



west virginia department of environmental protection

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

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

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

TUG HILL OPERATING, LLC
380 SOUTHPOINTE BLVD

CANONSBURG, PA 15317

Re: Permit Modification Approval for TEN HIGH 1N-12HU
47-051-01961-00-00

Modified TVD to Trenton and Target to Point Pleasant

TUG HILL OPERATING, LLC

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

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

James A. Martin
Chief

Operator's Well Number: TEN HIGH 1N-12HU
Farm Name: LAWRENCE & SHIRLEY CONKLE ESTS
U.S. WELL NUMBER: 47-051-01961-00-00
Horizontal 6A New Drill
Date Modification Issued: May 14, 2019

Promoting a healthy environment.

05/17/2019



west virginia department of environmental protection

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

Barry K. Lay, Chairman
dep.wv.gov

February 15, 2019

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

RE: Application for Deep Well Permit – API #47-051-01961

COMPANY: Tug Hill Operating, LLC

FARM: Lawrence & Shirley Conkle Ests Ten High 1N-12HU

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, 47-051-01965, 47-051-02021, 47-051-2016, 47-051-01966, 47-051-02027, 47-051-02028, 47-051-02033
4. Provided a plat showing that the proposed location is a distance of 400+ feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,

Susan Rose
Administrator

05/17/2019

WW-6B
(04/15)

API NO. 47-051 - 01961 **MOD**
OPERATOR WELL NO. Ten High 1N-12HU
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-12HU Well Pad Name: Ten High

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

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

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

(b) If Gas Shallow Deep
Horizontal

6) Existing Pad: Yes or No Yes

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

8) Proposed Total Vertical Depth: 11,878'

9) Formation at Total Vertical Depth: Trenton

10) Proposed Total Measured Depth: 19,800'

11) Proposed Horizontal Leg Length: 7,694.23'

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	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	30"	NEW	BW	BW	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'	1,970ft^3(CTS)
Intermediate	9 5/8"	NEW	HPP110	47#	10,539'	10,539'	3,440ft^3(CTS)
Production	5 1/2"	NEW	HCP110	23#	19,800'	19,800'	4,715ft^3(CTS)
Tubing	2 7/8"	NEW	P110	6.5#		11,137'	
Liners							

ju 9/27/18

TYPE	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	30"	36"	1.0	2,333	1,866	CLASS A	1.2
Fresh Water	20"	26"	.5	2,410	1,928	SEE #24	1.2
Coal	13 3/8"	17 1/2"	.38	2,740	2,192	SEE#24	1.2
Intermediate	9 5/8"	12 1/4"	.472	10,730	6,968	SEE#24	1.99
Production	5 1/2"	8 1/2"	.415	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 19,232,500 lb proppant and 297,348 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.

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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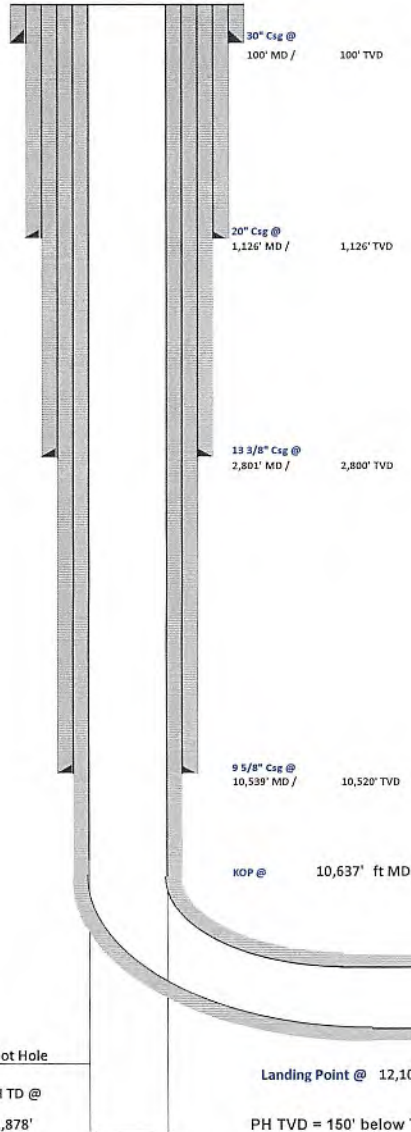


WELL NAME: Ten High 1N-12HU
 STATE: West Virginia COUNTY: Marshall
 DISTRICT: Meade
 DF Elev: 1,310' GL Elev: 1,310'
 TD: 19,800'
 TH Latitude: 39.80672948
 TH Longitude: -80.68089691
 BH Latitude: 39.826472
 BH Longitude: -80.694966

FORMATION TOPS	
Formation	Depth TVD
Deepest Fresh Water	1,026'
Sewickley Coal	935'
Pittsburgh Coal	1,020'
Big Lime	2,049'
Berea	2,673'
Tully	5,606'
Marcellus	6,713'
Onondaga	6,765'
Salina	7,497'
Lockport	8,562'
Utica	11,413'
Point Pleasant	11,589'
Landing Depth	11,644'
Trenton	11,728'
Pilot Hole TD	11,878'

CASING SUMMARY							
Type	Hole Size (in)	Csg Size (in)	Depth (MD)	Depth (TVD)	Weight (lb/ft)	Grade	Top of Cement
Conductor	36	30	100'	100'	8W	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	10,539'	10,520'	47	HPP110	Surface
Production	8 1/2	5 1/2	19,800'	11,510'	23	HCP110	Surface

CEMENT SUMMARY				DRILLING DETAILS	
	Sacks	Class	Density	Fluid Type	Centralizer Notes
Conductor	291	A	15.6	Air	None
Surface	1,938	A	15.6	Air	3 Centralizers at equal distance
Intermediate 1	2,140	A	15	Air	1 Centralizer every other jt
Intermediate 2	2,802	A	14.5	Air	1 Centralizer every other jt
Production	4,055	A	15	Air / SOBM	1 every other joint in lateral; 1 per joint in curve; 1 every other jt to sfc



Handwritten signature and date: 9/27/18

Pilot Hole
 PH TD @ 11,878'
 Landing Point @ 12,108' MD / 11,644' TVD
 PH TVD = 150' below Trenton Top

Lateral TD @ 19,800' ft MD
 11,510' ft TVD

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51-01961 MOD



Tug Hill Operating, LLC Casing and Cement Program

Ten High 1N-12HU

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"	HPP110	12 1/4"	10,539'	CTS
Production	5 1/2"	HCP110	8 1/2"	19,800'	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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Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-12HU (M)
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-12HU (M)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev6		

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

Site	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-12HU (M)					
Well Position	+N/-S	0.00 usft	Northing:	14,456,516.81 usft	Latitude:	39.80672948
	+E/-W	0.00 usft	Easting:	1,730,033.31 usft	Longitude:	-80.68089691
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	52,041.04981508

Design	rev6			
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	331.01

Plan Survey Tool Program	Date	9/15/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,800.33 rev6 (Original Hole)	MWD MWD - Standard	

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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-12HU (M)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev6		

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	
1,333.00	0.00	0.00	1,333.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,633.00	3.00	160.00	1,632.86	-7.38	2.69	1.00	1.00	0.00	160.00	
2,333.00	3.00	160.00	2,331.90	-41.80	15.22	0.00	0.00	0.00	0.00	
2,633.00	0.00	160.00	2,631.77	-49.18	17.90	1.00	-1.00	0.00	180.00	
9,001.23	0.00	160.00	9,000.00	-49.18	17.90	0.00	0.00	0.00	160.00	
9,317.41	9.49	127.86	9,314.73	-65.21	38.52	3.00	3.00	0.00	127.86	
10,636.65	9.49	127.86	10,615.94	-198.64	210.16	0.00	0.00	0.00	0.00	
11,531.15	45.00	333.56	11,434.04	58.37	120.91	6.00	3.97	-17.25	-157.63	
12,107.52	91.00	329.98	11,644.26	515.25	-127.54	8.00	7.98	-0.62	-4.97	
19,800.33	91.00	329.98	11,510.00	7,175.06	-3,975.67	0.00	0.00	0.00	0.00	Ten High 1N-12HU BI

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Database: DB_Jul2216dt_v14
 Company: Tug Hill Operating LLC
 Project: Marshall County, West Virginia
 Site: Ten High
 Well: Ten High 1N-12HU (M)
 Wellbore: Original Hole
 Design: rev6

Local Co-ordinate Reference: Well Ten High 1N-12HU (M)
 TVD Reference: RKB=1310+33 @ 1343.00usft (Nabors X08)
 MD Reference: RKB=1310+33 @ 1343.00usft (Nabors X08)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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Planned Survey

WV Department of Environmental Protection

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,456,516.81	1,730,033.31	39.80672948	-80.68089691
100.00	0.00	0.00	100.00	0.00	0.00	14,456,516.81	1,730,033.31	39.80672948	-80.68089691
200.00	0.00	0.00	200.00	0.00	0.00	14,456,516.81	1,730,033.31	39.80672948	-80.68089691
300.00	0.00	0.00	300.00	0.00	0.00	14,456,516.81	1,730,033.31	39.80672948	-80.68089691
400.00	0.00	0.00	400.00	0.00	0.00	14,456,516.81	1,730,033.31	39.80672948	-80.68089691
500.00	0.00	0.00	500.00	0.00	0.00	14,456,516.81	1,730,033.31	39.80672948	-80.68089691
600.00	0.00	0.00	600.00	0.00	0.00	14,456,516.81	1,730,033.31	39.80672948	-80.68089691
700.00	0.00	0.00	700.00	0.00	0.00	14,456,516.81	1,730,033.31	39.80672948	-80.68089691
800.00	0.00	0.00	800.00	0.00	0.00	14,456,516.81	1,730,033.31	39.80672948	-80.68089691
900.00	0.00	0.00	900.00	0.00	0.00	14,456,516.81	1,730,033.31	39.80672948	-80.68089691
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,456,516.81	1,730,033.31	39.80672948	-80.68089691
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,456,516.81	1,730,033.31	39.80672948	-80.68089691
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,456,516.81	1,730,033.31	39.80672948	-80.68089691
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,456,516.81	1,730,033.31	39.80672948	-80.68089691
1,333.00	0.00	0.00	1,333.00	0.00	0.00	14,456,516.81	1,730,033.31	39.80672948	-80.68089691
KOP Begin 1°/100' build									
1,400.00	0.67	160.00	1,400.00	-0.37	0.13	14,456,516.45	1,730,033.44	39.80672847	-80.68089644
1,500.00	1.67	160.00	1,499.98	-2.29	0.83	14,456,514.53	1,730,034.14	39.80672319	-80.68089398
1,600.00	2.67	160.00	1,599.90	-5.84	2.13	14,456,510.97	1,730,035.44	39.80671341	-80.68088941
1,633.00	3.00	160.00	1,632.86	-7.38	2.69	14,456,509.44	1,730,035.99	39.80670919	-80.68088744
Begin 3.00° tangent									
1,700.00	3.00	160.00	1,699.77	-10.67	3.88	14,456,506.14	1,730,037.19	39.80670013	-80.68088321
1,800.00	3.00	160.00	1,799.63	-15.59	5.67	14,456,501.22	1,730,038.98	39.80668661	-80.68087690
1,900.00	3.00	160.00	1,899.50	-20.51	7.46	14,456,496.30	1,730,040.77	39.80667308	-80.68087059
2,000.00	3.00	160.00	1,999.36	-25.43	9.25	14,456,491.39	1,730,042.56	39.80665956	-80.68086428
2,100.00	3.00	160.00	2,099.22	-30.35	11.04	14,456,486.47	1,730,044.35	39.80664604	-80.68085797
2,200.00	3.00	160.00	2,199.09	-35.26	12.83	14,456,481.55	1,730,046.14	39.80663251	-80.68085166
2,300.00	3.00	160.00	2,298.95	-40.18	14.62	14,456,476.63	1,730,047.93	39.80661899	-80.68084535
2,333.00	3.00	160.00	2,331.90	-41.80	15.22	14,456,475.01	1,730,048.52	39.80661453	-80.68084326
Begin 1°/100' drop									
2,400.00	2.33	160.00	2,398.83	-44.73	16.28	14,456,472.08	1,730,049.59	39.80660648	-80.68083951
2,500.00	1.33	160.00	2,498.78	-47.73	17.37	14,456,469.08	1,730,050.68	39.80659823	-80.68083566
2,600.00	0.33	160.00	2,598.77	-49.09	17.87	14,456,467.72	1,730,051.18	39.80659448	-80.68083391
2,633.00	0.00	160.00	2,631.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
Begin vertical hold									
2,700.00	0.00	0.00	2,698.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
2,800.00	0.00	0.00	2,798.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
2,900.00	0.00	0.00	2,898.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
3,000.00	0.00	0.00	2,998.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
3,100.00	0.00	0.00	3,098.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
3,200.00	0.00	0.00	3,198.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
3,300.00	0.00	0.00	3,298.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
3,400.00	0.00	0.00	3,398.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
3,500.00	0.00	0.00	3,498.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
3,600.00	0.00	0.00	3,598.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
3,700.00	0.00	0.00	3,698.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
3,800.00	0.00	0.00	3,798.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
3,900.00	0.00	0.00	3,898.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
4,000.00	0.00	0.00	3,998.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
4,100.00	0.00	0.00	4,098.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
4,200.00	0.00	0.00	4,198.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
4,300.00	0.00	0.00	4,298.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
4,400.00	0.00	0.00	4,398.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379
4,500.00	0.00	0.00	4,498.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379



