

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

API 47 - 051 - 02022 County Marshall District Franklin
Quad Powhatan Point 7.5' Pad Name Bryan Field/Pool Name _____
Farm name CNX Land Resources, Inc. Well Number Bryan S-11HM
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 4,402,897.55 Easting 519,125.94
Landing Point of Curve Northing 4,403,255.60 Easting 519,969.56
Bottom Hole Northing 4,401,435.10 Easting 521,008.98

Elevation (ft) 1191.6' 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 DEC 29 2020

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 6/4/2018 Date drilling commenced 9/22/2018 Date drilling ceased 2/11/2019
Date completion activities began 1/26/2020 Date completion activities ceased 2/12/2020
Verbal plugging (Y/N) N Date permission granted n/a Granted by n/a

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

Freshwater depth(s) ft 831' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1595' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 729-735', 824-830' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: _____

API 47-051 - 02022 Farm name CNX Land Resources, Inc. Well number Bryan S-11HM

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	17 1/2"	13 3/8"	924'	NEW	54.5#	N/A	Y
Coal	17 1/2"	13 3/8"	924'	NEW	54.5#	N/A	Y
Intermediate 1	12 1/4"	9 5/8"	2,643'	NEW	36#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8 3/4"	5 1/2"	14,719'	NEW	20#	N/A	Y
Tubing		2 3/8"	7,360'	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	1.19		0	8
Surface	A	1032	15.6	1.19	1235	0	8
Coal	A	1032	15.6	1.19	1235	0	8
Intermediate 1	A	1017	15.6	1.19	1206	0	8
Intermediate 2							
Intermediate 3							
Production	A	3552	14.5	1.17	4174	0	8
Tubing							

Drillers TD (ft) 14,750' Loggers TD (ft) n/a
 Deepest formation penetrated Marcellus Plug back to (ft) n/a
 Plug back procedure n/a

Kick off depth (ft) 6,707'

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.

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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 - 02022 Farm name CNX Land Resources, Inc. Well number Bryan S-11HM

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							

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Please insert additional pages as applicable.

API 47- 051 - 02022 Farm name CNX Land Resources, Inc. Well number Bryan S-11HM

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
MARCELLUS	6522' - 6525'	TVD 7782' - 14750' MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1300 psi Bottom Hole _____ psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 0 mcfpd Oil 0 bpd NGL 0 bpd Water 600 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		
see attached					

Please insert additional pages as applicable.

Drilling Contractor Precision
Address 10350 Richmond Avenue, Suite 700 City Houston State TX Zip 77042

Logging Company n/a
Address _____ City _____ State _____ Zip _____

Cementing Company BJ Cementing Services
Address 4000 Town Center Boulevard 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 Amy L. Morris Telephone 304-376-0111
Signature Amy L. Morris Title Permitting Specialist Date 8-29-2020

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Bryan S-11HM
PEFORATION RECORD

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD. Ft.	Number of Perforations	Formation(s)
1	1/27/2020	14367	14527	48	Marcellus
2	1/28/2020	14193	14353	48	Marcellus
3	1/28/2020	14019	14179	48	Marcellus
4	1/28/2020	13845	14005	48	Marcellus
5	1/29/2020	13671	13831	48	Marcellus
6	1/29/2020	13497	13657	48	Marcellus
7	1/29/2020	13323	13483	48	Marcellus
8	1/30/2020	13149	13309	48	Marcellus
9	1/30/2020	12975	13135	48	Marcellus
10	1/31/2020	12801	12961	48	Marcellus
11	1/31/2020	12627	12787	48	Marcellus
12	2/1/2020	12453	12613	48	Marcellus
13	2/1/2020	12279	12439	48	Marcellus
14	2/1/2020	12105	12265	48	Marcellus
15	2/2/2020	11931	12091	48	Marcellus
16	2/2/2020	11757	11917	48	Marcellus
17	2/3/2020	11583	11743	48	Marcellus
18	2/3/2020	11409	11569	48	Marcellus
19	2/3/2020	11235	11395	48	Marcellus
20	2/4/2020	11061	11221	48	Marcellus
21	2/4/2020	10887	11047	48	Marcellus
22	2/5/2020	10713	10873	48	Marcellus
23	2/5/2020	10539	10699	48	Marcellus
24	2/5/2020	10365	10525	48	Marcellus
25	2/6/2020	10191	10351	48	Marcellus
26	2/6/2020	10017	10177	48	Marcellus
27	2/7/2020	9843	10003	48	Marcellus
28	2/7/2020	9669	9829	48	Marcellus
29	2/7/2020	9495	9655	48	Marcellus
30	2/8/2020	9321	9481	48	Marcellus
31	2/8/2020	9147	9307	48	Marcellus
32	2/9/2020	8973	9133	48	Marcellus
33	2/9/2020	8799	8959	48	Marcellus
34	2/9/2020	8625	8785	48	Marcellus
35	2/10/2020	8451	8611	48	Marcellus
36	2/11/2020	8277	8437	48	Marcellus
37	2/11/2020	8103	8263	48	Marcellus
38	2/11/2020	7929	8089	48	Marcellus
39	2/12/2020	7755	7915	48	Marcellus

