

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

API 47-051-02272 County Marshall District Franklin
Quad New Martinsville 7.5' Pad Name Simms Field/Pool Name _____
Farm name Terry E. & Deborah Simms Well Number Hillrock S-12HU
Operator (as registered with the OOG) Tug Hill Operating, LLC
Address 380 Southpointe Boulevard, Plaza II, Suite 200 City Canonsburg State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,399,561.65 Easting 519,683.16
Landing Point of Curve Northing 4,399,298.72 Easting 519,421.32
Bottom Hole Northing 4,396,555.82 Easting 521,009.03

Elevation (ft) 1219.5' 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 Other RECEIVED
Office of Oil and Gas

Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other FEB 25 2021

Drilled with Cable Rotary

WV Department of
Environmental Protection

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 1/23/2020 Date drilling commenced 3/14/2020 Date drilling ceased 7/31/2020

Date completion activities began 10/11/2020 Date completion activities ceased 10/26/2020

Verbal plugging (Y/N) 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 838' Open mine(s) (Y/N) depths N

Salt water depth(s) ft 1740' Void(s) encountered (Y/N) depths N

Coal depth(s) ft 732-738', 832-838' Cavern(s) encountered (Y/N) depths N

Is coal being mined in area (Y/N) N

Reviewed by:

08/27/2021
Bary Stelp

API 47-051 - 02272 Farm name Terry E. & Deborah Simms Well number Hillrock S-12HU

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	Y
Surface	26"	20"	947'	NEW	106.5#	N/A	Y
Coal							
Intermediate 1	17 1/2"	13 3/8"	2,730'	NEW	54.5#	N/A	Y
Intermediate 2	12 1/4"	9 5/8"	10,257'	NEW	47#	N/A	Y
Intermediate 3							
Production	8 1/2"	5 1/2"	22,420'	NEW	23#	N/A	Y
Tubing		2 7/8"	11,210'	NEW	4.7#	N/A	Y
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	A		15.6	1.2		0	8
Surface	A	1669	15.6	1.2	1970	0	8
Coal							
Intermediate 1	A	2185	15.6	1.19	2578	0	8
Intermediate 2	A	4071	14.5	1.19	4738	0	8
Intermediate 3							
Production	A	5368	16.5	1.17	6010	0	8
Tubing							

Drillers TD (ft) 22,462' Loggers TD (ft) n/a
 Deepest formation penetrated Trenton Plug back to (ft) n/a
 Plug back procedure n/a

Kick off depth (ft) 10,351'

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 _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

API 47- 051 - 02272 Farm name Terry E. & Deborah Simms Well number Hillrock S-12HU

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	*see attached				

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
	attached							

Please insert additional pages as applicable.

08/27/2021

API 47- 051 - 02272 Farm name Terry E. & Deborah Simms Well number Hillrock S-12HU

PRODUCING FORMATION(S)	DEPTHS	
POINT PLEASANT	11,314'-11,507'	TVD 11,886'-22,462' MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 8000 psi Bottom Hole _____ psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 500 mcfpd Oil 0 bpd NGL 0 bpd Water 550 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 ₂ S, ETC)
attached	0		0		

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

Stimulating Company ProFrac
 Address 333 Shops Boulevard City Willow Park State TX Zip 76087

Please insert additional pages as applicable.

Completed by Amy L. Morris Telephone 304-376-0111
 Signature Amy Morris Title Permitting Specialist - Appalachia Region Date 2/10/2021

