

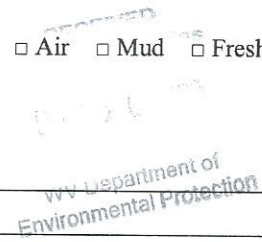
State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47-015-03509 County Clay District Henry  
Quad Elkhurst 7.5" Pad Name Brown, Goshorn, Swann Field/Pool Name \_\_\_\_\_  
Farm name Brown, Goshorn, Swann Well Number C-1H WV0487  
Operator (as registered with the OOG) Mountain V Oil and Gas Inc  
Address PO Box 904 City Buckhannon State WV Zip 26201

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4260065.07 Easting 485115.46  
Landing Point of Curve Northing 4259955.2 Easting 485244.8  
Bottom Hole Northing 4259225.5 Easting 486220.9

Elevation (ft) 1246 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)  
PHPA aka Drill A or EZ Mud



Date permit issued 1/19/2023 Date drilling commenced 3/22/2023 Date drilling ceased 5/13/2023  
Date completion activities began 5/23/2023 Date completion activities ceased 5/25/2023  
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 none reported Open mine(s) (Y/N) depths na  
Salt water depth(s) ft none reported Void(s) encountered (Y/N) depths na  
Coal depth(s) ft none reported Cavern(s) encountered (Y/N) depths na  
Is coal being mined in area (Y/N) no

Reviewed by:

**APPROVED**

03/01/2024

API 47- 015 - 03509 Farm name Brown, Goshorn, Swann Well number C-1H WV0487

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	20.0	13.375	36	X	36#	none	Yes
Surface	12.25	9.625	344	X	26#	60'	Yes
Coal							
Intermediate 1	8.75	7.0	2086	X	19#	none	Yes
Intermediate 2							
Intermediate 3							
Production	6.25	4.5	6081	X	10.5# & 11.6#	none	Yes
Tubing							
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	Ready Mix	5 yrds	na	na	na	surface	na
Surface	Class A	145 sks	15.6	1.13	112	surface	8 hrs
Coal							
Intermediate 1	Class A	350 sks	15.6	1.13	293	surface	10 hrs
Intermediate 2							
Intermediate 3							
Production	Class A	580 sks	14.1	1.23	737	surface	na
Tubing							

Drillers TD (ft) 6104 Loggers TD (ft) na  
 Deepest formation penetrated Big Injun Plug back to (ft) \_\_\_\_\_  
 Plug back procedure \_\_\_\_\_

Kick off depth (ft) 1407'

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  
 Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING \_\_\_\_\_  
9.625" casing centralizers: Ran zero centralizers on 9.625" casing  
7" casing centralizers: Ran bow-spring centralizers on jts: 1,2,3,4,5,6,8,10,12,14,16,18,44,45  
4.5" casing centralizers: Ran 43 rigid spiral centralizers, one on every third joint to 700'

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 \_\_\_\_\_

03/01/2024

API 47- 015 - 03509

Farm name Brown, Goshorn, Swann

Well number C-1H WV0487

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	5/23/2023	6034	5940	20	Big Injun
2	5/23/2023	5900	5870	30	Big Injun
3	5/23/2023	5735	5615	30	Big Injun
4	5/23/2023	5585	5465	30	Big Injun
5	5/23/2023	5435	5315	30	Big Injun
6	5/23/2023	5285	5165	30	Big Injun
7	5/23/2023	5135	5015	30	Big Injun
8	5/23/2023	4985	4865	30	Big Injun
9	5/24/2023	4835	4730	30	Big Injun
10	5/24/2023	4695	4495	30	Big Injun
11	5/24/2023	4425	4225	30	Big Injun
12	5/24/2023	4175	3975	30	Big Injun
13	5/24/2023	3925	3725	30	Big Injun
14	5/24/2023	3685	3565	30	Big Injun
15	5/24/2023	3535	3415	30	Big Injun
16	5/24/2023	3385	3290	30	Big Injun