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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	88.04	7685	5016	3929	402750	8632	0
2	87.82	7697	5169	5009	400630	8484	0
3	88.6	7693	5314	5106	421460	8849	0
4	88.5	5198	5198	5057	441980	8801	0
5	88.9	7427	5182	4603	449200	9122	0
6	89.2	7213	5310	4952	440180	9094	0
7	89.37	7591	5273	4942	443010	8455	0
8	89.14	7616	5093	4835	442380	9510	0
9	88.76	7601	5601	5108	363050	8121	0
10	89.3	7504	5152	5056	444630	9026	0
11	89.52	7625	5287	5326	391150	8256	0
12	89.14	7232	5407	5140	449240	8792	0
13	89.3	7031	5425	4924	442290	8844	0
14	89.33	7748	5304	5261	450100	9214	0
15	89.35	7478	5113	5068	434230	8731	0
16	89.48	6828	5074	4809	441604	8884	0
17	89.5	7246	5250	4724	440426	8335	0
18	89.6	7121	5324	4569	440962	8930	0
19	89.21	7290	4920	4744	443960	8585	0
20	89.3	7326	5312	4885	441610	8889	0
21	89.3	7013	5100	4695	441540	10097	0
22	89.4	6807	5170	4681	442620	8304	0
23	89.4	6676	4966	5056	448190	8549	0
24	89.14	6627	5216	4985	443320	8431	0
25	89.5	6568	4916	4957	437650	8464	0
26	89.7	6747	4908	4515	437190	8127	0
27	89.6	6684	4917	4549	437250	7973	0
28	89.5	6648	4944	4867	438100	8424	0
29	89.4	6545	4998	4759	444800	8119	0
30	89.2	6644	5362	4960	441670	8649	0
31	89.6	6675	4857	4344	444510	7994	0
32	89.3	6605	4812	4850	442420	8113	0

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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	89.3	6628	5319	4998	450410	8380	0
34	89.4	6420	4973	4893	441000	8425	0
35	89	6622	5139	4561	261360	6436	0
36	89.3	6465	5153	4876	451680	7983	0
37	89.42	6548	5042	4565	444800	8279	0
38	89.4	6513	5888	5035	443130	8425	0
39	89.4	6407	5187	4629	445090	8080	0