**Hillrock S-12HU
PEFORATION RECORD**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD. Ft.	Number of Perforations	Formation(s)
1	10/11/2020	22221	22271	48	Utica
2	10/11/2020	21994	22169	48	Utica
3	10/12/2020	21795	21969	48	Utica
4	10/12/2020	21595	21770	48	Utica
5	10/12/2020	21396	21570	48	Utica
6	10/13/2020	21196	21371	48	Utica
7	10/13/2020	20997	21172	48	Utica
8	10/13/2020	20798	20972	48	Utica
9	10/14/2020	20598	20773	48	Utica
10	10/14/2020	20399	20573	48	Utica
11	10/14/2020	20199	20374	48	Utica
12	10/14/2020	20000	20175	48	Utica
13	10/15/2020	19801	19975	48	Utica
14	10/15/2020	19601	19776	48	Utica
15	10/16/2020	19402	19576	48	Utica
16	10/16/2020	19202	19377	48	Utica
17	10/16/2020	19003	19178	48	Utica
18	10/16/2020	18804	18978	48	Utica
19	10/17/2020	18604	18779	48	Utica
20	10/17/2020	18405	18579	48	Utica
21	10/17/2020	18205	18380	48	Utica
22	10/17/2020	18006	18181	48	Utica
23	10/18/2020	17807	17981	48	Utica
24	10/18/2020	17607	17782	48	Utica
25	10/18/2020	17408	17582	48	Utica
26	10/18/2020	17208	17383	48	Utica
27	10/19/2020	17009	17184	48	Utica
28	10/19/2020	16810	16984	48	Utica
29	10/19/2020	16610	16785	48	Utica
30	10/19/2020	16411	16585	48	Utica
31	10/20/2020	16211	16386	48	Utica
32	10/20/2020	16012	16187	48	Utica
33	10/20/2020	15813	15987	48	Utica
34	10/21/2020	15613	15788	48	Utica
35	10/21/2020	15414	15588	48	Utica
36	10/21/2020	15214	15389	48	Utica
37	10/22/2020	15015	15190	48	Utica
38	10/22/2020	14816	14990	48	Utica
39	10/22/2020	14616	14791	48	Utica
40	10/23/2020	14417	14591	48	Utica
41	10/23/2020	14217	14392	48	Utica

08/27/2021

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD. Ft.	Number of Perforations	Formation(s)
42	10/23/2020	14018	14193	48	Utica
43	10/24/2020	13819	13993	48	Utica
44	10/24/2020	13619	13794	48	Utica
45	10/24/2020	13420	13594	48	Utica
46	10/24/2020	13220	13395	48	Utica
47	10/25/2020	13021	13196	48	Utica
48	10/25/2020	12822	12996	48	Utica
49	10/25/2020	12622	12797	48	Utica
50	10/26/2020	12423	12597	48	Utica
51	10/26/2020	12223	12398	48	Utica
52	10/26/2020	12024	12199	48	Utica
53	10/26/2020	11825	11999	48	Utica

08/27/2021

Hillrock S-12HU
STIMULATION INFORMATION PER STAGE

Stage No.	Ave. Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	86	11266	9797	7,727	253240	6643	0
2	85	10994	7462	7,293	502640	10434	0
3	88	10970	7474	7,871	500560	10443	0
4	90	11476	7564	8,278	504380	10453	0
5	89	11670	9587	7,996	500860	10316	0
6	87	11050	9053	7,115	508320	10401	0
7	90	11251	8902	8,384	498980	10232	0
8	90	11408	8761	8,430	504660	9166	0
9	91	11277	9053	7,987	505960	9216	0
10	89	11090	9113	8,327	496860	9055	0
11	89	11072	9262	8,469	499140	11619	0
12	90	11118	9711	8,521	501400	9134	0
13	88	11219	9014	8,216	500980	11585	0
14	90	10999	8562	7,146	504580	9124	0
15	90	11246	8658	8,629	506880	9108	0
16	90	11166	8790	8,484	500600	9082	0
17	89	10976	9017	8,439	504060	9288	0
18	90	11003	9380	8,466	505580	9136	0
19	90	11094	8792	8,157	503080	9102	0
20	90	11169	9072	8,389	505580	9104	0
21	90	11131	9332	8,274	506720	9198	0
22	90	10878	8587	8,162	504720	9102	0
23	90	10957	8533	8,285	501840	8989	0
24	90	10938	9962	8,062	503920	9052	0
25	90	10869	8896	8,334	499780	9150	0
26	90	10901	8500	8,426	502360	9122	0
27	89	10767	9013	8,297	506040	9107	0
28	90	10835	8623	8,208	504980	9106	0
29	90	10729	9009	8,212	509380	9039	0
30	90	10643	7777	8,327	508680	8993	0
31	88	10450	8839	8,440	504900	9168	0
32	89	10472	8600	8,215	509960	9349	0

