

State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47-051-01890 County Marshall District Franklin  
Quad Powhatan Point 7.5' Pad Name Greer Field/Pool Name \_\_\_\_\_  
Farm name PPG Industries, Inc. Well Number 1N-7HM  
Operator (as registered with the OOG) Tug Hill Operating, LLC  
Address 1320 South University Drive, Suite 500 City Ft. Worth State TX Zip 76107

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,400,804.2 Easting 514,014.8  
Landing Point of Curve Northing 4,400,709.9 Easting 513,792.5  
Bottom Hole Northing 4,402,807.5 Easting 512,576.4

Elevation (ft) 1251' GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine  
Mud Type(s) and Additive(s)  
SOBM; Base oil, osmotic inhibitor, weighting agent, viscosifier, emulsifier, hardness buffer, fluid loss additive, LCM, shale inhibitor, de-foamer, soaping agent, coagulant, flocculant; Specific additives per WSSP and Permit.

Date permit issued 1/23/2017 Date drilling commenced 4/16/2017 Date drilling ceased 7/10/2017  
Date completion activities began 12/12/2017 Date completion activities ceased 3/4/2018  
Verbal plugging (Y/N) \_\_\_\_\_ Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 70' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 1740' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft Sewickley 785' TVD, Pittsburgh 879' TVD Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

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Reviewed by: \_\_\_\_\_  
SEP 10 2018  
WV Department of Environmental Protection  
*Reviewed*  
*Jan [Signature] 10/23/18*

API 47-051 - 01890 Farm name PPG Industries, Inc. Well number 1N-7HM

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	36	30	120	NEW	94.5#	N/A	YES
Surface	17 1/2	13 3/8	967	NEW	54.5#	N/A	YES
Coal	17 1/2	13 3/8	967	NEW	54.5#	N/A	YES
Intermediate 1	12 1/4	9 5/8	2611	NEW	36#	N/A	YES
Intermediate 2							
Intermediate 3							
Production	8 3/4	5 1/2	14,916	NEW	20#	N/A	YES
Tubing		2 3/8	6562	NEW	4.7#	N/A	YES
Packer type and depth set							

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	A	563	15.6	1.19	670	0	8
Surface	A	1070	15.6	1.19	1273	0	8
Coal	A	1070	15.6	1.19	1273	0	8
Intermediate 1	A	880	15.6	1.19	1047	0	8
Intermediate 2							
Intermediate 3							
Production	A	2989	14.5	1.17	3497	0	8
Tubing							

Drillers TD (ft) 14,940 Loggers TD (ft) \_\_\_\_\_  
 Deepest formation penetrated Marcellus Plug back to (ft) n/a  
 Plug back procedure n/a

Kick off depth (ft) 5777

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING 3 centralizers on surface casing at equal distance  
Intermediate - 1 centralizer every other joint  
Production - one centralizer every other joint in lateral, one centralizer every joint through curve, one centralizer every other joint to surface.

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS See attached

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

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API 47- 051 - 01890 Farm name PPG Industries, Inc. Well number 1N-7HM

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>6,326 - 6,390'</u> TVD	<u>7,558 - 14,940'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump  
 SHUT-IN PRESSURE Surface 1188 psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST 24 hrs  
 OPEN FLOW Gas \_\_\_\_\_ Oil 264 bpd NGL \_\_\_\_\_ bpd Water 1464 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	0		0		
Gordon	2854	2956	2856	2959	Sandstone
Fifty Foot	2956	3529	2959	3547	Sandstone
Speachley	3529	4865	3547	4954	Sandstone
Benson	4865	5234	4954	5342	Sandstone
Alexander	5234	5854	5342	5987	Siltstone
Rhinesstreet	5854	6216	5987	6412	Black Shale
Middlesex	6216	6302	6412	6557	Black Shale
Genesee/Burkett	6302	6332	6557	6622	Black Shale
Tully	6332	6352	6622	6678	Limestone
Hamilton	6352	6359	6678	6698	Grey shale
Marcellus	6359	-	6698	-	Black Shale

Please insert additional pages as applicable.

Drilling Contractor Nabors Drilling USA  
 Address 505 West Greens Road, Suite 1000 City Houston State TX Zip 77067

Logging Company N/A  
 Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Cementing Company C&J Well Services  
 Address 380 Southpointe Boulevard, Suite 210 City Canonsburg State PA Zip 15317

Stimulating Company Halliburton Energy Services, Inc.  
 Address 121 Champion Way, Suite 200 City Canonsburg State PA Zip 15317

Please insert additional pages as applicable.

Completed by Sean Gasser Telephone 817-632-5200  
 Signature \_\_\_\_\_ Title Engineer Date 9/7/18

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

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**Greer 1N-7HM  
Perforation Record**

Stage	Date Perforated	Bottom Perf (ft)	Top Perf (ft)	Number of Perfs	Formation
1	12/12/2017	14,818	14,769	2	Marcellus
2	12/12/2017	14,588	14,457	48	Marcellus
3	12/13/2017	14,413	14,282	48	Marcellus
4	12/13/2017	14,238	14,107	48	Marcellus
5	12/14/2017	14,063	13,932	48	Marcellus
6	12/14/2018	13,888	13,757	48	Marcellus
7	12/17/2018	13,713	13,582	48	Marcellus
8	12/18/2018	13,538	13,407	48	Marcellus
9	12/22/2017	13,363	13,232	48	Marcellus
10	12/24/2017	13,188	13,057	48	Marcellus
11	12/28/2017	13,013	12,882	48	Marcellus
12	12/30/2017	12,838	12,707	48	Marcellus
13	1/2/2018	12,663	12,532	48	Marcellus
14	1/4/2018	12,488	12,357	48	Marcellus
15	1/7/2018	12,313	12,182	48	Marcellus
16	1/9/2018	12,138	12,007	48	Marcellus
17	1/11/2018	11,963	11,832	48	Marcellus
18	1/12/2018	11,788	11,657	48	Marcellus
19	1/13/2018	11,613	11,482	48	Marcellus
20	1/16/2018	11,438	11,307	48	Marcellus
21	1/19/2018	11,263	11,132	48	Marcellus
22	1/20/2018	11,088	10,957	48	Marcellus
23	1/27/2018	10,913	10,782	48	Marcellus
24	1/28/2018	10,738	10,607	48	Marcellus
25	1/29/2018	10,563	10,432	48	Marcellus
26	1/31/2018	10,388	10,257	48	Marcellus
27	2/2/2018	10,213	10,082	48	Marcellus
28	2/4/2018	10,038	9,907	48	Marcellus
29	2/5/2018	9,863	9,732	48	Marcellus
30	2/7/2018	9,688	9,557	48	Marcellus
31	2/9/2018	9,513	9,382	48	Marcellus
32	2/11/2018	9,338	9,207	48	Marcellus
33	2/13/2018	9,163	9,032	48	Marcellus
34	2/14/2018	8,988	8,857	48	Marcellus
35	2/16/2018	8,813	8,682	48	Marcellus
36	2/17/2018	8,638	8,507	48	Marcellus
37	2/18/2018	8,463	8,332	48	Marcellus
38	2/19/2018	8,288	8,157	48	Marcellus
39	2/21/2018	8,113	7,982	48	Marcellus
40	2/22/2018	7,938	7,807	48	Marcellus
41	2/24/2018	7,763	7,632	48	Marcellus
42	2/25/2018	7,588	7,457	48	Marcellus
43	2/26/2018	7,413	7,282	48	Marcellus
44	2/27/2018	7,238	7,107	48	Marcellus
45	2/28/2018	7,063	6,832	48	Marcellus
46	2/28/2018	6,888	6,757	48	Marcellus

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**Stimulation Summary  
Greer 1N-7HM**