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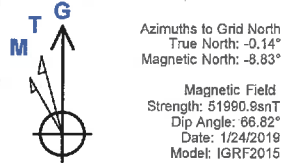
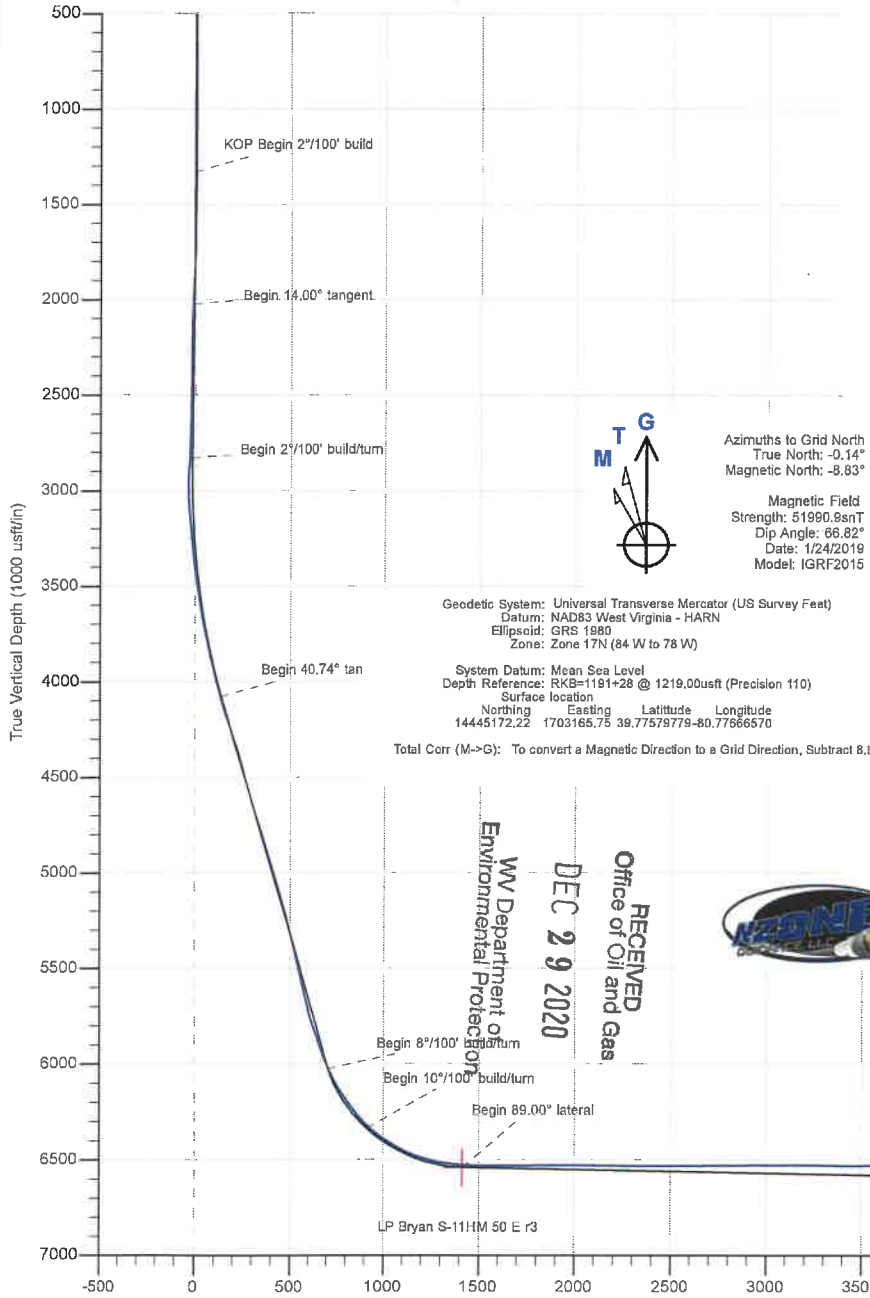
BRYAN S-11HM

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	1908	1998	1912	2005	Sandstone
Big Lime	1998	2068	2005	2078	Limestone
Big Injun	2068	2352	2078	2371	Sandstone
Weir	2352	2547	2371	2570	Sandstone
Berea	2547	2892	2570	2922	Sandstone
Gordon	2892	2946	2922	2979	Sandstone
Fifty Foot	2946	3494	2979	3579	Sandstone
Speechley	3494	4936	3579	5413	Sandstone
Benson	4936	5291	5413	5886	Sandstone
Alexander	5291	5885	5886	6666	Siltstone
Rhinestreet	5885	6299	6666	7229	Black shale
Middlesex	6299	6374	7229	7345	Black shale
Geneseo/Burkett	6374	6400	7345	7392	Black shale
Tully	6400	6440	7392	7470	Limestone
Hamilton	6440	6489	7470	7600	Grey shale
Marcellus	6489	-	7600	-	Black shale

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Well: Bryan S-11HM (slot G)
 Site: Bryan Pad
 Project: Marshall County, West Virginia
 Design: rev3
 Rig: Precision 110