Planning Report - Geographic

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-12HU (M)
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-12HU (M)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev6		

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WV Department of
Environmental Protection

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,600.00	0.00	0.00	4,598.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
4,700.00	0.00	0.00	4,698.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
4,800.00	0.00	0.00	4,798.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
4,900.00	0.00	0.00	4,898.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
5,000.00	0.00	0.00	4,998.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
5,100.00	0.00	0.00	5,098.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
5,200.00	0.00	0.00	5,198.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
5,300.00	0.00	0.00	5,298.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
5,400.00	0.00	0.00	5,398.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
5,500.00	0.00	0.00	5,498.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
5,600.00	0.00	0.00	5,598.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
5,700.00	0.00	0.00	5,698.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
5,800.00	0.00	0.00	5,798.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
5,900.00	0.00	0.00	5,898.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
6,000.00	0.00	0.00	5,998.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
6,100.00	0.00	0.00	6,098.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
6,200.00	0.00	0.00	6,198.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
6,300.00	0.00	0.00	6,298.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
6,400.00	0.00	0.00	6,398.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
6,500.00	0.00	0.00	6,498.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
6,600.00	0.00	0.00	6,598.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
6,700.00	0.00	0.00	6,698.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
6,800.00	0.00	0.00	6,798.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
6,900.00	0.00	0.00	6,898.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
7,000.00	0.00	0.00	6,998.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
7,100.00	0.00	0.00	7,098.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
7,200.00	0.00	0.00	7,198.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
7,300.00	0.00	0.00	7,298.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
7,400.00	0.00	0.00	7,398.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
7,500.00	0.00	0.00	7,498.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
7,600.00	0.00	0.00	7,598.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
7,700.00	0.00	0.00	7,698.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
7,800.00	0.00	0.00	7,798.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
7,900.00	0.00	0.00	7,898.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
8,000.00	0.00	0.00	7,998.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
8,100.00	0.00	0.00	8,098.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
8,200.00	0.00	0.00	8,198.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
8,300.00	0.00	0.00	8,298.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
8,400.00	0.00	0.00	8,398.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
8,500.00	0.00	0.00	8,498.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
8,600.00	0.00	0.00	8,598.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
8,700.00	0.00	0.00	8,698.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
8,800.00	0.00	0.00	8,798.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
8,900.00	0.00	0.00	8,898.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
9,000.00	0.00	0.00	8,998.77	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
9,001.23	0.00	0.00	9,000.00	-49.18	17.90	14,456,467.63	1,730,051.21	39.80659424	-80.68083379	
Begin 3°/100' build										
9,100.00	2.96	127.86	9,098.72	-50.75	19.92	14,456,466.06	1,730,053.23	39.80658991	-80.68082664	
9,200.00	5.96	127.86	9,198.41	-55.53	26.06	14,456,461.29	1,730,059.37	39.80657674	-80.68080482	
9,300.00	8.96	127.86	9,297.55	-63.50	36.31	14,456,453.32	1,730,069.62	39.80655475	-80.68076842	
9,317.41	9.49	127.86	9,314.73	-65.21	38.52	14,456,451.61	1,730,071.83	39.80655002	-80.68076059	
Begin 9.49° tangent										
9,400.00	9.49	127.86	9,396.20	-73.56	49.26	14,456,443.25	1,730,082.57	39.80652698	-80.68072244	
9,500.00	9.49	127.86	9,494.83	-83.68	62.27	14,456,433.14	1,730,095.58	39.80649908	-80.68067624	



Planning Report - Geographic

51-01961 MOD
05/17/2019

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-12HU (M)
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-12HU (M)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		RECEIVED Office of Oil and Gas
Design:	rev6		DEC 26 2018

Planned Survey										
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	9.49	127.86	9,593.46	-93.79	75.28	14,456,423.02	1,730,108.59	39.80647117	-80.68063004	
9,700.00	9.49	127.86	9,692.09	-103.90	88.29	14,456,412.91	1,730,121.60	39.80644327	-80.68058384	
9,800.00	9.49	127.86	9,790.73	-114.02	101.30	14,456,402.80	1,730,134.61	39.80641537	-80.68053764	
9,900.00	9.49	127.86	9,889.36	-124.13	114.31	14,456,392.68	1,730,147.62	39.80638746	-80.68049145	
10,000.00	9.49	127.86	9,987.99	-134.25	127.33	14,456,382.57	1,730,160.63	39.80635956	-80.68044525	
10,100.00	9.49	127.86	10,086.62	-144.36	140.34	14,456,372.45	1,730,173.65	39.80633165	-80.68039905	
10,200.00	9.49	127.86	10,185.26	-154.48	153.35	14,456,362.34	1,730,186.66	39.80630375	-80.68035285	
10,300.00	9.49	127.86	10,283.89	-164.59	166.36	14,456,352.22	1,730,199.67	39.80627585	-80.68030665	
10,400.00	9.49	127.86	10,382.52	-174.70	179.37	14,456,342.11	1,730,212.68	39.80624794	-80.68026046	
10,500.00	9.49	127.86	10,481.16	-184.82	192.38	14,456,332.00	1,730,225.69	39.80622004	-80.68021426	
10,600.00	9.49	127.86	10,579.79	-194.93	205.39	14,456,321.88	1,730,238.70	39.80619214	-80.68016806	
10,636.65	9.49	127.86	10,615.94	-198.64	210.16	14,456,318.17	1,730,243.47	39.80618191	-80.68015113	
Begin 6°/100' build/turn										
10,700.00	6.14	114.22	10,678.70	-203.24	217.37	14,456,313.58	1,730,250.68	39.80616922	-80.68012550	
10,800.00	3.74	44.14	10,778.39	-203.09	224.53	14,456,313.72	1,730,257.84	39.80616954	-80.68010002	
10,900.00	7.88	356.96	10,877.91	-193.90	226.43	14,456,322.92	1,730,259.74	39.80619477	-80.68009311	
11,000.00	13.50	345.14	10,976.14	-175.76	223.07	14,456,341.06	1,730,256.38	39.80624463	-80.68010485	
11,100.00	19.34	340.27	11,072.03	-148.86	214.48	14,456,367.95	1,730,247.79	39.80631857	-80.68013510	
11,200.00	25.26	337.61	11,164.51	-113.52	200.75	14,456,403.30	1,730,234.06	39.80641577	-80.68018353	
11,300.00	31.20	335.91	11,252.58	-70.10	182.04	14,456,446.72	1,730,215.35	39.80653519	-80.68024962	
11,400.00	37.17	334.71	11,335.26	-19.09	158.54	14,456,497.72	1,730,191.85	39.80667550	-80.68033264	
11,500.00	43.14	333.80	11,411.66	38.95	130.52	14,456,555.77	1,730,163.83	39.80683517	-80.68043168	
11,531.15	45.00	333.56	11,434.04	58.37	120.91	14,456,575.18	1,730,154.22	39.80688859	-80.68046564	
Begin 8°/100' build										
11,600.00	50.49	332.94	11,480.32	103.85	97.97	14,456,620.67	1,730,131.28	39.80701373	-80.68054674	
11,700.00	58.47	332.20	11,538.38	176.02	60.49	14,456,692.84	1,730,093.80	39.80721228	-80.68067929	
11,800.00	66.45	331.57	11,584.58	254.15	18.73	14,456,770.97	1,730,052.04	39.80742727	-80.68082700	
11,900.00	74.43	331.02	11,618.04	336.73	-26.50	14,456,853.55	1,730,006.81	39.80765449	-80.68098700	
12,000.00	82.41	330.51	11,638.09	422.15	-74.31	14,456,938.96	1,729,959.00	39.80788953	-80.68115616	
12,100.00	90.40	330.02	11,644.35	508.74	-123.78	14,457,025.55	1,729,909.53	39.80812780	-80.68133119	
12,107.52	91.00	329.98	11,644.26	515.25	-127.54	14,457,032.06	1,729,905.77	39.80814572	-80.68134450	
Begin 91.00° lateral										
12,200.00	91.00	329.98	11,642.65	595.31	-173.80	14,457,112.12	1,729,859.51	39.80836605	-80.68150821	
12,300.00	91.00	329.98	11,640.90	681.88	-223.82	14,457,198.70	1,729,809.49	39.80860428	-80.68168523	
12,400.00	91.00	329.98	11,639.15	768.45	-273.84	14,457,285.27	1,729,759.47	39.80884252	-80.68186225	
12,500.00	91.00	329.98	11,637.41	855.03	-323.86	14,457,371.84	1,729,709.44	39.80908075	-80.68203928	
12,600.00	91.00	329.98	11,635.66	941.60	-373.89	14,457,458.41	1,729,659.42	39.80931899	-80.68221631	
12,700.00	91.00	329.98	11,633.92	1,028.17	-423.91	14,457,544.98	1,729,609.40	39.80955723	-80.68239333	
12,800.00	91.00	329.98	11,632.17	1,114.74	-473.93	14,457,631.56	1,729,559.38	39.80979546	-80.68257036	
12,900.00	91.00	329.98	11,630.43	1,201.31	-523.95	14,457,718.13	1,729,509.35	39.81003369	-80.68274739	
13,000.00	91.00	329.98	11,628.68	1,287.89	-573.98	14,457,804.70	1,729,459.33	39.81027193	-80.68292443	
13,100.00	91.00	329.98	11,626.94	1,374.46	-624.00	14,457,891.27	1,729,409.31	39.81051016	-80.68310146	
13,200.00	91.00	329.98	11,625.19	1,461.03	-674.02	14,457,977.84	1,729,359.29	39.81074840	-80.68327849	
13,300.00	91.00	329.98	11,623.45	1,547.60	-724.04	14,458,064.42	1,729,309.26	39.81098663	-80.68345553	
13,400.00	91.00	329.98	11,621.70	1,634.17	-774.07	14,458,150.99	1,729,259.24	39.81122486	-80.68363256	
13,500.00	91.00	329.98	11,619.96	1,720.75	-824.09	14,458,237.56	1,729,209.22	39.81146310	-80.68380960	
13,600.00	91.00	329.98	11,618.21	1,807.32	-874.11	14,458,324.13	1,729,159.20	39.81170133	-80.68398664	
13,700.00	91.00	329.98	11,616.47	1,893.89	-924.13	14,458,410.70	1,729,109.18	39.81193956	-80.68416368	
13,800.00	91.00	329.98	11,614.72	1,980.46	-974.16	14,458,497.28	1,729,059.15	39.81217780	-80.68434072	
13,900.00	91.00	329.98	11,612.98	2,067.03	-1,024.18	14,458,583.85	1,729,009.13	39.81241603	-80.68451776	
14,000.00	91.00	329.98	11,611.23	2,153.61	-1,074.20	14,458,670.42	1,728,959.11	39.81265426	-80.68469481	
14,100.00	91.00	329.98	11,609.49	2,240.18	-1,124.22	14,458,756.99	1,728,909.09	39.81289249	-80.68487185	
14,200.00	91.00	329.98	11,607.74	2,326.75	-1,174.25	14,458,843.56	1,728,859.06	39.81313072	-80.68504890	
14,300.00	91.00	329.98	11,605.99	2,413.32	-1,224.27	14,458,930.14	1,728,809.04	39.81336895	-80.68522594	

