

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

API 47 - 051 - 02294 County MARSHALL District LIBERTY
Quad CAMERON Pad Name CHARLES JAMISON MSH PAD Field/Pool Name NORTH VICTORY FIELD WET
Farm name CHARLES AND JEAN JAMISON Well Number CHARLES JAMISON MSH 6H
Operator (as registered with the OOG) SWN PRODUCTION COMPANY, LLC
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,404,733.308 Easting 533,591.957
Landing Point of Curve Northing 4,405,001.654 Easting 533,156.278
Bottom Hole Northing 4,401,611.970 Easting 535,283.329

Elevation (ft) 1335' 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 Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)
SOBM

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Date permit issued 1/29/2020 Date drilling commenced 5/08/2020 Date drilling ceased 5/28/2020
Date completion activities began 7/19/2020 Date completion activities ceased 9/17/2020
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 322' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1195' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 1084' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:
Jan [Signature]
12/18/2020

API 47-051 - 02294 Farm name CHARLES AND JEAN JAMISON Well number CHARLES JAMISON MSH 6H

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	24	20	126'	NEW	J-55/94#		Y
Surface	17.5	13.375	452'	NEW	J-55/54.50#		Y, 27 BBLS
Coal	SEE SURFACE						
Intermediate 1	12.25	9.625	2,744'	NEW	J-55/36#		Y, 71 BBLS
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	21,230'	NEW	HCP-110/20#		Y, 3 BBLS
Tubing		2.375		NEW	P-110/6.5#		N
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	CLASS A	GROUT TO SURFACE				SURFACE	24
Surface	CLASS A	449	15.60	1.21	543.29	SURFACE	8
Coal	SEE SURFACE						
Intermediate 1	CLASS A	1,117	16.00	1.12	1,251.04	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	3,846	15.60	1.19	4,576.74	SURFACE	24
Tubing							

Drillers TD (ft) 21,230 Loggers TD (ft) 21,230
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

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Kick off depth (ft) 6,505'

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

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Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

SURFACE: 7 CENTRALIZERS - EVERY THIRD JOINT OF CASING
 INTERMEDIATE: 24 CENTRALIZERS - EVERY THIRD JOINT OF CASING
 PRODUCTION: 181 CENTRALIZERS - EVERY THIRD JOINT FROM SURFACE TO TOP OF CURVE, THEN EVERY JOINT UNTIL TD

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 - 02294

Farm name CHARLES AND JEAN JAMISON Well number CHARLES JAMISON MSH 6H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
	<u>7,112'</u>	<u>7,913'</u>
	TVD	MD
MARCELLUS		

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2507 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 8,986 mcfpd Oil 19 bpd NGL _____ bpd Water 210 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	ATTACHMENT	3		

Please insert additional pages as applicable.

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Drilling Contractor SWN DRILLING COMPANY
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

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Logging Company BAKER HUGHES
Address 9110 GROGANS MILL RD City THE WOODLANDS State TX Zip 77380

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Cementing Company BJ SERVICES
Address 11211 FM 2920 City TOMBALL State TX Zip 77377

Stimulating Company SWN DRILLING COMPANY
Address PO BOX 12359 City SPRING State TX Zip 77391

Please insert additional pages as applicable.

Completed by BOBBY WILLIS Telephone 832-796-2884
Signature [Signature] Title SENIOR REGULATORY ANALYST Date 11/19/2020

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

**CHARLES JAMISON MSH 6H
ATTACHMENT 1
PERF REPORT**

STAGE NUM	Perf Date	Perf Bottom MD	Perf Top MD2	# SHOTS PER STG
1	5/26/2020	21,183	21,090	36
2	7/20/2020	21,056	20,879	36
3	7/21/2020	20,846	20,668	36
4	7/22/2020	20,635	20,458	36
5	7/22/2020	20,425	20,248	36
6	7/23/2020	20,215	20,038	36
7	7/24/2020	20,005	19,827	36
8	7/26/2020	19,794	19,617	72
9	7/30/2020	19,584	19,407	36
10	7/30/2020	19,374	19,196	36
11	7/31/2020	19,163	18,986	36
12	8/1/2020	18,953	18,761	72
13	8/5/2020	18,743	18,565	36
14	8/5/2020	18,532	18,355	36
15	8/6/2020	18,322	18,149	36
16	8/6/2020	18,112	17,938	36
17	8/7/2020	17,902	17,719	36
18	8/7/2020	17,691	17,514	36
19	8/8/2020	17,485	17,304	36
20	8/8/2020	17,271	17,093	36
21	8/9/2020	17,060	16,883	36
22	8/10/2020	16,850	16,673	36
23	8/10/2020	16,640	16,462	36
24	8/11/2020	16,429	16,252	36
25	8/11/2020	16,219	16,042	36
26	8/12/2020	16,009	15,832	36
27	8/12/2020	15,799	15,619	36
28	8/13/2020	15,588	15,411	36
29	8/14/2020	15,378	15,201	36
30	8/15/2020	15,168	14,990	36
31	8/16/2020	14,957	14,780	36
32	8/16/2020	14,747	14,570	36
33	8/17/2020	14,537	14,359	36
34	8/18/2020	14,326	14,149	36
35	8/19/2020	14,116	13,939	36
36	8/19/2020	13,906	13,729	36
37	8/20/2020	13,696	13,518	36
38	8/21/2020	13,485	13,308	36
39	8/22/2020	13,275	13,100	36
40	8/23/2020	13,065	12,892	36
41	8/23/2020	12,854	12,677	36
42	8/24/2020	12,644	12,467	36