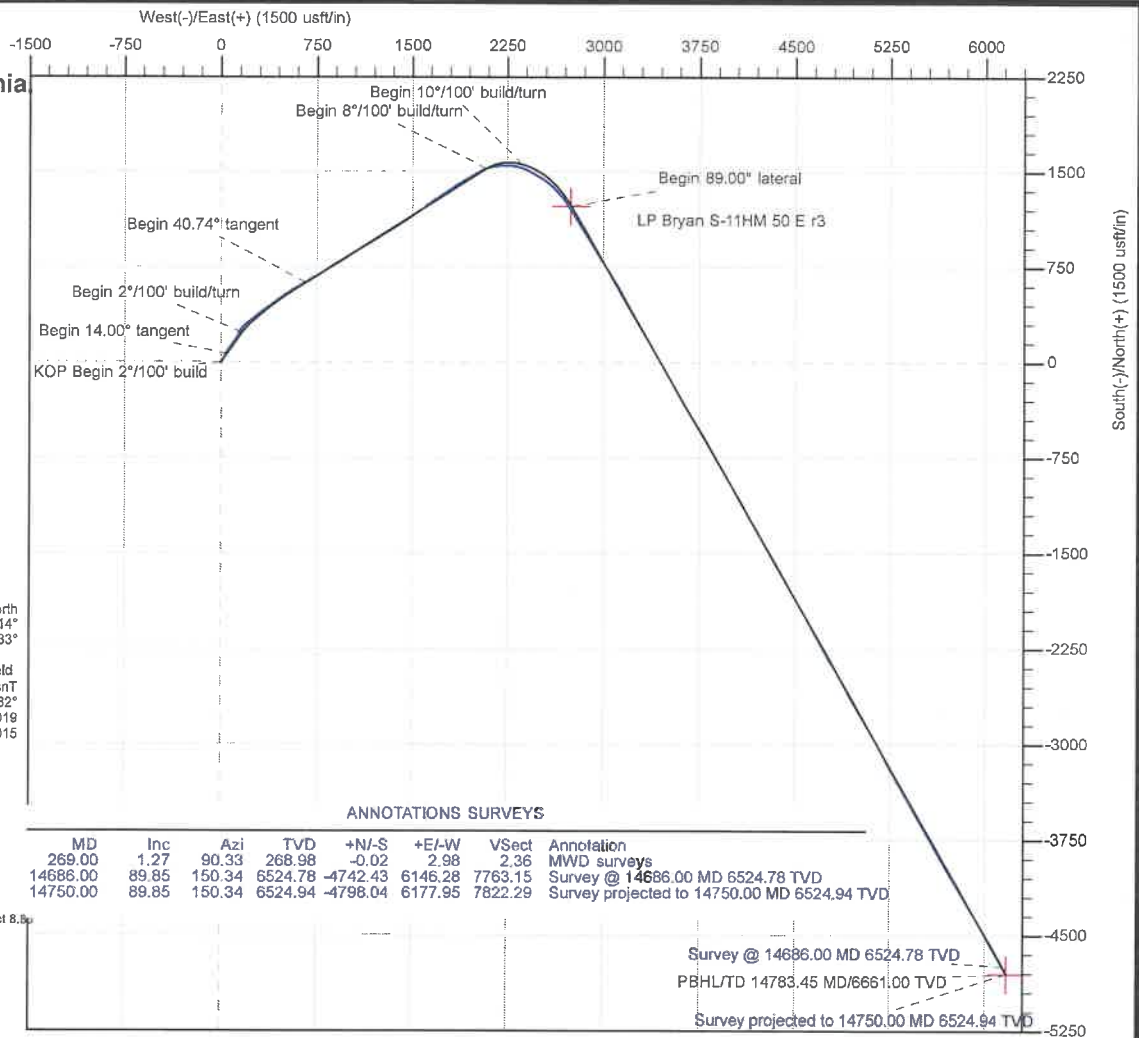


Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD83 West Virginia - HARN
 Ellipsoid: GRS 1980
 Zone: Zone 17N (84 W to 78 W)

System Datum: Mean Sea Level
 Depth Reference: RKB=1181+28 @ 1219.00usft (Precision 110)
 Surface location
 Northing Easting Latitude Longitude
 14445172.22 1703165.75 39.77579779 -80.77866570