WV Department of Environmental Protection



Planning Report - Geographic

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-12HU (M)
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-12HU (M)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev6		

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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	329.98	11,604.25	2,499.89	-1,274.29	14,459,016.71	1,728,759.02	39.81360718	-80.68540299	
14,500.00	91.00	329.98	11,602.50	2,586.47	-1,324.31	14,459,103.28	1,728,709.00	39.81384541	-80.68558004	
14,600.00	91.00	329.98	11,600.76	2,673.04	-1,374.34	14,459,189.85	1,728,658.97	39.81408364	-80.68575709	
14,700.00	91.00	329.98	11,599.01	2,759.61	-1,424.36	14,459,276.42	1,728,608.95	39.81432187	-80.68593415	
14,800.00	91.00	329.98	11,597.27	2,846.18	-1,474.38	14,459,363.00	1,728,558.93	39.81456010	-80.68611120	
14,900.00	91.00	329.98	11,595.52	2,932.75	-1,524.40	14,459,449.57	1,728,508.91	39.81479833	-80.68628825	
15,000.00	91.00	329.98	11,593.78	3,019.33	-1,574.43	14,459,536.14	1,728,458.88	39.81503656	-80.68646531	
15,100.00	91.00	329.98	11,592.03	3,105.90	-1,624.45	14,459,622.71	1,728,408.86	39.81527479	-80.68664237	
15,200.00	91.00	329.98	11,590.29	3,192.47	-1,674.47	14,459,709.28	1,728,358.84	39.81551302	-80.68681943	
15,300.00	91.00	329.98	11,588.54	3,279.04	-1,724.49	14,459,795.86	1,728,308.82	39.81575125	-80.68699649	
15,400.00	91.00	329.98	11,586.80	3,365.61	-1,774.52	14,459,882.43	1,728,258.79	39.81598947	-80.68717355	
15,500.00	91.00	329.98	11,585.05	3,452.19	-1,824.54	14,459,969.00	1,728,208.77	39.81622770	-80.68735061	
15,600.00	91.00	329.98	11,583.31	3,538.76	-1,874.56	14,460,055.57	1,728,158.75	39.81646593	-80.68752767	
15,700.00	91.00	329.98	11,581.56	3,625.33	-1,924.58	14,460,142.14	1,728,108.73	39.81670416	-80.68770474	
15,800.00	91.00	329.98	11,579.82	3,711.90	-1,974.61	14,460,228.72	1,728,058.70	39.81694238	-80.68788180	
15,900.00	91.00	329.98	11,578.07	3,798.47	-2,024.63	14,460,315.29	1,728,008.68	39.81718061	-80.68805887	
16,000.00	91.00	329.98	11,576.33	3,885.05	-2,074.65	14,460,401.86	1,727,958.66	39.81741884	-80.68823594	
16,100.00	91.00	329.98	11,574.58	3,971.62	-2,124.67	14,460,488.43	1,727,908.64	39.81765706	-80.68841300	
16,200.00	91.00	329.98	11,572.84	4,058.19	-2,174.69	14,460,575.00	1,727,858.61	39.81789529	-80.68859008	
16,300.00	91.00	329.98	11,571.09	4,144.76	-2,224.72	14,460,661.58	1,727,808.59	39.81813351	-80.68876715	
16,400.00	91.00	329.98	11,569.34	4,231.33	-2,274.74	14,460,748.15	1,727,758.57	39.81837174	-80.68894422	
16,500.00	91.00	329.98	11,567.60	4,317.91	-2,324.76	14,460,834.72	1,727,708.55	39.81860996	-80.68912129	
16,600.00	91.00	329.98	11,565.85	4,404.48	-2,374.78	14,460,921.29	1,727,658.52	39.81884819	-80.68929837	
16,700.00	91.00	329.98	11,564.11	4,491.05	-2,424.81	14,461,007.86	1,727,608.50	39.81908641	-80.68947545	
16,800.00	91.00	329.98	11,562.36	4,577.62	-2,474.83	14,461,094.44	1,727,558.48	39.81932463	-80.68965252	
16,900.00	91.00	329.98	11,560.62	4,664.19	-2,524.85	14,461,181.01	1,727,508.46	39.81956286	-80.68982960	
17,000.00	91.00	329.98	11,558.87	4,750.77	-2,574.87	14,461,267.58	1,727,458.43	39.81980108	-80.69000668	
17,100.00	91.00	329.98	11,557.13	4,837.34	-2,624.90	14,461,354.15	1,727,408.41	39.82003931	-80.69018376	
17,200.00	91.00	329.98	11,555.38	4,923.91	-2,674.92	14,461,440.72	1,727,358.39	39.82027753	-80.69036085	
17,300.00	91.00	329.98	11,553.64	5,010.48	-2,724.94	14,461,527.30	1,727,308.37	39.82051575	-80.69053793	
17,400.00	91.00	329.98	11,551.89	5,097.05	-2,774.96	14,461,613.87	1,727,258.34	39.82075397	-80.69071502	
17,500.00	91.00	329.98	11,550.15	5,183.62	-2,824.99	14,461,700.44	1,727,208.32	39.82099220	-80.69089210	
17,600.00	91.00	329.98	11,548.40	5,270.20	-2,875.01	14,461,787.01	1,727,158.30	39.82123042	-80.69106919	
17,700.00	91.00	329.98	11,546.66	5,356.77	-2,925.03	14,461,873.58	1,727,108.28	39.82146864	-80.69124628	
17,800.00	91.00	329.98	11,544.91	5,443.34	-2,975.05	14,461,960.16	1,727,058.25	39.82170686	-80.69142337	
17,900.00	91.00	329.98	11,543.17	5,529.91	-3,025.08	14,462,046.73	1,727,008.23	39.82194508	-80.69160046	
18,000.00	91.00	329.98	11,541.42	5,616.48	-3,075.10	14,462,133.30	1,726,958.21	39.82218330	-80.69177755	
18,100.00	91.00	329.98	11,539.68	5,703.06	-3,125.12	14,462,219.87	1,726,908.19	39.82242152	-80.69195465	
18,200.00	91.00	329.98	11,537.93	5,789.63	-3,175.14	14,462,306.44	1,726,858.17	39.82265974	-80.69213174	
18,300.00	91.00	329.98	11,536.18	5,876.20	-3,225.17	14,462,393.02	1,726,808.14	39.82289796	-80.69230884	
18,400.00	91.00	329.98	11,534.44	5,962.77	-3,275.19	14,462,479.59	1,726,758.12	39.82313618	-80.69248593	
18,500.00	91.00	329.98	11,532.69	6,049.34	-3,325.21	14,462,566.16	1,726,708.10	39.82337440	-80.69266303	
18,600.00	91.00	329.98	11,530.95	6,135.92	-3,375.23	14,462,652.73	1,726,658.08	39.82361262	-80.69284013	
18,700.00	91.00	329.98	11,529.20	6,222.49	-3,425.26	14,462,739.30	1,726,608.05	39.82385084	-80.69301723	
18,800.00	91.00	329.98	11,527.46	6,309.06	-3,475.28	14,462,825.88	1,726,558.03	39.82408906	-80.69319434	
18,900.00	91.00	329.98	11,525.71	6,395.63	-3,525.30	14,462,912.45	1,726,508.01	39.82432728	-80.69337144	
19,000.00	91.00	329.98	11,523.97	6,482.20	-3,575.32	14,462,999.02	1,726,457.99	39.82456549	-80.69354854	
19,100.00	91.00	329.98	11,522.22	6,568.78	-3,625.35	14,463,085.59	1,726,407.96	39.82480371	-80.69372565	
19,200.00	91.00	329.98	11,520.48	6,655.35	-3,675.37	14,463,172.16	1,726,357.94	39.82504193	-80.69390276	
19,300.00	91.00	329.98	11,518.73	6,741.92	-3,725.39	14,463,258.74	1,726,307.92	39.82528015	-80.69407986	
19,400.00	91.00	329.98	11,516.99	6,828.49	-3,775.41	14,463,345.31	1,726,257.90	39.82551836	-80.69425697	
19,500.00	91.00	329.98	11,515.24	6,915.06	-3,825.44	14,463,431.88	1,726,207.87	39.82575658	-80.69443408	
19,600.00	91.00	329.98	11,513.50	7,001.64	-3,875.46	14,463,518.45	1,726,157.85	39.82599480	-80.69461120	
19,700.00	91.00	329.98	11,511.75	7,088.21	-3,925.48	14,463,605.02	1,726,107.83	39.82623301	-80.69478831	
19,800.00	91.00	329.98	11,510.01	7,174.78	-3,975.50	14,463,691.60	1,726,057.81	39.82647123	-80.69496542	