Stage	Avg. Pump Rate (BPM)	Avg. Treating Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Proppant Total (lbs)	Water Total (bbls)	N2 Volume (scf)
1	53.8	8,523	5,811	5,896	4,110	1,858	0
2	83.9	8,085	4,756	2,545	346,162	6,677	0
3	85.4	8,280	5,598	2,286	334,835	6,297	0
4	89.6	8,575	5,772	3,597	457,004	7,520	0
5	89.1	8,260	5,220	4,089	452,860	9,229	0
6	89.3	8,080	5,254	3,055	449,712	7,220	0
7	88.8	8,327	5,499	3,306	452,338	7,948	0
8	87.3	8,040	5,516	3,170	451,981	7,590	0
9	84.6	8,085	6,409	3,429	450,239	7,907	0
10	87.7	8,103	5,413	3,544	450,063	9,033	0
11	82.1	7,678	5,727	3,465	450,856	7,370	0
12	83.4	7,641	5,721	4,343	450,527	7,564	0
13	85.5	7,953	4,489	3,117	450,627	7,662	0
14	86.5	7,782	4,712	4,075	451,090	7,600	0
15	85.8	7,835	5,440	3,250	450,781	7,521	0
16	89.2	7,950	5,239	3,795	450,177	7,398	0
17	83.6	8,035	4,590	4,245	449,512	7,394	0
18	86.2	8,131	5,486	3,576	448,574	7,348	0
19	88.7	7,896	5,319	3,493	452,268	7,525	0
20	85.1	7,664	5,891	4,016	452,933	7,457	0
21	83.5	7,536	5,715	3,793	450,336	7,348	0
22	85.6	7,402	5,320	4,724	450,786	7,199	0
23	86.5	7,487	5,316	3,533	450,827	7,372	0
24	86.1	7,657	5,368	3,333	450,540	7,571	0
25	86.8	7,500	5,168	3,430	450,355	7,501	0
26	88.5	7,632	5,631	3,213	450,262	7,439	0
27	87.7	7,421	5,497	3,661	450,961	7,492	0
28	88	7,346	5,349	3,438	451,311	7,502	0
29	87.8	7,300	5,752	3,512	451,504	7,455	0
30	87.2	7,102	5,597	3,531	451,667	7,441	0
31	85.4	7,244	6,043	3,288	450,483	7,445	0
32	75.3	6,902	6,306	3,513	430,873	7,450	0
33	85.3	7,353	5,476	4,060	450,061	7,214	0
34	85.4	7,213	5,557	3,658	450,454	7,240	0
35	87.8	7,155	6,036	3,529	450,251	7,292	0
36	86.8	7,017	5,272	3,342	449,906	7,266	0
37	88.3	7,011	5,509	3,376	450,412	7,417	0

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**Stimulation Summary  
Greer 1N-7HM**

38	88.5	7,100	6,240	3,752	450,541	7,206	0
39	87.9	6,862	5,810	3,383	445,312	7,232	0
40	88.7	6,958	6,610	3,394	450,437	8,330	0
41	86.9	6,899	7,849	3,460	449,793	7,355	0
42	88.9	6932	6879	3992	450761	7436.452381	0
43	85.9	7077	7012	4153	423356	7055.52381	0
44	87.5	6957	6957	3811	431448	7227.428571	0
45	89.3	7098	7113	4237	451264	7417.595238	0
46	87.4	6830	5965	3795	451053	7309.166667	0

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**Greer 1N-7HM  
Lithology/Formation Information**

FORMATION	TOP TVD	BASE TVD	TOP MD	BASE MD	DESCRIBE ROCKY TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H2S ETC)
Maxton	1857	1929	1857	1929	Sandstone
Big Lime	1929	2038	1929	2039	Limestone
Big Injun	2038	2346	2039	2348	Sandstone
Weir	2346	2536	2348	2538	Sandstone
Berea	2536	2854	2538	2856	Sandstone
Gordon	2854	2956	2856	2959	Sandstone
Fifty Foot	2956	3529	2959	3547	Sandstone
Speechley	3529	4865	3547	4954	Sandstone
Benson	4865	5234	4954	5342	Sandstone
Alexander	5234	5854	5342	5987	Siltstone
Rhinestreet	5854	6216	5987	6412	Black shale
Middlesex	6216	6302	6412	6557	Black shale
Geneseo/Burkett	6302	6332	6557	6622	Black shale
Tully	6332	6352	6622	6678	Limestone
Hamilton	6352	6359	6678	6698	Grey shale
Marcellus	6359	-	6698	-	Black shale

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/7/2018
Job End Date:	3/7/2018
State:	West Virginia
County:	Marshall
API Number:	47-051-01890-00-00
Operator Name:	Tug Hill Operating, LLC
Well Name and Number:	Greer 1N-7HM
Latitude:	39.75703836
Longitude:	-80.83639282
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,412
Total Base Water Volume (gal):	13,442,445
Total Base Non Water Volume:	0



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## Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Fresh Water	Operator	Base Fluid					
			Water	7732-18-5	100.00000	84.05466	Density = 8.330
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.86130	

WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
SAND-PREMIUM WHITE-40/70, BULK	Halliburton	Proppant					
				Listed Below			
HYDROCHLORIC ACID	Halliburton	Solvent					
				Listed Below			
SCALECHEK LP-50	Halliburton	Scale Inhibitor					
				Listed Below			
SP BREAKER	Halliburton	Breaker					
				Listed Below			
SAND-COMMON WHITE-100 MESH, SSA-2, BULK (100003676)	Halliburton	Proppant					
				Listed Below			
OILPERM A	Halliburton	Non-ionic Surfactant					
				Listed Below			
SCALECHEK LP-70	Halliburton	Scale Inhibitor					
				Listed Below			

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HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor					
				Listed Below			
FR-76	Halliburton	Friction Reducer					
				Listed Below			
MC B-8614	Halliburton	Biocide					
				Listed Below			

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Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.

			Crystalline silica, quartz	14808-60-7	100.00000	15.01429	
			Hydrochloric acid	7647-01-0	15.00000	0.11285	
			Inorganic salt	Proprietary	30.00000	0.03639	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.03639	
			Acrylamide acrylate copolymer	Proprietary	30.00000	0.03639	Denise Tuck, Halliburton, 3000 N. Sam Houston Pkwy E., Houston, TX 77032, 281-871-6226
			Glutaraldehyde	111-30-8	30.00000	0.00810	
			Guar gum	9000-30-0	100.00000	0.00561	
			Methanol	67-56-1	60.00000	0.00517	
			Phosphate of a Diamine, Sodium Salt	Proprietary	30.00000	0.00464	
			Ethylene glycol	107-21-1	60.00000	0.00452	
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5.00000	0.00135	
			Ethanol	64-17-5	60.00000	0.00077	
			Telmer	Proprietary	10.00000	0.00075	
			Oxyalkylated phenolic resin	Proprietary	30.00000	0.00033	

			Heavy aromatic petroleum naphtha	64742-94-5	30.00000	0.00025	
			Ethoxylated alcohols	Proprietary	30.00000	0.00024	
			Fatty acids, tall oil	Proprietary	30.00000	0.00024	
			Modified thiourea polymer	Proprietary	30.00000	0.00024	
			Sodium persulfate	7775-27-1	100.00000	0.00020	
			Olefins	Proprietary	5.00000	0.00010	
			Propargyl alcohol	107-19-7	10.00000	0.00008	
			Sodium polyacrylate	9003-04-7	1.00000	0.00008	
			Naphthalene	91-20-3	5.00000	0.00004	
			Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-, branched	127087-87-0	5.00000	0.00004	
			Phosphoric acid	7664-38-2	0.10000	0.00003	
			1,2,4 Trimethylbenzene	95-63-6	1.00000	0.00001	
			Acrylic acid	79-10-7	0.01000	0.00000	
			Sodium sulfate	7757-82-6	0.10000	0.00000	

\* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%

\*\*\* If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

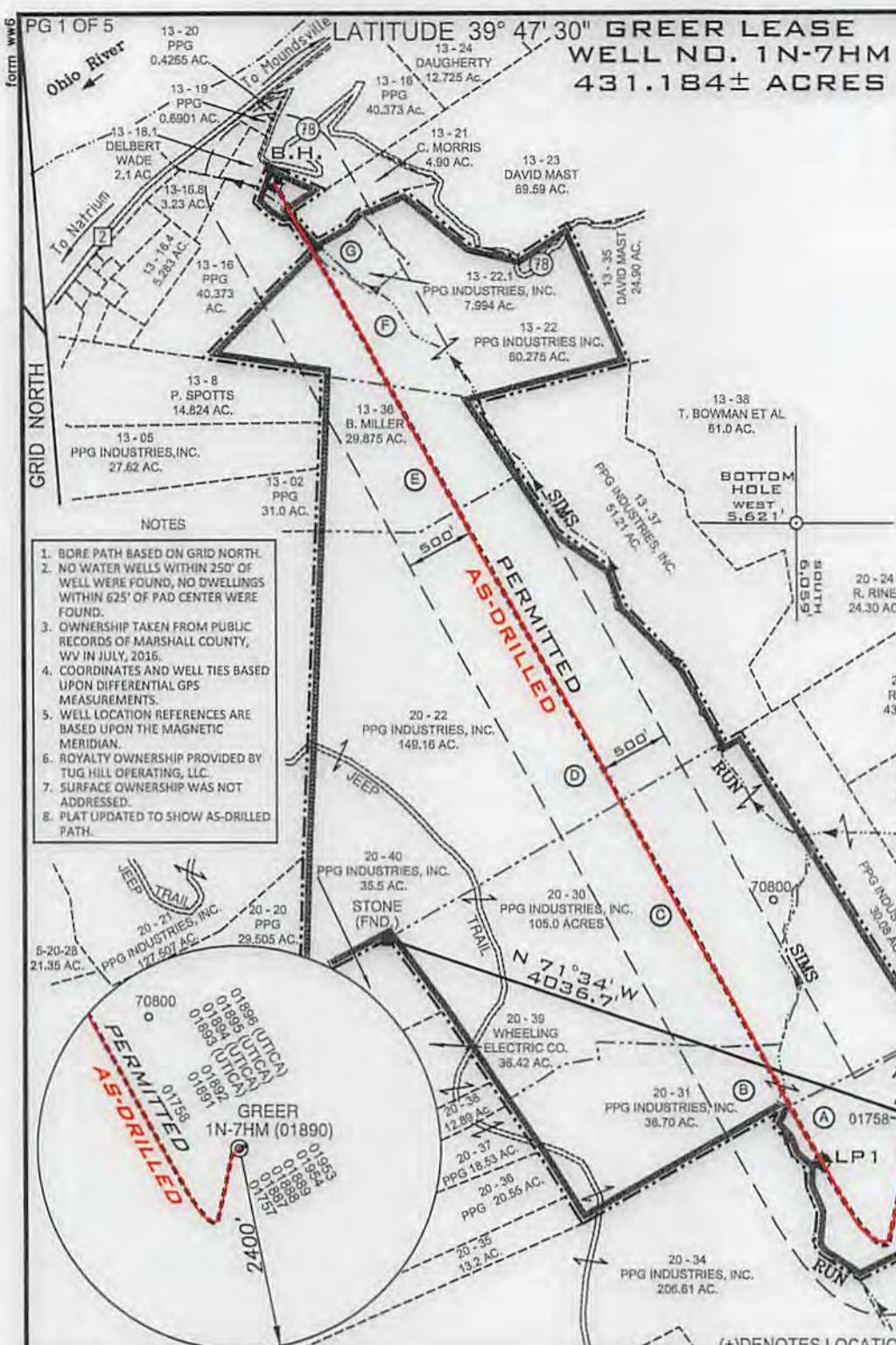
Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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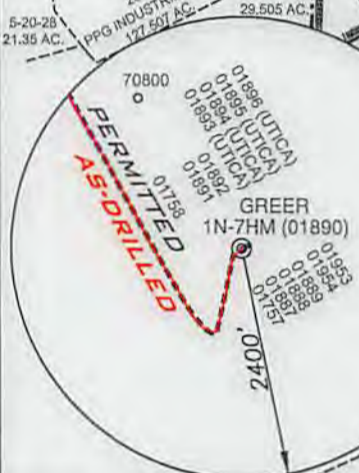
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<b>AS-DRILLED</b>
<b>SURFACE HOLE</b> UTM. NAD83, ZONE 17 IN METERS N) 4,400,804.2 E) 514,014.8 UTM. NAD83, ZONE 17 IN FEET N) 14,438,305 E) 1,686,397
<b>LANDING POINT 1</b> UTM. NAD83, ZONE 17 IN METERS N) 4,400,709.9 E) 513,792.5 UTM. NAD83, ZONE 17 IN FEET N) 14,437,996 E) 1,685,667
<b>BOTTOM HOLE</b> UTM. NAD83, ZONE 17 IN METERS N) 4,402,807.5 E) 512,576.4 UTM. NAD83, ZONE 17 IN FEET N) 14,444,878 E) 1,681,678

- NOTES
- BORE PATH BASED ON GRID NORTH.
  - NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 625' OF PAD CENTER WERE FOUND.
  - OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN JULY, 2016.
  - COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
  - WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
  - ROYALTY OWNERSHIP PROVIDED BY TUG HILL OPERATING, LLC.
  - SURFACE OWNERSHIP WAS NOT ADDRESSED.
  - PLAT UPDATED TO SHOW AS-DRILLED PATH.

LEGEND

---	LEASED TRACTS
---	INTERIOR MINERAL TRACTS
---	SURFACE TRACTS
---	HARD LEASE LINE
(A)	LEASE # (SEE PG 2)



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

*Gregory A. Smith*



FILE NUMBER **8837**

DRAWING NUMBER **8837ADG1N7HM.dwg**

SCALE **1" = 1200'**

MINIMUM DEGREE OF ACCURACY **1/2500**

PROVEN SOURCE OF ELEVATION **SUBMETER MAPPING**  
**GRADE GPS**



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

DATE: JULY 17, 2018

OPERATORS WELL NO. GREER 1N-7HM (AS-DRILLED)

API WELL NO. 47-051-01890

STATE            COUNTY            PERMIT           

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

LOCATION ELEVATION 1251' WATERSHED (HUC 10) FRENCH CREEK - OHIO RIVER (UNDEFINDED)

DISTRICT FRANKLIN COUNTY MARSHALL

QUADRANGLE POWHATAN POINT 7.5' LEASE NUMBER SEE ATTACHED PG 2 THROUGH 5

SURFACE OWNER PPG INDUSTRIES, INC. ACREAGE 42.18

OIL & GAS ROYALTY OWNER PPG INDUSTRIES, INC., ET AL LEASE ACREAGE 431.184

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

TARGET FORMATION MARCELLUS ESTIMATED DEPTH TVD 6,326' TMD:14,940'

