	
4,836.57	0.00	0.00	4,832.86	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
Begin vertical hold										
4,900.00	0.00	0.00	4,896.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
5,000.00	0.00	85.00	4,996.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
5,100.00	0.00	85.00	5,096.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
5,200.00	0.00	0.00	5,196.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
5,300.00	0.00	85.00	5,296.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
5,400.00	0.00	85.00	5,396.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
5,500.00	0.00	85.00	5,496.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
5,600.00	0.00	0.00	5,596.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
5,700.00	0.00	85.00	5,696.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
5,800.00	0.00	0.00	5,796.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
5,900.00	0.00	0.00	5,896.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
6,000.00	0.00	85.00	5,996.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
6,100.00	0.00	85.00	6,096.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
6,200.00	0.00	85.00	6,196.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
6,300.00	0.00	0.00	6,296.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
6,400.00	0.00	85.00	6,396.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
6,500.00	0.00	85.00	6,496.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
6,600.00	0.00	0.00	6,596.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
6,700.00	0.00	85.00	6,696.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
6,800.00	0.00	85.00	6,796.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
6,900.00	0.00	0.00	6,896.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
7,000.00	0.00	85.00	6,996.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
7,100.00	0.00	85.00	7,096.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
7,200.00	0.00	85.00	7,196.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
7,300.00	0.00	0.00	7,296.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
7,400.00	0.00	0.00	7,396.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
7,500.00	0.00	85.00	7,496.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
7,600.00	0.00	0.00	7,596.29	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
7,700.00	0.00	85.00	7,696.30	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
7,800.00	0.00	85.00	7,796.30	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
7,900.00	0.00	85.00	7,896.30	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
8,000.00	0.00	0.00	7,996.30	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
8,036.71	0.00	0.00	8,033.00	12.79	146.17	14,456,544.53	1,730,208.51	39.80680388	-80.68027272	
Begin 2°/100' build										
8,100.00	1.27	75.10	8,096.29	12.97	146.85	14,456,544.71	1,730,209.19	39.80680437	-80.68027031	
8,200.00	3.27	75.10	8,196.21	13.98	150.67	14,456,545.73	1,730,213.01	39.80680712	-80.68025669	
8,300.00	5.27	75.10	8,295.92	15.90	157.86	14,456,547.64	1,730,220.19	39.80681230	-80.68023108	
8,400.00	7.27	75.10	8,395.32	18.70	168.40	14,456,550.45	1,730,230.74	39.80681991	-80.68019349	
8,500.00	9.27	75.10	8,494.28	22.40	182.30	14,456,554.14	1,730,244.63	39.80682992	-80.68014397	
8,600.00	11.27	75.10	8,592.67	26.98	199.52	14,456,558.73	1,730,261.85	39.80684234	-80.68008259	
8,700.00	13.27	75.10	8,690.38	32.45	220.05	14,456,564.19	1,730,282.38	39.80685714	-80.68000943	
8,800.00	15.27	75.10	8,787.30	38.78	243.86	14,456,570.53	1,730,306.20	39.80687431	-80.67992456	
8,900.00	17.27	75.10	8,883.29	45.99	270.93	14,456,577.73	1,730,333.26	39.80689382	-80.67982809	
9,000.00	19.27	75.10	8,978.24	54.05	301.21	14,456,585.79	1,730,363.55	39.80691566	-80.67972014	
9,100.00	21.27	75.10	9,072.05	62.95	334.68	14,456,594.69	1,730,397.02	39.80693979	-80.67960085	
9,172.49	22.72	75.10	9,139.26	69.93	360.91	14,456,601.68	1,730,423.25	39.80695870	-80.67950736	
Begin 22.72° tangent										
9,200.00	22.72	75.10	9,164.64	72.67	371.18	14,456,604.41	1,730,433.52	39.80696610	-80.67947077	
9,300.00	22.72	75.10	9,256.88	82.60	408.50	14,456,614.34	1,730,470.83	39.80699301	-80.67933777	
9,400.00	22.72	75.10	9,349.13	92.53	445.81	14,456,624.27	1,730,508.15	39.80701991	-80.67920476	
9,500.00	22.72	75.10	9,441.37	102.46	483.13	14,456,634.20	1,730,545.47	39.80704682	-80.67907176	

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-13HU (F)
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-13HU (F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev8		

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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
9,600.00	22.72	75.10	9,533.61	112.39	520.45	14,456,644.13	1,730,582.79	39.80707372	-80.67893876
9,700.00	22.72	75.10	9,625.86	122.32	557.77	14,456,654.06	1,730,620.10	39.80710062	-80.67880576
9,800.00	22.72	75.10	9,718.10	132.25	595.08	14,456,663.99	1,730,657.42	39.80712753	-80.67867275
9,900.00	22.72	75.10	9,810.34	142.18	632.40	14,456,673.92	1,730,694.74	39.80715443	-80.67853975
10,000.00	22.72	75.10	9,902.59	152.11	669.72	14,456,683.85	1,730,732.05	39.80718133	-80.67840675
10,100.00	22.72	75.10	9,994.83	162.04	707.03	14,456,693.78	1,730,769.37	39.80720824	-80.67827374
10,200.00	22.72	75.10	10,087.07	171.97	744.35	14,456,703.71	1,730,806.69	39.80723514	-80.67814074
10,300.00	22.72	75.10	10,179.32	181.90	781.67	14,456,713.64	1,730,844.01	39.80726204	-80.67800774
10,400.00	22.72	75.10	10,271.56	191.83	818.99	14,456,723.57	1,730,881.32	39.80728895	-80.67787473
10,500.00	22.72	75.10	10,363.80	201.76	856.30	14,456,733.50	1,730,918.64	39.80731585	-80.67774173
10,600.00	22.72	75.10	10,456.04	211.69	893.62	14,456,743.43	1,730,955.96	39.80734275	-80.67760872
10,700.00	22.72	75.10	10,548.29	221.62	930.94	14,456,753.36	1,730,993.28	39.80736965	-80.67747572
10,800.00	22.72	75.10	10,640.53	231.55	968.26	14,456,763.29	1,731,030.59	39.80739656	-80.67734272
10,885.07	22.72	75.10	10,719.00	240.00	1,000.00	14,456,771.74	1,731,062.34	39.80741944	-80.67722957
Begin 6°/100' build/turn									
10,900.00	22.39	72.92	10,732.79	241.58	1,005.50	14,456,773.32	1,731,067.84	39.80742372	-80.67720995
11,000.00	21.03	57.07	10,825.78	256.93	1,038.80	14,456,788.68	1,731,101.13	39.80746556	-80.67709121
11,100.00	21.25	40.40	10,919.13	280.51	1,065.62	14,456,812.25	1,731,127.96	39.80753004	-80.67699538
11,200.00	23.02	25.13	11,011.84	312.04	1,085.69	14,456,843.78	1,731,148.03	39.80761643	-80.67692352
11,300.00	26.02	12.57	11,102.87	351.19	1,098.78	14,456,882.93	1,731,161.12	39.80772381	-80.67687641
11,400.00	29.88	2.73	11,191.24	397.52	1,104.74	14,456,929.26	1,731,167.08	39.80785098	-80.67685458
11,500.00	34.31	355.09	11,275.97	450.53	1,103.52	14,456,982.27	1,731,165.86	39.80799657	-80.67685825
11,600.00	39.11	349.07	11,356.14	509.63	1,095.12	14,457,041.37	1,731,157.46	39.80815896	-80.67688740
11,700.00	44.17	344.20	11,430.87	574.18	1,079.64	14,457,105.92	1,731,141.98	39.80833639	-80.67694169
11,716.09	45.00	343.50	11,442.33	585.03	1,076.50	14,457,116.77	1,731,138.84	39.80836622	-80.67695274
Begin 8°/100' build/turn									
11,800.00	51.43	340.92	11,498.21	644.54	1,057.33	14,457,176.29	1,731,119.67	39.80852985	-80.67702024
11,900.00	59.16	338.39	11,555.11	721.53	1,028.70	14,457,253.27	1,731,091.04	39.80874155	-80.67712120
12,000.00	66.93	336.25	11,600.41	803.68	994.31	14,457,335.42	1,731,056.64	39.80896750	-80.67724261
12,100.00	74.72	334.34	11,633.23	889.40	954.82	14,457,421.14	1,731,017.16	39.80920329	-80.67738210
12,200.00	82.53	332.56	11,652.94	977.02	911.02	14,457,508.76	1,730,973.36	39.80944434	-80.67753695
12,300.00	90.35	330.85	11,659.15	1,064.82	863.75	14,457,596.57	1,730,926.08	39.80968595	-80.67770416
12,308.40	91.00	330.71	11,659.05	1,072.15	859.65	14,457,603.90	1,730,921.98	39.80970613	-80.67771867
Begin 91.00° lateral									
12,400.00	91.00	330.71	11,657.45	1,152.03	814.84	14,457,683.77	1,730,877.17	39.80992593	-80.67787720
12,500.00	91.00	330.71	11,655.69	1,239.23	765.92	14,457,770.97	1,730,828.25	39.81016588	-80.67805028
12,600.00	91.00	330.71	11,653.94	1,326.43	717.00	14,457,858.17	1,730,779.34	39.81040584	-80.67822335
12,700.00	91.00	330.71	11,652.19	1,413.63	668.08	14,457,945.37	1,730,730.42	39.81064580	-80.67839643
12,800.00	91.00	330.71	11,650.44	1,500.83	619.16	14,458,032.57	1,730,681.50	39.81088575	-80.67856951
12,900.00	91.00	330.71	11,648.69	1,588.03	570.24	14,458,119.77	1,730,632.58	39.81112571	-80.67874259
13,000.00	91.00	330.71	11,646.94	1,675.23	521.33	14,458,206.98	1,730,583.66	39.81136567	-80.67891567
13,100.00	91.00	330.71	11,645.19	1,762.43	472.41	14,458,294.18	1,730,534.74	39.81160562	-80.67908875
13,200.00	91.00	330.71	11,643.44	1,849.63	423.49	14,458,381.38	1,730,485.83	39.81184558	-80.67926183
13,300.00	91.00	330.71	11,641.69	1,936.84	374.57	14,458,468.58	1,730,436.91	39.81208553	-80.67943492
13,400.00	91.00	330.71	11,639.93	2,024.04	325.65	14,458,555.78	1,730,387.99	39.81232549	-80.67960800
13,500.00	91.00	330.71	11,638.18	2,111.24	276.73	14,458,642.98	1,730,339.07	39.81256544	-80.67978109
13,600.00	91.00	330.71	11,636.43	2,198.44	227.82	14,458,730.18	1,730,290.15	39.81280539	-80.67995418
13,700.00	91.00	330.71	11,634.68	2,285.64	178.90	14,458,817.38	1,730,241.24	39.81304535	-80.68012727
13,800.00	91.00	330.71	11,632.93	2,372.84	129.98	14,458,904.58	1,730,192.32	39.81328530	-80.68030036
13,900.00	91.00	330.71	11,631.18	2,460.04	81.06	14,458,991.78	1,730,143.40	39.81352526	-80.68047345
14,000.00	91.00	330.71	11,629.43	2,547.24	32.14	14,459,078.98	1,730,094.48	39.81376521	-80.68064654
14,100.00	91.00	330.71	11,627.68	2,634.44	-16.78	14,459,166.18	1,730,045.56	39.81400516	-80.68081963
14,200.00	91.00	330.71	11,625.93	2,721.64	-65.69	14,459,253.38	1,729,996.64	39.81424511	-80.68099273
14,300.00	91.00	330.71	11,624.17	2,808.84	-114.61	14,459,340.58	1,729,947.73	39.81448507	-80.68116583

DEC 26 2018
05/10/2019

Planning Report - Geographic

51-01965M01

WV Department of
Environmental Protection

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-13HU (F)
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-13HU (F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev8		

Planned Survey

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	330.71	11,622.42	2,896.04	-163.53	14,459,427.78	1,729,898.81	39.81472502	-80.68133892
14,500.00	91.00	330.71	11,620.67	2,983.24	-212.45	14,459,514.98	1,729,849.89	39.81496497	-80.68151202
14,600.00	91.00	330.71	11,618.92	3,070.44	-261.37	14,459,602.18	1,729,800.97	39.81520492	-80.68168512
14,700.00	91.00	330.71	11,617.17	3,157.64	-310.29	14,459,689.38	1,729,752.05	39.81544487	-80.68185822
14,800.00	91.00	330.71	11,615.42	3,244.84	-359.20	14,459,776.59	1,729,703.13	39.81568482	-80.68203132
14,900.00	91.00	330.71	11,613.67	3,332.04	-408.12	14,459,863.79	1,729,654.22	39.81592477	-80.68220443
15,000.00	91.00	330.71	11,611.92	3,419.24	-457.04	14,459,950.99	1,729,605.30	39.81616472	-80.68237753
15,100.00	91.00	330.71	11,610.17	3,506.44	-505.96	14,460,038.19	1,729,556.38	39.81640468	-80.68255064
15,200.00	91.00	330.71	11,608.41	3,593.65	-554.88	14,460,125.39	1,729,507.46	39.81664463	-80.68272375
15,300.00	91.00	330.71	11,606.66	3,680.85	-603.79	14,460,212.59	1,729,458.54	39.81688457	-80.68289685
15,400.00	91.00	330.71	11,604.91	3,768.05	-652.71	14,460,299.79	1,729,409.62	39.81712452	-80.68306996
15,500.00	91.00	330.71	11,603.16	3,855.25	-701.63	14,460,386.99	1,729,360.71	39.81736447	-80.68324307
15,600.00	91.00	330.71	11,601.41	3,942.45	-750.55	14,460,474.19	1,729,311.79	39.81760442	-80.68341619
15,700.00	91.00	330.71	11,599.66	4,029.65	-799.47	14,460,561.39	1,729,262.87	39.81784437	-80.68358930
15,800.00	91.00	330.71	11,597.91	4,116.85	-848.39	14,460,648.59	1,729,213.95	39.81808432	-80.68376241
15,900.00	91.00	330.71	11,596.16	4,204.05	-897.30	14,460,735.79	1,729,165.03	39.81832427	-80.68393553
16,000.00	91.00	330.71	11,594.41	4,291.25	-946.22	14,460,822.99	1,729,116.11	39.81856422	-80.68410864
16,100.00	91.00	330.71	11,592.65	4,378.45	-995.14	14,460,910.19	1,729,067.20	39.81880416	-80.68428176
16,200.00	91.00	330.71	11,590.90	4,465.65	-1,044.06	14,460,997.39	1,729,018.28	39.81904411	-80.68445488
16,300.00	91.00	330.71	11,589.15	4,552.85	-1,092.98	14,461,084.59	1,728,969.36	39.81928406	-80.68462800
16,400.00	91.00	330.71	11,587.40	4,640.05	-1,141.90	14,461,171.79	1,728,920.44	39.81952400	-80.68480112
16,500.00	91.00	330.71	11,585.65	4,727.25	-1,190.81	14,461,258.99	1,728,871.52	39.81976395	-80.68497424
16,600.00	91.00	330.71	11,583.90	4,814.45	-1,239.73	14,461,346.19	1,728,822.60	39.82000390	-80.68514737
16,700.00	91.00	330.71	11,582.15	4,901.65	-1,288.65	14,461,433.40	1,728,773.69	39.82024384	-80.68532049
16,800.00	91.00	330.71	11,580.40	4,988.85	-1,337.57	14,461,520.60	1,728,724.77	39.82048379	-80.68549362
16,900.00	91.00	330.71	11,578.65	5,076.05	-1,386.49	14,461,607.80	1,728,675.85	39.82072373	-80.68566675
17,000.00	91.00	330.71	11,576.89	5,163.26	-1,435.41	14,461,695.00	1,728,626.93	39.82096368	-80.68583988
17,100.00	91.00	330.71	11,575.14	5,250.46	-1,484.32	14,461,782.20	1,728,578.01	39.82120362	-80.68601301
17,200.00	91.00	330.71	11,573.39	5,337.66	-1,533.24	14,461,869.40	1,728,529.09	39.82144357	-80.68618614
17,300.00	91.00	330.71	11,571.64	5,424.86	-1,582.16	14,461,956.60	1,728,480.18	39.82168351	-80.68635927
17,400.00	91.00	330.71	11,569.89	5,512.06	-1,631.08	14,462,043.80	1,728,431.26	39.82192346	-80.68653240
17,500.00	91.00	330.71	11,568.14	5,599.26	-1,680.00	14,462,131.00	1,728,382.34	39.82216340	-80.68670554
17,600.00	91.00	330.71	11,566.39	5,686.46	-1,728.92	14,462,218.20	1,728,333.42	39.82240334	-80.68687867
17,700.00	91.00	330.71	11,564.64	5,773.66	-1,777.83	14,462,305.40	1,728,284.50	39.82264329	-80.68705181
17,800.00	91.00	330.71	11,562.89	5,860.86	-1,826.75	14,462,392.60	1,728,235.58	39.82288323	-80.68722495
17,900.00	91.00	330.71	11,561.13	5,948.06	-1,875.67	14,462,479.80	1,728,186.67	39.82312317	-80.68739809
18,000.00	91.00	330.71	11,559.38	6,035.26	-1,924.59	14,462,567.00	1,728,137.75	39.82336312	-80.68757123
18,100.00	91.00	330.71	11,557.63	6,122.46	-1,973.51	14,462,654.20	1,728,088.83	39.82360306	-80.68774437
18,200.00	91.00	330.71	11,555.88	6,209.66	-2,022.43	14,462,741.40	1,728,039.91	39.82384300	-80.68791751
18,300.00	91.00	330.71	11,554.13	6,296.86	-2,071.34	14,462,828.60	1,727,990.99	39.82408294	-80.68809066
18,400.00	91.00	330.71	11,552.38	6,384.06	-2,120.26	14,462,915.80	1,727,942.07	39.82432288	-80.68826380
18,500.00	91.00	330.71	11,550.63	6,471.26	-2,169.18	14,463,003.01	1,727,893.16	39.82456283	-80.68843695
18,600.00	91.00	330.71	11,548.88	6,558.46	-2,218.10	14,463,090.21	1,727,844.24	39.82480277	-80.68861010
18,700.00	91.00	330.71	11,547.13	6,645.66	-2,267.02	14,463,177.41	1,727,795.32	39.82504271	-80.68878325
18,800.00	91.00	330.71	11,545.37	6,732.86	-2,315.94	14,463,264.61	1,727,746.40	39.82528265	-80.68895640
18,900.00	91.00	330.71	11,543.62	6,820.07	-2,364.85	14,463,351.81	1,727,697.48	39.82552259	-80.68912955
19,000.00	91.00	330.71	11,541.87	6,907.27	-2,413.77	14,463,439.01	1,727,648.57	39.82576253	-80.68930270
19,100.00	91.00	330.71	11,540.12	6,994.47	-2,462.69	14,463,526.21	1,727,599.65	39.82600247	-80.68947585
19,200.00	91.00	330.71	11,538.37	7,081.67	-2,511.61	14,463,613.41	1,727,550.73	39.82624241	-80.68964901
19,300.00	91.00	330.71	11,536.62	7,168.87	-2,560.53	14,463,700.61	1,727,501.81	39.82648235	-80.68982216
19,400.00	91.00	330.71	11,534.87	7,256.07	-2,609.45	14,463,787.81	1,727,452.89	39.82672228	-80.68999532
19,500.00	91.00	330.71	11,533.12	7,343.27	-2,658.36	14,463,875.01	1,727,403.97	39.82696222	-80.69016848
19,600.00	91.00	330.71	11,531.37	7,430.47	-2,707.28	14,463,962.21	1,727,355.06	39.82720216	-80.69034164
19,700.00	91.00	330.71	11,529.61	7,517.67	-2,756.20	14,464,049.41	1,727,306.14	39.82744210	-80.69051480
19,800.00	91.00	330.71	11,527.86	7,604.87	-2,805.12	14,464,136.61	1,727,257.22	39.82768204	-80.69068796