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**CHARLES JAMISON MSH 6H
ATTACHMENT 1
PERF REPORT**

STAGE NUM	Perf Date	Perf Bottom MD	Perf Top MD2	# SHOTS PER STG
43	8/25/2020	12,437	12,256	36
44	8/26/2020	12,221	12,046	36
45	8/27/2020	12,013	11,836	36
46	8/28/2020	11,802	11,626	36
47	8/29/2020	11,593	11,415	36
48	8/29/2020	11,382	11,205	36
49	8/30/2020	11,172	10,995	36
50	8/30/2020	10,962	10,784	36
51	8/31/2020	10,751	10,574	36
52	8/31/2020	10,541	10,364	36
53	8/31/2020	10,331	10,153	36
54	9/1/2020	10,119	9,943	36
55	9/1/2020	9,910	9,733	36
56	9/3/2020	9,700	9,523	36
57	9/3/2020	9,490	9,312	36
58	9/4/2020	9,279	9,102	36
59	9/4/2020	9,069	8,892	36
60	9/5/2020	8,859	8,681	36
61	9/7/2020	8,648	8,471	36
62	9/7/2020	8,438	8,261	36
63	9/8/2020	8,228	8,050	36

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CHARLES JAMISON MSH 6H
ATTACHMENT 2
STIM REPORT

STAGE NUM	Stim Date	Ave Pump Rate (BPM)	Ave Treatment	Max Breakdown	ISIP (PSI)	Amount of Proppant (lbs)	Amount of water bbls	Amount of nitrogen/other
1	7/19/2020	64	9,275	7,260	3,829	170,670	5,136	0
2	7/20/2020	68.13	9,416	6,145	3,889	294,710	9,203	0
3	7/22/2020	92	9,270	5,570	4,898	305,950	8,649	0
4	7/22/2020	82.88	9,133	6,393	4,604	306,260	8,155	0
5	7/23/2020	85.75	8,837	5,997	4,729	304,320	8,175	0
6	7/23/2020	92.13	9,547	7,109	4,716	308,160	8,667	0
7	7/24/2020	89.13	9,269	5,220	6,035	311,400	8,589	0
8	7/29/2020	70.5	9,880	6,908	5,550	22,270	11,815	0
9	7/30/2020	81.71	8,909	6,215	5,065	308,060	8,337	0
10	7/30/2020	83.29	9,056	6,550	4,790	311,350	8,768	0
11	8/1/2020	87.63	9,065	5,738	4,739	304,330	8,295	0
12	8/1/2020	46.5	8,123	5,507	5,842	9,000	6,897	0
13	8/5/2020	97.5	9,282	5,280	5,193	301,010	7,902	0
14	8/5/2020	98.38	9,220	5,954	5,136	310,190	8,605	0
15	8/6/2020	96.13	9,336	6,459	5,341	313,140	8,766	0
16	8/7/2020	91.75	8,955	5,982	5,044	307,830	8,429	0
17	8/7/2020	95	9,224	6,483	5,122	308,110	9,131	0
18	8/8/2020	91.38	8,890	6,681	5,287	303,820	8,373	0
19	8/8/2020	100	9,045	6,506	5,180	299,980	8,482	0
20	8/9/2020	100	9,063	6,845	5,605	304,410	8,621	0
21	8/10/2020	100.75	8,763	5,562	5,202	303,460	8,315	0
22	8/10/2020	100	8,937	6,371	5,120	307,280	8,800	0
23	8/10/2020	100	8,720	5,893	5,126	308,970	8,198	0
24	8/11/2020	100.5	8,918	6,381	5,346	308,920	8,569	0
25	8/12/2020	95.5	9,257	7,473	4,847	308,870	8,560	0
26	8/12/2020	100	8,807	5,728	5,144	304,520	7,354	0
27	8/13/2020	99.25	8,719	6,011	5,875	299,120	7,424	0
28	8/14/2020	99.88	8,829	6,201	6,028	301,550	7,437	0
29	8/15/2020	100	8,621	6,496	5,279	306,360	7,299	0
30	8/16/2020	99.71	9,089	6,733	5,465	298,420	7,452	0
31	8/16/2020	100	9,002	6,994	4,593	296,018	7,293	0
32	8/17/2020	97.75	8,845	6,551	5,061	300,580	7,406	0
33	8/18/2020	99.75	8,734	6,222	4,989	310,260	7,196	0
34	8/18/2020	99.38	8,757	6,473	4,794	307,320	7,372	0
35	8/19/2020	94	8,361	5,281	5,312	302,620	7,372	0
36	8/20/2020	91.38	8,311	5,841	5,368	301,260	7,338	0
37	8/21/2020	92.5	8,550	5,939	4,705	309,110	8,056	0
38	8/22/2020	96.25	8,291	5,515	5,226	304,510	7,352	0
39	8/23/2020	95.62	8,265	5,815	5,431	309,130	7,365	0
40	8/23/2020	95.62	8,214	6,545	5,402	311,050	7,308	0
41	8/24/2020	94.5	8,207	5,312	5,425	307,820	7,221	0
42	8/25/2020	94.38	7,922	4,336	5,742	307,620	7,368	0
43	8/26/2020	93.75	8,240	5,012	5,170	305,830	7,405	0
44	8/27/2020	96.25	8,191	6,091	5,605	307,040	7,309	0
45	8/27/2020	91.27	8,183	6,312	5,223	313,870	8,375	0
46	8/28/2020	93.4	8,261	5,020	5,319	308,600	8,761	0
47	8/29/2020	98.13	8,181	5,157	5,229	304,560	7,378	0
48	8/30/2020	96.25	8,192	6,348	5,225	305,060	7,162	0
49	8/30/2020	98.25	8,341	6,410	5,525	303,480	7,067	0
50	8/30/2020	96.88	8,091	5,347	5,134	304,820	7,204	0
51	8/31/2020	100	8,143	5,227	5,771	307,730	7,213	0
52	8/31/2020	95.75	8,060	5,298	5,227	308,820	7,416	0
53	9/1/2020	100	8,131	6,127	5,479	307,520	7,372	0