Stage No.	Ave. Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
33	90	10407	8644	8,286	501440	8951	0
34	88	10278	7778	8,322	496860	9039	0
35	88	10254	8586	8,197	507460	9093	0
36	89	10283	8637	8,233	509500	9050	0
37	89	10426	8567	8,255	508020	9171	0
38	88	10232	9566	8,414	508680	8940	0
39	89	10434	9412	8,253	501240	8889	0
40	89	10315	9278	7,876	502500	8934	0
41	89	10205	10259	7,928	511140	8999	0
42	90	10307	9674	8,049	499300	8865	0
43	90	10167	7968	8,042	507660	8663	0
44	90	10124	7964	8,097	507161	8983	0
45	90	10069	8000	8,289	508520	8826	0
46	90	10301	8987	8,579	503240	8782	0
47	90	10262	10071	8,237	508700	6907	0
48	90	10227	8811	8,027	503320	8830	0
49	90	10077	10242	8,171	512160	8843	0
50	90	9787	7672	7,849	509340	8835	0
51	91	9992	7986	7,979	504660	8776	0
52	90	9960	9007	8,532	506120	8805	0
53	90	10005	9115	8,658	507860	8771	0

Hillrock S-12HU

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
Maxton	1922	2063	1923	2065	Sandstone
Big Lime	2063	2101	2065	2103	Limestone
Big Injun	2101	2375	2103	2378	Sandstone
Weir	2375	2583	2378	2586	Sandstone
Berea	2583	2830	2586	2834	Sandstone
Gordon	2830	2955	2834	2960	Sandstone
Fifty Foot	2955	3494	2960	3504	Sandstone
Speechley	3494	4915	3504	4947	Sandstone
Benson	4915	5303	4947	5341	Sandstone
Alexander	5303	5883	5341	5930	Siltstone
Rhinestreet	5883	6319	5930	6373	Black shale
Middlesex	6319	6383	6373	6438	Black shale
Geneseo/Burkett	6383	6417	6438	6472	Black shale
Tully	6417	6453	6472	6509	Limestone
Hamilton	6453	6474	6509	6493	Grey shale
Marcellus	6474	6523	6493	6542	Black shale
Onondaga	6523	6749	6542	6773	Limestone
Oriskany	6749	6851	6773	6877	Sandstone
Helderberg	6851	7210	6877	7245	Limestone
Salina	7210	8238	7245	8293	Salt/Anhydrite/LS
Lockport	8238	8606	8293	8667	Dolomite
Rose Hill	8606	8884	8667	8952	Shale
Packer Shell	8884	9095	8952	9168	Limestone
Clinton/Tuscarora	9095	9204	9168	9280	Sandstone
Juniata/Queenston	9204	10136	9280	10237	Red Shale
Reedsville	10136	11122	10237	11356	Grey Shale
Utica	11122	11270	11356	11681	Black Shale
Point Pleasant	11270	-	11681	-	Shale/Limestone

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	10/11/2020
Job End Date:	10/27/2020
State:	West Virginia
County:	Marshall
API Number:	47-051-02272-00-00
Operator Name:	Tug Hill Operating, LLC
Well Name and Number:	Hillrock S 12HU
Latitude:	39.74572880
Longitude:	-80.77026140
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	11,416
Total Base Water Volume (gal):	20,535,564
Total Base Non Water Volume:	0



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
Water	Tug Hill Operating	Carrier/Base Fluid	Water	7732-18-5	100.00000	86.25180	None
Sand (40/70 White Proppant)	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	10.45593	None
Sand (100 Mesh Proppant)	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	2.88001	None
Hydrochloric Acid (7.5%)	PVS	Acidizing	Water	7732-18-5	85.00000	0.24125	None
			Hydrochloric Acid (Hydrogen Chloride)	7647-01-0	37.00000	0.10502	None
StimStream FR 9800	Chemstream	Friction Reducer	Butene, homopolymer	9003-29-6	25.00000	0.02031	None
			Alkanes, C16-20-iso-	90622-59-6	25.00000	0.02031	None
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00244	None
MC MX 9-4743	Multi-Chem	Biocide	Sodium Nitrate	7631-99-4	60.00000	0.02218	None
LD-7750W	Multi-Chem	Scale Inhibitor					

