



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

Monday, July 8, 2019
WELL WORK PERMIT
Horizontal 6A / New Drill

TUG HILL OPERATING, LLC
380 SOUTHPOINTE BLVD

CANONSBURG, PA 15317

Re: Permit approval for BURCH RIDGE 6UH
47-051-02193-00-00

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

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

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

James A. Martin
Chief

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

Operator's Well Number: BURCH RIDGE 6UH
Farm Name: CONSOL RCPC LLC
U.S. WELL NUMBER: 47-051-02193-00-00
Horizontal 6A New Drill
Date Issued: 7/8/2019



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

May 8, 2019

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

RE: Application for Deep Well Permit – API #47-051-02193

COMPANY: Tug Hill Operating, LLC

FARM: Consol RCPC, LLC Burch Ridge S-6HU

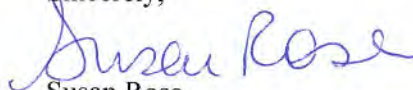
COUNTY: Marshall DISTRICT: Franklin QUAD: New Martinsville/Powhatan Point

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: yes; Blake U-7H 47-051-01766, Simms U-5H 47-051-01731, and Burch Ridge S-7HU 47-051-02194
4. Provided a plat showing that the proposed location is a distance of 400+ feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,


Susan Rose
Administrator

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

1) Well Operator: Tug Hill Operating, LLC 494510851 Marshall Franklin Powhatan Point 7
Operator ID County District Quadrangle

2) Operator's Well Number: Burch Ridge 6HU Well Pad Name: Burch Ridge

3) Farm Name/Surface Owner: CONSOL RCPC, LLC Public Road Access: Burch Ridge Road

4) Elevation, current ground: 1310.39' Elevation, proposed post-construction: 1310.39'

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

Other _____

(b) If Gas Shallow _____ Deep x _____

Horizontal x _____

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Point Pleasant is the target formation at a depth of 11,252' - 11,132' - thickness of 120' and anticipated pressure of approx. 9500 psi.

8) Proposed Total Vertical Depth: 11,402'

9) Formation at Total Vertical Depth: Trenton

10) Proposed Total Measured Depth: 24,424'

11) Proposed Horizontal Leg Length: 12,091.30'

12) Approximate Fresh Water Strata Depths: 70' ; 901'

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

14) Approximate Saltwater Depths: 2,167'

15) Approximate Coal Seam Depths: Sewickley Coal - 807' ; Pittsburgh Coal - 900'

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

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

(a) If Yes, provide Mine Info: Name: _____

Depth: _____

Seam: _____

Owner: _____

WW-6B
(04/15)

API NO. 47-051 -
OPERATOR WELL NO. Burch Ridge 6HU
Well Pad Name: Burch Ridge

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	30"	NEW	BW	BW	120'	120'	259FT^3(CTS)
Fresh Water	20"	NEW	J55	106.5#	1000'	1000'	1,613FT^3(CTS)
Coal	13 3/8"	NEW	J55	54.5#	2801'	2801'	1,975FT^3(CTS)
Intermediate	9 5/8"	NEW	HPP110	47#	10,742'	10,742'	3,503FT^3(CTS)
Production	5 1/2"	NEW	P110	23#	24,424'	24,424'	5,778FT^3(CTS)
Tubing	2 7/8"	NEW	P110	6.5#		11,069'	
Liners							

Handwritten signature and date: 2/27/19

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	36"	1.0	2,333	1,866	CLASS A	1.2
Fresh Water	20"	26"	.5	2,410	1,928	SEE # 24	1.2
Coal	13 3/8"	17 1/2"	.38	2,740	2,192	SEE #24	1.2
Intermediate	9 5/8"	12 1/4"	.472	10,730	6,968	SEE #24	1.99
Production	5 1/2"	8 1/2"	.415	16,510	10,864	SEE #24	1.18
Tubing	2 7/8"			11,385	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 30,222,500 lb proppant and 467,262 bbl of water. Max rate = 80 bpm; max psi = 12,000#.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 17.06 acres

22) Area to be disturbed for well pad only, less access road (acres): 3.35 acres

23) Describe centralizer placement for each casing string:

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

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

*See Attachment

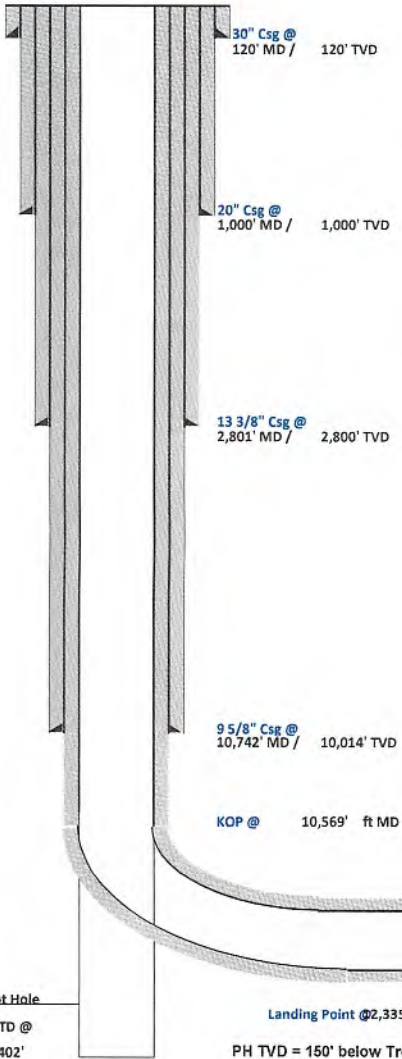
25) Proposed borehole conditioning procedures:

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

*Note: Attach additional sheets as needed.



WELL NAME: Burch Ridge S-6HU
STATE: WV **COUNTY:** Marshall
DISTRICT: Franklin
Df Elev: 1,310' **GL Elev:** 1,310'
TD: 24,424'
TH Latitude: 39.75435517
TH Longitude: -80.80249684
BH Latitude: 39.73171134
BH Longitude: -80.78510597



FORMATION TOPS	
Formation	Depth TVD
Deepest Fresh Water	901'
Sewickley Coal	807'
Pittsburgh Coal	900'
Big Lime	2,033'
Berea	2,575'
Tully	6,375'
Marcellus	6,434'
Onondaga	6,486'
Salina	7,178'
Lockport	8,207'
Utica	10,877'
Point Pleasant	11,132'
Landing Depth	11,182'
Trenton	11,252'
Pilot Hole TD	11,402'

CASING SUMMARY							
Type	Hole Size (in)	Csg Size (in)	Depth (MD)	Depth (TVD)	Weight (lb/ft)	Grade	Top of Cement
Conductor	36	30	120'	120'	BW	BW	Surface
Surface	26	20	1,000'	1,000'	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	10,742'	10,014'	47	HPP110	Surface
Production	8 1/2	5 1/2	24,424'	11,393'	23	HCP110	Surface

CEMENT SUMMARY				DRILLING DETAILS	
	Sacks	Class	Density	Fluid Type	Centralizer Notes
Conductor	338	A	15.6	Air	None
Surface	1,740	A	15.6	Air	3 Centralizers at equal distance
Intermediate 1	2,141	A	15	Air	1 Centralizer every other jt
Intermediate 2	2,925	A	14.5	Air	1 Centralizer every other jt
Production	5,123	A	15	Air / SOBMs	1 every other joint in lateral; 1 per joint in curve; 1 every other jt to sfc

Pilot Hole
 PH TD @
 11,402'

Landing Point @ 2,335' MD / 11,182' TVD
 PH TVD = 150' below Trenton Top

Lateral TD @ 24,424' ft MD
 11,393' ft TVD

SI-02193



Tug Hill Operating, LLC Casing and Cement Program

Burch Ridge S-6HU

Casing

	String	Grade	Bit Size	Depth (Measured)	Cement Fill Up
Conductor	30"	BW	36"	120'	CTS
Surface	20"	J55	26"	1,000'	CTS
Intermediate 1	13 3/8"	J55	17 1/2"	2,801'	CTS
Intermediate 2	9 5/8"	HPP110	12 1/4"	10,742'	CTS
Production	5 1/2"	HCP110	8 1/2"	24,424'	CTS

Cement

Surface: Premium NE-1 + 2% bwoc CaC12 + 46.5% Fresh Water – Surface Cement mixed at 15.6 ppg, Y=1.2

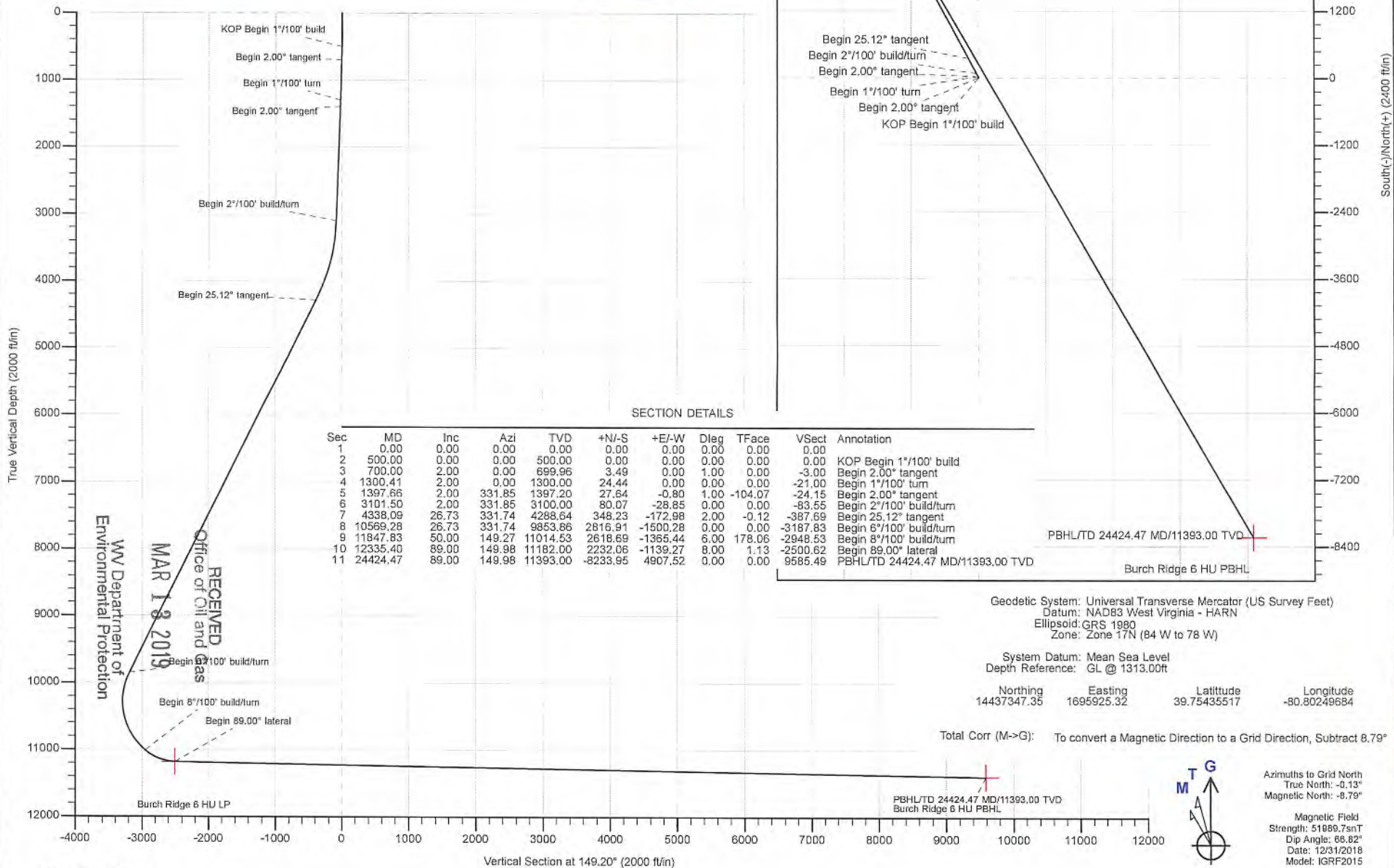
Intermediate 1: Premium NE-1 + 1% bwoc CaC12 + 46.5% Fresh Water – Intermediate Cement mixed at 15.6 ppg, Y=1.2

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



Well: Burch Ridge 6 HU (slot F)
 Site: Burch Ridge
 Project: Marshall County, West Virginia
 Design: rev0
 Rig:



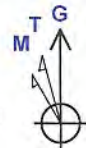
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	Vsect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 1"/100' build
3	700.00	2.00	0.00	699.96	3.49	0.00	1.00	0.00	-3.00	Begin 2.00" tangent
4	1300.41	2.00	0.00	1300.00	24.44	0.00	0.00	0.00	-21.00	Begin 1"/100' turn
5	1397.66	2.00	331.85	1397.20	27.64	-0.80	1.00	-104.07	-24.15	Begin 2.00" tangent
6	3101.50	2.00	331.85	3100.00	80.07	-28.85	0.00	0.00	-83.55	Begin 2"/100' build/turn
7	4338.09	26.73	331.74	4288.64	348.23	-172.98	2.00	-0.12	-387.69	Begin 25.12" tangent
8	10569.28	26.73	331.74	9853.86	2816.91	-1500.28	0.00	0.00	-3187.83	Begin 6"/100' build/turn
9	11847.83	50.00	149.27	11014.53	2618.69	-1365.44	6.00	178.06	-2948.53	Begin 8"/100' build/turn
10	12335.40	89.00	149.98	11182.00	2232.06	-1139.27	8.00	1.13	-2500.62	Begin 89.00" lateral
11	24424.47	89.00	149.98	11393.00	-8233.95	4907.52	0.00	0.00	9585.49	PBHL/TD 24424.47 MD/11393.00 TVD

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

System Datum: Mean Sea Level
 Depth Reference: GL @ 1313.00ft
 Northing 14437347.35 Easting 1695925.32 Latitude 39.75435517 Longitude -80.80249684

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Subtract 8.79°



Azimuths to Grid North
 True North: -0.13°
 Magnetic North: -8.79°

Magnetic Field
 Strength: 51889.75nT
 Dip Angle: 66.82°
 Date: 12/31/2018
 Model: IGRF2015

SI-0203



Planning Report - Geographic

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Burch Ridge 6 HU (slot F)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1313.00ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1313.00ft
Site:	Burch Ridge	North Reference:	Grid
Well:	Burch Ridge 6 HU (slot F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

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	Burch Ridge				
Site Position:		Northing:	14,437,347.35 usft	Latitude:	39.75435517
From:	Lat/Long	Easting:	1,695,925.32 usft	Longitude:	-80.80249684
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.13 °

Well	Burch Ridge 6 HU (slot F)					
Well Position	+N/-S	0.00 ft	Northing:	14,437,347.35 usft	Latitude:	39.75435517
	+E/-W	0.00 ft	Easting:	1,695,925.32 usft	Longitude:	-80.80249684
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	1,313.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/31/2018	-8.66	66.82	51,989.71302335

Design	rev0			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	149.20

Plan Survey Tool Program	Date	12/31/2018		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	24,424.47 rev0 (Original Hole)	MWD MWD - Standard	

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Environmental Protection



Planning Report - Geographic

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Burch Ridge 6 HU (slot F)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1313.00ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1313.00ft
Site:	Burch Ridge	North Reference:	Grid
Well:	Burch Ridge 6 HU (slot F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	2.00	0.00	699.96	3.49	0.00	1.00	1.00	0.00	0.00	
1,300.41	2.00	0.00	1,300.00	24.44	0.00	0.00	0.00	0.00	0.00	
1,397.66	2.00	331.85	1,397.20	27.64	-0.80	1.00	0.00	-28.94	-104.07	
3,101.50	2.00	331.85	3,100.00	80.07	-28.85	0.00	0.00	0.00	0.00	
4,338.09	26.73	331.74	4,288.64	348.23	-172.98	2.00	2.00	-0.01	-0.12	
10,569.28	26.73	331.74	9,853.86	2,816.91	-1,500.28	0.00	0.00	0.00	0.00	
11,847.83	50.00	149.27	11,014.53	2,618.69	-1,365.44	6.00	1.82	13.89	178.06	
12,335.40	89.00	149.98	11,182.00	2,232.06	-1,139.27	8.00	8.00	0.15	1.13	
24,424.47	89.00	149.98	11,393.00	-8,233.95	4,907.52	0.00	0.00	0.00	0.00	Burch Ridge 6 HU PB

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Planning Report - Geographic

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Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1313.00ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1313.00ft
Site:	Burch Ridge	North Reference:	Grid
Well:	Burch Ridge 6 HU (slot F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

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Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	14,437,347.35	1,695,925.32	39.75435517	-80.80249684	
100.00	0.00	0.00	100.00	0.00	0.00	14,437,347.35	1,695,925.32	39.75435517	-80.80249684	
200.00	0.00	0.00	200.00	0.00	0.00	14,437,347.35	1,695,925.32	39.75435517	-80.80249684	
300.00	0.00	0.00	300.00	0.00	0.00	14,437,347.35	1,695,925.32	39.75435517	-80.80249684	
400.00	0.00	0.00	400.00	0.00	0.00	14,437,347.35	1,695,925.32	39.75435517	-80.80249684	
500.00	0.00	0.00	500.00	0.00	0.00	14,437,347.35	1,695,925.32	39.75435517	-80.80249684	
KOP Begin 1°/100' build										
600.00	1.00	0.00	599.99	0.87	0.00	14,437,348.22	1,695,925.32	39.75435757	-80.80249683	
700.00	2.00	0.00	699.96	3.49	0.00	14,437,350.84	1,695,925.32	39.75436476	-80.80249681	
Begin 2.00° tangent										
800.00	2.00	0.00	799.90	6.98	0.00	14,437,354.33	1,695,925.32	39.75437434	-80.80249679	
900.00	2.00	0.00	899.84	10.47	0.00	14,437,357.82	1,695,925.32	39.75438393	-80.80249676	
1,000.00	2.00	0.00	999.78	13.96	0.00	14,437,361.31	1,695,925.32	39.75439351	-80.80249673	
1,100.00	2.00	0.00	1,099.72	17.45	0.00	14,437,364.80	1,695,925.32	39.75440309	-80.80249670	
1,200.00	2.00	0.00	1,199.65	20.94	0.00	14,437,368.29	1,695,925.32	39.75441268	-80.80249668	
1,300.00	2.00	0.00	1,299.59	24.43	0.00	14,437,371.78	1,695,925.32	39.75442226	-80.80249665	
1,300.41	2.00	0.00	1,300.00	24.44	0.00	14,437,371.79	1,695,925.32	39.75442230	-80.80249665	
Begin 1°/100' turn										
1,397.66	2.00	331.85	1,397.20	27.64	-0.80	14,437,374.99	1,695,924.52	39.75443108	-80.80249947	
Begin 2.00° tangent										
1,400.00	2.00	331.85	1,399.54	27.71	-0.84	14,437,375.06	1,695,924.48	39.75443128	-80.80249961	
1,500.00	2.00	331.85	1,499.47	30.79	-2.49	14,437,378.14	1,695,922.83	39.75443974	-80.80250544	
1,600.00	2.00	331.85	1,599.41	33.86	-4.13	14,437,381.21	1,695,921.18	39.75444820	-80.80251128	
1,700.00	2.00	331.85	1,699.35	36.94	-5.78	14,437,384.29	1,695,919.54	39.75445666	-80.80251711	
1,800.00	2.00	331.85	1,799.29	40.02	-7.43	14,437,387.37	1,695,917.89	39.75446512	-80.80252295	
1,900.00	2.00	331.85	1,899.23	43.10	-9.07	14,437,390.45	1,695,916.25	39.75447358	-80.80252878	
2,000.00	2.00	331.85	1,999.17	46.17	-10.72	14,437,393.52	1,695,914.60	39.75448204	-80.80253461	
2,100.00	2.00	331.85	2,099.11	49.25	-12.36	14,437,396.60	1,695,912.95	39.75449050	-80.80254045	
2,200.00	2.00	331.85	2,199.05	52.33	-14.01	14,437,399.68	1,695,911.31	39.75449896	-80.80254628	
2,300.00	2.00	331.85	2,298.99	55.40	-15.66	14,437,402.75	1,695,909.66	39.75450742	-80.80255212	
2,400.00	2.00	331.85	2,398.93	58.48	-17.30	14,437,405.83	1,695,908.01	39.75451588	-80.80255795	
2,500.00	2.00	331.85	2,498.87	61.56	-18.95	14,437,408.91	1,695,906.37	39.75452434	-80.80256379	
2,600.00	2.00	331.85	2,598.80	64.64	-20.60	14,437,411.99	1,695,904.72	39.75453280	-80.80256962	
2,700.00	2.00	331.85	2,698.74	67.71	-22.24	14,437,415.06	1,695,903.07	39.75454126	-80.80257545	
2,800.00	2.00	331.85	2,798.68	70.79	-23.89	14,437,418.14	1,695,901.43	39.75454972	-80.80258129	
2,900.00	2.00	331.85	2,898.62	73.87	-25.54	14,437,421.22	1,695,899.78	39.75455819	-80.80258712	
3,000.00	2.00	331.85	2,998.56	76.94	-27.18	14,437,424.29	1,695,898.13	39.75456665	-80.80259296	
3,100.00	2.00	331.85	3,098.50	80.02	-28.83	14,437,427.37	1,695,896.49	39.75457511	-80.80259879	
3,101.50	2.00	331.85	3,100.00	80.07	-28.85	14,437,427.42	1,695,896.46	39.75457523	-80.80259888	
Begin 2°/100' build/turn										
3,200.00	3.97	331.79	3,198.36	84.59	-31.28	14,437,431.94	1,695,894.04	39.75458766	-80.80260746	
3,300.00	5.97	331.77	3,297.98	92.22	-35.37	14,437,439.57	1,695,889.94	39.75460865	-80.80262198	
3,400.00	7.97	331.76	3,397.24	102.91	-41.12	14,437,450.26	1,695,884.20	39.75463804	-80.80264232	
3,500.00	9.97	331.75	3,496.01	116.65	-48.49	14,437,464.00	1,695,876.82	39.75467581	-80.80266847	
3,600.00	11.97	331.75	3,594.18	133.41	-57.50	14,437,480.76	1,695,867.82	39.75472189	-80.80270039	
3,700.00	13.97	331.74	3,691.62	153.16	-68.13	14,437,500.53	1,695,857.19	39.75477625	-80.80273803	
3,800.00	15.97	331.74	3,788.22	175.93	-80.35	14,437,523.28	1,695,844.96	39.75483881	-80.80278136	
3,900.00	17.97	331.74	3,883.86	201.63	-94.17	14,437,548.99	1,695,831.14	39.75490949	-80.80283033	
4,000.00	19.97	331.74	3,978.43	230.27	-109.56	14,437,577.62	1,695,815.75	39.75498821	-80.80288487	
4,100.00	21.97	331.74	4,071.80	261.79	-126.51	14,437,609.14	1,695,798.81	39.75507488	-80.80294491	
4,200.00	23.97	331.74	4,163.86	296.16	-144.99	14,437,643.51	1,695,780.33	39.75516938	-80.80301039	
4,300.00	25.97	331.74	4,254.51	333.34	-164.98	14,437,680.69	1,695,760.34	39.75527160	-80.80308122	
4,338.09	26.73	331.74	4,288.64	348.23	-172.98	14,437,695.58	1,695,752.34	39.75531255	-80.80310959	
Begin 25.12° tangent										



Planning Report - Geographic

Database:	DB_Jul2216dL_V14	Local Co-ordinate Reference:	Well Burch Ridge 6 HU (slot F)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1313.00ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1313.00ft
Site:	Burch Ridge	North Reference:	Grid
Well:	Burch Ridge 6 HU (slot F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

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Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,400.00	26.73	331.74	4,343.94	372.75	-186.17	14,437,720.10	1,695,739.15	39.75537999	-80.80315632	
4,500.00	26.73	331.74	4,433.25	412.37	-207.47	14,437,759.72	1,695,717.85	39.75548892	-80.80323180	
4,600.00	26.73	331.74	4,522.56	451.99	-228.77	14,437,799.34	1,695,696.55	39.75559785	-80.80330728	
4,700.00	26.73	331.74	4,611.87	491.61	-250.07	14,437,838.96	1,695,675.25	39.75570678	-80.80338277	
4,800.00	26.73	331.74	4,701.19	531.23	-271.37	14,437,878.58	1,695,653.94	39.75581571	-80.80345825	
4,900.00	26.73	331.74	4,790.50	570.84	-292.67	14,437,918.19	1,695,632.64	39.75592464	-80.80353373	
5,000.00	26.73	331.74	4,879.81	610.46	-313.97	14,437,957.81	1,695,611.34	39.75603357	-80.80360921	
5,100.00	26.73	331.74	4,969.12	650.08	-335.28	14,437,997.43	1,695,590.04	39.75614250	-80.80368469	
5,200.00	26.73	331.74	5,058.44	689.70	-356.58	14,438,037.05	1,695,568.74	39.75625144	-80.80376018	
5,300.00	26.73	331.74	5,147.75	729.32	-377.88	14,438,076.67	1,695,547.44	39.75636037	-80.80383566	
5,400.00	26.73	331.74	5,237.06	768.94	-399.18	14,438,116.28	1,695,526.14	39.75646930	-80.80391114	
5,500.00	26.73	331.74	5,326.37	808.55	-420.48	14,438,155.90	1,695,504.84	39.75657823	-80.80398662	
5,600.00	26.73	331.74	5,415.68	848.17	-441.78	14,438,195.52	1,695,483.54	39.75668716	-80.80406211	
5,700.00	26.73	331.74	5,505.00	887.79	-463.08	14,438,235.14	1,695,462.24	39.75679609	-80.80413759	
5,800.00	26.73	331.74	5,594.31	927.41	-484.38	14,438,274.76	1,695,440.94	39.75690502	-80.80421308	
5,900.00	26.73	331.74	5,683.62	967.03	-505.68	14,438,314.37	1,695,419.64	39.75701395	-80.80428856	
6,000.00	26.73	331.74	5,772.93	1,006.64	-526.98	14,438,353.99	1,695,398.33	39.75712288	-80.80436404	
6,100.00	26.73	331.74	5,862.25	1,046.26	-548.28	14,438,393.61	1,695,377.03	39.75723181	-80.80443953	
6,200.00	26.73	331.74	5,951.56	1,085.88	-569.59	14,438,433.23	1,695,355.73	39.75734074	-80.80451501	
6,300.00	26.73	331.74	6,040.87	1,125.50	-590.89	14,438,472.85	1,695,334.43	39.75744967	-80.80459050	
6,400.00	26.73	331.74	6,130.18	1,165.12	-612.19	14,438,512.46	1,695,313.13	39.75755860	-80.80466598	
6,500.00	26.73	331.74	6,219.49	1,204.73	-633.49	14,438,552.08	1,695,291.83	39.75766753	-80.80474147	
6,600.00	26.73	331.74	6,308.81	1,244.35	-654.79	14,438,591.70	1,695,270.53	39.75777646	-80.80481696	
6,700.00	26.73	331.74	6,398.12	1,283.97	-676.09	14,438,631.32	1,695,249.23	39.75788539	-80.80489244	
6,800.00	26.73	331.74	6,487.43	1,323.59	-697.39	14,438,670.94	1,695,227.93	39.75799432	-80.80496793	
6,900.00	26.73	331.74	6,576.74	1,363.21	-718.69	14,438,710.55	1,695,206.63	39.75810325	-80.80504341	
7,000.00	26.73	331.74	6,666.06	1,402.82	-739.99	14,438,750.17	1,695,185.33	39.75821218	-80.80511890	
7,100.00	26.73	331.74	6,755.37	1,442.44	-761.29	14,438,789.79	1,695,164.03	39.75832111	-80.80519439	
7,200.00	26.73	331.74	6,844.68	1,482.06	-782.59	14,438,829.41	1,695,142.72	39.75843004	-80.80526988	
7,300.00	26.73	331.74	6,933.99	1,521.68	-803.89	14,438,869.03	1,695,121.42	39.75853897	-80.80534536	
7,400.00	26.73	331.74	7,023.30	1,561.30	-825.20	14,438,908.64	1,695,100.12	39.75864790	-80.80542085	
7,500.00	26.73	331.74	7,112.62	1,600.92	-846.50	14,438,948.26	1,695,078.82	39.75875682	-80.80549634	
7,600.00	26.73	331.74	7,201.93	1,640.53	-867.80	14,438,987.88	1,695,057.52	39.75886576	-80.80557183	
7,700.00	26.73	331.74	7,291.24	1,680.15	-889.10	14,439,027.50	1,695,036.22	39.75897469	-80.80564731	
7,800.00	26.73	331.74	7,380.55	1,719.77	-910.40	14,439,067.12	1,695,014.92	39.75908362	-80.80572280	
7,900.00	26.73	331.74	7,469.87	1,759.39	-931.70	14,439,106.73	1,694,993.62	39.75919255	-80.80579829	
8,000.00	26.73	331.74	7,559.18	1,799.01	-953.00	14,439,146.35	1,694,972.32	39.75930148	-80.80587378	
8,100.00	26.73	331.74	7,648.49	1,838.62	-974.30	14,439,185.97	1,694,951.02	39.75941041	-80.80594927	
8,200.00	26.73	331.74	7,737.80	1,878.24	-995.60	14,439,225.59	1,694,929.72	39.75951934	-80.80602476	
8,300.00	26.73	331.74	7,827.11	1,917.86	-1,016.90	14,439,265.21	1,694,908.42	39.75962827	-80.80610025	
8,400.00	26.73	331.74	7,916.43	1,957.48	-1,038.20	14,439,304.82	1,694,887.11	39.75973720	-80.80617574	
8,500.00	26.73	331.74	8,005.74	1,997.10	-1,059.51	14,439,344.44	1,694,865.81	39.75984612	-80.80625123	
8,600.00	26.73	331.74	8,095.05	2,036.71	-1,080.81	14,439,384.06	1,694,844.51	39.75995505	-80.80632672	
8,700.00	26.73	331.74	8,184.36	2,076.33	-1,102.11	14,439,423.68	1,694,823.21	39.76006398	-80.80640221	
8,800.00	26.73	331.74	8,273.68	2,115.95	-1,123.41	14,439,463.30	1,694,801.91	39.76017291	-80.80647770	
8,900.00	26.73	331.74	8,362.99	2,155.57	-1,144.71	14,439,502.91	1,694,780.61	39.76028184	-80.80655319	
9,000.00	26.73	331.74	8,452.30	2,195.19	-1,166.01	14,439,542.53	1,694,759.31	39.76039077	-80.80662869	
9,100.00	26.73	331.74	8,541.61	2,234.80	-1,187.31	14,439,582.15	1,694,738.01	39.76049970	-80.80670418	
9,200.00	26.73	331.74	8,630.93	2,274.42	-1,208.61	14,439,621.77	1,694,716.71	39.76060863	-80.80677967	
9,300.00	26.73	331.74	8,720.24	2,314.04	-1,229.91	14,439,661.39	1,694,695.41	39.76071756	-80.80685516	
9,400.00	26.73	331.74	8,809.55	2,353.66	-1,251.21	14,439,701.00	1,694,674.11	39.76082648	-80.80693065	
9,500.00	26.73	331.74	8,898.86	2,393.28	-1,272.51	14,439,740.62	1,694,652.81	39.76093541	-80.80700615	
9,600.00	26.73	331.74	8,988.17	2,432.90	-1,293.82	14,439,780.24	1,694,631.50	39.76104434	-80.80708164	
9,700.00	26.73	331.74	9,077.49	2,472.51	-1,315.12	14,439,819.86	1,694,610.20	39.76115327	-80.80715713	
9,800.00	26.73	331.74	9,166.80	2,512.13	-1,336.42	14,439,859.48	1,694,588.90	39.76126220	-80.80723263	



Planning Report - Geographic

Database:	DB_Jul2216dt_V14	Local Co-ordinate Reference:	Well Burch Ridge 6 HU (slot F)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1313.00ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1313.00ft
Site:	Burch Ridge	North Reference:	Grid
Well:	Burch Ridge 6 HU (slot F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

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Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
9,900.00	26.73	331.74	9,256.11	2,551.75	-1,357.72	14,439,899.10	1,694,567.60	39.76137113	-80.80730812	
10,000.00	26.73	331.74	9,345.42	2,591.37	-1,379.02	14,439,938.71	1,694,546.30	39.76148006	-80.80738361	
10,100.00	26.73	331.74	9,434.74	2,630.99	-1,400.32	14,439,978.33	1,694,525.00	39.76158898	-80.80745911	
10,200.00	26.73	331.74	9,524.05	2,670.60	-1,421.62	14,440,017.95	1,694,503.70	39.76169791	-80.80753460	
10,300.00	26.73	331.74	9,613.36	2,710.22	-1,442.92	14,440,057.57	1,694,482.40	39.76180684	-80.80761010	
10,400.00	26.73	331.74	9,702.67	2,749.84	-1,464.22	14,440,097.19	1,694,461.10	39.76191577	-80.80768559	
10,500.00	26.73	331.74	9,791.98	2,789.46	-1,485.52	14,440,136.80	1,694,439.80	39.76202470	-80.80776109	
10,569.28	26.73	331.74	9,853.86	2,816.91	-1,500.28	14,440,164.25	1,694,425.04	39.76210016	-80.80781339	
Begin 6°/100' build/turm										
10,600.00	24.89	331.88	9,881.51	2,828.69	-1,506.60	14,440,176.04	1,694,418.72	39.76213257	-80.80783578	
10,700.00	18.89	332.55	9,974.26	2,861.65	-1,524.00	14,440,209.00	1,694,401.32	39.76222319	-80.80789744	
10,800.00	12.90	333.81	10,070.39	2,886.06	-1,536.40	14,440,233.41	1,694,388.92	39.76229031	-80.80794138	
10,900.00	6.93	337.20	10,168.85	2,901.66	-1,543.67	14,440,249.01	1,694,381.65	39.76233318	-80.80796714	
11,000.00	1.24	14.90	10,268.57	2,908.27	-1,545.73	14,440,255.62	1,694,379.59	39.76235135	-80.80797443	
11,100.00	5.20	140.37	10,368.44	2,905.82	-1,542.56	14,440,253.17	1,694,382.76	39.76234460	-80.80796317	
11,200.00	11.16	145.57	10,467.38	2,894.34	-1,534.20	14,440,241.69	1,694,391.12	39.76231302	-80.80793348	
11,300.00	17.15	147.17	10,564.30	2,873.96	-1,520.72	14,440,221.30	1,694,404.60	39.76225696	-80.80788569	
11,400.00	23.14	147.96	10,658.14	2,844.89	-1,502.29	14,440,192.23	1,694,423.03	39.76217702	-80.80782033	
11,500.00	29.14	148.44	10,747.88	2,807.45	-1,479.10	14,440,154.80	1,694,446.22	39.76207408	-80.80773810	
11,600.00	35.13	148.76	10,832.52	2,762.07	-1,451.41	14,440,109.41	1,694,473.91	39.76194927	-80.80763991	
11,700.00	41.13	149.00	10,911.14	2,709.22	-1,419.52	14,440,056.57	1,694,505.80	39.76180395	-80.80752684	
11,800.00	47.13	149.19	10,982.88	2,649.50	-1,383.78	14,439,996.84	1,694,541.54	39.76163973	-80.80740012	
11,847.83	50.00	149.27	11,014.53	2,618.69	-1,365.44	14,439,966.04	1,694,559.88	39.76155501	-80.80733509	
Begin 8°/100' build/turm										
11,900.00	54.17	149.37	11,046.58	2,583.30	-1,344.45	14,439,930.65	1,694,580.87	39.76145770	-80.80726065	
12,000.00	62.17	149.54	11,099.27	2,510.18	-1,301.31	14,439,857.53	1,694,624.01	39.76125664	-80.80710770	
12,100.00	70.17	149.68	11,139.64	2,431.34	-1,255.07	14,439,778.68	1,694,670.24	39.76103983	-80.80694380	
12,200.00	78.17	149.82	11,166.90	2,348.29	-1,206.65	14,439,695.64	1,694,718.67	39.76081149	-80.80677212	
12,300.00	86.17	149.94	11,180.51	2,262.67	-1,156.97	14,439,610.02	1,694,768.34	39.76057606	-80.80659602	
12,335.40	89.00	149.98	11,182.00	2,232.06	-1,139.27	14,439,579.41	1,694,786.05	39.76049188	-80.80653326	
Begin 89.00° lateral										
12,400.00	89.00	149.98	11,183.13	2,176.13	-1,106.96	14,439,523.48	1,694,818.36	39.76033809	-80.80641871	
12,500.00	89.00	149.98	11,184.88	2,089.56	-1,056.94	14,439,436.91	1,694,868.38	39.76010004	-80.80624139	
12,600.00	89.00	149.98	11,186.62	2,002.98	-1,006.92	14,439,350.33	1,694,918.40	39.75986198	-80.80606408	
12,700.00	89.00	149.98	11,188.37	1,916.41	-956.90	14,439,263.76	1,694,968.42	39.75962393	-80.80588676	
12,800.00	89.00	149.98	11,190.11	1,829.84	-906.88	14,439,177.18	1,695,018.43	39.75938587	-80.80570945	
12,900.00	89.00	149.98	11,191.86	1,743.26	-856.87	14,439,090.61	1,695,068.45	39.75914782	-80.80553214	
13,000.00	89.00	149.98	11,193.60	1,656.69	-806.85	14,439,004.04	1,695,118.47	39.75890976	-80.80535482	
13,100.00	89.00	149.98	11,195.35	1,570.11	-756.83	14,438,917.46	1,695,168.49	39.75867171	-80.80517751	
13,200.00	89.00	149.98	11,197.09	1,483.54	-706.81	14,438,830.89	1,695,218.51	39.75843365	-80.80500020	
13,300.00	89.00	149.98	11,198.84	1,396.97	-656.79	14,438,744.31	1,695,268.53	39.75819559	-80.80482290	
13,400.00	89.00	149.98	11,200.59	1,310.39	-606.77	14,438,657.74	1,695,318.55	39.75795754	-80.80464559	
13,500.00	89.00	149.98	11,202.33	1,223.82	-556.75	14,438,571.17	1,695,368.56	39.75771948	-80.80446829	
13,600.00	89.00	149.98	11,204.08	1,137.24	-506.73	14,438,484.59	1,695,418.58	39.75748142	-80.80429098	
13,700.00	89.00	149.98	11,205.82	1,050.67	-456.72	14,438,398.02	1,695,468.60	39.75724337	-80.80411368	
13,800.00	89.00	149.98	11,207.57	964.10	-406.70	14,438,311.44	1,695,518.62	39.75700531	-80.80393638	
13,900.00	89.00	149.98	11,209.31	877.52	-356.68	14,438,224.87	1,695,568.64	39.75676725	-80.80375908	
14,000.00	89.00	149.98	11,211.06	790.95	-306.66	14,438,138.30	1,695,618.66	39.75652919	-80.80358178	
14,100.00	89.00	149.98	11,212.80	704.37	-256.64	14,438,051.72	1,695,668.68	39.75629113	-80.80340448	
14,200.00	89.00	149.98	11,214.55	617.80	-206.62	14,437,965.15	1,695,718.69	39.75605307	-80.80322718	
14,300.00	89.00	149.98	11,216.29	531.22	-156.60	14,437,878.57	1,695,768.71	39.75581501	-80.80304989	
14,400.00	89.00	149.98	11,218.04	444.65	-106.59	14,437,792.00	1,695,818.73	39.75557695	-80.80287259	
14,500.00	89.00	149.98	11,219.78	358.08	-56.57	14,437,705.43	1,695,868.75	39.75533889	-80.80269530	
14,600.00	89.00	149.98	11,221.53	271.50	-6.55	14,437,618.85	1,695,918.77	39.75510083	-80.80251801	



Planning Report - Geographic

Database: DB_Jul2216dt_v14
 Company: Tug Hill Operating LLC
 Project: Marshall County, West Virginia
 Site: Burch Ridge
 Well: Burch Ridge 6 HU (slot F)
 Wellbore: Original Hole
 Design: rev0