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**CHARLES JAMISON MSH 6H
ATTACHMENT 2
STIM REPORT**

STAGE NUM	Stim Date	Ave Pump Rate (BPM)	Ave Treatment	Max Breakdown	ISIP (PSI)	Amount of Proppant (lbs)	Amount of water bbls	Amount of nitrogen/othe
54	9/1/2020	97.38	8,055	5,092	5,446	310,240	7,240	0
55	9/3/2020	97.29	8,312	6,046	5,839	254,840	6,581	0
56	9/3/2020	100	7,998	6,825	5,651	304,410	7,001	0
57	9/3/2020	99.38	7,987	6,270	5,105	312,670	7,448	0
58	9/4/2020	100	7,921	6,407	5,098	304,664	7,532	0
59	9/5/2020	100	7,853	6,187	5,211	312,510	7,189	0
60	9/7/2020	100	8,033	6,103	4,728	307,680	6,957	0
61	9/7/2020	100	7,915	6,639	5,580	314,920	7,536	0
62	9/8/2020	99.67	7,661	6,385	4,696	305,730	7,480	0
63	9/8/2020	100	7,797	6,276	5,079	305,730	7,347	0

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Well Name: Charles Jamison MSH 6H 47051022940000

LITHOLOGY/FORMATION	TOP DEPTH, MD (FT)	TOP DEPTH, TVD (FT)	BOTTOM DEPTH, MD (FT)	BOTTOM DEPTH, TVD (FT)	QUANTITY AND TYPE OF FLUID
Base of Fresh Water	0.00	0.00	322.00	322.00	
Top of Salt Water	1195.00	1195.00	NA	NA	
Pittsburgh Coal	1084.00	1084.00	1194.00	1194.00	
Pottsville (ss)	1194.00	1194.00	1560.00	1560.00	
Raven Cliff (ss)	1560.00	1560.00	2003.00	2003.00	
Maxton (ss)	2003.00	2003.00	2253.00	2218.00	
Big Injun (ss)	2253.00	2218.00	2902.00	2838.00	
Berea (siltstone)	2902.00	2838.00	7029.00	6477.00	
Rhinstreet (shale)	7029.00	6477.00	7467.00	6875.00	
Middlesex (shale)	7467.00	6875.00	7590.00	6966.00	
Burket (shale)	7590.00	6966.00	7631.00	6991.00	
Tully (ls)	7631.00	6991.00	7655.00	7011.00	
Mahantango (shale)	7655.00	7011.00	7913.00	7112.00	
Marcellus (shale)	7913.00	7112.00	NA	NA	GAS

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/19/2020
Job End Date:	9/8/2020
State:	West Virginia
County:	Marshall
API Number:	47-051-02294-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	CHARLES JAMISON MSH 6
Latitude:	39.79189214
Longitude:	-80.60765486
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,146
Total Base Water Volume (gal):	20,567,606
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
HCL	SWN Well Services	Solvent					
				Listed Below			
Sand	SWN Well Services	Proppant					
				Listed Below			

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Econo-CI200	SWN Well Services	Corrosion Inhibitor					
				Listed Below			
SWN FRW-11LC	SWN Well Services	Friction Reducer					
				Listed Below			
Plexaid 655WG	SWN Well Services	Scale Inhibitor					
				Listed Below			
Base Water	Operator	Base Fluid					
				Listed Below			
Tolicide PS 50A	SWN Well Services	Biocide					
				Listed Below			
Ecopol-FEAC	SWN Well Services	Iron Control					
				Listed Below			

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

			Water	7732-18-5	100.00000	89.66961	Density = 8.345
			Crystalline Silica, quartz	14808-60-7	100.00000	9.68103	
			Water	7732-18-5	85.00000	0.51294	
			Hydrochloric Acid	7647-01-0	15.00000	0.06813	
			Petroleum Distillates, Hydrotreated	64742-47-8	25.00000	0.04004	
			Tetrakis	55566-30-8	55.00000	0.01438	
			Ammonium Chloride	12125-02-9	2.00000	0.00320	
			Glycerin	56-81-5	50.00000	0.00288	