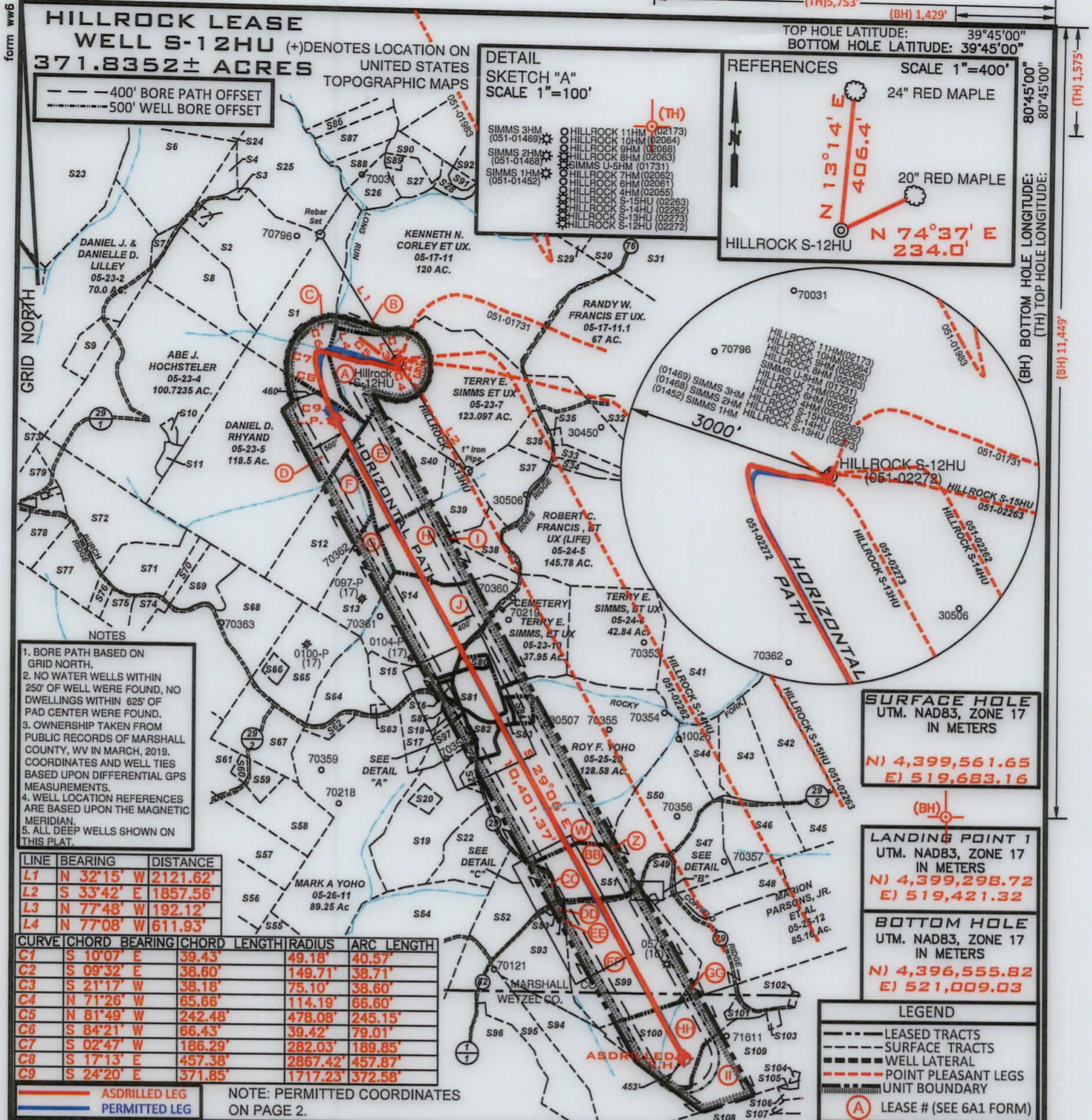
			Methanol	67-56-1	60.00000	0.00500	None
			Phosphonic Acid Salt	Proprietary	5.00000	0.00042	None
ProFE 105	ProFrac	Iron Control					
			Citric Acid	77-92-9	100.00000	0.00104	None
ProHib 100	ProFrac	Acid Inhibitor					
			2-Propyn-1-ol compound w/ methyloxirane	38172-91-7	15.00000	0.00013	None
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.							
Other Chemical(s)	Listed Above	See Trade Name(s) List					
			Water	7732-18-5	85.00000	0.24125	
			Butene, homopolymer	9003-29-6	25.00000	0.02031	
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00244	
			Phosphonic Acid Salt	Proprietary	5.00000	0.00042	

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

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

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)