Local Co-ordinate Reference: Well Burch Ridge 6 HU (slot F)
 TVD Reference: GL @ 1313.00ft
 MD Reference: GL @ 1313.00ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
14,700.00	89.00	149.98	11,223.27	184.93	43.47	14,437,532.28	1,695,968.79	39.75486277	-80.80234072
14,800.00	89.00	149.98	11,225.02	98.35	93.49	14,437,445.70	1,696,018.81	39.75462471	-80.80216343
14,900.00	89.00	149.98	11,226.77	11.78	143.51	14,437,359.13	1,696,068.83	39.75438665	-80.80198614
15,000.00	89.00	149.98	11,228.51	-74.79	193.53	14,437,272.56	1,696,118.84	39.75414859	-80.80180885
15,100.00	89.00	149.98	11,230.26	-161.37	243.55	14,437,185.98	1,696,168.86	39.75391053	-80.80163157
15,200.00	89.00	149.98	11,232.00	-247.94	293.56	14,437,099.41	1,696,218.88	39.75367247	-80.80145428
15,300.00	89.00	149.98	11,233.75	-334.52	343.58	14,437,012.83	1,696,268.90	39.75343440	-80.80127700
15,400.00	89.00	149.98	11,235.49	-421.09	393.60	14,436,926.26	1,696,318.92	39.75319634	-80.80109972
15,500.00	89.00	149.98	11,237.24	-507.67	443.62	14,436,839.69	1,696,368.94	39.75295828	-80.80092244
15,600.00	89.00	149.98	11,238.98	-594.24	493.64	14,436,753.11	1,696,418.96	39.75272022	-80.80074516
15,700.00	89.00	149.98	11,240.73	-680.81	543.66	14,436,666.54	1,696,468.97	39.75248215	-80.80056788
15,800.00	89.00	149.98	11,242.47	-767.39	593.68	14,436,579.96	1,696,518.99	39.75224409	-80.80039060
15,900.00	89.00	149.98	11,244.22	-853.96	643.70	14,436,493.39	1,696,569.01	39.75200603	-80.80021333
16,000.00	89.00	149.98	11,245.96	-940.54	693.71	14,436,406.82	1,696,619.03	39.75176796	-80.80003605
16,100.00	89.00	149.98	11,247.71	-1,027.11	743.73	14,436,320.24	1,696,669.05	39.75152990	-80.79985878
16,200.00	89.00	149.98	11,249.46	-1,113.68	793.75	14,436,233.67	1,696,719.07	39.75129183	-80.79968151
16,300.00	89.00	149.98	11,251.20	-1,200.26	843.77	14,436,147.09	1,696,769.09	39.75105377	-80.79950423
16,400.00	89.00	149.98	11,252.95	-1,286.83	893.79	14,436,060.52	1,696,819.10	39.75081570	-80.79932696
16,500.00	89.00	149.98	11,254.69	-1,373.41	943.81	14,435,973.95	1,696,869.12	39.75057764	-80.79914970
16,600.00	89.00	149.98	11,256.44	-1,459.98	993.83	14,435,887.37	1,696,919.14	39.75033957	-80.79897243
16,700.00	89.00	149.98	11,258.18	-1,546.56	1,043.85	14,435,800.80	1,696,969.16	39.75010151	-80.79879516
16,800.00	89.00	149.98	11,259.93	-1,633.13	1,093.86	14,435,714.22	1,697,019.18	39.74986344	-80.79861790
16,900.00	89.00	149.98	11,261.67	-1,719.70	1,143.88	14,435,627.65	1,697,069.20	39.74962537	-80.79844063
17,000.00	89.00	149.98	11,263.42	-1,806.28	1,193.90	14,435,541.08	1,697,119.22	39.74938731	-80.79826337
17,100.00	89.00	149.98	11,265.16	-1,892.85	1,243.92	14,435,454.50	1,697,169.23	39.74914924	-80.79808611
17,200.00	89.00	149.98	11,266.91	-1,979.43	1,293.94	14,435,367.93	1,697,219.25	39.74891117	-80.79790885
17,300.00	89.00	149.98	11,268.65	-2,066.00	1,343.96	14,435,281.35	1,697,269.27	39.74867310	-80.79773159
17,400.00	89.00	149.98	11,270.40	-2,152.57	1,393.98	14,435,194.78	1,697,319.29	39.74843504	-80.79755433
17,500.00	89.00	149.98	11,272.14	-2,239.15	1,444.00	14,435,108.21	1,697,369.31	39.74819697	-80.79737708
17,600.00	89.00	149.98	11,273.89	-2,325.72	1,494.01	14,435,021.63	1,697,419.33	39.74795890	-80.79719982
17,700.00	89.00	149.98	11,275.64	-2,412.30	1,544.03	14,434,935.06	1,697,469.35	39.74772083	-80.79702257
17,800.00	89.00	149.98	11,277.38	-2,498.87	1,594.05	14,434,848.48	1,697,519.36	39.74748276	-80.79684531
17,900.00	89.00	149.98	11,279.13	-2,585.44	1,644.07	14,434,761.91	1,697,569.38	39.74724469	-80.79666806
18,000.00	89.00	149.98	11,280.87	-2,672.02	1,694.09	14,434,675.34	1,697,619.40	39.74700662	-80.79649081
18,100.00	89.00	149.98	11,282.62	-2,758.59	1,744.11	14,434,588.76	1,697,669.42	39.74676855	-80.79631356
18,200.00	89.00	149.98	11,284.36	-2,845.17	1,794.13	14,434,502.19	1,697,719.44	39.74653048	-80.79613631
18,300.00	89.00	149.98	11,286.11	-2,931.74	1,844.14	14,434,415.62	1,697,769.46	39.74629241	-80.79595907
18,400.00	89.00	149.98	11,287.85	-3,018.32	1,894.16	14,434,329.04	1,697,819.48	39.74605434	-80.79578182
18,500.00	89.00	149.98	11,289.60	-3,104.89	1,944.18	14,434,242.47	1,697,869.50	39.74581627	-80.79560458
18,600.00	89.00	149.98	11,291.34	-3,191.46	1,994.20	14,434,155.89	1,697,919.51	39.74557820	-80.79542733
18,700.00	89.00	149.98	11,293.09	-3,278.04	2,044.22	14,434,069.32	1,697,969.53	39.74534013	-80.79525009
18,800.00	89.00	149.98	11,294.83	-3,364.61	2,094.24	14,433,982.75	1,698,019.55	39.74510206	-80.79507285
18,900.00	89.00	149.98	11,296.58	-3,451.19	2,144.26	14,433,896.17	1,698,069.57	39.74486398	-80.79489561
19,000.00	89.00	149.98	11,298.32	-3,537.76	2,194.28	14,433,809.60	1,698,119.59	39.74462591	-80.79471837
19,100.00	89.00	149.98	11,300.07	-3,624.33	2,244.29	14,433,723.02	1,698,169.61	39.74438784	-80.79454114
19,200.00	89.00	149.98	11,301.82	-3,710.91	2,294.31	14,433,636.45	1,698,219.63	39.74414977	-80.79436390
19,300.00	89.00	149.98	11,303.56	-3,797.48	2,344.33	14,433,549.88	1,698,269.64	39.74391169	-80.79418667
19,400.00	89.00	149.98	11,305.31	-3,884.06	2,394.35	14,433,463.30	1,698,319.66	39.74367362	-80.79400943
19,500.00	89.00	149.98	11,307.05	-3,970.63	2,444.37	14,433,376.73	1,698,369.68	39.74343555	-80.79383220
19,600.00	89.00	149.98	11,308.80	-4,057.21	2,494.39	14,433,290.15	1,698,419.70	39.74319747	-80.79365497
19,700.00	89.00	149.98	11,310.54	-4,143.78	2,544.41	14,433,203.58	1,698,469.72	39.74295940	-80.79347774
19,800.00	89.00	149.98	11,312.29	-4,230.35	2,594.43	14,433,117.01	1,698,519.74	39.74272132	-80.79330051
19,900.00	89.00	149.98	11,314.03	-4,316.93	2,644.44	14,433,030.43	1,698,569.76	39.74248325	-80.79312329
20,000.00	89.00	149.98	11,315.78	-4,403.50	2,694.46	14,432,943.86	1,698,619.77	39.74224517	-80.79294606
20,100.00	89.00	149.98	11,317.52	-4,490.08	2,744.48	14,432,857.28	1,698,669.79	39.74200710	-80.79276883



Planning Report - Geographic

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Burch Ridge 6 HU (slot F)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1313.00ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1313.00ft
Site:	Burch Ridge	North Reference:	Grid
Well:	Burch Ridge 6 HU (slot F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
20,200.00	89.00	149.98	11,319.27	-4,576.65	2,794.50	14,432,770.71	1,698,719.81	39.74176902	-80.79259161	
20,300.00	89.00	149.98	11,321.01	-4,663.22	2,844.52	14,432,684.14	1,698,769.83	39.74153095	-80.79241439	
20,400.00	89.00	149.98	11,322.76	-4,749.80	2,894.54	14,432,597.56	1,698,819.85	39.74129287	-80.79223717	
20,500.00	89.00	149.98	11,324.50	-4,836.37	2,944.56	14,432,510.99	1,698,869.87	39.74105479	-80.79205995	
20,600.00	89.00	149.98	11,326.25	-4,922.95	2,994.58	14,432,424.41	1,698,919.89	39.74081672	-80.79188273	
20,700.00	89.00	149.98	11,328.00	-5,009.52	3,044.59	14,432,337.84	1,698,969.90	39.74057864	-80.79170551	
20,800.00	89.00	149.98	11,329.74	-5,096.10	3,094.61	14,432,251.27	1,699,019.92	39.74034056	-80.79152829	
20,900.00	89.00	149.98	11,331.49	-5,182.67	3,144.63	14,432,164.69	1,699,069.94	39.74010248	-80.79135108	
21,000.00	89.00	149.98	11,333.23	-5,269.24	3,194.65	14,432,078.12	1,699,119.96	39.73986441	-80.79117387	
21,100.00	89.00	149.98	11,334.98	-5,355.82	3,244.67	14,431,991.54	1,699,169.98	39.73962633	-80.79099665	
21,200.00	89.00	149.98	11,336.72	-5,442.39	3,294.69	14,431,904.97	1,699,220.00	39.73938825	-80.79081944	
21,300.00	89.00	149.98	11,338.47	-5,528.97	3,344.71	14,431,818.40	1,699,270.02	39.73915017	-80.79064223	
21,400.00	89.00	149.98	11,340.21	-5,615.54	3,394.72	14,431,731.82	1,699,320.03	39.73891209	-80.79046502	
21,500.00	89.00	149.98	11,341.96	-5,702.11	3,444.74	14,431,645.25	1,699,370.05	39.73867401	-80.79028781	
21,600.00	89.00	149.98	11,343.70	-5,788.69	3,494.76	14,431,558.67	1,699,420.07	39.73843593	-80.79011061	
21,700.00	89.00	149.98	11,345.45	-5,875.26	3,544.78	14,431,472.10	1,699,470.09	39.73819785	-80.78993340	
21,800.00	89.00	149.98	11,347.19	-5,961.84	3,594.80	14,431,385.53	1,699,520.11	39.73795977	-80.78975620	
21,900.00	89.00	149.98	11,348.94	-6,048.41	3,644.82	14,431,298.95	1,699,570.13	39.73772169	-80.78957900	
22,000.00	89.00	149.98	11,350.69	-6,134.98	3,694.84	14,431,212.38	1,699,620.15	39.73748361	-80.78940179	
22,100.00	89.00	149.98	11,352.43	-6,221.56	3,744.86	14,431,125.80	1,699,670.17	39.73724553	-80.78922459	
22,200.00	89.00	149.98	11,354.18	-6,308.13	3,794.87	14,431,039.23	1,699,720.18	39.73700745	-80.78904739	
22,300.00	89.00	149.98	11,355.92	-6,394.71	3,844.89	14,430,952.66	1,699,770.20	39.73676937	-80.78887020	
22,400.00	89.00	149.98	11,357.67	-6,481.28	3,894.91	14,430,866.08	1,699,820.22	39.73653129	-80.78869300	
22,500.00	89.00	149.98	11,359.41	-6,567.86	3,944.93	14,430,779.51	1,699,870.24	39.73629320	-80.78851580	
22,600.00	89.00	149.98	11,361.16	-6,654.43	3,994.95	14,430,692.93	1,699,920.26	39.73605512	-80.78833861	
22,700.00	89.00	149.98	11,362.90	-6,741.00	4,044.97	14,430,606.36	1,699,970.28	39.73581704	-80.78816142	
22,800.00	89.00	149.98	11,364.65	-6,827.58	4,094.99	14,430,519.79	1,700,020.30	39.73557896	-80.78798422	
22,900.00	89.00	149.98	11,366.39	-6,914.15	4,145.01	14,430,433.21	1,700,070.31	39.73534087	-80.78780703	
23,000.00	89.00	149.98	11,368.14	-7,000.73	4,195.02	14,430,346.64	1,700,120.33	39.73510279	-80.78762984	
23,100.00	89.00	149.98	11,369.88	-7,087.30	4,245.04	14,430,260.06	1,700,170.35	39.73486471	-80.78745266	
23,200.00	89.00	149.98	11,371.63	-7,173.87	4,295.06	14,430,173.49	1,700,220.37	39.73462662	-80.78727547	
23,300.00	89.00	149.98	11,373.37	-7,260.45	4,345.08	14,430,086.92	1,700,270.39	39.73438854	-80.78709828	
23,400.00	89.00	149.98	11,375.12	-7,347.02	4,395.10	14,430,000.34	1,700,320.41	39.73415045	-80.78692110	
23,500.00	89.00	149.98	11,376.87	-7,433.60	4,445.12	14,429,913.77	1,700,370.43	39.73391237	-80.78674391	
23,600.00	89.00	149.98	11,378.61	-7,520.17	4,495.14	14,429,827.19	1,700,420.44	39.73367428	-80.78656673	
23,700.00	89.00	149.98	11,380.36	-7,606.75	4,545.16	14,429,740.62	1,700,470.46	39.73343620	-80.78638955	
23,800.00	89.00	149.98	11,382.10	-7,693.32	4,595.17	14,429,654.05	1,700,520.48	39.73319811	-80.78621237	
23,900.00	89.00	149.98	11,383.85	-7,779.89	4,645.19	14,429,567.47	1,700,570.50	39.73296003	-80.78603519	
24,000.00	89.00	149.98	11,385.59	-7,866.47	4,695.21	14,429,480.90	1,700,620.52	39.73272194	-80.78585802	
24,100.00	89.00	149.98	11,387.34	-7,953.04	4,745.23	14,429,394.32	1,700,670.54	39.73248385	-80.78568084	
24,200.00	89.00	149.98	11,389.08	-8,039.62	4,795.25	14,429,307.75	1,700,720.56	39.73224577	-80.78550366	
24,300.00	89.00	149.98	11,390.83	-8,126.19	4,845.27	14,429,221.18	1,700,770.57	39.73200768	-80.78532649	
24,400.00	89.00	149.98	11,392.57	-8,212.76	4,895.29	14,429,134.60	1,700,820.59	39.73176959	-80.78514932	
24,424.47	89.00	149.98	11,393.00	-8,233.95	4,907.52	14,429,113.42	1,700,832.83	39.73171134	-80.78510597	

PBHL/TD 24424.47 MD/11393.00 TVD

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Planning Report - Geographic

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Burch Ridge 6 HU (slot F)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1313.00ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1313.00ft
Site:	Burch Ridge	North Reference:	Grid
Well:	Burch Ridge 6 HU (slot F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
Burch Ridge 6 HU LP - plan misses target center by 0.01ft at 12335.40ft MD (11182.00 TVD, 2232.06 N, -1139.27 E) - Point	0.00	0.00	11,182.00	2,232.07	-1,139.26	14,439,579.42	1,694,786.06	39.76049190	-80.80653323
Burch Ridge 6 HU PBHL - plan hits target center - Point	0.00	0.00	11,393.00	-8,233.95	4,907.52	14,429,113.42	1,700,832.83	39.73171134	-80.78510597

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S	+E/-W		
		(ft)	(ft)		
500.00	500.00	0.00	0.00	KOP Begin 1°/100' build	
700.00	699.96	3.49	0.00	Begin 2.00° tangent	
1,300.41	1,300.00	24.44	0.00	Begin 1°/100' turn	
1,397.66	1,397.20	27.64	-0.80	Begin 2.00° tangent	
3,101.50	3,100.00	80.07	-28.85	Begin 2°/100' build/turn	
4,338.09	4,288.64	348.23	-172.98	Begin 25.12° tangent	
10,569.28	9,853.86	2,816.91	-1,500.28	Begin 6°/100' build/turn	
11,847.83	11,014.53	2,618.69	-1,365.44	Begin 8°/100' build/turn	
12,335.40	11,182.00	2,232.06	-1,139.27	Begin 89.00° lateral	
24,424.47	11,393.00	-8,233.95	4,907.52	PBHL/TD 24424.47 MD/11393.00 TVD	

RECEIVED
Office of Oil and Gas
MAR 13 2019
WV Department of
Environmental Protection

WW-9
(4/16)

API Number 47 - 051 - _____
Operator's Well No. Burch Ridge 6HU

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Tug Hill Operating, LLC OP Code 494510851

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

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: AST Tanks with proper containment will be used for staging fresh water for frac and flow back water

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

Proposed Disposal Method For Treated Pit Wastes:

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

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

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

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

Additives to be used in drilling medium? Barite for weight

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. All drill cuttings to be disposed of in a Landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? Wetzel County Sanitary Landfill (SWF-1021 / WV0109185) and Westmoreland Sanitary Landfill, LLC (SAN1405 / PA DEP EC#1386426)

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that ^{Office of Oil and Gas} ~~there are~~ significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Jim Pancake
Company Official (Typed Name) Jim Pancake
Company Official Title Vice President - Geoscience

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MAR 13 2019
WV Department of Environmental Protection

Subscribed and sworn before me this 27 day of FEBRUARY, 20 19

Maureen A Stead

Notary Public
Commonwealth of Pennsylvania - Notary Seal
MAUREEN A STEAD - Notary Public
Washington County
My Commission Expires Jan 28, 2023
Commission Number 1259926

My commission expires 1/28/23

Form WW-9

Operator's Well No. Burch Ridge 6HU

Tug Hill Operating, LLC

Proposed Revegetation Treatment: Acres Disturbed 17.06 acres Prevegetation pH 6.0

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2.5 Tons/acre

Seed Mixtures

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

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by:

Jan [Signature]

Comments:

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Office of Oil and Gas
MAR 13 2019
WV Department of
Environmental Protection

Title: Oil and Gas Inspector

Date: 2/27/19

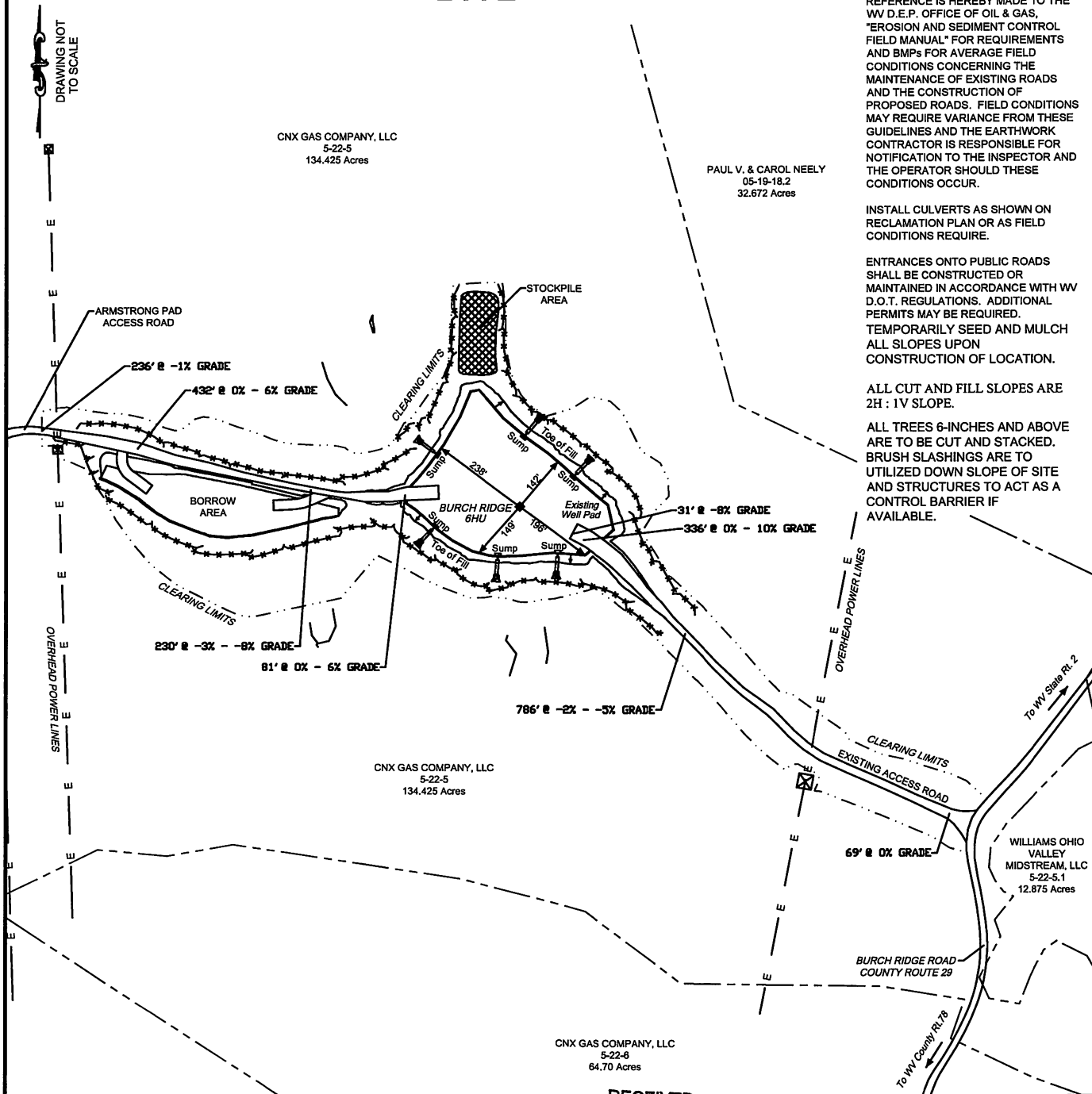
Field Reviewed? Yes

No

WW-9

**PROPOSED BURCH RIDGE
6HU**

SUPPLEMENT PG 1



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

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

ENTRANCES ONTO PUBLIC ROADS SHALL BE CONSTRUCTED OR MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. ADDITIONAL PERMITS MAY BE REQUIRED. TEMPORARILY SEED AND MULCH ALL SLOPES UPON CONSTRUCTION OF LOCATION.

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

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

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Office of Oil and Gas
MAR 13 2019
WV Department of
Environmental Protection

LEGEND

Note:
 (C) — Denotes existing culvert with appropriate sediment outlet control (Rip Rap splash pad).
 ***** Silt Fence and or Sediment and Erosion Control Measure.
 - - - - - Surface Boundary

4705102193



Well Site Safety Plan

Tug Hill Operating, LLC

JW
2/24/19

Well Name: Burch Ridge 6HU

Pad Location: Burch Ridge

Marshall County, West Virginia

UTM (meters), NAD83, Zone 17:

NORTHING -4,400,512.27

EASTING -516,919.07

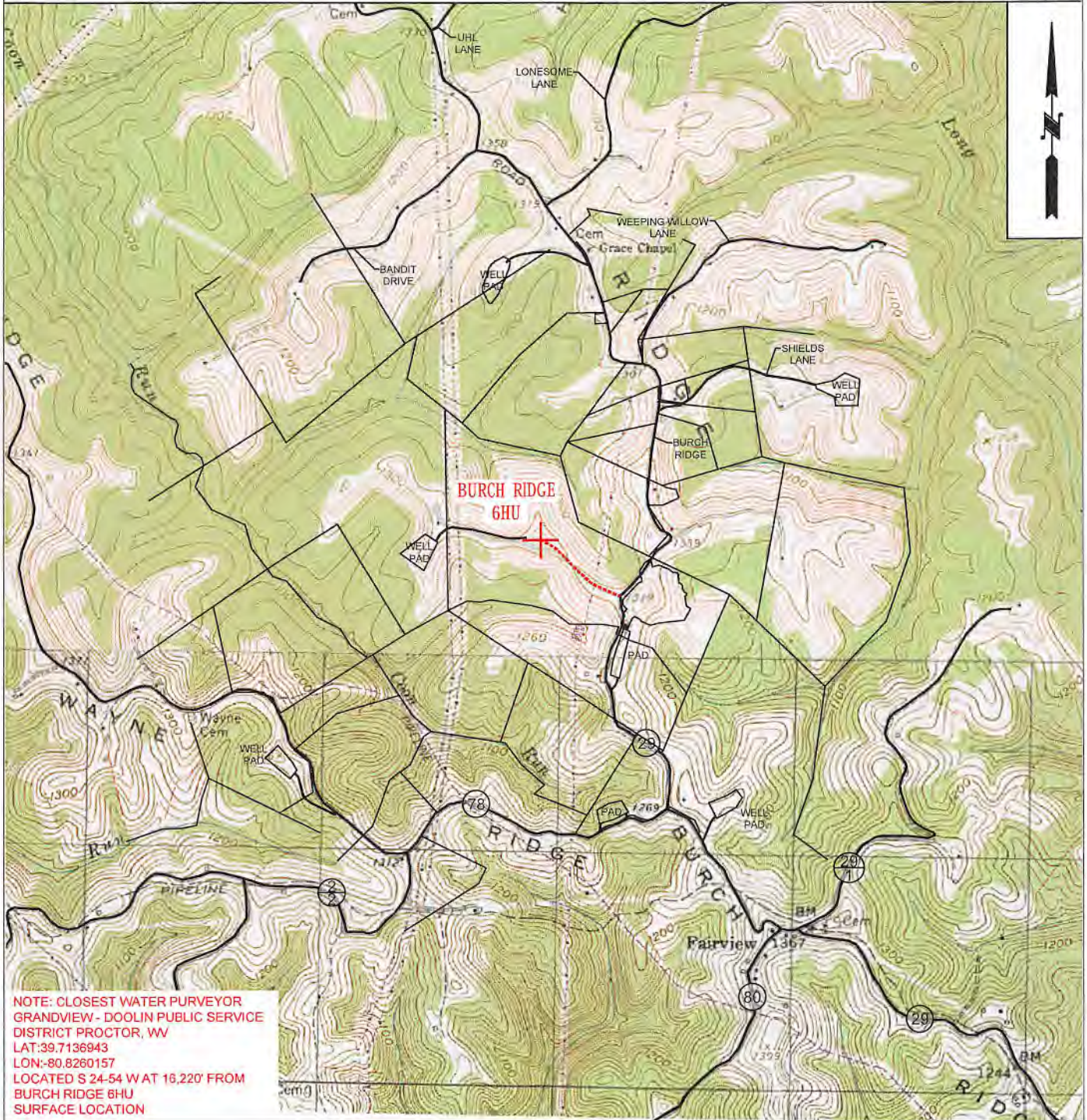
February 2019

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MAR 13 2019
WV Department of
Environmental Protection


WW-9

PROPOSED BURCH RIDGE 6HU

SUPPLEMENT PG 2



NOTE: CLOSEST WATER PURVEYOR
GRANDVIEW - DOOLIN PUBLIC SERVICE
DISTRICT PROCTOR, WV
LAT: 39.7136943
LON: -80.8260157
LOCATED S 24-54 W AT 16,220' FROM
BURCH RIDGE 6HU
SURFACE LOCATION

 TUG HILL OPERATING	OPERATOR	494510851	TOPO SECTION	LEASE NAME
	TUG HILL OPERATING, LLC 380 SOUTHPOINTE BLVD SUITE 200 CANONSBURG, PA 15317		POWHATAN POINT 7.5'	BURCH RIDGE
			SCALE: 1" = 2000'	DATE: DATE: 02-25-2019

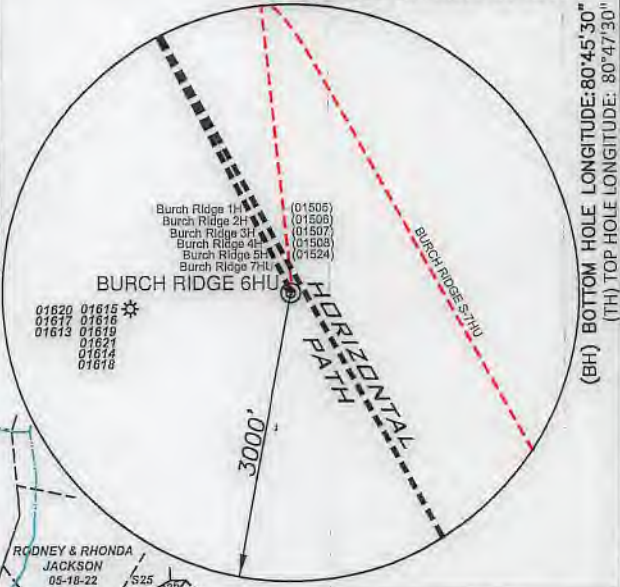
BURCH RIDGE LEASE WELL 6HU

388.9128± ACRES

NOTES

1. BORE PATH BASED ON GRID NORTH.
2. NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 825' OF PAD CENTER WERE FOUND.
3. OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN MARCH, 2017. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
4. WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
5. ALL DEEP WELLS WITHIN 3,000' OF LATERAL ARE SHOWN ON PLAT.

TOP HOLE LATITUDE: 39°47'30"
BOTTOM HOLE LATITUDE: 39°45'00"



LEGEND

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

SURFACE HOLE

UTM. NAD83, ZONE 17
IN METERS

N) 4,400,512.27
E) 516,919.07

LANDING POINT 1

UTM. NAD83, ZONE 17
IN METERS

N) 4,401,192.60
E) 516,571.82

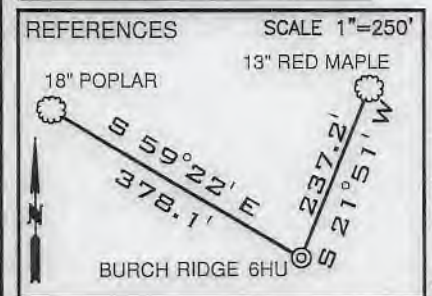
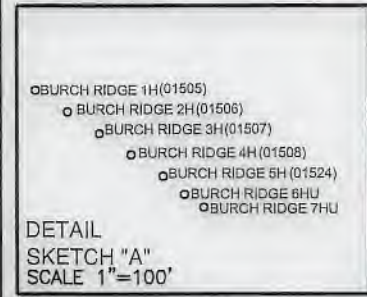
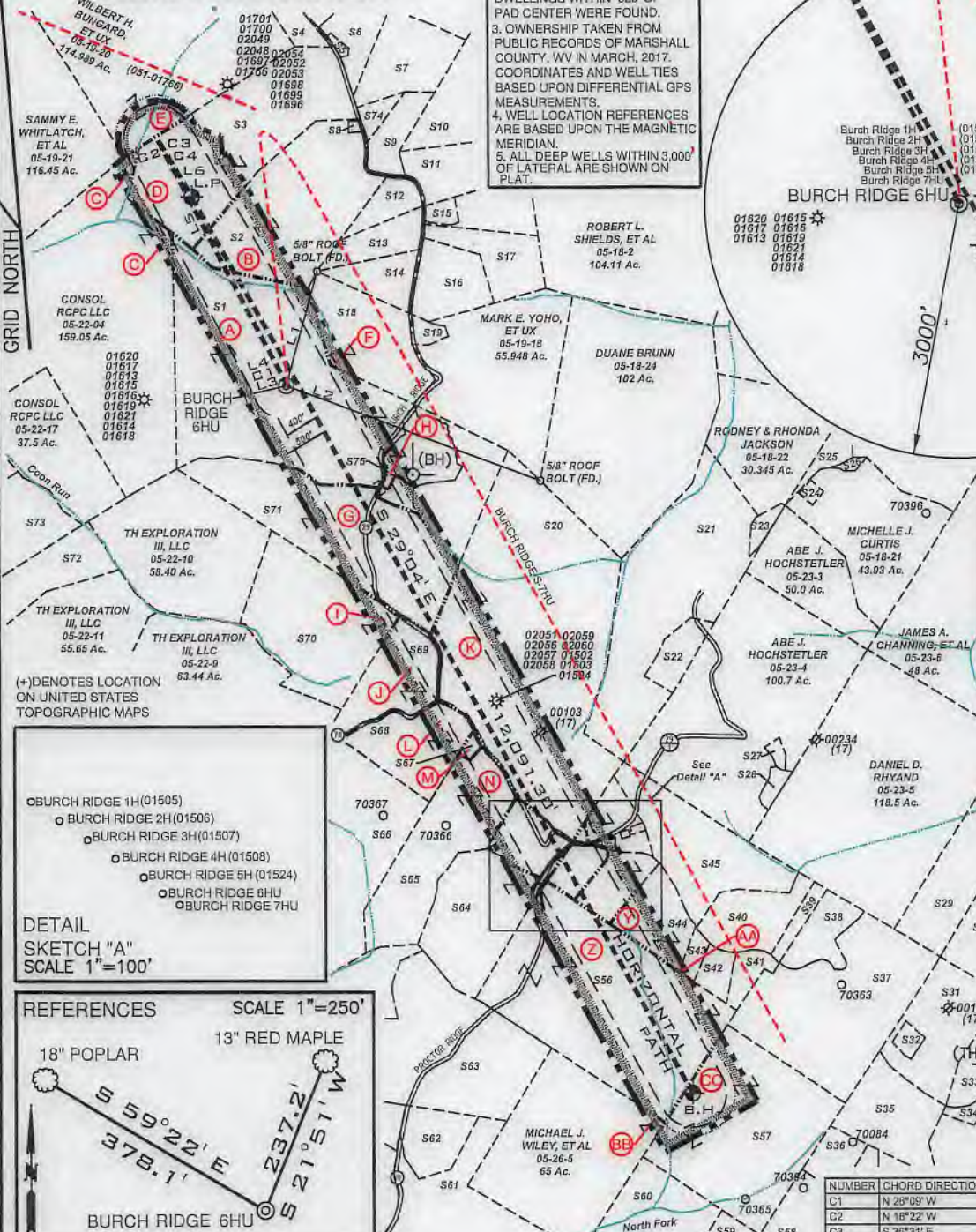
BOTTOM HOLE

UTM. NAD83, ZONE 17
IN METERS

N) 4,398,002.57
E) 518,414.88

LINE	BEARING	DISTANCE
L1	N 15°05' E	1407.19'
L2	S 69°37' E	3197.38'
L3	N 00°57' E	24.45'
L4	N 13°06' W	3.30'
L5	N 27°18' W	3167.84'
L6	S 29°18' E	365.37'

NUMBER	CHORD DIRECTION	CHORD LENGTH	RADIUS	ARC LENGTH
C1	N 28°09' W	95.24'	1576.00'	95.26'
C2	N 18°22' W	6.93'	18.28'	6.97'
C3	S 30°31' E	29.01'	91.59'	29.14'
C4	S 30°16' E	395.07'	7333.24'	395.12'



FILE NUMBER _____

DRAWING NUMBER: BURCH RIDGE 6HU_Rev 0

SCALE: 1" = 2000'

MINIMUM DEGREE OF ACCURACY: 1/200

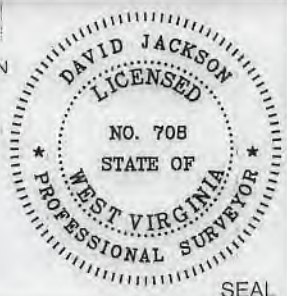
PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING
GRADE GPS

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



David L. Jackson

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



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

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

DATE: MARCH 07, 2019

OPERATORS WELL NO. BURCH RIDGE 6HU

API WELL NO. 47-051-02193 H6A

LOCATION ELEVATION 1310.39' WATERSHED (HUC 10) FRENCH CREEK - OHIO RIVER

DISTRICT FRANKLIN COUNTY MARSHALL

QUADRANGLE POWHATAN POINT 7.5' LEASE NUMBER SEE WW-6A1 FORM

STATE WV COUNTY WV PERMIT WV

SURFACE OWNER CONSOL RCPC LLC ACREAGE 134.425

OIL & GAS ROYALTY OWNER CNX GAS COMPANY LLC LEASE ACREAGE 134.425

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

TARGET FORMATION POINT PLEASANT ESTIMATED DEPTH TVD: 11,402' TMD: 24,424'

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER
CT CORPORATION SYSTEM

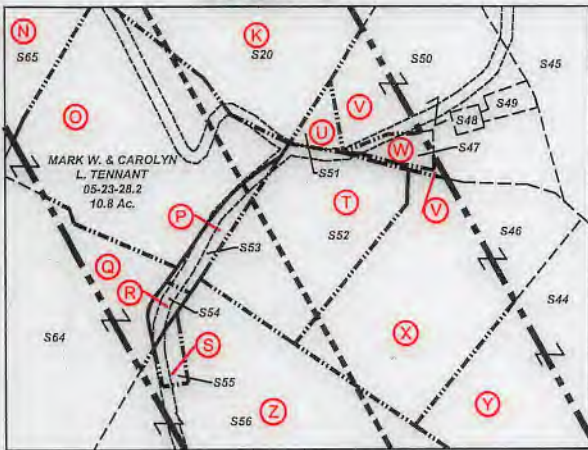
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS 5400 D BIG TYLER ROAD
FORT WORTH, TX 76107 CHARLESTON, WV 25313

COUNTY NAME
PERMIT

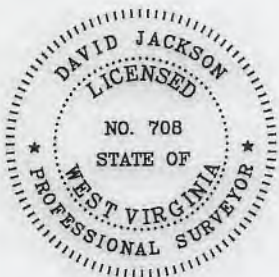
form wwg

**BURCH RIDGE LEASE
WELL 6HU
388.9128± ACRES**

Detail "A"