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-13HU (F)
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-13HU (F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev8		

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	330.71	11,526.11	7,692.07	-2,854.04	14,464,223.81	1,727,208.30	39.82792198	-80.69086113	
20,000.00	91.00	330.71	11,524.36	7,779.27	-2,902.96	14,464,311.01	1,727,159.38	39.82816191	-80.69103429	
20,100.00	91.00	330.71	11,522.61	7,866.47	-2,951.87	14,464,398.21	1,727,110.46	39.82840185	-80.69120746	
20,200.00	91.00	330.71	11,520.86	7,953.67	-3,000.79	14,464,485.41	1,727,061.55	39.82864179	-80.69138062	
20,300.00	91.00	330.71	11,519.11	8,040.87	-3,049.71	14,464,572.61	1,727,012.63	39.82888172	-80.69155379	
20,400.00	91.00	330.71	11,517.36	8,128.07	-3,098.63	14,464,659.82	1,726,963.71	39.82912166	-80.69172696	
20,500.00	91.00	330.71	11,515.61	8,215.27	-3,147.55	14,464,747.02	1,726,914.79	39.82936159	-80.69190013	
20,600.00	91.00	330.71	11,513.85	8,302.47	-3,196.46	14,464,834.22	1,726,865.87	39.82960153	-80.69207330	
20,700.00	91.00	330.71	11,512.10	8,389.67	-3,245.38	14,464,921.42	1,726,816.95	39.82984147	-80.69224648	
20,800.00	91.00	330.71	11,510.35	8,476.88	-3,294.30	14,465,008.62	1,726,768.04	39.83008140	-80.69241965	
20,900.00	91.00	330.71	11,508.60	8,564.08	-3,343.22	14,465,095.82	1,726,719.12	39.83032134	-80.69259283	
21,000.00	91.00	330.71	11,506.85	8,651.28	-3,392.14	14,465,183.02	1,726,670.20	39.83056127	-80.69276600	
21,100.00	91.00	330.71	11,505.10	8,738.48	-3,441.06	14,465,270.22	1,726,621.28	39.83080121	-80.69293918	
21,200.00	91.00	330.71	11,503.35	8,825.68	-3,489.97	14,465,357.42	1,726,572.36	39.83104114	-80.69311236	
21,300.00	91.00	330.71	11,501.60	8,912.88	-3,538.89	14,465,444.62	1,726,523.44	39.83128107	-80.69328554	
21,400.00	91.00	330.71	11,499.85	9,000.08	-3,587.81	14,465,531.82	1,726,474.53	39.83152101	-80.69345872	
21,500.00	91.00	330.71	11,498.09	9,087.28	-3,636.73	14,465,619.02	1,726,425.61	39.83176094	-80.69363190	
21,600.00	91.00	330.71	11,496.34	9,174.48	-3,685.65	14,465,706.22	1,726,376.69	39.83200087	-80.69380509	
21,700.00	91.00	330.71	11,494.59	9,261.68	-3,734.57	14,465,793.42	1,726,327.77	39.83224081	-80.69397827	
21,800.00	91.00	330.71	11,492.84	9,348.88	-3,783.48	14,465,880.62	1,726,278.85	39.83248074	-80.69415146	
21,900.00	91.00	330.71	11,491.09	9,436.08	-3,832.40	14,465,967.82	1,726,229.93	39.83272067	-80.69432465	
22,000.00	91.00	330.71	11,489.34	9,523.28	-3,881.32	14,466,055.02	1,726,181.02	39.83296060	-80.69449783	
22,100.00	91.00	330.71	11,487.59	9,610.48	-3,930.24	14,466,142.22	1,726,132.10	39.83320053	-80.69467102	
22,190.63	91.00	330.71	11,486.00	9,689.51	-3,974.57	14,466,221.25	1,726,087.76	39.83341798	-80.69482799	
PBHL/TD 22190.63 MD/11486.00 TVD										
22,190.64	91.00	330.71	11,486.00	9,689.52	-3,974.58	14,466,221.26	1,726,087.76	39.83341800	-80.69482800	

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-13HU BHL - hit/miss target - Shape - Point	0.00	0.01	11,486.00	9,689.52	-3,974.58	14,466,221.26	1,726,087.76	39.83341800	-80.69482800	
Ten High 1N-13HU LP r - plan misses target center by 35.09usft at 12087.80usft MD (11629.92 TVD, 878.81 N, 959.89 E) - Point	0.00	0.01	11,663.00	869.21	966.57	14,457,400.95	1,731,028.91	39.80914772	-80.67734053	

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		
3,014.48	3,013.00	13 3/8" Casing @ 2980 TVD	13-3/8	17-1/2		
10,710.53	10,558.00	9 5/8" Casing @ 10525 TVD	9-5/8	12-1/4		

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WV Department of
Environmental Protection

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-13HU (F)
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-13HU (F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev8		

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
2,033.00	2,032.86	0.68	7.82	Begin 3.00° tangent
4,536.57	4,533.00	12.10	138.35	Begin 1°/100' drop
4,836.57	4,832.86	12.79	146.17	Begin vertical hold
8,036.71	8,033.00	12.79	146.17	Begin 2°/100' build
9,172.49	9,139.26	69.93	360.91	Begin 22.72° tangent
10,885.07	10,719.00	240.00	1,000.00	Begin 6°/100' build/turn
11,716.09	11,442.33	585.03	1,076.50	Begin 8°/100' build/turn
12,308.40	11,659.05	1,072.15	859.65	Begin 91.00° lateral
22,190.63	11,486.00	9,689.51	-3,974.57	PBHL/TD 22190.63 MD/11486.00 TVD

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Well Site Safety Plan

Tug Hill Operating, LLC

JCA
12/18/18

Well Name: Ten High 1N-13HU

Pad Location: Ten High
Marshall County, West Virginia

UTM (meters), NAD83, Zone 17:

NORTHING -4,406,359.69

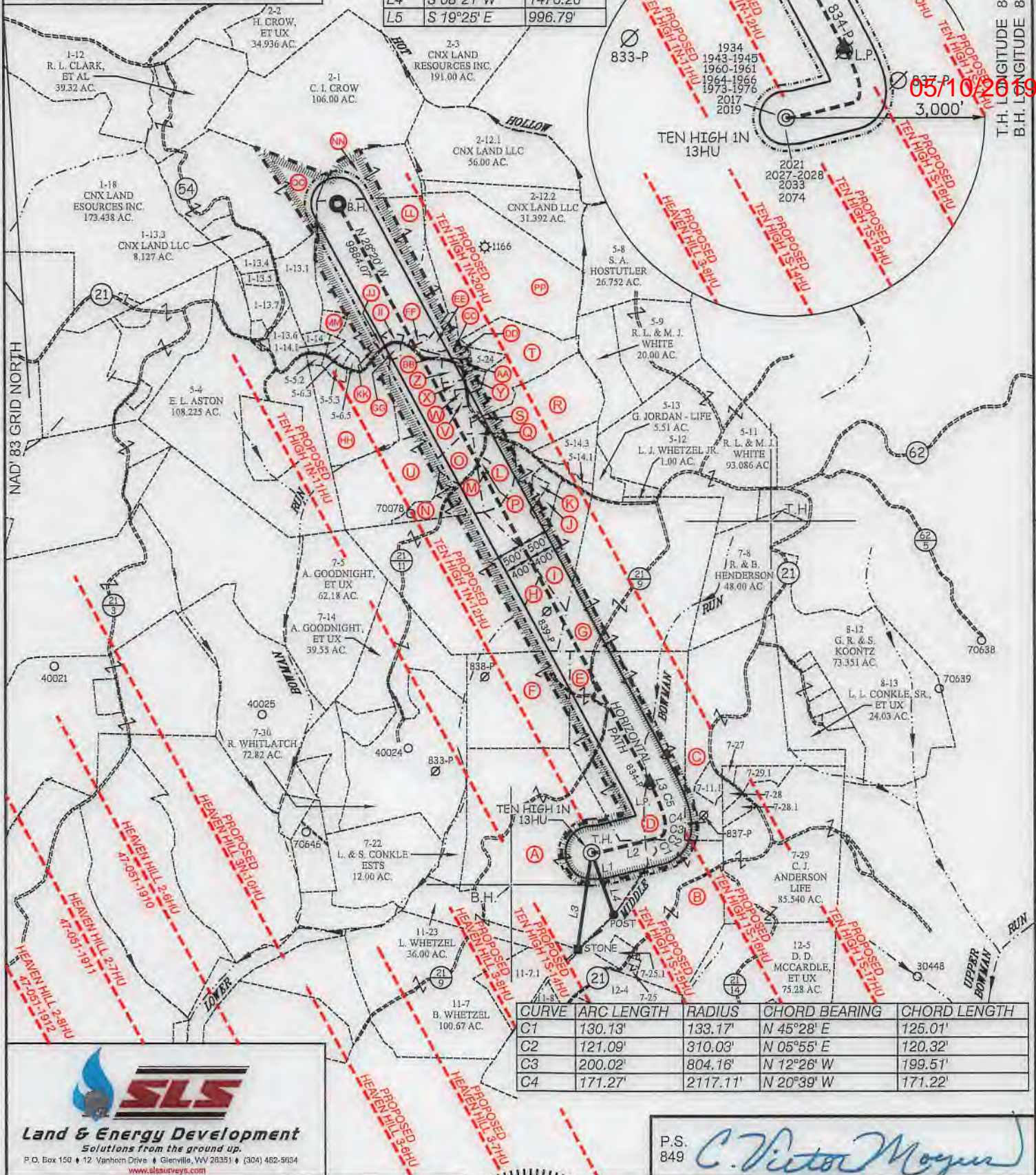
EASTING -527,324.06

January 2018

**TEN HIGH 1N LEASE
UTICA UNIT - 341.75 AC±
WELL 13HU
TUG HILL OPERATING**

T.H. LATITUDE 39°50'00"
B.H. LATITUDE 39°52'30"

LINE	BEARING	DISTANCE
L1	N 85°57' E	146.78'
L2	N 76°03' E	889.57'
L3	N 26°59' W	157.47'
L4	S 08°21' W	1476.26'
L5	S 19°25' E	996.79'



CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	130.13'	133.17'	N 45°28' E	125.01'
C2	121.09'	310.03'	N 05°55' E	120.32'
C3	200.02'	804.16'	N 12°26' W	199.51'
C4	171.27'	2117.11'	N 20°39' W	171.22'

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P.S. 849 *C. Victor Moyers*

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

NAD'83 S.P.C.(FT)	N. 478,146.86	E. 1,636,782.34
NAD'83 GEO.	LAT-(N) 39.806770	LONG-(W) 80.680793
NAD'83 UTM (M)	N. 4,406,359.69	E. 527,324.06

LANDING POINT

NAD'83 S.P.C.(FT)	N. 479,204.8	E. 1,637,660.1
NAD'83 GEO.	LAT-(N) 39.809706	LONG-(W) 80.677719
NAD'83 UTM (M)	N. 4,406,686.5	E. 527,586.1,660.1

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 487,904.7	E. 1,632,969.0
NAD'83 GEO.	LAT-(N) 39.833418	LONG-(W) 80.694828
NAD'83 UTM (M)	N. 4,409,313.1	E. 526,112.6



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

LEGEND

UNIT BOUNDARY	
LEASED TRACTS INSIDE UNIT BOUNDARY	
SURFACE LINE	
DEED WELL LATERAL WITHIN 300'	
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. 8655P13HUR6.dwg
TEN HIGH 1N 13HU Rev8
DATE AUGUST 14, 20 17
REVISED SEPTEMBER 26, 2018
OPERATORS WELL NO. TEN HIGH 1N-13HU
API WELL NO. 47-051-01965 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	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 - 341.75 AC±
WELL 13HU
TUG HILL OPERATING**



05/10/2019

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	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 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	EARL D 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	PHILLIP 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 STALNAKER	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	846 280
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 OLOFIELD	854 111
67	10*15646	D	9-7-22	JUDITH A CIRONE	848 428
68	10*15647	D	9-7-22	KENNETH WENDELL OLFIELD	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	850 89
72	10*15651	D	9-7-22	THOMAS G ASTON	850 83
73	10*15652	D	9-7-22	ISAAC R ASTON A/K/A IKE ASTON	836 136
74	10*15653	D	9-7-22	EMILY M HENCEROOTH	862 574
75	10*15654	D	9-7-22	GEORGE E HENNINGER	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	DONALD PAUL HENCEROOTH 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 FRESSE AND GEORGE H FRESSE	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*18029	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. 8655P13HUR6.dwg
TEN HIGH 1N 13HU Rev8
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API WELL 47 — 051 — 01965MOD
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STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
P.S. 849
C. Victor Moyers

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

COUNTY NAME
PERMIT

TEN HIGH 1N LEASE
 UTICA UNIT - 341.75 AC±
 WELL 13HU
 TUG HILL OPERATING



05/10/2019

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	905 526
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	GAIL L 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	927 455
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 DOOLING AND MICHAEL DOOLING	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*15557	E	9-7-30	RICKY L WHITLATCH ET AL	780 226
145	10*15557	F	9-7-30.1	RICKY L WHITLATCH ET AL	780 226
146	10*15501	G	9-7-13	RONALD AND EDNA MOORE	651 449
147	10*15557	H	9-7-15	RICKY L WHITLATCH ET AL	780 226
148	10*15358	I	9-7-14	ARNIE AND BOBBIE B GOODNIGHT	777 59
149	10*15300	J	9-7-6	JERRY FLETCHER AND CAROLYN FLETCHER, HUSBAND AND WIFE	661 154
150	10*15302	J	9-7-6	SHERWOOD YEATER	661 454
151	10*15558	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*15594	M	9-5-4	IVAN F GORBY	695 527
157	10*15594	M	9-5-4	GORBY IVAN F	695 527
158	10*15595	M	9-5-4	JOSEPH D DAKAN	695 519
159	10*15595	M	9-5-4	DAKAN JOSEPH D	695 519
160	10*15596	M	9-5-4	JOHN E GORBY	695 523
161	10*15596	M	9-5-4	GORBY JOHN E	695 523
162	10*15597	M	9-5-4	KAREN S GAST	694 534
163	10*15597	M	9-5-4	GAST KAREN S	694 534
164	10*15598	M	9-5-4	ADA HAZEL GONTA	695 183
165	10*15598	M	9-5-4	GONTA ADA HAZEL	695 183
166	10*15599	M	9-5-4	PATSY JO RAJU	694 561
167	10*15599	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*16258	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 DABO AND PATRICIA S DADO	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. 8655P13HUR6.dwg
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API WELL NO. 47 — 051 — 01965
 STATE COUNTY PERMIT