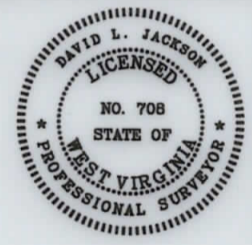
FILE NUMBER _____
 DRAWING NUMBER: **HILLROCK S-12HU REV 2**
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/200
 PROVEN SOURCE OF ELEVATION: **SUBMETER MAPPING**
GRADE GPS

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

DATE: FEBRUARY 05, 2021
 OPERATORS WELL NO. HILLROCK S-12HU
 API WELL NO. 47-051-02272
 STATE COUNTY PERMIT

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

LOCATION ELEVATION 1219.5' WATERSHED (HUC 10) FISH CREEK
 DISTRICT FRANKLIN COUNTY MARSHALL
 QUADRANGLE NEW MARTINSVILLE 7.5' LEASE NUMBER SEE WW-6A1 Form

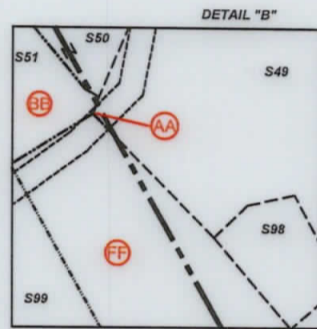
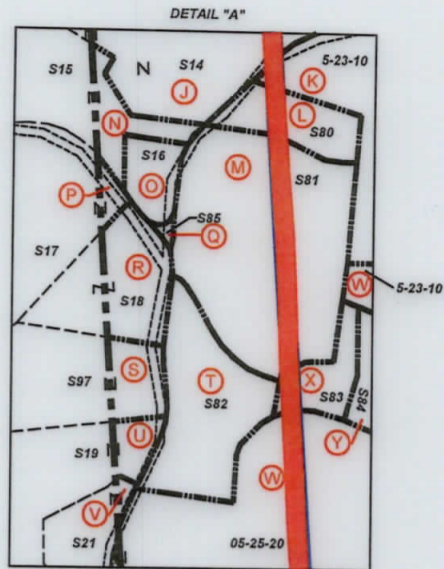
SURFACE OWNER TERRY E. & DEBORAH SIMMS ACREAGE 123.09
 OIL & GAS ROYALTY OWNER TERRY E. & DEBORAH L. SIMMS, ET AL LEASE ACREAGE 123.09
 PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___
 PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE (SPECIFY) ASDRILLED
 PLUG & ABANDON ___ CLEAN OUT & REPLUG ___
 TARGET FORMATION POINT PLEASANT ESTIMATED DEPTH TVD: 11,507' TMD: 22,462'
 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