Number	TAX MAP -PARCEL	SURFACE OWNER	ACRES
S1	A 05-22-05	Consol RPCC LLC.	134.425
S2	B 05-19-28	David E. Yoho & Mark E. Yoho	56.899
S3	D 05-19-19	Russell Blake, et ux	66.4
S4	05-19-09	Penny Elaine Mezendez	10.44
S5	05-19-15	B.J. Herran Revocable Trust	0.72
S6	05-19-29	Ernie L. & Tammy L. Anderson	10.961
S7	05-19-30	Ernie & Tammy Anderson	19.037
S8	05-19-32	Jasper N. Burch, et al - Trustees	0.397
S9	05-19-31	Charles F. & Diana L. Haynes	8.779
S10	05-18-01	Diana Henry Haynes & Carol C. Henry	62.908
S11	05-19-14	James & Sherry Beegle	18.356
S12	05-19-27	David E. Yoho & Mark E. Yoho	7.041
S13	05-19-26	Roger J. & Beth E. James	9.977
S14	05-19-25	David E. Yoho & Mark E. Yoho	9.976
S15	05-19-16.1	Robert L. & Rebecca A. Shields	2.307
S16	05-19-24	Mark E. Yoho	15.436
S17	05-19-17	Mark E. Yoho	15.263
S18	F 05-19-18.2	Paul V. & Carol Neely	32.672
S19	05-19-18.1	Mark E. Yoho, et ux	2.57
S20	K 05-23-01	Patricia Accetolo, et al	146.66
S21	05-23-02	Daniel J. & Danielle D. Lilley	70.0
S22	05-23-2.2	Jessica N. & Andrew L. Jones	77.636
S23	05-23-2.1	William L. & Janice M. Wayne	2.364
S24	05-18-21	David P. Lassar, Life and David P. Lassar II & Julius L. Lassar	1.0
S25	05-18-21.1	Rodney & Rhonda Jackson	5.47
S26	05-18-21.3	T.H. Exploration III, LLC	0.811
S27	05-23-4.2	XCL Midstream Operating, LLC	1.17
S28	05-23-4.1	XCL Midstream Operating, LLC	2.16
S29	05-23-08	Carl David & Suzanne L. Guseman	29.5
S30	05-23-9.3	Linda D. Greathouse	17.5
S31	05-23-9.2	Linda D. Greathouse	25.58
S32	05-23-9.4	Jackson R. Sr. & Deanna L. Davis	2.087
S33	05-23-13	Linda D. Greathouse	14.24
S34	05-23-12	Mark A. Yoho	3.05
S35	05-23-9.1	John W. Van Orden, et ux	23.376
S36	05-26-22	Richard Joseph Otte, et ux	8.3
S37	05-23-14	Dominion Transmission, Inc.	59.5
S38	05-23-15	Henry Virginia Ethel, Est	15.5
S39	05-23-16.1	Donald B. Henry	1.97
S40	05-23-16	Roy Friend Yoho, Sr.	18.03
S41	05-23-17.3	William & Katherine Flewelling	5.018
S42	05-23-17	Tammy & Thomas E. Brown	4.62
S43	AA 05-23-17.4	Tammy D. Meadows	2.605
S44	Y 05-23-17.2	Dick Jr. & Carol J. Rowan	14.920
S45	05-23-18	Abe J. Hochstetter	35.38
S46	X 05-23-17.1	Curtis E. Hall, et ux	10.051
S47	W 05-23-21	Mark A. Yoho & Mark E. Yoho	0.588
S48	05-23-20	Christan Church	0.19
S49	05-23-19	DOTY Cemetery	1.0
S50	V 05-23-18.1	Mark A. Yoho	7.8
S51	U 05-23-29	James Wiley	0.25
S52	T 05-23-22	Daniel D. Rhyand & Laurel R. Greene	6.25
S53	P 05-23-23	Michael J. Wiley, et al	1.0
S54	R 05-23-24	Michael J. Wiley, et al	0.25
S55	S 05-23-25	Arthur A. Wiley	0.43
S56	Z 05-23-26	Michael J. Wiley, et al	101.57
S57	CC 05-26-07	Dominion Transmission, Inc.	71.0
S58	05-26-23	Richard Joseph Otte, et ux	11.34
S59	05-26-17	Heartland Forestland Fund VII, LP	82.56
S60	05-26-06	Heartland Forestland Fund VII, LP	36.17
S61	05-26-4.4	Otis F. & Glenda M. Rush	39.436
S62	05-26-4.6	Otis F. Rush, Jr.	12.268
S63	05-26-02	Edwin Booth Anderson & Mark W. Booth	67.5
S64	Q 05-23-27	Michael J. Wiley, et al	33.140
S65	N 05-23-28	Gregg D. Minor	39.43
S66	05-28-05	T.H. Exploration III, LLC.	105.9
S67	M 05-23-28.1	Troy W. & Erin M. Thomas	1.0
S68	L 05-22-07	Patricia Accetolo, et al	25.02
S69	J 05-22-7.1	T.H. Exploration II, LLC & Atinum Marcellus I, LLC	20.68
S70	I 05-22-08	T.H. Exploration III, LLC.	48.44
S71	G 05-22-06	Consol RPCC LLC.	64.70
S72	05-22-12	T.H. Exploration III, LLC.	61.49
S73	05-22-16	Edward R. Toho, Jr.	57.0
S74	05-19-30.1	Eric R. W. & Ashley A. Huggins	2.911
S75	H 05-22-5.1	Williams Ohio Valley Midstream, LLC	12.875



P.S.
708

David L Jackson

47-051-02193 H6A



**TUG HILL
OPERATING**

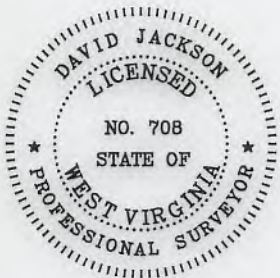
OPERATOR'S
WELL #: Burch Ridge 6HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: 47-051-

WELL PLAT
PAGE 2 OF 3
DATE: 03/07/2019

FORM WVA 6

**BURCH RIDGE LEASE
WELL 6HU
388.9128± ACRES**

Lease No.	Tags	Parcel	Oil & Gas Royalty Owner	Book	Page
10*19529	A	5-22-5	CNX GAS COMPANY LLC	945	175
10*14297	B	5-19-28	MARK E. YOHO AND DAVID E. YOHO	655	547
10*14033 , ET AL	C	5-22-4	LAMOYNE BAKER, ET AL	665	554
10*14634	D	5-19-19	RUSSELL BLAKE & MARY BLAKE	773	568
10*14141	E	5-19-20	DAVID TAKACH AND WIFE DEBORAH	720	233
10*14421	F	5-19-18.2	PAUL V NEELY AND CAROL J NEELY	728	277
10*16471	G	5-22-6	CNX GAS COMPANY LLC	905	155
10*19529	H	5-22-5.1	CNX GAS COMPANY LLC	945	175
10*14418	I	5-22-8	PPG INDUSTRIES, INC.	878	610
10*14128	J	5-22-7.1	LOUIS J ACCETTOLO AND PATRICIA	703	280
10*14129	K	5-23-1	JESSE P. MCHENRY, ET UX	703	283
10*14128	L	5-22-7	JESSE P. MCHENRY, ET UX	703	280
10*19720	M	5-23-28.1	TROY W THOMAS & ERIN M AMOS-THOMAS	912	94
10*21218 , ET AL	N	5-23-28	GREGG D MINOR, ET AL	952	647
10*17190	O	5-23-28.2	MARK W. TENNANT CAROLYN L TENNANT	715	570
10*17716	P	5-23-23	MICHAEL J AND BARBARA L WILEY	919	638
10*23817 , ET AL	Q	5-23-27	HELENA F. NEWMAN, ET AL	1015	149
10*23817 , ET AL	R	5-23-24	HELENA F. NEWMAN, ET AL	1015	149
10*21821 , ET AL	S	5-23-25	LINDA K TAYLOR AND RAY P MAGEE, ET AL	951	631
10*14944	T	5-23-22	HERBERT D MINOR	722	511
10*14849 , ET AL	U	5-23-29	DAVID GUSTELY, ET AL	806	265
10*24917 , ET AL	V	5-23-18.1	WALTER AND CONNIE J STREIGHT, ET AL	1027	95
10*14849 , ET AL	W	5-23-21	DAVID GUSTELY, ET AL	806	265
10*24917 , ET AL	X	5-23-17.1	WALTER AND CONNIE J STREIGHT, ET AL	1027	95
10*14847 , ET AL	Y	5-23-17.2	LETHA RUCKMAN, ET AL	806	270
10*21821 , ET AL	Z	5-23-26	LINDA K TAYLOR AND RAY P MAGEE, ET AL	951	631
10*14847 , ET AL	AA	5-23-17.4	LETHA RUCKMAN, ET AL	806	270
10*21821 , ET AL	BB	5-26-5	LINDA K TAYLOR AND RAY P MAGEE, ET AL	951	631
10*18343	CC	5-26-7	DOMINION ENERGY TRANSMISSION INC	936	79



P.S.
708

David L Jackson

47-051-02193 H6A



TUG HILL
OPERATING

OPERATOR'S
WELL #: Burch Ridge 6HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: 47-051-

WELL PLAT
PAGE 3 OF 3
DATE: 03/07/2019

WW-6A1 Supplement

Operator's Well No. Burch Ridge S-6HU

Lease No.	Tags	Parcel	Lessor	Lessee	Royalty	Book	Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	
10*19529	A	5-22-5	CNX GAS COMPANY LLC	TH EXPLORATION, LLC	1/8+	945	175	NA	NA	NA	NA	NA	NA	
10*14297	B	5-19-28	MARK E. YOHO AND DAVID E. YOHO	TRIENERGY, INC.	1/8+	655	547	19/623 TriEnergy, Inc to AB Resources, LLC	666/40 AB Resources LLC to Chief Exploration & Development LLC	21/148 TriEnergy Inc to TriEnergy Holdings LLC	21/520 Chief Exploration & Development LLC and Radler 2000 Limited Partnership to Enerplus Resources (USA) Corp	24/39 AB Resources LLC, Chief Exploration & Development LLC, Radler 2000 Limited Partnership and Enerplus Resources (USA) Corp to Gastar Exploration USA inc and Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration Inc to TH Exploration II, LLC
10*14033	C	5-22-4	LAMOYNE BAKER	GASTAR EXPLORATION USA, INC	1/8+	665	554	NA	NA	NA	NA	NA	23/353 Gastar Exploration USA, Inc to Atinum Marcellus I LLC	36/9 Gastar Exploration Inc and TH Exploration II LLC
10*14034	C	5-22-4	LAWRENCE C MCWHORTER AND LORRAINE J	GASTAR EXPLORATION USA, INC	1/8+	665	391	NA	NA	NA	NA	NA	23/353 Gastar Exploration USA, Inc to Atinum Marcellus I LLC	36/9 Gastar Exploration Inc and TH Exploration II LLC
10*14035	C	5-22-4	PEGGY MAE WHITE	GASTAR EXPLORATION USA, INC	1/8+	695	446	NA	NA	NA	NA	NA	23/353 Gastar Exploration USA, Inc to Atinum Marcellus I LLC	36/9 Gastar Exploration Inc and TH Exploration II LLC
10*14036	C	5-22-4	WILDA WINTERS	GASTAR EXPLORATION USA, INC	1/8+	701	579	NA	NA	NA	NA	NA	23/353 Gastar Exploration USA, Inc to Atinum Marcellus I LLC	36/9 Gastar Exploration Inc and TH Exploration II LLC
10*14037	C	5-22-4	JUDITH CHAMBERS	GASTAR EXPLORATION USA, INC	1/8+	701	577	NA	NA	NA	NA	NA	23/353 Gastar Exploration USA, Inc to Atinum Marcellus I LLC	36/9 Gastar Exploration Inc and TH Exploration II LLC
10*14039	C	5-22-4	CHESTNUT HOLDINGS, INC.	GASTAR EXPLORATION, INC	1/8+	827	554	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration Inc and TH Exploration II LLC
10*14634	D	5-19-19	RUSSELL BLAKE & MARY BLAKE	GASTAR EXPLORATION USA, INC	1/8+	773	568	NA	NA	NA	NA	28/499 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration, Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14141	E	5-19-20	DAVID TAKACH AND WIFE DEBORAH	GASTAR EXPLORATION USA, INC	1/8+	720	233	NA	NA	NA	NA	735/263 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration Inc to TH Exploration II, LLC

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10*14421	F	5-19-18.2	PAUL V NEELY AND CAROL J NEELY	GASTAR EXPLORATION USA, INC	1/8+	728	277	NA	NA	NA	NA	735/263 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration Inc to TH Exploration II, LLC
10*16471	G	5-22-6	CNX GAS COMPANY LLC	TH EXPLORATION, LLC	1/8+	905	155	NA	NA	NA	NA	NA	NA	NA
10*19529	H	5-22-5.1	CNX GAS COMPANY LLC	TH EXPLORATION, LLC	1/8+	945	175	NA	NA	NA	NA	NA	NA	NA
10*14418	I	5-22-8	PPG INDUSTRIES, INC.	GASTAR EXPLORATION INC	1/8+	878	610	NA	NA	NA	NA	NA	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration Inc to TH Exploration II, LLC
10*14128	J	5-22-7.1	LOUIS J ACCETTOLO AND PATRICIA	GASTAR EXPLORATION USA, INC	1/8+	703	280	NA	NA	NA	NA	23/353 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration, Inc	36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*14129	K	5-23-1	JESSE P. MCHENRY, ET UX	GASTAR EXPLORATION USA, INC	1/8+	703	283	NA	NA	NA	NA	23/353 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration, Inc	36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*14128	L	5-22-7	JESSE P. MCHENRY, ET UX	GASTAR EXPLORATION USA, INC	1/8+	703	280	NA	NA	NA	NA	23/353 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration, Inc	36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*19720	M	5-23-28.1	TROY W THOMAS & ERIN M AMOS-THOMAS	AMERICAN PETROLEUM PARTNERS LLC	1/8+	912	94	NA	NA	NA	NA	NA	NA	40/408 American Petroleum Partners Operating LLC to TH Exploration LLC
10*21218	N	5-23-28	GREGG D MINOR	TH EXPLORATION, LLC	1/8+	952	647	NA	NA	NA	NA	NA	NA	NA
10*22330	N	5-23-28	GREGG D MINOR	TH EXPLORATION, LLC	1/8+	963	156	NA	NA	NA	NA	NA	NA	NA
10*17190	O	5-23-28.2	MARK W. TENNANT CAROLYN L. TENNANT	CHESAPEAKE APPALACHIA, LLC	1/8+	715	570	NA	29/325 Chesapeake Appalachia, LLC to Statoil USA Onshore Properties, Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil USA Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC	41/238 Statoil USA Onshore Properties Inc to TH Exploration LLC
10*17716	P	5-23-23	MICHAEL J AND BARBARA L WILEY	TH EXPLORATION, LLC	1/8+	919	638	NA	NA	NA	NA	NA	NA	NA

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10*17777	P	5-23-23	MICHELLE E AND ROBERT T BAKER	TH EXPLORATION, LLC	1/8+	921	128	NA	NA	NA	NA	NA	NA
10*14710	Q	5-23-27	ROBERT L FRIEDLY	GASTAR EXPLORATION USA, INC	1/8+	800	408	NA	NA	NA	NA	NA	21/41 Gastar Exploration USA Inc to Gastar Exploration, Inc 36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*19421	Q	5-23-27	CAYCE DAVENPORT FRIEDLY	TH EXPLORATION, LLC	1/8+	940	262	NA	NA	NA	NA	NA	NA
10*19721	Q	5-23-27	MARK FRIEDLY AND ANNA FRIEDLY	TH EXPLORATION, LLC	1/8+	944	579	NA	NA	NA	NA	NA	NA
10*22019	Q	5-23-27	BARBARIE HILL	TH EXPLORATION, LLC	1/8+	960	548	NA	NA	NA	NA	NA	NA
10*22444	Q	5-23-27	MICHELLE E BAKER	TH EXPLORATION, LLC	1/8+	963	642	NA	NA	NA	NA	NA	NA
10*22445	Q	5-23-27	MICHAEL J WILEY	TH EXPLORATION, LLC	1/8+	963	640	NA	NA	NA	NA	NA	NA
10*22558	Q	5-23-27	JOLINE FRIEDLY REINHART	TH EXPLORATION, LLC	1/8+	965	608	NA	NA	NA	NA	NA	NA
10*23817	Q	5-23-27	HELENA F. NEWMAN, ET AL	TH EXPLORATION, LLC	1/8+	1015	149	NA	NA	NA	NA	NA	NA
10*23817	R	5-23-24	HELENA F. NEWMAN, ET AL	TH EXPLORATION, LLC	1/8+	1015	149	NA	NA	NA	NA	NA	NA
10*19855	R	5-23-24	MARK FRIEDLY AND ANNA FRIEDLY	TH EXPLORATION, LLC	1/8+	946	27	NA	NA	NA	NA	NA	NA
10*22019	R	5-23-24	BARBARIE HILL	TH EXPLORATION, LLC	1/8+	960	548	NA	NA	NA	NA	NA	NA
10*22588	R	5-23-24	JOLINE FRIEDLY REINHART	TH EXPLORATION, LLC	1/8+	965	606	NA	NA	NA	NA	NA	NA
10*14742	S	5-23-25	SUSAN GORE	GASTAR EXPLORATION USA, INC	1/8+	790	505	NA	NA	NA	NA	NA	21/41 Gastar Exploration USA Inc to Gastar Exploration, Inc 36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*14744	S	5-23-25	THE SAMUEL MILTON SHEETS TRUST	GASTAR EXPLORATION USA, INC	1/8+	791	637	NA	NA	NA	NA	29/157 Gastar Exploration USA Inc to Atinum Marcellus I LLC 21/41 Gastar Exploration USA Inc to Gastar Exploration Inc 36/9 Gastar Exploration, Inc. to TH Exploration II, LLC	

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10*17777	P	5-23-23	MICHELLE E AND ROBERT T BAKER	TH EXPLORATION, LLC	1/8+	921	128	NA	NA	NA	NA	NA	NA
10*14710	Q	5-23-27	ROBERT L FRIEDLY	GASTAR EXPLORATION USA, INC	1/8+	800	408	NA	NA	NA	NA	NA	21/41 Gastar Exploration USA Inc to Gastar Exploration, Inc 36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*19421	Q	5-23-27	CAYCE DAVENPORT FRIEDLY	TH EXPLORATION, LLC	1/8+	940	262	NA	NA	NA	NA	NA	NA
10*19721	Q	5-23-27	MARK FRIEDLY AND ANNA FRIEDLY	TH EXPLORATION, LLC	1/8+	944	579	NA	NA	NA	NA	NA	NA
10*22019	Q	5-23-27	BARBARIE HILL	TH EXPLORATION, LLC	1/8+	960	548	NA	NA	NA	NA	NA	NA
10*22444	Q	5-23-27	MICHELLE E BAKER	TH EXPLORATION, LLC	1/8+	963	642	NA	NA	NA	NA	NA	NA
10*22445	Q	5-23-27	MICHAEL J WILEY	TH EXPLORATION, LLC	1/8+	963	640	NA	NA	NA	NA	NA	NA
10*22558	Q	5-23-27	JOLINE FRIEDLY REINHART	TH EXPLORATION, LLC	1/8+	965	608	NA	NA	NA	NA	NA	NA
10*23817	Q	5-23-27	HELENA F. NEWMAN, ET AL	TH EXPLORATION, LLC	1/8+	1015	149	NA	NA	NA	NA	NA	NA
10*23817	R	5-23-24	HELENA F. NEWMAN, ET AL	TH EXPLORATION, LLC	1/8+	1015	149	NA	NA	NA	NA	NA	NA
10*19855	R	5-23-24	MARK FRIEDLY AND ANNA FRIEDLY	TH EXPLORATION, LLC	1/8+	946	27	NA	NA	NA	NA	NA	NA
10*22019	R	5-23-24	BARBARIE HILL	TH EXPLORATION, LLC	1/8+	960	548	NA	NA	NA	NA	NA	NA
10*22588	R	5-23-24	JOLINE FRIEDLY REINHART	TH EXPLORATION, LLC	1/8+	965	606	NA	NA	NA	NA	NA	NA
10*14742	S	5-23-25	SUSAN GORE	GASTAR EXPLORATION USA, INC	1/8+	790	505	NA	NA	NA	NA	NA	21/41 Gastar Exploration USA Inc to Gastar Exploration, Inc 36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*14744	S	5-23-25	THE SAMUEL MILTON SHEETS TRUST	GASTAR EXPLORATION USA, INC	1/8+	791	637	NA	NA	NA	NA	29/157 Gastar Exploration USA Inc to Atinum Marcellus I LLC 21/41 Gastar Exploration USA Inc to Gastar Exploration Inc 36/9 Gastar Exploration, Inc. to TH Exploration II, LLC	

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10*14745	S	5-23-25	RALPH B. TAYLOR	GASTAR EXPLORATION USA, INC	1/8+	794	485	NA	NA	NA	NA	30/136 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*17716	S	5-23-25	MICHAEL J AND BARBARA L WILEY	TH EXPLORATION, LLC	1/8+	919	638	NA	NA	NA	NA	NA	NA	NA
10*17777	S	5-23-25	MICHELLE E AND ROBERT T BAKER	TH EXPLORATION, LLC	1/8+	921	128	NA	NA	NA	NA	NA	NA	NA
10*21420	S	5-23-25	DAVID D BURKETT	TH EXPLORATION, LLC	1/8+	957	3	NA	NA	NA	NA	NA	NA	NA
10*21421	S	5-23-25	BRYANNA FLYNN RANKIN	TH EXPLORATION, LLC	1/8+	957	5	NA	NA	NA	NA	NA	NA	NA
10*21437	S	5-23-25	REBECCA MCMILLAN AND ROBERT MCMILLAN	TH EXPLORATION, LLC	1/8+	957	1	NA	NA	NA	NA	NA	NA	NA
10*21821	S	5-23-25	LINDA K TAYLOR AND RAY P MAGEE	TH EXPLORATION, LLC	1/8+	951	631	NA	NA	NA	NA	NA	NA	NA
10*14944	T	5-23-22	HERBERT D MINOR	TRIENERGY HOLDINGS, LLC	1/8+	722	511	25/463 TriEnergy Holdings, LLC to NPAR, LLC	26/269 NPAR, LLC to Chevron USA, Inc	756/307 NPAR, LLC to Chevron USA, Inc	28/356 TriEnergy Holdings, LLC and TriEnergy, Inc to Chevron USA, Inc	32/355 Chevron USA, Inc to Gastar Exploration Inc and Atinum Marcellus I LLC	32/370 Chevron USA, Inc to Gastar Exploration Inc and Atinum Marcellus I LLC	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14849	U	5-23-29	DAVID GUSTELY	GASTAR EXPLORATION USA, INC	1/8+	806	265	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14853	U	5-23-29	DURWOOD WRIGHT	GASTAR EXPLORATION USA, INC	1/8+	809	507	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14861	U	5-23-29	NANCY WHITLATCH	GASTAR EXPLORATION USA, INC	1/8+	809	526	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14862	U	5-23-29	ANN GUSTELY	GASTAR EXPLORATION USA, INC	1/8+	809	568	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14864	U	5-23-29	CAROLYN DURWAY	GASTAR EXPLORATION USA, INC	1/8+	810	330	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14866	U	5-23-29	GARY CARMICHAEL	GASTAR EXPLORATION USA, INC	1/8+	810	316	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC

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10*14868	U	5-23-29	WOODROW CAMPBELL, JR.	GASTAR EXPLORATION USA, INC	1/8+	813	454	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14869	U	5-23-29	RALPH VAUGHN TAYLOR	GASTAR EXPLORATION USA, INC	1/8+	813	561	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14870	U	5-23-29	DAVID CARMICHAEL	GASTAR EXPLORATION USA, INC	1/8+	816	16	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14872	U	5-23-29	DWG OIL & GAS ACQUISITIONS LLC	GASTAR EXPLORATION USA, INC	1/8+	817	312	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14873	U	5-23-29	RAYMOND MILLER	GASTAR EXPLORATION INC	1/8+	821	44	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14874	U	5-23-29	RICHARD MILLER	GASTAR EXPLORATION INC	1/8+	822	260	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14875	U	5-23-29	DAVID DRAKE	GASTAR EXPLORATION INC	1/8+	827	273	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14876	U	5-23-29	SHIRLEY LARGENT	GASTAR EXPLORATION INC	1/8+	827	228	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14877	U	5-23-29	GARY OBLOY	GASTAR EXPLORATION INC	1/8+	836	112	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14878	U	5-23-29	ARTHUR BRUCE COULTER	GASTAR EXPLORATION INC	1/8+	839	519	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14879	U	5-23-29	THERESA RINE	GASTAR EXPLORATION INC	1/8+	840	162	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14880	U	5-23-29	IRIS LUCAS	GASTAR EXPLORATION INC	1/8+	849	545	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14881	U	5-23-29	MARY WHITLATCH	GASTAR EXPLORATION INC	1/8+	849	548	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14882	U	5-23-29	GARY RINE	GASTAR EXPLORATION INC	1/8+	849	551	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC

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10*14883	U	5-23-29	PAUL WISE	GASTAR EXPLORATION INC	1/8+	852	252	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14884	U	5-23-29	RENEE HAGERTY	GASTAR EXPLORATION INC	1/8+	852	255	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14885	U	5-23-29	HOWARD RINE	GASTAR EXPLORATION INC	1/8+	854	601	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14886	U	5-23-29	JODI YOHO	GASTAR EXPLORATION INC	1/8+	854	604	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14887	U	5-23-29	CHRISTINA ROBERTS	GASTAR EXPLORATION INC	1/8+	867	392	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14888	U	5-23-29	DARLENE BUTLER	GASTAR EXPLORATION INC	1/8+	867	395	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14889	U	5-23-29	HAROLD YOHO	GASTAR EXPLORATION INC	1/8+	870	37	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14890	U	5-23-29	HENRY MALONE JR	GASTAR EXPLORATION INC	1/8+	870	40	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14891	U	5-23-29	NANCY F FYE AND STEPHEN M FYE	GASTAR EXPLORATION INC	1/8+	885	606	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*16034	U	5-23-29	GASTON FAMILY INVESTMENTS LLC	TH EXPLORATION, LLC	1/8+	902	163	NA	NA	NA	NA	NA	NA	NA
10*16648	U	5-23-29	GASTAR EXPLORATION USA INC	TH EXPLORATION, LLC	1/8+	894	278	NA	NA	NA	NA	NA	NA	NA
10*17145	U	5-23-29	JAMES J. CAMPBELL BETTY J. CAMPBELL	CHESAPEAKE APPALACHIA, LLC	1/8+	685	458	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17146	U	5-23-29	CAROLYN CAMPBELL BRITTON ROBERT C. BRITTON	CHESAPEAKE APPALACHIA, LLC	1/8+	685	464	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17147	U	5-23-29	JOANN J. PARSONS GARY D. PARSONS	CHESAPEAKE APPALACHIA, LLC	1/8+	685	470	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC

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10*17148	U	5-23-29	DONALD E. CAMPBELL JUNE L. CAMPBELL	CHESAPEAKE APPALACHIA, LLC	1/8+	685	476	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17149	U	5-23-29	WANDA M. BLAKE	CHESAPEAKE APPALACHIA, LLC	1/8+	685	482	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17150	U	5-23-29	IDA L. CAMPBELL	CHESAPEAKE APPALACHIA, LLC	1/8+	685	488	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17502	U	5-23-29	PATRICIA E GUSTELY DONALD'S BOBOVNIK AND DOLORES J BOBOVNIK	TH EXPLORATION, LLC	1/8+	942	334	NA	NA	NA	NA	NA	NA	NA
10*17532	U	5-23-29	RONALD L MAYER AND DEBRA A MAYER	TH EXPLORATION, LLC	1/8+	942	346	NA	NA	NA	NA	NA	NA	NA
10*17535	U	5-23-29	JOANN HAGERTY	TH EXPLORATION, LLC	1/8+	929	580	NA	NA	NA	NA	NA	NA	NA
10*17539	U	5-23-29	REBECCA HAGERTY	TH EXPLORATION, LLC	1/8+	942	342	NA	NA	NA	NA	NA	NA	NA
10*17593	U	5-23-29	MEGAN HAGERTY	TH EXPLORATION, LLC	1/8+	942	350	NA	NA	NA	NA	NA	NA	NA
10*17594	U	5-23-29	THOMAS E RINE AND MARY P RINE	TH EXPLORATION, LLC	1/8+	942	362	NA	NA	NA	NA	NA	NA	NA
10*17595	U	5-23-29	PATRICIA A GARCAR	TH EXPLORATION, LLC	1/8+	942	8	NA	NA	NA	NA	NA	NA	NA
10*17640	U	5-23-29	NORMA J ASH	TH EXPLORATION, LLC	1/8+	942	8	NA	NA	NA	NA	NA	NA	NA
10*17679	U	5-23-29	DAVID E CHURCH	TH EXPLORATION, LLC	1/8+	944	130	NA	NA	NA	NA	NA	NA	NA
10*17680	U	5-23-29	WALTER E LOSEY AND CINDY L LOSEY	TH EXPLORATION, LLC	1/8+	942	424	NA	NA	NA	NA	NA	NA	NA
10*17681	U	5-23-29	JAMES E GARLOCH AND MARY K GARLOCH	TH EXPLORATION, LLC	1/8+	942	338	NA	NA	NA	NA	NA	NA	NA
10*17682	U	5-23-29			1/8+	935	68	NA	NA	NA	NA	NA	NA	NA

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10*17683	U	5-23-29	PATRICK HAGERTY AND DALANE HAGERTY	TH EXPLORATION, LLC	1/8+	942	358	NA	NA	NA	NA	NA	NA	NA
10*17715	U	5-23-29	ROBERT A SANDS AND JOYCE A SANDS	TH EXPLORATION, LLC	1/8+	942	354	NA	NA	NA	NA	NA	NA	NA
10*17719	U	5-23-29	ROBERT R DARROW	TH EXPLORATION, LLC	1/8+	942	380	NA	NA	NA	NA	NA	NA	NA
10*17720	U	5-23-29	WILLIAM KOTSON AND DEBRA KOTSON	TH EXPLORATION, LLC	1/8+	938	507	NA	NA	NA	NA	NA	NA	NA
10*17775	U	5-23-29	HAROLD H HAGERTY AND DEBORAH M HAGERTY	TH EXPLORATION, LLC	1/8+	942	370	NA	NA	NA	NA	NA	NA	NA
10*17776	U	5-23-29	JAMES GARCAR AND MELISSA GARCAR	TH EXPLORATION, LLC	1/8+	941	627	NA	NA	NA	NA	NA	NA	NA
10*17824	U	5-23-29	SARA FULTON	TH EXPLORATION, LLC	1/8+	942	384	NA	NA	NA	NA	NA	NA	NA
10*17901	U	5-23-29	ROBYN HAGERTY	TH EXPLORATION, LLC	1/8+	924	602	NA	NA	NA	NA	NA	NA	NA
10*17965	U	5-23-29	ROBERT DAVID BARNES AND RHONDA BARNES	TH EXPLORATION, LLC	1/8+	942	366	NA	NA	NA	NA	NA	NA	NA
10*18042	U	5-23-29	JOSEPH J ONORE	TH EXPLORATION, LLC	1/8+	927	101	NA	NA	NA	NA	NA	NA	NA
10*18043	U	5-23-29	JAMES M ONORE AND CINDY L ONORE	TH EXPLORATION, LLC	1/8+	927	105	NA	NA	NA	NA	NA	NA	NA
10*18176	U	5-23-29	CRYSTAL M HOOKER AND JAMES HOOKER	TH EXPLORATION, LLC	1/8+	929	568	NA	NA	NA	NA	NA	NA	NA
10*18247	U	5-23-29	MILDRED S KIRKPATRICK	TH EXPLORATION, LLC	1/8+	917	132	NA	NA	NA	NA	NA	NA	NA
10*18320	U	5-23-29	SAMUEL F HENRY	TH EXPLORATION, LLC	1/8+	931	246	NA	NA	NA	NA	NA	NA	NA
10*18329	U	5-23-29	COLLEEN HAGERTY	TH EXPLORATION, LLC	1/8+	929	560	NA	NA	NA	NA	NA	NA	NA
10*18367	U	5-23-29	WALTER C SCHUBERT AND BARBARA A SCHUBERT	TH EXPLORATION, LLC	1/8+	931	377	NA	NA	NA	NA	NA	NA	NA

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10*18368	U	5-23-29	ROBERTA K MILLER	TH EXPLORATION, LLC	1/8+	931	457	NA	NA	NA	NA	NA	NA	NA
10*18386	U	5-23-29	JOSEPH R RINE AND JENNIFER M RINE	TH EXPLORATION, LLC	1/8+	932	492	NA	NA	NA	NA	NA	NA	NA
10*18598	U	5-23-29	MARK E GUSTELY	TH EXPLORATION, LLC	1/8+	935	52	NA	NA	NA	NA	NA	NA	NA
10*18795	U	5-23-29	GASTON FAMILY INVESTMENTS LLC	TH EXPLORATION, LLC	1/8+	959	502	NA	NA	NA	NA	NA	NA	NA
10*18994	U	5-23-29	SHIRLEY ANN DRAKE	TH EXPLORATION, LLC	1/8+	940	137	NA	NA	NA	NA	NA	NA	NA
10*19736	U	5-23-29	DOROTHY HLINKA	TH EXPLORATION, LLC	1/8+	944	571	NA	NA	NA	NA	NA	NA	NA
10*21217	U	5-23-29	KEITH JAY FISCHER AND DAWN M FISCHER	TH EXPLORATION, LLC	1/8+	952	643	NA	NA	NA	NA	NA	NA	NA
10*21222	U	5-23-29	PATRICIA J SHAW KELLER	TH EXPLORATION, LLC	1/8+	946	43	NA	NA	NA	NA	NA	NA	NA
10*21425	U	5-23-29	ORIE N YOUNG AND BERNIE A YOUNG	TH EXPLORATION, LLC	1/8+	957	29	NA	NA	NA	NA	NA	NA	NA
10*21428	U	5-23-29	FRANCIS R SMITH AND ANNA M SMITH	TH EXPLORATION, LLC	1/8+	957	37	NA	NA	NA	NA	NA	NA	NA
10*21434	U	5-23-29	CATHERINE HUMMEL	TH EXPLORATION, LLC	1/8+	957	33	NA	NA	NA	NA	NA	NA	NA
10*21451	U	5-23-29	RICHARD RICH AND KAREN RICH	TH EXPLORATION, LLC	1/8+	954	254	NA	NA	NA	NA	NA	NA	NA
10*21452	U	5-23-29	KIMBERLY COX	TH EXPLORATION, LLC	1/8+	954	262	NA	NA	NA	NA	NA	NA	NA
10*21457	U	5-23-29	WARREN L COULTER AND ROSLINA A COULTER	TH EXPLORATION, LLC	1/8+	954	249	NA	NA	NA	NA	NA	NA	NA
10*21458	U	5-23-29	HUSTON A SMITH JR AND ANN C SMITH	TH EXPLORATION, LLC	1/8+	957	45	NA	NA	NA	NA	NA	NA	NA
10*21459	U	5-23-29	JAMES L CHURCH	TH EXPLORATION, LLC	1/8+	957	41	NA	NA	NA	NA	NA	NA	NA

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10*21498	U	5-23-29	MABEL SHILLINGBURG AND CLIFFORD SHILLINGBURG	TH EXPLORATION, LLC	1/8+	954	258	NA	NA	NA	NA	NA	NA	NA
10*21500	U	5-23-29	MATTHEW COULTER AND SIMONE COULTER	TH EXPLORATION, LLC	1/8+	954	245	NA	NA	NA	NA	NA	NA	NA
10*21501	U	5-23-29	EUGENIA E HOUSER	TH EXPLORATION, LLC	1/8+	954	241	NA	NA	NA	NA	NA	NA	NA
10*21502	U	5-23-29	DEBRA MURIN	TH EXPLORATION, LLC	1/8+	954	237	NA	NA	NA	NA	NA	NA	NA
10*21503	U	5-23-29	DARLENE M DAVIS CLARENCE RANDALL	TH EXPLORATION, LLC	1/8+	954	233	NA	NA	NA	NA	NA	NA	NA
10*21626	U	5-23-29	EMERY AND PAULA JEAN EMERY	TH EXPLORATION, LLC	1/8+	958	344	NA	NA	NA	NA	NA	NA	NA
10*21632	U	5-23-29	JOHN ARLES EMERY	TH EXPLORATION, LLC	1/8+	959	339	NA	NA	NA	NA	NA	NA	NA
10*21655	U	5-23-29	STANLEY GUSTELY	TH EXPLORATION, LLC	1/8+	965	206	NA	NA	NA	NA	NA	NA	NA
10*21656	U	5-23-29	JOHN OBOY AND JANET LOBOY	TH EXPLORATION, LLC	1/8+	959	331	NA	NA	NA	NA	NA	NA	NA
10*21657	U	5-23-29	RONALD J SALKOVICK JR & SANDRA SALKOVICK	TH EXPLORATION, LLC	1/8+	958	373	NA	NA	NA	NA	NA	NA	NA
10*21774	U	5-23-29	JOYCE KAY BURTON AND SAMUEL C BURTON	TH EXPLORATION, LLC	1/8+	957	467	NA	NA	NA	NA	NA	NA	NA
10*21813	U	5-23-29	STUART WHITE AND BETTY WHITE	TH EXPLORATION, LLC	1/8+	958	352	NA	NA	NA	NA	NA	NA	NA
10*21815	U	5-23-29	JAMES NEAL EMERY AND RENEE R EMERY	TH EXPLORATION, LLC	1/8+	958	348	NA	NA	NA	NA	NA	NA	NA
10*21816	U	5-23-29	CINDY GREEN AND LARRY GREEN	TH EXPLORATION, LLC	1/8+	958	356	NA	NA	NA	NA	NA	NA	NA
10*21817	U	5-23-29	MARY LOU HLINKA AND RICHARD G HLINKA SR	TH EXPLORATION, LLC	1/8+	959	514	NA	NA	NA	NA	NA	NA	NA
10*21819	U	5-23-29	MARY CATHERINE THOMS OTT	TH EXPLORATION, LLC	1/8+	958	360	NA	NA	NA	NA	NA	NA	NA

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10*21820	U	5-23-29	MARION DAVID OTT & JANICE L OTT	TH EXPLORATION, LLC	1/8+	959	506	NA	NA	NA	NA	NA	NA
10*21832	U	5-23-29	MARQUITA CLYBURN	TH EXPLORATION, LLC	1/8+	959	510	NA	NA	NA	NA	NA	NA
10*21886	U	5-23-29	THEODORE GROUNDS & ROBERTA H GROUNDS	TH EXPLORATION, LLC	1/8+	957	117	NA	NA	NA	NA	NA	NA
10*21948	U	5-23-29	BARBARA H COAKLEY	TH EXPLORATION, LLC	1/8+	960	66	NA	NA	NA	NA	NA	NA
10*21949	U	5-23-29	ROBIN ADAIR GUMP AND LOUIS M GUMP	TH EXPLORATION, LLC	1/8+	960	70	NA	NA	NA	NA	NA	NA
10*21951	U	5-23-29	CHARLES DOUGLAS LANE	TH EXPLORATION, LLC	1/8+	960	77	NA	NA	NA	NA	NA	NA
10*21994	U	5-23-29	MELISSA L DARROW	TH EXPLORATION, LLC	1/8+	954	328	NA	NA	NA	NA	NA	NA
10*22013	U	5-23-29	CHARLES J KNOX	TH EXPLORATION, LLC	1/8+	966	112	NA	NA	NA	NA	NA	NA
10*22014	U	5-23-29	SHERMAN E KNOX JR	TH EXPLORATION, LLC	1/8+	966	108	NA	NA	NA	NA	NA	NA
10*22018	U	5-23-29	KATHLEEN ROBERTSON	TH EXPLORATION, LLC	1/8+	960	539	NA	NA	NA	NA	NA	NA
10*22026	U	5-23-29	KEVIN D CHURCH	TH EXPLORATION, LLC	1/8+	957	49	NA	NA	NA	NA	NA	NA
10*22027	U	5-23-29	STEPHEN C EMERY AND CATHY J EMERY	TH EXPLORATION, LLC	1/8+	954	310	NA	NA	NA	NA	NA	NA
10*22093	U	5-23-29	TODD LEARN AND KENDA LEARN	TH EXPLORATION, LLC	1/8+	954	314	NA	NA	NA	NA	NA	NA
10*22102	U	5-23-29	BONNIE LOU GRUBER	TH EXPLORATION, LLC	1/8+	954	302	NA	NA	NA	NA	NA	NA
10*22128	U	5-23-29	BETTY PYSELL	TH EXPLORATION, LLC	1/8+	961	433	NA	NA	NA	NA	NA	NA
10*22144	U	5-23-29	VICKY STRAUSS AND DENNIS A STRAUSS	TH EXPLORATION, LLC	1/8+	961	529	NA	NA	NA	NA	NA	NA