STATE OF WEST VIRGINIA
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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

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No.	Lease Name or No.	Tag	Parcel	Oil & Gas Royalty Owners	Deed Book/Page
201	10*16808	M	9-5-4	MICHAEL L ORTIZ	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*16890	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 ELIZABETH 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 WAUSA	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
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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
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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	952 180
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
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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 WAUSA	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*19699	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 HOLSLEY	908 187
278	10*47051.223.35	M	9-5-4	DEBRA L CIAFFAGNONE	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*15686	N	9-5-5.4	JOHN OMER BOLTZ	908 160
284	10*15750	N	9-5-5.4	SANDRA K TRULL	908 229
285	10*16058	N	9-5-5.4	MATTIE RUTH JACKSON PRESCOTT	908 231
286	10*16118	N	9-5-5.4	RUBY RIDDLE JACKSON	908 233
287	10*16383	N	9-5-5.4	ROBERT STEPHEN DRIGGERS	908 224
288	10*16414	N	9-5-5.4	MARY ELIZABETH DRIGGERS	908 208
289	10*16416	N	9-5-5.4	CYNTHIA HUDSON	906 219
290	10*16424	N	9-5-5.4	ROBERT J RIGBY	908 241
291	10*16448	N	9-5-5.4	RALPH L AND JUANITA L CRIM	908 584
292	10*16478	N	9-5-5.4	MARION LAND EMILY CAMPBELL	908 245
293	10*16514	N	9-5-5.4	ALEX RUSSELL AND JOYCE A CAMPBELL	908 248
294	10*16515	N	9-5-5.4	ANNA MARIE JACKSON	906 251
295	10*16516	N	9-5-5.4	WILSON ANDREW JACKSON	908 253
296	10*16662	N	9-5-5.4	RICHARD THOMAS AND VICKI J MIMS	908 863
297	10*16738	N	9-5-5.4	CHARLES A RINE AND RUTH K RINE	908 274
298	10*16787	N	9-5-5.4	HERBERT B CAMPBELL & DONNA D CAMPBELL	942 451
299	10*16800	N	9-5-5.4	JAMES KENNETH JACKSON AND JULIE JACKSON	921 99
300	10*16806	N	9-5-5.4	VIRGINIA I WHITMAN	921 528

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 DATE AUGUST 14, 20 17
 REVISED SEPTEMBER 26, 2018, 20 18
 OPERATORS WELL NO. TEN HIGH 1N-13HU
 API WELL NO. 47 — 051 — 01965
 STATE COUNTY PERMIT
 MDD



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 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

COUNTY NAME
 PERMIT

TEN HIGH 1N LEASE
 UTICA UNIT - 341.75 AC±
 WELL 13HU
 TUG HILL OPERATING



05/10/2019

No.	Lease Name or No.	Tag	Parcel	Oil & Gas Royalty Owners	Deed Book/Page
301	10*16962	N	9-5-5.4	DENNIS P AND BARBARA EZELL FLORY	921 70
302	10*16976	N	9-5-5.4	LESTER G AND CONSTANCE B NICKOLSON	921 343
303	10*16987	N	9-5-5.4	LAURIE EZELL PERRY	921 355
304	10*17130	N	9-5-5.4	CINDY L BARGER	921 137
305	10*17155	N	9-5-5.4	JESSE LEON JR AND TERESA GAIL EZELLE	921 118
306	10*17156	N	9-5-5.4	HENRI NELL JACKSON KENT BARNES	921 139
307	10*17157	N	9-5-5.4	JAMES N REEVES JR AND RITA M REEVES	921 367
308	10*17198	N	9-5-5.4	THOMAS G AND DIANE W BAYLESS	921 141
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312	10*17276	N	9-5-5.4	BERTHA EZELL WYATT	921 526
313	10*17278	N	9-5-5.4	MICHAEL L EZELLE	921 121
314	10*17377	N	9-5-5.4	MILTON HOWARD EZELLE JR AND ELIZABETH A EZELLE	921 123
315	10*17438	N	9-5-5.4	DENNIS M WILSON	921 476
316	10*17441	N	9-5-5.4	RALPH J WILSON	921 522
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318	10*17482	N	9-5-5.4	TERESA EZELLE RALYA AND DAVID L RALYA	927 487
319	10*17484	N	9-5-5.4	NELDA S JACKSON	921 330
320	10*17485	N	9-5-5.4	MARGIE ANN JACKSON ROBBINS GRAHAM	921 91
321	10*17526	N	9-5-5.4	JEFFREY L REEVES AND JODY L REEVES	921 370
322	10*17527	N	9-5-5.4	JAMES MICHAEL EZELL AND LUCILLE D EZELL	921 111
323	10*17561	N	9-5-5.4	KATHRYN L & ROGER L TYRELL	921 519
324	10*17564	N	9-5-5.4	JAMES R & TRACEY E NICKOLSON	921 340
325	10*17565	N	9-5-5.4	JESSE ALLEN JACKSON AND ELIZABETH D JACKSON	921 327
326	10*17566	N	9-5-5.4	NATHAN P & BARBARA T ERDOSSY	921 108
327	10*17588	N	9-5-5.4	JAMES M JACKSON	921 325
328	10*17589	N	9-5-5.4	MARY CHRISTINE MCKENNA	921 332
329	10*17744	N	9-5-5.4	SAM PRESLEY EZELL	921 116
330	10*17983	N	9-5-5.4	HOLLY SUE CUTHBERT	925 380
331	10*18021	N	9-5-5.4	CHRISTOPHER A HANIFAN AND JACKIE F HANIFAN	927 267
332	10*18022	N	9-5-5.4	DALE P WARD AND CYNTHIA J WARD	927 264
333	10*19524	N	9-5-5.4	THE ESTATE OF AGNES IRENE EZELL CLARK BY DAVID M EDWARDS, EXECUTOR	542 633
334	10*19695	N	9-5-5.4	VIRGINIA P FOUNDS KASSERMAN ET	944 333
335	10*19699	N	9-5-5.4	ROBERT J MILLS & SHERRA SUE MILLS	949 212
336	10*47051.223.1	N	9-5-5.4	JEAN ANNE GORBY STORCH	877 216
337	10*47051.223.2	N	9-5-5.4	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
338	10*47051.223.3	N	9-5-5.4	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
339	10*47051.223.6	N	9-5-5.4	JOSHUA RINE AND REBECCA RINE	907 634
340	10*47051.223.15	N	9-5-5.4	LARRY D TAUNT AND NANCY L TAUNT	908 14
341	10*47051.223.20	N	9-5-5.4	BARBARA A BUZZARD	908 24
342	10*47051.223.21	N	9-5-5.4	GARY T WARD AND SHARON D WARD	908 19
343	10*47051.223.24	N	9-5-5.4	JO DEE K DAVIS	908 136
344	10*47051.223.25	N	9-5-5.4	JOANNE WELCH	908 141
345	10*47051.223.26	N	9-5-5.4	WENDY L SMARKEL	908 69
346	10*47051.223.27	N	9-5-5.4	TIMI J HOBBS	908 277
347	10*47051.223.29	N	9-5-5.4	PATSY JO RAJU	908 155
348	10*47051.223.30	N	9-5-5.4	LAURIE DRIGGERS MANDERSON	908 105
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*15481	O	9-5-18	DEAN P RIGBY AND SUSAN RIGBY	908 157
352	10*15482	O	9-5-18	SUSAN NELSON	908 203
353	10*15674	O	9-5-18	DONALD E LEACH ET AL	882 209
354	10*15686	O	9-5-18	JOHN OMER BOLTZ	908 160
355	10*15750	O	9-5-18	SANDRA K TRULL	908 229
356	10*16058	O	9-5-18	MATTIE RUTH JACKSON PRESCOTT	908 231
357	10*16118	O	9-5-18	RUBY RIDDLE JACKSON	908 233
358	10*16883	O	9-5-18	ROBERT STEPHEN DRIGGERS	908 224
359	10*16414	O	9-5-18	MARY ELIZABETH DRIGGERS	908 208
360	10*16416	O	9-5-18	CYNTHIA HUDSON	908 219
361	10*16424	O	9-5-18	ROBERT J RIGBY	908 241
362	10*16448	O	9-5-18	RALPH L AND JUANITA L CRIM	908 584
363	10*16478	O	9-5-18	MARION L AND EMILY CAMPBELL	908 245
364	10*16514	O	9-5-18	ALEX RUSSELL AND JOYCE A CAMPBELL	908 248
365	10*16515	O	9-5-18	ANNA MARIE JACKSON	908 251
366	10*16516	O	9-5-18	WILSON ANDREW JACKSON	908 253
367	10*16662	O	9-5-18	RICHARD THOMAS AND VICKI J MIMS	908 863
368	10*16738	O	9-5-18	CHARLES A RINE AND RUTH K RINE	908 274
369	10*16787	O	9-5-18	HERBERT B CAMPBELL & DONNA D CAMPBELL	942 451
370	10*16800	O	9-5-18	JAMES KENNETH JACKSON AND JULIE JACKSON	921 99
371	10*16806	O	9-5-18	VIRGINIA I WHITMAN	921 528
372	10*16962	O	9-5-18	DENNIS P AND BARBARA EZELL FLORY	921 70
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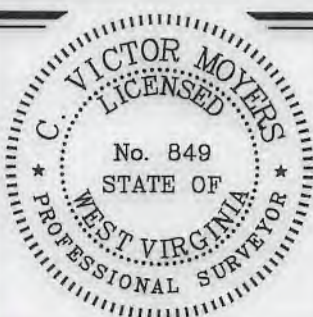
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DATE AUGUST 14, 20 17

REVISED SEPTEMBER 26, 2018, 20 18

OPERATORS WELL NO. TEN HIGH 1N-13HU

API WELL NO. 47 — 051 — 01965
 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
 CT CORPORATION SYSTEM
 ADDRESS 5400 D BIG TYLER ROAD
 CHARLESTON, WV 25313

COUNTY NAME PERMIT

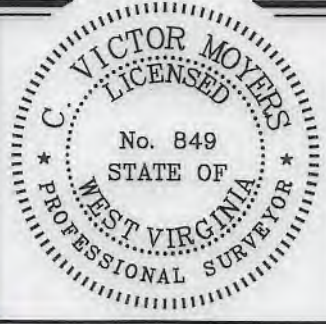
TEN HIGH 1N LEASE
 UTICA UNIT - 341.75 AC±
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05/10/2019

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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*15522	P	9-5-17	CARLA S CROW	728 412
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*15686	P	9-5-17	JOHN OMER BOLTZ	908 160
426	10*15750	P	9-5-17	SANDRA K TRULL	908 229
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438	10*16662	P	9-5-17	RICHARD THOMAS AND VICKI J MIMS	908 863
439	10*16738	P	9-5-17	CHARLES A RINE AND RUTH K RINE	908 274
440	10*16787	P	9-5-17	HERBERT B CAMPBELL & DONNA D CAMPBELL	942 451
441	10*16800	P	9-5-17	JAMES KENNETH JACKSON AND JULIE JACKSON	921 95
442	10*16806	P	9-5-17	VIRGINIA I WHITMAN	921 528
443	10*16962	P	9-5-17	DENNIS P AND BARBARA EZELL FLORY	921 70
444	10*16976	P	9-5-17	LESTER G AND CONSTANCE B NICKOLSON	921 343
445	10*16987	P	9-5-17	LAURIE EZELL PERRY	921 355
446	10*17130	P	9-5-17	CINDY L BARGER	921 137
447	10*17155	P	9-5-17	JESSE LEON JR AND TERESA GAIL EZELLE	921 118
448	10*17156	P	9-5-17	HENRI NELL JACKSON KENT BARNES	921 139
449	10*17157	P	9-5-17	JAMES N REEVES JR AND RITA M REEVES	921 367
450	10*17198	P	9-5-17	THOMAS G AND DIANE W BAYLESS	921 141
451	10*17205	P	9-5-17	SANDRA JEAN WILSON	921 524
452	10*17274	P	9-5-17	DAVID H WILSON	921 474
453	10*17275	P	9-5-17	JOHN R REEVES AND MONA G REEVES	921 373
454	10*17276	P	9-5-17	BERTHA EZELL WYATT	921 526
455	10*17278	P	9-5-17	MICHAEL EZELLE	921 121
456	10*17377	P	9-5-17	MILTON HOWARD EZELLE JR AND ELIZABETH A EZELLE	921 123
457	10*17438	P	9-5-17	DENNIS M WILSON	921 476
458	10*17441	P	9-5-17	RALPH J WILSON	921 522
459	10*17449	P	9-5-17	PHYLLIS J BLAKE	921 150
460	10*17482	P	9-5-17	TERESA EZELLE RALYA AND DAVID L RALYA	927 487
461	10*17484	P	9-5-17	NELDA S JACKSON	921 330
462	10*17485	P	9-5-17	MARGIE ANN JACKSON ROBBINS GRAHAM	921 91
463	10*17526	P	9-5-17	JEFFREY L REEVES AND JODY L REEVES	921 370
464	10*17527	P	9-5-17	JAMES MICHAEL EZELL AND LUCILLE D EZELL	921 111
465	10*17561	P	9-5-17	KATHRYN L & ROGER L TYRELL	921 519
466	10*17564	P	9-5-17	JAMES R & TRACEY E NICKOLSON	921 340
467	10*17565	P	9-5-17	JESSE ALLEN JACKSON AND ELIZABETH D JACKSON	921 327
468	10*17566	P	9-5-17	NATHAN P & BARBARA T ERDOSSY	921 108
469	10*17588	P	9-5-17	JAMES M JACKSON	921 325
470	10*17589	P	9-5-17	MARY CHRISTINE MCKENNA	921 332
471	10*17744	P	9-5-17	SAM PRESLEY EZELL	921 116
472	10*17983	P	9-5-17	HOLLY SUE CUTHBERT	925 380
473	10*18021	P	9-5-17	CHRISTOPHER A HANIFAN AND JACKIE F HANIFAN	927 267
474	10*18022	P	9-5-17	DALE P WARD AND CYNTHIA J WARD	927 264
475	10*19524	P	9-5-17	THE ESTATE OF AGNES IRENE EZELL CLARK BY DAVID M EDWARDS, EXECUTOR	942 633
476	10*19695	P	9-5-17	VIRGINIA P FOUNDS KASSERMAN ET	944 333
477	10*19939	P	9-5-17	ROBERT J MILLS & SHERRA SUE MILLS	949 212
478	10*47051.223.1	P	9-5-17	JEAN ANNE GORBY STORCH	877 216
479	10*47051.223.2	P	9-5-17	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
480	10*47051.223.3	P	9-5-17	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
481	10*47051.223.6	P	9-5-17	JOSHUA RINE AND REBECCA RINE	907 634
482	10*47051.223.15	P	9-5-17	LARRY D TAUNT AND NANCY L TAUNT	908 14
483	10*47051.223.20	P	9-5-17	BARBARA A BUZZARD	908 24
484	10*47051.223.21	P	9-5-17	GARY T WARD AND SHARON D WARD	908 19
485	10*47051.223.24	P	9-5-17	JO DEE K DAVIS	908 136
486	10*47051.223.25	P	9-5-17	JOANNE WELCH	908 141
487	10*47051.223.26	P	9-5-17	WENDY L SMARKEL	908 69
488	10*47051.223.27	P	9-5-17	TIMI J HOBBS	908 277
489	10*47051.223.29	P	9-5-17	PATSY JO RAJU	908 155
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*15481	Q	9-5-5	DEAN P RIGBY AND SUSAN RIGBY	908 197
494	10*15482	Q	9-5-5	SUSAN NELSON	908 203
495	10*15668	Q	9-5-5	MICHAEL J SNYDER	865 186
496	10*15668	Q	9-5-5	MICHAEL J SNYDER	865 186
497	10*15686	Q	9-5-5	JOHN OMER BOLTZ	908 160
498	10*15750	Q	9-5-5	SANDRA K TRULL	908 229
499	10*16058	Q	9-5-5	MATTIE RUTH JACKSON PRESCOTT	908 231
500	10*16118	Q	9-5-5	RUBY RIDDLE JACKSON	908 233