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

LONGITUDE 80° 50' 08" EAST



WELL NO. IN-7HM  
431.184± ACRES  
LATITUDE 39° 47' 30" GREER LEASE

**AS-DRIILLED PERMITTED**

UTM. NAD83, ZONE 17  
IN METERS  
(N) 14,437,999  
(E) 1,882,667

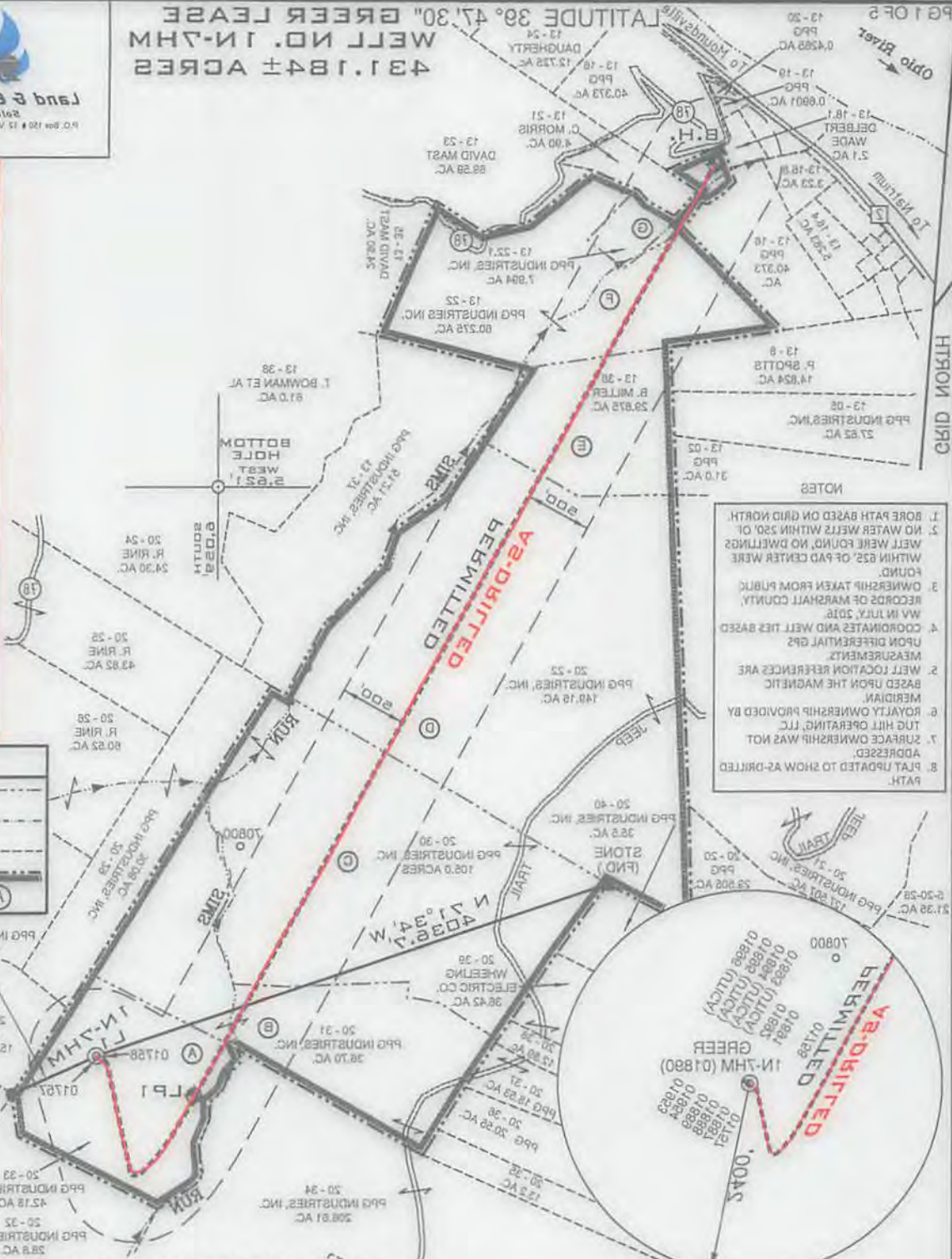
UTM. NAD83, ZONE 17  
IN METERS  
(N) 14,437,999  
(E) 1,882,667

UTM. NAD83, ZONE 17  
IN METERS  
(N) 14,437,999  
(E) 1,882,667

UTM. NAD83, ZONE 17  
IN METERS  
(N) 14,437,999  
(E) 1,882,667

UTM. NAD83, ZONE 17  
IN METERS  
(N) 14,437,999  
(E) 1,882,667

- NOTES
1. BORE PATH BASED ON GRID NORTH
  2. NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 625' OF PAD CENTER WERE FOUND.
  3. OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY WV IN JULY, 2018
  4. COORDINATES AND WELL-TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
  5. WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
  6. ROYALTY OWNERSHIP PROVIDED BY TUG HILL OPERATING, LLC.
  7. SURFACE OWNERSHIP WAS NOT ADDRESSED.
  8. PLAT UPDATED TO SHOW AS-DRIILLED PATH.



**LEGEND**

LEASE # (SEE PG 2)

SURFACE TRACTS

INTERIOR MINERAL TRACTS

LEASSED TRACTS

FILE NUMBER	8837
DRAWING NUMBER	8837ADG1N7HM.dwg
SCALE	1" = 120'
MINIMUM DEGREE OF ACCURACY	1/2500
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

*Gregory A. Smith*



DATE: JULY 17, 2018

OPERATORS WELL NO. GREER IN-7HM (AS-DRIILLED)

API WELL NO. \_\_\_\_\_

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL

(IF GAS) PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION ELEVATION 1251' WATERSHED (HUC 10) FRENCH CREEK - OHIO RIVER (UNDEFINED)

DISTRICT FRANKLIN COUNTY MARSHALL

QUADRANGLE POWHATAN POINT 7.5' LEASE NUMBER SEE ATTACHED PG 2 THROUGH 8

SURFACE OWNER PPG INDUSTRIES, INC. ACREAGE 42.18

OIL & GAS ROYALTY OWNER PPG INDUSTRIES, INC. ET AL LEASE ACREAGE 431.184

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION

PERFORMATE NEW FORMATION  OTHER PHYSICAL CHANGE (SPECIFY) \_\_\_\_\_

TARGET FORMATION MARCELLUS ESTIMATED DEPTH TVD @ 350' TMD: 14,940'

PLUG & ABANDON  CLEAN OUT & REPLUG

PERMIT

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

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

**GREER WELL NO. 1N-7HM  
WELL PLAT LEASE INFORMATION**

Lease No.	Tag	Parcel	Oil & Gas Royalty Owner	DEED	
				BOOK	PG
10*14316	A	5-20-33	ANDREW GERST	791	645
10*14402	A	5-20-33	CAROL F WILSON AND RICHARD WILSON	860	446
10*14362	A	5-20-33	CAROLYN STARKEY	827	226
10*14331	A	5-20-33	CHRISTINA JEAN RIOUX	796	70
10*14400	A	5-20-33	COLEEN SLAGLE AND FRANKLIN SLAGLE	860	440
10*14419	A	5-20-33	CROSSROAD CHILD AND FAMILY SERVICES	887	105
10*14333	A	5-20-33	DEAN ROTHENBUHLER	796	42
10*14355	A	5-20-33	DEWAYNE STARKEY	815	228
10*14404	A	5-20-33	DON FORGRAVES	862	426
10*14356	A	5-20-33	FREDRIC RICHTER & BETTY RICHTER	822	270
10*14317	A	5-20-33	HAROLD BLACHLY	791	643
10*14410	A	5-20-33	HENRY T LONG	867	385
10*14321	A	5-20-33	HERBERT BLACHLY	792	102
10*14401	A	5-20-33	IMELDA J SCURLOCK	860	443
10*14388	A	5-20-33	IMMANUEL CHURCH OF THE UNITED CHURCH OF CHRIST	849	513
10*14319	A	5-20-33	JACK J. PFALZGRAF	792	118
10*14409	A	5-20-33	JAMES C LONG AND PATTI LONG	864	326
10*14312	A	5-20-33	JAMIE LU BENSON	790	531
10*14398	A	5-20-33	JAN KAFFENBERGER	860	434
10*14387	A	5-20-33	JOHN F LONG AND PAM LONG	849	542
10*14405	A	5-20-33	JOHN WHITE	862	423
10*14377	A	5-20-33	JOSEPH A LONG	849	519
10*14368	A	5-20-33	JOSEPH LONG	836	106
10*14413	A	5-20-33	JUANITA SANDIFER	872	206
10*14416	A	5-20-33	KATHERINE ANN WILLIAMS COTHRAN	879	1
10*14394	A	5-20-33	LESLIE F BUCKNOR	862	419
10*14322	A	5-20-33	LOIS KAY MORFORD	792	110
10*14408	A	5-20-33	LORNA M LONG MORGAN	864	323
10*14315	A	5-20-33	MARGARET ROSS	790	527
10*14318	A	5-20-33	MARTHA BLACHLY-CROSS	792	112
10*14332	A	5-20-33	MICHAEL EDWARD BARTH	796	68
10*14300	A	5-20-33	PPG INDUSTRIES, INC.	725	123
10*14328	A	5-20-33	RAE ELLEN STUART	796	38
10*14314	A	5-20-33	RALPH BLACHLY	790	529
10*14399	A	5-20-33	RITA ANN DOEBERT AND RONALD DOEBERT	860	437
10*14327	A	5-20-33	ROBERT D. OKEY	792	646
10*14320	A	5-20-33	SANDRA CHEYNEY	792	91
10*14403	A	5-20-33	SUE WHITE	862	429
10*14313	A	5-20-33	TERRI JEAN GODDARD	790	585
10*14412	A	5-20-33	THE VILLAGE NETWORK	872	203
10*14371	A	5-20-33	THOMAS F LONG AND JENNIFER LONG	842	398
10*14411	A	5-20-33	THOMAS WHITE, ESQ., SPECIAL COMMISSIONER	870	34
10*14329	A	5-20-33	TONDA ROTHENBUHLER	796	40
10*14372	A	5-20-33	UNITED CHURCH HOMES INC	846	408
10*14395	A	5-20-33	WILLIAM V BUCKNOR	862	421
10*16355	A	5-20-33	JAMES P. LONG AND LINDA LONG	904	10
10*15766	A	5-20-33	JOHN J. POZENEL	904	7
10*15762	A	5-20-33	DAWN PETROVICH	904	4
10*16357	A	5-20-33	DEANNA M. CAMPBELL	904	1
10*15760	A	5-20-33	DIEDRE WINGER	903	645
10*16358	A	5-20-33	ANNE MARIE KRAMER	903	648
10*15734	A	5-20-33	GENEVIEVE L. LONG	904	13
10*15761	A	5-20-33	CAMERON CEMETERY ASSOCIATION	903	642
10*16230	A	5-20-33	TH Exploration, LLC	900	134
10*15763	A	5-20-33	BONNIE J. SELDERS	904	34
10*16356	A	5-20-33	DARYL S. BUCKNOR	904	31
10*15765	A	5-20-33	JOHN A. BUCKNOR	904	16
10*15764	A	5-20-33	JAMES E. BUCKNOR	904	28
10*14381	A	5-20-33	WILLIAM LONG	792	95
10*14300	B	5-20-31	PPG INDUSTRIES, INC.	725	123
10*14300	C	5-20-30	PPG INDUSTRIES, INC.	725	123
10*14311	C	5-20-30	COLLIN A. WILLISON III	789	577
10*14323	C	5-20-30	JODY ELIZONDO	792	93
10*14330	C	5-20-30	LETTIA TEMPLE	799	465
10*14334	C	5-20-30	STANLEY RICHMOND	796	62
10*14335	C	5-20-30	MARY C. JOSEPH	797	196
10*14336	C	5-20-30	MARSHA L. SCHON	797	198
10*14337	C	5-20-30	WILLIAM M. DOYLE	797	187
10*14338	C	5-20-30	LOIS JEAN MYERS	797	189