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10*22165	U	5-23-29	DEBRA L LYESKI AND GERALD A LYESKI	TH EXPLORATION, LLC	1/8+	954	306	NA	NA	NA	NA	NA	NA
10*22178	U	5-23-29	ANGELA HENTHORN AND WILLIAM R HENTHORN	TH EXPLORATION, LLC	1/8+	972	58	NA	NA	NA	NA	NA	NA
10*22332	U	5-23-29	DORIS WEST AND ROBERT WEST	TH EXPLORATION, LLC	1/8+	962	542	NA	NA	NA	NA	NA	NA
10*22339	U	5-23-29	BETTY LEE HOWARD LOY	TH EXPLORATION, LLC	1/8+	963	392	NA	NA	NA	NA	NA	NA
10*22436	U	5-23-29	TESSEAN FAMILY REVOCABLE LIVING TRUST	TH EXPLORATION, LLC	1/8+	963	626	NA	NA	NA	NA	NA	NA
10*22443	U	5-23-29	GATHA CHAMBERS	TH EXPLORATION, LLC	1/8+	963	622	NA	NA	NA	NA	NA	NA
10*22503	U	5-23-29	KENNETH R SHAW AND DONNA K SHAW	TH EXPLORATION, LLC	1/8+	966	518	NA	NA	NA	NA	NA	NA
10*22505	U	5-23-29	JAMES D DRAKE AND DONNA K DRAKE	TH EXPLORATION, LLC	1/8+	964	425	NA	NA	NA	NA	NA	NA
10*22556	U	5-23-29	JAMES WILEY	TH EXPLORATION, LLC	1/8+	983	588	NA	NA	NA	NA	NA	NA
10*22594	U	5-23-29	JAMES WADE	TH EXPLORATION, LLC	1/8+	965	481	NA	NA	NA	NA	NA	NA
10*22609	U	5-23-29	KATHY JO CULLUM	TH EXPLORATION, LLC	1/8+	966	514	NA	NA	NA	NA	NA	NA
10*22613	U	5-23-29	JEWEL L CAMPBELL	TH EXPLORATION, LLC	1/8+	966	510	NA	NA	NA	NA	NA	NA
10*22779	U	5-23-29	STEVEN WADE	TH EXPLORATION, LLC	1/8+	968	424	NA	NA	NA	NA	NA	NA
10*22809	U	5-23-29	MARGARET C MCMURRY & WILLIAM F MCMURRY	TH EXPLORATION, LLC	1/8+	972	54	NA	NA	NA	NA	NA	NA
10*22812	U	5-23-29	JOSEPH F GOBLOWSKY	TH EXPLORATION, LLC	1/8+	968	428	NA	NA	NA	NA	NA	NA
10*22861	U	5-23-29	LAURINE C CURTIS & EDGAR A CURTIS III	TH EXPLORATION, LLC	1/8+	976	147	NA	NA	NA	NA	NA	NA

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10*23166	U	5-23-29	JAMES DAVID CRANDALL	TH EXPLORATION, LLC	1/8+	984	48	NA	NA	NA	NA	NA	NA
10*23168	U	5-23-29	JASON WADE	TH EXPLORATION, LLC	1/8+	966	506	NA	NA	NA	NA	NA	NA
10*23368	U	5-23-29	ROSE MARIE CAMPBELL	TH EXPLORATION, LLC	1/8+	988	447	NA	NA	NA	NA	NA	NA
10*23371	U	5-23-29	JONNA MARPLE AND ERIK MARPLE	TH EXPLORATION, LLC	1/8+	988	442	NA	NA	NA	NA	NA	NA
10*23398	U	5-23-29	JON GUSTELY AND MARILYN NIJE	TH EXPLORATION, LLC	1/8+	1008	12	NA	NA	NA	NA	NA	NA
10*23410	U	5-23-29	JENNA WADE	TH EXPLORATION, LLC	1/8+	1008	16	NA	NA	NA	NA	NA	NA
10*23505	U	5-23-29	RENEE KELLAR	TH EXPLORATION, LLC	1/8+	971	633	NA	NA	NA	NA	NA	NA
10*23647	U	5-23-29	MARILYN M ROBINSON	TH EXPLORATION, LLC	1/8+	1009	309	NA	NA	NA	NA	NA	NA
10*23648	U	5-23-29	PAUL D RINE JR	TH EXPLORATION, LLC	1/8+	1009	313	NA	NA	NA	NA	NA	NA
10*23727	U	5-23-29	LISA TUCKER AND FRANCIS TUCKER	TH EXPLORATION, LLC	1/8+	1011	525	NA	NA	NA	NA	NA	NA
10*23756	U	5-23-29	KAREN DRAKE AND JEFF DRAKE	TH EXPLORATION, LLC	1/8+	1012	182	NA	NA	NA	NA	NA	NA
10*23757	U	5-23-29	DAVID DRAKE	TH EXPLORATION, LLC	1/8+	1012	187	NA	NA	NA	NA	NA	NA
10*23767	U	5-23-29	MARK ALAN SLATEN	TH EXPLORATION, LLC	1/8+	1014	481	NA	NA	NA	NA	NA	NA
10*23792	U	5-23-29	STEVEN W SLATEN AND RHONDA SLATEN	TH EXPLORATION, LLC	1/8+	1014	488	NA	NA	NA	NA	NA	NA
10*23826	U	5-23-29	NANCY C DWYER AND WENDEL MARTINKOVIC	TH EXPLORATION, LLC	1/8+	1017	6	NA	NA	NA	NA	NA	NA
10*23838	U	5-23-29	RONALD DEAN YOHO & VICTORIA LYNN YOHO	TH EXPLORATION, LLC	1/8+	1017	1	NA	NA	NA	NA	NA	NA

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10*23883	U	5-23-29	VICKI ANN WILLIAMS & WILLIAM J WILLIAMS	TH EXPLORATION, LLC	1/8+	1016	644	NA	NA	NA	NA	NA	NA	NA
10*24236	U	5-23-29	CONNIE L HALL	TH EXPLORATION, LLC	1/8+	1015	138	NA	NA	NA	NA	NA	NA	NA
10*24274	U	5-23-29	JO ELLEN GUSTELY	TH EXPLORATION, LLC	1/8+	1023	527	NA	NA	NA	NA	NA	NA	NA
10*24483	U	5-23-29	SUSAN AND KEVIN J ALFRED	TH EXPLORATION, LLC	1/8+	1025	401	NA	NA	NA	NA	NA	NA	NA
10*24551	U	5-23-29	LEONARD LEE AND DEBRA COULTER	TH EXPLORATION, LLC	1/8+	1025	405	NA	NA	NA	NA	NA	NA	NA
10*24868	U	5-23-29	ANNE DWYER	TH EXPLORATION, LLC	1/8+	1028	95	NA	NA	NA	NA	NA	NA	NA
10*24917	U	5-23-29	WALTER AND CONNIE J STREIGHT	TH EXPLORATION, LLC	1/8+	1027	95	NA	NA	NA	NA	NA	NA	NA
10*14849	V	5-23-18.1	DAVID GUSTELY	GASTAR EXPLORATION USA, INC	1/8+	806	265	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14853	V	5-23-18.1	DURWOOD WRIGHT	GASTAR EXPLORATION USA, INC	1/8+	809	507	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14861	V	5-23-18.1	NANCY WHITLATCH	GASTAR EXPLORATION USA, INC	1/8+	809	526	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14862	V	5-23-18.1	ANN GUSTELY	GASTAR EXPLORATION USA, INC	1/8+	809	568	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14864	V	5-23-18.1	CAROLYN DURWAY	GASTAR EXPLORATION USA, INC	1/8+	810	330	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14866	V	5-23-18.1	GARY CARMICHAEL	GASTAR EXPLORATION USA, INC	1/8+	810	316	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14868	V	5-23-18.1	WOODROW CAMPBELL, JR.	GASTAR EXPLORATION USA, INC	1/8+	813	454	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14869	V	5-23-18.1	RALPH VAUGHN TAYLOR	GASTAR EXPLORATION USA, INC	1/8+	813	561	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC

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10*14870	V	5-23-18.1	DAVID CARMICHAEL	GASTAR EXPLORATION USA, INC	1/8+	816	16	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14872	V	5-23-18.1	DWG OIL & GAS ACQUISITIONS LLC	GASTAR EXPLORATION USA, INC	1/8+	817	312	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14873	V	5-23-18.1	RAYMOND MILLER	GASTAR EXPLORATION USA, INC	1/8+	821	44	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14874	V	5-23-18.1	RICHARD MILLER	GASTAR EXPLORATION INC	1/8+	822	260	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14875	V	5-23-18.1	DAVID DRAKE	GASTAR EXPLORATION INC	1/8+	827	273	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14876	V	5-23-18.1	SHIRLEY LARGENT	GASTAR EXPLORATION INC	1/8+	827	228	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14877	V	5-23-18.1	GARY OBLOY	GASTAR EXPLORATION INC	1/8+	836	112	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14878	V	5-23-18.1	ARTHUR BRUCE COULTER	GASTAR EXPLORATION INC	1/8+	839	519	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14879	V	5-23-18.1	THERESA RINE	GASTAR EXPLORATION INC	1/8+	840	162	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14880	V	5-23-18.1	IRIS LUCAS	GASTAR EXPLORATION INC	1/8+	849	545	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14881	V	5-23-18.1	MARY WHITLATCH	GASTAR EXPLORATION INC	1/8+	849	548	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14882	V	5-23-18.1	GARY RINE	GASTAR EXPLORATION INC	1/8+	849	551	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14883	V	5-23-18.1	PAUL WISE	GASTAR EXPLORATION INC	1/8+	852	252	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14884	V	5-23-18.1	RENEE HAGERTY	GASTAR EXPLORATION INC	1/8+	852	255	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC

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10*14885	V	5-23-18.1	HOWARD RINE	GASTAR EXPLORATION INC	1/8+	854	601	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC	
10*14886	V	5-23-18.1	JODI YOHO	GASTAR EXPLORATION INC	1/8+	854	604	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC	
10*14887	V	5-23-18.1	CHRISTINA ROBERTS	GASTAR EXPLORATION INC	1/8+	867	392	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC	
10*14888	V	5-23-18.1	DARLENE BUTLER	GASTAR EXPLORATION INC	1/8+	867	395	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC	
10*14889	V	5-23-18.1	HAROLD YOHO	GASTAR EXPLORATION INC	1/8+	870	37	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC	
10*14890	V	5-23-18.1	HENRY MALONE JR	GASTAR EXPLORATION INC	1/8+	870	40	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC	
10*14891	V	5-23-18.1	NANCY F FYE AND STEPHEN M FYE	GASTAR EXPLORATION INC	1/8+	885	606	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC	
10*14912	V	5-23-18.1	MARK A. YOHO	GASTAR EXPLORATION INC	1/8+	822	268	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC	
10*16034	V	5-23-18.1	GASTON FAMILY INVESTMENTS LLC	TH EXPLORATION, LLC	1/8+	902	163	NA	NA	NA	NA	NA	NA	
10*16648	V	5-23-18.1	GASTAR EXPLORATION USA INC	TH EXPLORATION, LLC	1/8+	894	278	NA	NA	NA	NA	NA	NA	
10*17145	V	5-23-18.1	JAMES J. CAMPBELL BETTY J. CAMPBELL	CHESAPEAKE APPALACHIA, LLC	1/8+	685	458	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17146	V	5-23-18.1	CAROLYN CAMPBELL BRITTON ROBERT C. BRITTON	CHESAPEAKE APPALACHIA, LLC	1/8+	685	464	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17147	V	5-23-18.1	JOANN J. PARSONS GARY D. PARSONS	CHESAPEAKE APPALACHIA, LLC	1/8+	685	470	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC

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10*17148	V	5-23-18.1	DONALD E. CAMPBELL JUNE L. CAMPBELL	CHESAPEAKE APPALACHIA, LLC	1/8+	685	476	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17149	V	5-23-18.1	WANDA M. BLAKE	CHESAPEAKE APPALACHIA, LLC	1/8+	685	482	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17150	V	5-23-18.1	IDA L. CAMPBELL	CHESAPEAKE APPALACHIA, LLC	1/8+	685	488	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17502	V	5-23-18.1	PATRICIA E GUSTELY DONALD S BOBOVNIK AND DOLORES J BOBOVNIK	TH EXPLORATION, LLC	1/8+	942	334	NA	NA	NA	NA	NA	NA	NA
10*17532	V	5-23-18.1	RONALD L MAYER AND DEBRA A MAYER	TH EXPLORATION, LLC	1/8+	929	580	NA	NA	NA	NA	NA	NA	NA
10*17535	V	5-23-18.1	JOANN HAGERTY	TH EXPLORATION, LLC	1/8+	942	342	NA	NA	NA	NA	NA	NA	NA
10*17539	V	5-23-18.1	REBECCA HAGERTY	TH EXPLORATION, LLC	1/8+	942	350	NA	NA	NA	NA	NA	NA	NA
10*17594	V	5-23-18.1	MEGAN HAGERTY	TH EXPLORATION, LLC	1/8+	942	362	NA	NA	NA	NA	NA	NA	NA
10*17595	V	5-23-18.1	THOMAS E RINE AND MARY P RINE	TH EXPLORATION, LLC	1/8+	929	572	NA	NA	NA	NA	NA	NA	NA
10*17640	V	5-23-18.1	PATRICIA A GARCAR	TH EXPLORATION, LLC	1/8+	942	8	NA	NA	NA	NA	NA	NA	NA
10*17679	V	5-23-18.1	NORMA J ASH	TH EXPLORATION, LLC	1/8+	944	130	NA	NA	NA	NA	NA	NA	NA
10*17680	V	5-23-18.1	DAVID E CHURCH	TH EXPLORATION, LLC	1/8+	932	424	NA	NA	NA	NA	NA	NA	NA
10*17681	V	5-23-18.1	WALTER E LOSEY AND CINDY L LOSEY	TH EXPLORATION, LLC	1/8+	942	338	NA	NA	NA	NA	NA	NA	NA

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10*17682	V	5-23-18.1	JAMES E GARLOCH AND MARY K GARLOCH	TH EXPLORATION, LLC	1/8+	935	68	NA	NA	NA	NA	NA	NA
10*17683	V	5-23-18.1	PATRICK HAGERTY AND DALANE HAGERTY	TH EXPLORATION, LLC	1/8+	942	358	NA	NA	NA	NA	NA	NA
10*17715	V	5-23-18.1	ROBERT A SANDS AND JOYCE A SANDS	TH EXPLORATION, LLC	1/8+	942	354	NA	NA	NA	NA	NA	NA
10*17719	V	5-23-18.1	ROBERT R DARROW	TH EXPLORATION, LLC	1/8+	942	380	NA	NA	NA	NA	NA	NA
10*17720	V	5-23-18.1	WILLIAM KOTSON AND DEBRA KOTSON	TH EXPLORATION, LLC	1/8+	938	507	NA	NA	NA	NA	NA	NA
10*17775	V	5-23-18.1	HAROLD H HAGERTY AND DEBORAH M HAGERTY	TH EXPLORATION, LLC	1/8+	942	370	NA	NA	NA	NA	NA	NA
10*17776	V	5-23-18.1	JAMES GARCAR AND MELISSA GARCAR	TH EXPLORATION, LLC	1/8+	941	627	NA	NA	NA	NA	NA	NA
10*17824	V	5-23-18.1	SARA FULTON	TH EXPLORATION, LLC	1/8+	942	384	NA	NA	NA	NA	NA	NA
10*17901	V	5-23-18.1	ROBYN HAGERTY	TH EXPLORATION, LLC	1/8+	924	602	NA	NA	NA	NA	NA	NA
10*17965	V	5-23-18.1	ROBERT DAVID BARNES AND RHONDA BARNES	TH EXPLORATION, LLC	1/8+	942	366	NA	NA	NA	NA	NA	NA
10*18042	V	5-23-18.1	JOSEPH J ONORE	TH EXPLORATION, LLC	1/8+	927	101	NA	NA	NA	NA	NA	NA
10*18043	V	5-23-18.1	JAMES M ONORE AND CINDY L ONORE	TH EXPLORATION, LLC	1/8+	927	105	NA	NA	NA	NA	NA	NA
10*18176	V	5-23-18.1	CRYSTAL M HOOKER AND JAMES HOOKER	TH EXPLORATION, LLC	1/8+	929	568	NA	NA	NA	NA	NA	NA
10*18247	V	5-23-18.1	MILDRED S KIRKPATRICK	TH EXPLORATION, LLC	1/8+	917	132	NA	NA	NA	NA	NA	NA
10*18320	V	5-23-18.1	SAMUEL F HENRY	TH EXPLORATION, LLC	1/8+	931	246	NA	NA	NA	NA	NA	NA
10*18329	V	5-23-18.1	COLLEEN HAGERTY	TH EXPLORATION, LLC	1/8+	929	560	NA	NA	NA	NA	NA	NA

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10*18367	V	5-23-18.1	WALTER C SCHUBERT AND BARBARA A SCHUBERT	TH EXPLORATION, LLC	1/8+	931	377	NA	NA	NA	NA	NA	NA	NA
10*18368	V	5-23-18.1	ROBERTA K MILLER	TH EXPLORATION, LLC	1/8+	931	457	NA	NA	NA	NA	NA	NA	NA
10*18386	V	5-23-18.1	JOSEPH R RINE AND JENNIFER M RINE	TH EXPLORATION, LLC	1/8+	932	492	NA	NA	NA	NA	NA	NA	NA
10*18598	V	5-23-18.1	MARK E GUSTELY	TH EXPLORATION, LLC	1/8+	935	52	NA	NA	NA	NA	NA	NA	NA
10*18795	V	5-23-18.1	GASTON FAMILY INVESTMENTS LLC	TH EXPLORATION, LLC	1/8+	959	502	NA	NA	NA	NA	NA	NA	NA
10*18994	V	5-23-18.1	SHIRLEY ANN DRAKE	TH EXPLORATION, LLC	1/8+	940	137	NA	NA	NA	NA	NA	NA	NA
10*19736	V	5-23-18.1	DOROTHY HLINKA	TH EXPLORATION, LLC	1/8+	944	571	NA	NA	NA	NA	NA	NA	NA
10*21217	V	5-23-18.1	KEITH JAY FISCHER AND DAWN M FISCHER	TH EXPLORATION, LLC	1/8+	952	643	NA	NA	NA	NA	NA	NA	NA
10*21222	V	5-23-18.1	PATRICIA J SHAW KELLER	TH EXPLORATION, LLC	1/8+	946	43	NA	NA	NA	NA	NA	NA	NA
10*21425	V	5-23-18.1	ORIE N YOUNG AND BERNIE A YOUNG	TH EXPLORATION, LLC	1/8+	957	29	NA	NA	NA	NA	NA	NA	NA
10*21428	V	5-23-18.1	FRANCIS R SMITH AND ANNA M SMITH	TH EXPLORATION, LLC	1/8+	957	37	NA	NA	NA	NA	NA	NA	NA
10*21434	V	5-23-18.1	CATHERINE HUMMEL	TH EXPLORATION, LLC	1/8+	957	33	NA	NA	NA	NA	NA	NA	NA
10*21451	V	5-23-18.1	RICHARD RICH AND KAREN RICH	TH EXPLORATION, LLC	1/8+	954	254	NA	NA	NA	NA	NA	NA	NA
10*21452	V	5-23-18.1	KIMBERLY COX	TH EXPLORATION, LLC	1/8+	954	262	NA	NA	NA	NA	NA	NA	NA
10*21457	V	5-23-18.1	WARREN L COULTER AND ROSLINA A COULTER	TH EXPLORATION, LLC	1/8+	954	249	NA	NA	NA	NA	NA	NA	NA
10*21458	V	5-23-18.1	HUSTON A SMITH JR AND ANN C SMITH	TH EXPLORATION, LLC	1/8+	957	45	NA	NA	NA	NA	NA	NA	NA

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10*21459	V	5-23-18.1	JAMES L CHURCH	TH EXPLORATION, LLC	1/8+	957	41	NA	NA	NA	NA	NA	NA	NA
10*21498	V	5-23-18.1	WABEL SHILLINGBURG AND CLIFFORD SHILLINGBURG	TH EXPLORATION, LLC	1/8+	954	258	NA	NA	NA	NA	NA	NA	NA
10*21500	V	5-23-18.1	MATTHEW COULTER AND SIMONE COULTER	TH EXPLORATION, LLC	1/8+	954	245	NA	NA	NA	NA	NA	NA	NA
10*21501	V	5-23-18.1	EUGENIA E HOUSER	TH EXPLORATION, LLC	1/8+	954	241	NA	NA	NA	NA	NA	NA	NA
10*21502	V	5-23-18.1	DEBRA MURIN	TH EXPLORATION, LLC	1/8+	954	237	NA	NA	NA	NA	NA	NA	NA
10*21503	V	5-23-18.1	DARLENE M DAVIS	TH EXPLORATION, LLC	1/8+	954	233	NA	NA	NA	NA	NA	NA	NA
10*21626	V	5-23-18.1	CLARENCE RANDALL EMERY AND PAULA JEAN EMERY	TH EXPLORATION, LLC	1/8+	958	344	NA	NA	NA	NA	NA	NA	NA
10*21632	V	5-23-18.1	JOHN ARLES EMERY	TH EXPLORATION, LLC	1/8+	959	339	NA	NA	NA	NA	NA	NA	NA
10*21655	V	5-23-18.1	STANLEY GUSTELY	TH EXPLORATION, LLC	1/8+	965	206	NA	NA	NA	NA	NA	NA	NA
10*21656	V	5-23-18.1	JOHN OBLOY AND JANET L OBLOY	TH EXPLORATION, LLC	1/8+	959	331	NA	NA	NA	NA	NA	NA	NA
10*21657	V	5-23-18.1	RONALD J SALKOVICK JR & SANDRA SALKOVICK	TH EXPLORATION, LLC	1/8+	958	373	NA	NA	NA	NA	NA	NA	NA
10*21774	V	5-23-18.1	JOYCE KAY BURTON AND SAMUEL C BURTON	TH EXPLORATION, LLC	1/8+	957	467	NA	NA	NA	NA	NA	NA	NA
10*21813	V	5-23-18.1	STUART WHITE AND BETTY WHITE	TH EXPLORATION, LLC	1/8+	958	352	NA	NA	NA	NA	NA	NA	NA
10*21815	V	5-23-18.1	JAMES NEAL EMERY AND RENEE R EMERY	TH EXPLORATION, LLC	1/8+	958	348	NA	NA	NA	NA	NA	NA	NA
10*21816	V	5-23-18.1	CINDY GREEN AND LARRY GREEN	TH EXPLORATION, LLC	1/8+	958	356	NA	NA	NA	NA	NA	NA	NA
10*21817	V	5-23-18.1	MARY LOU HLINKA AND RICHARD G HLINKA SR	TH EXPLORATION, LLC	1/8+	959	514	NA	NA	NA	NA	NA	NA	NA

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10*21819	V	5-23-18.1	MARY CATHERINE THOMS OTT	TH EXPLORATION, LLC	1/8+	958	360	NA	NA	NA	NA	NA	NA	NA
10*21820	V	5-23-18.1	MARION DAVID OTT & JANICE L OTT	TH EXPLORATION, LLC	1/8+	959	506	NA	NA	NA	NA	NA	NA	NA
10*21832	V	5-23-18.1	MARQUITA CLYBURN	TH EXPLORATION, LLC	1/8+	959	510	NA	NA	NA	NA	NA	NA	NA
10*21886	V	5-23-18.1	THEODORE GROUNDS & ROBERTA H GROUNDS	TH EXPLORATION, LLC	1/8+	957	117	NA	NA	NA	NA	NA	NA	NA
10*21948	V	5-23-18.1	BARBARA H COAKLEY	TH EXPLORATION, LLC	1/8+	960	66	NA	NA	NA	NA	NA	NA	NA
10*21949	V	5-23-18.1	ROBIN ADAIR GUMP AND LOUIS M GUMP	TH EXPLORATION, LLC	1/8+	960	70	NA	NA	NA	NA	NA	NA	NA
10*21951	V	5-23-18.1	CHARLES DOUGLAS LANE	TH EXPLORATION, LLC	1/8+	960	77	NA	NA	NA	NA	NA	NA	NA
10*21994	V	5-23-18.1	MELISSA L DARROW	TH EXPLORATION, LLC	1/8+	954	328	NA	NA	NA	NA	NA	NA	NA
10*22013	V	5-23-18.1	CHARLES J KNOX	TH EXPLORATION, LLC	1/8+	966	112	NA	NA	NA	NA	NA	NA	NA
10*22014	V	5-23-18.1	SHERMAN E KNOX JR	TH EXPLORATION, LLC	1/8+	966	108	NA	NA	NA	NA	NA	NA	NA
10*22018	V	5-23-18.1	KATHLEEN ROBERTSON	TH EXPLORATION, LLC	1/8+	960	539	NA	NA	NA	NA	NA	NA	NA
10*22026	V	5-23-18.1	KEVIN D CHURCH	TH EXPLORATION, LLC	1/8+	957	49	NA	NA	NA	NA	NA	NA	NA
10*22027	V	5-23-18.1	STEPHEN C EMERY AND CATHY J EMERY	TH EXPLORATION, LLC	1/8+	954	310	NA	NA	NA	NA	NA	NA	NA
10*22093	V	5-23-18.1	TODD LEARN AND KENDA LEARN	TH EXPLORATION, LLC	1/8+	954	314	NA	NA	NA	NA	NA	NA	NA
10*22102	V	5-23-18.1	BONNIE LOU GRUBER	TH EXPLORATION, LLC	1/8+	954	302	NA	NA	NA	NA	NA	NA	NA
10*22128	V	5-23-18.1	BETTY PYSELL	TH EXPLORATION, LLC	1/8+	961	433	NA	NA	NA	NA	NA	NA	NA

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10*22144	V	5-23-18.1	VICKY STRAUSS AND DENNIS A STRAUSS	TH EXPLORATION, LLC	1/8+	961	529	NA	NA	NA	NA	NA	NA
10*22165	V	5-23-18.1	DEBRA L LYSESKI AND GERALD A LYSESKI	TH EXPLORATION, LLC	1/8+	954	306	NA	NA	NA	NA	NA	NA
10*22178	V	5-23-18.1	ANGELA HENTHORN AND WILLIAM R HENTHORN	TH EXPLORATION, LLC	1/8+	972	58	NA	NA	NA	NA	NA	NA
10*22332	V	5-23-18.1	DORIS WEST AND ROBERT WEST	TH EXPLORATION, LLC	1/8+	962	542	NA	NA	NA	NA	NA	NA
10*22339	V	5-23-18.1	BETTY LEE HOWARD LOY TESSEAN FAMILY	TH EXPLORATION, LLC	1/8+	963	392	NA	NA	NA	NA	NA	NA
10*22436	V	5-23-18.1	REVOCABLE LIVING TRUST	TH EXPLORATION, LLC	1/8+	963	626	NA	NA	NA	NA	NA	NA
10*22443	V	5-23-18.1	GATHA CHAMBERS	TH EXPLORATION, LLC	1/8+	963	622	NA	NA	NA	NA	NA	NA
10*22503	V	5-23-18.1	KENNETH R SHAW AND DONNA K SHAW	TH EXPLORATION, LLC	1/8+	966	518	NA	NA	NA	NA	NA	NA
10*22505	V	5-23-18.1	JAMES D DRAKE AND DONNA K DRAKE	TH EXPLORATION, LLC	1/8+	964	425	NA	NA	NA	NA	NA	NA
10*22594	V	5-23-18.1	JAMES WADE	TH EXPLORATION, LLC	1/8+	965	481	NA	NA	NA	NA	NA	NA
10*22609	V	5-23-18.1	KATHY JO CULLUM	TH EXPLORATION, LLC	1/8+	966	514	NA	NA	NA	NA	NA	NA
10*22613	V	5-23-18.1	JEWEL L CAMPBELL	TH EXPLORATION, LLC	1/8+	966	510	NA	NA	NA	NA	NA	NA
10*22779	V	5-23-18.1	STEVEN WADE	TH EXPLORATION, LLC	1/8+	968	424	NA	NA	NA	NA	NA	NA
10*22809	V	5-23-18.1	MARGARET C MCMURRY & WILLIAM F MCMURRY	TH EXPLORATION, LLC	1/8+	972	54	NA	NA	NA	NA	NA	NA
10*22812	V	5-23-18.1	JOSEPH F GOBLOWSKY	TH EXPLORATION, LLC	1/8+	968	428	NA	NA	NA	NA	NA	NA
10*22861	V	5-23-18.1	LAURINE C CURTIS & EDGAR A CURTIS III	TH EXPLORATION, LLC	1/8+	976	147	NA	NA	NA	NA	NA	NA

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10*23166	V	5-23-18.1	JAMES DAVID CRANDALL	TH EXPLORATION, LLC	1/8+	984	48	NA	NA	NA	NA	NA	NA
10*23168	V	5-23-18.1	JASON WADE	TH EXPLORATION, LLC	1/8+	966	506	NA	NA	NA	NA	NA	NA
10*23368	V	5-23-18.1	ROSE MARIE CAMPBELL	TH EXPLORATION, LLC	1/8+	988	447	NA	NA	NA	NA	NA	NA
10*23371	V	5-23-18.1	JONNA MARPLE AND ERIK MARPLE	TH EXPLORATION, LLC	1/8+	988	442	NA	NA	NA	NA	NA	NA
10*23398	V	5-23-18.1	JON GUSTELY AND MARILYN NIJE	TH EXPLORATION, LLC	1/8+	1008	12	NA	NA	NA	NA	NA	NA
10*23410	V	5-23-18.1	JENNA WADE	TH EXPLORATION, LLC	1/8+	1008	16	NA	NA	NA	NA	NA	NA
10*23505	V	5-23-18.1	RENEE KELLAR	TH EXPLORATION, LLC	1/8+	971	633	NA	NA	NA	NA	NA	NA
10*23647	V	5-23-18.1	MARILYN M ROBINSON	TH EXPLORATION, LLC	1/8+	1009	309	NA	NA	NA	NA	NA	NA
10*23648	V	5-23-18.1	PAUL D RINE JR	TH EXPLORATION, LLC	1/8+	1009	313	NA	NA	NA	NA	NA	NA
10*23727	V	5-23-18.1	LISA TUCKER AND FRANCIS TUCKER	TH EXPLORATION, LLC	1/8+	1011	525	NA	NA	NA	NA	NA	NA
10*23756	V	5-23-18.1	KAREN DRAKE AND JEFF DRAKE	TH EXPLORATION, LLC	1/8+	1012	182	NA	NA	NA	NA	NA	NA
10*23757	V	5-23-18.1	DAVID DRAKE	TH EXPLORATION, LLC	1/8+	1012	187	NA	NA	NA	NA	NA	NA
10*23767	V	5-23-18.1	MARK ALAN SLATEN	TH EXPLORATION, LLC	1/8+	1014	481	NA	NA	NA	NA	NA	NA
10*23792	V	5-23-18.1	STEVEN W SLATEN AND RHONDA SLATEN	TH EXPLORATION, LLC	1/8+	1014	488	NA	NA	NA	NA	NA	NA
10*23826	V	5-23-18.1	NANCY C DWYER AND WENDEL MARTINKOVIC	TH EXPLORATION, LLC	1/8+	1017	6	NA	NA	NA	NA	NA	NA
10*23838	V	5-23-18.1	RONALD DEAN YOHO & VICTORIA LYNN YOHO	TH EXPLORATION, LLC	1/8+	1017	1	NA	NA	NA	NA	NA	NA

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10*23883	V	5-23-18.1	VICKI ANN WILLIAMS & WILLIAM J WILLIAMS	TH EXPLORATION, LLC	1/8+	1016	644	NA	NA	NA	NA	NA	NA	NA
10*24236	V	5-23-18.1	CONNIE L HALL	TH EXPLORATION, LLC	1/8+	1015	138	NA	NA	NA	NA	NA	NA	NA
10*24274	V	5-23-18.1	JO ELLEN GUSTELY	TH EXPLORATION, LLC	1/8+	1023	527	NA	NA	NA	NA	NA	NA	NA
10*24483	V	5-23-18.1	SUSAN AND KEVIN J ALFRED	TH EXPLORATION, LLC	1/8+	1025	401	NA	NA	NA	NA	NA	NA	NA
10*24551	V	5-23-18.1	LEONARD LEE AND DEBRA COULTER	TH EXPLORATION, LLC	1/8+	1025	405	NA	NA	NA	NA	NA	NA	NA
10*24868	V	5-23-18.1	ANNE DWYER	TH EXPLORATION, LLC	1/8+	1028	95	NA	NA	NA	NA	NA	NA	NA
10*24917	V	5-23-18.1	WALTER AND CONNIE J STREIGHT	TH EXPLORATION, LLC	1/8+	1027	95	NA	NA	NA	NA	NA	NA	NA
10*14849	W	5-23-21	DAVID GUSTELY	GASTAR EXPLORATION USA, INC	1/8+	806	265	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14853	W	5-23-21	DURWOOD WRIGHT	GASTAR EXPLORATION USA, INC	1/8+	809	507	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14861	W	5-23-21	NANCY WHITLATCH	GASTAR EXPLORATION USA, INC	1/8+	809	526	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14862	W	5-23-21	ANN GUSTELY	GASTAR EXPLORATION USA, INC	1/8+	809	568	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14864	W	5-23-21	CAROLYN DURWAY	GASTAR EXPLORATION USA, INC	1/8+	810	330	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14866	W	5-23-21	GARY CARMICHAEL	GASTAR EXPLORATION USA, INC	1/8+	810	316	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14868	W	5-23-21	WOODROW CAMPBELL, JR.	GASTAR EXPLORATION USA, INC	1/8+	813	454	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14869	W	5-23-21	RALPH VAUGHN TAYLOR	GASTAR EXPLORATION USA, INC	1/8+	813	561	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC

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10*14870	W	5-23-21	DAVID CARMICHAEL	GASTAR EXPLORATION USA, INC	1/8+	816	16	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14872	W	5-23-21	DWG OIL & GAS ACQUISITIONS LLC	GASTAR EXPLORATION USA, INC	1/8+	817	312	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14873	W	5-23-21	RAYMOND MILLER	GASTAR EXPLORATION USA, INC	1/8+	821	44	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14874	W	5-23-21	RICHARD MILLER	GASTAR EXPLORATION INC	1/8+	822	260	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14875	W	5-23-21	DAVID DRAKE	GASTAR EXPLORATION INC	1/8+	827	273	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14876	W	5-23-21	SHIRLEY LARGENT	GASTAR EXPLORATION INC	1/8+	827	228	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14877	W	5-23-21	GARY OBLOY	GASTAR EXPLORATION INC	1/8+	836	112	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14878	W	5-23-21	ARTHUR BRUCE COULTER	GASTAR EXPLORATION INC	1/8+	839	519	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14879	W	5-23-21	THERESA RINE	GASTAR EXPLORATION INC	1/8+	840	162	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14880	W	5-23-21	IRIS LUCAS	GASTAR EXPLORATION INC	1/8+	849	545	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14881	W	5-23-21	MARY WHITLATCH	GASTAR EXPLORATION INC	1/8+	849	548	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14882	W	5-23-21	GARY RINE	GASTAR EXPLORATION INC	1/8+	849	551	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14883	W	5-23-21	PAUL WISE	GASTAR EXPLORATION INC	1/8+	852	252	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14884	W	5-23-21	RENEE HAGERTY	GASTAR EXPLORATION INC	1/8+	852	255	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC

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10*14885	W	5-23-21	HOWARD RINE	GASTAR EXPLORATION INC	1/8+	854	601	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14886	W	5-23-21	JODI YOHO	GASTAR EXPLORATION INC	1/8+	854	604	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14887	W	5-23-21	CHRISTINA ROBERTS	GASTAR EXPLORATION INC	1/8+	867	392	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14888	W	5-23-21	DARLENE BUTLER	GASTAR EXPLORATION INC	1/8+	867	395	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14889	W	5-23-21	HAROLD YOHO	GASTAR EXPLORATION INC	1/8+	870	37	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14890	W	5-23-21	HENRY MALONE JR	GASTAR EXPLORATION INC	1/8+	870	40	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14891	W	5-23-21	NANCY F FYE AND STEPHEN M FYE	GASTAR EXPLORATION INC	1/8+	885	606	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14912	W	5-23-21	MARK A. YOHO	GASTAR EXPLORATION INC	1/8+	822	268	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*16034	W	5-23-21	GASTON FAMILY INVESTMENTS LLC	TH EXPLORATION, LLC	1/8+	902	163	NA	NA	NA	NA	NA	NA	NA
10*16648	W	5-23-21	GASTAR EXPLORATION USA INC	TH EXPLORATION, LLC	1/8+	894	278	NA	NA	NA	NA	NA	NA	NA
10*17145	W	5-23-21	JAMES J. CAMPBELL BETTY J. CAMPBELL	CHESAPEAKE APPALACHIA, LLC	1/8+	685	458	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17146	W	5-23-21	CAROLYN CAMPBELL BRITTON ROBERT C. BRITTON	CHESAPEAKE APPALACHIA, LLC	1/8+	685	464	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17147	W	5-23-21	JOANN J. PARSONS GARY D. PARSONS	CHESAPEAKE APPALACHIA, LLC	1/8+	685	470	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC

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10*17148	W	5-23-21	DONALD E. CAMPBELL JUNE L. CAMPBELL	CHESAPEAKE APPALACHIA, LLC	1/8+	685	476	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17149	W	5-23-21	WANDA M. BLAKE	CHESAPEAKE APPALACHIA, LLC	1/8+	685	482	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17150	W	5-23-21	IDA L. CAMPBELL	CHESAPEAKE APPALACHIA, LLC	1/8+	685	488	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17502	W	5-23-21	PATRICIA E GUSTELY	TH EXPLORATION, LLC	1/8+	942	334	NA	NA	NA	NA	NA	NA	NA
10*17532	W	5-23-21	DONALD S BOBOVNIK AND DOLORES J BOBOVNIK	TH EXPLORATION, LLC	1/8+	942	346	NA	NA	NA	NA	NA	NA	NA
10*17535	W	5-23-21	RONALD L MAYER AND DEBRA A MAYER	TH EXPLORATION, LLC	1/8+	929	580	NA	NA	NA	NA	NA	NA	NA
10*17539	W	5-23-21	JOANN HAGERTY	TH EXPLORATION, LLC	1/8+	942	342	NA	NA	NA	NA	NA	NA	NA
10*17593	W	5-23-21	REBECCA HAGERTY	TH EXPLORATION, LLC	1/8+	942	350	NA	NA	NA	NA	NA	NA	NA
10*17594	W	5-23-21	MEGAN HAGERTY	TH EXPLORATION, LLC	1/8+	942	362	NA	NA	NA	NA	NA	NA	NA
10*17595	W	5-23-21	THOMAS E RINE AND MARY P RINE	TH EXPLORATION, LLC	1/8+	929	572	NA	NA	NA	NA	NA	NA	NA
10*17640	W	5-23-21	PATRICIA A GARCAR	TH EXPLORATION, LLC	1/8+	942	8	NA	NA	NA	NA	NA	NA	NA
10*17679	W	5-23-21	NORMA J ASH	TH EXPLORATION, LLC	1/8+	944	130	NA	NA	NA	NA	NA	NA	NA
10*17680	W	5-23-21	DAVID E CHURCH	TH EXPLORATION, LLC	1/8+	932	424	NA	NA	NA	NA	NA	NA	NA
10*17681	W	5-23-21	WALTER E LOSEY AND CINDY L LOSEY	TH EXPLORATION, LLC	1/8+	942	338	NA	NA	NA	NA	NA	NA	NA