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			Oleic Acid Diethanolamide	93-83-4	1.50000	0.00240	
			Alcohols, C12-1, ethoxylated	68551-12-2	1.50000	0.00240	
			Acetic Acid	64-19-7	37.50000	0.00091	
			Diethylenetriamine penta	15827-60-8	10.00000	0.00058	
			Methanol	67-56-1	80.00000	0.00056	
			Citric Acid	77-92-9	22.50000	0.00054	
			Acrylic acid terpolymer	397256-50-7	1.00000	0.00026	
			Oxyalkylated fatty acid	68951-67-7	9.67400	0.00007	
			Fatty acids	61790-12-3	5.02700	0.00003	
			Modified thiourea polymer	68527-49-1	4.74600	0.00003	
			Potassium acetate	127-08-2	0.02200	0.00000	
			Formaldehyde	50-00-0	0.00400	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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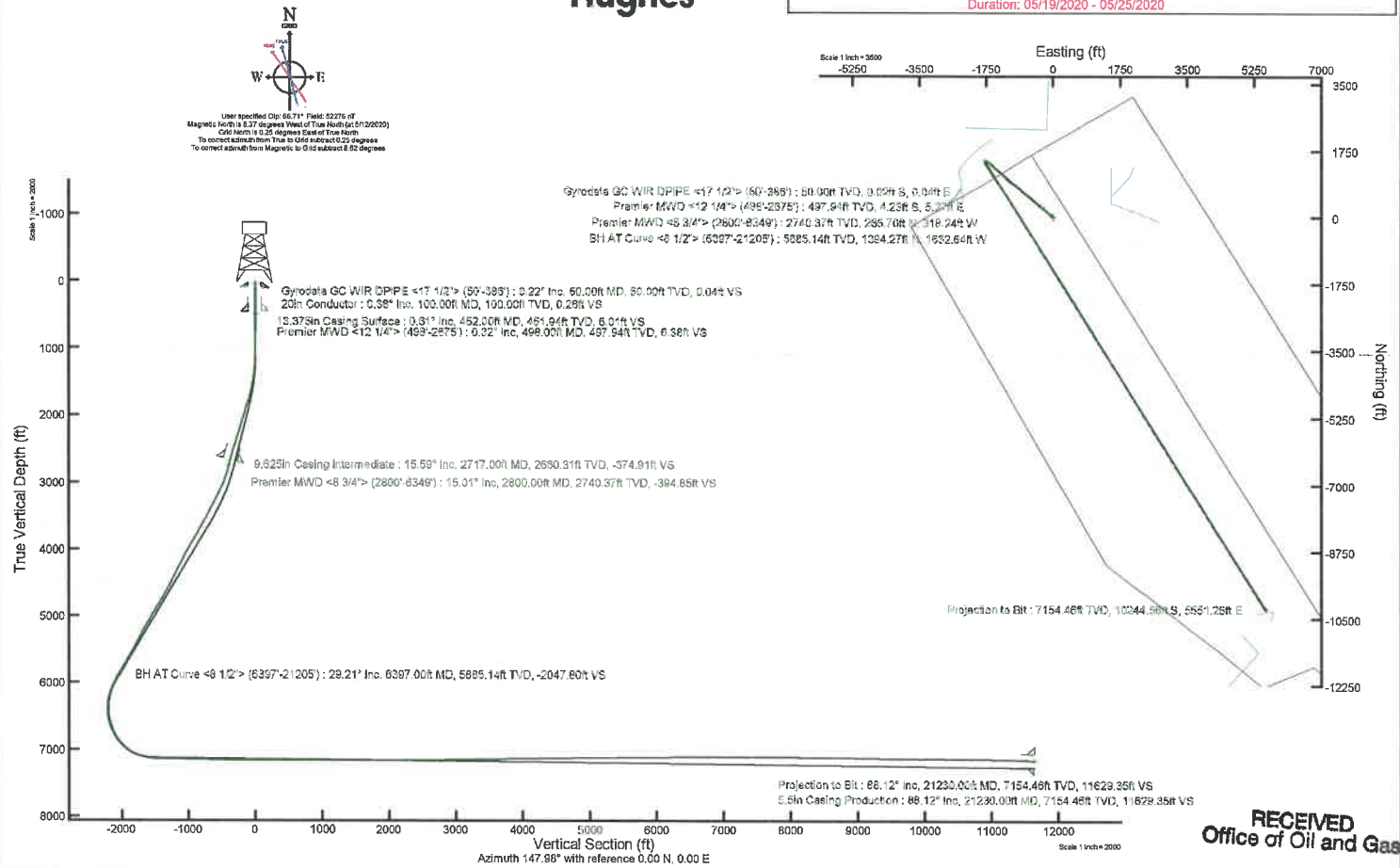
Location: Marshall County, WV Slot: Slot 6H
 Field: Marshall Well: Charles Jamison MSH 6H
 Facility: Charles Jamison MSH Pad Wellbore: Charles Jamison MSH 6H PWB



Well reference wellbore is Charles Jamison MSH 6H PWB Rev A.0	Grid System: NAD83 / UTM Zone 17 North, US feet
True vertical depths are referenced to SDC 46 (KB)	North Reference: Grid north
Reference wellbore measured depths are referenced to SDC 46 (KB)	Scale: True distance
SDC 46 (KB) to Mean Sea Level: 1351.4 feet	Coordinates are in feet referenced to Dat
Mean Sea Level to Mud line (At Slot: Slot 6H): -1335.4 feet	Depths are in feet
Other wellbore MDs are referenced to each pair's default MD datum	Created by: shenon on 2020-05-28, Database: WA_MPL_EASTERNUS_Dwh