FILE NO. 8655P13HUR6.dwg
 TEN HIGH 1N 13HU Rev8
 DATE AUGUST 14, 20 17
 REVISED SEPTEMBER 26, 2018, 20 18
 OPERATORS WELL NO. TEN HIGH 1N-13HU
 API WELL NO. 47 — 051 — 01965
 STATE COUNTY PERMIT Mon



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 - 341.75 AC±
 WELL 13HU
 TUG HILL OPERATING



05/10/2019

No.	Lease Name or No.	Tag	Parcel	Oil & Gas Royalty Owners	Deed Book/Page
501	10*16383	Q	9-5-5	ROBERT STEPHEN DRIGGERS	908 224
502	10*16414	Q	9-5-5	MARY ELIZABETH DRIGGERS	908 208
503	10*16416	Q	9-5-5	CYNTHIA HUDSON	908 219
504	10*16424	Q	9-5-5	ROBERT J RIGBY	908 241
505	10*16448	Q	9-5-5	RALPH L AND JUANITA L CRIM	908 584
506	10*16478	Q	9-5-5	MARION L AND EMILY CAMPBELL	908 245
507	10*16514	Q	9-5-5	ALEX R CAMPBELL & JOYCE A CAMPBELL	908 248
508	10*16515	Q	9-5-5	ANNA MARIE JACKSON	908 251
509	10*16516	Q	9-5-5	WILSON ANDREW JACKSON	908 253
510	10*16662	Q	9-5-5	RICHARD THOMAS MIMS & VICKIE J MIMS	908 263
511	10*16738	Q	9-5-5	CHARLES A RINE AND RUTH K RINE	908 274
512	10*16787	Q	9-5-5	HERBERT B CAMPBELL & DONNA D CAMPBELL	942 451
513	10*16800	Q	9-5-5	JAMES KENNETH JACKSON AND JULIE JACKSON	921 93
514	10*16806	Q	9-5-5	VIRGINIA WHITMAN TRUST DTD 7-25-1984 JON WHITMAN TRUSTEE	921 528
515	10*16962	Q	9-5-5	DENNIS P FLORY AND BARBARA EZELL FLORY	921 70
516	10*16976	Q	9-5-5	LESTER G AND CONSTANCE B NICKOLSON	921 343
517	10*16987	Q	9-5-5	LAURIE EZELL PERRY	921 355
518	10*17130	Q	9-5-5	CINDY L BARGER	921 137
519	10*17155	Q	9-5-5	JESSE LEON JR AND TERESA GAIL EZELLE	921 118
520	10*17156	Q	9-5-5	HENRI NELL JACKSON KENT BARNES	921 139
521	10*17157	Q	9-5-5	JAMES N REEVES JR AND RITA M REEVES	921 367
522	10*17198	Q	9-5-5	THOMAS G AND DIANE W BAYLESS	921 141
523	10*17205	Q	9-5-5	SANDRA JEAN WILSON	921 524
524	10*17274	Q	9-5-5	DAVID H WILSON	921 474
525	10*17275	Q	9-5-5	JOHN R REEVES AND MONA G REEVES	921 373
526	10*17276	Q	9-5-5	BERTHA EZELL WYATT	921 526
527	10*17278	Q	9-5-5	MICHAEL LEZELLE	921 121
528	10*17377	Q	9-5-5	MILTON HOWARD EZELLE JR AND ELIZABETH A EZELLE	921 123
529	10*17438	Q	9-5-5	DENNIS M WILSON	921 476
530	10*17441	Q	9-5-5	RALPH J WILSON	921 522
531	10*17449	Q	9-5-5	PHYLLIS J BLAKE	921 150
532	10*17482	Q	9-5-5	TERESA EZELLE RALYA AND DAVID L RALYA	927 487
533	10*17484	Q	9-5-5	NELDA S JACKSON	921 330
534	10*17485	Q	9-5-5	MARGIE ANN JACKSON ROBBINS GRAHAM	921 91
535	10*17526	Q	9-5-5	JEFFREY L REEVES AND JODY L REEVES	921 370
536	10*17527	Q	9-5-5	JAMES MICHAEL EZELL AND LUCILLE D EZELL	921 111
537	10*17561	Q	9-5-5	ROGER L TYRELL AND KATHRYN L TYRELL	921 519
538	10*17564	Q	9-5-5	JAMES RONALD NICKOLSON AND TRACEY E NICKOLSON	921 340
539	10*17565	Q	9-5-5	JESSE ALLEN JACKSON AND ELIZABETH D JACKSON	921 327
540	10*17566	Q	9-5-5	NATHAN P ERDOSSY AND BARBARA T ERDOSSY	921 108
541	10*17588	Q	9-5-5	JAMES M JACKSON	921 325
542	10*17589	Q	9-5-5	MARY CHRISTINE MCKENNA	921 332
543	10*17744	Q	9-5-5	SAM PRESLEY EZELL	921 116
544	10*17983	Q	9-5-5	HOLLY SUE CUTHBERT	925 380
545	10*18021	Q	9-5-5	CHRISTOPHER A HANIFAN AND JACKIE F HANIFAN	927 267
546	10*18022	Q	9-5-5	DALE P WARD AND CYNTHIA J WARD	927 264
547	10*19524	Q	9-5-5	THE ESTATE OF AGNES IRENE EZELL CLARK BY DAVID M EDWARDS, EXECUTOR	942 633
548	10*19695	Q	9-5-5	VIRGINIA P FOLINDS KASSERMAN ET	944 333
549	10*19939	Q	9-5-5	ROBERT J MILLS & SHERRA SUE MILLS	949 212
550	10*47051.223.1	Q	9-5-5	JEAN ANNE GORBY STORCH AIF JOHN HERMAN STORCH	877 216
551	10*47051.223.15	Q	9-5-5	LARRY D TAUNT AND NANCY L TAUNT	908 14
552	10*47051.223.2	Q	9-5-5	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
553	10*47051.223.20	Q	9-5-5	BARBARA A BUZZARD	908 24
554	10*47051.223.21	Q	9-5-5	GARY T WARD AND SHARON D WARD	908 19
555	10*47051.223.24	Q	9-5-5	JO DEE K DAVIS	908 136
556	10*47051.223.25	Q	9-5-5	JOANNE WELCH	908 141
557	10*47051.223.26	Q	9-5-5	WENDY L SMARKEL	908 89
558	10*47051.223.27	Q	9-5-5	TIMI J HOBBS	908 277
559	10*47051.223.29	Q	9-5-5	PATSY JO RAJU	908 156
560	10*47051.223.3	Q	9-5-5	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
561	10*47051.223.30	Q	9-5-5	LAURIE DRIGGERS MANDERSON	908 165
562	10*47051.223.33	Q	9-5-5	NANCY C HOUSLEY	908 187
563	10*47051.223.35	Q	9-5-5	DEBRA L CIAFFAGNONE	908 192
564	10*47051.223.6	Q	9-5-5	JOSHUA RINE AND REBECCA RINE	907 634
565	10*15594	R	9-5-4.1	GORBY IVAN F	695 527
566	10*15595	R	9-5-4.1	DAKAN JOSEPH D	695 519
567	10*15596	R	9-5-4.1	GORBY JOHN E	695 523
568	10*15597	R	9-5-4.1	GAST KAREN S	694 534
569	10*15598	R	9-5-4.1	GONTA ADA HAZEL	695 183
570	10*15599	R	9-5-4.1	RAJU PATSY JO	694 561
571	47051.223.1	R	9-5-4.1	STORCH JEAN A AIF JOHN HERMAN STORCH	877 216
572	47051.223.2	R	9-5-4.1	SCHIEFER STEPHANIE L ET VIR	885 321
573	47051.223.3	R	9-5-4.1	LEADBETTER ROBERT A ET UX	885 324
574	10*47051.223.1	S	9-5-5.3	JEAN ANNE GORBY STORCH AIF JOHN HERMAN STORCH	877 216
575	10*47051.223.2	S	9-5-5.3	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
576	10*47051.223.3	S	9-5-5.3	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
577	10*21696	T	9-5-6.5	DAKAN JOSEPH D	694 71
578	10*21698	T	9-5-6.5	RAJU PATSY JO	695 175
579	10*21718	T	9-5-6.5	LINDA S DELBERT	695 187
580	10*47051.223.2	T	9-5-6.5	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
581	10*47051.223.3	T	9-5-6.5	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
582	10*21696	U	9-5-6.3	DAKAN JOSEPH D	694 71
583	10*21698	U	9-5-6.3	RAJU PATSY JO	695 175
584	10*47051.223.2	U	9-5-6.3	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
585	10*47051.223.3	U	9-5-6.3	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
586	10*21712	V	9-5-5.2	PETER PARKER	889 260
587	10*47051.223.1	V	9-5-5.2	JEAN ANNE GORBY STORCH AIF JOHN HERMAN STORCH	877 216
588	10*47051.223.2	V	9-5-5.2	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
589	10*47051.223.3	V	9-5-5.2	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
590	10*23884	W	9-1-14	STONE HILL MINERAL HOLDINGS	PENDING
591	10*23881	X	9-1-14.1	ALICE J MARTIN ET VIR	893 250
592	10*21696	Y	9-5-6	DAKAN JOSEPH D	694 71
593	10*21698	Y	9-5-6	RAJU PATSY JO AKA GORBY PATSY JO	695 175
594	10*21702	Y	9-5-6	NANCY L SNYDER	885 191
595	10*21696	Z	9-5-6.2	DAKAN JOSEPH D	694 71
596	10*21698	Z	9-5-6.2	RAJU PATSY JO AKA GORBY PATSY JO	695 175
597	10*47051.223.2	Z	9-5-6.2	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
598	10*47051.223.3	Z	9-5-6.2	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
599	10*24536	AA	(NOT ASSESSED)	MARSHALL COUNTY BOARD OF EDUCATION	1026 67
600	10*24536	BB	(NOT ASSESSED)	MARSHALL COUNTY BOARD OF EDUCATION	1026 67
601	10*23769	CC	9-1-13.2	ROBERT A. WILLIAMS & CHERYL L. WILLIAMS, HIS WIFE	1014 500
602	10*21695	DD	NOT ASSESSED	ROBERT A. WILLIAMS & CHERYL L. WILLIAMS, HIS WIFE	847 521

FILE NO. 8655P13HUR6.dwg

TEN HIGH 1N 13HU Rev8

DATE AUGUST 14, 20 17

REVISED SEPTEMBER 26, 2018, 20 18

OPERATORS WELL NO. TEN HIGH 1N-13HU

API WELL NO. 47 — 051 — 01965MOD
 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 - 341.75 AC±
WELL 13HU
TUG HILL OPERATING**

T.H. LATITUDE 39°50'00"
B.H. LATITUDE 39°52'30"

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
NAD'83 S.P.C.(FT) N. 478,146.86 E. 1,636,782.34
NAD'83 GEO. LAT-(N) 39.806770 LONG-(W) 80.680793
NAD'83 UTM (M) N. 4,406,359.69 E. 527,324.06
LANDING POINT
NAD'83 S.P.C.(FT) N. 479,204.8 E. 1,637,060.1
NAD'83 GEO. LAT-(N) 39.809706 LONG-(W) 80.677719
NAD'83 UTM (M) N. 4,406,686.5 E. 527,586.1
BOTTOM HOLE
NAD'83 S.P.C.(FT) N. 487,904.7 E. 1,632,965.0
NAD'83 GEO. LAT-(N) 39.833418 LONG-(W) 80.694828
NAD'83 UTM (M) N. 4,409,313.1 E. 526,112.6

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°40'00"

TAG	SURFACE OWNER	PARCEL	ACRES
A	LAWRENCE & SHIRLEY CONKLE ESTS	9-7-24	139.79
B	THOMAS R. & KIMBERLY WHITFIELD	9-7-25.2	76.40
C	MARK H. FOX	9-7-11	75.37
D	ROBERT G. HUBBS & SCARLETTE E. OTTE	9-7-12.1	86.363
E	RONALD MOORE, ET UX	9-7-12	16.587
F	RONALD MOORE, ET UX	9-7-13	51.49
G	ROBERT G. HUBBS & SCARLETTE E. OTTE	9-7-7	106.61
H	TERESA L. HORNER WITH JERRY G. & CAROLYN K. FLETCHER (LIFE ESTATE)	9-7-6	103.30
I	DAVID L. HOLMES, ET UX	9-5-14	37.345
J	DAVID L. HOLMES, ET UX	9-5-14.2	4.995
K	DAVID L. HOLMES, ET UX	9-5-14.5	1.66
L	BETTY R. OTT	9-5-14.4	10.501
M	CARLA SUE CROW	9-5-17	6.341
N	KELLY WILSON WITH DONLD E. LEACH (LIFE ESTATE)	9-5-18	5.807
O	KELLY WILSON WITH DONLD E. LEACH (LIFE ESTATE)	9-5-20	6.924
P	BETTY R. OTT	9-5-19	0.933
Q	LARRY L. CONKLE, JR	9-5-16	2.365
R	MARK H. FOX ET UX	9-5-15	36.533
S	SCOTT A. HOSTUTLER	9-5-16.1	0.142
T	SCOTT A. HOSTUTLER	9-5-8	26.752
U	MICHAEL JOSEPH SNYDER	9-5-5.4	64.00
V	RALPH E. WELLMAN, ET UX	9-5-21	1.00
W	RALPH E. WELLMAN, ET UX	9-5-22	0.5
X	RALPH E. WELLMAN, ET UX	9-5-23	1.00
Y	MISTY CROW WITH ROBERT & ELSIE WHETZEL (LIFE ESTATE)	9-5-8.2	1.973
Z	ALVIE & MARCELLA DARRAH	9-5-24	1.986
AA	YEAGER ADDITION TO BOWMAN RIDGH CEMETERY FROM PLAT OF SURVEY DB 509-374	NOT ASSD	NOT ASSD
BB	TRUSTEES OF M E CHURCH	NOT ASSD	1.00
CC	M E CHURCH	NOT ASSD	NOT ASSD
DD	M E CHURCH	9-5-7	81.5 POLES (6 AC ASSD)
EE	JON B. CRAWFORD	9-5-6.1	4.679
FF	NANCY L. SNYDER	9-5-6.8	0.691
GG	DAVID M. TOLER	9-5-5.1	0.985
HH	MICHAEL JOSEPH SNYDER	9-5-5	35.02
II	NANCY L. SNYDER	9-5-6.7	0.678
JJ	NANCY L. SNYDER	9-5-6.4	0.694
KK	NANCY L. SNYDER	9-5-6.6	0.420
LL	NANCY L. SNYDER (LIFE ESTATE)	9-5-6	82.858
MM	MICHAEL JOSEPH SNYDER	9-5-6.2	2.82
NN	CNX LAND LLC	9-5-6.9	22.392
OO	ROBERT A. & CHERYL L. WILLIAMS	9-1-13	80.897
PP	HARRY J. CRAWFORD, ET UX (LIFE ESTATE)	9-2-12	80.718

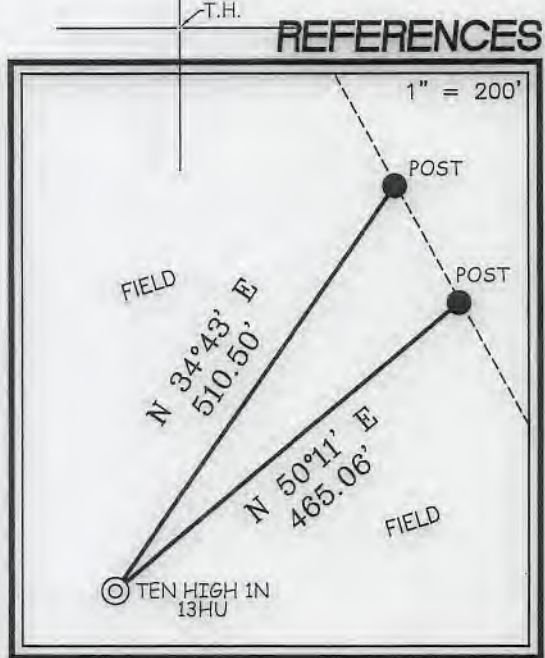
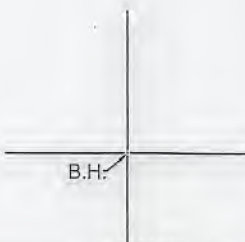
MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-1-13.1	BURDETTE L. BEUCKE	14.256
9-1-13.4	MACK L. CROW	4.273
9-1-13.5	MACK L. CROW	2.491
9-1-13.6	GERALD E. LOGSDON, ET UX	7.621
9-1-13.7	SHARON D. TUCKER	7.817
9-1-14	ALICIA JANE MARTIN	2.4602
9-1-14.1	ALICE J. & DOUGLAS J. MARTIN	0.905
9-5-3.2	PETER PARKER	0.873
9-5-3.3	MICHAEL J. & NANCY L. SNYDER	1.870
9-5-6.3	DEUTSCHE BANK NATIONAL TRUST CO.	1.391
9-5-6.5	LINDA GORBY DELBERT	1.087
9-5-14.1	SAVANNA WEST, ET AL	2.819
9-5-14.3	MARK FOX, ET UX	10.714
9-5-24	ALVIE & MARCELLA DARRAH	1.986
9-7-11.1	WEST VIRGINIA DEPARTMENT OF HIGHWAYS	3.63
9-7-25	THOMAS R. & KIMBERLY WHITFIELD	0.83
9-7-25.1	THOMAS R. & KIMBERLY WHITFIELD	4.23
9-7-27	CAROL J. ANDERSON - LIFE	1.005
9-7-28	VICTOR & CLAIRE CAMERON	1.983
9-7-28.1	NATHAN WILLIAMS	2.768
9-7-29.1	CAROL J. ANDERSON - LIFE	5.004
9-11-7.1	BRENDA J. WHETZEL	17.812
9-11-8	WNEK FAMILY IRREVOCABLE TRUST	30.10
9-12.4	THOMAS R. & KIMBERLY WHITFIELD	54.02

9,676' T.H.