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10*17682	W	5-23-21	JAMES E GARLOCH AND MARY K GARLOCH	TH EXPLORATION, LLC	1/8+	935	68	NA	NA	NA	NA	NA	NA	NA
10*17683	W	5-23-21	PATRICK HAGERTY AND DALANE HAGERTY	TH EXPLORATION, LLC	1/8+	942	358	NA	NA	NA	NA	NA	NA	NA
10*17715	W	5-23-21	ROBERT A SANDS AND JOYCE A SANDS	TH EXPLORATION, LLC	1/8+	942	354	NA	NA	NA	NA	NA	NA	NA
10*17719	W	5-23-21	ROBERT R DARROW	TH EXPLORATION, LLC	1/8+	942	380	NA	NA	NA	NA	NA	NA	NA
10*17720	W	5-23-21	WILLIAM KOTSON AND DEBRA KOTSON	TH EXPLORATION, LLC	1/8+	938	507	NA	NA	NA	NA	NA	NA	NA
10*17775	W	5-23-21	HAROLD H HAGERTY AND DEBORAH M HAGERTY	TH EXPLORATION, LLC	1/8+	942	370	NA	NA	NA	NA	NA	NA	NA
10*17776	W	5-23-21	JAMES GARCAR AND MELISSA GARCAR	TH EXPLORATION, LLC	1/8+	941	627	NA	NA	NA	NA	NA	NA	NA
10*17824	W	5-23-21	SARA FULTON	TH EXPLORATION, LLC	1/8+	942	384	NA	NA	NA	NA	NA	NA	NA
10*17901	W	5-23-21	ROBYN HAGERTY	TH EXPLORATION, LLC	1/8+	924	602	NA	NA	NA	NA	NA	NA	NA
10*17965	W	5-23-21	ROBERT DAVID BARNES AND RHONDA BARNES	TH EXPLORATION, LLC	1/8+	942	366	NA	NA	NA	NA	NA	NA	NA
10*18042	W	5-23-21	JOSEPH J ONORE	TH EXPLORATION, LLC	1/8+	927	101	NA	NA	NA	NA	NA	NA	NA
10*18043	W	5-23-21	JAMES M ONORE AND CINDY L ONORE	TH EXPLORATION, LLC	1/8+	927	105	NA	NA	NA	NA	NA	NA	NA
10*18176	W	5-23-21	CRYSTAL M HOOKER AND JAMES HOOKER	TH EXPLORATION, LLC	1/8+	929	568	NA	NA	NA	NA	NA	NA	NA
10*18247	W	5-23-21	MILDRED S KIRKPATRICK	TH EXPLORATION, LLC	1/8+	917	132	NA	NA	NA	NA	NA	NA	NA
10*18320	W	5-23-21	SAMUEL F HENRY	TH EXPLORATION, LLC	1/8+	931	246	NA	NA	NA	NA	NA	NA	NA
10*18329	W	5-23-21	COLLEEN HAGERTY	TH EXPLORATION, LLC	1/8+	929	560	NA	NA	NA	NA	NA	NA	NA

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10*18367	W	5-23-21	WALTER C SCHUBERT AND BARBARA A SCHUBERT	TH EXPLORATION, LLC	1/8+	931	377	NA	NA	NA	NA	NA	NA	NA
10*18368	W	5-23-21	ROBERTA K MILLER	TH EXPLORATION, LLC	1/8+	931	457	NA	NA	NA	NA	NA	NA	NA
10*18386	W	5-23-21	JOSEPH R RINE AND JENNIFER M RINE	TH EXPLORATION, LLC	1/8+	932	492	NA	NA	NA	NA	NA	NA	NA
10*18598	W	5-23-21	MARK E GUSTELY	TH EXPLORATION, LLC	1/8+	935	52	NA	NA	NA	NA	NA	NA	NA
10*18795	W	5-23-21	GASTON FAMILY INVESTMENTS LLC	TH EXPLORATION, LLC	1/8+	959	502	NA	NA	NA	NA	NA	NA	NA
10*18994	W	5-23-21	SHIRLEY ANN DRAKE	TH EXPLORATION, LLC	1/8+	940	137	NA	NA	NA	NA	NA	NA	NA
10*19736	W	5-23-21	DOROTHY HLINKA	TH EXPLORATION, LLC	1/8+	944	571	NA	NA	NA	NA	NA	NA	NA
10*21217	W	5-23-21	KEITH JAY FISCHER AND DAWN M FISCHER	TH EXPLORATION, LLC	1/8+	952	643	NA	NA	NA	NA	NA	NA	NA
10*21222	W	5-23-21	PATRICIA J SHAW KELLER	TH EXPLORATION, LLC	1/8+	946	43	NA	NA	NA	NA	NA	NA	NA
10*21425	W	5-23-21	ORIE N YOUNG AND BERNIE A YOUNG	TH EXPLORATION, LLC	1/8+	957	29	NA	NA	NA	NA	NA	NA	NA
10*21428	W	5-23-21	FRANCIS R SMITH AND ANNA M SMITH	TH EXPLORATION, LLC	1/8+	957	37	NA	NA	NA	NA	NA	NA	NA
10*21434	W	5-23-21	CATHERINE HUMMEL	TH EXPLORATION, LLC	1/8+	957	33	NA	NA	NA	NA	NA	NA	NA
10*21451	W	5-23-21	RICHARD RICH AND KAREN RICH	TH EXPLORATION, LLC	1/8+	954	254	NA	NA	NA	NA	NA	NA	NA
10*21452	W	5-23-21	KIMBERLY COX	TH EXPLORATION, LLC	1/8+	954	262	NA	NA	NA	NA	NA	NA	NA
10*21457	W	5-23-21	WARREN L COULTER AND ROSLINA A COULTER	TH EXPLORATION, LLC	1/8+	954	249	NA	NA	NA	NA	NA	NA	NA
10*21458	W	5-23-21	HUSTON A SMITH JR AND ANN C SMITH	TH EXPLORATION, LLC	1/8+	957	45	NA	NA	NA	NA	NA	NA	NA

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Lease No.	Tags	Parcel	Lessor	Lessee	Royalty	Book	Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*21459	W	5-23-21	JAMES L CHURCH	TH EXPLORATION, LLC	1/8+	957	41	NA	NA	NA	NA	NA	NA	NA
10*21498	W	5-23-21	MABEL SHILLINGBURG AND CLIFFORD SHILLINGBURG	TH EXPLORATION, LLC	1/8+	954	258	NA	NA	NA	NA	NA	NA	NA
10*21500	W	5-23-21	MATTHEW COULTER AND SIMONE COULTER	TH EXPLORATION, LLC	1/8+	954	245	NA	NA	NA	NA	NA	NA	NA
10*21501	W	5-23-21	EUGENIA E HOUSER	TH EXPLORATION, LLC	1/8+	954	241	NA	NA	NA	NA	NA	NA	NA
10*21502	W	5-23-21	DEBRA MURIN	TH EXPLORATION, LLC	1/8+	954	237	NA	NA	NA	NA	NA	NA	NA
10*21503	W	5-23-21	DARLENE M DAVIS	TH EXPLORATION, LLC	1/8+	954	233	NA	NA	NA	NA	NA	NA	NA
10*21626	W	5-23-21	CLARENCE RANDALL EMERY AND PAULA JEAN EMERY	TH EXPLORATION, LLC	1/8+	958	344	NA	NA	NA	NA	NA	NA	NA
10*21632	W	5-23-21	JOHN ARLES EMERY	TH EXPLORATION, LLC	1/8+	959	339	NA	NA	NA	NA	NA	NA	NA
10*21655	W	5-23-21	STANLEY GUSTELY	TH EXPLORATION, LLC	1/8+	965	206	NA	NA	NA	NA	NA	NA	NA
10*21656	W	5-23-21	JOHN OBLOY AND JANET L OBLOY	TH EXPLORATION, LLC	1/8+	959	331	NA	NA	NA	NA	NA	NA	NA
10*21657	W	5-23-21	RONALD J SALKOVICK JR & SANDRA SALKOVICK	TH EXPLORATION, LLC	1/8+	958	373	NA	NA	NA	NA	NA	NA	NA
10*21774	W	5-23-21	JOYCE KAY BURTON AND SAMUEL C BURTON	TH EXPLORATION, LLC	1/8+	957	467	NA	NA	NA	NA	NA	NA	NA
10*21813	W	5-23-21	STUART WHITE AND BETTY WHITE	TH EXPLORATION, LLC	1/8+	958	352	NA	NA	NA	NA	NA	NA	NA
10*21815	W	5-23-21	JAMES NEAL EMERY AND RENEE R EMERY	TH EXPLORATION, LLC	1/8+	958	348	NA	NA	NA	NA	NA	NA	NA
10*21816	W	5-23-21	CINDY GREEN AND LARRY GREEN	TH EXPLORATION, LLC	1/8+	958	356	NA	NA	NA	NA	NA	NA	NA

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10*21817	W	5-23-21	MARY LOU HLINKA AND RICHARD G HLINKA SR	TH EXPLORATION, LLC	1/8+	959	514	NA	NA	NA	NA	NA	NA	NA
10*21819	W	5-23-21	MARY CATHERINE THOMS OTT	TH EXPLORATION, LLC	1/8+	958	360	NA	NA	NA	NA	NA	NA	NA
10*21820	W	5-23-21	MARION DAVID OTT & JANICE L OTT	TH EXPLORATION, LLC	1/8+	959	506	NA	NA	NA	NA	NA	NA	NA
10*21832	W	5-23-21	MARQUITA CLYBURN	TH EXPLORATION, LLC	1/8+	959	510	NA	NA	NA	NA	NA	NA	NA
10*21886	W	5-23-21	THEODORE GROUNDS & ROBERTA H GROUNDS	TH EXPLORATION, LLC	1/8+	957	117	NA	NA	NA	NA	NA	NA	NA
10*21948	W	5-23-21	BARBARA H COAKLEY	TH EXPLORATION, LLC	1/8+	960	66	NA	NA	NA	NA	NA	NA	NA
10*21949	W	5-23-21	ROBIN ADAIR GUMP AND LOUIS M GUMP	TH EXPLORATION, LLC	1/8+	960	70	NA	NA	NA	NA	NA	NA	NA
10*21951	W	5-23-21	CHARLES DOUGLAS LANE	TH EXPLORATION, LLC	1/8+	960	77	NA	NA	NA	NA	NA	NA	NA
10*21994	W	5-23-21	MELISSA L DARROW	TH EXPLORATION, LLC	1/8+	954	328	NA	NA	NA	NA	NA	NA	NA
10*22013	W	5-23-21	CHARLES J KNOX	TH EXPLORATION, LLC	1/8+	966	112	NA	NA	NA	NA	NA	NA	NA
10*22014	W	5-23-21	SHERMAN E KNOX JR	TH EXPLORATION, LLC	1/8+	966	108	NA	NA	NA	NA	NA	NA	NA
10*22018	W	5-23-21	KATHLEEN ROBERTSON	TH EXPLORATION, LLC	1/8+	960	539	NA	NA	NA	NA	NA	NA	NA
10*22026	W	5-23-21	KEVIN D CHURCH	TH EXPLORATION, LLC	1/8+	957	49	NA	NA	NA	NA	NA	NA	NA
10*22027	W	5-23-21	STEPHEN C EMERY AND CATHY J EMERY	TH EXPLORATION, LLC	1/8+	954	310	NA	NA	NA	NA	NA	NA	NA
10*22093	W	5-23-21	TODD LEARN AND KENDA LEARN	TH EXPLORATION, LLC	1/8+	954	314	NA	NA	NA	NA	NA	NA	NA
10*22102	W	5-23-21	BONNIE LOU GRUBER	TH EXPLORATION, LLC	1/8+	954	302	NA	NA	NA	NA	NA	NA	NA

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10*22128	W	5-23-21	BETTY PYSELL	TH EXPLORATION, LLC	1/8+	961	433	NA	NA	NA	NA	NA	NA	NA
10*22144	W	5-23-21	VICKY STRAUSS AND DENNIS A STRAUSS	TH EXPLORATION, LLC	1/8+	961	529	NA	NA	NA	NA	NA	NA	NA
10*22165	W	5-23-21	DEBRA L LYSESKI AND GERALD A LYSESKI	TH EXPLORATION, LLC	1/8+	954	306	NA	NA	NA	NA	NA	NA	NA
10*22178	W	5-23-21	ANGELA HENTHORN AND WILLIAM R HENTHORN	TH EXPLORATION, LLC	1/8+	972	58	NA	NA	NA	NA	NA	NA	NA
10*22332	W	5-23-21	DORIS WEST AND ROBERT WEST	TH EXPLORATION, LLC	1/8+	962	542	NA	NA	NA	NA	NA	NA	NA
10*22339	W	5-23-21	BETTY LEE HOWARD LOY	TH EXPLORATION, LLC	1/8+	963	392	NA	NA	NA	NA	NA	NA	NA
10*22436	W	5-23-21	TESSEAN FAMILY REVOCABLE LIVING TRUST	TH EXPLORATION, LLC	1/8+	963	626	NA	NA	NA	NA	NA	NA	NA
10*22443	W	5-23-21	GATHA CHAMBERS	TH EXPLORATION, LLC	1/8+	963	622	NA	NA	NA	NA	NA	NA	NA
10*22503	W	5-23-21	KENNETH R SHAW AND DONNA K SHAW	TH EXPLORATION, LLC	1/8+	966	518	NA	NA	NA	NA	NA	NA	NA
10*22505	W	5-23-21	JAMES D DRAKE AND DONNA K DRAKE	TH EXPLORATION, LLC	1/8+	964	425	NA	NA	NA	NA	NA	NA	NA
10*22594	W	5-23-21	JAMES WADE	TH EXPLORATION, LLC	1/8+	965	481	NA	NA	NA	NA	NA	NA	NA
10*22609	W	5-23-21	KATHY JO CULLUM	TH EXPLORATION, LLC	1/8+	966	514	NA	NA	NA	NA	NA	NA	NA
10*22613	W	5-23-21	JEWEL L CAMPBELL	TH EXPLORATION, LLC	1/8+	966	510	NA	NA	NA	NA	NA	NA	NA
10*22779	W	5-23-21	STEVEN WADE	TH EXPLORATION, LLC	1/8+	968	424	NA	NA	NA	NA	NA	NA	NA
10*22809	W	5-23-21	MARGARET C MCMURRY & WILLIAM F MCMURRY	TH EXPLORATION, LLC	1/8+	972	54	NA	NA	NA	NA	NA	NA	NA
10*22812	W	5-23-21	JOSEPH F GOBLOWSKY	TH EXPLORATION, LLC	1/8+	968	428	NA	NA	NA	NA	NA	NA	NA

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10*22861	W	5-23-21	LAURINE C CURTIS & EDGAR A CURTIS III	TH EXPLORATION, LLC	1/8+	976	147	NA	NA	NA	NA	NA	NA
10*23166	W	5-23-21	JAMES DAVID CRANDALL	TH EXPLORATION, LLC	1/8+	984	48	NA	NA	NA	NA	NA	NA
10*23168	W	5-23-21	JASON WADE	TH EXPLORATION, LLC	1/8+	966	506	NA	NA	NA	NA	NA	NA
10*23368	W	5-23-21	ROSE MARIE CAMPBELL	TH EXPLORATION, LLC	1/8+	988	447	NA	NA	NA	NA	NA	NA
10*23371	W	5-23-21	JONNA MARPLE AND ERIK MARPLE	TH EXPLORATION, LLC	1/8+	988	442	NA	NA	NA	NA	NA	NA
10*23398	W	5-23-21	JON GUSTELY AND MARILYN NIJE	TH EXPLORATION, LLC	1/8+	1008	12	NA	NA	NA	NA	NA	NA
10*23410	W	5-23-21	JENNA WADE	TH EXPLORATION, LLC	1/8+	1008	16	NA	NA	NA	NA	NA	NA
10*23505	W	5-23-21	RENEE KELLAR	TH EXPLORATION, LLC	1/8+	971	633	NA	NA	NA	NA	NA	NA
10*23647	W	5-23-21	MARILYN M ROBINSON	TH EXPLORATION, LLC	1/8+	1009	309	NA	NA	NA	NA	NA	NA
10*23648	W	5-23-21	PAUL D RINE JR	TH EXPLORATION, LLC	1/8+	1009	313	NA	NA	NA	NA	NA	NA
10*23727	W	5-23-21	LISA TUCKER AND FRANCIS TUCKER	TH EXPLORATION, LLC	1/8+	1011	525	NA	NA	NA	NA	NA	NA
10*23756	W	5-23-21	KAREN DRAKE AND JEFF DRAKE	TH EXPLORATION, LLC	1/8+	1012	182	NA	NA	NA	NA	NA	NA
10*23757	W	5-23-21	DAVID DRAKE	TH EXPLORATION, LLC	1/8+	1012	187	NA	NA	NA	NA	NA	NA
10*23767	W	5-23-21	MARK ALAN SLATEN	TH EXPLORATION, LLC	1/8+	1014	481	NA	NA	NA	NA	NA	NA
10*23792	W	5-23-21	STEVEN W SLATEN AND RHONDA SLATEN	TH EXPLORATION, LLC	1/8+	1014	488	NA	NA	NA	NA	NA	NA
10*23826	W	5-23-21	NANCY C DWYER AND WENDEL MARTINKOVIC	TH EXPLORATION, LLC	1/8+	1017	6	NA	NA	NA	NA	NA	NA

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10*23838	W	5-23-21	RONALD DEAN YOHO & VICTORIA LYNN YOHO	TH EXPLORATION, LLC	1/8+	1017	1	NA	NA	NA	NA	NA	NA	NA
10*23883	W	5-23-21	VICKI ANN WILLIAMS & WILLIAM J WILLIAMS	TH EXPLORATION, LLC	1/8+	1016	644	NA	NA	NA	NA	NA	NA	NA
10*24236	W	5-23-21	CONNIE L HALL	TH EXPLORATION, LLC	1/8+	1015	138	NA	NA	NA	NA	NA	NA	NA
10*24274	W	5-23-21	JO ELLEN GUSTELY	TH EXPLORATION, LLC	1/8+	1023	527	NA	NA	NA	NA	NA	NA	NA
10*24483	W	5-23-21	SUSAN AND KEVIN J ALFRED	TH EXPLORATION, LLC	1/8+	1025	401	NA	NA	NA	NA	NA	NA	NA
10*24551	W	5-23-21	LEONARD LEE AND DEBRA COULTER	TH EXPLORATION, LLC	1/8+	1025	405	NA	NA	NA	NA	NA	NA	NA
10*24868	W	5-23-21	ANNE DWYER	TH EXPLORATION, LLC	1/8+	1028	95	NA	NA	NA	NA	NA	NA	NA
10*24917	W	5-23-21	WALTER AND CONNIE J STREIGHT	TH EXPLORATION, LLC	1/8+	1027	95	NA	NA	NA	NA	NA	NA	NA
10*14847	X	5-23-17.1	LETHA RUCKMAN	GASTAR EXPLORATION USA, INC	1/8+	806	270	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14849	X	5-23-17.1	DAVID GUSTELY	GASTAR EXPLORATION USA, INC	1/8+	806	265	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14853	X	5-23-17.1	DURWOOD WRIGHT	GASTAR EXPLORATION USA, INC	1/8+	809	507	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14861	X	5-23-17.1	NANCY WHITLATCH	GASTAR EXPLORATION USA, INC	1/8+	809	526	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14862	X	5-23-17.1	ANN GUSTELY	GASTAR EXPLORATION USA, INC	1/8+	809	568	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14864	X	5-23-17.1	CAROLYN DURWAY	GASTAR EXPLORATION USA, INC	1/8+	810	330	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14866	X	5-23-17.1	GARY CARMICHAEL	GASTAR EXPLORATION USA, INC	1/8+	810	316	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC

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10*14868	X	5-23-17.1	WOODROW CAMPBELL, JR.	GASTAR EXPLORATION USA, INC	1/8+	813	454	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14869	X	5-23-17.1	RALPH VAUGHN TAYLOR	GASTAR EXPLORATION USA, INC	1/8+	813	561	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14870	X	5-23-17.1	DAVID CARMICHAEL	GASTAR EXPLORATION USA, INC	1/8+	816	16	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14872	X	5-23-17.1	DWG OIL & GAS ACQUISITIONS LLC	GASTAR EXPLORATION USA, INC	1/8+	817	312	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14873	X	5-23-17.1	RAYMOND MILLER	GASTAR EXPLORATION USA, INC	1/8+	821	44	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14874	X	5-23-17.1	RICHARD MILLER	GASTAR EXPLORATION INC	1/8+	822	260	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14875	X	5-23-17.1	DAVID DRAKE	GASTAR EXPLORATION INC	1/8+	827	273	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14876	X	5-23-17.1	SHIRLEY LARGENT	GASTAR EXPLORATION INC	1/8+	827	228	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14877	X	5-23-17.1	GARY OBLOY	GASTAR EXPLORATION INC	1/8+	836	112	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14878	X	5-23-17.1	ARTHUR BRUCE COULTER	GASTAR EXPLORATION INC	1/8+	839	519	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14879	X	5-23-17.1	THERESA RINE	GASTAR EXPLORATION INC	1/8+	840	162	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14880	X	5-23-17.1	IRIS LUCAS	GASTAR EXPLORATION INC	1/8+	849	545	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14881	X	5-23-17.1	MARY WHITLATCH	GASTAR EXPLORATION INC	1/8+	849	548	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14882	X	5-23-17.1	GARY RINE	GASTAR EXPLORATION INC	1/8+	849	551	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC

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10*14883	X	5-23-17.1	PAUL WISE	GASTAR EXPLORATION INC	1/8+	852	252	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14884	X	5-23-17.1	RENEE HAGERTY	GASTAR EXPLORATION INC	1/8+	852	255	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14885	X	5-23-17.1	HOWARD RINE	GASTAR EXPLORATION INC	1/8+	854	601	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14886	X	5-23-17.1	JODI YOHO	GASTAR EXPLORATION INC	1/8+	854	604	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14887	X	5-23-17.1	CHRISTINA ROBERTS	GASTAR EXPLORATION INC	1/8+	867	392	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14888	X	5-23-17.1	DARLENE BUTLER	GASTAR EXPLORATION INC	1/8+	867	395	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14889	X	5-23-17.1	HAROLD YOHO	GASTAR EXPLORATION INC	1/8+	870	37	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14890	X	5-23-17.1	HENRY MALONE JR	GASTAR EXPLORATION INC	1/8+	870	40	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14891	X	5-23-17.1	NANCY F FYE AND STEPHEN M FYE	GASTAR EXPLORATION INC	1/8+	885	606	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*16034	X	5-23-17.1	GASTON FAMILY INVESTMENTS LLC	TH EXPLORATION, LLC	1/8+	902	163	NA	NA	NA	NA	NA	NA	NA
10*16648	X	5-23-17.1	GASTAR EXPLORATION USA INC	TH EXPLORATION, LLC	1/8+	894	278	NA	NA	NA	NA	NA	NA	NA
10*17145	X	5-23-17.1	JAMES J. CAMPBELL BETTY J. CAMPBELL	CHESAPEAKE APPALACHIA, LLC	1/8+	685	458	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17146	X	5-23-17.1	CAROLYN CAMPBELL BRITTON ROBERT C. BRITTON	CHESAPEAKE APPALACHIA, LLC	1/8+	685	464	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC

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10*17147	X	5-23-17.1	JOANN J. PARSONS GARY D. PARSONS	CHESAPEAKE APPALACHIA, LLC	1/8+	685	470	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17148	X	5-23-17.1	DONALD E. CAMPBELL JUNE L. CAMPBELL	CHESAPEAKE APPALACHIA, LLC	1/8+	685	476	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17149	X	5-23-17.1	WANDA M. BLAKE	CHESAPEAKE APPALACHIA, LLC	1/8+	685	482	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17150	X	5-23-17.1	IDA L. CAMPBELL	CHESAPEAKE APPALACHIA, LLC	1/8+	685	488	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17502	X	5-23-17.1	PATRICIA E GUSTELY DONALD S BOBOVNIK AND DOLORES J BOBOVNIK	TH EXPLORATION, LLC	1/8+	942	334	NA	NA	NA	NA	NA	NA	NA
10*17532	X	5-23-17.1	RONALD L MAYER AND DEBRA A MAYER	TH EXPLORATION, LLC	1/8+	929	580	NA	NA	NA	NA	NA	NA	NA
10*17535	X	5-23-17.1	JOANN HAGERTY	TH EXPLORATION, LLC	1/8+	942	342	NA	NA	NA	NA	NA	NA	NA
10*17539	X	5-23-17.1	MONTY ESTEL	TH EXPLORATION, LLC	1/8+	941	624	NA	NA	NA	NA	NA	NA	NA
10*17541	X	5-23-17.1	ROBERT D STRAWN AND TAMMY J STRAWN	TH EXPLORATION, LLC	1/8+	942	21	NA	NA	NA	NA	NA	NA	NA
10*17542	X	5-23-17.1	JEFFREY G HAZEL AND SHEILA M HAZEL	TH EXPLORATION, LLC	1/8+	942	12	NA	NA	NA	NA	NA	NA	NA
10*17543	X	5-23-17.1	CARL EDWARD MCCOY AND CAROLYN SUE MCCOY	TH EXPLORATION, LLC	1/8+	942	15	NA	NA	NA	NA	NA	NA	NA
10*17544	X	5-23-17.1	DEBORAH LYNN SCHWING	TH EXPLORATION, LLC	1/8+	942	377	NA	NA	NA	NA	NA	NA	NA
10*17545	X	5-23-17.1	LINDA SWOPE	TH EXPLORATION, LLC	1/8+	942	24	NA	NA	NA	NA	NA	NA	NA

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10*17546	X	5-23-17.1	SAMUEL EARL FRANCIS AND ALICE L FRANCIS	TH EXPLORATION, LLC	1/8+	942	374	NA	NA	NA	NA	NA	NA	NA
10*17593	X	5-23-17.1	REBECCA HAGERTY	TH EXPLORATION, LLC	1/8+	942	350	NA	NA	NA	NA	NA	NA	NA
10*17594	X	5-23-17.1	MEGAN HAGERTY	TH EXPLORATION, LLC	1/8+	942	362	NA	NA	NA	NA	NA	NA	NA
10*17595	X	5-23-17.1	THOMAS E RINE AND MARY P RINE	TH EXPLORATION, LLC	1/8+	929	572	NA	NA	NA	NA	NA	NA	NA
10*17640	X	5-23-17.1	PATRICIA A GARCAR	TH EXPLORATION, LLC	1/8+	942	8	NA	NA	NA	NA	NA	NA	NA
10*17679	X	5-23-17.1	NORMA J ASH	TH EXPLORATION, LLC	1/8+	944	130	NA	NA	NA	NA	NA	NA	NA
10*17680	X	5-23-17.1	DAVID E CHURCH	TH EXPLORATION, LLC	1/8+	932	424	NA	NA	NA	NA	NA	NA	NA
10*17681	X	5-23-17.1	WALTER E LOSEY AND CINDY L LOSEY	TH EXPLORATION, LLC	1/8+	942	338	NA	NA	NA	NA	NA	NA	NA
10*17682	X	5-23-17.1	JAMES E GARLOCH AND MARY K GARLOCH	TH EXPLORATION, LLC	1/8+	935	68	NA	NA	NA	NA	NA	NA	NA
10*17683	X	5-23-17.1	PATRICK HAGERTY AND DALANE HAGERTY	TH EXPLORATION, LLC	1/8+	942	358	NA	NA	NA	NA	NA	NA	NA
10*17684	X	5-23-17.1	DAVID MCCOY AND LORI MCCOY	TH EXPLORATION, LLC	1/8+	942	18	NA	NA	NA	NA	NA	NA	NA
10*17715	X	5-23-17.1	ROBERT A SANDS AND JOYCE A SANDS	TH EXPLORATION, LLC	1/8+	942	354	NA	NA	NA	NA	NA	NA	NA
10*17719	X	5-23-17.1	ROBERT R DARROW	TH EXPLORATION, LLC	1/8+	942	380	NA	NA	NA	NA	NA	NA	NA
10*17720	X	5-23-17.1	WILLIAM KOTSON AND DEBRA KOTSON	TH EXPLORATION, LLC	1/8+	938	507	NA	NA	NA	NA	NA	NA	NA
10*17775	X	5-23-17.1	HAROLD H HAGERTY AND DEBORAH M HAGERTY	TH EXPLORATION, LLC	1/8+	942	370	NA	NA	NA	NA	NA	NA	NA
10*17776	X	5-23-17.1	JAMES GARCAR AND MELISSA GARCAR	TH EXPLORATION, LLC	1/8+	941	627	NA	NA	NA	NA	NA	NA	NA

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10*17824	X	5-23-17.1	SARA FULTON	TH EXPLORATION, LLC	1/8+	942	384	NA	NA	NA	NA	NA	NA
10*17901	X	5-23-17.1	ROBYN HAGERTY	TH EXPLORATION, LLC	1/8+	924	602	NA	NA	NA	NA	NA	NA
10*17965	X	5-23-17.1	ROBERT DAVID BARNES AND RHONDA BARNES	TH EXPLORATION, LLC	1/8+	942	366	NA	NA	NA	NA	NA	NA
10*18042	X	5-23-17.1	JOSEPH J ONORE	TH EXPLORATION, LLC	1/8+	927	101	NA	NA	NA	NA	NA	NA
10*18043	X	5-23-17.1	JAMES M ONORE AND CINDY L ONORE	TH EXPLORATION, LLC	1/8+	927	105	NA	NA	NA	NA	NA	NA
10*18044	X	5-23-17.1	TRACEY ESTEL	TH EXPLORATION, LLC	1/8+	927	109	NA	NA	NA	NA	NA	NA
10*18176	X	5-23-17.1	CRYSTAL M HOOKER AND JAMES HOOKER	TH EXPLORATION, LLC	1/8+	929	568	NA	NA	NA	NA	NA	NA
10*18247	X	5-23-17.1	MILDRED S KIRKPATRICK	TH EXPLORATION, LLC	1/8+	917	132	NA	NA	NA	NA	NA	NA
10*18320	X	5-23-17.1	SAMUEL F HENRY	TH EXPLORATION, LLC	1/8+	931	246	NA	NA	NA	NA	NA	NA
10*18329	X	5-23-17.1	COLLEEN HAGERTY	TH EXPLORATION, LLC	1/8+	929	560	NA	NA	NA	NA	NA	NA
10*18367	X	5-23-17.1	WALTER C SCHUBERT AND BARBARA A SCHUBERT	TH EXPLORATION, LLC	1/8+	931	377	NA	NA	NA	NA	NA	NA
10*18368	X	5-23-17.1	ROBERTA K MILLER	TH EXPLORATION, LLC	1/8+	931	457	NA	NA	NA	NA	NA	NA
10*18371	X	5-23-17.1	HERMAN D ESTEL	TH EXPLORATION, LLC	1/8+	931	461	NA	NA	NA	NA	NA	NA
10*18386	X	5-23-17.1	JOSEPH R RINE AND JENNIFER M RINE	TH EXPLORATION, LLC	1/8+	932	492	NA	NA	NA	NA	NA	NA
10*18598	X	5-23-17.1	MARK E GUSTELY	TH EXPLORATION, LLC	1/8+	935	52	NA	NA	NA	NA	NA	NA
10*18795	X	5-23-17.1	GASTON FAMILY INVESTMENTS LLC	TH EXPLORATION, LLC	1/8+	959	502	NA	NA	NA	NA	NA	NA

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10*18994	X	5-23-17.1	SHIRLEY ANN DRAKE	TH EXPLORATION, LLC	1/8+	940	137	NA	NA	NA	NA	NA	NA	NA
10*19656	X	5-23-17.1	DEBRA ROUDEBUSH	TH EXPLORATION, LLC	1/8+	944	105	NA	NA	NA	NA	NA	NA	NA
10*19736	X	5-23-17.1	DOROTHY HLINKA	TH EXPLORATION, LLC	1/8+	944	571	NA	NA	NA	NA	NA	NA	NA
10*19999	X	5-23-17.1	MELISSA ANN BRAUN AND RAYMOND BRAUN	TH EXPLORATION, LLC	1/8+	951	627	NA	NA	NA	NA	NA	NA	NA
10*21084	X	5-23-17.1	RANDALL C ROGERSON & TRACY LYNN ROGERSON	TH EXPLORATION, LLC	1/8+	949	368	NA	NA	NA	NA	NA	NA	NA
10*21217	X	5-23-17.1	KEITH JAY FISCHER AND DAWN M FISCHER	TH EXPLORATION, LLC	1/8+	952	643	NA	NA	NA	NA	NA	NA	NA
10*21222	X	5-23-17.1	PATRICIA J SHAW KELLER	TH EXPLORATION, LLC	1/8+	946	43	NA	NA	NA	NA	NA	NA	NA
10*21425	X	5-23-17.1	ORIE N YOUNG AND BERNIE A YOUNG	TH EXPLORATION, LLC	1/8+	957	29	NA	NA	NA	NA	NA	NA	NA
10*21428	X	5-23-17.1	FRANCIS R SMITH AND ANNA M SMITH	TH EXPLORATION, LLC	1/8+	957	37	NA	NA	NA	NA	NA	NA	NA
10*21434	X	5-23-17.1	CATHERINE HUMMEL	TH EXPLORATION, LLC	1/8+	957	33	NA	NA	NA	NA	NA	NA	NA
10*21451	X	5-23-17.1	RICHARD RICH AND KAREN RICH	TH EXPLORATION, LLC	1/8+	954	254	NA	NA	NA	NA	NA	NA	NA
10*21452	X	5-23-17.1	KIMBERLY COX	TH EXPLORATION, LLC	1/8+	954	262	NA	NA	NA	NA	NA	NA	NA
10*21457	X	5-23-17.1	WARREN L COULTER AND ROSLINA A COULTER	TH EXPLORATION, LLC	1/8+	954	249	NA	NA	NA	NA	NA	NA	NA
10*21458	X	5-23-17.1	HUSTON A SMITH JR AND ANN C SMITH	TH EXPLORATION, LLC	1/8+	957	45	NA	NA	NA	NA	NA	NA	NA
10*21459	X	5-23-17.1	JAMES L CHURCH	TH EXPLORATION, LLC	1/8+	957	41	NA	NA	NA	NA	NA	NA	NA

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10*21498	X	5-23-17.1	MABEL SHILLINGBURG AND CLIFFORD SHILLINGBURG	TH EXPLORATION, LLC	1/8+	954	258	NA	NA	NA	NA	NA	NA
10*21500	X	5-23-17.1	MATTHEW COULTER AND SIMONE COULTER	TH EXPLORATION, LLC	1/8+	954	245	NA	NA	NA	NA	NA	NA
10*21501	X	5-23-17.1	EUGENIA E HOUSER	TH EXPLORATION, LLC	1/8+	954	241	NA	NA	NA	NA	NA	NA
10*21502	X	5-23-17.1	DEBRA MURIN	TH EXPLORATION, LLC	1/8+	954	237	NA	NA	NA	NA	NA	NA
10*21503	X	5-23-17.1	DARLENE M DAVIS	TH EXPLORATION, LLC	1/8+	954	233	NA	NA	NA	NA	NA	NA
10*21562	X	5-23-17.1	MARY ETTA TAYLOR AND GARY W TAYLOR	TH EXPLORATION, LLC	1/8+	958	414	NA	NA	NA	NA	NA	NA
10*21563	X	5-23-17.1	DAVID R TAYLOR AND MARIA TAYLOR	TH EXPLORATION, LLC	1/8+	958	422	NA	NA	NA	NA	NA	NA
10*21565	X	5-23-17.1	KORENE SUE LANTZ	TH EXPLORATION, LLC	1/8+	957	462	NA	NA	NA	NA	NA	NA
10*21566	X	5-23-17.1	HERBERT M TAYLOR AND LENORA E TAYLOR	TH EXPLORATION, LLC	1/8+	958	418	NA	NA	NA	NA	NA	NA
10*21615	X	5-23-17.1	GARY PARSONS AND JOANN J PARSONS	TH EXPLORATION, LLC	1/8+	959	347	NA	NA	NA	NA	NA	NA
10*21626	X	5-23-17.1	CLARENCE RANDALL EMERY AND PAULA JEAN EMERY	TH EXPLORATION, LLC	1/8+	958	344	NA	NA	NA	NA	NA	NA
10*21632	X	5-23-17.1	JOHN ARLES EMERY	TH EXPLORATION, LLC	1/8+	959	339	NA	NA	NA	NA	NA	NA
10*21655	X	5-23-17.1	STANLEY GUSTELY	TH EXPLORATION, LLC	1/8+	965	206	NA	NA	NA	NA	NA	NA
10*21656	X	5-23-17.1	JOHN OBLOY AND JANET L OBLOY	TH EXPLORATION, LLC	1/8+	959	331	NA	NA	NA	NA	NA	NA
10*21657	X	5-23-17.1	RONALD J SALKOVICK JR & SANDRA SALKOVICK	TH EXPLORATION, LLC	1/8+	958	373	NA	NA	NA	NA	NA	NA
10*21774	X	5-23-17.1	JOYCE KAY BURTON AND SAMUEL C BURTON	TH EXPLORATION, LLC	1/8+	957	467	NA	NA	NA	NA	NA	NA

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10*21813	X	5-23-17.1	STUART WHITE AND BETTY WHITE	TH EXPLORATION, LLC	1/8+	958	352	NA	NA	NA	NA	NA	NA	NA
10*21815	X	5-23-17.1	JAMES NEAL EMERY AND RENEE R EMERY	TH EXPLORATION, LLC	1/8+	958	348	NA	NA	NA	NA	NA	NA	NA
10*21816	X	5-23-17.1	CINDY GREEN AND LARRY GREEN	TH EXPLORATION, LLC	1/8+	958	356	NA	NA	NA	NA	NA	NA	NA
10*21817	X	5-23-17.1	MARY LOU HLINKA AND RICHARD G HLINKA SR	TH EXPLORATION, LLC	1/8+	959	514	NA	NA	NA	NA	NA	NA	NA
10*21819	X	5-23-17.1	MARY CATHERINE THOMS OTT	TH EXPLORATION, LLC	1/8+	958	360	NA	NA	NA	NA	NA	NA	NA
10*21820	X	5-23-17.1	MARION DAVID OTT & JANICE L OTT	TH EXPLORATION, LLC	1/8+	959	506	NA	NA	NA	NA	NA	NA	NA
10*21832	X	5-23-17.1	MARQUITA CLYBURN	TH EXPLORATION, LLC	1/8+	959	510	NA	NA	NA	NA	NA	NA	NA
10*21886	X	5-23-17.1	THEODORE GROUNDS & ROBERTA H GROUNDS	TH EXPLORATION, LLC	1/8+	957	117	NA	NA	NA	NA	NA	NA	NA
10*21948	X	5-23-17.1	BARBARA H COAKLEY	TH EXPLORATION, LLC	1/8+	960	66	NA	NA	NA	NA	NA	NA	NA
10*21949	X	5-23-17.1	ROBIN ADAIR GUMP AND LOUIS M GUMP	TH EXPLORATION, LLC	1/8+	960	70	NA	NA	NA	NA	NA	NA	NA
10*21950	X	5-23-17.1	JUDITH A TAYLOR	TH EXPLORATION, LLC	1/8+	960	74	NA	NA	NA	NA	NA	NA	NA
10*21951	X	5-23-17.1	CHARLES DOUGLAS LANE	TH EXPLORATION, LLC	1/8+	960	77	NA	NA	NA	NA	NA	NA	NA
10*21994	X	5-23-17.1	MELISSA L DARROW	TH EXPLORATION, LLC	1/8+	954	328	NA	NA	NA	NA	NA	NA	NA
10*22013	X	5-23-17.1	CHARLES J KNOX	TH EXPLORATION, LLC	1/8+	966	112	NA	NA	NA	NA	NA	NA	NA
10*22014	X	5-23-17.1	SHERMAN E KNOX JR	TH EXPLORATION, LLC	1/8+	966	108	NA	NA	NA	NA	NA	NA	NA
10*22018	X	5-23-17.1	KATHLEEN ROBERTSON	TH EXPLORATION, LLC	1/8+	960	539	NA	NA	NA	NA	NA	NA	NA