WV Department of Environmental Protection

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Ten High 1N-12HU (M)
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-12HU (M)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev6		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
19,800.33	91.00	329.98	11,510.00	7,175.06	-3,975.67	14,463,691.88	1,726,057.64	39.82647200	-80.69496600
PBHL/TD 19800.33 MD/11510.00 TVD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Ten High 1N-12HU BHL - hit/miss target - Shape - Point	0.00	0.00	11,510.00	7,175.06	-3,975.67	14,463,691.88	1,726,057.64	39.82647200	-80.69496600
Ten High 1N-12HU LP r - plan misses target center by 30.27usft at 11901.38usft MD (11618.40 TVD, 337.89 N, -27.14 E) - Point	0.00	0.00	11,648.00	333.54	-22.52	14,456,850.35	1,730,010.79	39.80764567	-80.68097285

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
3,014.23	3,013.00	13 3/8" Casing @ 2980 TVD	13-3/8	17-1/2	
10,577.91	10,558.00	9 5/8" Casing @ 10525 TVD	9-5/8	12-1/4	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
1,333.00	1,333.00	0.00	0.00	KOP Begin 1°/100' build	
1,633.00	1,632.86	-7.38	2.69	Begin 3.00° tangent	
2,333.00	2,331.90	-41.80	15.22	Begin 1°/100' drop	
2,633.00	2,631.77	-49.18	17.90	Begin vertical hold	
9,001.23	9,000.00	-49.18	17.90	Begin 3°/100' build	
9,317.41	9,314.73	-65.21	38.52	Begin 9.49° tangent	
10,636.65	10,615.94	-198.64	210.16	Begin 6°/100' build/turn	
11,531.15	11,434.04	58.37	120.91	Begin 8°/100' build	
12,107.52	11,644.26	515.25	-127.54	Begin 91.00° lateral	
19,800.33	11,510.00	7,175.06	-3,975.67	PBHL/TD 19800.33 MD/11510.00 TVD	

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51-01961



Well: Ten High 1N-12HU (M)
Site: Ten High
Project: Marshall County, West Virginia
Design: rev6
Rig: Nabors X08

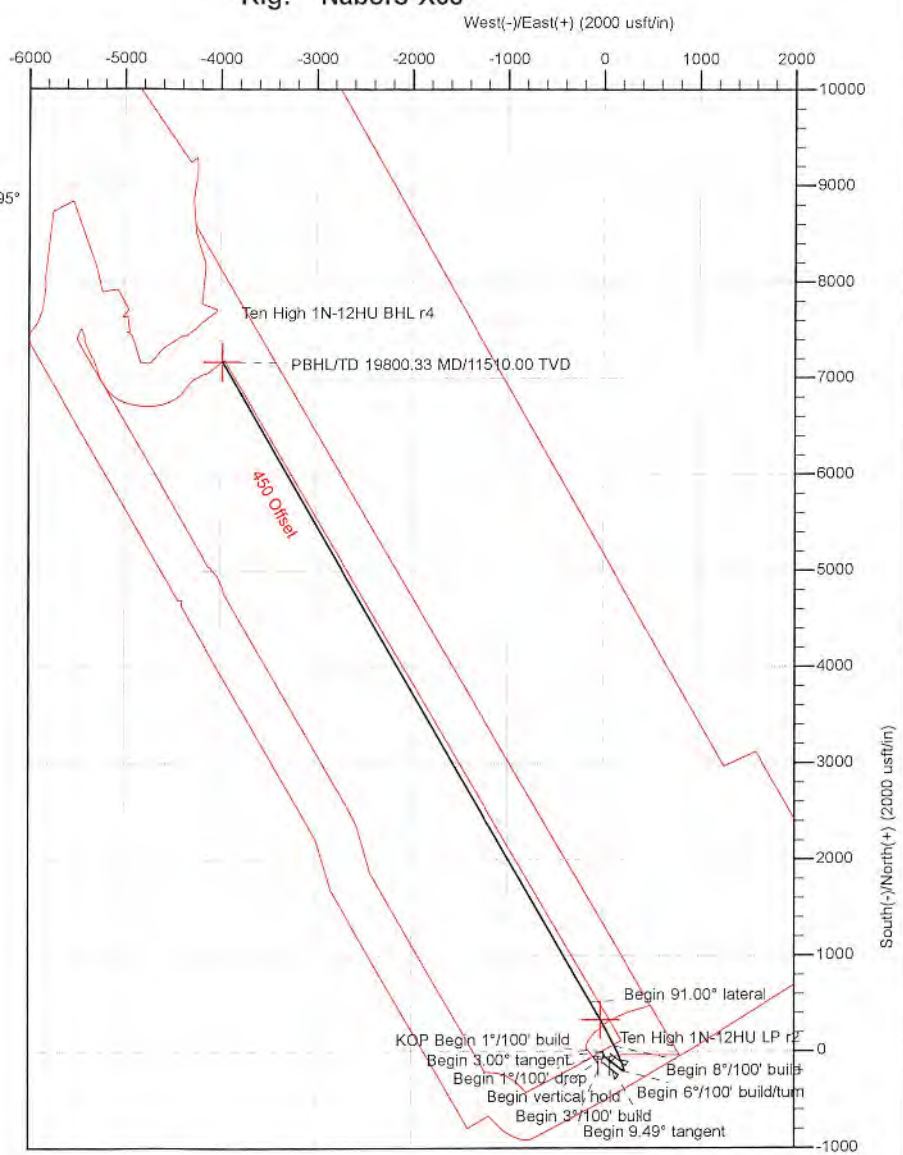
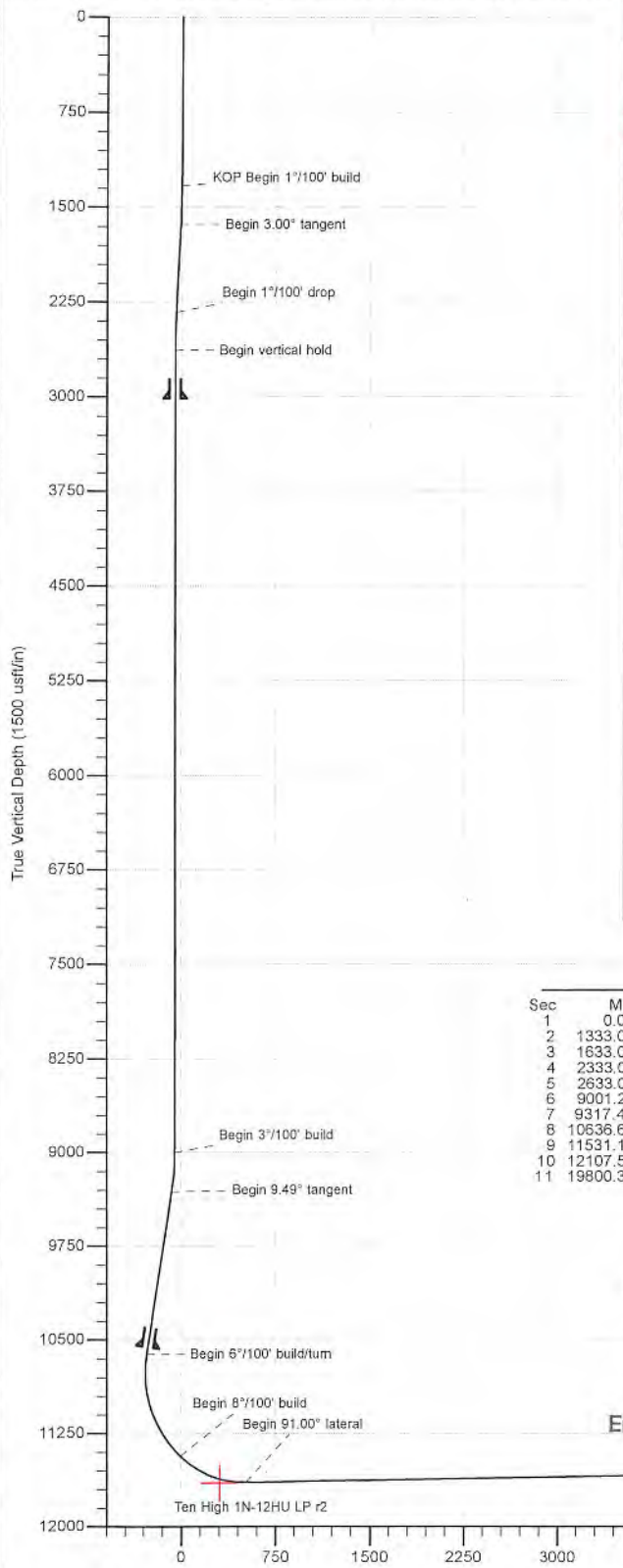
05/17/2019

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 14456516.81 Easting 1730033.31 Latitude 39.60672948 Longitude -80.68089691

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



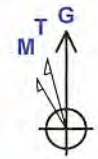
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1333.00	0.00	0.00	1333.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 1'100' build
3	1633.00	3.00	160.00	1632.86	-7.38	2.69	1.00	160.00	-7.76	Begin 3.00° tangent
4	2333.00	3.00	160.00	2331.90	-41.80	15.22	0.00	0.00	-43.94	Begin 1'100' drop
5	2633.00	0.00	160.00	2631.77	-49.18	17.90	1.00	180.00	-51.70	Begin vertical hold
6	9001.23	0.00	160.00	9000.00	-49.18	17.90	0.00	160.00	-51.70	Begin 3'100' build
7	9317.41	9.49	127.86	9314.73	-65.21	38.52	3.00	127.86	-75.71	Begin 9.49° tangent
8	10636.65	9.49	127.86	10615.94	-198.64	210.16	0.00	0.00	-275.61	Begin 6'100' build/turn
9	11531.15	45.00	333.56	11434.04	58.37	120.91	6.00	-157.63	-7.54	Begin 8'100' build
10	12107.52	91.00	329.98	11644.26	515.25	-127.54	8.00	-4.97	512.50	Begin 91.00° lateral
11	19800.33	91.00	329.98	11510.00	7175.06	-3975.67	0.00	0.00	8202.89	PBHL/TD 19800.33 MD/11510.00 TVD

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Azimuths to Grid North
True North: -0.20°
Magnetic North: -8.95°
Magnetic Field
Strength: 52041.0snT
Dip Angle: 66.87°
Date: 9/1/2018
Model: IGRF2015

PBHL/TD 19800.33 MD/11510.00 TVD

Ten High 1N-12HU BHL r4



TUG HILL
OPERATING

Well Site Safety Plan
Tug Hill Operating, LLC

Joe
12/18/18

Well Name: Ten High 1N-12HU

Pad Location: Ten High

Marshall County, West Virginia

UTM (meters), NAD83, Zone 17:

NORTHING -4,406,355.14

EASTING -527,315.21

January 2018

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WV Department of
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**TEN HIGH 1N LEASE
UTICA UNIT - 537.97 AC±
WELL 12HU
TUG HILL OPERATING**

LATITUDE 39°50'00"

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD'83 S.P.C.(FT) N. 478,132.41 E. 1,636,753.07
 NAD'83 GEO. LAT-(N) 39.808729 LONG-(W) 80.680897
 NAD'83 UTM (M) N. 4,406,355.14 E. 527,315.21
LANDING POINT
 NAD'83 S.P.C.(FT) N. 478,649.9 E. 1,636,634.1
 NAD'83 GEO. LAT-(N) 39.808146 LONG-(W) 80.681044
 NAD'83 UTM (M) N. 4,406,512.2 E. 527,276.3
BOTTOM HOLE
 NAD'83 S.P.C.(FT) N. 485,375.3 E. 1,637,045.6
 NAD'83 GEO. LAT-(N) 39.826472 LONG-(W) 80.694966
 NAD'83 UTM (M) N. 4,408,542.1 E. 526,103.4

B.H.