15,147' B.H.

NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS > 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'
- 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-11HU, TEN HIGH 1N-12HU, AND TEN HIGH 1N-20HU.



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 AUGUST 14, 20 17
REVISED SEPTEMBER 26, 2018
OPERATORS WELL NO. TEN HIGH 1N-13HU
API WELL NO. 47 - 051 - 01965
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8655P13HUR6.dwg
SCALE TEN HIGH 1N 13HU Rev5
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 X INJECTION ___ WASTE DISPOSAL ___ IF "GAS" PRODUCTION X STORAGE ___ DEEP X SHALLOW ___

LOCATION: GROUND = 1,321.50' 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 ANDY PAUL & JACKIE KUHN, ET AL - SEE ADDITIONAL SHEETS ACREAGE 139.79±

PROPOSED WORK: LEASE NO. SEE ADDITIONAL SHEETS
DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X 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: 22,191'

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

COUNTY NAME PERMIT

WW-6A1
(5/13)

Operator's Well No. Ten High 1N-13HU

**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

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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 Miller*

Its: Permitting Specialist - Appalachia Region

Lease Name or No	Tag	Parcel	Grantor, Lessor, etc.	Grantee, Lessee, etc.	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	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 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 AS TRUSTEE	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	TriEnergy to AB Resources: 20/252	AB Resources to Chevron: 756/379	Chevron to Tug Hill: 36/148	Chevron to Tug Hill: 40/127 & 906/409
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

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Operator's Well No. Ten High 1N - 13HU

Lease Name or No	Tag	Parcel	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Deed Book/Page		Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
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
10*15647	D	9-7-22	KENNETH WENDELL OLDFIELD	CHEVRON USA INC	1/8+	861	589	N/A	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	N/A	Chevron to Tug Hill: 36/148

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10*15649	D	9-7-22	MARY JANE DANIEL	CHEVRON USA INC	1/8+	858	28	N/A	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	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	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	N/A	Chevron to Tug Hill: 36/148
10*15653	D	9-7-22	EMILY M HENCEROTH	CHEVRON USA INC	1/8+	862	574	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15654	D	9-7-22	GEORGE E HENNINGER	CHEVRON USA INC	1/8+	863	612	N/A	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	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	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	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	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	N/A	Chevron to Tug Hill: 36/148
10*15660	D	9-7-22	DOUGLAS PAUL HENCEROTH BY HIS AIF	CHEVRON USA INC	1/8+	871	193	N/A	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	N/A

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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	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	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	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	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	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	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	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	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	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	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	N/A
10*17365	D	9-7-22	MYSTI JOANNE GOODMAN	TH EXPLORATION LLC	1/8+	927	468	N/A	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	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	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	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	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	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	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	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	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	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	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	N/A
10*47051.295.10	D	9-7-22	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	D	9-7-22	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	D	9-7-22	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	D	9-7-22	THE DOLLYE F WOOD REVOCABLE TRUST BY NICHOLAS CHARLES WOOD AS TRUSTEE	TH EXPLORATION LLC	1/8+	904	641	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.295.3	D	9-7-22	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	D	9-7-22	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	D	9-7-22	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	D	9-7-22	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	D	9-7-22	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	D	9-7-22	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*15557	E	9-7-30	RICKY L WHITLATCH ET AL	CHEVRON USA INC	1/8+	780	226	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15557	F	9-7-30.1	RICKY L WHITLATCH ET AL	CHEVRON USA INC	1/8+	780	226	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15501	G	9-7-13	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*15557	H	9-7-15	RICKY L WHITLATCH ET AL	CHEVRON USA INC	1/8+	780	226	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15558	I	9-7-14	ARNIE AND BOBBIE B GOODNIGHT	CHEVRON USA INC	1/8+	777	59	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148
10*15500	J	9-7-6	JERRY FLETCHER AND CAROLYN FLETCHER, HUSBAND AND WIFE	TRIENERGY INC	1/8+	661	154	TriEnergy to AB Resources: 20/252	TriEnergy to TriEnergy Hold: 21/148	AB Resources to Chief, et al: 24/319	Chief, et al to Chevron: 25/1	AB Resources to Chevron: 756/397	Chevron to Tug Hill: 36/148 & 906/409
10*15502	J	9-7-6	SHERWOOD YEATER	TRIENERGY INC	1/8+	661	454	TriEnergy to AB Resources: 20/252	TriEnergy to TriEnergy Hold: 21/148	AB Resources to Chief, et al: 24/319	Chief, et al to Chevron: 25/1	AB Resources to Chevron: 756/397	Chevron to Tug Hill: 36/148 & 906/409
10*15558	K	9-7-5	ARNIE AND BOBBIE B GOODNIGHT	CHEVRON USA INC	1/8+	777	59	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148	Chevron to Tug Hill: 42/435
10*21588	L	9-5-3	WAYT LAWRENCE ALLEN	CHESAPEAKE APPALACHIA LLC	1/8+	687	233	N/A	N/A	Chesapeake to Statoil: 22/646	Statoil to Chevron: 30/427	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435
10*21591	L	9-5-3	BEATRICE ANN KIDD	CHESAPEAKE APPALACHIA LLC	1/8+	687	230	N/A	N/A	Chesapeake to Statoil: 22/646	Statoil to Chevron: 30/427	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435
10*15481	M	9-5-4	DEAN P RIGBY AND SUSAN RIGBY	TH EXPLORATION LLC	1/8+	908	197	N/A	N/A	N/A	N/A	N/A	N/A
10*15482	M	9-5-4	SUSAN NELSON	TH EXPLORATION LLC	1/8+	908	203	N/A	N/A	N/A	N/A	N/A	N/A
10*15594	M	9-5-4	IVAN F GORBY	CHESAPEAKE APPALACHIA LLC	1/8+	695	527	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 36/148

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10*15594	M	9-5-4	GORBY IVAN F	CHESAPEAKE APPALACHIA LLC	1/8+	695 527	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435
10*15595	M	9-5-4	JOSEPH D DAKAN	CHESAPEAKE APPALACHIA LLC	1/8+	695 519	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 36/148
10*15595	M	9-5-4	DAKAN JOSEPH D	CHESAPEAKE APPALACHIA LLC	1/8+	695 519	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435
10*15596	M	9-5-4	JOHN E GORBY	CHESAPEAKE APPALACHIA LLC	1/8+	695 523	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 36/148
10*15596	M	9-5-4	GORBY JOHN E	CHESAPEAKE APPALACHIA LLC	1/8+	695 523	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435
10*15597	M	9-5-4	KAREN S GAST	CHESAPEAKE APPALACHIA LLC	1/8+	694 534	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 36/148
10*15597	M	9-5-4	GAST KAREN S	CHESAPEAKE APPALACHIA LLC	1/8+	694 534	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435
10*15598	M	9-5-4	ADA HAZEL GONTA	CHESAPEAKE APPALACHIA LLC	1/8+	695 183	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 36/148
10*15598	M	9-5-4	GONTA ADA HAZEL	CHESAPEAKE APPALACHIA LLC	1/8+	695 183	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435
10*15599	M	9-5-4	PATSY JO RAJU	CHESAPEAKE APPALACHIA LLC	1/8+	694 561	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 36/148
10*15599	M	9-5-4	RAJU PATSY JO	CHESAPEAKE APPALACHIA LLC	1/8+	694 561	N/A	N/A	N/A	N/A	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 42/435
10*15686	M	9-5-4	JOHN OMER BOLTZ	TH EXPLORATION LLC	1/8+	908 160	N/A	N/A	N/A	N/A	N/A	N/A
10*15750	M	9-5-4	SANDRA K TRULL	TH EXPLORATION LLC	1/8+	908 229	N/A	N/A	N/A	N/A	N/A	N/A
10*16058	M	9-5-4	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	M	9-5-4	RUBY RIDDLE JACKSON	TH EXPLORATION LLC	1/8+	908 233	N/A	N/A	N/A	N/A	N/A	N/A
10*16383	M	9-5-4	ROBERT STEPHEN DRIGGERS	TH EXPLORATION LLC	1/8+	908 224	N/A	N/A	N/A	N/A	N/A	N/A
10*16414	M	9-5-4	MARY ELIZABETH DRIGGERS	TH EXPLORATION LLC	1/8+	908 208	N/A	N/A	N/A	N/A	N/A	N/A
10*16416	M	9-5-4	CYNTHIA HUDSON	TH EXPLORATION LLC	1/8+	908 219	N/A	N/A	N/A	N/A	N/A	N/A
10*16424	M	9-5-4	ROBERT J RIGBY	TH EXPLORATION LLC	1/8+	908 241	N/A	N/A	N/A	N/A	N/A	N/A
10*16448	M	9-5-4	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	M	9-5-4	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	M	9-5-4	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	M	9-5-4	ANNA MARIE JACKSON	TH EXPLORATION LLC	1/8+	908 251	N/A	N/A	N/A	N/A	N/A	N/A
10*16516	M	9-5-4	WILSON ANDREW JACKSON	TH EXPLORATION LLC	1/8+	908 253	N/A	N/A	N/A	N/A	N/A	N/A
10*16545	M	9-5-4	ROBERT G FOUNDS AND ELLEN FOUNDS	TH EXPLORATION LLC	1/8+	908 260	N/A	N/A	N/A	N/A	N/A	N/A
10*16662	M	9-5-4	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*16666	M	9-5-4	MICHAEL P PYLE	TH EXPLORATION LLC	1/8+	908 255	N/A	N/A	N/A	N/A	N/A	N/A
10*16667	M	9-5-4	CHARLES F PYLE AND GAIL ANN PYLE	TH EXPLORATION LLC	1/8+	908 266	N/A	N/A	N/A	N/A	N/A	N/A
10*16668	M	9-5-4	JACK I PYLE AND MERRILEE ANN PYLE	TH EXPLORATION LLC	1/8+	908 257	N/A	N/A	N/A	N/A	N/A	N/A
10*16669	M	9-5-4	JOHN S DABO AND PATRICIA S DADO	TH EXPLORATION LLC	1/8+	908 269	N/A	N/A	N/A	N/A	N/A	N/A
10*16686	M	9-5-4	CHERYLE M TRACEY	TH EXPLORATION LLC	1/8+	927 475	N/A	N/A	N/A	N/A	N/A	N/A
10*16688	M	9-5-4	SHERRYL PYLE BAIR	TH EXPLORATION LLC	1/8+	927 481	N/A	N/A	N/A	N/A	N/A	N/A
10*16689	M	9-5-4	JOHN C FOUNDS	TH EXPLORATION LLC	1/8+	927 478	N/A	N/A	N/A	N/A	N/A	N/A
10*16690	M	9-5-4	RICARDO ORTIZ	TH EXPLORATION LLC	1/8+	921 352	N/A	N/A	N/A	N/A	N/A	N/A
10*16720	M	9-5-4	DONNA ELAINE BRASKETT	TH EXPLORATION LLC	1/8+	921 152	N/A	N/A	N/A	N/A	N/A	N/A
10*16738	M	9-5-4	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*16747	M	9-5-4	WILLIAM DALE BRASKETT	TH EXPLORATION LLC	1/8+	921 96	N/A	N/A	N/A	N/A	N/A	N/A
10*16787	M	9-5-4	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*16798	M	9-5-4	PATRICK A RANKIN AND ROBIN A RANKIN	TH EXPLORATION LLC	1/8+	921 364	N/A	N/A	N/A	N/A	N/A	N/A
10*16800	M	9-5-4	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*16802	M	9-5-4	CHRISTOPHER RICHARDSON AND TAMMY RICHARDSON	TH EXPLORATION LLC	1/8+	921 495	N/A	N/A	N/A	N/A	N/A	N/A
10*16804	M	9-5-4	WILLIAM N TAYLOR AND SHERRY D TAYLOR	TH EXPLORATION LLC	1/8+	921 510	N/A	N/A	N/A	N/A	N/A	N/A
10*16806	M	9-5-4	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*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

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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, EXECUTOR	TH EXPLORATION LLC	1/8+	942 633	N/A	N/A	N/A	N/A	N/A	N/A

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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	Tug Hill to Chevron: 36/168	Chevron to Tug Hill: 42/435
10*47051.223.15	M	9-5-4	LARRY D TAUNT AND NANCY L TAUNT	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	885	321	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	TH EXPLORATION LLC	1/8+	908	24	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	TH EXPLORATION LLC	1/8+	908	19	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.24	M	9-5-4	JO DEE K DAVIS	TH EXPLORATION LLC	1/8+	908	136	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.25	M	9-5-4	JOANNE WELCH	TH EXPLORATION LLC	1/8+	908	141	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.26	M	9-5-4	WENDY L SMARKEL	TH EXPLORATION LLC	1/8+	908	69	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.27	M	9-5-4	TIMI J HOBBS	TH EXPLORATION LLC	1/8+	908	277	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	TH EXPLORATION LLC	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*47051.223.30	M	9-5-4	LAURIE DRIGGERS MANDERSON	TH EXPLORATION LLC	1/8+	908	165	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.33	M	9-5-4	NANCY C HOUSLEY	TH EXPLORATION LLC	1/8+	908	187	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.35	M	9-5-4	DEBRA L CIAFFAGLIONE	TH EXPLORATION LLC	1/8+	908	192	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	TH EXPLORATION LLC	1/8+	907	634	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	TH EXPLORATION LLC	1/8+	908	197	N/A	N/A	N/A	N/A	N/A	N/A
10*15482	N	9-5-5.4	SUSAN NELSON	TH EXPLORATION LLC	1/8+	908	203	N/A	N/A	N/A	N/A	N/A	N/A
10*15668	N	9-5-5.4	MICHAEL J SNYDER	CHEVRON USA INC	1/8+	865	186	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 36/148	Chevron to Tug Hill: 42/435
10*15686	N	9-5-5.4	JOHN OMER BOLTZ	TH EXPLORATION LLC	1/8+	908	160	N/A	N/A	N/A	N/A	N/A	N/A
10*15750	N	9-5-5.4	SANDRA K TRULL	TH EXPLORATION LLC	1/8+	908	229	N/A	N/A	N/A	N/A	N/A	N/A
10*16058	N	9-5-5.4	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	N	9-5-5.4	RUBY RIDDLE JACKSON	TH EXPLORATION LLC	1/8+	908	233	N/A	N/A	N/A	N/A	N/A	N/A
10*16383	N	9-5-5.4	ROBERT STEPHEN DRIGGERS	TH EXPLORATION LLC	1/8+	908	224	N/A	N/A	N/A	N/A	N/A	N/A
10*16414	N	9-5-5.4	MARY ELIZABETH DRIGGERS	TH EXPLORATION LLC	1/8+	908	208	N/A	N/A	N/A	N/A	N/A	N/A
10*16416	N	9-5-5.4	CYNTHIA HUDSON	TH EXPLORATION LLC	1/8+	908	219	N/A	N/A	N/A	N/A	N/A	N/A
10*16424	N	9-5-5.4	ROBERT J RIGBY	TH EXPLORATION LLC	1/8+	908	241	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	TH EXPLORATION LLC	1/8+	908	584	N/A	N/A	N/A	N/A	N/A	N/A
10*16478	N	9-5-5.4	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	N	9-5-5.4	ALEX RUSSELL AND JOYCE A CAMPBELL	TH EXPLORATION LLC	1/8+	908	248	N/A	N/A	N/A	N/A	N/A	N/A
10*16515	N	9-5-5.4	ANNA MARIE JACKSON	TH EXPLORATION LLC	1/8+	908	251	N/A	N/A	N/A	N/A	N/A	N/A
10*16516	N	9-5-5.4	WILSON ANDREW JACKSON	TH EXPLORATION LLC	1/8+	908	253	N/A	N/A	N/A	N/A	N/A	N/A
10*16662	N	9-5-5.4	RICHARD THOMAS AND VICKI J MIMS	TH EXPLORATION LLC	1/8+	908	863	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	TH EXPLORATION LLC	1/8+	908	274	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	TH EXPLORATION LLC	1/8+	942	451	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	TH EXPLORATION LLC	1/8+	921	93	N/A	N/A	N/A	N/A	N/A	N/A
10*16806	N	9-5-5.4	VIRGINIA I WHITMAN	TH EXPLORATION LLC	1/8+	921	528	N/A	N/A	N/A	N/A	N/A	N/A
10*16962	N	9-5-5.4	DENNIS P 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	N	9-5-5.4	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*16987	N	9-5-5.4	LAURIE EZELL PERRY	TH EXPLORATION LLC	1/8+	921	355	N/A	N/A	N/A	N/A	N/A	N/A
10*17130	N	9-5-5.4	CINDY L BARGER	TH EXPLORATION LLC	1/8+	921	137	N/A	N/A	N/A	N/A	N/A	N/A
10*17155	N	9-5-5.4	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	N	9-5-5.4	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	N	9-5-5.4	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	N	9-5-5.4	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	N	9-5-5.4	SANDRA JEAN WILSON	TH EXPLORATION LLC	1/8+	921	524	N/A	N/A	N/A	N/A	N/A	N/A
10*17274	N	9-5-5.4	DAVID H WILSON	TH EXPLORATION LLC	1/8+	921	474	N/A	N/A	N/A	N/A	N/A	N/A
10*17275	N	9-5-5.4	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	N	9-5-5.4	BERTHA EZELL WYATT	TH EXPLORATION LLC	1/8+	921	526	N/A	N/A	N/A	N/A	N/A	N/A
10*17278	N	9-5-5.4	MICHAEL L EZELLE	TH EXPLORATION LLC	1/8+	921	121	N/A	N/A	N/A	N/A	N/A	N/A
10*17377	N	9-5-5.4	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*17438	N	9-5-5.4	DENNIS M WILSON	TH EXPLORATION LLC	1/8+	921	476	N/A	N/A	N/A	N/A	N/A	N/A
10*17441	N	9-5-5.4	RALPH J WILSON	TH EXPLORATION LLC	1/8+	921	522	N/A	N/A	N/A	N/A	N/A	N/A