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10*22026	X	5-23-17.1	KEVIN D CHURCH	TH EXPLORATION, LLC	1/8+	957	49	NA	NA	NA	NA	NA	NA	NA
10*22027	X	5-23-17.1	STEPHEN C EMERY AND CATHY J EMERY	TH EXPLORATION, LLC	1/8+	954	310	NA	NA	NA	NA	NA	NA	NA
10*22093	X	5-23-17.1	TODD LEARN AND KENDA LEARN	TH EXPLORATION, LLC	1/8+	954	314	NA	NA	NA	NA	NA	NA	NA
10*22102	X	5-23-17.1	BONNIE LOU GRUBER	TH EXPLORATION, LLC	1/8+	954	302	NA	NA	NA	NA	NA	NA	NA
10*22128	X	5-23-17.1	BETTY PYSELL	TH EXPLORATION, LLC	1/8+	961	433	NA	NA	NA	NA	NA	NA	NA
10*22142	X	5-23-17.1	CHERYL L HILL	TH EXPLORATION, LLC	1/8+	961	423	NA	NA	NA	NA	NA	NA	NA
10*22143	X	5-23-17.1	WANDA J RIDING AND GERALD R RIDING	TH EXPLORATION, LLC	1/8+	961	426	NA	NA	NA	NA	NA	NA	NA
10*22144	X	5-23-17.1	VICKY STRAUSS AND DENNIS A STRAUSS	TH EXPLORATION, LLC	1/8+	961	529	NA	NA	NA	NA	NA	NA	NA
10*22165	X	5-23-17.1	DEBRA L LYSESKI AND GERALD A LYSESKI	TH EXPLORATION, LLC	1/8+	954	306	NA	NA	NA	NA	NA	NA	NA
10*22178	X	5-23-17.1	ANGELA HENTHORN AND WILLIAM R HENTHORN	TH EXPLORATION, LLC	1/8+	972	58	NA	NA	NA	NA	NA	NA	NA
10*22287	X	5-23-17.1	MISSY JONES AND MICHAEL JONES	TH EXPLORATION, LLC	1/8+	962	195	NA	NA	NA	NA	NA	NA	NA
10*22332	X	5-23-17.1	DORIS WEST AND ROBERT WEST	TH EXPLORATION, LLC	1/8+	962	542	NA	NA	NA	NA	NA	NA	NA
10*22339	X	5-23-17.1	BETTY LEE HOWARD LOY	TH EXPLORATION, LLC	1/8+	963	392	NA	NA	NA	NA	NA	NA	NA
10*22354	X	5-23-17.1	LORETTA M DOUGHERTY AND DAVID DOUGHERTY	TH EXPLORATION, LLC	1/8+	964	516	NA	NA	NA	NA	NA	NA	NA
10*22436	X	5-23-17.1	TESSEAN FAMILY REVOCABLE LIVING TRUST	TH EXPLORATION, LLC	1/8+	963	626	NA	NA	NA	NA	NA	NA	NA

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10*22437	X	5-23-17.1	SHERRY L IMRIE AND DANIEL IMRIE JR	TH EXPLORATION, LLC	1/8+	963	631	NA	NA	NA	NA	NA	NA	NA
10*22440	X	5-23-17.1	EUGENE FANKHAUSER	TH EXPLORATION, LLC	1/8+	963	153	NA	NA	NA	NA	NA	NA	NA
10*22443	X	5-23-17.1	GATHA CHAMBERS	TH EXPLORATION, LLC	1/8+	963	622	NA	NA	NA	NA	NA	NA	NA
10*22450	X	5-23-17.1	JUDY ANN MERCER	TH EXPLORATION, LLC	1/8+	963	634	NA	NA	NA	NA	NA	NA	NA
10*22503	X	5-23-17.1	KENNETH R SHAW AND DONNA K SHAW	TH EXPLORATION, LLC	1/8+	966	518	NA	NA	NA	NA	NA	NA	NA
10*22504	X	5-23-17.1	MELVIN FANKHAUSER	TH EXPLORATION, LLC	1/8+	974	351	NA	NA	NA	NA	NA	NA	NA
10*22505	X	5-23-17.1	JAMES D DRAKE AND DONNA K DRAKE	TH EXPLORATION, LLC	1/8+	964	425	NA	NA	NA	NA	NA	NA	NA
10*22509	X	5-23-17.1	RANDY BERISFORD AND LINDA JO BERISFORD	TH EXPLORATION, LLC	1/8+	964	429	NA	NA	NA	NA	NA	NA	NA
10*22560	X	5-23-17.1	RONALD JOE KELLER	TH EXPLORATION, LLC	1/8+	965	485	NA	NA	NA	NA	NA	NA	NA
10*22592	X	5-23-17.1	RUSSELL W ROGERSON AND SUSAN ROGERSON	TH EXPLORATION, LLC	1/8+	966	119	NA	NA	NA	NA	NA	NA	NA
10*22593	X	5-23-17.1	RONALD E ROGERSON	TH EXPLORATION, LLC	1/8+	966	116	NA	NA	NA	NA	NA	NA	NA
10*22594	X	5-23-17.1	JAMES WADE	TH EXPLORATION, LLC	1/8+	965	481	NA	NA	NA	NA	NA	NA	NA
10*22609	X	5-23-17.1	KATHY JO CULLUM	TH EXPLORATION, LLC	1/8+	966	514	NA	NA	NA	NA	NA	NA	NA
10*22613	X	5-23-17.1	JEWEL L CAMPBELL	TH EXPLORATION, LLC	1/8+	966	510	NA	NA	NA	NA	NA	NA	NA
10*22644	X	5-23-17.1	RICHARD EUGENE KELLER	TH EXPLORATION, LLC	1/8+	968	214	NA	NA	NA	NA	NA	NA	NA
10*22779	X	5-23-17.1	STEVEN WADE	TH EXPLORATION, LLC	1/8+	968	424	NA	NA	NA	NA	NA	NA	NA

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10*22809	X	5-23-17.1	MARGARET C MCMURRY & WILLIAM F MCMURRY	TH EXPLORATION, LLC	1/8+	972	54	NA	NA	NA	NA	NA	NA
10*22811	X	5-23-17.1	ROBERT E ROGERSON	TH EXPLORATION, LLC	1/8+	972	64	NA	NA	NA	NA	NA	NA
10*22812	X	5-23-17.1	JOSEPH F GOBLOWSKY	TH EXPLORATION, LLC	1/8+	968	428	NA	NA	NA	NA	NA	NA
10*22813	X	5-23-17.1	WANDA M. BLAKE	TH EXPLORATION, LLC	1/8+	974	171	NA	NA	NA	NA	NA	NA
10*22861	X	5-23-17.1	LAURINE C CURTIS & EDGAR A CURTIS III	TH EXPLORATION, LLC	1/8+	976	147	NA	NA	NA	NA	NA	NA
10*23166	X	5-23-17.1	JAMES DAVID CRANDALL	TH EXPLORATION, LLC	1/8+	984	48	NA	NA	NA	NA	NA	NA
10*23168	X	5-23-17.1	JASON WADE	TH EXPLORATION, LLC	1/8+	966	506	NA	NA	NA	NA	NA	NA
10*23368	X	5-23-17.1	ROSE MARIE CAMPBELL	TH EXPLORATION, LLC	1/8+	988	447	NA	NA	NA	NA	NA	NA
10*23369	X	5-23-17.1	STEFANIE CIRILLI AND MATTHEW CIRILLI	TH EXPLORATION, LLC	1/8+	988	451	NA	NA	NA	NA	NA	NA
10*23370	X	5-23-17.1	DENVER J TAYLOR	TH EXPLORATION, LLC	1/8+	988	454	NA	NA	NA	NA	NA	NA
10*23371	X	5-23-17.1	JONNA MARPLE AND ERIK MARPLE	TH EXPLORATION, LLC	1/8+	988	442	NA	NA	NA	NA	NA	NA
10*23398	X	5-23-17.1	JON GUSTELY AND MARILYN NIJE	TH EXPLORATION, LLC	1/8+	1008	12	NA	NA	NA	NA	NA	NA
10*23410	X	5-23-17.1	JENNA WADE	TH EXPLORATION, LLC	1/8+	1008	16	NA	NA	NA	NA	NA	NA
10*23428	X	5-23-17.1	DAVID L SNYDER	TH EXPLORATION, LLC	1/8+	1008	313	NA	NA	NA	NA	NA	NA
10*23444	X	5-23-17.1	JENNIFER CUICHTA AND KEVIN CUICHTA	TH EXPLORATION, LLC	1/8+	1008	310	NA	NA	NA	NA	NA	NA
10*23505	X	5-23-17.1	RENEE KELLAR	TH EXPLORATION, LLC	1/8+	971	633	NA	NA	NA	NA	NA	NA

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10*23647	X	5-23-17.1	MARILYN M ROBINSON	TH EXPLORATION, LLC	1/8+	1009	309	NA	NA	NA	NA	NA	NA
10*23648	X	5-23-17.1	PAUL D RINE JR	TH EXPLORATION, LLC	1/8+	1009	313	NA	NA	NA	NA	NA	NA
10*23672	X	5-23-17.1	CHAD FRANCIS AND LISA FRANCIS	TH EXPLORATION, LLC	1/8+	1010	356	NA	NA	NA	NA	NA	NA
10*23727	X	5-23-17.1	LISA TUCKER AND FRANCIS TUCKER	TH EXPLORATION, LLC	1/8+	1011	525	NA	NA	NA	NA	NA	NA
10*23756	X	5-23-17.1	KAREN DRAKE AND JEFF DRAKE	TH EXPLORATION, LLC	1/8+	1012	182	NA	NA	NA	NA	NA	NA
10*23757	X	5-23-17.1	DAVID DRAKE	TH EXPLORATION, LLC	1/8+	1012	187	NA	NA	NA	NA	NA	NA
10*23767	X	5-23-17.1	MARK ALAN SLATEN	TH EXPLORATION, LLC	1/8+	1014	481	NA	NA	NA	NA	NA	NA
10*23771	X	5-23-17.1	ROBIN ROSE	TH EXPLORATION, LLC	1/8+	1014	485	NA	NA	NA	NA	NA	NA
10*23792	X	5-23-17.1	STEVEN W SLATEN AND RHONDA SLATEN	TH EXPLORATION, LLC	1/8+	1014	488	NA	NA	NA	NA	NA	NA
10*23793	X	5-23-17.1	ELIZABETH BENNETT AND DONNIE BENNETT	TH EXPLORATION, LLC	1/8+	1014	492	NA	NA	NA	NA	NA	NA
10*23794	X	5-23-17.1	PATTY JEAN LANTZ	TH EXPLORATION, LLC	1/8+	1014	495	NA	NA	NA	NA	NA	NA
10*23826	X	5-23-17.1	NANCY C DWYER AND WENDEL MARTINKOVIC	TH EXPLORATION, LLC	1/8+	1017	6	NA	NA	NA	NA	NA	NA
10*23838	X	5-23-17.1	RONALD DEAN YOHO & VICTORIA LYNN YOHO	TH EXPLORATION, LLC	1/8+	1017	1	NA	NA	NA	NA	NA	NA
10*23883	X	5-23-17.1	VICKI ANN WILLIAMS & WILLIAM J WILLIAMS	TH EXPLORATION, LLC	1/8+	1016	644	NA	NA	NA	NA	NA	NA
10*24236	X	5-23-17.1	CONNIE L HALL	TH EXPLORATION, LLC	1/8+	1015	138	NA	NA	NA	NA	NA	NA
10*24274	X	5-23-17.1	JO ELLEN GUSTELY	TH EXPLORATION, LLC	1/8+	1023	527	NA	NA	NA	NA	NA	NA

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10*24483	X	5-23-17.1	SUSAN AND KEVIN J ALFRED	TH EXPLORATION, LLC	1/8+	1025	401	NA	NA	NA	NA	NA	NA	NA
10*24551	X	5-23-17.1	LEONARD LEE AND DEBRA COULTER	TH EXPLORATION, LLC	1/8+	1025	405	NA	NA	NA	NA	NA	NA	NA
10*24751	X	5-23-17.1	WILLIAM D AND KIM TAYLOR	TH EXPLORATION, LLC	1/8+	1027	315	NA	NA	NA	NA	NA	NA	NA
10*24752	X	5-23-17.1	PATTI KENNEDY	TH EXPLORATION, LLC	1/8+	1027	312	NA	NA	NA	NA	NA	NA	NA
10*24860	X	5-23-17.1	THE ESTATE OF HOWARD G TAYLOR	TH EXPLORATION, LLC	1/8+	1028	92	NA	NA	NA	NA	NA	NA	NA
10*24868	X	5-23-17.1	ANNE DWYER	TH EXPLORATION, LLC	1/8+	1028	95	NA	NA	NA	NA	NA	NA	NA
10*24917	X	5-23-17.1	WALTER AND CONNIE J STREIGHT	TH EXPLORATION, LLC	1/8+	1027	95	NA	NA	NA	NA	NA	NA	NA
10*14847	Y	5-23-17.2	LETHA RUCKMAN	GASTAR EXPLORATION USA, INC	1/8+	806	270	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14849	Y	5-23-17.2	DAVID GUSTELY	GASTAR EXPLORATION USA, INC	1/8+	806	265	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14853	Y	5-23-17.2	DURWOOD WRIGHT	GASTAR EXPLORATION USA, INC	1/8+	809	507	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14861	Y	5-23-17.2	NANCY WHITLATCH	GASTAR EXPLORATION USA, INC	1/8+	809	526	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14862	Y	5-23-17.2	ANN GUSTELY	GASTAR EXPLORATION USA, INC	1/8+	809	568	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14864	Y	5-23-17.2	CAROLYN DURWAY	GASTAR EXPLORATION USA, INC	1/8+	810	330	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14866	Y	5-23-17.2	GARY CARMICHAEL	GASTAR EXPLORATION USA, INC	1/8+	810	316	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14868	Y	5-23-17.2	WOODROW CAMPBELL, JR.	GASTAR EXPLORATION USA, INC	1/8+	813	454	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC

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10*14869	Y	5-23-17.2	RALPH VAUGHN TAYLOR	GASTAR EXPLORATION USA, INC	1/8+	813	561	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14870	Y	5-23-17.2	DAVID CARMICHAEL	GASTAR EXPLORATION USA, INC	1/8+	816	16	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14872	Y	5-23-17.2	DWG OIL & GAS ACQUISITIONS LLC	GASTAR EXPLORATION USA, INC	1/8+	817	312	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14873	Y	5-23-17.2	RAYMOND MILLER	GASTAR EXPLORATION USA, INC	1/8+	821	44	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14874	Y	5-23-17.2	RICHARD MILLER	GASTAR EXPLORATION INC	1/8+	822	260	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14875	Y	5-23-17.2	DAVID DRAKE	GASTAR EXPLORATION INC	1/8+	827	273	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14876	Y	5-23-17.2	SHIRLEY LARGENT	GASTAR EXPLORATION INC	1/8+	827	228	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14877	Y	5-23-17.2	GARY OBLOY	GASTAR EXPLORATION INC	1/8+	836	112	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14878	Y	5-23-17.2	ARTHUR BRUCE COULTER	GASTAR EXPLORATION INC	1/8+	839	519	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14879	Y	5-23-17.2	THERESA RINE	GASTAR EXPLORATION INC	1/8+	840	162	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14880	Y	5-23-17.2	IRIS LUCAS	GASTAR EXPLORATION INC	1/8+	849	545	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14881	Y	5-23-17.2	MARY WHITLATCH	GASTAR EXPLORATION INC	1/8+	849	548	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14882	Y	5-23-17.2	GARY RINE	GASTAR EXPLORATION INC	1/8+	849	551	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14883	Y	5-23-17.2	PAUL WISE	GASTAR EXPLORATION INC	1/8+	852	252	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC

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10*14884	Y	5-23-17.2	RENEE HAGERTY	GASTAR EXPLORATION INC	1/8+	852	255	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14885	Y	5-23-17.2	HOWARD RINE	GASTAR EXPLORATION INC	1/8+	854	601	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14886	Y	5-23-17.2	JODI YOHO	GASTAR EXPLORATION INC	1/8+	854	604	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14887	Y	5-23-17.2	CHRISTINA ROBERTS	GASTAR EXPLORATION INC	1/8+	867	392	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14888	Y	5-23-17.2	DARLENE BUTLER	GASTAR EXPLORATION INC	1/8+	867	395	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14889	Y	5-23-17.2	HAROLD YOHO	GASTAR EXPLORATION INC	1/8+	870	37	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14890	Y	5-23-17.2	HENRY MALONE JR	GASTAR EXPLORATION INC	1/8+	870	40	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14891	Y	5-23-17.2	NANCY F FYE AND STEPHEN M FYE	GASTAR EXPLORATION INC	1/8+	885	606	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*16034	Y	5-23-17.2	GASTON FAMILY INVESTMENTS LLC	TH EXPLORATION, LLC	1/8+	902	163	NA	NA	NA	NA	NA	NA	NA
10*16648	Y	5-23-17.2	GASTAR EXPLORATION USA INC	TH EXPLORATION, LLC	1/8+	894	278	NA	NA	NA	NA	NA	NA	NA
10*17145	Y	5-23-17.2	JAMES J. CAMPBELL BETTY J. CAMPBELL	CHESAPEAKE APPALACHIA, LLC	1/8+	685	458	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17146	Y	5-23-17.2	CAROLYN CAMPBELL BRITTON ROBERT C. BRITTON	CHESAPEAKE APPALACHIA, LLC	1/8+	685	464	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17147	Y	5-23-17.2	JOANN J. PARSONS GARY D. PARSONS	CHESAPEAKE APPALACHIA, LLC	1/8+	685	470	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC

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10*17148	Y	5-23-17.2	DONALD E. CAMPBELL JUNE L. CAMPBELL	CHESAPEAKE APPALACHIA, LLC	1/8+	685	476	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17149	Y	5-23-17.2	WANDA M. BLAKE	CHESAPEAKE APPALACHIA, LLC	1/8+	685	482	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17150	Y	5-23-17.2	IDA L. CAMPBELL	CHESAPEAKE APPALACHIA, LLC	1/8+	685	488	NA	23/127 Chesapeake Appalachia, LLC to Statoil Onshore Properties Inc	33/110 Chesapeake Appalachia, LLC to SWN Production Company, LLC	33/424 Statoil Onshore Properties Inc to SWN Exchange Titleholder LLC	19/624 SWN Exchange Titleholder LLC to SWN Production Company LLC merger	41/238 Statoil Onshore Properties Inc to TH Exploration, LLC	41/256 SWN Production Company, LLC to TH Exploration, LLC
10*17502	Y	5-23-17.2	PATRICIA E GUSTELY DONALD S BOBOVNIK AND DOLORES J BOBOVNIK	TH EXPLORATION, LLC	1/8+	942	334	NA	NA	NA	NA	NA	NA	NA
10*17532	Y	5-23-17.2	PATRICIA E GUSTELY DONALD S BOBOVNIK AND DOLORES J BOBOVNIK	TH EXPLORATION, LLC	1/8+	942	346	NA	NA	NA	NA	NA	NA	NA
10*17535	Y	5-23-17.2	RONALD L MAYER AND DEBRA A MAYER	TH EXPLORATION, LLC	1/8+	929	580	NA	NA	NA	NA	NA	NA	NA
10*17539	Y	5-23-17.2	JOANN HAGERTY	TH EXPLORATION, LLC	1/8+	942	342	NA	NA	NA	NA	NA	NA	NA
10*17540	Y	5-23-17.2	MONTY ESTEL	TH EXPLORATION, LLC	1/8+	941	624	NA	NA	NA	NA	NA	NA	NA
10*17541	Y	5-23-17.2	ROBERT D STRAWN AND TAMMY J STRAWN	TH EXPLORATION, LLC	1/8+	942	21	NA	NA	NA	NA	NA	NA	NA
10*17542	Y	5-23-17.2	JEFFREY G HAZEL AND SHEILA M HAZEL	TH EXPLORATION, LLC	1/8+	942	12	NA	NA	NA	NA	NA	NA	NA
10*17543	Y	5-23-17.2	CARL EDWARD MCCOY AND CAROLYN SUE MCCOY	TH EXPLORATION, LLC	1/8+	942	15	NA	NA	NA	NA	NA	NA	NA
10*17544	Y	5-23-17.2	DEBORAH LYNN SCHWING	TH EXPLORATION, LLC	1/8+	942	377	NA	NA	NA	NA	NA	NA	NA
10*17545	Y	5-23-17.2	LINDA SWOPE	TH EXPLORATION, LLC	1/8+	942	24	NA	NA	NA	NA	NA	NA	NA
10*17546	Y	5-23-17.2	SAMUEL EARL FRANCIS AND ALICE L FRANCIS	TH EXPLORATION, LLC	1/8+	942	374	NA	NA	NA	NA	NA	NA	NA

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10*17593	Y	5-23-17.2	REBECCA HAGERTY	TH EXPLORATION, LLC	1/8+	942	350	NA	NA	NA	NA	NA	NA	NA
10*17594	Y	5-23-17.2	MEGAN HAGERTY	TH EXPLORATION, LLC	1/8+	942	362	NA	NA	NA	NA	NA	NA	NA
10*17595	Y	5-23-17.2	THOMAS E RINE AND MARY P RINE	TH EXPLORATION, LLC	1/8+	929	572	NA	NA	NA	NA	NA	NA	NA
10*17640	Y	5-23-17.2	PATRICIA A GARCAR	TH EXPLORATION, LLC	1/8+	942	8	NA	NA	NA	NA	NA	NA	NA
10*17679	Y	5-23-17.2	NORMA J ASH	TH EXPLORATION, LLC	1/8+	944	130	NA	NA	NA	NA	NA	NA	NA
10*17680	Y	5-23-17.2	DAVID E CHURCH	TH EXPLORATION, LLC	1/8+	932	424	NA	NA	NA	NA	NA	NA	NA
10*17681	Y	5-23-17.2	WALTER E LOSEY AND CINDY L LOSEY	TH EXPLORATION, LLC	1/8+	942	338	NA	NA	NA	NA	NA	NA	NA
10*17682	Y	5-23-17.2	JAMES E GARLOCH AND MARY K GARLOCH	TH EXPLORATION, LLC	1/8+	935	68	NA	NA	NA	NA	NA	NA	NA
10*17683	Y	5-23-17.2	PATRICK HAGERTY AND DALANE HAGERTY	TH EXPLORATION, LLC	1/8+	942	358	NA	NA	NA	NA	NA	NA	NA
10*17684	Y	5-23-17.2	DAVID MCCOY AND LORI MCCOY	TH EXPLORATION, LLC	1/8+	942	18	NA	NA	NA	NA	NA	NA	NA
10*17715	Y	5-23-17.2	ROBERT A SANDS AND JOYCE A SANDS	TH EXPLORATION, LLC	1/8+	942	354	NA	NA	NA	NA	NA	NA	NA
10*17719	Y	5-23-17.2	ROBERT R DARROW	TH EXPLORATION, LLC	1/8+	942	380	NA	NA	NA	NA	NA	NA	NA
10*17720	Y	5-23-17.2	WILLIAM KOTSON AND DEBRA KOTSON	TH EXPLORATION, LLC	1/8+	938	507	NA	NA	NA	NA	NA	NA	NA
10*17775	Y	5-23-17.2	HAROLD H HAGERTY AND DEBORAH M HAGERTY	TH EXPLORATION, LLC	1/8+	942	370	NA	NA	NA	NA	NA	NA	NA
10*17776	Y	5-23-17.2	JAMES GARCAR AND MELISSA GARCAR	TH EXPLORATION, LLC	1/8+	941	627	NA	NA	NA	NA	NA	NA	NA
10*17824	Y	5-23-17.2	SARA FULTON	TH EXPLORATION, LLC	1/8+	942	384	NA	NA	NA	NA	NA	NA	NA

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10*17901	Y	5-23-17.2	ROBYN HAGERTY	TH EXPLORATION, LLC	1/8+	924	602	NA	NA	NA	NA	NA	NA	NA
10*17965	Y	5-23-17.2	ROBERT DAVID BARNES AND RHONDA BARNES	TH EXPLORATION, LLC	1/8+	942	366	NA	NA	NA	NA	NA	NA	NA
10*18042	Y	5-23-17.2	JOSEPH J ONORE	TH EXPLORATION, LLC	1/8+	927	101	NA	NA	NA	NA	NA	NA	NA
10*18043	Y	5-23-17.2	JAMES M ONORE AND CINDY L ONORE	TH EXPLORATION, LLC	1/8+	927	105	NA	NA	NA	NA	NA	NA	NA
10*18044	Y	5-23-17.2	TRACEY ESTEL	TH EXPLORATION, LLC	1/8+	927	109	NA	NA	NA	NA	NA	NA	NA
10*18176	Y	5-23-17.2	CRYSTAL M HOOKER AND JAMES HOOKER	TH EXPLORATION, LLC	1/8+	929	568	NA	NA	NA	NA	NA	NA	NA
10*18247	Y	5-23-17.2	MILDRED S KIRKPATRICK	TH EXPLORATION, LLC	1/8+	917	132	NA	NA	NA	NA	NA	NA	NA
10*18320	Y	5-23-17.2	SAMUEL F HENRY	TH EXPLORATION, LLC	1/8+	931	246	NA	NA	NA	NA	NA	NA	NA
10*18329	Y	5-23-17.2	COLLEEN HAGERTY	TH EXPLORATION, LLC	1/8+	929	560	NA	NA	NA	NA	NA	NA	NA
10*18367	Y	5-23-17.2	WALTER C SCHUBERT AND BARBARA A SCHUBERT	TH EXPLORATION, LLC	1/8+	931	377	NA	NA	NA	NA	NA	NA	NA
10*18368	Y	5-23-17.2	ROBERTA K MILLER	TH EXPLORATION, LLC	1/8+	931	457	NA	NA	NA	NA	NA	NA	NA
10*18371	Y	5-23-17.2	HERMAN D ESTEL	TH EXPLORATION, LLC	1/8+	931	461	NA	NA	NA	NA	NA	NA	NA
10*18386	Y	5-23-17.2	JOSEPH R RINE AND JENNIFER M RINE	TH EXPLORATION, LLC	1/8+	932	492	NA	NA	NA	NA	NA	NA	NA
10*18598	Y	5-23-17.2	MARK E GUSTELY	TH EXPLORATION, LLC	1/8+	935	52	NA	NA	NA	NA	NA	NA	NA
10*18795	Y	5-23-17.2	GASTON FAMILY INVESTMENTS LLC	TH EXPLORATION, LLC	1/8+	959	502	NA	NA	NA	NA	NA	NA	NA
10*18994	Y	5-23-17.2	SHIRLEY ANN DRAKE	TH EXPLORATION, LLC	1/8+	940	137	NA	NA	NA	NA	NA	NA	NA

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10*19656	Y	5-23-17.2	DEBRA ROUDEBUSH	TH EXPLORATION, LLC	1/8+	944	105	NA	NA	NA	NA	NA	NA
10*19736	Y	5-23-17.2	DOROTHY HLINKA	TH EXPLORATION, LLC	1/8+	944	571	NA	NA	NA	NA	NA	NA
10*19999	Y	5-23-17.2	MELISSA ANN BRAUN AND RAYMOND BRAUN	TH EXPLORATION, LLC	1/8+	951	627	NA	NA	NA	NA	NA	NA
10*21084	Y	5-23-17.2	RANDALL C ROGERSON & TRACY LYNN ROGERSON	TH EXPLORATION, LLC	1/8+	949	368	NA	NA	NA	NA	NA	NA
10*21217	Y	5-23-17.2	KEITH JAY FISCHER AND DAWN M FISCHER	TH EXPLORATION, LLC	1/8+	952	643	NA	NA	NA	NA	NA	NA
10*21222	Y	5-23-17.2	PATRICIA J SHAW KELLER	TH EXPLORATION, LLC	1/8+	946	43	NA	NA	NA	NA	NA	NA
10*21425	Y	5-23-17.2	ORIE N YOUNG AND BERNIE A YOUNG	TH EXPLORATION, LLC	1/8+	957	29	NA	NA	NA	NA	NA	NA
10*21428	Y	5-23-17.2	FRANCIS R SMITH AND ANNA M SMITH	TH EXPLORATION, LLC	1/8+	957	37	NA	NA	NA	NA	NA	NA
10*21434	Y	5-23-17.2	CATHERINE HUMMEL	TH EXPLORATION, LLC	1/8+	957	33	NA	NA	NA	NA	NA	NA
10*21451	Y	5-23-17.2	RICHARD RICH AND KAREN RICH	TH EXPLORATION, LLC	1/8+	954	254	NA	NA	NA	NA	NA	NA
10*21452	Y	5-23-17.2	KIMBERLY COX	TH EXPLORATION, LLC	1/8+	954	262	NA	NA	NA	NA	NA	NA
10*21457	Y	5-23-17.2	WARREN L COULTER AND ROSLINA A COULTER	TH EXPLORATION, LLC	1/8+	954	249	NA	NA	NA	NA	NA	NA
10*21458	Y	5-23-17.2	HUSTON A SMITH JR AND ANN C SMITH	TH EXPLORATION, LLC	1/8+	957	45	NA	NA	NA	NA	NA	NA
10*21459	Y	5-23-17.2	JAMES L CHURCH	TH EXPLORATION, LLC	1/8+	957	41	NA	NA	NA	NA	NA	NA
10*21498	Y	5-23-17.2	MABEL SHILLINGBURG AND CLIFFORD SHILLINGBURG	TH EXPLORATION, LLC	1/8+	954	258	NA	NA	NA	NA	NA	NA

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10*21500	Y	5-23-17.2	MATTHEW COULTER AND SIMONE COULTER	TH EXPLORATION, LLC	1/8+	954	245	NA	NA	NA	NA	NA	NA
10*21501	Y	5-23-17.2	EUGENIA E HOUSER	TH EXPLORATION, LLC	1/8+	954	241	NA	NA	NA	NA	NA	NA
10*21502	Y	5-23-17.2	DEBRA MURIN	TH EXPLORATION, LLC	1/8+	954	237	NA	NA	NA	NA	NA	NA
10*21503	Y	5-23-17.2	DARLENE M DAVIS	TH EXPLORATION, LLC	1/8+	954	233	NA	NA	NA	NA	NA	NA
10*21562	Y	5-23-17.2	MARY ETTA TAYLOR AND GARY W TAYLOR	TH EXPLORATION, LLC	1/8+	958	414	NA	NA	NA	NA	NA	NA
10*21563	Y	5-23-17.2	DAVID R TAYLOR AND MARIA TAYLOR	TH EXPLORATION, LLC	1/8+	958	422	NA	NA	NA	NA	NA	NA
10*21565	Y	5-23-17.2	KORENE SUE LANTZ	TH EXPLORATION, LLC	1/8+	957	462	NA	NA	NA	NA	NA	NA
10*21566	Y	5-23-17.2	HERBERT M TAYLOR AND LENORA E TAYLOR	TH EXPLORATION, LLC	1/8+	958	418	NA	NA	NA	NA	NA	NA
10*21615	Y	5-23-17.2	GARY PARSONS AND JOANN J PARSONS	TH EXPLORATION, LLC	1/8+	959	347	NA	NA	NA	NA	NA	NA
10*21626	Y	5-23-17.2	CLARENCE RANDALL EMERY AND PAULA JEAN EMERY	TH EXPLORATION, LLC	1/8+	958	344	NA	NA	NA	NA	NA	NA
10*21632	Y	5-23-17.2	JOHN ARLES EMERY	TH EXPLORATION, LLC	1/8+	959	339	NA	NA	NA	NA	NA	NA
10*21655	Y	5-23-17.2	STANLEY GUSTELY	TH EXPLORATION, LLC	1/8+	965	206	NA	NA	NA	NA	NA	NA
10*21656	Y	5-23-17.2	JOHN OBLOY AND JANET L OBLOY	TH EXPLORATION, LLC	1/8+	959	331	NA	NA	NA	NA	NA	NA
10*21657	Y	5-23-17.2	RONALD J SALKOVICK JR & SANDRA SALKOVICK	TH EXPLORATION, LLC	1/8+	958	373	NA	NA	NA	NA	NA	NA
10*21774	Y	5-23-17.2	JOYCE KAY BURTON AND SAMUEL C BURTON	TH EXPLORATION, LLC	1/8+	957	467	NA	NA	NA	NA	NA	NA
10*21813	Y	5-23-17.2	STUART WHITE AND BETTY WHITE	TH EXPLORATION, LLC	1/8+	958	352	NA	NA	NA	NA	NA	NA

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10*21815	Y	5-23-17.2	JAMES NEAL EMERY AND RENEE R EMERY	TH EXPLORATION, LLC	1/8+	958	348	NA	NA	NA	NA	NA	NA
10*21816	Y	5-23-17.2	CINDY GREEN AND LARRY GREEN	TH EXPLORATION, LLC	1/8+	958	356	NA	NA	NA	NA	NA	NA
10*21817	Y	5-23-17.2	MARY LOU HLINKA AND RICHARD G HLINKA SR	TH EXPLORATION, LLC	1/8+	959	514	NA	NA	NA	NA	NA	NA
10*21819	Y	5-23-17.2	MARY CATHERINE THOMS OTT	TH EXPLORATION, LLC	1/8+	958	360	NA	NA	NA	NA	NA	NA
10*21820	Y	5-23-17.2	MARION DAVID OTT & JANICE L OTT	TH EXPLORATION, LLC	1/8+	959	506	NA	NA	NA	NA	NA	NA
10*21832	Y	5-23-17.2	MARQUITA CLYBURN	TH EXPLORATION, LLC	1/8+	959	510	NA	NA	NA	NA	NA	NA
10*21886	Y	5-23-17.2	THEODORE GROUNDS & ROBERTA H GROUNDS	TH EXPLORATION, LLC	1/8+	957	117	NA	NA	NA	NA	NA	NA
10*21948	Y	5-23-17.2	BARBARA H COAKLEY	TH EXPLORATION, LLC	1/8+	960	66	NA	NA	NA	NA	NA	NA
10*21949	Y	5-23-17.2	ROBIN ADAIR GUMP AND LOUIS M GUMP	TH EXPLORATION, LLC	1/8+	960	70	NA	NA	NA	NA	NA	NA
10*21950	Y	5-23-17.2	JUDITH A TAYLOR	TH EXPLORATION, LLC	1/8+	960	74	NA	NA	NA	NA	NA	NA
10*21951	Y	5-23-17.2	CHARLES DOUGLAS LANE	TH EXPLORATION, LLC	1/8+	960	77	NA	NA	NA	NA	NA	NA
10*21994	Y	5-23-17.2	MELISSA L DARROW	TH EXPLORATION, LLC	1/8+	954	328	NA	NA	NA	NA	NA	NA
10*22013	Y	5-23-17.2	CHARLES J KNOX	TH EXPLORATION, LLC	1/8+	966	112	NA	NA	NA	NA	NA	NA
10*22014	Y	5-23-17.2	SHERMAN E KNOX JR	TH EXPLORATION, LLC	1/8+	966	108	NA	NA	NA	NA	NA	NA
10*22018	Y	5-23-17.2	KATHLEEN ROBERTSON	TH EXPLORATION, LLC	1/8+	960	539	NA	NA	NA	NA	NA	NA
10*22026	Y	5-23-17.2	KEVIN D CHURCH	TH EXPLORATION, LLC	1/8+	957	49	NA	NA	NA	NA	NA	NA

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10*22027	Y	5-23-17.2	STEPHEN C EMERY AND CATHY J EMERY	TH EXPLORATION, LLC	1/8+	954	310	NA	NA	NA	NA	NA	NA
10*22093	Y	5-23-17.2	TODD LEARN AND KENDA LEARN	TH EXPLORATION, LLC	1/8+	954	314	NA	NA	NA	NA	NA	NA
10*22102	Y	5-23-17.2	BONNIE LOU GRUBER	TH EXPLORATION, LLC	1/8+	954	302	NA	NA	NA	NA	NA	NA
10*22128	Y	5-23-17.2	BETTY PYSELL	TH EXPLORATION, LLC	1/8+	961	433	NA	NA	NA	NA	NA	NA
10*22142	Y	5-23-17.2	CHERYL L HILL	TH EXPLORATION, LLC	1/8+	961	423	NA	NA	NA	NA	NA	NA
10*22143	Y	5-23-17.2	WANDA J RIDING AND GERALD R RIDING	TH EXPLORATION, LLC	1/8+	961	426	NA	NA	NA	NA	NA	NA
10*22144	Y	5-23-17.2	VICKY STRAUSS AND DENNIS A STRAUSS	TH EXPLORATION, LLC	1/8+	961	529	NA	NA	NA	NA	NA	NA
10*22165	Y	5-23-17.2	DEBRA L LYSESKI AND GERALD A LYSESKI	TH EXPLORATION, LLC	1/8+	954	306	NA	NA	NA	NA	NA	NA
10*22178	Y	5-23-17.2	ANGELA HENTHORN AND WILLIAM R HENTHORN	TH EXPLORATION, LLC	1/8+	972	58	NA	NA	NA	NA	NA	NA
10*22287	Y	5-23-17.2	MISSY JONES AND MICHAEL JONES	TH EXPLORATION, LLC	1/8+	962	195	NA	NA	NA	NA	NA	NA
10*22332	Y	5-23-17.2	DORIS WEST AND ROBERT WEST	TH EXPLORATION, LLC	1/8+	962	542	NA	NA	NA	NA	NA	NA
10*22339	Y	5-23-17.2	BETTY LEE HOWARD LOY	TH EXPLORATION, LLC	1/8+	963	392	NA	NA	NA	NA	NA	NA
10*22354	Y	5-23-17.2	LORETTA M DOUGHERTY AND DAVID DOUGHERTY	TH EXPLORATION, LLC	1/8+	964	516	NA	NA	NA	NA	NA	NA
10*22436	Y	5-23-17.2	TESSEAN FAMILY REVOCABLE LIVING TRUST	TH EXPLORATION, LLC	1/8+	963	626	NA	NA	NA	NA	NA	NA
10*22437	Y	5-23-17.2	SHERRY L IMRIE AND DANIEL IMRIE JR	TH EXPLORATION, LLC	1/8+	963	631	NA	NA	NA	NA	NA	NA
10*22440	Y	5-23-17.2	EUGENE FANKHAUSER	TH EXPLORATION, LLC	1/8+	963	153	NA	NA	NA	NA	NA	NA

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10*22443	Y	5-23-17.2	GATHA CHAMBERS	TH EXPLORATION, LLC	1/8+	963	622	NA	NA	NA	NA	NA	NA
10*22450	Y	5-23-17.2	JUDY ANN MERCER	TH EXPLORATION, LLC	1/8+	963	634	NA	NA	NA	NA	NA	NA
10*22503	Y	5-23-17.2	KENNETH R SHAW AND DONNA K SHAW	TH EXPLORATION, LLC	1/8+	966	518	NA	NA	NA	NA	NA	NA
10*22504	Y	5-23-17.2	MELVIN FANKHAUSER	TH EXPLORATION, LLC	1/8+	974	351	NA	NA	NA	NA	NA	NA
10*22505	Y	5-23-17.2	JAMES D DRAKE AND DONNA K DRAKE	TH EXPLORATION, LLC	1/8+	964	425	NA	NA	NA	NA	NA	NA
10*22509	Y	5-23-17.2	RANDY BERISFORD AND LINDA JO BERISFORD	TH EXPLORATION, LLC	1/8+	964	429	NA	NA	NA	NA	NA	NA
10*22560	Y	5-23-17.2	RONALD JOE KELLER	TH EXPLORATION, LLC	1/8+	965	485	NA	NA	NA	NA	NA	NA
10*22592	Y	5-23-17.2	RUSSELL W ROGERSON AND SUSAN ROGERSON	TH EXPLORATION, LLC	1/8+	966	119	NA	NA	NA	NA	NA	NA
10*22593	Y	5-23-17.2	RONALD E ROGERSON	TH EXPLORATION, LLC	1/8+	966	116	NA	NA	NA	NA	NA	NA
10*22594	Y	5-23-17.2	JAMES WADE	TH EXPLORATION, LLC	1/8+	965	481	NA	NA	NA	NA	NA	NA
10*22609	Y	5-23-17.2	KATHY JO CULLUM	TH EXPLORATION, LLC	1/8+	966	514	NA	NA	NA	NA	NA	NA
10*22613	Y	5-23-17.2	JEWEL L CAMPBELL	TH EXPLORATION, LLC	1/8+	966	510	NA	NA	NA	NA	NA	NA
10*22644	Y	5-23-17.2	RICHARD EUGENE KELLER	TH EXPLORATION, LLC	1/8+	968	214	NA	NA	NA	NA	NA	NA
10*22779	Y	5-23-17.2	STEVEN WADE	TH EXPLORATION, LLC	1/8+	968	424	NA	NA	NA	NA	NA	NA
10*22809	Y	5-23-17.2	MARGARET C MCMURRY & WILLIAM F MCMURRY	TH EXPLORATION, LLC	1/8+	972	54	NA	NA	NA	NA	NA	NA
10*22811	Y	5-23-17.2	ROBERT E ROGERSON	TH EXPLORATION, LLC	1/8+	972	64	NA	NA	NA	NA	NA	NA