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Subtract 8.83

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ANNOTATIONS SURVEYS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Annotation
269.00	1.27	90.33	268.98	-0.02	2.98	2.36	MWD surveys
14686.00	89.85	150.34	6524.78	-4742.43	6146.28	7763.15	Survey @ 14686.00 MD 6524.78 TVD
14750.00	89.85	150.34	6524.94	-4798.04	6177.95	7822.29	Survey projected to 14750.00 MD 6524.94 TVD

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	1328.00	0.00	0.00	1328.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 2°/100' build
3	2028.00	14.00	35.00	2021.06	69.71	48.81	2.00	35.00	-4.26	Begin 14.00° tangent
4	2859.65	14.00	35.00	2828.00	234.52	164.21	0.00	0.00	-14.33	Begin 2°/100' build/turn
5	4272.65	40.74	57.74	4074.21	628.62	662.28	2.00	32.20	136.92	Begin 40.74° tangent
6	6849.56	40.74	57.74	6026.77	1526.14	2084.39	0.00	0.00	708.58	Begin 8°/100' build/turn
7	7277.51	50.00	104.94	6335.69	1559.40	2369.38	8.00	92.55	913.13	Begin 10°/100' build/turn
8	7844.97	89.00	150.41	6540.00	1229.24	2751.20	10.00	58.47	1417.22	Begin 89.00° lateral
9	14783.46	89.00	150.41	6661.00	-4803.39	6176.90	0.00	0.00	7824.74	PBHL/TD 14783.45 MD/6661.00 TVD

Vertical Section at 127.87° (1000 usft/in)

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	1/26/2020
Job End Date:	2/12/2020
State:	West Virginia
County:	Marshall
API Number:	47-051-02022-00-00
Operator Name:	Tug Hill Operating, LLC
Well Name and Number:	Bryan S 11 HM
Latitude:	39.77579779
Longitude:	-80.77666570
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,530
Total Base Water Volume (gal):	14,285,857
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
Produced Mixture	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	87.36546	Density = 8.34
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.19259	

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MC MX 8-4743	MultiChem	Additive					
				Listed Below			
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			
OilPerm A	Halliburton	Non-ionic Surfactant					
				Listed Below			
Sand-Premium White-30/50	Halliburton	Proppant					
				Listed Below			
Sand-Premium White-40/70	Halliburton	Proppant					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
LEGEND(TM) LD-7750W	MultiChem	Scale Control					
				Listed Below			
FDP-S1296-17	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
LD-2950	MultiChem	Friction Reducer					

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				Listed Below			
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	12.36418	
			Complex Amine Compound	Proprietary	60.00000	0.06364	
			Hydrochloric acid	7647-01-0	30.00000	0.03669	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.03182	
			Sodium nitrate	7631-99-4	60.00000	0.02067	
			Methanol	67-56-1	100.00000	0.00524	
			Poly(oxy-1,2-ethanediyl), alpha-tridecyl-omega-hydroxy-, branched	69011-36-5	1.00000	0.00106	
			Adipic acid	124-04-9	1.00000	0.00106	
			Ethoxylated alcohols	Proprietary	1.00000	0.00106	
			Phosphoric Acid Salt	Proprietary	5.00000	0.00040	
			Sodium chloride	7647-14-5	5.00000	0.00040	
			Ethanol	64-17-5	60.00000	0.00027	
			Heavy aromatic petroleum naphtha	64742-94-5	30.00000	0.00014	
			Oxyalkylated nonyl phenolic resin	Proprietary	30.00000	0.00014	
			Modified thiourea polymer	Proprietary	30.00000	0.00013	
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00013	
			Oxyalkylated phenolic resin	Proprietary	10.00000	0.00005	
			Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-, branched	127087-87-0	5.00000	0.00002	
			Naphthalene	91-20-3	5.00000	0.00002	
			Propargyl alcohol	107-19-7	5.00000	0.00002	