08/27/2021

COUNTY NAME
 PERMIT

**HILLROCK LEASE
WELL S-12HU
371.8352± ACRES**

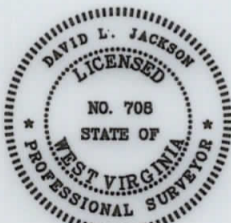
Number	TAX MAP-PARCEL	SURFACE OWNER	ACRES
S1	C 05-23-06	James A. Channing, et al	48.0
S2	05-18-21	Curtis E. & Michelle J. Hall	43.119
S3	05-18-21.3	XCL Midstream Operation, LLC	0.811
S4	05-18-21.1	Rodney & Rhonda Jackson	5.47
S5	05-18-21.2	David P. Lasso, Sr. (Life), David P. Lasso II & Julius L. Lasso	1.0
S6	05-18-22	Rodney & Rhonda Jackson	30.345
S7	05-23-2.1	William L. & Janice M. Wayne	2.364
S8	05-23-03	Abe J. Hochstetler	50.0
S9	05-23-2.2	Jessica N. & Andrew L. Jones	7.636
S10	05-23-4.2	XCL Midstream Operation, LLC	1.169
S11	05-23-4.1	XCL Midstream Operation, LLC	2.1575
S12	F 05-23-08	Carl David & Suzanne L. Guseman	29.5
S13	G 05-23-9.3	Linda D. Greathouse	17.5
S14	J 05-23-11.1	John H. & Sonya D. Holliday	46.482
S15	N 05-23-11.4	Evelyn L. Hudson	10.879
S16	O 05-23-11.2	Evelyn Hudson	1.154
S17	P 05-23-11.3	Colin R. Yoho	11.29
S18	R 05-23-11.5	Roy F. Yoho	2.25
S19	U 05-25-18	Joseph Johnson, et ux (Life)	37.746
S20	05-25-18.1	Pamela Joan Ferrell, et vir	2.491
S21	V 05-25-19	Joseph Johnson, et ux (Life)	1.973
S22	05-25-17	Craig R. & Ashley Ferrell	22.790
S23	05-18-24	Duane Brunn	102.0
S24	05-18-23	XCL Midstream Operation, LLC	110.0
S25	05-18-20	Wayne E. Channing, et al	75.60
S26	05-18-31	Kenneth E. Rastall	6.94
S27	05-18-32	Kenneth E. Rastall	5.335
S28	05-17-12	James A. & Jill C. Corley	3.33
S29	05-17-10	James A. Corley, et al	92.61
S30	05-17-9.3	James A. Corley, et ux	12.478
S31	05-17-9.4	Vicki L. Bowen	60.3
S32	05-24-01	Linda L. Hendrickson	175.0
S33	05-24-5.1	James D. Watkins, et ux	4.60
S34	05-24-5.2	James D. Watkins, et ux	3.151
S35	05-23-7.1	Lisa Ann Nelson	0.549
S36	05-23-7.2	Lisa Ann Nelson	6.354
S37	05-24-5.5	Linda Lou Tagg	17.194
S38	I 05-24-5.3	Thomas V. Tuttle, et ux	8.543
S39	H 05-24-5.4	Thomas V. Tuttle, et ux	38.224
S40	E 05-23-8.1	William & Virginia Roupe	34.0
S41	05-24-04	Terry E. Simms, et ux	84.05
S42	05-25-1.3	Michael E. & Annie A. Chapman	26.20
S43	05-25-1.2	William Jr. & Andrea J. Dubiel	20.10
S44	05-25-1.1	Ryan A. & Jacqueline E. Layman	9.79
S45	05-25-13.3	William M. Sr. & Cynthia A. Ferda	17.21
S46	05-25-1.5	Ryan J. Bratton	21.35
S47	05-25-13	William M. Ferda, Jr. & Stephanie L. Palicka	16.014
S48	05-25-12.1	Kent & Betty Mason	15.0
S49	AA 05-25-13.2	David A. Klug	5.89
S50	Z 05-25-01	Michael L. Mason	35.43
S51	BB 05-25-14	Roy F. Yoho	23.0
S52	CC 05-25-16	Craig R. & Ashley Ferrell	25.0
S53	DD 05-25-16.2	Rodney J. Loy	1.087
S54	05-26-12	Marjorie Ann Stoneking (Life)	153.969
S55	05-26-13	Marjorie Ann Stoneking (Life)	40.0
S56	05-26-10	Theresa H. Walton, as Trustee of Robert D. & Bonnie L. Oliver Family Trust	24.94
S57	05-26-09	Theresa H. Walton, as Trustee of Robert D. & Bonnie L. Oliver Family Trust	21.75



SURFACE HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,399,562.50
E) 519,682.96