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10*22812	Y	5-23-17.2	JOSEPH F GOBLOWSKY	TH EXPLORATION, LLC	1/8+	968	428	NA	NA	NA	NA	NA	NA	NA
10*22813	Y	5-23-17.2	WANDA M. BLAKE	TH EXPLORATION, LLC	1/8+	974	171	NA	NA	NA	NA	NA	NA	NA
10*22861	Y	5-23-17.2	LAURINE C CURTIS & EDGAR A CURTIS III	TH EXPLORATION, LLC	1/8+	976	147	NA	NA	NA	NA	NA	NA	NA
10*23166	Y	5-23-17.2	JAMES DAVID CRANDALL	TH EXPLORATION, LLC	1/8+	984	48	NA	NA	NA	NA	NA	NA	NA
10*23168	Y	5-23-17.2	JASON WADE	TH EXPLORATION, LLC	1/8+	966	506	NA	NA	NA	NA	NA	NA	NA
10*23368	Y	5-23-17.2	ROSE MARIE CAMPBELL	TH EXPLORATION, LLC	1/8+	988	447	NA	NA	NA	NA	NA	NA	NA
10*23369	Y	5-23-17.2	STEFANIE CIRILLI AND MATTHEW CIRILLI	TH EXPLORATION, LLC	1/8+	988	451	NA	NA	NA	NA	NA	NA	NA
10*23370	Y	5-23-17.2	DENVER J TAYLOR	TH EXPLORATION, LLC	1/8+	988	454	NA	NA	NA	NA	NA	NA	NA
10*23371	Y	5-23-17.2	JONNA MARPLE AND ERIK MARPLE	TH EXPLORATION, LLC	1/8+	988	442	NA	NA	NA	NA	NA	NA	NA
10*23398	Y	5-23-17.2	JON GUSTELY AND MARILYN NIJE	TH EXPLORATION, LLC	1/8+	1008	12	NA	NA	NA	NA	NA	NA	NA
10*23410	Y	5-23-17.2	JENNA WADE	TH EXPLORATION, LLC	1/8+	1008	16	NA	NA	NA	NA	NA	NA	NA
10*23428	Y	5-23-17.2	DAVID L SNYDER	TH EXPLORATION, LLC	1/8+	1008	313	NA	NA	NA	NA	NA	NA	NA
10*23444	Y	5-23-17.2	JENNIFER CUICHTA AND KEVIN CUICHTA	TH EXPLORATION, LLC	1/8+	1008	310	NA	NA	NA	NA	NA	NA	NA
10*23505	Y	5-23-17.2	RENEE KELLAR	TH EXPLORATION, LLC	1/8+	971	633	NA	NA	NA	NA	NA	NA	NA
10*23647	Y	5-23-17.2	MARILYN M ROBINSON	TH EXPLORATION, LLC	1/8+	1009	309	NA	NA	NA	NA	NA	NA	NA
10*23648	Y	5-23-17.2	PAUL D RINE JR	TH EXPLORATION, LLC	1/8+	1009	313	NA	NA	NA	NA	NA	NA	NA

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10*23672	Y	5-23-17.2	CHAD FRANCIS AND LISA FRANCIS	TH EXPLORATION, LLC	1/8+	1010	356	NA	NA	NA	NA	NA	NA
10*23727	Y	5-23-17.2	LISA TUCKER AND FRANCIS TUCKER	TH EXPLORATION, LLC	1/8+	1011	525	NA	NA	NA	NA	NA	NA
10*23756	Y	5-23-17.2	KAREN DRAKE AND JEFF DRAKE	TH EXPLORATION, LLC	1/8+	1012	182	NA	NA	NA	NA	NA	NA
10*23757	Y	5-23-17.2	DAVID DRAKE	TH EXPLORATION, LLC	1/8+	1012	187	NA	NA	NA	NA	NA	NA
10*23767	Y	5-23-17.2	MARK ALAN SLATEN	TH EXPLORATION, LLC	1/8+	1014	481	NA	NA	NA	NA	NA	NA
10*23771	Y	5-23-17.2	ROBIN ROSE	TH EXPLORATION, LLC	1/8+	1014	485	NA	NA	NA	NA	NA	NA
10*23792	Y	5-23-17.2	STEVEN W SLATEN AND RHONDA SLATEN	TH EXPLORATION, LLC	1/8+	1014	488	NA	NA	NA	NA	NA	NA
10*23793	Y	5-23-17.2	ELIZABETH BENNETT AND DONNIE BENNETT	TH EXPLORATION, LLC	1/8+	1014	492	NA	NA	NA	NA	NA	NA
10*23794	Y	5-23-17.2	PATTY JEAN LANTZ	TH EXPLORATION, LLC	1/8+	1014	495	NA	NA	NA	NA	NA	NA
10*23826	Y	5-23-17.2	NANCY C DWYER AND WENDEL MARTINKOVIC	TH EXPLORATION, LLC	1/8+	1017	6	NA	NA	NA	NA	NA	NA
10*23838	Y	5-23-17.2	RONALD DEAN YOHO & VICTORIA LYNN YOHO	TH EXPLORATION, LLC	1/8+	1017	1	NA	NA	NA	NA	NA	NA
10*23883	Y	5-23-17.2	VICKI ANN WILLIAMS & WILLIAM J WILLIAMS	TH EXPLORATION, LLC	1/8+	1016	644	NA	NA	NA	NA	NA	NA
10*24236	Y	5-23-17.2	CONNIE L HALL	TH EXPLORATION, LLC	1/8+	1015	138	NA	NA	NA	NA	NA	NA
10*24274	Y	5-23-17.2	JO ELLEN GUSTELY	TH EXPLORATION, LLC	1/8+	1023	527	NA	NA	NA	NA	NA	NA
10*24483	Y	5-23-17.2	SUSAN AND KEVIN J ALFRED	TH EXPLORATION, LLC	1/8+	1025	401	NA	NA	NA	NA	NA	NA
10*24551	Y	5-23-17.2	LEONARD LEE AND DEBRA COULTER	TH EXPLORATION, LLC	1/8+	1025	405	NA	NA	NA	NA	NA	NA

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10*24751	Y	5-23-17.2	WILLIAM D AND KIM TAYLOR	TH EXPLORATION, LLC	1/8+	1027	315	NA	NA	NA	NA	NA	NA	NA
10*24752	Y	5-23-17.2	PATTI KENNEDY	TH EXPLORATION, LLC	1/8+	1027	312	NA	NA	NA	NA	NA	NA	NA
10*24860	Y	5-23-17.2	THE ESTATE OF HOWARD G TAYLOR	TH EXPLORATION, LLC	1/8+	1028	92	NA	NA	NA	NA	NA	NA	NA
10*24868	Y	5-23-17.2	ANNE DWYER	TH EXPLORATION, LLC	1/8+	1028	95	NA	NA	NA	NA	NA	NA	NA
10*24917	Y	5-23-17.2	WALTER AND CONNIE J STREIGHT	TH EXPLORATION, LLC	1/8+	1027	95	NA	NA	NA	NA	NA	NA	NA
10*14742	Z	5-23-26	SUSAN GORE	GASTAR EXPLORATION USA, INC	1/8+	790	505	NA	NA	NA	NA	NA	21/41 Gastar Exploration USA Inc to Gastar Exploration, Inc	36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*14744	Z	5-23-26	THE SAMUEL MILTON SHEETS TRUST	GASTAR EXPLORATION USA, INC	1/8+	791	637	NA	NA	NA	NA	29/157 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*14745	Z	5-23-26	RALPH B. TAYLOR	GASTAR EXPLORATION USA, INC	1/8+	794	485	NA	NA	NA	NA	30/136 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*14747	Z	5-23-26	CHESTNUT HOLDINGS INC	GASTAR EXPLORATION INC	1/8+	827	564	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*17716	Z	5-23-26	MICHAEL J AND BARBARA L WILEY	TH EXPLORATION, LLC	1/8+	919	638	NA	NA	NA	NA	NA	NA	NA
10*17777	Z	5-23-26	MICHELLE E AND ROBERT T BAKER	TH EXPLORATION, LLC	1/8+	921	128	NA	NA	NA	NA	NA	NA	NA
10*21420	Z	5-23-26	DAVID D BURKETT	TH EXPLORATION, LLC	1/8+	957	3	NA	NA	NA	NA	NA	NA	NA
10*21421	Z	5-23-26	BRYANNA FLYNN RANKIN	TH EXPLORATION, LLC	1/8+	957	5	NA	NA	NA	NA	NA	NA	NA
10*21437	Z	5-23-26	REBECCA MCMILLAN AND ROBERT MCMILLAN	TH EXPLORATION, LLC	1/8+	957	1	NA	NA	NA	NA	NA	NA	NA
10*21821	Z	5-23-26	LINDA K TAYLOR AND RAY P MAGEE	TH EXPLORATION, LLC	1/8+	951	631	NA	NA	NA	NA	NA	NA	NA

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10*14847	AA	5-23-17.4	LETHA RUCKMAN	GASTAR EXPLORATION USA, INC	1/8+	806	270	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14849	AA	5-23-17.4	DAVID GUSTELY	GASTAR EXPLORATION USA, INC	1/8+	806	265	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14853	AA	5-23-17.4	DURWOOD WRIGHT	GASTAR EXPLORATION USA, INC	1/8+	809	507	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14861	AA	5-23-17.4	NANCY WHITLATCH	GASTAR EXPLORATION USA, INC	1/8+	809	526	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14862	AA	5-23-17.4	ANN GUSTELY	GASTAR EXPLORATION USA, INC	1/8+	809	568	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14864	AA	5-23-17.4	CAROLYN DURWAY	GASTAR EXPLORATION USA, INC	1/8+	810	330	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14866	AA	5-23-17.4	GARY CARMICHAEL	GASTAR EXPLORATION USA, INC	1/8+	810	316	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14868	AA	5-23-17.4	WOODROW CAMPBELL, JR.	GASTAR EXPLORATION USA, INC	1/8+	813	454	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14869	AA	5-23-17.4	RALPH VAUGHN TAYLOR	GASTAR EXPLORATION USA, INC	1/8+	813	561	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14870	AA	5-23-17.4	DAVID CARMICHAEL	GASTAR EXPLORATION USA, INC	1/8+	816	16	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14872	AA	5-23-17.4	DWG OIL & GAS ACQUISITIONS LLC	GASTAR EXPLORATION USA, INC	1/8+	817	312	NA	NA	NA	NA	31/184 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14873	AA	5-23-17.4	RAYMOND MILLER	GASTAR EXPLORATION USA, INC	1/8+	821	44	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14874	AA	5-23-17.4	RICHARD MILLER	GASTAR EXPLORATION INC	1/8+	822	260	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14875	AA	5-23-17.4	DAVID DRAKE	GASTAR EXPLORATION INC	1/8+	827	273	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC

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10*14876	AA	5-23-17.4	SHIRLEY LARGENT	GASTAR EXPLORATION INC	1/8+	827	228	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14877	AA	5-23-17.4	GARY OBLOY	GASTAR EXPLORATION INC	1/8+	836	112	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14878	AA	5-23-17.4	ARTHUR BRUCE COULTER	GASTAR EXPLORATION INC	1/8+	839	519	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14879	AA	5-23-17.4	THERESA RINE	GASTAR EXPLORATION INC	1/8+	840	162	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14880	AA	5-23-17.4	IRIS LUCAS	GASTAR EXPLORATION INC	1/8+	849	545	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14881	AA	5-23-17.4	MARY WHITLATCH	GASTAR EXPLORATION INC	1/8+	849	548	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14882	AA	5-23-17.4	GARY RINE	GASTAR EXPLORATION INC	1/8+	849	551	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14883	AA	5-23-17.4	PAUL WISE	GASTAR EXPLORATION INC	1/8+	852	252	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14884	AA	5-23-17.4	RENEE HAGERTY	GASTAR EXPLORATION INC	1/8+	852	255	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14885	AA	5-23-17.4	HOWARD RINE	GASTAR EXPLORATION INC	1/8+	854	601	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14886	AA	5-23-17.4	JODI YOHO	GASTAR EXPLORATION INC	1/8+	854	604	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14887	AA	5-23-17.4	CHRISTINA ROBERTS	GASTAR EXPLORATION INC	1/8+	867	392	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14888	AA	5-23-17.4	DARLENE BUTLER	GASTAR EXPLORATION INC	1/8+	867	395	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC
10*14889	AA	5-23-17.4	HAROLD YOHO	GASTAR EXPLORATION INC	1/8+	870	37	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc to TH Exploration II, LLC

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10*14890	AA	5-23-17.4	HENRY MALONE JR	GASTAR EXPLORATION INC	1/8+	870	40	NA	NA	NA	NA	NA	NA	36/9 Gstar Exploration, Inc to TH Exploration II, LLC
10*14891	AA	5-23-17.4	NANCY F FYE AND STEPHEN M FYE	GASTAR EXPLORATION INC	1/8+	885	606	NA	NA	NA	NA	NA	NA	36/9 Gstar Exploration, Inc to TH Exploration II, LLC
10*16034	AA	5-23-17.4	GASTON FAMILY INVESTMENTS LLC	TH EXPLORATION, LLC	1/8+	902	163	NA	NA	NA	NA	NA	NA	NA
10*16648	AA	5-23-17.4	GASTAR EXPLORATION USA INC	TH EXPLORATION, LLC	1/8+	894	278	NA	NA	NA	NA	NA	NA	NA
10*17502	AA	5-23-17.4	PATRICIA E GUSTELY	TH EXPLORATION, LLC	1/8+	942	334	NA	NA	NA	NA	NA	NA	NA
10*17532	AA	5-23-17.4	DONALD S BOBOVNIK AND DOLORES J BOBOVNIK	TH EXPLORATION, LLC	1/8+	942	346	NA	NA	NA	NA	NA	NA	NA
10*17535	AA	5-23-17.4	RONALD L MAYER AND DEBRA A MAYER	TH EXPLORATION, LLC	1/8+	929	580	NA	NA	NA	NA	NA	NA	NA
10*17539	AA	5-23-17.4	JOANN HAGERTY	TH EXPLORATION, LLC	1/8+	942	342	NA	NA	NA	NA	NA	NA	NA
10*17540	AA	5-23-17.4	MONTY ESTEL	TH EXPLORATION, LLC	1/8+	941	624	NA	NA	NA	NA	NA	NA	NA
10*17541	AA	5-23-17.4	ROBERT D STRAWN AND TAMMY J STRAWN	TH EXPLORATION, LLC	1/8+	942	21	NA	NA	NA	NA	NA	NA	NA
10*17542	AA	5-23-17.4	JEFFREY G HAZEL AND SHEILA M HAZEL	TH EXPLORATION, LLC	1/8+	942	12	NA	NA	NA	NA	NA	NA	NA
10*17543	AA	5-23-17.4	CARL EDWARD MCCOY AND CAROLYN SUE MCCOY	TH EXPLORATION, LLC	1/8+	942	15	NA	NA	NA	NA	NA	NA	NA
10*17544	AA	5-23-17.4	DEBORAH LYNN SCHWING	TH EXPLORATION, LLC	1/8+	942	377	NA	NA	NA	NA	NA	NA	NA
10*17545	AA	5-23-17.4	LINDA SWOPE	TH EXPLORATION, LLC	1/8+	942	24	NA	NA	NA	NA	NA	NA	NA
10*17546	AA	5-23-17.4	SAMUEL EARL FRANCIS AND ALICE L FRANCIS	TH EXPLORATION, LLC	1/8+	942	374	NA	NA	NA	NA	NA	NA	NA

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10*17593	AA	5-23-17.4	REBECCA HAGERTY	TH EXPLORATION, LLC	1/8+	942	350	NA	NA	NA	NA	NA	NA	NA
10*17594	AA	5-23-17.4	MEGAN HAGERTY	TH EXPLORATION, LLC	1/8+	942	362	NA	NA	NA	NA	NA	NA	NA
10*17595	AA	5-23-17.4	THOMAS E RINE AND MARY P RINE	TH EXPLORATION, LLC	1/8+	929	572	NA	NA	NA	NA	NA	NA	NA
10*17640	AA	5-23-17.4	PATRICIA A GARCAR	TH EXPLORATION, LLC	1/8+	942	8	NA	NA	NA	NA	NA	NA	NA
10*17679	AA	5-23-17.4	NORMA J ASH	TH EXPLORATION, LLC	1/8+	944	130	NA	NA	NA	NA	NA	NA	NA
10*17680	AA	5-23-17.4	DAVID E CHURCH	TH EXPLORATION, LLC	1/8+	932	424	NA	NA	NA	NA	NA	NA	NA
10*17681	AA	5-23-17.4	WALTER E LOSEY AND CINDY L LOSEY	TH EXPLORATION, LLC	1/8+	942	338	NA	NA	NA	NA	NA	NA	NA
10*17682	AA	5-23-17.4	JAMES E GARLOCH AND MARY K GARLOCH	TH EXPLORATION, LLC	1/8+	935	68	NA	NA	NA	NA	NA	NA	NA
10*17683	AA	5-23-17.4	PATRICK HAGERTY AND DALANE HAGERTY	TH EXPLORATION, LLC	1/8+	942	358	NA	NA	NA	NA	NA	NA	NA
10*17684	AA	5-23-17.4	DAVID MCCOY AND LORI MCCOY	TH EXPLORATION, LLC	1/8+	942	18	NA	NA	NA	NA	NA	NA	NA
10*17715	AA	5-23-17.4	ROBERT A SANDS AND JOYCE A SANDS	TH EXPLORATION, LLC	1/8+	942	354	NA	NA	NA	NA	NA	NA	NA
10*17719	AA	5-23-17.4	ROBERT R DARROW	TH EXPLORATION, LLC	1/8+	942	380	NA	NA	NA	NA	NA	NA	NA
10*17720	AA	5-23-17.4	WILLIAM KOTSON AND DEBRA KOTSON	TH EXPLORATION, LLC	1/8+	938	507	NA	NA	NA	NA	NA	NA	NA
10*17775	AA	5-23-17.4	HAROLD H HAGERTY AND DEBORAH M HAGERTY	TH EXPLORATION, LLC	1/8+	942	370	NA	NA	NA	NA	NA	NA	NA
10*17776	AA	5-23-17.4	JAMES GARCAR AND MELISSA GARCAR	TH EXPLORATION, LLC	1/8+	941	627	NA	NA	NA	NA	NA	NA	NA
10*17824	AA	5-23-17.4	SARA FULTON	TH EXPLORATION, LLC	1/8+	942	384	NA	NA	NA	NA	NA	NA	NA

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10*17901	AA	5-23-17.4	ROBYN HAGERTY	TH EXPLORATION, LLC	1/8+	924	602	NA	NA	NA	NA	NA	NA
10*17965	AA	5-23-17.4	ROBERT DAVID BARNES AND RHONDA BARNES	TH EXPLORATION, LLC	1/8+	942	366	NA	NA	NA	NA	NA	NA
10*18042	AA	5-23-17.4	JOSEPH J ONORE	TH EXPLORATION, LLC	1/8+	927	101	NA	NA	NA	NA	NA	NA
10*18043	AA	5-23-17.4	JAMES M ONORE AND CINDY L ONORE	TH EXPLORATION, LLC	1/8+	927	105	NA	NA	NA	NA	NA	NA
10*18044	AA	5-23-17.4	TRACEY ESTEL	TH EXPLORATION, LLC	1/8+	927	109	NA	NA	NA	NA	NA	NA
10*18176	AA	5-23-17.4	CRYSTAL M HOOKER AND JAMES HOOKER	TH EXPLORATION, LLC	1/8+	929	568	NA	NA	NA	NA	NA	NA
10*18247	AA	5-23-17.4	MILDRED S KIRKPATRICK	TH EXPLORATION, LLC	1/8+	917	132	NA	NA	NA	NA	NA	NA
10*18320	AA	5-23-17.4	SAMUEL F HENRY	TH EXPLORATION, LLC	1/8+	931	246	NA	NA	NA	NA	NA	NA
10*18329	AA	5-23-17.4	COLLEEN HAGERTY	TH EXPLORATION, LLC	1/8+	929	560	NA	NA	NA	NA	NA	NA
10*18367	AA	5-23-17.4	WALTER C SCHUBERT AND BARBARA A SCHUBERT	TH EXPLORATION, LLC	1/8+	931	377	NA	NA	NA	NA	NA	NA
10*18368	AA	5-23-17.4	ROBERTA K MILLER	TH EXPLORATION, LLC	1/8+	931	457	NA	NA	NA	NA	NA	NA
10*18371	AA	5-23-17.4	HERMAN D ESTEL	TH EXPLORATION, LLC	1/8+	931	461	NA	NA	NA	NA	NA	NA
10*18386	AA	5-23-17.4	JOSEPH R RINE AND JENNIFER M RINE	TH EXPLORATION, LLC	1/8+	932	492	NA	NA	NA	NA	NA	NA
10*18598	AA	5-23-17.4	MARK E GUSTELY	TH EXPLORATION, LLC	1/8+	935	52	NA	NA	NA	NA	NA	NA
10*18795	AA	5-23-17.4	GASTON FAMILY INVESTMENTS LLC	TH EXPLORATION, LLC	1/8+	959	502	NA	NA	NA	NA	NA	NA
10*18994	AA	5-23-17.4	SHIRLEY ANN DRAKE	TH EXPLORATION, LLC	1/8+	940	137	NA	NA	NA	NA	NA	NA

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10*19656	AA	5-23-17.4	DEBRA ROUDEBUSH	TH EXPLORATION, LLC	1/8+	944	105	NA	NA	NA	NA	NA	NA	NA
10*19736	AA	5-23-17.4	DOROTHY HLINKA	TH EXPLORATION, LLC	1/8+	944	571	NA	NA	NA	NA	NA	NA	NA
10*19999	AA	5-23-17.4	MELISSA ANN BRAUN AND RAYMOND BRAUN	TH EXPLORATION, LLC	1/8+	951	627	NA	NA	NA	NA	NA	NA	NA
10*21084	AA	5-23-17.4	RANDALL C ROGERSON & TRACY LYNN ROGERSON	TH EXPLORATION, LLC	1/8+	949	368	NA	NA	NA	NA	NA	NA	NA
10*21217	AA	5-23-17.4	KEITH JAY FISCHER AND DAWN M FISCHER	TH EXPLORATION, LLC	1/8+	952	643	NA	NA	NA	NA	NA	NA	NA
10*21425	AA	5-23-17.4	ORIE N YOUNG AND BERNIE A YOUNG	TH EXPLORATION, LLC	1/8+	957	29	NA	NA	NA	NA	NA	NA	NA
10*21428	AA	5-23-17.4	FRANCIS R SMITH AND ANNA M SMITH	TH EXPLORATION, LLC	1/8+	957	37	NA	NA	NA	NA	NA	NA	NA
10*21434	AA	5-23-17.4	CATHERINE HUMMEL	TH EXPLORATION, LLC	1/8+	957	33	NA	NA	NA	NA	NA	NA	NA
10*21451	AA	5-23-17.4	RICHARD RICH AND KAREN RICH	TH EXPLORATION, LLC	1/8+	954	254	NA	NA	NA	NA	NA	NA	NA
10*21452	AA	5-23-17.4	KIMBERLY COX	TH EXPLORATION, LLC	1/8+	954	262	NA	NA	NA	NA	NA	NA	NA
10*21457	AA	5-23-17.4	WARREN L COULTER AND ROSLINA A COULTER	TH EXPLORATION, LLC	1/8+	954	249	NA	NA	NA	NA	NA	NA	NA
10*21458	AA	5-23-17.4	HUSTON A SMITH JR AND ANN C SMITH	TH EXPLORATION, LLC	1/8+	957	45	NA	NA	NA	NA	NA	NA	NA
10*21459	AA	5-23-17.4	JAMES L CHURCH	TH EXPLORATION, LLC	1/8+	957	41	NA	NA	NA	NA	NA	NA	NA
10*21498	AA	5-23-17.4	MABEL SHILLINGBURG AND CLIFFORD SHILLINGBURG	TH EXPLORATION, LLC	1/8+	954	258	NA	NA	NA	NA	NA	NA	NA
10*21500	AA	5-23-17.4	MATTHEW COULTER AND SIMONE COULTER	TH EXPLORATION, LLC	1/8+	954	245	NA	NA	NA	NA	NA	NA	NA
10*21501	AA	5-23-17.4	EUGENIA E HOUSER	TH EXPLORATION, LLC	1/8+	954	241	NA	NA	NA	NA	NA	NA	NA

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10*21502	AA	5-23-17.4	DEBRA MURIN	TH EXPLORATION, LLC	1/8+	954	237	NA	NA	NA	NA	NA	NA
10*21503	AA	5-23-17.4	DARLENE M DAVIS	TH EXPLORATION, LLC	1/8+	954	233	NA	NA	NA	NA	NA	NA
10*21615	AA	5-23-17.4	GARY PARSONS AND JOANN J PARSONS	TH EXPLORATION, LLC	1/8+	959	347	NA	NA	NA	NA	NA	NA
10*21626	AA	5-23-17.4	CLARENCE RANDALL EMERY AND PAULA JEAN EMERY	TH EXPLORATION, LLC	1/8+	958	344	NA	NA	NA	NA	NA	NA
10*21632	AA	5-23-17.4	JOHN ARLES EMERY	TH EXPLORATION, LLC	1/8+	959	339	NA	NA	NA	NA	NA	NA
10*21655	AA	5-23-17.4	STANLEY GUSTELY	TH EXPLORATION, LLC	1/8+	965	206	NA	NA	NA	NA	NA	NA
10*21656	AA	5-23-17.4	JOHN OBLOY AND JANET L OBLOY	TH EXPLORATION, LLC	1/8+	959	331	NA	NA	NA	NA	NA	NA
10*21657	AA	5-23-17.4	RONALD J SALKOVICK JR & SANDRA SALKOVICK	TH EXPLORATION, LLC	1/8+	958	373	NA	NA	NA	NA	NA	NA
10*21813	AA	5-23-17.4	STUART WHITE AND BETTY WHITE	TH EXPLORATION, LLC	1/8+	958	352	NA	NA	NA	NA	NA	NA
10*21815	AA	5-23-17.4	JAMES NEAL EMERY AND RENEE R EMERY	TH EXPLORATION, LLC	1/8+	958	348	NA	NA	NA	NA	NA	NA
10*21816	AA	5-23-17.4	CINDY GREEN AND LARRY GREEN	TH EXPLORATION, LLC	1/8+	958	356	NA	NA	NA	NA	NA	NA
10*21817	AA	5-23-17.4	MARY LOU HLINKA AND RICHARD G HLINKA SR	TH EXPLORATION, LLC	1/8+	959	514	NA	NA	NA	NA	NA	NA
10*21819	AA	5-23-17.4	MARY CATHERINE THOMS OTT	TH EXPLORATION, LLC	1/8+	958	360	NA	NA	NA	NA	NA	NA
10*21820	AA	5-23-17.4	MARION DAVID OTT & JANICE L OTT	TH EXPLORATION, LLC	1/8+	959	506	NA	NA	NA	NA	NA	NA
10*21832	AA	5-23-17.4	MARQUITA CLYBURN	TH EXPLORATION, LLC	1/8+	959	510	NA	NA	NA	NA	NA	NA
10*21886	AA	5-23-17.4	THEODORE GROUNDS & ROBERTA H GROUNDS	TH EXPLORATION, LLC	1/8+	957	117	NA	NA	NA	NA	NA	NA

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10*21948	AA	5-23-17.4	BARBARA H COAKLEY	TH EXPLORATION, LLC	1/8+	960	66	NA	NA	NA	NA	NA	NA
10*21949	AA	5-23-17.4	ROBIN ADAIR GUMP AND LOUIS M GUMP	TH EXPLORATION, LLC	1/8+	960	70	NA	NA	NA	NA	NA	NA
10*21950	AA	5-23-17.4	JUDITH A TAYLOR	TH EXPLORATION, LLC	1/8+	960	74	NA	NA	NA	NA	NA	NA
10*21951	AA	5-23-17.4	CHARLES DOUGLAS LANE	TH EXPLORATION, LLC	1/8+	960	77	NA	NA	NA	NA	NA	NA
10*21994	AA	5-23-17.4	MELISSA L DARROW	TH EXPLORATION, LLC	1/8+	954	328	NA	NA	NA	NA	NA	NA
10*22013	AA	5-23-17.4	CHARLES J KNOX	TH EXPLORATION, LLC	1/8+	966	112	NA	NA	NA	NA	NA	NA
10*22014	AA	5-23-17.4	SHERMAN E KNOX JR	TH EXPLORATION, LLC	1/8+	966	108	NA	NA	NA	NA	NA	NA
10*22018	AA	5-23-17.4	KATHLEEN ROBERTSON	TH EXPLORATION, LLC	1/8+	960	539	NA	NA	NA	NA	NA	NA
10*22026	AA	5-23-17.4	KEVIN D CHURCH	TH EXPLORATION, LLC	1/8+	957	49	NA	NA	NA	NA	NA	NA
10*22027	AA	5-23-17.4	STEPHEN C EMERY AND CATHY J EMERY	TH EXPLORATION, LLC	1/8+	954	310	NA	NA	NA	NA	NA	NA
10*22093	AA	5-23-17.4	TODD LEARN AND KENDA LEARN	TH EXPLORATION, LLC	1/8+	954	314	NA	NA	NA	NA	NA	NA
10*22102	AA	5-23-17.4	BONNIE LOU GRUBER	TH EXPLORATION, LLC	1/8+	954	302	NA	NA	NA	NA	NA	NA
10*22128	AA	5-23-17.4	BETTY PYSELL	TH EXPLORATION, LLC	1/8+	961	433	NA	NA	NA	NA	NA	NA
10*22142	AA	5-23-17.4	CHERYL L HILL	TH EXPLORATION, LLC	1/8+	961	423	NA	NA	NA	NA	NA	NA
10*22143	AA	5-23-17.4	WANDA J RIDING AND GERALD R RIDING	TH EXPLORATION, LLC	1/8+	961	426	NA	NA	NA	NA	NA	NA
10*22144	AA	5-23-17.4	VICKY STRAUSS AND DENNIS A STRAUSS	TH EXPLORATION, LLC	1/8+	961	529	NA	NA	NA	NA	NA	NA

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Lease No.	Tags	Parcel	Lessor	Lessee	Royalty	Book	Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*22165	AA	5-23-17.4	DEBRA L LYESKI AND GERALD A LYESKI	TH EXPLORATION, LLC	1/8+	954	306	NA	NA	NA	NA	NA	NA	NA
10*22178	AA	5-23-17.4	ANGELA HENTHORN AND WILLIAM R HENTHORN	TH EXPLORATION, LLC	1/8+	972	58	NA	NA	NA	NA	NA	NA	NA
10*22287	AA	5-23-17.4	MISSY JONES AND MICHAEL JONES	TH EXPLORATION, LLC	1/8+	962	195	NA	NA	NA	NA	NA	NA	NA
10*22436	AA	5-23-17.4	TESSEAN FAMILY REVOCABLE LIVING TRUST	TH EXPLORATION, LLC	1/8+	963	626	NA	NA	NA	NA	NA	NA	NA
10*22437	AA	5-23-17.4	SHERRY L IMRIE AND DANIEL IMRIE JR	TH EXPLORATION, LLC	1/8+	963	631	NA	NA	NA	NA	NA	NA	NA
10*22440	AA	5-23-17.4	EUGENE FANKHAUSER	TH EXPLORATION, LLC	1/8+	963	153	NA	NA	NA	NA	NA	NA	NA
10*22443	AA	5-23-17.4	GATHA CHAMBERS	TH EXPLORATION, LLC	1/8+	963	622	NA	NA	NA	NA	NA	NA	NA
10*22450	AA	5-23-17.4	JUDY ANN MERCER	TH EXPLORATION, LLC	1/8+	963	634	NA	NA	NA	NA	NA	NA	NA
10*22503	AA	5-23-17.4	KENNETH R SHAW AND DONNA K SHAW	TH EXPLORATION, LLC	1/8+	966	518	NA	NA	NA	NA	NA	NA	NA
10*22504	AA	5-23-17.4	MELVIN FANKHAUSER	TH EXPLORATION, LLC	1/8+	974	351	NA	NA	NA	NA	NA	NA	NA
10*22505	AA	5-23-17.4	JAMES D DRAKE AND DONNA K DRAKE	TH EXPLORATION, LLC	1/8+	964	425	NA	NA	NA	NA	NA	NA	NA
10*22509	AA	5-23-17.4	RANDY BERISFORD AND LINDA JO BERISFORD	TH EXPLORATION, LLC	1/8+	964	429	NA	NA	NA	NA	NA	NA	NA
10*22560	AA	5-23-17.4	RONALD JOE KELLER	TH EXPLORATION, LLC	1/8+	965	485	NA	NA	NA	NA	NA	NA	NA
10*22592	AA	5-23-17.4	RUSSELL W ROGERSON AND SUSAN ROGERSON	TH EXPLORATION, LLC	1/8+	966	119	NA	NA	NA	NA	NA	NA	NA
10*22593	AA	5-23-17.4	RONALD E ROGERSON	TH EXPLORATION, LLC	1/8+	966	116	NA	NA	NA	NA	NA	NA	NA
10*22594	AA	5-23-17.4	JAMES WADE	TH EXPLORATION, LLC	1/8+	965	481	NA	NA	NA	NA	NA	NA	NA

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Lease No.	Tags	Parcel	Lessor	Lessee	Royalty	Book	Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*22609	AA	5-23-17.4	KATHY JO CULLUM	TH EXPLORATION, LLC	1/8+	966	514	NA	NA	NA	NA	NA	NA
10*22613	AA	5-23-17.4	JEWEL L CAMPBELL	TH EXPLORATION, LLC	1/8+	966	510	NA	NA	NA	NA	NA	NA
10*22644	AA	5-23-17.4	RICHARD EUGENE KELLER	TH EXPLORATION, LLC	1/8+	968	214	NA	NA	NA	NA	NA	NA
10*22779	AA	5-23-17.4	STEVEN WADE	TH EXPLORATION, LLC	1/8+	968	424	NA	NA	NA	NA	NA	NA
10*22809	AA	5-23-17.4	MARGARET C MCMURRY & WILLIAM F MCMURRY	TH EXPLORATION, LLC	1/8+	972	54	NA	NA	NA	NA	NA	NA
10*22811	AA	5-23-17.4	ROBERT E ROGERSON	TH EXPLORATION, LLC	1/8+	972	64	NA	NA	NA	NA	NA	NA
10*22812	AA	5-23-17.4	JOSEPH F GOBLOWSKY	TH EXPLORATION, LLC	1/8+	968	428	NA	NA	NA	NA	NA	NA
10*22813	AA	5-23-17.4	WANDA M. BLAKE	TH EXPLORATION, LLC	1/8+	974	171	NA	NA	NA	NA	NA	NA
10*22861	AA	5-23-17.4	LAURINE C CURTIS & EDGAR A CURTIS III	TH EXPLORATION, LLC	1/8+	976	147	NA	NA	NA	NA	NA	NA
10*23166	AA	5-23-17.4	JAMES DAVID CRANDALL	TH EXPLORATION, LLC	1/8+	984	48	NA	NA	NA	NA	NA	NA
10*23168	AA	5-23-17.4	JASON WADE	TH EXPLORATION, LLC	1/8+	966	506	NA	NA	NA	NA	NA	NA
10*23368	AA	5-23-17.4	ROSE MARIE CAMPBELL	TH EXPLORATION, LLC	1/8+	988	447	NA	NA	NA	NA	NA	NA
10*23369	AA	5-23-17.4	STEFANIE CIRILLI AND MATTHEW CIRILLI	TH EXPLORATION, LLC	1/8+	988	451	NA	NA	NA	NA	NA	NA
10*23370	AA	5-23-17.4	DENVER J TAYLOR	TH EXPLORATION, LLC	1/8+	988	454	NA	NA	NA	NA	NA	NA
10*23371	AA	5-23-17.4	JONNA MARPLE AND ERIK MARPLE	TH EXPLORATION, LLC	1/8+	988	442	NA	NA	NA	NA	NA	NA
10*23398	AA	5-23-17.4	JON GUSTELY AND MARILYN NIJE	TH EXPLORATION, LLC	1/8+	1008	12	NA	NA	NA	NA	NA	NA

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Lease No.	Tags	Parcel	Lessor	Lessee	Royalty	Book	Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*23410	AA	5-23-17.4	JENNA WADE	TH EXPLORATION, LLC	1/8+	1008	16	NA	NA	NA	NA	NA	NA	NA
10*23428	AA	5-23-17.4	DAVID L SNYDER	TH EXPLORATION, LLC	1/8+	1008	313	NA	NA	NA	NA	NA	NA	NA
10*23444	AA	5-23-17.4	JENNIFER CUICHTA AND KEVIN CUICHTA	TH EXPLORATION, LLC	1/8+	1008	310	NA	NA	NA	NA	NA	NA	NA
10*23505	AA	5-23-17.4	RENEE KELLAR	TH EXPLORATION, LLC	1/8+	971	633	NA	NA	NA	NA	NA	NA	NA
10*23647	AA	5-23-17.4	MARILYN M ROBINSON	TH EXPLORATION, LLC	1/8+	1009	309	NA	NA	NA	NA	NA	NA	NA
10*23648	AA	5-23-17.4	PAUL D RINE JR	TH EXPLORATION, LLC	1/8+	1009	313	NA	NA	NA	NA	NA	NA	NA
10*23672	AA	5-23-17.4	CHAD FRANCIS AND LISA FRANCIS	TH EXPLORATION, LLC	1/8+	1010	356	NA	NA	NA	NA	NA	NA	NA
10*23756	AA	5-23-17.4	KAREN DRAKE AND JEFF DRAKE	TH EXPLORATION, LLC	1/8+	1012	182	NA	NA	NA	NA	NA	NA	NA
10*23757	AA	5-23-17.4	DAVID DRAKE	TH EXPLORATION, LLC	1/8+	1012	187	NA	NA	NA	NA	NA	NA	NA
10*23767	AA	5-23-17.4	MARK ALAN SLATEN	TH EXPLORATION, LLC	1/8+	1014	481	NA	NA	NA	NA	NA	NA	NA
10*23771	AA	5-23-17.4	ROBIN ROSE	TH EXPLORATION, LLC	1/8+	1014	485	NA	NA	NA	NA	NA	NA	NA
10*23792	AA	5-23-17.4	STEVEN W SLATEN AND RHONDA SLATEN	TH EXPLORATION, LLC	1/8+	1014	488	NA	NA	NA	NA	NA	NA	NA
10*23793	AA	5-23-17.4	ELIZABETH BENNETT AND DONNIE BENNETT	TH EXPLORATION, LLC	1/8+	1014	492	NA	NA	NA	NA	NA	NA	NA
10*23794	AA	5-23-17.4	PATTY JEAN LANTZ	TH EXPLORATION, LLC	1/8+	1014	495	NA	NA	NA	NA	NA	NA	NA
10*23826	AA	5-23-17.4	NANCY C DWYER AND WENDEL MARTINKOVIC	TH EXPLORATION, LLC	1/8+	1017	6	NA	NA	NA	NA	NA	NA	NA
10*23883	AA	5-23-17.4	VICKI ANN WILLIAMS & WILLIAM J WILLIAMS	TH EXPLORATION, LLC	1/8+	1016	644	NA	NA	NA	NA	NA	NA	NA

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Lease No.	Tags	Parcel	Lessor	Lessee	Royalty	Book	Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*24236	AA	5-23-17.4	CONNIE L HALL	TH EXPLORATION, LLC	1/8+	1015	138	NA	NA	NA	NA	NA	NA	NA
10*24274	AA	5-23-17.4	JO ELLEN GUSTELY	TH EXPLORATION, LLC	1/8+	1023	527	NA	NA	NA	NA	NA	NA	NA
10*24483	AA	5-23-17.4	SUSAN AND KEVIN J ALFRED	TH EXPLORATION, LLC	1/8+	1025	401	NA	NA	NA	NA	NA	NA	NA
10*24551	AA	5-23-17.4	LEONARD LEE AND DEBRA COULTER	TH EXPLORATION, LLC	1/8+	1025	405	NA	NA	NA	NA	NA	NA	NA
10*24751	AA	5-23-17.4	WILLIAM D AND KIM TAYLOR	TH EXPLORATION, LLC	1/8+	1027	315	NA	NA	NA	NA	NA	NA	NA
10*24752	AA	5-23-17.4	PATTI KENNEDY	TH EXPLORATION, LLC	1/8+	1027	312	NA	NA	NA	NA	NA	NA	NA
10*24860	AA	5-23-17.4	THE ESTATE OF HOWARD G TAYLOR	TH EXPLORATION, LLC	1/8+	1028	92	NA	NA	NA	NA	NA	NA	NA
10*24868	AA	5-23-17.4	ANNE DWYER	TH EXPLORATION, LLC	1/8+	1028	95	NA	NA	NA	NA	NA	NA	NA
10*24917	AA	5-23-17.4	WALTER AND CONNIE J STREIGHT	TH EXPLORATION, LLC	1/8+	1027	95	NA	NA	NA	NA	NA	NA	NA
10*14742	BB	5-26-5	SUSAN GORE	GASTAR EXPLORATION USA, INC	1/8+	790	505	NA	NA	NA	NA	NA	21/41 Gastar Exploration USA Inc to Gastar Exploration, Inc	36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*14744	BB	5-26-5	THE SAMUEL MILTON SHEETS TRUST	GASTAR EXPLORATION USA, INC	1/8+	791	637	NA	NA	NA	NA	29/157 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*14745	BB	5-26-5	RALPH B. TAYLOR	GASTAR EXPLORATION USA, INC	1/8+	794	485	NA	NA	NA	NA	30/136 Gastar Exploration USA Inc to Atinum Marcellus I LLC	21/41 Gastar Exploration USA Inc to Gastar Exploration Inc	36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*14747	BB	5-26-5	CHESTNUT HOLDINGS INC	GASTAR EXPLORATION INC	1/8+	827	564	NA	NA	NA	NA	NA	NA	36/9 Gastar Exploration, Inc. to TH Exploration II, LLC
10*17716	BB	5-26-5	MICHAEL J AND BARBARA L WILEY	TH EXPLORATION, LLC	1/8+	919	638	NA	NA	NA	NA	NA	NA	NA
10*17777	BB	5-26-5	MICHELLE E AND ROBERT T BAKER	TH EXPLORATION, LLC	1/8+	921	128	NA	NA	NA	NA	NA	NA	NA

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Lease No.	Tags	Parcel	Lessor	Lessee	Royalty	Book	Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*21420	BB	5-26-5	DAVID D BURKETT	TH EXPLORATION, LLC	1/8+	957	3	NA	NA	NA	NA	NA	NA
10*21421	BB	5-26-5	BRYANNA FLYNN RANKIN	TH EXPLORATION, LLC	1/8+	957	5	NA	NA	NA	NA	NA	NA
10*21437	BB	5-26-5	REBECCA MCMILLAN AND ROBERT MCMILLAN	TH EXPLORATION, LLC	1/8+	957	1	NA	NA	NA	NA	NA	NA
10*21821	BB	5-26-5	LINDA K TAYLOR AND RAY P MAGEE	TH EXPLORATION, LLC	1/8+	951	631	NA	NA	NA	NA	NA	NA
10*18343	CC	5-26-7	DOMINION ENERGY TRANSMISSION INC	TH EXPLORATION, LLC	1/8+	936	79	NA	NA	NA	NA	NA	NA

WW-6A1
(5/13)

Operator's Well No. Burch Ridge 6HU

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

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

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

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
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*See attached pages

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

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

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

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

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

COPY

AFFIDAVIT

STATE OF TEXAS §
 § SS
COUNTY OF TARRANT §

On this 18th day of October, 2016, before me, the undersigned authority, personally appeared David D. Kalish ("Affiant") who being first duly sworn under oath, deposes and saith:

1. TH Exploration, LLC, TH Exploration II, LLC and TH Exploration III, LLC are wholly owned subsidiaries of THQ Appalachia I, LLC.
2. Tug Hill Operating, LLC provides oil and gas operations services to THQ Appalachia I, LLC under an Operating Services Agreement dated July 23, 2014.
3. David D. Kalish, the Affiant, is the Vice President of Tug Hill Operating, LLC, THQ Appalachia I, LLC, TH Exploration, LLC, TH Exploration II, LLC and TH Exploration III, LLC, and;
3. Tug Hill Operating, LLC is authorized to operate and maintain the assets owned by THQ Appalachia I, LLC, including, as referenced above, TH Exploration, LLC, TH Exploration II, LLC, and TH Exploration III, LLC, including oil and gas leases, wells, pipelines, surface facilities, and other all other assets that support the business of THQ Appalachia I, LLC, and;
4. Specifically, Tug Hill Operating, LLC is authorized to submit and obtain well work permits and carry out all activities pursuant to such work permits for assets owned by TH Exploration, LLC, TH Exploration II, LLC, TH Exploration III, LLC.