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

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

WELL PLAT LEASE INFORMATION  
GREER WELL NO. 1-N-7HM

Lease No.	Tag	Parcel	Oil & Gas Royalty Owner	BOOK/PAGE	DEED
10*1438	C	2-50-30	LOIS JEAN MYERS	797	189
10*1437	C	2-50-30	WILLIAM M. DOYLE	797	187
10*1436	C	2-50-30	MARSHA L. SCHON	797	188
10*1435	C	2-50-30	MARY C. JOSEPH	797	186
10*1434	C	2-50-30	STANLEY RICHMOND	796	62
10*1433	C	2-50-30	LETITIA TEMPLE	799	465
10*1432	C	2-50-30	LODY ELIZONDO	797	93
10*1431	C	2-50-30	COLLIN A. WILLIAMS III	789	277
10*1430	C	2-50-30	PPG INDUSTRIES, INC.	725	123
10*1430	B	2-50-31	PPG INDUSTRIES, INC.	725	123
10*1431	A	2-50-33	WILLIAM LONG	797	92
10*1429	A	2-50-33	JAMES E. BUCKNOR	904	28
10*1428	A	2-50-33	JOHN A. BUCKNOR	904	16
10*1428	A	2-50-33	DARYL S. BUCKNOR	904	31
10*1428	A	2-50-33	BONNIE L. SELERS	904	34
10*1429	A	2-50-33	TH Exploration, LLC	900	134
10*1428	A	2-50-33	CAMERON CEMETERY ASSOCIATION	903	642
10*1428	A	2-50-33	GENEVIEVE L. LONG	904	13
10*1428	A	2-50-33	ANNE MARIE KRAMER	903	648
10*1428	A	2-50-33	DIERRE WINGGER	903	645
10*1427	A	2-50-33	DEANNA M. CAMPBELL	904	1
10*1425	A	2-50-33	DAWN PETROVICH	904	4
10*1426	A	2-50-33	JOHN J. POZENZEL	904	7
10*1425	A	2-50-33	JAMES P. LONG AND LINDA LONG	904	10
10*1425	A	2-50-33	WILLIAM V. BUCKNOR	862	421
10*1425	A	2-50-33	UNITED CHURCH HOMES INC	846	408
10*1429	A	2-50-33	TONDA ROTHENBUEHLER	796	40
10*1441	A	2-50-33	THOMAS WHITE, ESQ., SPECIAL COMMISSIONER	870	34
10*1437	A	2-50-33	THOMAS F. LONG AND JENNIFER LONG	842	398
10*1441	A	2-50-33	THE VILLAGE NETWORK	872	203
10*1439	A	2-50-33	TERRI LEAN GODDARD	790	282
10*1440	A	2-50-33	SUE WHITE	862	429
10*1430	A	2-50-33	SANDRA CHEVNEY	797	91
10*1437	A	2-50-33	ROBERT D. OKEY	797	646
10*1439	A	2-50-33	DOBERT	860	437
10*1434	A	2-50-33	RALPH BLACHLY	790	229
10*1438	A	2-50-33	RAE ELLEN STUART	796	38
10*1430	A	2-50-33	PPG INDUSTRIES, INC.	725	123
10*1432	A	2-50-33	MICHAEL EDWARD BARTH	796	68
10*1438	A	2-50-33	MARTHA BLACHLY-CROSS	797	112
10*1432	A	2-50-33	MARGARET ROSS	790	227
10*1440	A	2-50-33	LORNA M. LONG MORGAN	864	323
10*1432	A	2-50-33	LOIS KAY MORFORD	797	110
10*1434	A	2-50-33	LESLIE F. BUCKNOR	862	419
10*1445	A	2-50-33	KATHERINE ANN WILLIAMS COHRAN	879	1
10*1443	A	2-50-33	LUANITA SANDIFER	872	206
10*1438	A	2-50-33	JOSEPH LONG	836	106
10*1437	A	2-50-33	JOSEPH A. LONG	849	219
10*1440	A	2-50-33	JOHN WHITE	862	423
10*1437	A	2-50-33	JOHN F. LONG AND PAM LONG	849	242
10*1438	A	2-50-33	JAN KAFFENBERGER	860	434
10*1432	A	2-50-33	JAMIE LU BENSON	790	231
10*1440	A	2-50-33	JAMES C. LONG AND PATTI LONG	864	326
10*1439	A	2-50-33	JACK L. PAULGRAF	797	118
10*1438	A	2-50-33	IMMANUEL CHURCH OF CHRIST CHURCH OF CHRIST	849	213
10*1440	A	2-50-33	IMELDA I. SCURLOCK	860	443
10*1437	A	2-50-33	HERBERT BLACHLY	797	102
10*1440	A	2-50-33	HENRY T. LONG	867	382
10*1437	A	2-50-33	HAROLD BLACHLY	797	643
10*1436	A	2-50-33	FREDRIC RICHTER & BETTY RICHTER	822	270
10*1440	A	2-50-33	DON FORGRAVES	862	426
10*1432	A	2-50-33	DEWAYNE STARKEY	872	228
10*1433	A	2-50-33	DEAN ROTHENBUEHLER	796	42
10*1449	A	2-50-33	GROSSROAD CHILD AND FAMILY SERVICES	887	102
10*1440	A	2-50-33	COLEEN STAGLE AND FRANKLIN STAGLE	860	440
10*1431	A	2-50-33	CHRISTINA JEAN RHOUX	796	70
10*1432	A	2-50-33	CAROLYN STARKEY	827	226
10*1440	A	2-50-33	CAROL F. WILSON AND RICHARD WILSON	860	446
10*1436	A	2-50-33	ANDREW GERST	797	642

