

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

API 47-087-04754 County ROANE District SMITHFIELD
Quad LOONEYVILLE 7.5' Pad Name FERRELL, C.B. Field/Pool Name CLOVER
Farm name MAY, TIMOTHY D. Well Number 110
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,285,443 M Easting 475,638 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,285,234 M Easting 475,776 M

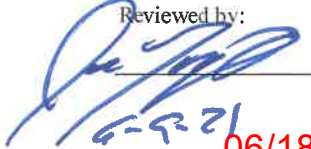
Elevation (ft) 1,110' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other Injection
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)
N/A

Date permit issued 3/15/21 Date drilling commenced NA Date drilling ceased NA
Date completion activities began 4/29/21 Date completion activities ceased 4/29/21
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 None Open mine(s) (Y/N) depths None
Salt water depth(s) ft 1700' Void(s) encountered (Y/N) depths None
Coal depth(s) ft None Cavern(s) encountered (Y/N) depths None
Is coal being mined in area (Y/N) N

Reviewed by: 
6-9-21
06/18/2021

API 47-087 - 04754 Farm name MAY, TIMOTHY D. Well number 110

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	12 1/4"	11 5/8"	30'	Used	LS/NA		Existing
Surface	8 3/4"	7"	506'	New	LS/17	64'	Existing
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2631.35'	New	J-55/10.5		Existing
Tubing		2 3/8"	2306.9'	New	J-55/4.7		
Packer type and depth set							

Comment Details Circulated Est. 25 sks to surface on 7" surface cement job. Circulated Est. 20 sks to surface on 4 1/2" cement job.

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							
Surface	Reg Neat	130	15.6	1.18	153	Surface	Existing
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	120/125	13.2/14.2	1.64/1.27	197/186	50'	Existing
Tubing							

Drillers TD (ft) 2660' Loggers TD (ft) 2653'
 Deepest formation penetrated Big Injun Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 600'

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 Existing

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

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PRODUCING FORMATION(S)	DEPTHS	
Big Injun	2122'- 2150'	TVD 2382'- 2422' MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump
 SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs
 OPEN FLOW Gas _____ mcfpd Oil _____ 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 ₂ S, ETC)
Sand/Shale	0	1402	0	1432	
Sand	1402	1618	1432	1692	
Shale	1618	1656	1692	1738	
Sand	1656	1824	1738	1738	
Shale	1824	1842	1954	1954	
Sand	1842	1976	1977	2168	
Little Lime	1976	2036	2168	2236	
Pencil Cave	2032	2036	2236	2240	
Big Lime	2036	2104	2240	2356	
Keener	2104	2122	2356	2382	
Big Injun	2122	2150	2382	2422	Drilled directional S 39° E a distance of 797'
Shale	2150	2333	2422	2660	
TD	2333		2660		

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
 Address 11565 State Route 676 City Vincent State OH Zip 45784
 Logging Company Weatherford International
 Address 777 North River Avenue City Weston State WV Zip 26452
 Cementing Company Universal Services
 Address Hall Rd City Buckhannon State WV Zip 26201
 Stimulating Company Producers Service Corp.
 Address 109 South Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
 Signature *Roger Heldman* Title Operations Manager Date 6/2/21

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

From: Dustin A. Hendershot dhendershot@hgenergyllc.com
Subject: [External] AB Smith 122 Frac 4/29/21
Date: May 5, 2021 at 10:41:57 AM
To: Taylor, Joseph D Joseph.D.Taylor@wv.gov

CAUTION: External email. Do not click links or open attachments unless you verify sender.

AB Smith 122 Frac 4/29/21

Clover Frac report

BDP - 1002 psig

Avg rate - 4.5 Bpm

Min TP - 1290 psig

Max TP - 1488 psig

Avg TP - 1419 psig

250 gals 15% HCl acid

Fluid bbls- 102 bbls cross link gel

20/40 sand- 5,000#

ISIP - 884 psig

5 min SIP - 640 psig

10 min SIP - 573 Psig

15 min SIP - 530 Psig

Frac report format

Treated Big Injun Perfs w/ 250 gals 15% HCL, 102 bbls cross linked gel, & 5,000# 20/40 sand- BDP- 4.5 psig, Max TP- 1488 psig, Min TP- 1290 psig, Avg TP- 1419 psig, Avg TR- 10 BPM- ISIP- Psig , 5 min SIP- 640 psig, 10 min SIP- 573 psig, 15 min SIP- 530 psig

Dustin A. Hendershot
Drilling Engineer
HG Energy
Cell 1 - [304 481 7342](tel:3044817342)

06/18/2021