LANDING POINT 1
UTM. NAD83, ZONE 17
N) 4,399,340.08
E) 519,402.36

BOTTOM HOLE
UTM. NAD83, ZONE 17
N) 4,396,555.27
E) 521,010.21



P.S. 708

David L Jackson

08/27/2021



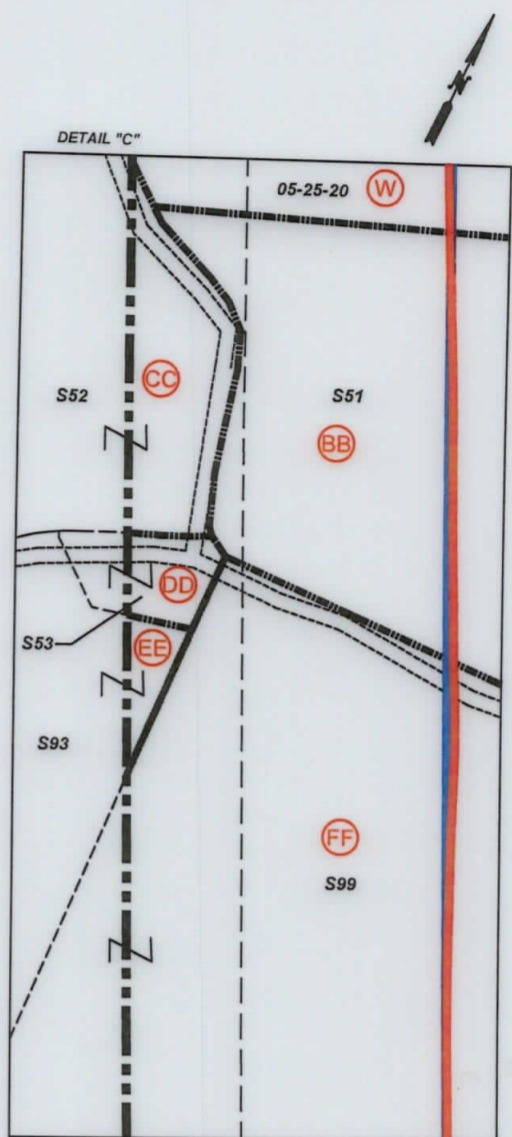
**TUG HILL
OPERATING**

OPERATOR'S
WELL #: HILLROCK S-12HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API#: 047-051-02272

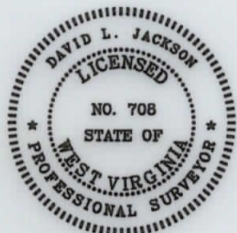
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DATE: 02/05/2021

**HILLROCK LEASE
WELL S-12HU
371.8352± ACRES**

Number	TAX MAP-PARCEL	SURFACE OWNER	ACRES
S58	05-26-08	Richard Joseph Otte, et ux	18.27
S59	05-26-20	Donald Lee Anderson	4.2
S60	05-26-21	Richard Joseph Otte, et ux	1.25
S61	05-26-22	Richard Joseph Otte, et ux	8.3
S62	05-23-12	Mark A. Yoho	3.05
S63	05-23-13.1	James R. & Pamela J. Ferrell	0.7625
S64	05-23-13	Linda D. Greathouse	14.24
S65	05-23-9.2	Linda D. Greathouse	25.58
S66	05-23-9.4	Jackson R. Sr. & Deanna L. Davis	2.087
S67	05-23-9.1	John W. Van Orden, et ux	23.376
S68	05-23-14	Dominion Transmission, Inc.	59.5
S69	05-23-15	Virginia Ethel Henry Est.	15.5
S70	05-23-16.1	Donald B. Henry	1.97
S71	05-23-16	Roy Friend Yoho Sr.	18.03
S72	05-23-18	Abe J. Hochstetler	35.382
S73	05-23-01	Patricia Accettolo, et al	146.66
S74	05-23-17.3	William & Katherine Flewelling	5.018
S75	05-23-17	Tammy & Thomas E. Brown	4.62
S76	05-23-17.4	Tammy D. Meadows	2.605
S77	05-23-17.2	Dick Jr. & Carol J. Rowan	14.920
S78	05-23-17.1	Curtis E. Hall, et ux	10.051
S79	05-23-18.1	Mark A. Yoho	7.80
S80 L	05-23-11.7	Bryan L. Huggins	1.835
S81 M	05-23-11	Roy F. Yoho	9.475
S82 T	05-25-20.3	James A. & Jo C. Estep	4.49
S83 X	05-25-20.2	James M. Zombotti	1.347
S84 Y	05-25-20.1	James M. Zombotti	2.746
S85 Q	05-23-11.6	T.H. Exploration II, LLC & Atinum Marcellus I, LLC	0.094
S86	05-18-30	Jon Schmidt, et al	5.46
S87	05-18-13.10	Carl Berg	10.88
S88	05-18-29	Carl B. Berg	5.319
S89	05-18-32.1	Lori D. Carpenter	1.165
S90	05-18-13.8	Lori D. Carpenter	5.545
S91	05-17-12.1	Williams Ohio Valley Midstream, LLC	1.67
S92	05-17-10.5	Williams Ohio Valley Midstream, LLC	4.24
S93 EE	05-25-16.1	David L. Cunningham	6.34
S94	12-02-14	David L. Cunningham	56.23
S95	12-02-14.2	John G. Jr. & Geraldine M. Rogers	25.1
S96	12-02-14.1	Sammy J. Greathouse, Sr. (Life) and Sammy J. Greathouse, Jr.	18.67
S97 S	05-23-11.8	Zachary R. Stevey	7.00
S98	05-25-13.4	Parsons Cemetery	0.38
S99 FF	05-25-14.1	Judith L. Weigand	65.0
S100 HH	05-25-11.4	Edward W. Klug et ux	32.787
S101	05-25-11.1	Edward W. Klug & Dianna Klug	2.343
S102	12-03-47	Wetzel County Emergency Ambulance	0.50
S103	12-03-44	James A. & Jo C. Estep	1.10
S104	12-03-01	James W. Klug	0.375
S105	12-03-4.5	Hazel M. Blair	0.451
S106	12-03-4.6	Steven P. Wayman	1.009
S107	12-03-4.3	Joseph P. & Barbara A. Cain	3.619
S108	12-03-4.7	Joseph P. & Barbara A. Cain	67.3
S109 II	05-25-11.2	James W. Klug	114.305