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			Ethoxylated alcohols	Proprietary	5.00000	0.00002	
			Hexadecene	629-73-2	5.00000	0.00002	
			Formaldehyde	50-00-0	0.10000	0.00001	
			1,2,4 Trimethylbenzene	95-63-6	1.00000	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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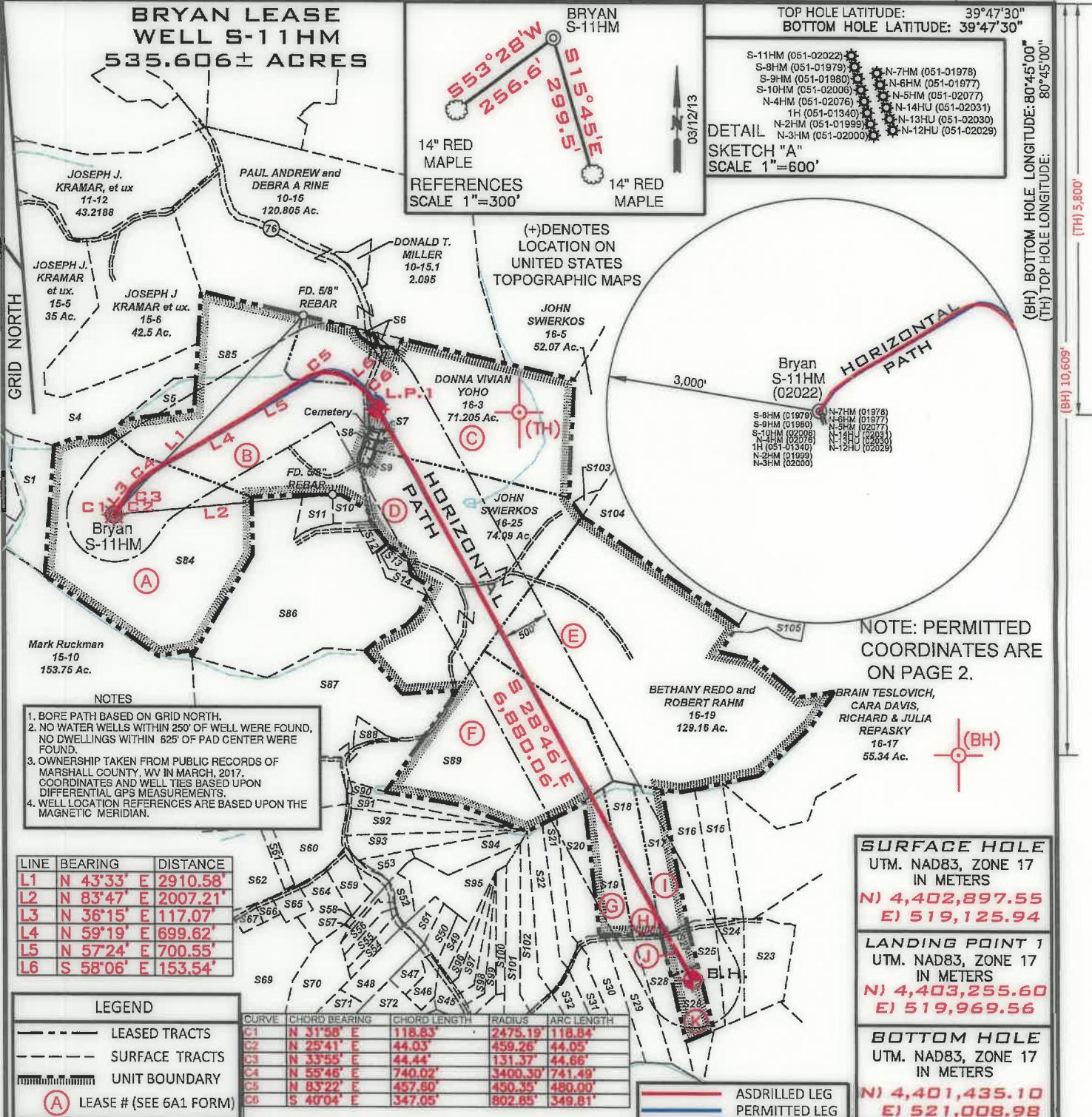
**BRYAN LEASE
WELL S-11HM
535.606± ACRES**

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

- S-11HM (051-02022)
- S-8HM (051-01979)
- S-9HM (051-01980)
- S-10HM (051-02006)
- N-4HM (051-02076)
- 1H (051-01340)
- N-2HM (051-01999)
- N-3HM (051-02000)
- N-7HM (051-01978)
- N-6HM (051-01977)
- N-5HM (051-02077)
- N-14HU (051-02031)
- N-13HU (051-02030)
- N-12HU (051-02029)

DETAIL SKETCH "A"
SCALE 1"=600'

14" RED MAPLE
REFERENCES
SCALE 1"=300'



- 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 MARCH, 2017. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
 - WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.