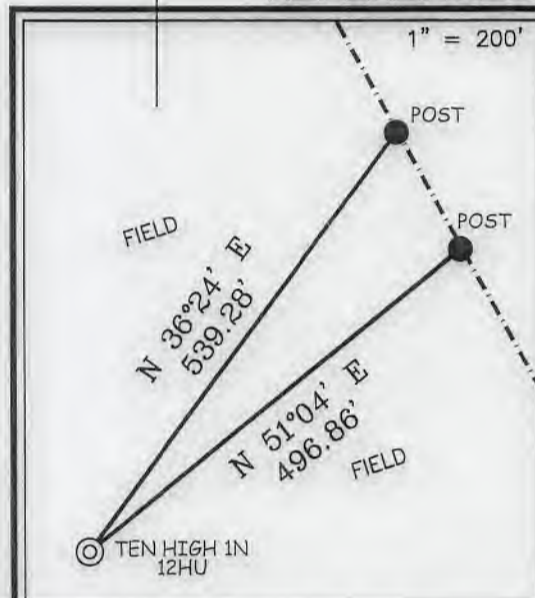
NOTES ON SURVEY

1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS > 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
2. WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'
3. PROPOSED LATERAL OR TOP HOLE OF TEN HIGH 1N-12HU 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-13HU, AND TEN HIGH 1N-20HU.

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

TAG	SURFACE OWNER	PARCEL	ACRES
A	LAWRENCE & SHIRLEY CONKLE ESTS	9-7-24	139.79
B	ROBERT G. HUBBS & SCARLETTE E. OTTE	9-7-12.1	86.363
C	RONALD MOORE, ET UX	9-7-12	16.587
D	LAWRENCE & SHIRLEY CONKLE ESTS	9-7-22	12.00
E	RICKY L. WHITLATCH	9-7-30	72.82
F	ANDREW COREY WHITLATCH	9-7-30.1	4.55
G	RONALD MOORE, ET UX	9-7-13	51.49
H	RICKY L. WHITLATCH	9-7-15	7.54
I	ARNIE GOODNIGHT, ET UX	9-7-14	39.55
J	TERESA L. HORNER WITH JERRY G. & CAROLYN K. FLETCHER (LIFE ESTATE)	9-7-6	103.30
K	ARNIE GOODNIGHT, ET UX	9-7-5	62.18
L	HELEN ROBERTSON PAYNE	9-5-3	85.26
M	ELMER ASTON	9-5-4	108.225
N	MICHAEL JOSEPH SNYDER	9-5-5.4	64.00
O	KELLY WILSON WITH DONLD E. LEACH (LIFE ESTATE)	9-5-18	5.807
P	CARLA SUE CROW	9-5-17	6.341
Q	MICHAEL JOSEPH SNYDER	9-5-5	35.02
R	CONSOLIDATION COAL COMPANY	9-5-4.1	22.775
S	MICHAEL JOSEPH SNYDER & NANCY L. SNYDER	9-5-5.3	1.870
T	LINDA GORBY DELBERT	9-5-6.5	1.087
U	DEUTCHE BANK NATIONAL TRUST CO.	9-5-6.3	1.391
V	PETER PARKER	9-5-5.2	0.873
W	ALICIA JANE MARTIN	9-1-14	2.4602
X	ALICE J. & DOUGLAS J. MARTIN	9-1-14.1	0.905
Y	NANCY L. SNYDER	9-5-6	82.858
Z	MICHAEL JOSEPH SNYDER	9-5-6.2	2.82
AA	BOARD OF EDUCATION	NOT ASSD	NOT ASSD
BB	BOARD OF EDUCATION	NOT ASSD	NOT ASSD
CC	RANDALL A. KEREKES	9-1-13.2	1.518
DD	CNX LAND RESOURCES	NOT ASSD	104/-

REFERENCES



NOTES ON SURVEY

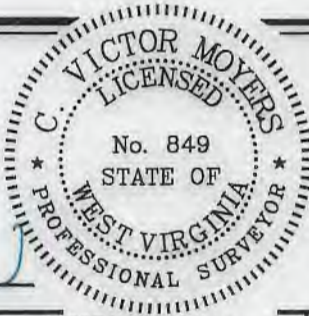
1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
2. WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'

P.O. Box 150 • 12 Vanham Drive • Glenview, WV 26031 • (304) 462-8634
www.slsurveys.com

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

P.S. 849

C. Victor Moyers



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE JULY 21, 20 17
 REVISED SEPTEMBER 26, 2018
 OPERATORS WELL NO. TEN HIGH 1N-12HU
 API WELL NO. 47-051-0961MOD
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8655P12HUR5.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 LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: GROUND = 1,320.70' ELEVATION PROPOSED = 1,310.06' WATERSHED MIDDLE BOWMAN RUN OF FISH CREEK (HUC-10)
 DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER LAWRENCE & SHIRLEY CONKLE ESTS ACREAGE 139.79±
 ROYALTY OWNER LARRY LEE CONKLE, ET AL - SEE ADDITIONAL SHEETS ACREAGE 139.79±
 PROPOSED WORK: LEASE NO. SEE ADDITIONAL SHEETS

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION POINT PLEASANT
 ESTIMATED DEPTH TVD: 11,878' / TMD: 19,800'

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

**TEN HIGH 1N LEASE
UTICA UNIT - 537.97 AC±
WELL 12HU
TUG HILL OPERATING**

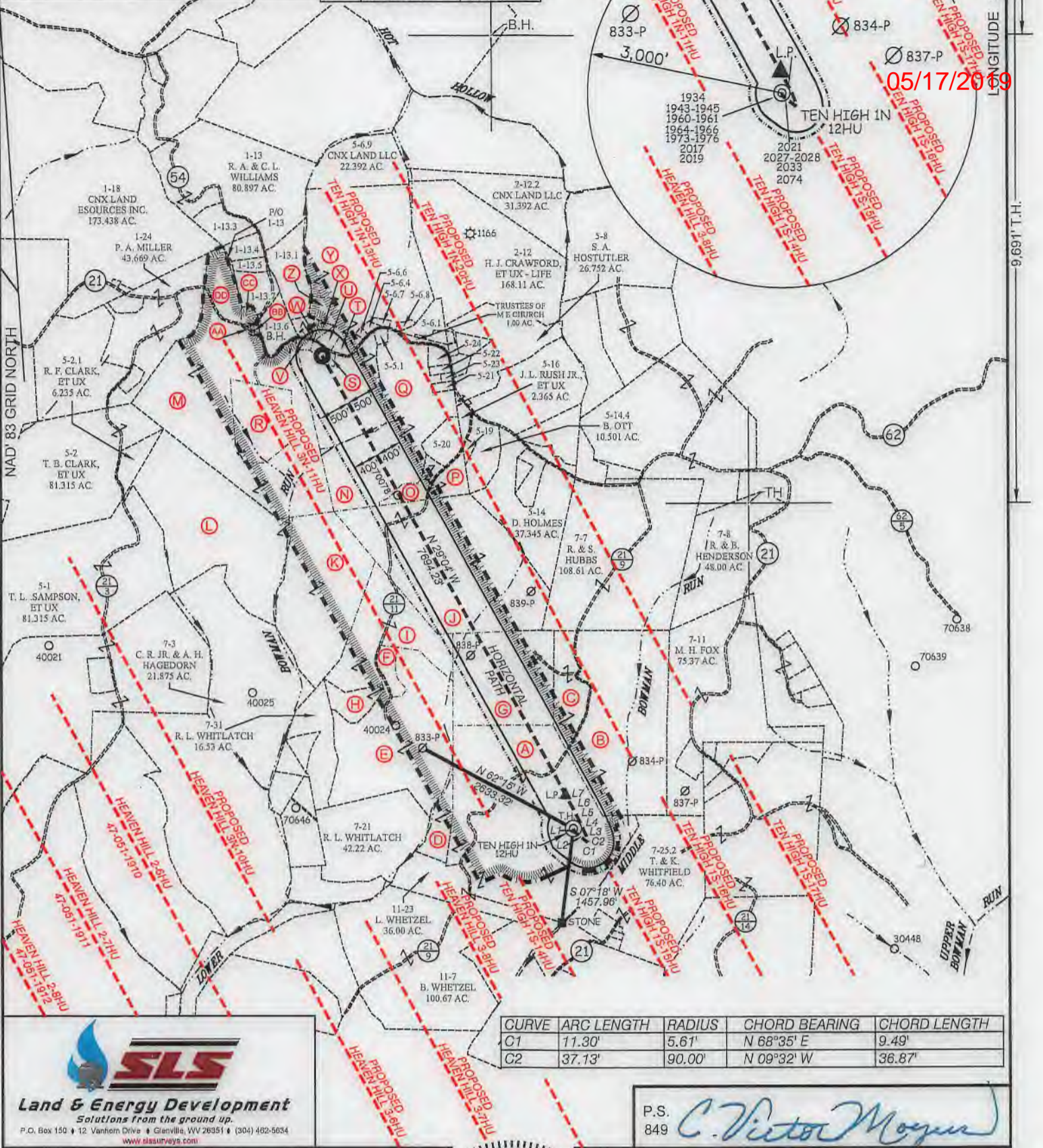
LINE	BEARING	DISTANCE
L1	S 19°03' E	52.35'
L2	S 51°22' E	252.12'
L3	N 19°34' W	53.27'
L4	N 23°28' W	134.70'
L5	N 25°42' W	145.52'
L6	N 27°10' W	176.82'
L7	N 28°26' W	252.87'

LATITUDE 39°50'00"

LENGTH 80°40'00"

2,500' B.H.

9,691' T.H.