Lease ID	Tags	Parcel	Grantor, Lessor, Etc.	Book	Page
10*14140	A	5-23-7	TERRY E SIMMS AND DEBORAH L SIMMS	666	529
10*14728	AA	5-25-13.2	IRIS K MOELLENDICK, ET AL	839	509
10*14126	B	5-17-11	SHARON MIDCAP	697	152
10*19727	BB	5-25-14	S RICHARD MELLON, ET AL	944	465
10*17186	C	5-23-6	ROBERT J HENRY	708	51
10*27898	CC	5-25-16	PAUL G FOX AND CYNTHIA G FOX, ET AL	1064	145
10*14847	D	5-23-5	LETHA RUCKMAN, ET AL	806	270
10*27898	DD	5-25-16.2	PAUL G FOX AND CYNTHIA G FOX, ET AL	1064	145
10*17191	E	5-23-8.1	ROBERT J HENRY, ET AL	715	463
10*27898	EE	5-25-16.1	PAUL G FOX AND CYNTHIA G FOX, ET AL	1064	145
10*17192	F	5-23-8	ROBERT J HENRY, ET AL	716	193
10*19727	FF	5-25-14.1	S RICHARD MELLON, ET AL	944	465
10*17189	G	5-23-9.3	ROBERT J HENRY	716	197
10*14926	GG	5-25-12	NILA JUNE MASON, ET AL	842	394
10*14797	H	5-24-5.4	ORVILLE YOUNG, ET AL	800	598
10*22494	HH	5-25-11.4	EDWARD W KLUG & DIANNA KLUG	920	109
10*14797	I	5-24-5.3	ORVILLE YOUNG, ET AL	800	598
10*22496	II	5-25-11.2	JAMES W KLUG	923	543
10*14786	J	5-23-11.1	TWILA O WHIPKEY, ET AL	799	61
10*14786	K	5-23-10	TWILA O WHIPKEY, ET AL	799	61
10*14786	L	5-23-11.7	TWILA O WHIPKEY, ET AL	799	61
10*14786	M	5-23-11	TWILA O WHIPKEY, ET AL	799	61
10*14786	N	5-23-11.4	TWILA O WHIPKEY, ET AL	799	61
10*14786	O	5-23-11.2	TWILA O WHIPKEY, ET AL	799	61
10*14786	P	5-23-11.3	TWILA O WHIPKEY, ET AL	799	61
10*17195	Q	5-23-11.6	PATRICIA HARTMAN, ET AL	695	317
10*14786	R	5-23-11.5	TWILA O WHIPKEY, ET AL	799	61
10*14786	S	5-23-11.8	TWILA O WHIPKEY, ET AL	799	61
10*14786	T	5-25-20.3	TWILA O WHIPKEY, ET AL	799	61
10*14786	U	5-25-18	TWILA O WHIPKEY, ET AL	799	61
10*14786	V	5-25-19	TWILA O WHIPKEY, ET AL	799	61
10*14786	W	5-25-20	TWILA O WHIPKEY, ET AL	799	61
10*14786	X	5-25-20.2	TWILA O WHIPKEY, ET AL	799	61
10*14786	Y	5-25-20.1	TWILA O WHIPKEY, ET AL	799	61
10*14728	Z	5-25-1	IRIS K MOELLENDICK, ET AL	839	509



P.S. 708 *David L Jackson*



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OPERATING**

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WELL #: HILLROCK S-12HU
DISTRICT: Franklin
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WELL PLAT
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DATE: 02/05/2021