FURTHER, AFFIANT SAITH NOT.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this 18th day of October, 2016.

David D. Kalish
Affiant: David D. Kalish

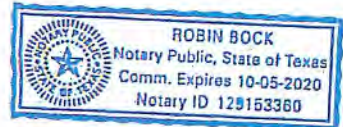
JURAT

Jan Pest
MARSHALL County 03:44:28 PM
Instrument No 1416299
Date Recorded 10/19/2016
Document Type HIS
Pages Recorded 1
Book-Page 28-62
Recording Fee \$5.00
Additional \$5.00

STATE OF TEXAS §
 § SS
COUNTY OF TARRANT §

Sworn and subscribed to (or affirmed) before me on this, the 18th day of October, 2016, by David D. Kalish

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



My Commission Expires: 10-05-2020
Signature/Notary Public: Robin Bock
Name/Notary Public (Print): Robin Bock

RECEIVED
Office of Oil and Gas
MART 13 2019
WV Department of Environmental Protection

Jan Pest
MARSHALL County 01:22:38 PM
Instrument No 1403489
Date Recorded 04/27/2016
Document Type ASN
Pages Recorded 77
Book-Page 36-9
Recording Fee \$77.00
Additional \$13.00

SI-02193

WHEN RECORDED RETURN TO:
TE Exploration II, LLC
1320 South University Drive, Suite 500
Fort Worth, Texas 76107
Attn: David Kalish

Execution Version

ASSIGNMENT AND BILL OF SALE

STATE OF WV §
§ KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF MARSHALL §

THIS ASSIGNMENT AND BILL OF SALE (this "Assignment"), dated April 7, 2016, but effective as of 7:00 A.M. Houston time on January 1, 2016 (the "Effective Time"), is between Gasar Exploration Inc., a Delaware corporation, whose address is 1331 Lamar Street, Suite 650 Houston, Texas 77010 ("Assignor"), and TE Exploration II, LLC, a Texas limited liability company, whose address is 1320 South University Drive, Suite 500, Fort Worth, Texas 76107 ("Assignee"). Assignor and Assignee are each, individually, referred to herein as a "Party" and, collectively, as the "Parties".

Capitalized terms used but not defined herein shall have the respective meanings set forth in that certain Purchase and Sale Agreement (the "Purchase Agreement"), dated as of February 19, 2016, by and between Assignor and Assignee (as successor-in-interest).

Section 1. Assignment. The conveyance and assignment herein shall be deemed effective as of the Effective Time.

For Ten Dollars (\$10.00) and other good and valuable consideration (the receipt and sufficiency of which are hereby acknowledged), Assignor does hereby forever GRANT, BARGAIN, SELL, CONVEY, ASSIGN, TRANSFER, SET OVER AND DELIVER unto Assignee, all of Assignor's right, title and interest in and to the following interests and properties (such right, title and interest described in subsections (a) through (c) of this Section 1, less and except the Excluded Assets, collectively, the "Conveyed Interests");

(a) all oil, gas and/or mineral leases of Assignor, together with any and all other right, title and interest of Assignor in and to the leasehold estates created thereby, including subleases, royalties, overriding royalties, net profits interest, carried interests or similar rights or interests in such leases, and together with all rights, privileges, benefits and powers conferred upon Assignor with respect to the use and occupation of the lands covered thereby that may be necessary, convenient or incidental to the possession and enjoyment of such leases, located in Marshall, Wetzell, Doddridge, Harrison, Lewis, Marion, and Monongalia Counties, West Virginia and Greene, Butler, Fayette, Somerset, and Clearfield Counties, Pennsylvania, including those described on Exhibit A—Part 1 attached hereto (subject to any reservations, limitations or depth restrictions described on Exhibit A—Part 1), (Assignor's interest in such leases and other right, title and interest as so limited, the "Leases");

(b) all rights and interests in, under or derived from all unitization agreements in effect with respect to any of the Leases and the units created thereby, including those described

US 408069

RECEIVED
Office of Oil and Gas
MAR 13 2019
WV Department of
Environmental Protection

ASSIGNMENT AND CONVEYANCE

This Assignment and Conveyance (this "*Assignment*") is from STATOIL USA ONSHORE PROPERTIES INC., a Delaware corporation ("*Assignor*"), to TH Exploration, LLC, a Texas limited liability company ("*Assignee*"), and is executed on December 18, 2017 (the "*Effective Date*"). Assignor and Assignee may be referred to herein collectively as the "*Parties*," or individually as a "*Party*." Capitalized terms used herein but not otherwise defined herein (including in Section 3.7) shall have the meanings given such terms in that certain Acreage Trade Agreement between the Assignor and the Assignee dated August 24, 2017 (the "*Acreage Trade Agreement*").

**ARTICLE 1
ASSIGNMENT OF ASSETS**

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

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

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

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

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

Section 2.2 Disclaimers of Warranties and Representations.

(a) EXCEPT AS EXPRESSLY REPRESENTED OTHERWISE IN SECTION VI OF THE ACREAGE TRADE AGREEMENT OR THIS ASSIGNMENT, ASSIGNOR MAKES NO, AND HEREBY EXPRESSLY DISCLAIMS, ANY REPRESENTATION OR

ASSIGNMENT AND CONVEYANCE

This Assignment and Conveyance (this "*Assignment*") is from SWN PRODUCTION COMPANY, LLC, a Texas limited liability company ("*Assignor*"), to TH Exploration, LLC, a Texas limited liability company ("*Assignee*"), and is executed on December 18, 2017 (the "*Effective Date*"). Assignor and Assignee may be referred to herein collectively as the "*Parties*," or individually as a "*Party*." Capitalized terms used herein but not otherwise defined herein (including in Section 3.7) shall have the meanings given such terms in that certain Acreage Trade Agreement between the Assignor and the Assignee dated August 24, 2017 (the "*Acreage Trade Agreement*").

**ARTICLE 1
ASSIGNMENT OF ASSETS**

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

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

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

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

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

Section 2.2 Disclaimers of Warranties and Representations.

(a) EXCEPT AS EXPRESSLY REPRESENTED OTHERWISE IN SECTION VI OF THE ACREAGE TRADE AGREEMENT OR THIS ASSIGNMENT, ASSIGNOR MAKES NO, AND HEREBY EXPRESSLY DISCLAIMS, ANY REPRESENTATION OR



March 7, 2019

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

RE: Burch Ridge 6HU

Subject: Marshall County Route 29 and 29/1 Road Crossing Letter

Dear Laura:

Tug Hill Operating, LLC (THO) hereby submits this letter as confirmation that THO has obtained the right to drill, extract and produce the minerals under Marshall County Route 29 and 29/1 in the area reflected on the Burch Ridge 6HU well plat. THO has conducted a full title search in the relevant Court House to confirm its ownership under said County Routes and is not currently aware of any recorded document that would suggest an ownership other than THO.

If your office has any questions or concerns regarding the contents of this letter, please do not hesitate to contact me directly at 304-376-0111, or by email at amiller@tug-hilop.com.

Sincerely,

A handwritten signature in blue ink that reads "Amy Miller".

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

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

Date of Notice Certification: 03/07/2019

API No. 47-051

Operator's Well No. Burch Ridge 6HU

Well Pad Name: Burch Ridge

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>516,919.07</u>
County:	<u>Marshall</u>		Northing:	<u>4,400,512.27</u>
District:	<u>Franklin</u>	Public Road Access:	<u>Burch Ridge Road</u>	
Quadrangle:	<u>Powhatan Point 7.5'</u>	Generally used farm name:	<u>CONSOL RCPG, LLC</u>	
Watershed:	<u>French Creek - Ohio River</u>			

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 40px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
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Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

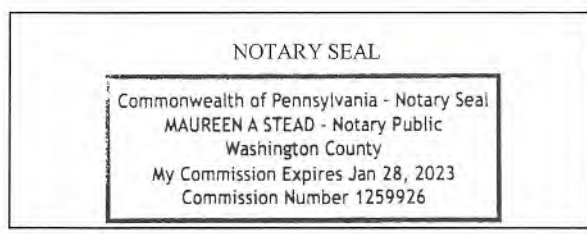
WW-6AC
(1/12)

Certification of Notice is hereby given:

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

Well Operator: Tug Hill Operating, LLC
By: Amy L. Miller *Amy Miller*
Its: Permitting Specialist - Appalachia Region
Telephone: 304-376-0111

Address: 380 Southpointe Boulevard, Plaza II, Suite 200
Canonsburg, PA 15317
Facsimile: 724-338-2030
Email: amiller@tug-hillop.com



Subscribed and sworn before me this 7 day of MARCH, 2019.
Maureen A Stead Notary Public
My Commission Expires 1/28/23

Oil and Gas Privacy Notice:

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

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Environmental Protection

WW-6A
(9-13)

API NO. 47- 051 -
OPERATOR WELL NO. Burch Ridge 6HU
Well Pad Name: Burch Ridge

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

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

Date of Notice: 2/28/2019 **Date Permit Application Filed:** 3/8/2019

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

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

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)

Name: CONSOL RCPC, LLC Attn: Casey Saunders
Address: 1000 Consol Drive
Canonsburg, PA 15317

Name: _____
Address: _____

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

Name: CONSOL RCPC, LLC Attn: Casey Saunders
Address: 1000 Consol Drive
Canonsburg, PA 15317

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: Appalachian Power Company
Address: 1068 US-60
Milton, WV 25541

COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: *See attached list
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
Address: _____

*Please attach additional forms if necessary

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Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

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

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(8-13)

API NO. 47-051 - 02193
OPERATOR WELL NO. Burch Ridge 6HU
Well Pad Name: Burch Ridge

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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

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Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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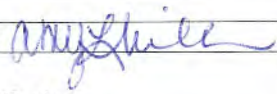
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API NO. 47-051 -
OPERATOR WELL NO. Burch Ridge 6HU
Well Pad Name: Burch Ridge

Notice is hereby given by:

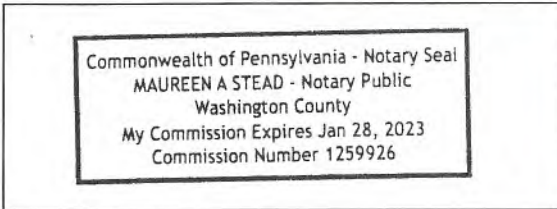
Well Operator: Tug Hill Operating, LLC
Telephone: 724-749-8388
Email: amiller@tug-hilop.com



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

Oil and Gas Privacy Notice:

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



Subscribed and sworn before me this 28 day of FEB., 2019.
Maureen A Stead Notary Public
My Commission Expires 1/28/23

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Office of Oil and Gas
MAR 13 2019
WV Department of
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Commissioner of Revenue - Notary Seal
MAUREN A. STAD - Notary Public
Washington County
My Commission Expires Jan 24, 2023
Commission Number 120923

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2023 JAN 24 10 30 AM
MAUREN A. STAD
Notary Public
Washington County

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Supplement Pg. 1A

Tug Hill Operating, LLC
 380 Southpointe BLVD, Suite 200
 Canonsburg, PA 15317

WATER WELL REPORT

Well: BURCH RIDGE 6HU
 District: Franklin
 County: Marshall
 State: WV

There appears to be Three (3) possible water sources within 2,000 feet of the above referenced well location.

Topo Spot # 1 (House) TM 19 Par. 18.2 Paul V. & Carol Neely 304-280-4324 4047 Burch Ridge Rd. Proctor, WV 26055	Topo Spot # 2 (Tower - Business) TM 22 Par. 5.1 Williams Ohio Valley Midstream, LLC 304-843-3100 100 Teletech Drive, Suite 2 Moundsville, WV 26041	Topo Spot # 3 (House) TM 19 Par. 18.1 Mark E. Yoho, et ux 304-455-4282 3998 Burch Ridge Rd. Proctor, WV 26055
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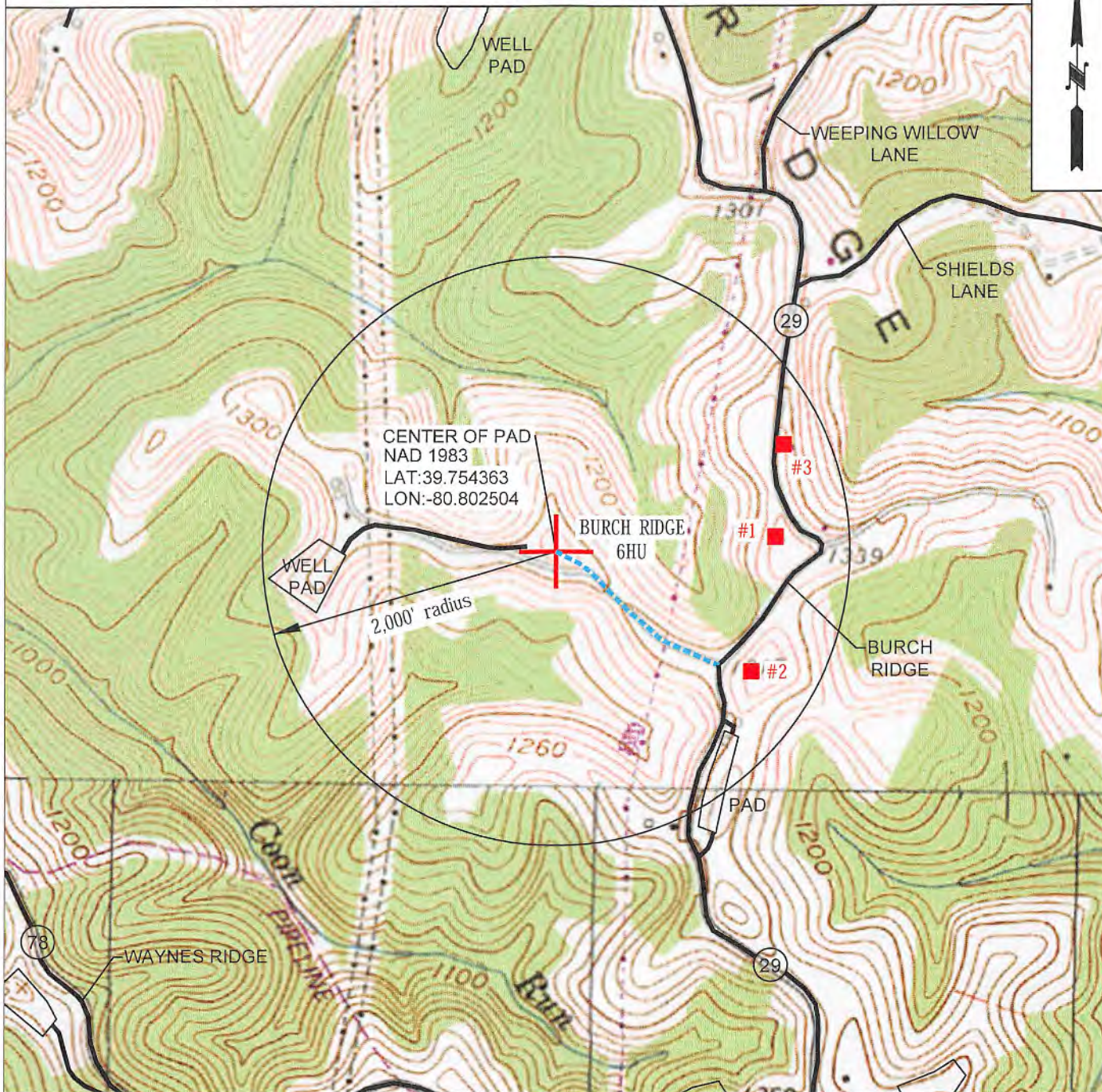
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 MAR 13 2019
 WV Department of
 Environmental Protection

WW-6A

PROPOSED BURCH RIDGE 6HU

SUPPLEMENT PG 1

There appears to be Three (3) possible water sources within 2,000'.



OPERATOR 494510851
 TUG HILL OPERATING, LLC
 380 SOUTHPOINTE BLVD
 SUITE 200
 CANONSBURG, PA 15317

TOPO SECTION
 POWHATAN POINT 7.5'
SCALE:
 1" = 1000'

LEASE NAME
 BURCH RIDGE
DATE: MAR 13 2019
 DATE: 02-25-2019

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 Department of Environmental Protection

4705 + 02197

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

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

Date of Notice: 1/31/2019 **Date of Planned Entry:** 2/7/2019

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

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

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

Notice is hereby provided to:

SURFACE OWNER(s)
 Name: CONSOL RCPC, LLC
 Address: 1000 CONSOL Energy Drive
Canonsburg, PA 15317
 Name: _____
 Address: _____
 Name: _____
 Address: _____

COAL OWNER OR LESSEE
 Name: Appalachian Power Company
 Address: 1068 US-60
Milton, WV 25541

MINERAL OWNER(s)
 Name: CNX Gas Company, LLC
 Address: 1000 CONSOL Energy Drive
Canonsburg, PA 15317
 *please attach additional forms if necessary

Notice is hereby given:

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

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.75445, -80.80285</u>
County: <u>Marshall</u>	Public Road Access: <u>Burch Ridge Road</u>
District: <u>Franklin</u>	Watershed: <u>French Creek - Ohio River</u>
Quadrangle: <u>Powhatan Point 7.5'</u>	Generally used farm name: <u>CONSOL RCPC, LLC</u>

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

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

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

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 WV Department of
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Oil and Gas Privacy Notice:

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

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

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

Date of Notice: 02/28/2019 **Date Permit Application Filed:** 03/08/2019

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL HAND
RETURN RECEIPT REQUESTED DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)

(at the address listed in the records of the sheriff at the time of notice):

Name: <u>CONSOL RCPC, LLC Attn: Casey Saunders</u>	Name: _____
Address: <u>1000 CONSOL Drive</u> <u>Canonsburg, PA 15317</u>	Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83	Easting: <u>516,919.07</u>
County: <u>Marshall</u>		Northing: <u>4,400,512.27</u>
District: <u>Franklin</u>	Public Road Access: <u>Burch Ridge Road</u>	
Quadrangle: <u>Powhatan Point 7.5'</u>	Generally used farm name: <u>CONSOL RCPC, LLC</u>	
Watershed: <u>French Creek - Ohio River</u>		

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

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

Oil and Gas Privacy Notice:

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



47 05 102193

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Thomas J. Smith, P. E.
Secretary of Transportation/
Commissioner of Highways

March 8, 2019

Jill M. Newman
Deputy Commissioner

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

Subject: DOH Permits for the Burch Ridge Well Pad, Marshall County
Burch Ridge 6HU Well Site

Dear Mr. Martin,

This well site will be accessed from Permit #06-2011-0438 transferred to Tug Hill Operating for access to the State Road for a well site located off of Marshall County Route 29 SLS.

The operator has signed a DISTRICT WIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated October 1, 2018.

Very Truly Yours,

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

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

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PLANNED ADDITIVES TO BE USED IN FRACTURING OR STIMULATION

Well No. Burch Ridge 6HU

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

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Office of Oil and Gas
MAR 13 2019
WV Department of
Environmental Protection

WEST VIRGINIA COUNTY MAP



APPROVED
WVDEP OOG
WJS 3/26/2019

Burch Ridge Well Site
Site Design, Construction Plan, &
Erosion and Sediment Control Plans
Tug Hill Operating
Marshall County
Franklin District
Latitude 39.75436315°
Longitude -80.80250405°
Stillhouse Run - Ohio River Watershed

Pertinent Site Information
Burch Ridge Well Site
Emergency Number: 304-845-1920
Franklin District, Marshall County, WV
Watershed: Stillhouse Run - Ohio River Watershed
Tug Hill Contact Number: 1-817-632-3400

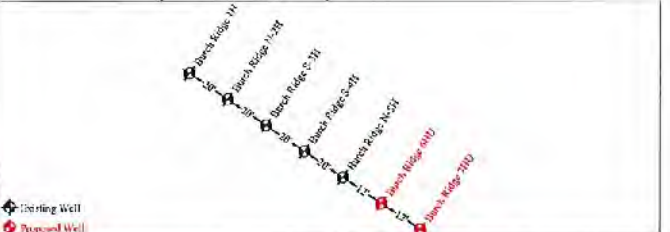
Property Owner Information - Burch Ridge Well Site

OWNER	TM - Parcel	Well Pad	Access Road	Borrow Area	Topsoil Excav	MM - Clearing	Total Disturbed
CNX Gas Company, LLC	282	3.55	1.29	1.36	0.41	10.25	17.66
Site Totals (Ac)							
	3.85	1.29	1.36	0.41	10.25	17.66	

Exhibit A: Final Design: Issue for Permitting

Site Coordinates

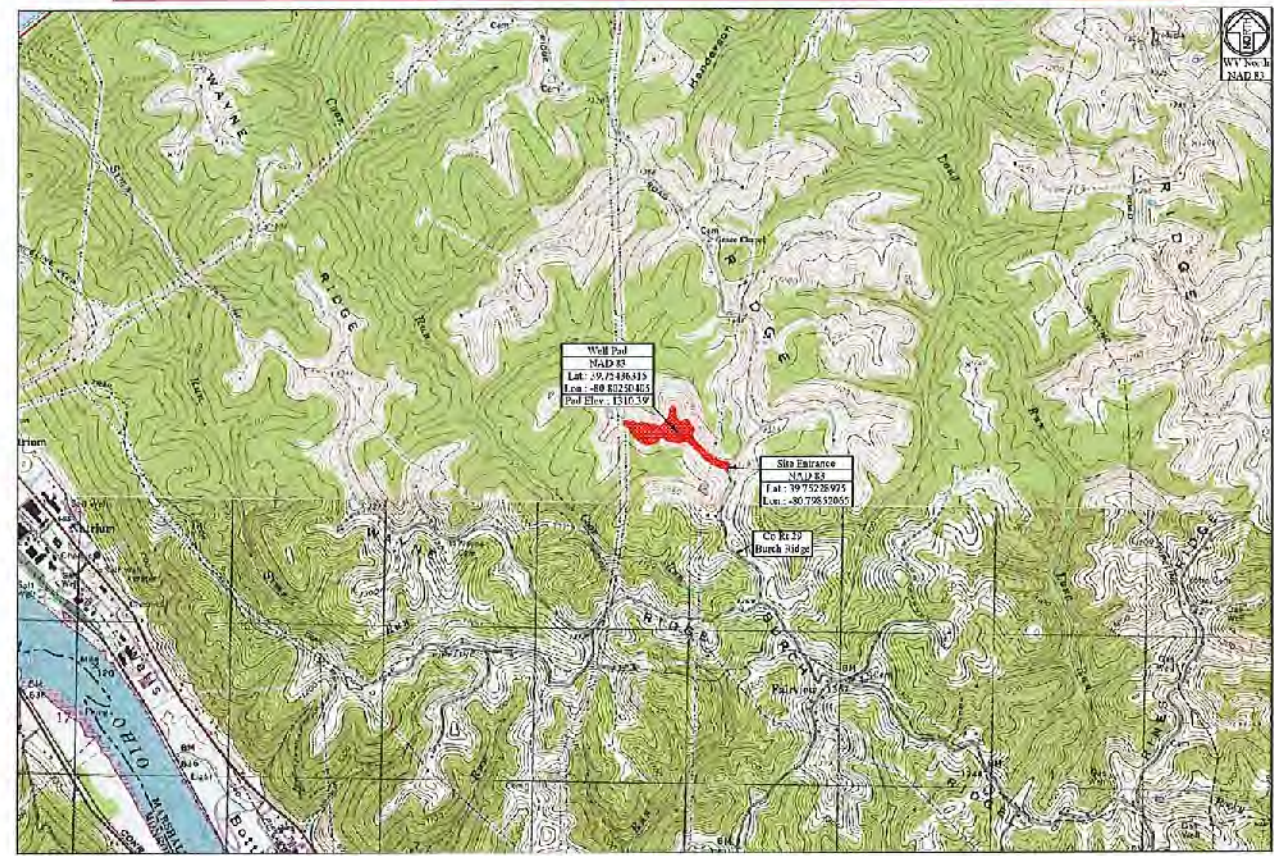
Structure	Latitude (DD)	Longitude (DD)
Well Pad	39.75436315	-80.80250405
Site Entrance	39.75221282	-80.79852365
Center of Well Pad	39.75436315	-80.80250405



Well Info

Well ID	Latitude (DD)	Longitude (DD)	Well Depth (ft)
Burch Ridge 1H	39.75436315	-80.80250405	120.59
Burch Ridge 2H	39.75436315	-80.80250405	120.59
Burch Ridge 3H	39.75436315	-80.80250405	120.59

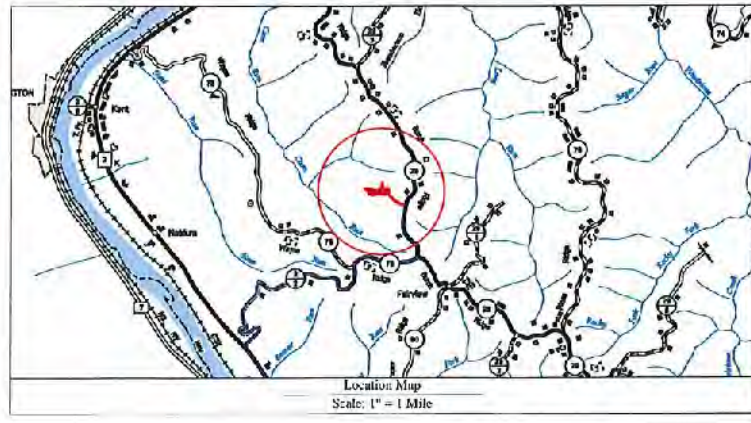
EXISTING API #s
4705101505
4705101506
4705101507
4705101508
4705101524



Site Locations (NAD 27)			Site Locations (NAD 83)		
Structure	Latitude (DD)	Longitude (DD)	Structure	Latitude (DD)	Longitude (DD)
Well Pad	39.75436315	-80.80250405	Well Pad	39.75436315	-80.80250405
Site Entrance	39.75221282	-80.79852365	Site Entrance	39.75221282	-80.79852365
Center of Well Pad	39.75436315	-80.80250405	Center of Well Pad	39.75436315	-80.80250405

Approach Routes:

From the intersection of OH Rt 7 and WV Rt 2 near New Marlusville, WV, Travel North on WV Rt 2 for 6.1 mi. Turn Right onto Co Rt 2/2 (Wells Hill Rd). Follow Co Rt 2/2 for 2.3 mi. Turn Right onto Co Rt 78 (Waves Ridge). Follow Co Rt 78 for 0.8 mi. Turn Left onto Co Rt 29 (Burch Ridge). Follow Co Rt 29 for 0.6 mi. The site entrance will be on the Left (West) side of the road.



Well Location Restrictions
All Well construction complies with the following restrictions:
• 250' from an existing well or developed spring used for human or domestic animals.
• 425' from an existing dwelling or farm greater than 2,500 SF used for poultry or dairy measured from the corner of the pad.
• 100' from the edge of disturbance to a naturally reproducing trout stream.
• 1,000' of a surface or ground water intake to a public water supply.
(Well Location Restrictions of WV Code 22A-17)



The drawings, calculations and reference diagrams attached hereto have been prepared in accordance with the West Virginia Code of State Rules, Division for Professional Engineers, Chapter 22A-17. All Plans, Sheets, and Reference Diagrams included in this design contain a complete set of plans. A copy of this set of plans is necessary to construct the site in accordance with the design.
Zachary C. Summers
RFE 22214
RFE State of WV
COA-0021260

Sheet	Description
1	Cover Sheet
V1	Schedule of Quantities
N1-N4	Site Notes
2	Pre-Construction Site Conditions
3	Site Soil Map
4	Cleaning Exhibit
5	Overall Plan View
6-8	E&S Plan View
9-11	Plan View
12	Cross Sections - Well Pad
13	Cross Sections - Borrow Area
14	Cross Sections - Access Road
G1-G2	Geotechnical Exhibit
L1	Landowner Disturbed Area Exhibit
S1	Site Reclamation
M1-M2	Production Exhibit
D1-D2	Erosion and Sediment Control Details
R1	Access Road Details
P1	Pad Details

Project Contacts
Tug Hill Operating
Jordan White - Regulatory Analyst
724-85-2000 Cell 704-689-7675 Cell
Geoff Falter - V.P. Production
817-632-5200 Cell
Tug Hill Operating, LLC
380 Sawtooth Blvd
Sawtooth Plaza II, Suite 200
Canton, PA 15117

Environmental
Wetland Delineations as provided by Albrow Ecology dated January 14, 2019.
Topographic Information
The topographic information shown herein is based on aerial photography by the Mountain Aerial Mapping, Dalton, WV.

MISS UTILITY OF WEST VIRGINIA
1-800-245-4848
West Virginia's Gas Utility
Call before you dig.
IT'S THE LAW

Tug Hill Operating will obtain an Encroachment Permit (Form MM-109) from the WV Department of Transportation, Division of Highways, prior to the commencement of any construction activities.
The WV Mines Website was consulted. Previous (Current) mining activities are not within the AOI.
WVDEP Website files show that there are active and/or abandoned gas wells within the AOI.

Floodplain Conditions

Condition	Yes/No
Do the construction activities take place in a floodplain?	NO
Is flood hazard zone?	NO
Are flood hazard zone boundaries?	N/A
Are flood hazard zone boundaries?	N/A
Are flood hazard zone boundaries?	N/A
Are flood hazard zone boundaries?	N/A

TUG HILL OPERATING



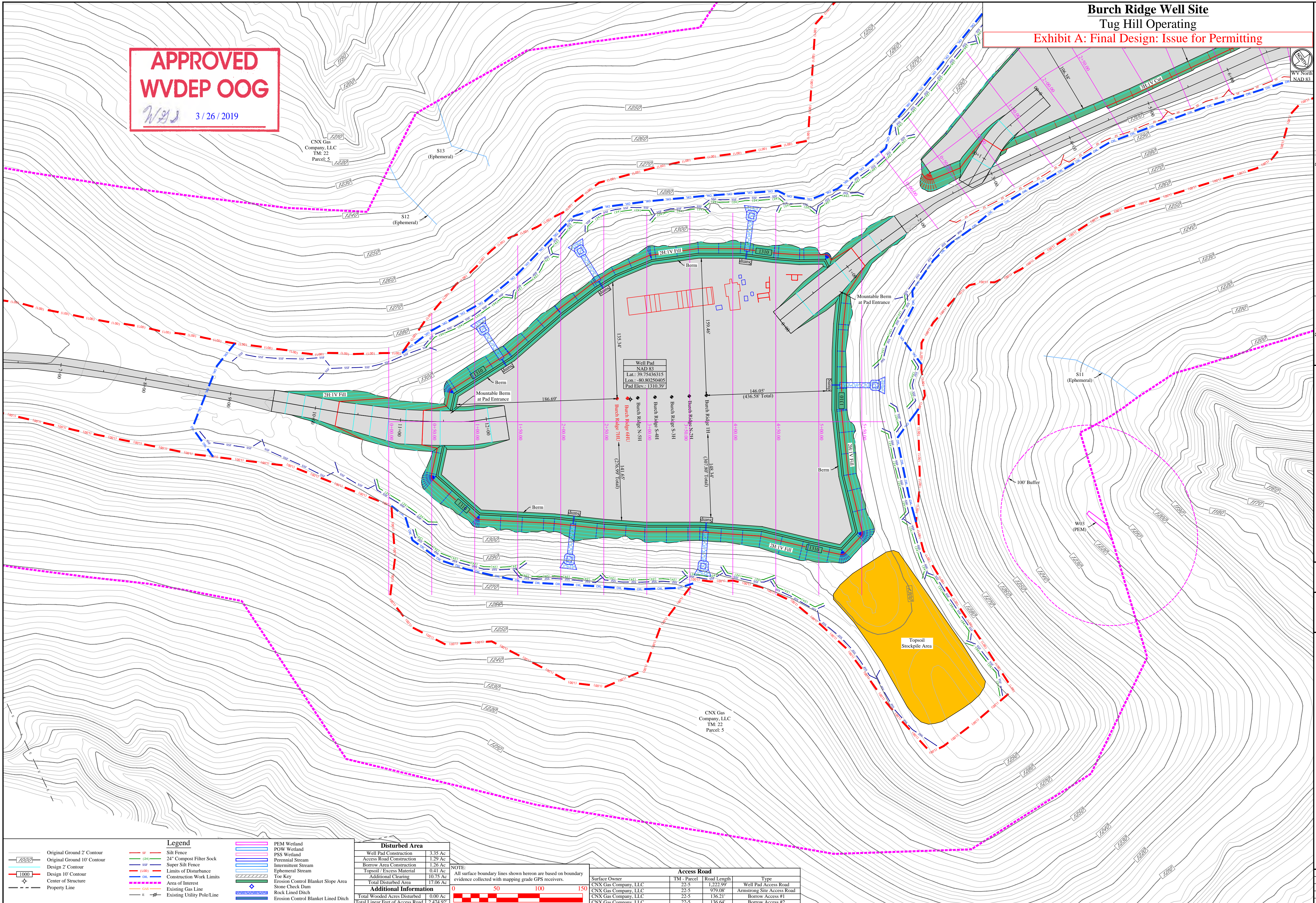
THIS DOCUMENT PREPARED FOR TUG HILL OPERATING

Kelly Surveying

Burch Ridge Well Site
Franklin District
Marshall County, WV

Date: 03/27/2019
Scale: As Shown
Designed By: ZS
File No:
Sheet 1 of 14

APPROVED
WVDEP OOG
WJS 3/26/2019



Revision	Date
Design	02-21-2019

TUG HILL OPERATING

THIS DOCUMENT PREPARED FOR TUG HILL OPERATING

Kelly Surveying
 254 Delaware Ave., WV 26039
 304-538-6985

Burch Ridge Well Site
 Franklin District
 Marshall County, WV

Date: 02/21/2019
 Scale: As Shown
 Designed By: ZS
 File No.
 Sheet 10 of 14

Legend

	Original Ground 2' Contour		PEM Wetland
	Original Ground 10' Contour		POW Wetland
	Design 2' Contour		PSS Wetland
	Design 10' Contour		Perennial Stream
	Center of Structure		Intermittent Stream
	Property Line		Ephemeral Stream
	Silt Fence		Toe Key
	24\" Composite Filter Sock		Erosion Control Blanket Slope Area
	Super Silt Fence		Stone Check Dam
	Limits of Disturbance		Rock Lined Ditch
	Construction Work Limits		
	Area of Interest		
	Existing Gas Line		
	Existing Utility Pole/Line		

Disturbed Area

Well Pad Construction	3.35 Ac
Access Road Construction	1.29 Ac
Borrow Area Construction	1.26 Ac
Topsoil / Excess Material	0.41 Ac
Additional Clearing	10.75 Ac
Total Disturbed Area	17.06 Ac

Additional Information

Total Worked Access Disturbed	1.00 Ac
Total Linear Feet of Access Road	2,474.92

NOTE:
 All surface boundary lines shown hereon are based on boundary evidence collected with mapping grade GPS receivers.

Access Road

Surface Owner	TM - Parcel	Road Length	Type
CNX Gas Company, LLC	22-5	1,222.99'	Well Pad Access Road
CNX Gas Company, LLC	22-5	979.08'	Armstrong Site Access Road
CNX Gas Company, LLC	22-5	136.21'	Borrow Access #1
CNX Gas Company, LLC	22-5	136.64'	Borrow Access #2