05/17/2019

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	11.30'	5.61'	N 68°35' E	9.49'
C2	37.13'	90.00'	N 09°32' W	36.87'

SLS
Land & Energy Development
Solutions from the ground up.
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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. 478,132.41	E. 1,636,753.07
NAD'83 GEO.	LAT-(N) 39.808729	LONG-(W) 80.680897
NAD'83 UTM (M)	N. 4,406,355.14	E. 527,315.21

LANDING POINT

NAD'83 S.P.C.(FT)	N. 478,649.9	E. 1,636,634.1
NAD'83 GEO.	LAT-(N) 39.808146	LONG-(W) 80.681344
NAD'83 UTM (M)	N. 4,406,512.2	E. 527,276.3

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 485,375.3	E. 1,632,896.6
NAD'83 GEO.	LAT-(N) 39.826472	LONG-(W) 80.694966
NAD'83 UTM (M)	N. 4,408,542.1	E. 526,103.4



(+) 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. 8655P12HUR5.dwg
DATE JULY 21, 2017 TEN HIGH 1N 12HU Rev6
REVISED SEPTEMBER 26, 2018
OPERATORS WELL NO. TEN HIGH 1N-12HU
API WELL NO. 47-051-01961MOD
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	ADDRESS 5400 D BIG TYLER ROAD
FORT WORTH, TX 76107	CHARLESTON, WV 25313

**TEN HIGH 1N LEASE
UTICA UNIT - 537.97 AC±
WELL 12HU
TUG HILL OPERATING**



05/17/2019

No.	Lease Name or No.	Tag	Parcel	Oil & Gas Royalty Owners	Deed Book/Page
1	10*15662	A	9-7-24	LARRY LEE CONKLE	863 354
2	10*15663	A	9-7-24	ROY A CONKLESR AND LORIE A CONKLE	863 311
3	10*15664	A	9-7-24	THERESA ANNE HUGHES	863 343
4	10*15666	A	9-7-24	BRENDA J WHETZEL	863 635
5	10*16049	A	9-7-24	DANNY SHAWN KERNS AND AMY LYNN KERNS	905 518
6	10*16138	A	9-7-24	LARRY W KUHN AND VICKIE B KUHN, HUSBAND AND WIFE	905 522
7	10*16139	A	9-7-24	HUBERT DEAN KUHN AND ANDREA KUHN	905 524
8	10*16140	A	9-7-24	ANDY PAUL KUHN & JACKIE KUHN	905 526
9	10*16141	A	9-7-24	HOWARD L KUHN AND MARY L KUHN	905 528
10	10*16820	A	9-7-24	ROBERTA ANN GIBB AND DAVID S GIBB	919 237
11	10*17365	A	9-7-24	MYSTI JOANNE GOODMAN	927 468
12	10*17370	A	9-7-24	KELLY LUNE 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 DOLLY 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	561 449
25	10*15501	C	9-7-12	RONALD AND EDNA MOORE	561 449
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 MRINE	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	847 713
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 RINE	850 85
51	10*15630	D	9-7-22	JANE L HELFER	836 342
52	10*15631	D	9-7-22	DAVID HBINZEROTH	836 219
53	10*15632	D	9-7-22	MARIAN D JONES	835 38
54	10*15633	D	9-7-22	ROGER W GATTS	835 35
55	10*15634	D	9-7-22	JAMES W DAYTON	847 567
56	10*15635	D	9-7-22	ELLEN L BETTINAZZI	847 496
57	10*15636	D	9-7-22	JOSEPH ASTON JR BY HIS ATTORNEY-IN-FACT MELVIN J. ASTON	848 280
58	10*15637	D	9-7-22	DONALD ASTON	848 274
59	10*15638	D	9-7-22	PAUL J ASTON A/K/A JACK ASTON	848 277
60	10*15639	D	9-7-22	DELLA M BURKEY A/K/A MAXINE ASTON	848 435
61	10*15640	D	9-7-22	EMMA JANE DAVIS A/K/A EMA ASTON	848 271
62	10*15641	D	9-7-22	HENRY W ASTON	847 138
63	10*15642	D	9-7-22	KENNETH L DAYTON	852 366
64	10*15643	D	9-7-22	NORMAN G JOHNSON	848 368
65	10*15644	D	9-7-22	RONALD BEN LAUGHTON	852 360
66	10*15645	D	9-7-22	KAREN K OLDFIELD	854 111
67	10*15646	D	9-7-22	JUDITH A CIRONE	848 428
68	10*15647	D	9-7-22	KENNETH WENDELL OLDFIELD	851 589
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	860 83
73	10*15652	D	9-7-22	ISAAC R ASTON A/K/A IKE ASTON	886 136
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	DOUGLAS 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 FREESE AND GEORGE H FREESE	905 481
88	10*15680	D	9-7-22	ROBERTA JANE CLAYTON	905 485
89	10*15688	D	9-7-22	JOSH GARY AND CHRISTINA M GARY	905 487
90	10*15689	D	9-7-22	JOHN LEROY BAKER AND CYNTHIA A BAKER	905 491
91	10*15690	D	9-7-22	ROBERT WHORTON AND LINDSAY WHORTON	905 489
92	10*15728	D	9-7-22	MARY LOU KITTELBERGER AND FREDERICK W KITTELBERGER	905 483
93	10*15729	D	9-7-22	DONNA KAY ALLEN AND ROGER ALLEN	905 493
94	10*15747	D	9-7-22	WILLIAM H BAKER	905 499
95	10*15748	D	9-7-22	CAROLYN LEE FUREY AND MARTIN J FUREY	905 495
96	10*15749	D	9-7-22	DIANA SMITH KNIGHT	905 497
97	10*16019	D	9-7-22	ROGER E GALLAGHER AND CONIE M GALLAGHER	905 503
98	10*16029	D	9-7-22	MARTHA ASHWORTH KNIGHT	905 505
99	10*16049	D	9-7-22	DANNY SHAWN KERNS AND AMY LYNN KERNS	905 518
100	10*16050	D	9-7-22	WILLIAM L GALLAGHER	905 512

FILE NO. 8655P12HUR5.dwg
 TEN HIGH 1N 12HU Rev6
 DATE JULY 21, 20 17
 REVISED SEPTEMBER 26, 2018, 20 18
 OPERATORS WELL NO. TEN HIGH 1N-12HU
 API WELL NO. 47 — 051 — 01961MOD
 NO. 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 - 537.97 AC±
WELL 12HU
TUG HILL OPERATING**



05/17/2019

No.	Lease Name or No.	Tag	Parcel	Oil & Gas Royalty Owners	Deed Book/Page
101	10*16114	D	9-7-22	ROBERT SANDFORD BLACK AND JOAN BLACK	905 510
102	10*16123	D	9-7-22	PHYLLIS R GATTO	905 520
103	10*16138	D	9-7-22	LARRY W KUHN AND VICKIE B KUHN, HUSBAND AND WIFE	905 522
104	10*16139	D	9-7-22	HUBERT DEAN KUHN AND ANDREA KUHN	905 524
105	10*16140	D	9-7-22	ANDY PAUL KUHN & JACKIE KUHN	905 526
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	906 536
113	10*16426	D	9-7-22	RENE J RUTAN	906 538
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 LAND KEITH W BARNBY	927 452
121	10*16896	D	9-7-22	MARTHA J BLACK	927 450
122	10*17355	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	929 524
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 DOLLYE 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	780 225
146	10*15501	G	9-7-13	RONALD AND EDNA MOORE	661 449
147	10*15557	H	9-7-15	RICKY L WHITLATCH ET AL	780 225
148	10*15558	I	9-7-14	ARNIE AND BOBBIE B GOODNIGHT	777 59
149	10*15500	J	9-7-6	JERRY FLETCHER AND CAROLYN FLETCHER, HUSBAND AND WIFE	661 154
150	10*15502	J	9-7-6	SHERWOOD YEATER	748 268
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*16058	M	9-5-4	MATTIE RUTH JACKSON PRESCOTT	908 231
171	10*16118	M	9-5-4	RUBY RIDDLE JACKSON	908 233
172	10*16383	M	9-5-4	ROBERT STEPHEN DRIGGERS	908 224
173	10*16414	M	9-5-4	MARY ELIZABETH DRIGGERS	908 208
174	10*16416	M	9-5-4	CYNTHIA HUDSON	908 219
175	10*16424	M	9-5-4	ROBERT J RIGBY	908 241
176	10*16448	M	9-5-4	RALPH L AND JUANITA L CRIM	908 584
177	10*16478	M	9-5-4	MARION LAND 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. 8655P12HUR5.dwg