WELL OPERATOR TUG HILL OPERATING, LLC  
 Address 1320 SOUTH UNIVERSITY DRIVE, SUITE 200  
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 DESIGNATED AGENT  
 DIANNA STAMPER  
 CT CORPORATION SYSTEM  
 Address 2400 D BIG TYLER ROAD  
 CHARLESTON, WV 25313



GREER WELL NO. 1-N-7HM  
WELL PLAT LEASE INFORMATION

Lease No.	Tag	Parcel	Oil & Gas Royalty Owner	DEED BOOK/Pg
10*14339	C	5-20-30	JOANN FRAZIER	799 59
10*14340	C	5-20-30	JOSEPH CHAMBERS	799 450
10*14341	C	5-20-30	ROBERT MARMIE	799 455
10*14342	C	5-20-30	FLORENCE L MYERS	799 457
10*14343	C	5-20-30	BARBARA METZNER	799 459
10*14344	C	5-20-30	LYNNETTE L KUGLER	799 461
10*14345	C	5-20-30	SHARON D. GREEN	799 463
10*14346	C	5-20-30	LAURA GLASSNER	800 406
10*14347	C	5-20-30	TERRY I. CHAMBERS	800 404
10*14348	C	5-20-30	GEORGEANN TRIPP	803 152
10*14349	C	5-20-30	HOWARD A. BROWN	805 98
10*14350	C	5-20-30	RAE JEAN NAMETH	805 80
10*14351	C	5-20-30	NORA WEBB	805 78
10*14352	C	5-20-30	BRIAN K. MARMIE & CAROL L. MAR	805 76
10*14353	C	5-20-30	KARI B. MARMIE	809 515
10*14354	C	5-20-30	TRAVIS D. MARMIE	808 491
10*14357	C	5-20-30	JORLENE POST	827 280
10*14358	C	5-20-30	CHRIS H. STEVENSON	827 282
10*14359	C	5-20-30	LUCYBELLE WELDON	827 278
10*14360	C	5-20-30	ALLEN D. MASON	827 276
10*14361	C	5-20-30	RODNEY K. CHAMBERS	827 271
10*14363	C	5-20-30	CHRISTINA I. CHILCOTE	827 525
10*14364	C	5-20-30	DAWN M. LAEMMIE	827 521
10*14365	C	5-20-30	DAN J. SVOVLAND	827 523
10*14366	C	5-20-30	CARRIE E METZGER FKA CARRIE EL	833 527
10*14367	C	5-20-30	CHRISTINA CHAMBERS	836 123
10*14414	C	5-20-30	DAVID C WHITE, ESC, SPECIAL COMMISSIONER	872 217
10*14300	D	5-20-22	PPG INDUSTRIES, INC, SPECIAL COMMISSIONER	725 123
10*14922	D	5-20-22	ROGER R WESE, SPECIAL COMMISSIONER	836 488
10*14300	E	5-13-36	PPG INDUSTRIES, INC.	725 123
10*14369	E	5-13-36	TIMOTHY B MILLER	844 87
10*14370	E	5-13-36	JAMES SLAWINSKI	842 370
10*15756	E	5-13-36	STEVEN A BOHRER ET UX	904 20
10*47051.324.1	E	5-13-36	MARILYN SUE BUMER	739 413
10*47051.324.2	E	5-13-36	JACK L MASON	737 229
10*14300	F	5-13-22	PPG INDUSTRIES, INC.	725 123
10*14312	F	5-13-22	JAMIE LU BENSON	790 531
10*14313	F	5-13-22	TERRI JEAN GODDARD	790 585
10*14314	F	5-13-22	RALPH BLACHLY	790 529
10*14315	F	5-13-22	MARGARET ROSS	790 527
10*14316	F	5-13-22	ANDREW GERST	791 645
10*14317	F	5-13-22	HAROLD BLACHLY	791 643
10*14318	F	5-13-22	MARTHA BLACHLY-CROSS	792 112
10*14319	F	5-13-22	JACK J. FFAIZGRAF	792 118
10*14320	F	5-13-22	SANDRA CHENEY	792 91
10*14321	F	5-13-22	HERBERT BLACHLY	792 102
10*14322	F	5-13-22	LOIS KAY MORFORD	792 110
10*14327	F	5-13-22	ROBERT D. OKEY	792 646
10*14328	F	5-13-22	RAE EILEN STUART	796 38
10*14329	F	5-13-22	TONDA ROTHENBUEHLER	796 40
10*14331	F	5-13-22	CHRISTINA JEAN RIOUX	796 70
10*14332	F	5-13-22	MICHAEL EDWARD BARTH	796 68
10*14333	F	5-13-22	DEAN ROTHENBUEHLER	796 42
10*14355	F	5-13-22	DEWAYNE STARKEY	815 228
10*14356	F	5-13-22	FREDRIC RICHTER & BETTY RICHTER	822 270
10*14362	F	5-13-22	CAROLYN STARKEY	827 226
10*14368	F	5-13-22	JOSEPH LONG	836 106
10*14371	F	5-13-22	THOMAS F LONG AND JENNIFER LONG	842 398
10*14372	F	5-13-22	UNITED CHURCH HOMES INC	846 408
10*14377	F	5-13-22	JOSEPH A LONG	849 519
10*14387	F	5-13-22	JOHN F LONG AND PAM LONG	849 542
10*14388	F	5-13-22	IMMANUEL CHURCH OF THE UNITED CHURCH OF CHRIST	849 513
10*14398	F	5-13-22	JAN KAFFENBERGER	860 434
10*14399	F	5-13-22	RITA ANN DOBERT AND RONALD DOBERT	860 437
10*14400	F	5-13-22	COLEEN SIAGLE AND FRANKLIN SIAGLE	860 440
10*14401	F	5-13-22	IMELDA J SCURLOCK	860 443
10*14402	F	5-13-22	CAROL F WILSON AND RICHARD WILSON	860 446
10*14403	F	5-13-22	SUE WHITE	862 429
10*14404	F	5-13-22	DON FORGRAVES	862 426

