

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

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Office of Oil and Gas

OCT 12 2022

WV Department of  
Environmental Protection

API 47 - 087 - 04803 County ROANE District SMITHFIELD  
Quad LOONEYVILLE 7.5' Pad Name MCGRAW, CHARLES Field/Pool Name CLOVER  
Farm name ED ASBURY Well Number 130  
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 4,285,177 M Easting 475,460 M  
Landing Point of Curve Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Bottom Hole Northing 4,285,123 M Easting 475,464 M

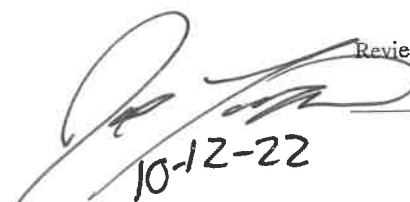
Elevation (ft) 1,117' GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  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)  
N/A

Date permit issued 5/12/22 Date drilling commenced 7/14/22 Date drilling ceased 7/21/22  
Date completion activities began 8/2/22 Date completion activities ceased 8/4/22  
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 N/A Open mine(s) (Y/N) depths None  
Salt water depth(s) ft 1700' Void(s) encountered (Y/N) depths None  
Coal depth(s) ft N/A Cavern(s) encountered (Y/N) depths None  
Is coal being mined in area (Y/N) N

Reviewed by:  
  
10-12-22

10/14/2022

API 47-087 - 04803 Farm name ED ASBURY Well number 130

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	15"	13 3/8"	11'	New	LS 54#		Sand In
Surface	8 7/8"	7"	512.1'	New	LS 17#		N
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2291.65'	New	J-55 10.5#		Y
Tubing							
Packer type and depth set							

Comment Details Did not circulate cement to surface on 7" cement job. Notified Inspector, grouted to surface w/ 10 sks and WOC 8HRS. Circulated Est. 50 sks to surface on 4 1/2" job

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							
Surface	Reg Neat	140	15.6	1.18	165	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	125/125	13.2/14.2	1.64/1.27	205/159	78'	8
Tubing							

Drillers TD (ft) 2327' Loggers TD (ft) 2283'  
 Deepest formation penetrated Big Injun Plug back to (ft) N/A  
 Plug back procedure N/A

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Kick off depth (ft) 600'

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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 \_\_\_\_\_  
6 Centralizers every 88 from bottom on 4 1/2", Centralizer placed mid string and 42' from bottom on 7"

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'- 2173' TVD    2132'- 2184' MD  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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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                      Oil                      NGL                      Water                      GAS MEASURED BY  
                          \_\_\_\_\_ mcfpd    \_\_\_\_\_ bpd    \_\_\_\_\_ bpd    \_\_\_\_\_ bpd     Estimated     Orifice     Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
Sand/Shale	0	1977	0	1987	
Little Lime	1977	1989	1987	1999	
Pencil Cave	1989	1999	1999	2010	
Big Lime	1999	2122	2010	2132	
Big Injun	2122	2173	2132	2184	Drilled directional S 4.15° E a distance of 179.3'
Shale	2173	2316	2184	2327	
TD	2316		2327		

Please insert additional pages as applicable.

Drilling Contractor Noah Horn Well Drilling  
 Address 1070 Sandy Valley Lane City Vansant State VA Zip 24656

Logging Company Appalachian Well Surveys  
 Address 10291 Ohio Avenue City Cambridge State OH Zip 43725

Cementing Company Lightning Energy Services  
 Address PO Box 580 City Bridgeport State WV Zip 26330

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

Please insert additional pages as applicable.