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Lease Name or No	Tag	Parcel	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*17449	N	9-5-5.4	PHYLLIS J BLAKE	TH EXPLORATION LLC	1/8+	921 150	N/A	N/A	N/A	N/A	N/A	N/A
10*17482	N	9-5-5.4	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*17484	N	9-5-5.4	NELDA S JACKSON	TH EXPLORATION LLC	1/8+	921 330	N/A	N/A	N/A	N/A	N/A	N/A
10*17485	N	9-5-5.4	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	N	9-5-5.4	JEFFREY L REEVES AND JOY L REEVES	TH EXPLORATION LLC	1/8+	921 370	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	TH EXPLORATION LLC	1/8+	921 111	N/A	N/A	N/A	N/A	N/A	N/A
10*17561	N	9-5-5.4	KATHRYN L & ROGER L TYRELL	TH EXPLORATION LLC	1/8+	921 519	N/A	N/A	N/A	N/A	N/A	N/A
10*17564	N	9-5-5.4	JAMES R & TRACEY E NICKOLSON	TH EXPLORATION LLC	1/8+	921 340	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	TH EXPLORATION LLC	1/8+	921 327	N/A	N/A	N/A	N/A	N/A	N/A
10*17566	N	9-5-5.4	NATHAN P & BARBARA T ERDOSSY	TH EXPLORATION LLC	1/8+	921 108	N/A	N/A	N/A	N/A	N/A	N/A
10*17588	N	9-5-5.4	JAMES M JACKSON	TH EXPLORATION LLC	1/8+	921 325	N/A	N/A	N/A	N/A	N/A	N/A
10*17589	N	9-5-5.4	MARY CHRISTINE MCKENNA	TH EXPLORATION LLC	1/8+	921 332	N/A	N/A	N/A	N/A	N/A	N/A
10*17744	N	9-5-5.4	SAM PRESLEY EZELL	TH EXPLORATION LLC	1/8+	921 116	N/A	N/A	N/A	N/A	N/A	N/A
10*17983	N	9-5-5.4	HOLLY SUE CUTHBERT	TH EXPLORATION LLC	1/8+	925 380	N/A	N/A	N/A	N/A	N/A	N/A
10*18021	N	9-5-5.4	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	N	9-5-5.4	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	N	9-5-5.4	THE ESTATE OF AGNES IRENE EZELL CLARK BY DAVID M EDWARDS, EXECUTOR	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	877 216	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	TH EXPLORATION LLC	1/8+	885 321	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	TH EXPLORATION LLC	1/8+	885 324	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	TH EXPLORATION LLC	1/8+	907 634	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	TH EXPLORATION LLC	1/8+	908 14	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.20	N	9-5-5.4	BARBARA A BUZZARD	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	908 155	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.30	N	9-5-5.4	LAURIE DRIGGERS MANDERSON	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	908 192	N/A	N/A	N/A	N/A	N/A	N/A
10*15481	O	9-5-18	DEAN P RIGBY AND SUSAN RIGBY	TH EXPLORATION LLC	1/8+	908 197	N/A	N/A	N/A	N/A	N/A	N/A
10*15482	O	9-5-18	SUSAN NELSON	TH EXPLORATION LLC	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	CHEVRON USA INC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	908 208	N/A	N/A	N/A	N/A	N/A	N/A
10*16416	O	9-5-18	CYNTHIA HUDSON	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	908 245	N/A	N/A	N/A	N/A	N/A	N/A
10*16514	O	9-5-18	ALEX RUSSELL AND JOYCE A CAMPBELL	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	908 253	N/A	N/A	N/A	N/A	N/A	N/A
10*16662	O	9-5-18	RICHARD THOMAS AND VICKI J MIMS	TH EXPLORATION LLC	1/8+	908 863	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	921 93	N/A	N/A	N/A	N/A	N/A	N/A
10*16806	O	9-5-18	VIRGINIA I WHITMAN	TH EXPLORATION LLC	1/8+	921 528	N/A	N/A	N/A	N/A	N/A	N/A
10*16962	O	9-5-18	DENNIS P 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	O	9-5-18	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

Lease Name or No	Tag	Parcel	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*16987	O	9-5-18	LAURIE EZELL PERRY	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	921 111	N/A	N/A	N/A	N/A	N/A	N/A
10*17561	O	9-5-18	KATHRYN L & ROGER L TYRELL	TH EXPLORATION LLC	1/8+	921 519	N/A	N/A	N/A	N/A	N/A	N/A
10*17564	O	9-5-18	JAMES R & TRACEY E NICKOLSON	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	921 327	N/A	N/A	N/A	N/A	N/A	N/A
10*17566	O	9-5-18	NATHAN P & BARBARA T ERDOSSY	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	921 332	N/A	N/A	N/A	N/A	N/A	N/A
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	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	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	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	N/A
10*19524	O	9-5-18	THE ESTATE OF AGNES IRENE EZELL CLARK BY DAVID M EDWARDS, EXECUTOR	TH EXPLORATION LLC	1/8+	942 633	N/A	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	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	N/A
10*47051.223.1	O	9-5-18	JEAN ANNE GORBY STORCH	TH EXPLORATION LLC	1/8+	877 216	N/A	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	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	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	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	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	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	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	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	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	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	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	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	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	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	N/A
10*15522	P	9-5-17	CARLA S CROW	TRIENERGY HOLDINGS LLC	1/8+	728 412	N/A	N/A	TriEnergy Holdings to NPAR LLC: 25/463	NPAR to Chevron: 756/307 & 26/269	TriEnergy Holdings & TriEnergy to Chevron: 28/356	Chevron to Tug Hill: 36/148
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	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	N/A
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 RIDDLE 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

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 WV Department of
 Environmental Protection

31-01965 mod

Lease Name or No	Tag	Parcel	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
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 RUSSELL AND 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 AND VICKI J MIMS	TH EXPLORATION LLC	1/8+	908 863	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 CAMPBEL & 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 I WHITMAN	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 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	KATHRYN L & ROGER L TYRELL	TH EXPLORATION LLC	1/8+	921 519	N/A	N/A	N/A	N/A	N/A	N/A
10*17564	P	9-5-17	JAMES R & TRACEY E NICKOLSON	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	921 327	N/A	N/A	N/A	N/A	N/A	N/A
10*17566	P	9-5-17	NATHAN P & BARBARA T ERDOSSY	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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, EXECUTOR	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	877 216	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	TH EXPLORATION LLC	1/8+	885 321	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	TH EXPLORATION LLC	1/8+	885 324	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	TH EXPLORATION LLC	1/8+	907 634	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	TH EXPLORATION LLC	1/8+	908 14	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.20	P	9-5-17	BARBARA A BUZZARD	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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 SMARKE	TH EXPLORATION LLC	1/8+	908 69	N/A	N/A	N/A	N/A	N/A	N/A

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10*47051.223.27	P	9-5-17	TIM J HOBBS	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	908 155	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.30	P	9-5-17	LAURIE DRIGGERS MANDERSON	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	908 192	N/A	N/A	N/A	N/A	N/A	N/A
10*15481	Q	9-5-5	DEAN P RIGBY AND SUSAN RIGBY	TH EXPLORATION LLC	1/8+	908 197	N/A	N/A	N/A	N/A	N/A	N/A
10*15482	Q	9-5-5	SUSAN NELSON	TH EXPLORATION LLC	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	CHEVRON USA INC	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	CHEVRON USA INC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	908 208	N/A	N/A	N/A	N/A	N/A	N/A
10*16416	Q	9-5-5	CYNTHIA HUDSON	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	908 274	N/A	N/A	N/A	N/A	N/A	N/A
10*16787	Q	9-5-5	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	Q	9-5-5	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	Q	9-5-5	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	Q	9-5-5	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	Q	9-5-5	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	Q	9-5-5	LAURIE EZELL PERRY	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	1/8+	921 150	N/A	N/A	N/A	N/A	N/A	N/A
10*17482	Q	9-5-5	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	Q	9-5-5	NELDA S JACKSON	TH EXPLORATION LLC	1/8+	921 330	N/A	N/A	N/A	N/A	N/A	N/A
10*17485	Q	9-5-5	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	Q	9-5-5	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	Q	9-5-5	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	Q	9-5-5	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	Q	9-5-5	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	Q	9-5-5	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	Q	9-5-5	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	Q	9-5-5	JAMES M JACKSON	TH EXPLORATION LLC	1/8+	921 325	N/A	N/A	N/A	N/A	N/A	N/A
10*17589	Q	9-5-5	MARY CHRISTINE MCKENNA	TH EXPLORATION LLC	1/8+	921 332	N/A	N/A	N/A	N/A	N/A	N/A
10*17744	Q	9-5-5	SAM PRESLEY EZELL	TH EXPLORATION LLC	1/8+	921 116	N/A	N/A	N/A	N/A	N/A	N/A

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10*17983	Q	9-5-5	HOLLY SUE CUTHBERT	TH EXPLORATION LLC	1/8+	925 380	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	TH EXPLORATION LLC	1/8+	927 267	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	TH EXPLORATION LLC	1/8+	927 264	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	TH EXPLORATION LLC	1/8+	942 633	N/A	N/A	N/A	N/A	N/A	N/A
10*19695	Q	9-5-5	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	Q	9-5-5	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	Q	9-5-5	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	N/A
10*47051.223.15	Q	9-5-5	LARRY D TAUNT AND NANCY L TAUNT	TH EXPLORATION LLC	1/8+	908 14	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	TH EXPLORATION LLC	1/8+	885 321	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.20	Q	9-5-5	BARBARA A BUZZARD	TH EXPLORATION LLC	1/8+	908 24	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	TH EXPLORATION LLC	1/8+	908 19	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.24	Q	9-5-5	JO DEE K DAVIS	TH EXPLORATION LLC	1/8+	908 136	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.25	Q	9-5-5	JOANNE WELCH	TH EXPLORATION LLC	1/8+	908 141	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.26	Q	9-5-5	WENDY L SMARKEL	TH EXPLORATION LLC	1/8+	908 69	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.27	Q	9-5-5	TIMI J HOBBS	TH EXPLORATION LLC	1/8+	908 277	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.29	Q	9-5-5	PATSY JO RAJU	TH EXPLORATION LLC	1/8+	908 155	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	TH EXPLORATION LLC	1/8+	885 324	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.30	Q	9-5-5	LAURIE DRIGGERS MANDERSON	TH EXPLORATION LLC	1/8+	908 165	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.33	Q	9-5-5	NANCY C HOUSLEY	TH EXPLORATION LLC	1/8+	908 187	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.35	Q	9-5-5	DEBRA L CIAFFAGLIONE	TH EXPLORATION LLC	1/8+	908 192	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	TH EXPLORATION LLC	1/8+	907 634	N/A	N/A	N/A	N/A	N/A	N/A
10*15594	R	9-5-4.1	GORBY IVAN F	CHESAPEAKE APPALACHIA LLC	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	CHESAPEAKE APPALACHIA LLC	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	CHESAPEAKE APPALACHIA LLC	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	CHESAPEAKE APPALACHIA LLC	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	CHESAPEAKE APPALACHIA LLC	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	CHESAPEAKE APPALACHIA LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	CHESAPEAKE APPALACHIA LLC	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	CHESAPEAKE APPALACHIA LLC	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	CHESAPEAKE APPALACHIA LLC	1/8+	695 187	N/A	N/A	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/479	Statoil to Chevron USA Inc: 30/427	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 36/148
10*47051.223.2	T	9-5-6.5	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	T	9-5-6.5	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*21696	U	9-5-6.3	DAKAN JOSEPH D	CHESAPEAKE APPALACHIA LLC	1/8+	694 71	N/A	N/A	N/A	N/A	30/461	42/435
10*21698	U	9-5-6.3	RAJU PATSY JO	CHESAPEAKE APPALACHIA LLC	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	TH EXPLORATION LLC	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	TH EXPLORATION LLC	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	CHEVRON USA INC	1/8+	889 260	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 42/435

Lease Name or No	Tag	Parcel	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Deed Book/Page		Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*47051.223.1	V	9-5-5.2	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	N/A
10*47051.223.2	V	9-5-5.2	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	V	9-5-5.2	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*23884	W	9-1-14	STONE HILL MINERAL HOLDINGS	TH EXPLORATION LLC	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	CHEVRON USA INC	1/8+	893	250	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	CHESAPEAKE APPALACHIA LLC	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	CHESAPEAKE APPALACHIA LLC	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	CHEVRON USA INC	1/8+	865	191	N/A	N/A	N/A	N/A	N/A	Chevron to Tug Hill: 42/435
10*21696	Z	9-5-6.2	DAKAN JOSEPH D	CHESAPEAKE APPALACHIA LLC	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	CHESAPEAKE APPALACHIA LLC	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	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

RECEIVED
Office of Oil and Gas
DEC 26 2018
WV Department of
Environmental Protection

05/10/2019



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

January 3, 2019

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

91 7199 9991 7039 1715 5466

RE: Intentional Deviation of New Deep Well
Tug Hill Operating, LLC – Ten High 1N-13HU

Dear Sir:

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

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

If you have any questions please call me at (304) 926-0499, extension 1274.

Sincerely,

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

Susan Rose
Administrator

encl:



51-01965 MOD
05/10/2019

January 9, 2019

Dear Susan Rose:

The following is in response to your request for proof of delivery on your item with the tracking number:
9171 9999 9170 3917 1554 66.

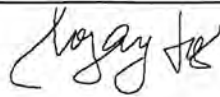
Item Details

Status:	Delivered, Front Desk/Reception/Mail Room
Status Date / Time:	January 7, 2019, 1:34 pm
Location:	FORT WORTH, TX 76107
Postal Product:	First-Class Mail®
Extra Services:	Certified Mail™ Return Receipt Electronic

Shipment Details

Weight: 9lb, 7.6oz

Recipient Signature

Signature of Recipient:	
Address of Recipient:	1320 S L 100

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

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

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

05/10/2019



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

January 3, 2019

Chevron USA, Inc.
700 Cherrington Pkwy
Coraopolis, PA 15108

91 7199 9991 7039 1715 5459

RE: Intentional Deviation of New Deep Well
Tug Hill Operating, LLC – Ten High 1N-13HU

Dear Sir:

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

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

If you have any questions please call me at (304) 926-0499, extension 1274.

Sincerely,

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

Susan Rose
Administrator

encl:

51-01965 Mon
05/10/2019



January 9, 2019

Dear Susan Rose:

The following is in response to your request for proof of delivery on your item with the tracking number:
9171 9999 9170 3917 1554 59.