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Charles Jamison MSH Pad	1750638.500	14461211.924	39°47'30.9700"N	80°36'27.4000"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot 6H	-16.07	-12.22	1750626.290	14451195.860
SDC 46 (KB) to Mud line (At Slot: Slot 6H)				26R
Mean Sea Level to Mud line (At Slot: Slot 6H)				-1335.4ft
SDC 46 (KB) to Mean Sea Level				1351.4ft

API: 47-051-02294-0000
 BH Job #: 110339061
 Rig: SDC 46
 Duration: 05/19/2020 - 05/25/2020



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Latitude: 39°50'00" (SHL)

SURFACE HOLE 6835'

Latitude: 39°47'30" (BHL) BOTTOM HOLE 1331'



CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
600 MARKETPLACE AVENUE, SUITE 200
BRIDGEPORT, WV 26330
304-933-3119

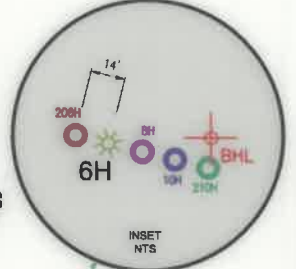
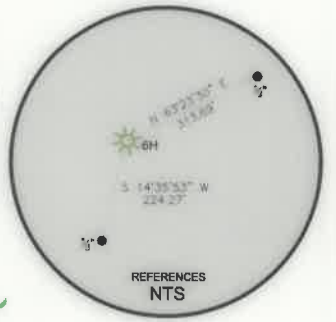
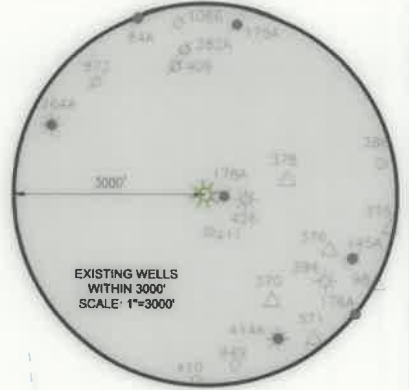
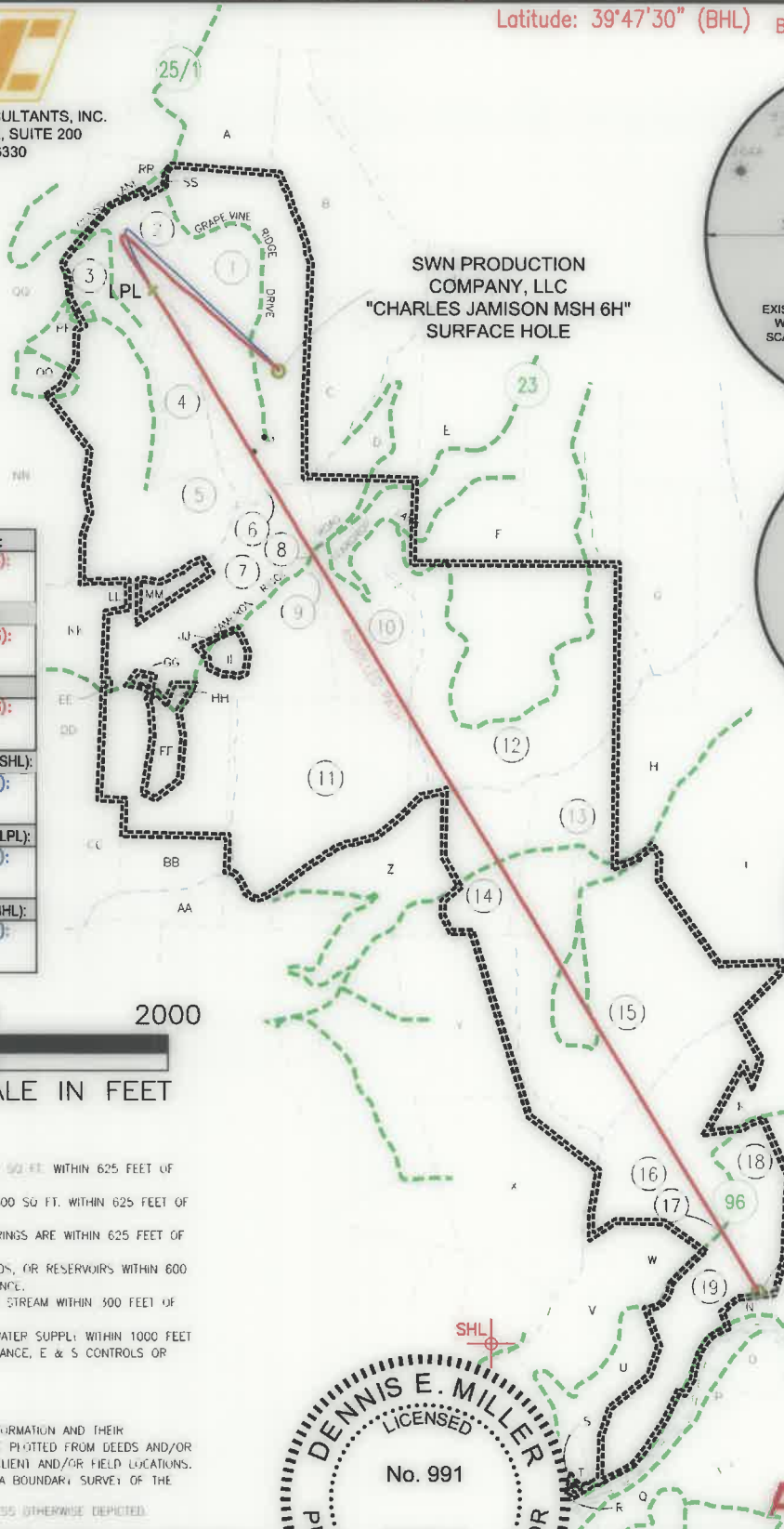
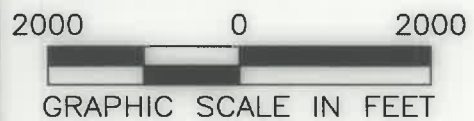


