

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

API 47 - 087 - 04780 County ROANE District SMITHFIELD
Quad LOONEYVILLE 7.5' Pad Name SMITH, JONATHAN Field/Pool Name CLOVER
Farm name WYROSTOK, CHARLES A. JR. Well Number 124
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 4,284,253 M Easting 475,489 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,284,323 M Easting 475,780 M

Elevation (ft) 1,178' 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

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Date permit issued 9/16/20 Date drilling commenced N/A Date drilling ceased N/A
Date completion activities began 10/1/20 Date completion activities ceased 10/1/20
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 1840' 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:

11-18-20

API 47- 087 - 04780 Farm name WYROSTOK, CHARLES A. JR. Well number 124

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		Existing
Surface	8 3/4"	7"	549'	New	LS	64'	Existing
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2767.55'	New	J-55		Existing
Tubing		2 3/8"	2513'	New	J-55		
Packer type and depth set							

Comment Details Circulated Est. 50 sks to surface on 7" surface cement job. Circulated Est. 25 sks to surface on 4 1/2" cement job. *Existing Cement/casing program*

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	140	15.6	1.18	165	Surface	Existing
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	115/125	13.2/14.2	1.64/1.27	189/186	284'	Existing
Tubing							

Drillers TD (ft) 2813' Loggers TD (ft) 2660'

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 _____

20 Centralizers every 88 from bottom on 4 1/2", Centralizer placed mid string on 7" *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
<u>Big Injun</u>	<u>2163'- 2190'</u> TVD <u>2580'- 2636'</u> 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	1570	0	1622	
Sand	1570	1586	1622	1642	
Shale	1586	1673	1642	1748	
Sand	1673	1897	1748	2072	
Shale	1897	1907	2072	2090	
Sand	1907	2000	2090	2260	
Little Lime	2000	2018	2260	2295	
Pencil Cave	2018	2026	2295	2310	
Big Lime	2026	2139	2310	2530	
Keener	2139	2163	2530	2580	
Big Injun	2163	2190	2580	2636	Drilled directional N 73.7° E a distance of 1030' Office of Oil and Gas
Shale	2190	2273	2636	2813	
TD	2273		2813		

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 11000 Performance Pl City Youngstown State OH Zip 44502

Cementing Company Universal Services
Address 14 Sewer Plant 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  Title Operations Manager Date 11/2/20

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





Producers Service Corporation
109 South Graham Street
Zanesville, OH 43701
(740) 454-6253
www.producerservicecorp.com

Acid

HG Energy

Company Rep: Dustin
Treater: Daniel L Graham
10/1/2020
Well: J. Smith
Roane County, WV

Casing

OD: 4.5"
ID: N/A
Weight: 10.5 lb.
TD: 2813 ft.

OD: N/A
Weight: N/A
From: N/A
To: N/A

Tubing

Size: N/A
Depth: N/A

Packers

Upper Make: N/A
Upper Depth: 2513 ft.
Lower Make: N/A
Lower Depth: N/A

Pressures

PSI Test: N/A
Breakdown: N/A
Max: 1216 psi
Average: 1032 psi
Displacement: 1108 psi

Volumes:

Pad N/A
Treatment: 60 BBL
#VALUE! 2500 Gal
Total: 71 BBL
Flush: 11 BBL

Open Hole

Size: N/A
From: N/A
To: N/A

Perforations

of Shots: N/A
Top Perf: 2610 ft.
Bottom Perf: 2630 ft.

Rates

Average: 1.5 bbl/min
Max: 2 bbl/min

Notes:

Invoice #: 23833

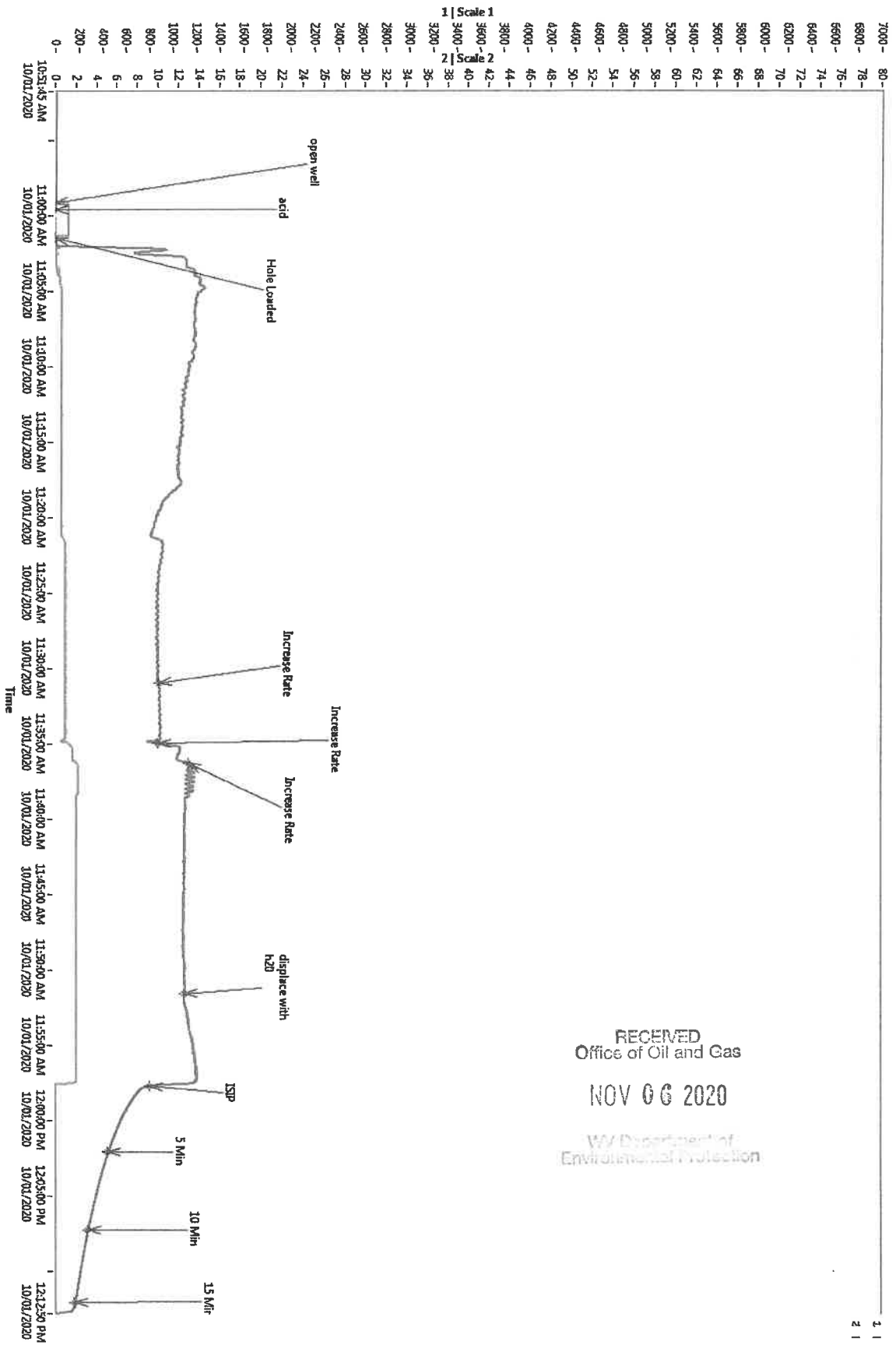
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1 | Pressure 1
2 | Discharge Valve

[Handwritten signature]



Timestamp	Annotation	Pressure 1	Discharge Rate	Stage Total (gal)	Grand Total (gal)	Stage Total (bbl)	Grand Total (bbl)
10/1/2020 10:59:09 AM	open well	-10.15	1.03	3.81	3.81	0.09	0.09
10/1/2020 10:59:35 AM	acid	-11.88	1.23	24.78	24.78	0.59	0.59
10/1/2020 11:01:27 AM	Hole Loaded	-3.59	0.00	115.21	115.21	2.74	2.74
10/1/2020 11:30:56 AM	Increase Rate	887.11	0.96	931.94	931.94	22.19	22.19
10/1/2020 11:34:58 AM	Increase Rate	879.48	1.19	1094.98	1094.98	26.07	26.07
10/1/2020 11:36:16 AM	Increase Rate	1136.35	2.03	1184.24	1184.24	28.20	28.20
10/1/2020 11:51:34 AM	displace with h2o	1110.20	2.03	2509.98	2509.98	59.76	59.76
10/1/2020 11:57:42 AM	ISIP	810.20	0.00	494.30	3019.93	11.77	71.90
10/1/2020 12:02:06 PM	5 Min	452.83	0.00	494.30	3019.93	11.77	71.90
10/1/2020 12:07:15 PM	10 Min	280.23	0.00	494.30	3019.93	11.77	71.90
10/1/2020 12:12:04 PM	15 Min	171.79	0.00	494.30	3019.93	11.77	71.90

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