LINE	BEARING	DISTANCE
L1	N 43°33' E	2910.58'
L2	N 83°47' E	2007.21'
L3	N 36°15' E	117.07'
L4	N 59°19' E	699.62'
L5	N 57°24' E	700.55'
L6	S 58°06' E	153.54'

LEGEND

- LEASED TRACTS
- SURFACE TRACTS
- UNIT BOUNDARY
- (A) LEASE # (SEE 6A1 FORM)

CURVE	CHORD BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C1	N 31°50' E	118.83'	2475.19'	118.84'
C2	N 25°41' E	44.03'	459.26'	44.05'
C3	N 33°55' E	44.44'	131.37'	44.66'
C4	N 55°46' E	740.02'	3400.30'	741.49'
C5	N 83°22' E	457.80'	450.35'	480.00'
C6	S 40°04' E	347.05'	802.85'	349.81'

SURFACE HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,402,897.55
E) 519,125.94

LANDING POINT 1
UTM. NAD83, ZONE 17
IN METERS
N) 4,403,255.60
E) 519,969.56

BOTTOM HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,401,435.10
E) 521,008.98

FILE NUMBER _____

DRAWING NUMBER BRYAN_WP_S-11HM

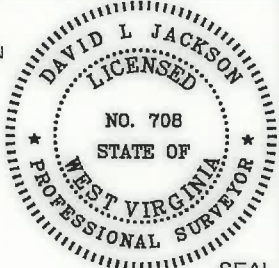
SCALE 1" = 1500'

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 1480
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 ___ SHALLOW X

LOCATION ELEVATION 1191.6' WATERSHED (HUC 10) Fish Creek

DISTRICT Franklin COUNTY Marshall

QUADRANGLE Powhatan Point 7.5' LEASE NUMBER SEE WW-6A1 Form

DATE: AUGUST 25, 2020

OPERATORS WELL NO. BRYAN S-11HM

API WELL NO. 47-051-02022

STATE COUNTY PERMIT

SURFACE OWNER CNX LAND RESOURCES, INC. ACREAGE 81.98

OIL & GAS ROYALTY OWNER MICHAEL R. BRYAN - SEE WW 6A1 LEASE ACREAGE 81.98

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

TARGET FORMATION Marcellus ESTIMATED DEPTH TVD: 6,525' TMD: 14,750'

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

COUNTY NAME
PERMIT

**BRYAN LEASE
WELL S-11HM
535.606± ACRES**

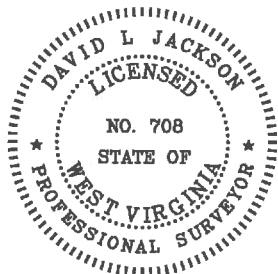
GRID NORTH

SURFACE HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,402,897.30
E) 519,125.96

LANDING POINT 1
UTM. NAD83, ZONE 17
IN METERS
N) 4,403,271.95
E) 519,964.44

BOTTOM HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,401,433.22
E) 521,008.68