Item Details

Status:	Delivered, Left with Individual
Status Date / Time:	January 7, 2019, 3:01 pm
Location:	CORAOPOLIS, PA 15108
Postal Product:	First-Class Mail®
Extra Services:	Certified Mail™ Return Receipt Electronic

Shipment Details

Weight: 9lb, 6.8oz

Recipient Signature

Signature of Recipient:	<small>Delivery Section</small>
	<small>Signature</small> X <i>Susan Maloney</i> <small>Printed Name</small>
Address of Recipient:	<small>Delivery Address</small> <i>700 Chestnut St PH 4</i>

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

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

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



west virginia department of environmental protection

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

Barry K. Lay, Chairman
dep.wv.gov

January 3, 2019

WV Department of Transportation
1900 Kanawha Blvd East Bldg 5 Room A-631
Charleston WV 25305

91 7199 9991 7039 1715 5442

RE: Intentional Deviation of New Deep Well
Tug Hill Operating, LLC – Ten High 1N-13HU

Dear Sir:

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

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

If you have any questions please call me at (304) 926-0499, extension 1274.

Sincerely,

Susan Rose
Administrator

encl:



SI-01965 NOV
05/10/2019

January 9, 2019

Dear Susan Rose:

The following is in response to your request for proof of delivery on your item with the tracking number:
9171 9999 9170 3917 1554 42.

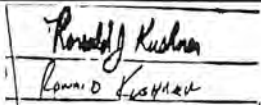

Item Details

Status:	Delivered
Status Date / Time:	January 7, 2019, 6:13 am
Location:	CHARLESTON, WV 25305
Postal Product:	First-Class Mail®
Extra Services:	Certified Mail™ Return Receipt Electronic

Shipment Details

Weight:	4lb, 7.5oz
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Recipient Signature

Signature of Recipient:	
Address of Recipient:	

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

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

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

DEC 26 2018

WV Department of
Environmental Protection

SI-01965 MOD

Offset Operators within 1500'
Ten High 1N - 13HU

County	District	Parcel	Owner	Address
Marshall	Meade	9-1-12	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-1-13	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-1-13.1	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-1-13.3	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-1-13.4	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-1-13.5	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-1-13.6	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-1-13.7	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-1-14	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-1-14.1	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-1-14.2	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-11-7	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT Worth, TX 76107
Marshall	Meade	9-2-1	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-2-12	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-2-12.1	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-2-12.2	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-2-2	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-2-2.2	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-2-2.3	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-2-2.4	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-13	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108

DEC 26 2018

SI-01965 MOD
05/10/2019

	WV Department of Environmental Protection			
Marshall	Meade	9-5-14	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-5-14	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-14.1	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-14.2	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-14.3	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-14.4	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-5-14.4	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-14.5	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-15	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-16	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-16.1	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-17	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-5-18	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-5-19	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-5-20	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-5-21	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-5-22	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-5-23	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-5-24	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108

DEC 26 2018

5054965400
05/10/2019

				WV Department of Environmental Protection	
Marshall	Meade	9-5-24	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107	
Marshall	Meade	9-5-4	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107	
Marshall	Meade	9-5-4	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108	
Marshall	Meade	9-5-5	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107	
Marshall	Meade	9-5-5	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108	
Marshall	Meade	9-5-5.1	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108	
Marshall	Meade	9-5-5.1	TH EXPLORATION	1320 S. University Drive Suite 500 Fort Worth, TX 76107	
Marshall	Meade	9-5-5.2	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108	
Marshall	Meade	9-5-5.2	TH EXPLORATION	1320 S. University Drive Suite 500 Fort Worth, TX 76107	
Marshall	Meade	9-5-5.3	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108	
Marshall	Meade	9-5-5.4	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107	
Marshall	Meade	9-5-5.4	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108	
Marshall	Meade	9-5-6	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108	
Marshall	Meade	9-5-6.1	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108	
Marshall	Meade	9-5-6.2	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108	
Marshall	Meade	9-5-6.2	TH EXPLORATION	1320 S. University Drive Suite 500 Fort Worth, TX 76107	
Marshall	Meade	9-5-6.3	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108	
Marshall	Meade	9-5-6.3	TH EXPLORATION	1320 S. University Drive Suite 500 Fort Worth, TX 76107	
Marshall	Meade	9-5-6.4	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108	

DEC 26 2018

Marshall	Meade	WV Department of Environmental Protection 9-5-6.4	TH EXPLORATION	1320 S. University Drive Suite 500 Fort Worth, TX 76107
Marshall	Meade	9-5-6.5	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-6.5	TH EXPLORATION	1320 S. University Drive Suite 500 Fort Worth, TX 76107
Marshall	Meade	9-5-6.6	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-6.6	TH EXPLORATION	1320 S. University Drive Suite 500 Fort Worth, TX 76107
Marshall	Meade	9-5-6.7	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-6.7	TH EXPLORATION	1320 S. University Drive Suite 500 Fort Worth, TX 76107
Marshall	Meade	9-5-6.8	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-6.8	TH EXPLORATION	1320 S. University Drive Suite 500 Fort Worth, TX 76107
Marshall	Meade	9-5-6.9	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-7	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-8	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-8.1	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-5-8.2	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-7-11	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-7-11.1	WV DEPT OF TRANSPORTATION	1900 Kanawha Blvd. East Bldg. 5, Room A-631 Charleston, WV 25305-0430
Marshall	Meade	9-7-12	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-7-12.1	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-7-13	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108

DEC 26 2018

Marshall	Meade	WV Department of Environmental Protection 9-7-14	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-7-14	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-7-24	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-7-25	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-7-25.1	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-7-25.2	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-7-26	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-7-27	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-7-28	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-7-28.1	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-7-29	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-7-29	TH EXPLORATION LLC	1320 S. University Dr. Suite 500 FT WORTH, TX 76107
Marshall	Meade	9-7-29.1	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-7-6	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-7-7	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108
Marshall	Meade	9-7-8	CHEVRON USA INC	700 Cherrington Pkwy. Coraopolis, PA 15108

**CERTIFICATE OF CONSENT TO OBTAIN DEEP WELL DRILLING
PERMIT**

Whereas, pursuant to Assignment and Conveyance dated May 17, 2016, of record in the Office of the Clerk of the County Commission of Marshall County, West Virginia in Assignment Book 36, beginning at page 148, the undersigned is the assignee of, and vested with, all rights granted by those certain Paid-Up Oil and Gas Leases (the "Leases") from Roy A. Conkle, Sr., Brenda Joyce Whetzel, Larry Lee Conkle, and Teresa Anne Hughes (the "Lessors"), memoranda of which are recorded in the Office of the Clerk of the County Commission of Marshall County, West Virginia in Lease Book 863, beginning at page 311, 635, 354, and 343 respectively.

Whereas, by the Leases, Lessors leased and granted easements to drill deep wells on their property, granted the right to pool or unitize their property with other property, agreed to sign regulatory documents required by any governmental or regulatory body to commence or perform Operations on the Leased Premises, and agreed that if Lessors cannot sign or refuse to sign driveway permits or other regulatory documents, then Lessors authorized Lessee to sign such regulatory documents on Lessor's behalf.

Whereas, the Lessors are the owners of the surface of the property leased by the Leases and on which the Lessee desires to drill deep oil and gas wells; and

RECEIVED
Office of Oil and Gas

AUG 21 2017

WV Department of
Environmental Protection

Marshall County
Jan Pest, Clerk
Instrument 1428368
08/16/2017 @ 03:09:42 PM
MISCELLANEOUS
Book 30 @ Page 316
Pages Recorded 3
Recording Cost \$ 11.00

Whereas, Lessors cannot sign or have refused to sign any additional documents, including a consent and easement to drill deep wells on their property, or to even discuss the same.

Now therefore, pursuant to the authority granted by the Leases, the undersigned, for the owners of the surface of the property depicted on the attached plat or survey, hereby grants the consent required by West Virginia Code, Section 22C-9-7(b)(4) and Operating Rule 4.4 of the Rules and Regulations of the West Virginia Oil and Gas Conservation Commission, to TH Exploration, LLC for the drilling, production, and operation of a deep oil and gas well at the location shown on the attached plat or survey.

Executed this 11th day of August, 2017.

TH Exploration, LLC.

By: David D. Kalish
David D. Kalish
VP - Land

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Office of Oil and Gas
AUG 21 2017
WV Department of
Environmental Protection

ACKNOWLEDGMENT

STATE OF TEXAS)
) SS:
COUNTY OF TARRANT)

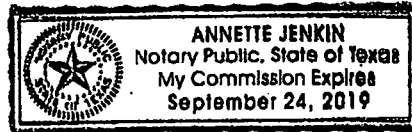
On this the 11th day of August 2017, before me, a notary public, the undersigned authority, personally appeared David D. Kalish, who acknowledged his self to be the VP - Land of TH Exploration, LLC, a limited liability company, and that he as such VP - Land being authorized to do so, executed the foregoing instrument for the purposed therein contained by signing the name of the limited liability company by his self as VP - Land.

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

My Commission Expires: 9/24/2019
Signature/Notary Public: Annette Jenkin

Name/Notary Public (print): Annette Jenkin

This instrument prepared by:
George Patterson, Esq.
600 Quarrier Street
Charleston, WV 25301



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Office of Oil and Gas
AUG 21 2017
WV Department of
Environmental Protection

ROW Areas

Route Type

--- Right-of-Way

Pad Design

▭ Contract Area

--- Limit of Disturbance - Access Road

--- Limit of Disturbance - Pad

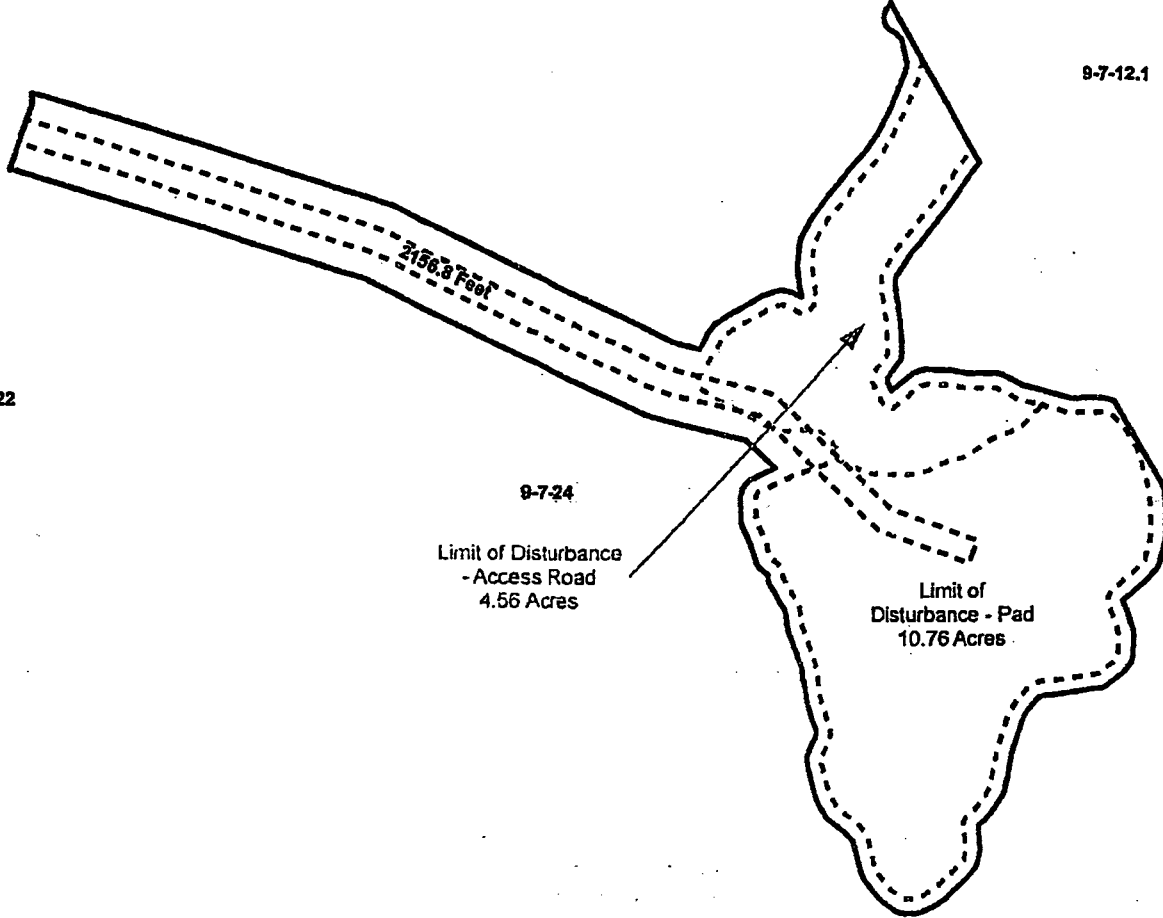


9-7-30

9-7-12

9-7-12.1

9-7-22



9-7-24

Limit of Disturbance
- Access Road
4.56 Acres

Limit of
Disturbance - Pad
10.76 Acres

	<p align="center">Exhibit "A" Teresa Anne Hughes, ET VIR Marshall, WV</p> <p align="center">1 inch: 339 feet</p>	<p align="center"><i>Teresa A. Hughes</i></p>	<p align="center">Marshall</p>
--	---	---	--------------------------------

51-01965 MOD
05/10/2019



December 20, 2018

WVDEP Office of Oil & Gas
Conservation Commission
Attn: Susan Rose
601 57th Street, SE
Charleston, WV 25304-2345

VIA: FEDEX

Subject: Permit Application Modification Request for Ten High 1N-13HU API 47-051-01965 (Revised Directional Drilling Plan) located in Meade District; Marshall County, WV

Dear Susan:

Tug Hill Operating, LLC would like to submit the enclosed permit application modification request to our approved permit for the Ten High 1N-13HU API 47-051-01965 for a new well to explore for Point Pleasant (Utica) potential. This proposed well is located in Marshall County, WV.

Please find the following enclosed revisions for extending the bottom hole location of the well:

- Revised Offset Operator within 1500 feet
- Revised Site Safety Plans (on CD)
- Revised WW-6B
- Revised Mylar Well Plat
- Revised WW-6A1

If you have any question or need any additional information, please feel free to call me at 304-376-0111. Thank you for reviewing this application. As always, I truly appreciate your help.

Sincerely,

Amy L. Miller
Permitting Specialist – Appalachia Region

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Office of Oil and Gas

DEC 26 2018

WV Department of
Environmental Protection

**TEN HIGH 1N LEASE
UTICA UNIT - 341.75 AC±
WELL 13HU
TUG HILL OPERATING**

T.H. LATITUDE 39°50'00"
B.H. LATITUDE 39°52'30"

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
NAD'83 S.P.C.(FT) N. 478,146.86 E. 1,636,782.34
NAD'83 GEO. LAT-(N) 39.806770 LONG-(W) 80.680793
NAD'83 UTM (M) N. 4,406,359.69 E. 527,324.06
LANDING POINT
NAD'83 S.P.C.(FT) N. 479,204.8 E. 1,637,660.1
NAD'83 GEO. LAT-(N) 39.809706 LONG-(W) 80.677719
NAD'83 UTM (M) N. 4,406,686.5 E. 527,586.1
BOTTOM HOLE
NAD'83 S.P.C.(FT) N. 487,904.7 E. 1,632,969.9
NAD'83 GEO. LAT-(N) 39.833418 LONG-(W) 80.694828
NAD'83 UTM (M) N. 4,409,313.1 E. 526,112.6