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

WELL PLAT LEASE INFORMATION  
GREER WELL NO. 1-N-7HM

Lease No.	Tag	Parcel	Oil & Gas Royalty Owner	BOOK/Pg	DEED
10*14404	F	2-13-22	DON FORGAVES	882	428
10*14403	F	2-13-22	SUE WHITE	882	429
10*14402	F	2-13-22	WILSON CAROL WILSON AND RICHARD	880	446
10*14401	F	2-13-22	IMELDA L SCURLOCK	880	443
10*14400	F	2-13-22	COLEEN SLAGLE AND FRANKLIN SLAGLE	880	440
10*14399	F	2-13-22	DOBERT RITA ANN DOBERT AND RONALD	880	437
10*14398	F	2-13-22	JAN KAFFENBERGER	880	434
10*14388	F	2-13-22	IMMANUEL CHURCH OF THE UNITED CHURCH OF CHRIST	848	213
10*14387	F	2-13-22	JOHN F LONG AND PAM LONG	848	242
10*14377	F	2-13-22	JOSEPH A LONG	848	219
10*14375	F	2-13-22	UNITED CHURCH HOMES INC	848	408
10*14371	F	2-13-22	THOMAS F LONG AND JENNIFER LONG	842	388
10*14368	F	2-13-22	JOSEPH LONG	836	106
10*14365	F	2-13-22	CAROLYN STARKY	827	226
10*14366	F	2-13-22	FREDRIC RICHTER & BETTY RICHTER	827	220
10*14352	F	2-13-22	DEWAYNE STARKY	812	228
10*14333	F	2-13-22	DEAN ROTHENBUHLER	796	42
10*14332	F	2-13-22	MICHAEL EDWARD BARTH	796	68
10*14331	F	2-13-22	CHRISTINA JEAN RIOUX	796	70
10*14329	F	2-13-22	TONDA ROTHENBUHLER	796	40
10*14328	F	2-13-22	RAE ELLEN STUART	796	38
10*14327	F	2-13-22	ROBERT D. OKY	792	646
10*14325	F	2-13-22	LOIS KAY MORFORD	792	110
10*14321	F	2-13-22	HERBERT BLACHLY	792	102
10*14320	F	2-13-22	SANDRA CHEYNEY	792	91
10*14319	F	2-13-22	JACK J. PFALZGRAF	792	118
10*14318	F	2-13-22	MARTHA BLACHLY-CROSS	792	112
10*14317	F	2-13-22	HAROLD BLACHLY	791	643
10*14316	F	2-13-22	ANDREW GERST	791	642
10*14315	F	2-13-22	MARGARET ROSS	790	227
10*14314	F	2-13-22	RALPH BLACHLY	790	229
10*14313	F	2-13-22	TERRI LEAN GODDARD	790	282
10*14312	F	2-13-22	JAMIE LU BENSON	790	231
10*14300	F	2-13-22	PPG INDUSTRIES, INC.	722	123
10*14252	D	2-20-22	ROGER R WEESE, SPECIAL COMMISSIONER	836	488
10*14300	D	2-20-22	PPG INDUSTRIES, INC.	722	123
10*1414	C	2-20-30	DAVID C WHITE, ESC., SPECIAL COMMISSIONER	827	217
10*14367	C	2-20-30	CHRISTINA CHAMBERS	836	123
10*14366	C	2-20-30	CARRIE E METZGER FKA CARRIE EL	833	227
10*14365	C	2-20-30	DAN J. SVOVELAND	827	223
10*14364	C	2-20-30	DAWN M. LAEMMIE	827	221
10*14363	C	2-20-30	CHRISTINA I. CHILCOTE	827	222
10*14361	C	2-20-30	RODNEY K. CHAMBERS	827	221
10*14360	C	2-20-30	ALLEN D. MASON	827	226
10*14359	C	2-20-30	LUCYBELLE WELDON	827	228
10*14358	C	2-20-30	CHRIS H. STEVENSON	827	282
10*14357	C	2-20-30	JORLENE POST	827	280
10*14354	C	2-20-30	TRAVIS D. MARMIE	808	491
10*14353	C	2-20-30	KARI B. MARMIE	808	212
10*14352	C	2-20-30	BRIAN K. MARMIE & CAROL L. MAR	802	76
10*14351	C	2-20-30	NORA WEBB	802	78
10*14350	C	2-20-30	RAELEAN NAMETH	802	80
10*14349	C	2-20-30	HOWARD A. BROWN	802	88
10*14348	C	2-20-30	GEORGEANN TIRPY	803	122
10*14347	C	2-20-30	TERRY I. CHAMBERS	800	404
10*14346	C	2-20-30	LAURA GLASSNER	800	406
10*14345	C	2-20-30	SHARON D. GREEN	799	463
10*14344	C	2-20-30	LYNNETTE L. KUGLER	799	461
10*14343	C	2-20-30	BARBARA METZNER	799	429
10*14342	C	2-20-30	FLORENCE L. MYERS	799	427
10*14341	C	2-20-30	ROBERT MARMIE	799	422
10*14340	C	2-20-30	JOSEPH CHAMBERS	799	420
10*14339	C	2-20-30	JOANN FRAZIER	799	29

WELL OPERATOR TUG HILL OPERATING, LLC  
 1320 SOUTH UNIVERSITY DRIVE, SUITE 200  
 ADDRESS FORT WORTH, TX 76107  
 DESIGNATED AGENT CT CORPORATION SYSTEM  
 DIANNA STAMPER  
 ADDRESS 5400 D BIG TYLER ROAD  
 CHARLESTON, WV 25313

**GREER WELL NO. 1N-7HM  
WELL PLAT LEASE INFORMATION**

Lease No.	Tag	Parcel	Oil & Gas Royalty Owner	DEED BOOK/PAGE	
10*14405	F	5-13-22	JOHN WHITE	862	423
10*14395	F	5-13-22	WILLIAM V BUCKNOR	862	421
10*14394	F	5-13-22	LESLIE F BUCKNOR	862	419
10*14408	F	5-13-22	LORNA M LONG MORGAN	864	323
10*14409	F	5-13-22	JAMES C LONG AND PATTI LONG	864	326
10*14410	F	5-13-22	HENRY T LONG	867	385
10*14411	F	5-13-22	THOMAS WHITE, ESQ., SPECIAL COMMISSIONER	870	34
10*14412	F	5-13-22	THE VILLAGE NETWORK	872	203
10*14413	F	5-13-22	JUANITA SANDIFER	872	206
10*14416	F	5-13-22	KATHERINE ANN WILLIAMS COTHRAN	879	1
10*14419	F	5-13-22	CROSSROAD CHILD AND FAMILY SERVICES	887	105
10*16355	F	5-13-22	JAMES P. LONG AND LINDA LONG	904	10
10*15766	F	5-13-22	JOHN J. POZENEL	904	7
10*15762	F	5-13-22	DAWN PETROVICH	904	4
10*16357	F	5-13-22	DEANNA M. CAMPBELL	904	1
10*15760	F	5-13-22	DIEDRE WINGER	903	645
10*16358	F	5-13-22	ANNE MARIE KRAMER	903	648
10*15734	F	5-13-22	GENEVIEVE L. LONG	904	13
10*15761	F	5-13-22	CAMERON CEMETERY ASSOCIATION	903	642
10*15763	F	5-13-22	TH Exploration, LLC	904	34
10*16230	F	5-13-22	BONNIE J. SELDERS	900	134
10*16356	F	5-13-22	DARYL S. BUCKNOR	904	31
10*15765	F	5-13-22	JOHN A. BUCKNOR	904	16
10*15764	F	5-13-22	JAMES E. BUCKNOR	904	28
10*14300	G	5-13-22.1	PPG INDUSTRIES, INC.	725	123
10*14312	G	5-13-22.1	JAMIE LU BENSON	790	531
10*14313	G	5-13-22.1	TERRI JEAN GODDARD	790	585
10*14314	G	5-13-22.1	RALPH BLACHLY	790	529
10*14315	G	5-13-22.1	MARGARET ROSS	790	527
10*14316	G	5-13-22.1	ANDREW GERST	791	645
10*14317	G	5-13-22.1	HAROLD BLACHLY	791	643
10*14318	G	5-13-22.1	MARTHA BLACHLY-CROSS	792	112
10*14319	G	5-13-22.1	JACK J. PFALZGRAF	792	118
10*14320	G	5-13-22.1	SANDRA CHEYNEY	792	91
10*14321	G	5-13-22.1	HERBERT BLACHLY	792	102
10*14322	G	5-13-22.1	LOIS KAY MORFORD	792	110
10*14327	G	5-13-22.1	ROBERT D. OKEY	792	646
10*14328	G	5-13-22.1	RAE ELLEN STUART	796	38
10*14329	G	5-13-22.1	TONDA ROTHENBUHLER	796	40
10*14331	G	5-13-22.1	CHRISTINA JEAN RIOUX	796	70
10*14332	G	5-13-22.1	MICHAEL EDWARD BARTH	796	68
10*14333	G	5-13-22.1	DEAN ROTHENBUHLER	796	42
10*14355	G	5-13-22.1	DEWAYNE STARKEY	815	228
10*14356	G	5-13-22.1	FREDRIC RICHTER & BETTY RICHTER	822	270
10*14362	G	5-13-22.1	CAROLYN STARKEY	827	226
10*14368	G	5-13-22.1	JOSEPH LONG	836	106
10*14371	G	5-13-22.1	THOMAS F LONG AND JENNIFER LONG	842	398
10*14372	G	5-13-22.1	UNITED CHURCH HOMES INC	846	408
10*14377	G	5-13-22.1	JOSEPH A LONG	849	519
10*14387	G	5-13-22.1	JOHN F LONG AND PAM LONG	849	542
10*14388	G	5-13-22.1	IMMANUEL CHURCH OF THE UNITED CHURCH OF CHRIST	849	513
10*14398	G	5-13-22.1	JAN KAFFENBERGER	860	434
10*14399	G	5-13-22.1	RITA ANN DOEBERT AND RONALD DOEBERT	860	437
10*14400	G	5-13-22.1	COLEEN SLAGLE AND FRANKLIN SLAGLE	860	440
10*14401	G	5-13-22.1	IMELDA J SCURLOCK	860	443
10*14402	G	5-13-22.1	CAROL F WILSON AND RICHARD WILSON	860	446
10*14403	G	5-13-22.1	SUE WHITE	862	429
10*14404	G	5-13-22.1	DON FORGRAVES	862	426
10*14405	G	5-13-22.1	JOHN WHITE	862	423
10*14395	G	5-13-22.1	WILLIAM V BUCKNOR	862	421
10*14394	G	5-13-22.1	LESLIE F BUCKNOR	862	419
10*14408	G	5-13-22.1	LORNA M LONG MORGAN	864	323
10*14409	G	5-13-22.1	JAMES C LONG AND PATTI LONG	864	326
10*14410	G	5-13-22.1	HENRY T LONG	867	385
10*14411	G	5-13-22.1	THOMAS WHITE, ESQ., SPECIAL COMMISSIONER	870	34
10*14412	G	5-13-22.1	THE VILLAGE NETWORK	872	203
10*14413	G	5-13-22.1	JUANITA SANDIFER	872	206
10*14416	G	5-13-22.1	KATHERINE ANN WILLIAMS COTHRAN	879	1