Table with 4 columns: Location Type, UTM (NAD83, Zone 17, Meters), Northing, and Easting. Rows include Surface Hole, Landing Point, Bottom Hole, and Permit locations for SHL, LPL, and BHL.



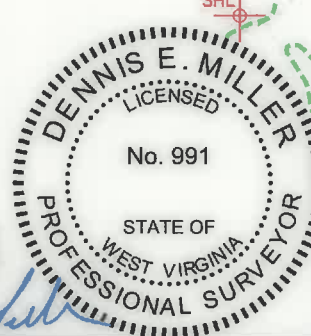
WELL RESTRICTIONS

- 1. NO OCCUPIED DWELLINGS > 2500 SQ. FT. WITHIN 625 FEET OF CENTER OF PAD
2. NO AGRICULTURE BUILDINGS > 2500 SQ. FT. WITHIN 625 FEET OF CENTER OF PAD.
3. WATER WELLS OR DEVELOPED SPRINGS ARE WITHIN 625 FEET OF PROPOSED WELL.
4. PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 600 FEET OF THE LIMITS OF DISTURBANCE.
5. NO NATURALLY PRODUCING FRESH WATER STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
6. NO GROUND INTAKE OF PUBLIC WATER SUPPLY WITHIN 1000 FEET OF WELL PAD, LIMITS OF DISTURBANCE, E & S CONTROLS OR PUBLIC WATER SUPPLY.

NOTES ON SURVEY

- 1. SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND/OR FIELD LOCATIONS.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
4. ALL INSERTS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



AS-DRILLED

COMPANY: SWN Production Company, LLC

Table with 3 columns: Agency/Source, Accuracy/Elevation, and Well Identification. Includes WVDEP, minimum degree of accuracy (1/200), and well numbers (47, 051, 02294).

Table with 2 rows: Well Type (Oil, Gas, etc.) and Well Characteristics (Watershed, District, Surface Owner, etc.).

Table with 2 rows: Well Operator (SWN Production Company, LLC) and Designated Agent (Brittany Woody).

Table with 2 rows: Legend (Proposed Surface Hole, Existing Wellhead, etc.) and Revisions/Date information.



CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
 600 MARKETPLACE AVENUE, SUITE 200
 BRIDGEPORT, WV 26330
 304-933-3119

WELL BORE TABLE FOR SURFACE OWNERS

TRACT	SURFACE OWNER	TAX PARCEL
1	CHARLES AND JEAN JAMISON	07-007-0006
2	CONSOLIDATED COAL COMPANY, A DELAWARE CORPORATION	07-007-0006.3
3	CONSOL MINING COMPANY LLC	07-007-0005.3
4	TIMOTHY R. CAIN	07-007-0005.2
5	TIMOTHY R. CAIN	07-007-0006.1
6	CHARLES AND JEAN JAMISON	07-007-0013
7	GARY RAY DOBBS, ET AL	07-010-0018
8	CO. RT. 23 ROW (CAMERON RIDGE ROAD)	
9	JEFFREY A. MURRAY	07-010-0018.2
10	CONSOLIDATED COAL COMPANY, A DELAWARE CORPORATION	07-010-0019
11	GARY RAY DOBBS, ET AL	07-010-0022
12	GARY RAY DOBBS, ET UX	07-010-0021
13	D VANE STARKEY	07-010-0025
14	HOWARD E WILLIAMS	07-010-0025.1
15	RUSSELL ALLEN DOTSON JR	07-016-0031
16	DONALD REX QUIGLEY, ET UX	07-016-0033
17	CO. RT. 96 ROW	
18	DAVID L. ELSON AND DEBBIE L. ELSON, HIS WIFE, AS JOINT TENANTS WITH THE RIGHT OF SURVIVORSHIP	07-016-0034
19	JOHN MATTHEW BUTLER	07-016-0039