TAG	SURFACE OWNER	PARCEL	ACRES
A	LAWRENCE & SHIRLEY CONKLE ESTS	9-7-24	139.79
B	THOMAS R. & KIMBERLY WHITFIELD	9-7-25.2	76.40
C	MARK H. FOX	9-7-11	75.37
D	ROBERT G. HUBBS & SCARLETTE E. OTTE	9-7-12.1	86.363
E	RONALD MOORE, ET UX	9-7-12	16.587
F	RONALD MOORE, ET UX	9-7-13	51.49
G	ROBERT G. HUBBS & SCARLETTE E. OTTE	9-7-7	108.61
H	TERESA L. HORNER WITH JERRY G. & CAROLYN K. FLETCHER (LIFE ESTATE)	9-7-6	103.30
I	DAVID L. HOLMES, ET UX	9-5-14	37.345
J	DAVID L. HOLMES, ET UX	9-5-14.2	4.995
K	DAVID L. HOLMES, ET UX	9-5-14.5	1.66
L	BETTY R. OTT	9-5-14.4	10.501
M	CARLA SUE CROW	9-5-17	6.341
N	KELLY WILSON WITH DONLD E. LEACH (LIFE ESTATE)	9-5-18	5.807
O	KELLY WILSON WITH DONLD E. LEACH (LIFE ESTATE)	9-5-20	6.924
P	BETTY R. OTT	9-5-19	0.933
Q	LARRY L. CONKLE, JR	9-5-16	2.365
R	MARK H. FOX, ET UX	9-5-15	36.533
S	SCOTT A. HOSTUTLER	9-5-16.1	0.142
T	SCOTT A. HOSTUTLER	9-5-8	26.752
U	MICHAEL JOSEPH SNYDER	9-5-5.4	64.00
V	RALPH E. WELLMAN, ET UX	9-5-21	1.00
W	RALPH E. WELLMAN, ET UX	9-5-22	0.5
X	RALPH E. WELLMAN, ET UX	9-5-23	1.00
Y	MISTY CROW WITH ROBERT & ELSIE WHETZEL (LIFE ESTATE)	9-5-8.2	1.973
Z	ALVIE & MARCELLA DARRAH	9-5-24	1.986
AA	YEAGER ADDITION TO BOWMAN RIDGE CEMETERY FROM PLAT OF SURVEY DB 509-374	NOT ASSD	NOT ASSD
BB	TRUSTEES OF M E CHURCH	NOT ASSD	1.00
CC	M E CHURCH	NOT ASSD	NOT ASSD
DD	M E CHURCH	9-5-7	81.5 POLES (6 AC ASSD)
EE	JON B. CRAWFORD	9-5-6.1	4.679
FF	NANCY L. SNYDER	9-5-6.8	0.691
GG	DAVID M. TOLER	9-5-5.1	0.985
HH	MICHAEL JOSEPH SNYDER	9-5-5	35.02
II	NANCY L. SNYDER	9-5-6.7	0.678
JJ	NANCY L. SNYDER	9-5-6.4	0.694
KK	NANCY L. SNYDER	9-5-6.6	0.420
LL	NANCY L. SNYDER (LIFE ESTATE)	9-5-6	82.858
MM	MICHAEL JOSEPH SNYDER	9-5-6.2	2.82
NN	CNX LAND LLC	9-5-6.9	22.392
OO	ROBERT A. & CHERYL L. WILLIAMS	9-1-13	80.897
PP	HARRY J. CRAWFORD, ET UX (LIFE ESTATE)	9-2-12	80.718

MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-1-13.1	BURDETTE L. BEUCKE	14.256
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
9-1-14	ALICIA JANE MARTIN	2.4602
9-1-14.1	ALICE J. & DOUGLAS J. MARTIN	0.905
9-5-5.2	PETER PARKER	0.873
9-5-5.3	MICHAEL J. & NANCY L. SNYDER	1.870
9-5-6.3	DEUTCHE BANK NATIONAL TRUST CO.	1.391
9-5-6.5	LINDA GORBY DELBERT	1.087
9-5-14.1	SAVANNA WEST, ET AL	2.819
9-5-14.3	MARK FOX, ET UX	10.714
9-5-24	ALVIE & MARCELLA DARRAH	1.986
9-7-11.1	WEST VIRGINIA DEPARTMENT OF HIGHWAYS	3.63
9-7-25	THOMAS R. & KIMBERLY WHITFIELD	4.83
9-7-25.1	THOMAS R. & KIMBERLY WHITFIELD	0.23
9-7-27	CAROL J. ANDERSON - LIFE	1.005
9-7-28	VICTOR & CLAIRE CAMERON	1.983
9-7-28.1	NATHAN WILLIAMS	2.768
9-7-29.1	CAROL J. ANDERSON - LIFE	5.004
9-11-7.1	BRENDA J. WHETZEL	17.812
9-11-8	WNEK FAMILY IRREVOCABLE TRUST	50.10
9-12-4	THOMAS R. & KIMBERLY WHITFIELD	34.02

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°40'00"

9,676' T.H.
15,147' B.H.

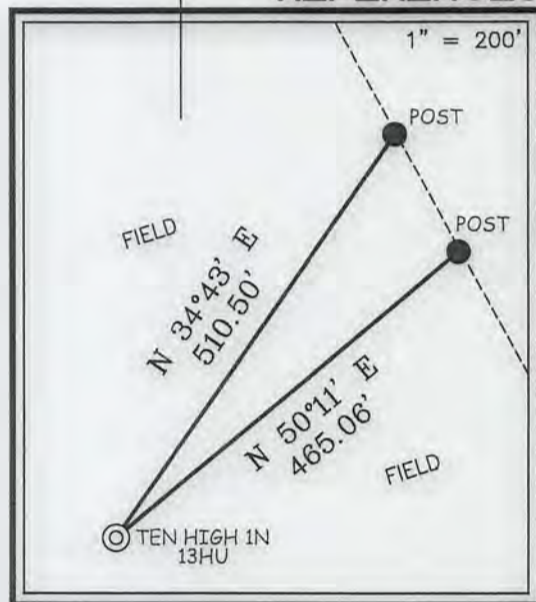
NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS > 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=200'
- 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 15-14HU, TEN HIGH 15-15HU, TEN HIGH 15-16HU, TEN HIGH 15-17HU, TEN HIGH 1N-11HU, TEN HIGH 1N-12HU, AND TEN HIGH 1N-20HU.



B.H.

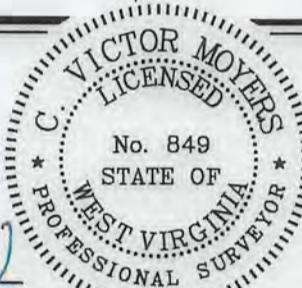
REFERENCES



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 AUGUST 14, 20 17
REVISED SEPTEMBER 26, 2018
OPERATORS WELL NO. TEN HIGH 1N 13HU
API WELL NO. 47 - OSI
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8655P13HUR6.dwg
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 X LIQUID INJECTION ___ WASTE DISPOSAL ___ IF "GAS" PRODUCTION X STORAGE ___ DEEP X SHALLOW ___
LOCATION: GROUND = 1,321.50' 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 ANDY PAUL & JACKIE KUHN, ET AL - SEE ADDITIONAL SHEETS ACREAGE 139.79±
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X 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: 22,191'

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

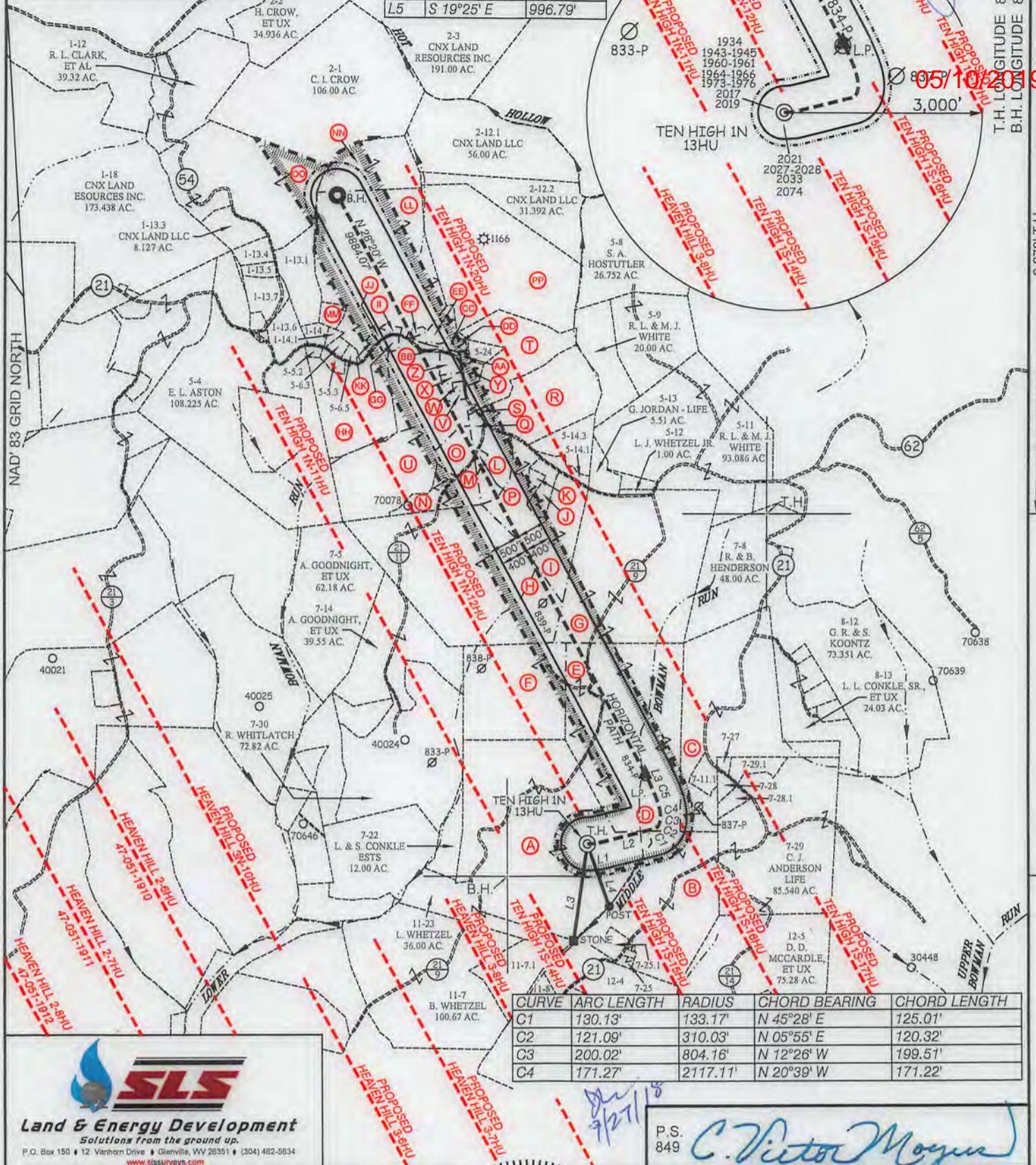
COUNTY NAME PERMIT

**TEN HIGH 1N LEASE
UTICA UNIT - 341.75 AC±
WELL 13HU
TUG HILL OPERATING**

LINE	BEARING	DISTANCE
L1	N 85°57' E	146.78'
L2	N 76°03' E	889.57'
L3	N 26°59' W	157.47'
L4	S 08°21' W	1476.26'
L5	S 19°25' E	996.79'

T.H. LATITUDE 39°50'00"
B.H. LATITUDE 39°52'30"

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°40'00"



CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	130.13'	133.17'	N 45°28' E	125.01'
C2	121.09'	310.03'	N 05°55' E	120.32'
C3	200.02'	804.16'	N 12°26' W	199.51'
C4	171.27'	2117.11'	N 20°39' W	171.22'



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Solutions from the ground up.
P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5834
www.slsurveys.com

P.S. 849 *C. Victor Moyers*

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD'83 S.P.C.(FT) N. 478,146.86 E. 1,636,782.34
 NAD'83 GEO. LAT-(N) 39.806770 LONG-(W) 80.680793
 NAD'83 UTM (M) N. 4,406,359.69 E. 527,324.06
LANDING POINT
 NAD'83 S.P.C.(FT) N. 479,204.8 E. 1,637,660.1
 NAD'83 GEO. LAT-(N) 39.809706 LONG-(W) 80.677719
 NAD'83 UTM (M) N. 4,406,686.5 E. 527,586.1,660.1
BOTTOM HOLE
 NAD'83 S.P.C.(FT) N. 487,904.7 E. 1,632,989.0
 NAD'83 GEO. LAT-(N) 39.833418 LONG-(W) 80.694828
 NAD'83 UTM (M) N. 4,409,313.1 E. 526,112.6



(+) 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. 8655P13HUR6.dwg
 TEN HIGH 1N 13HU Rev3
 DATE AUGUST 14, 20 17
 REVISED SEPTEMBER 26, 2018
 OPERATORS WELL NO. TEN HIGH 1N-13HU
 API WELL NO. 47 — *OSN/Oblaus*
 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	CT CORPORATION SYSTEM
FORT WORTH, TX 76107	ADDRESS 5400 D BIG TYLER ROAD
	CHARLESTON, WV 25313

COUNTY NAME PERMIT

VOID

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-13HU 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 X Oil _____ Underground Storage _____

Other _____

(b) If Gas Shallow _____ Deep X

Horizontal X

6) Existing Pad: Yes or No Yes

JW
9/27/18

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: 11,898'

9) Formation at Total Vertical Depth: Trenton

10) Proposed Total Measured Depth: 22,191'

11) Proposed Horizontal Leg Length: 9,882'

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 X No _____

(a) If Yes, provide Mine Info: Name: Marshall County Coal Co. / Marshall County Mine

Depth: 1020' TVD and 290' subsea level

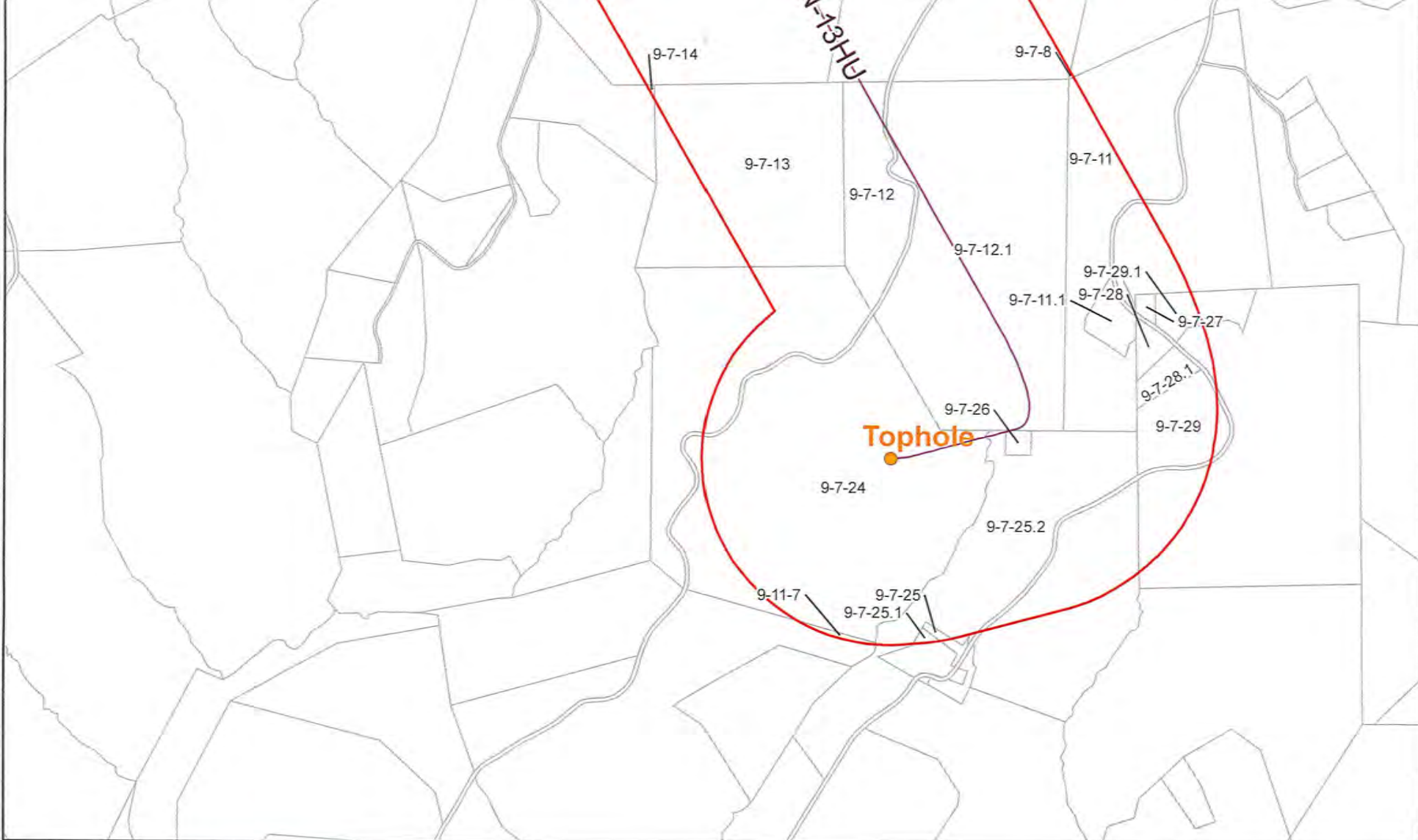
Seam: Pittsburgh #8

Owner: Murray Energy / Consolidated Coal Co.

RECEIVED
Office of Oil and Gas

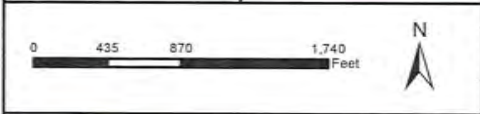
DEC 26 2018

WV Department of
Environmental Protection



Coordinate System: NAD 1983 UTM Zone 17N
 Projection: Transverse Mercator
 Datum: North American 1983
 False easting: 1 640 416 6567
 False northing: 0 0000
 Central meridian: -81.0000
 Scale factor: 0.9998
 Indicator of origin: 0 0000
 Units: Feet US

CONFIDENTIAL



— Utica Well
 □ 1500 Foot Buffer
 Ten High 1N-13HU
 Operators within 1500 Feet of Well Borehole