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)
1	5/23/202	55	2703	1850	1405	25100	875	0
2	5/23/202	59	3299	1928	1131	25200	853	0
3	5/23/202	64	3471	2257	1137	25600	883	0
4	5/23/202	65	3614	2389	1119	25300	868	0
5	5/23/202	62	3744	4080	1283	25400	824	0
6	5/23/202	66	3547	2832	1231	25400	845	0
7	5/23/202	69	3812	2709	1120	25500	825	0
8	5/23/202	68	3976	1523	1020	25300	816	0
9	5/24/202	55	3016	2340	1071	25000	866	0
10	5/24/202	54	3329	2881	1032	25200	825	0
11	5/24/202	63	3681	2316	1050	25300	745	0
12	5/24/202	65	3103	1625	1145	25300	755	0
13	5/24/202	70	3087	1563	1134	25200	742	0
14	5/24/202	72	3240	3270	1145	25400	752	0
15	5/24/202	58	3343	3116	999	25400	728	0
16	5/24/202	60	3235	4892	880	25400	741	0

Please insert additional pages as applicable.

03/01/2024

API 47- 015 - 03509 Farm name Brown, Goshorn, Swann Well number C-1H WV0487

PRODUCING FORMATION(S)	DEPTHS		
BIG INJUN	2112-2099	TVD	2366-6034 MD

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump  
 SHUT-IN PRESSURE Surface 205 psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST 48 hrs

OPEN FLOW Gas test \_\_\_\_\_ mcfpd Oil test \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ 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)
sand, shale	0	302	0	302	no water reported
sand, shale, RR	302	1362	302	1362	intermittent gas and oil shows from 2326 to TD
Salt Sand	1362	1930	1362	1962	
Little Lime	1930	1952	1962	2014	
Pencil Cave	1952	1986	2014	2036	
Big Lime	1986	2092	2036	2276	
Big Injun	2092		2276	6104	

Please insert additional pages as applicable.

Drilling Contractor Highlands Drilling  
 Address PO box 2159 City Clintwood State VA Zip 24228

Logging Company Schlumberger  
 Address 95 Rutherford Run City Bradford State PA Zip 16701

Cementing Company Lightning Energy Services  
 Address 104 Heliport Road City Bridgeport State WV Zip 26330

Stimulating Company Reliance Well Services  
 Address 510 Cranberry St., Suite 230 City Erie State PA Zip 16507

Please insert additional pages as applicable.

Completed by Mike Shaver Telephone 304 842-6320  
 Signature \_\_\_\_\_ Title President Date \_\_\_\_\_

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

03/01/2024

**PERFORATION RECORD (cont.)**

Stage#	Perforation Date	Bottom Perf	Top Perf	# of Perfs	Formation
17	5/25/2023	3240	3115	30	Big Injun
18	5/25/2023	3085	2965	30	Big Injun
19	5/25/2023	2935	2815	30	Big Injun
20	5/25/2023	2785	2665	30	Big Injun
21	5/25/2023	2635	2515	30	Big Injun
22	5/25/2023	2485	2366	30	Big Injun
23					
24					
25					
26					
27					

**STIMULATION INFORMATION PER STAGE (cont.)**

Stage#	Stimulation Date	Ave. Pump Rate	Ave. Treatment PSI	Max. Breakdown	ISIP	Proppant	Water	Other
17	5/25/2023	55	3515	4786	870	25100	714	0
18	5/25/2023	64	3425	4415	710	25100	700	0
19	5/25/2023	56	3326	4800	812	25200	751	0
20	5/25/2023	68	2652	3371	720	25600	742	0
21	5/25/2023	62	3445	3734	882	25100	769	0
22	5/25/2023	61	2895	3446	520	25000	661	0
23								
24								
25								
26								
27								

Gas  
 DEC 20 2023  
 WV Department of  
 Environmental Protection