ADJOINING OWNERS TABLE

TRACT	SURFACE OWNER	TAX PARCEL
A	KENNETH WAYNE STEELE TRUST	07-007-0008.1
B	KENNETH WAYNE STEELE TRUST	07-007-0011
C	GALE ZWICK (LIFE ESTATE) AND MITCHELL ZWICK (REMAINDERMAN)	07-007-0012
D	GALE ZWICK (LIFE ESTATE) AND MITCHELL ZWICK (REMAINDERMAN)	07-007-0014
E	GALE ZWICK (LIFE ESTATE) AND MITCHELL ZWICK (REMAINDERMAN)	07-006-0012.1
F	ROBIN E. QUIGLEY AND DONALD QUIGLEY, HUSBAND AND WIFE, AS JOINT TENANTS WITH THE RIGHT OF SURVIVORSHIP	07-010-0020
G	ROBIN E. QUIGLEY AND DONALD QUIGLEY, HUSBAND AND WIFE, AS JOINT TENANTS WITH THE RIGHT OF SURVIVORSHIP	07-011-0001
H	CNX LAND LLC, A DELAWARE LIMITED LIABILITY COMPANY	07-011-0003
I	SCOTT C. MARLING AND JESSICA L. PARRY, AS JOINT TENANTS WITH THE RIGHT OF SURVIVORSHIP	07-011-0004
J	DONALD REX QUIGLEY, ET UX	07-016-0036
K	DAVID L. ELSON, ET UX	07-016-0032
L	TERRY A. AND DONNA L. BONAR	07-016-0035
M	LOUIS S. MCCLELLAND EST	07-016-0037
N	JOHN E. RIGGS JR, ET UX	07-016-0038
O	JOHN E. RIGGS JR	07-016-00041
P	JUDITH A. BURGE, VIRGINIA LEE BAILEY, AND SUELLEN MARLING	07-016-0040
Q	ALAN UNDERDONK	07-016-0025.1
R	GAIL CUMPSTON	07-019-0020
S	GEORGE R. CUMPSTON AND NANCY K. CUMPSTON, HIS WIFE; AND GAIL K. PORTER, AS JOINT TENANTS WITH THE RIGHT OF SURVIVORSHIP	07-016-0024
T	BEN F. ALLMAN, ET UX	07-016-0025
U	DAVID T. BUTLER - LIFE	07-016-0026
V	JOHN M. BUTLER	07-016-0026.1
W	JEREMIAH N. AND ANDREA J. MAGERS	07-016-0033.1
X	RUSSELL ALLEN DOTSON JR, ET UX	07-016-0028
Y	ROBERT D. WILLIAMS	07-016-0030
Z	DELORSE A. HORNER - LIFE	07-016-0023
AA	JAMES M. CLARK	07-010-0009
BB	JAMES M. CLARK	07-010-0010
CC	CHARLES R. CLARK AND MARILYN V. WHIPKEY, AS JOINT TENANTS WITH RIGHT OF SURVIVORSHIP	07-010-0011
DD	CHARLES R. CLARK AND MARILYN V. WHIPKEY, AS JOINT TENANTS WITH RIGHT OF SURVIVORSHIP	07-010-0012
EE	ERIC SCOTT AND TIFFANY J. DOBBS	07-010-0018.5
FF	ERIC SCOTT DOBBS AND TIFFANY JEAN DOBBS, HUSBAND AND WIFE, AS JOINT TENANTS WITH THE RIGHT OF SURVIVORSHIP	07-010-0018.4
GG	HAZEN B. PYLES	07-010-0018.1
HH	CONSOL MINING COMPANY LLC	07-010-0018.3
II	GARY R. AND JAN C. DOBBS	07-010-0018.7
JJ	GARY R. AND JAN C. DOBBS	07-010-0018.6
KK	PAMELA J. HOWARD	07-010-0015
LL	GARY RAY DOBBS, ET AL	07-010-0016
MM	GARY RAY DOBBS, ET AL	07-010-0017
NN	WAYNE E. GRAHAM JR, ET UX	07-007-0004
OO	WAYNE E. GRAHAM JR	07-007-0005.1
PP	WAYNE GRAHAM	07-007-0005.2
QQ	WAYNE E. GRAHAM JR, ET UX	07-007-0005
RR	CONSOLIDATION COAL COMPANY, ET AL	07-007-0007
SS	CNX LAND LLC	07-007-0007.1