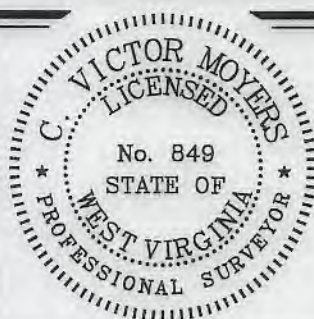
TEN HIGH 1N 12HU Rev6

DATE JULY 21, 2017

REVISED SEPTEMBER 26, 2018, 2018

OPERATORS WELL NO. TEN HIGH 1N-12HU

API WELL NO. 47 — 051 — 01961 MOD
STATE COUNTY PERMIT



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



P.S. 849 *C. Victor Moyers*

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

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

COUNTY NAME PERMIT

TEN HIGH 1N LEASE
 UTICA UNIT - 537.97 AC±
 WELL 12HU
 TUG HILL OPERATING



05/17/2019

No.	Lease Name or No.	Tag	Parcel	Oil & Gas Royalty Owners	Deed Book/Page
201	10*16808	M	9-5-4	MICHAEL 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*16880	M	9-5-4	BEVERLY ANN STORTS	921 498
213	10*16902	M	9-5-4	MARY BARCAW DUKE	921 105
214	10*16962	M	9-5-4	DENNIS P FLORY AND BARBARA EZELL FLORY	921 70
215	10*16976	M	9-5-4	LESTER G AND CONSTANCE B NICKOLSON	921 343
216	10*16977	M	9-5-4	JEREMY COCHENOUR	921 102
217	10*16987	M	9-5-4	LAURIE EZELL PERRY	921 355
218	10*16989	M	9-5-4	BRITTANY RICHARDSON	916 135
219	10*16991	M	9-5-4	MARYELLEN FOUNDS AND LAUREN FOUNDS	921 79
220	10*16996	M	9-5-4	THOMAS RANKIN	917 75
221	10*17130	M	9-5-4	CINDY L BARGER	921 137
222	10*17155	M	9-5-4	JESSE LEON JR AND TERESA GAIL EZELLE	921 118
223	10*17156	M	9-5-4	HENRI NELL JACKSON KENT BARNES	921 139
224	10*17157	M	9-5-4	JAMES N REEVES JR AND RITA M REEVES	921 367
225	10*17198	M	9-5-4	THOMAS G AND DIANE W BAYLESS	921 141
226	10*17205	M	9-5-4	SANDRA JEAN WILSON	921 524
227	10*17208	M	9-5-4	PATRICK S GALLAGHER AND JOYCE ANN FOUNDS	921 86
228	10*17274	M	9-5-4	DAVID H WILSON	921 474
229	10*17275	M	9-5-4	JOHN R REEVES AND MONA G REEVES	921 373
230	10*17276	M	9-5-4	BERTHA EZELL WYATT	921 526
231	10*17278	M	9-5-4	MICHAEL L EZELLE	921 121
232	10*17339	M	9-5-4	JOSEPH W FOUNDS	921 76
233	10*17377	M	9-5-4	MILTON HOWARD EZELLE JR AND 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 WALISA	927 484
237	10*17441	M	9-5-4	RALPH J WILSON	921 522
238	10*17442	M	9-5-4	SHANE ALLEN AND MENDY JEAN ALLEN	921 134
239	10*17443	M	9-5-4	MICHELLE MORROW-BACK	921 337
240	10*17444	M	9-5-4	KELLY FOUNDS CAMPBELL	921 99
241	10*17449	M	9-5-4	PHYLUS J BLAKE	921 150
242	10*17482	M	9-5-4	TERESA EZELLE RALYA AND DAVID L RALYA	927 487
243	10*17483	M	9-5-4	RICHARD I PYLE	921 359
244	10*17484	M	9-5-4	NELDA S JACKSON	921 330
245	10*17485	M	9-5-4	MARGIE ANN JACKSON ROBBINS GRAHAM	921 91
246	10*17526	M	9-5-4	JEFFREY L REEVES AND JODY L REEVES	921 370
247	10*17527	M	9-5-4	JAMES MICHAEL EZELL AND LUCILLE D EZELL	921 111
248	10*17538	M	9-5-4	CHERYL RANKIN-KING	952 160
249	10*17552	M	9-5-4	JOHN BEVACQUA AND PATRICIA A BEVACQUA	921 144
250	10*17554	M	9-5-4	MICHAEL T RANKIN	921 361
251	10*17561	M	9-5-4	ROGER L TYRELL AND KATHRYN L TYRELL	921 519
252	10*17564	M	9-5-4	JAMES RONALD NICKOLSON AND TRACEY E NICKOLSON	921 340
253	10*17565	M	9-5-4	JESSE ALLEN JACKSON AND ELIZABETH D JACKSON	921 327
254	10*17566	M	9-5-4	NATHAN P ERDOSSY AND BARBARA T ERDOSSY	921 108
255	10*17588	M	9-5-4	JAMES M JACKSON	921 325
256	10*17589	M	9-5-4	MARY CHRISTINE MCKENNA	921 332
257	10*17744	M	9-5-4	SAM PRESLEY EZELL	921 116
258	10*17983	M	9-5-4	HOLLY SUE CLUTHBERT	925 380
259	10*18021	M	9-5-4	CHRISTOPHER A HANIFAN AND JACKIE F HANIFAN	927 267
260	10*18022	M	9-5-4	DALE P WARD AND CYNTHIA J WARD	927 264
261	10*19524	M	9-5-4	THE ESTATE OF AGNES IRENE EZELL CLARK BY DAVID M EDWARDS, EXECUTOR	942 633
262	10*19692	M	9-5-4	KENDRA WALISA	924 484
263	10*19693	M	9-5-4	MARIO R FUNARI AIF ROBERT G FUNARI	936 145
264	10*19695	M	9-5-4	VIRGINIA P FOUNDS KASSERMAN ET	944 333
265	10*19939	M	9-5-4	ROBERT J MILLS & SHERRA SUE MILLS	949 212
266	10*47051.223.1	M	9-5-4	STORCH JEAN A AIF JOHN HERMAN STORCH	877 216
267	10*47051.223.15	M	9-5-4	LARRY D TAUNT AND NANCY L TAUNT	908 14
268	10*47051.223.2	M	9-5-4	SCHIEFER STEPHANIE L ET VIR	885 321
269	10*47051.223.20	M	9-5-4	BARBARA A BUZZARD	908 24
270	10*47051.223.21	M	9-5-4	GARY T WARD AND SHARON D WARD	908 19
271	10*47051.223.24	M	9-5-4	JO DEE K DAVIS	908 136
272	10*47051.223.25	M	9-5-4	JOANNE WELCH	908 141
273	10*47051.223.26	M	9-5-4	WENDY L SMARKE	908 69
274	10*47051.223.27	M	9-5-4	TIMI J HOBBS	908 277
275	10*47051.223.3	M	9-5-4	LEADBETTER ROBERT A ET UX	885 324
276	10*47051.223.30	M	9-5-4	LAURIE DRIGGERS MANDERSON	908 165
277	10*47051.223.33	M	9-5-4	NANCY C HOUSLEY	908 187
278	10*47051.223.35	M	9-5-4	DEBRA L CIAFFAGLIONE	908 192
279	10*47051.223.6	M	9-5-4	JOSHUA RINE AND REBECCA RINE	907 634
280	10*15481	N	9-5-5.4	DEAN P RIGBY AND SUSAN RIGBY	908 197
281	10*15482	N	9-5-5.4	SUSAN NELSON	908 203
282	10*15668	N	9-5-5.4	MICHAEL J SNYDER	865 186
283	10*15685	N	9-5-5.4	JOHN OMER BOLTZ	908 160
284	10*15790	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*16415	N	9-5-5.4	CYNTHIA HUDSON	908 219
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 L AND EMILY CAMPBELL	908 245
293	10*16614	N	9-5-5.4	ALEX R CAMPBELL & JOYCE A CAMPBELL	908 248
294	10*16515	N	9-5-5.4	ANNA MARIE JACKSON	908 251
295	10*16516	N	9-5-5.4	WILSON ANDREW JACKSON	908 253
296	10*16662	N	9-5-5.4	RICHARD THOMAS MIMS & VICKIE J MIMS	908 263
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 CAMPBEL & DONNA D CAMPBELL	942 451
299	10*16800	N	9-5-5.4	JAMES KENNETH JACKSON AND JULIE JACKSON	921 93
300	10*16806	N	9-5-5.4	VIRGINIA WHITMAN TRUST DTD 7-25-1984 JON WHITMAN TRUSTEE	921 528

FILE NO. 8655P12HUR5.dwg
 TEN HIGH 1N 12HU Rev6

DATE JULY 21, 20 17

REVISED SEPTEMBER 26, 2018, 20 18

OPERATORS WELL NO. TEN HIGH 1N-12HU

API WELL NO. 47 — 051 — 01961MOD
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STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS



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 FORT WORTH, TX 76107

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

COUNTY NAME PERMIT

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05/17/2019

No.	Lease Name or No.	Tag	Parcel	Oil & Gas Royalty Owners	Deed Book/Page
301	10*16962	N	9-5-5.4	DENNIS P FLORY 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
309	10*17205	N	9-5-5.4	SANDRA JEAN WILSON	921 524
310	10*17274	N	9-5-5.4	DAVID H WILSON	921 474
311	10*17275	N	9-5-5.4	JOHN R REEVES AND MONA G REEVES	921 373
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
317	10*17449	N	9-5-5.4	PHYLLIS J BLAKE	921 150
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	ROGER L TYRELL AND KATHRYN L TYRELL	921 519
324	10*17564	N	9-5-5.4	JAMES RONALD NICKOLSON AND 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 ERDOSSY AND 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	921 115
330	10*17983	N	9-5-5.4	HOLLY SUE CUTHBERT	925 380
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334	10*19695	N	9-5-5.4	VIRGINIA P FOUNDS KASSERMAN ET	944 333
335	10*19939	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 AIF JOHN HERMAN STORCH	877 216
337	10*47051.223.15	N	9-5-5.4	LARRY D TAUNT AND NANCY L TAUNT	908 14
338	10*47051.223.2	N	9-5-5.4	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
339	10*47051.223.20	N	9-5-5.4	BARBARA A BUZZARD	908 24
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342	10*47051.223.25	N	9-5-5.4	JOANNE WELCH	908 141
343	10*47051.223.26	N	9-5-5.4	WENDY L SMARKEL	908 69
344	10*47051.223.27	N	9-5-5.4	TIMI J HOBBS	908 277
345	10*47051.223.29	N	9-5-5.4	PATSY JO RAJU	908 155
346	10*47051.223.3	N	9-5-5.4	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
347	10*47051.223.30	N	9-5-5.4	LAURIE DRIGGERS MANDERSON	908 165
348	10*47051.223.33	N	9-5-5.4	NANCY C HOLSLEY	908 187
349	10*47051.223.35	N	9-5-5.4	DEBRA L CIAFFAGLIONE	908 152
350	10*47051.223.6	N	9-5-5.4	JOSHUA RINE AND REBECCA RINE	907 634
351	10*15481	O	9-5-18	DEAN P RIGBY AND SUSAN RIGBY	908 197
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	MATTHE RUTH JACKSON PRESCOTT	908 231
357	10*16118	O	9-5-18	RUBY RIDDLER JACKSON	908 233
358	10*16383	O	9-5-18	ROBERT STEPHEN DRIGGERS	908 224
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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
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367	10*16662	O	9-5-18	RICHARD THOMAS MIMS & VICKIE J MIMS	908 263
368	10*16738	O	9-5-18	CHARLES A RINE AND RUTH K RINE	908 274
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397	10*17566	O	9-5-18	NATHAN P ERDOSSY AND BARBARA T ERDOSSY	921 108
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400	10*17744	O	9-5-18	SAM PRESLEY EZELL	921 116

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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

TEN HIGH 1N LEASE
 UTICA UNIT - 537.97 AC±
 WELL 12HU
 TUG HILL OPERATING



05/17/2019

No.	Lease Name or No.	Tag	Parcel	Oil & Gas Royalty Owners	Deed Book/Page
401	10*17983	O	9-5-18	HOLLY SUE CUTHBERT	925 380
402	10*18021	O	9-5-18	CHRISTOPHER A HANIFAN AND JACKIE F HANIFAN	927 267
403	10*18022	O	9-5-18	DALE P WARD AND CYNTHIA J WARD	927 264
404	10*19524	O	9-5-18	THE ESTATE OF AGNES IRENE EZELL CLARK BY DAVID M EDWARDS, EXECUTOR	942 633
405	10*19695	O	9-5-18	VIRGINIA P FOUNDS KASSERMAN ET	944 333
406	10*19939	O	9-5-18	ROBERT J MILLS & SHERRA SUE MILLS	949 212
407	10*47051.223.1	O	9-5-18	JEAN ANNE GORBY STORCH AIF JOHN HERMAN STORCH	877 216
408	10*47051.223.2	O	9-5-18	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER	885 321
409	10*47051.223.3	O	9-5-18	ROBERT A LEADBETTER AND M REBECCA LEADBETTER	885 324
410	10*47051.223.6	O	9-5-18	JOSHUA RINE AND REBECCA RINE	907 634
411	10*47051.223.15	O	9-5-18	LARRY D TAUNT AND NANCY L TAUNT	908 14
412	10*47051.223.20	O	9-5-18	BARBARA A BUZZARD	908 24
413	10*47051.223.21	O	9-5-18	GARY T WARD AND SHARON D WARD	908 19
414	10*47051.223.24	O	9-5-18	JO DEE K DAVIS	908 136
415	10*47051.223.25	O	9-5-18	JOANNE WELCH	908 141
416	10*47051.223.26	O	9-5-18	WENDY L SMARKEL	908 69
417	10*47051.223.27	O	9-5-18	TIMI J HOBBS	908 277
418	10*47051.223.29	O	9-5-18	PATSY JO RAJU	908 155
419	10*47051.223.30	O	9-5-18	LAURIE DRIGGERS MANDERSON	908 165
420	10*47051.223.35	O	9-5-18	NANCY C HOUSLEY	908 187
421	10*47051.223.35	O	9-5-18	DEBRA L CIAFFAGUONE	908 192
422	10*15481	P	9-5-17	DEAN P RIGBY AND SUSAN RIGBY	908 197
423	10*15482	P	9-5-17	SUSAN NELSON	908 203
424	10*15522	P	9-5-17	CARLA S CROW	728 412
425	10*15686	P	9-5-17	JOHN OMER BOLTZ	908 160
426	10*15750	P	9-5-17	SANDRA K TRULL	908 229
427	10*16058	P	9-5-17	MATTIE RUTH JACKSON PRESCOTT	908 231
428	10*16118	P	9-5-17	RUBY RIDDLE JACKSON	908 233
429	10*16383	P	9-5-17	ROBERT STEPHEN DRIGGERS	908 224
430	10*16414	P	9-5-17	MARY ELIZABETH DRIGGERS	908 208
431	10*16416	P	9-5-17	CYNTHIA HUDSON	908 219
432	10*16424	P	9-5-17	ROBERT J RIGBY	908 241
433	10*16448	P	9-5-17	RALPH L AND JUANITA L CRIM	908 584
434	10*16478	P	9-5-17	MARION L AND EMILY CAMPBELL	908 245
435	10*16514	P	9-5-17	ALEX R CAMPBELL & JOYCE A CAMPBELL	908 248
436	10*16515	P	9-5-17	ANNA MARIE JACKSON	908 251
437	10*16516	P	9-5-17	WILSON ANDREW JACKSON	908 253
438	10*16662	P	9-5-17	RICHARD THOMAS MIMS & VICKIE J MIMS	908 263
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 93
442	10*16806	P	9-5-17	VIRGINIA WHITMAN TRUST DTD 7-25-1984 JON WHITMAN TRUSTEE	921 528
443	10*16952	P	9-5-17	DENNIS P FLORY 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 L 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 HALYA AND DAVID L HALYA	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	ROGER L TYRELL AND KATHRYN L TYRELL	921 519
466	10*17564	P	9-5-17	JAMES RONALD NICKOLSON AND 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 ERDOSSY AND 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
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494	10*15482	Q	9-5-5	SUSAN NELSON	908 203
495	10*15668	Q	9-5-5	MICHAEL J SNYDER	865 186
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497	10*15686	Q	9-5-5	JOHN OMER BOLTZ	908 160
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FILE NO. 8655P12HUR5.dwg
 TEN HIGH 1N 12HU Rev6
 DATE JULY 21, 20 17
 REVISED SEPTEMBER 26, 2018, 20 18
 OPERATORS WELL NO. TEN HIGH 1N-12HU
 API WELL NO. 47 — 051 — 01961MOD
 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 - 537.97 AC±
WELL 12HU
TUG HILL OPERATING**