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

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

WELL PLAT LEASE INFORMATION  
GREER WELL NO. 1-N-7M

Lease No.	Tag	Parcel	Oil & Gas Royalty Owner	BOOK/PAGE	DEED
10*14416	G	2-13-22.1	KATHERINE ANN WILLIAMS COTHRAN	879	1
10*14413	G	2-13-22.1	JUANITA SANDIFER	873	208
10*14412	G	2-13-22.1	THE VILLAGE NETWORK	873	203
10*14411	G	2-13-22.1	THOMAS WHITE, ESC., SPECIAL COMMISSIONER	870	34
10*14410	G	2-13-22.1	HENRY T LONG	867	382
10*14409	G	2-13-22.1	JAMES C LONG AND PATI LONG	864	328
10*14408	G	2-13-22.1	LORNA M LONG MORGAN	864	323
10*14394	G	2-13-22.1	LESLIE F BUCKNOR	862	419
10*14385	G	2-13-22.1	WILLIAM V BUCKNOR	862	421
10*14402	G	2-13-22.1	JOHN WHITE	862	423
10*14403	G	2-13-22.1	SUE WHITE	862	429
10*14404	G	2-13-22.1	DON FORGRAVES	862	428
10*14405	G	2-13-22.1	JOHN WHITE	862	423
10*14406	G	2-13-22.1	WILLIAM V BUCKNOR	862	421
10*14407	G	2-13-22.1	LESLIE F BUCKNOR	862	419
10*14408	G	2-13-22.1	LORNA M LONG MORGAN	864	323
10*14409	G	2-13-22.1	JAMES C LONG AND PATI LONG	864	328
10*14410	G	2-13-22.1	HENRY T LONG	867	382
10*14411	G	2-13-22.1	THOMAS WHITE, ESC., SPECIAL COMMISSIONER	870	34
10*14371	G	2-13-22.1	THOMAS F LONG AND JENNIFER LONG	842	398
10*14372	G	2-13-22.1	UNITED CHURCH HOMES INC	848	408
10*14373	G	2-13-22.1	JOSEPH A LONG	849	219
10*14374	G	2-13-22.1	JOHN F LONG AND PAM LONG	849	242
10*14375	G	2-13-22.1	IMMANUEL CHURCH OF THE UNITED CHURCH OF CHRIST	849	213
10*14388	G	2-13-22.1	JAN KAFFENBERGER	860	434
10*14389	G	2-13-22.1	RITA ANN DOBERT AND RONALD DOBERT	860	432
10*14390	G	2-13-22.1	COLLEEN SLAIG AND FRANKLIN SLAIG	860	440
10*14391	G	2-13-22.1	IMELDA I SCURLOCK	860	443
10*14401	G	2-13-22.1	CAROL F WILSON AND RICHARD WILSON	860	446
10*14402	G	2-13-22.1	SUE WHITE	862	429
10*14403	G	2-13-22.1	DON FORGRAVES	862	428
10*14404	G	2-13-22.1	JOHN WHITE	862	423
10*14405	G	2-13-22.1	WILLIAM V BUCKNOR	862	421
10*14406	G	2-13-22.1	LESLIE F BUCKNOR	862	419
10*14407	G	2-13-22.1	LORNA M LONG MORGAN	864	323
10*14408	G	2-13-22.1	JAMES C LONG AND PATI LONG	864	328
10*14409	G	2-13-22.1	HENRY T LONG	867	382
10*14410	G	2-13-22.1	THOMAS WHITE, ESC., SPECIAL COMMISSIONER	870	34
10*14411	G	2-13-22.1	THE VILLAGE NETWORK	873	203
10*14412	G	2-13-22.1	JUANITA SANDIFER	873	208
10*14413	G	2-13-22.1	KATHERINE ANN WILLIAMS COTHRAN	879	1

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 CHARLSTON, WV 25313  
 Address

**GREER WELL NO. 1N-7HM  
WELL PLAT LEASE INFORMATION**

Lease No.	Tag	Parcel	Oil & Gas Royalty Owner	DEED	
				BOOK	PG
10*14419	G	5-13-22.1	CROSSROAD CHILD AND FAMILY SERVICES	887	105
10*16355	G	5-13-22.1	JAMES P. LONG AND LINDA LONG	904	10
10*15766	G	5-13-22.1	JOHN J. POZENEL	904	7
10*15762	G	5-13-22.1	DAWN PETROVICH	904	4
10*16357	G	5-13-22.1	DEANNA M. CAMPBELL	904	1
10*15760	G	5-13-22.1	DIEDRE WINGER	903	645
10*16358	G	5-13-22.1	ANNE MARIE KRAMER	903	648
10*15734	G	5-13-22.1	GENEVIEVE L. LONG	904	13
10*15761	G	5-13-22.1	CAMERON CEMETERY ASSOCIATION	903	642
10*15763	G	5-13-22.1	TH Exploration, LLC	904	34
10*16230	G	5-13-22.1	BONNIE J. SELDERS	900	134
10*16356	G	5-13-22.1	DARYLS. BUCKNOR	904	31
10*15765	G	5-13-22.1	JOHN A. BUCKNOR	904	16
10*15764	G	5-13-22.1	JAMES E. BUCKNOR	904	28

WELL OPERATOR TUG HILL OPERATING, LLC  
 ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500  
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CHARLESTON, WV 25313

WELL PLAT LEASE INFORMATION  
GREER WELL NO. 1-N-7HM

Lease No.	Tag	Parcel	Oil & Gas Royalty Owner	DEED BOOK\pg
10*12764	G	2-13-22.1	JAMES E. BUCKNOR	904 28
10*12762	G	2-13-22.1	JOHN A. BUCKNOR	904 16
10*16326	G	2-13-22.1	DARYL Z. BUCKNOR	904 31
10*16230	G	2-13-22.1	BONNIE L. SELDERS	900 134
10*12763	G	2-13-22.1	TH Exploration, LLC	904 34
10*12761	G	2-13-22.1	CAMERON CEMETERY ASSOCIATION	903 642
10*12734	G	2-13-22.1	GENEVIEVE L. LONG	904 13
10*16328	G	2-13-22.1	ANNE MARIE KRAMER	903 648
10*12760	G	2-13-22.1	DIEDRE WINGER	903 642
10*16327	G	2-13-22.1	DEANNA M. CAMPBELL	904 1
10*12762	G	2-13-22.1	DAWN PETROVICH	904 4
10*12766	G	2-13-22.1	JOHN J. POZANEL	904 7
10*16325	G	2-13-22.1	JAMES P. LONG AND LINDA LONG	904 10
10*14419	G	2-13-22.1	CROSSROAD CHILD AND FAMILY SERVICES	887 102

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