Number	TAX MAP -PARCEL	ADJOINER OWNER	ACRES
S1	15-13	CNX Land Resources Inc.	11.0
S4	15-6.1	Joseph J. Kramer Et Ux	39.40
S5	15-7	Terry D. Rose Et Ux	4.5
S6	16-3.2	Jimmy Ostrander Sr. Et Ux	1.435
S7	16-3.1	Dennis Jackson Et Ux	0.27
S8	16-2	Fredonia Christian Church	0.19
S9	16-1	Fredonia Christian Church	0.50
S10	16-23.1	Ray E. Minor Et Ux	2.0
S11	16-23.4	Michael R. & Brenda K. Bryan	3.0
S12	16-23.3	Greg & Christina Riddle	1.0
S13	16-24	Alan M. Beyser Et Ux	1.083
S14	16-23.2	Alan M. Beyser Et Ux	1.726
S15	17-16	Glen A. Gunto	9.702
S16	16-15.1	Glen A. Gunto	10.17
S17	17-15	Glen A. Gunto	10.22
S18	18-13	Southern Country Farms Inc.	11.415
S19	18-13.9	Roy & Renee Butler	9.603
S20	18-13.4	Renee D. Streight	9.938
S21	18-13.12	Charles A. & Mary Nice	5.969
S22	18-13	Southern Country Farms Inc.	8.037
S23	17-3.1	Wilbur L. Riddle Et Ux	10.148
S24	17-1.6	Lola M. Slaughter	6.347
S25	17-1.5	Donnie R. & Lola M. Slaughter	5.607
S26	17-1.3	Jody & Michelle Anderson	5.0
S27	17-1.2	Donnie R. & Lola M. Slaughter	5.073
S28	17-1.1	Donnie R. & Lola M. Slaughter	8.078
S29	17-1.4	Donnie R. & Lola M. Slaughter	8.844
S30	17-14	Southern Country Farms Inc.	7.314
S31	17-13	Roy E. & Renee Butler	5.433
S32	17-1.7	Roy E. & Renee Butler	5.22
S45	18-25	Charles & Maria Rayl	2.133
S46	18-41	Cory A. Holt	2.308
S47	18-40	Cory A. Holt	2.237
S48	18-14	Michael Fincham & Kezia Winters	6.386
S49	18-39	Marlon R. Conner	2.001
S50	18-38	Marlon R. Conner	2.231
S51	18-37	John W. Weizel	2.064
S52	18-49	Tanner Butler	2.023
S53	18-50	Steven Berisford	2.170
S54	18-45	Michael Fincham & Kezia Winters	2.07
S55	18-46	Dale W. & Patricia Gardner	2.030
S56	18-47	Robert Pelley II & Susan Briggs	2.010
S57	18-13.5	Wesley Bryan	1.023
S58	18-36	Ruth Mulligan Est.	2.030
S59	18-15.2	Edward Burge	4.171
S60	18-11	Benjamin Robinson	12.883
S61	18-11.2	Edward Lee Burge Jr.	2.0
S62	18-11.1	Edward Lee Burge Jr.	18.0
S64	18-15.1	Jason Blair	5.948
S65	18-12	William Wayne Et Ux	2.27
S66	18-10	David & Nancy Anderson	0.907
S67	18-10.2	David Anderson Et Ux	1.377
S69	18-15.5	Darrell & Teresa Boley	23.547
S70	18-13.3	Robert Closterman	9.813
S71	18-17	Michael S. Fincham & Kezia M. Winters	6.555
S72	18-13.1	Betty Tagg Est.	9.248
S84	15-09	CNX Land Resources Inc.	81.98
S85	15-08	Terry D. Rose et ux	77.11
S86	16-23	CNX Land Resources Inc.	60.138
S87	16-22	James M. Ruckman et ux	54.605
S88	16-22.1	Heather A. Burgy	1.465
S89	16-21	James M. Ruckman et ux	60.75
S90	18-56	William O'Hara	3.965
S91	18-55	William O'Hara	3.202
S92	18-28	Dotson Harrison	6.36
S93	18-28.1	Carol Helmick	5.696
S94	18-13.2	Steven Berisford	6.023
S95	18-13	Southern Country Farms, Inc.	11.054
S96	18-27.1	Marlon R. Conner	2.003
S97	18-27.2	Linda L. Moore	3.009
S98	18-27	Linda L. Moore	2.447
S99	18-26	Linda L. Moore	2.624
S100	18-13.11	Linda L. Moore	3.156
S101	18-53.1	Christopher M. Previtera	6.283
S102	18-60	Christopher M. Previtera	6.297
S103	16-4	John Swierkos	0.96
S104	16-6	John Swierkos	134.05
S105	16-18	John Swierkos	10.0



P.S.
708

David L Jackson



**TUG HILL
OPERATING**

OPERATOR'S
WELL #: Bryan S-11HM
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: 47-051-02022

WELL PLAT
PAGE 2 OF 2
DATE: 08/25/2020