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522	10*17193	Q	9-5-5	THOMAS G AND DIANE W BAYLESS	921 141
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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	908 169
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 CIAFFAGLIONE	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 VIR	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	899 250
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	865 191
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. 8655P12HUR5.dwg
TEN HIGH 1N 12HU Rev6

DATE JULY 21, 20 17

REVISED SEPTEMBER 26, 2018, 20 18

OPERATORS WELL NO. TEN HIGH 1N-12HU

API WELL NO. 47 — 051 — 01961MOP
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 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

COUNTY NAME PERMIT

WW-6A1
(5/13)

Operator's Well No. Ten High 1N-12HU

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

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

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

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

*See attached pages

RECEIVED
Office of Oil and Gas

DEC 26 2018

WV Department of
Environmental Protection


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

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

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

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

Well Operator: Tug Hill Operating, LLC

By: Amy L. Miller 

Its: Permitting Specialist - Appalachia Region

10/17/10-15

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

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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
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 HENCERO TH	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 HENCERO TH 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
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*18522	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*19391	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*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

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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+	748 268	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
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	SHERRY L 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 FLODY AND BARBARA EZELL FLODY	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
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

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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	N/A	N/A
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	Tug Hill to Chevron: 36/168 Chevron to Tug Hill: 42/435
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	N/A	Chevron to Tug Hill: 36/148 & 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 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	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 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	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 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	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 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	N	9-5-5.4	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	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
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 JODY 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	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	N	9-5-5.4	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	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 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	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 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	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*47051.223.2	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*47051.223.20	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

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Lease ID	Tag	Parcel	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
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*47051.223.3	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*47051.223.30	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*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*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	N/A
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	Chevron to Tug Hill: 36/148
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 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	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 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	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 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	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 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	O	9-5-18	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	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
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	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	O	9-5-18	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	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 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	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 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	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

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 Environmental Protection

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Lease ID	Tag	Parcel	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
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*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*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*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
10*16414	P	9-5-17	MARY ELIZABETH DRIGGERS	TH EXPLORATION LLC	1/8+	908 208	N/A	N/A	N/A	N/A	N/A	N/A
10*16416	P	9-5-17	CYNTHIA HUDSON	TH EXPLORATION LLC	1/8+	908 219	N/A	N/A	N/A	N/A	N/A	N/A
10*16424	P	9-5-17	ROBERT J RIGBY	TH EXPLORATION LLC	1/8+	908 241	N/A	N/A	N/A	N/A	N/A	N/A
10*16448	P	9-5-17	RALPH L AND JUANITA L CRIM	TH EXPLORATION LLC	1/8+	908 584	N/A	N/A	N/A	N/A	N/A	N/A
10*16478	P	9-5-17	MARION L AND EMILY CAMPBELL	TH EXPLORATION LLC	1/8+	908 245	N/A	N/A	N/A	N/A	N/A	N/A
10*16514	P	9-5-17	ALEX R CAMPBELL & JOYCE A CAMPBELL	TH EXPLORATION LLC	1/8+	908 248	N/A	N/A	N/A	N/A	N/A	N/A
10*16515	P	9-5-17	ANNA MARIE JACKSON	TH EXPLORATION LLC	1/8+	908 251	N/A	N/A	N/A	N/A	N/A	N/A
10*16516	P	9-5-17	WILSON ANDREW JACKSON	TH EXPLORATION LLC	1/8+	908 253	N/A	N/A	N/A	N/A	N/A	N/A
10*16662	P	9-5-17	RICHARD THOMAS MIMS & VICKIE J MIMS	TH EXPLORATION LLC	1/8+	908 263	N/A	N/A	N/A	N/A	N/A	N/A
10*16738	P	9-5-17	CHARLES A RINE AND RUTH K RINE	TH EXPLORATION LLC	1/8+	908 274	N/A	N/A	N/A	N/A	N/A	N/A
10*16787	P	9-5-17	HERBERT B 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 WHITMAN TRUST DTD 7-25-1984 JON WHITMAN TRUSTEE	TH EXPLORATION LLC	1/8+	921 528	N/A	N/A	N/A	N/A	N/A	N/A
10*16962	P	9-5-17	DENNIS P FLORY AND BARBARA EZELL FLORY	TH EXPLORATION LLC	1/8+	921 70	N/A	N/A	N/A	N/A	N/A	N/A
10*16976	P	9-5-17	LESTER G AND CONSTANCE B NICKOLSON	TH EXPLORATION LLC	1/8+	921 343	N/A	N/A	N/A	N/A	N/A	N/A
10*16987	P	9-5-17	LAURIE EZELL PERRY	TH EXPLORATION LLC	1/8+	921 355	N/A	N/A	N/A	N/A	N/A	N/A
10*17130	P	9-5-17	CINDY L BARGER	TH EXPLORATION LLC	1/8+	921 137	N/A	N/A	N/A	N/A	N/A	N/A
10*17155	P	9-5-17	JESSE LEON JR AND TERESA GAIL EZELLE	TH EXPLORATION LLC	1/8+	921 118	N/A	N/A	N/A	N/A	N/A	N/A
10*17156	P	9-5-17	HENRI NELL JACKSON KENT BARNES	TH EXPLORATION LLC	1/8+	921 139	N/A	N/A	N/A	N/A	N/A	N/A
10*17157	P	9-5-17	JAMES N REEVES JR AND RITA M REEVES	TH EXPLORATION LLC	1/8+	921 367	N/A	N/A	N/A	N/A	N/A	N/A
10*17198	P	9-5-17	THOMAS G AND DIANE W BAYLESS	TH EXPLORATION LLC	1/8+	921 141	N/A	N/A	N/A	N/A	N/A	N/A
10*17205	P	9-5-17	SANDRA JEAN WILSON	TH EXPLORATION LLC	1/8+	921 524	N/A	N/A	N/A	N/A	N/A	N/A
10*17274	P	9-5-17	DAVID H WILSON	TH EXPLORATION LLC	1/8+	921 474	N/A	N/A	N/A	N/A	N/A	N/A
10*17275	P	9-5-17	JOHN R REEVES AND MONA G REEVES	TH EXPLORATION LLC	1/8+	921 373	N/A	N/A	N/A	N/A	N/A	N/A
10*17276	P	9-5-17	BERTHA EZELL WYATT	TH EXPLORATION LLC	1/8+	921 526	N/A	N/A	N/A	N/A	N/A	N/A
10*17278	P	9-5-17	MICHAEL L EZELLE	TH EXPLORATION LLC	1/8+	921 121	N/A	N/A	N/A	N/A	N/A	N/A
10*17377	P	9-5-17	MILTON HOWARD EZELLE JR AND ELIZABETH A EZELLE	TH EXPLORATION LLC	1/8+	921 123	N/A	N/A	N/A	N/A	N/A	N/A
10*17438	P	9-5-17	DENNIS M WILSON	TH EXPLORATION LLC	1/8+	921 476	N/A	N/A	N/A	N/A	N/A	N/A
10*17441	P	9-5-17	RALPH J WILSON	TH EXPLORATION LLC	1/8+	921 522	N/A	N/A	N/A	N/A	N/A	N/A
10*17449	P	9-5-17	PHYLLIS J BLAKE	TH EXPLORATION LLC	1/8+	921 150	N/A	N/A	N/A	N/A	N/A	N/A
10*17482	P	9-5-17	TERESA EZELLE RALYA AND DAVID L RALYA	TH EXPLORATION LLC	1/8+	927 487	N/A	N/A	N/A	N/A	N/A	N/A
10*17484	P	9-5-17	NELDA S JACKSON	TH EXPLORATION LLC	1/8+	921 330	N/A	N/A	N/A	N/A	N/A	N/A
10*17485	P	9-5-17	MARGIE ANN JACKSON ROBBINS GRAHAM	TH EXPLORATION LLC	1/8+	921 91	N/A	N/A	N/A	N/A	N/A	N/A
10*17526	P	9-5-17	JEFFREY L REEVES AND JODY L REEVES	TH EXPLORATION LLC	1/8+	921 370	N/A	N/A	N/A	N/A	N/A	N/A
10*17527	P	9-5-17	JAMES MICHAEL EZELL AND LUCILLE D EZELL	TH EXPLORATION LLC	1/8+	921 111	N/A	N/A	N/A	N/A	N/A	N/A
10*17561	P	9-5-17	ROGER L TYRELL AND KATHRYN L TYRELL	TH EXPLORATION LLC	1/8+	921 519	N/A	N/A	N/A	N/A	N/A	N/A
10*17564	P	9-5-17	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	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 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	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 & SHERA 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 AIF JOHN HERMAN STORCH	TH EXPLORATION LLC	1/8+	877 216	N/A	N/A	N/A	N/A	N/A	N/A

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10*47051.223.2	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 J 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 SMARKEL	TH EXPLORATION LLC	1/8+	908 69	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.223.27	P	9-5-17	TIMI J HOBBS	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 RIDDLER 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
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

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Lease ID	Tag	Parcel	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
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*47051.226.20	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	Chesapeake to Chevron: 30/461	Chevron to Tug Hill: 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
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	N/A
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	Z	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

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