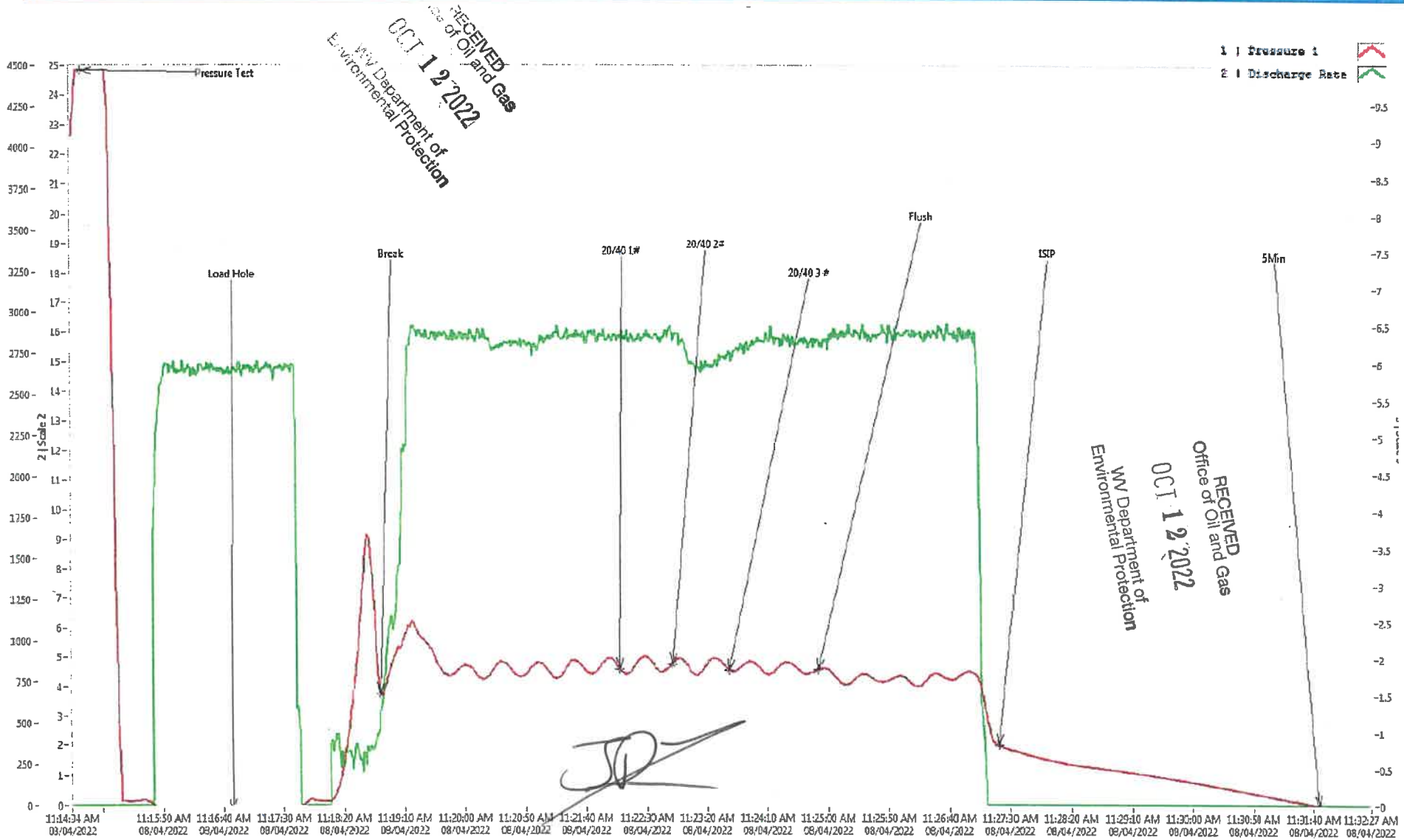
Completed by Roger Heldman Telephone 304-420-1107  
 Signature  Title Operations Manager Date 10/3/22

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



10/14/2022

HG ENERGY, LLC - C.H. MCGRAW #130 - STAGE 1 COMMENTS





**JOB COMMENTS AND DETAILS**

<b>Job Name</b>	C.H. McGraw #130
<b>Location</b>	Roane County, WV
<b>Company</b>	HG Energy, LLC
<b>Comments</b>	Stage 1 of 1. Treated per design.

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**GRAPH NOTES AND RANGES**

Timestamp	Annotation	Pressure 1	Discharge Rate	Stage Total (bbl)	Grand Total (bbl)	Grand Total (gal)
8/4/2022 11:14:43 AM	Pressure Test	4474.75	0.00	0.00	0.00	0.00
8/4/2022 11:16:47 AM	Load Hole	-34.02	14.85	15.44	15.44	638.15
8/4/2022 11:18:50 AM	Break	672.56	2.34	1.22	30.33	1272.29
8/4/2022 11:22:08 AM	20/40 1#	827.02	15.73	49.93	79.05	3308.92
8/4/2022 11:22:52 AM	20/40 2#	857.38	16.12	11.37	90.67	3797.02
8/4/2022 11:23:38 AM	20/40 3 #	820.82	15.10	11.38	102.32	4287.03
8/4/2022 11:24:52 AM	Flush	822.99	15.78	19.02	121.60	5095.94
8/4/2022 11:27:21 AM	ISIP	365.66	0.00	35.25	157.63	6620.40
8/4/2022 11:31:44 AM	5Min	-3.04	0.00	35.25	157.63	6620.40

**Quality Control Job Sheet**

Customer	HG Energy, LLC	
Date	8/4/2022	
Well	C.H. Mcgraw #130	

**PHYSICAL INVENTORY**

Chemical	Starting Inventory	Final Inventory	Total Pumped
Pro Gel 4.0L	225.00	200.00	25.00
GB-LEB	2.75	2.50	0.25
BXL-10C	10.00	5.00	5.00
BXL-A	10.00	5.00	5.00
AP-1 Breaker	25.00	20.00	5.00
Pro CLA Firm LP	10.00	5.00	5.00
Pro NE-1	10.00	5.00	5.00

Acid	Acid Volume Out	Gals 4 N 1 Added	Acid Volume In	Total
Acid 15%	500	1.25	250	251.25



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