AS-DRILLED

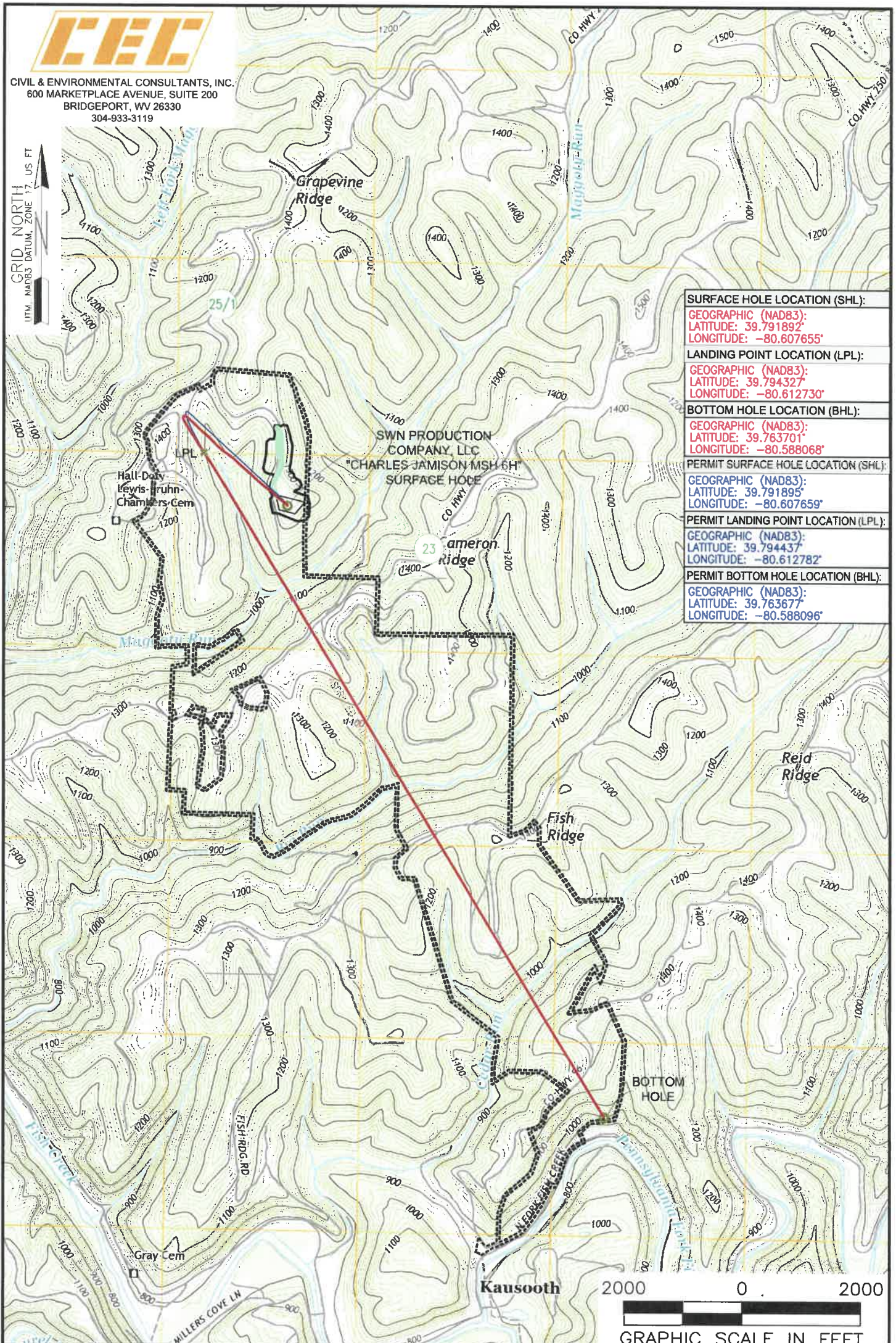
API WELL #: **47** **051** **02294**
 STATE COUNTY PERMIT

REVISIONS:	COMPANY:			
	OPERATOR'S			
	WELL #:		DATE: 11-16-2020	
	DISTRICT:		DRAWN BY: K.E.S.	
	LIBERTY DISTRICT		SCALE: N/A	
	COUNTY:		DRAWING NO: 170-426	
	MARSHALL		WELL LOCATION PLAT 2	
	STATE:			
	WV			



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GRID NORTH
 UTM NAD83 DATUM, ZONE 17, US FT



SURFACE HOLE LOCATION (SHL):
GEOGRAPHIC (NAD83): LATITUDE: 39.791892° LONGITUDE: -80.607655°
LANDING POINT LOCATION (LPL):
GEOGRAPHIC (NAD83): LATITUDE: 39.794327° LONGITUDE: -80.612730°
BOTTOM HOLE LOCATION (BHL):
GEOGRAPHIC (NAD83): LATITUDE: 39.763701° LONGITUDE: -80.588068°
PERMIT SURFACE HOLE LOCATION (SHL):
GEOGRAPHIC (NAD83): LATITUDE: 39.791895° LONGITUDE: -80.607659°
PERMIT LANDING POINT LOCATION (LPL):
GEOGRAPHIC (NAD83): LATITUDE: 39.794437° LONGITUDE: -80.612782°
PERMIT BOTTOM HOLE LOCATION (BHL):
GEOGRAPHIC (NAD83): LATITUDE: 39.763677° LONGITUDE: -80.588096°

NOTES ON SURVEY

1. SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND/OR FIELD LOCATIONS.
2. THIS PLAN DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
3. ALL INSETS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

LEGEND:

- PROPOSED SURFACE HOLE / BOTTOM HOLE
- EXISTING / PRODUCING WELLHEAD
- LPL* LANDING POINT LOCATION
- FLOOD PLAIN
- ACCESS ROAD
- PUBLIC ROAD
- ACCESS ROAD TO PREV. SITE
- LEASE BOUNDARY
- PROPOSED PATH
- ASDRILLED PATH

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	WELL (FARM) NAME: CHARLES JAMISON MSH	WELL # 6H	SERIAL # XXXX
ADDRESS: 1300 FORT PIERPONT DRIVE, STE 201, MORGANTOWN, WV 26508	COUNTY - CODE MARSHALL - 051	DISTRICT; LIBERTY DISTRICT	
SURFACE OWNER: CHARLES AND JEAN JAMISON	USGS 7 1/2 QUADRANGLE MAP NAME CAMERON, WV		