

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

API 47 - 043 - 03618 County LINCOLN District DUVAL
Quad GRIFFITHSVILLE 7.5' Pad Name NATHANIEL MASON Field/Pool Name GRIFFITHSVILLE
Farm name JOSHUA BRUMFIELD, JUSTIN WHITE Well Number 141
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 4,232,591 M Easting 415,285 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,232,797 M Easting 415,305 M

Elevation (ft) 915' 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 7/18/21 Date drilling commenced 12/9/21 Date drilling ceased 12/15/21
Date completion activities began 1/25/22 Date completion activities ceased 1/31/22
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

RECEIVED
Office of Oil and Gas
MAR 03 2022

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 N/A Void(s) encountered (Y/N) depths None
Coal depth(s) ft 402' Cavern(s) encountered (Y/N) depths None
Is coal being mined in area (Y/N) N

WV Department of
Environmental Protection

Reviewed by:

TJ

03/04/2022

API 47-043 - 03618

Farm name JOSHUA BRUMFIELD, JUSTIN WHITE Well number 141

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		Sand In
Surface	10 7/8"	8 5/8"	488.15'	New	LS		Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 3/4"	4 1/2"	2679.18'	New	LS		N
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 70 sks to surface on 8 5/8" job. Did not circulate 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	215	15.6	1.18	254	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	480'	8
Tubing							

Drillers TD (ft) 2723' Loggers TD (ft) 2723'
 Deepest formation penetrated Berea 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 _____

10 Centralizers every 88 from bottom on 4 1/2", Centralizer placed mid string and 42' from bottom on 8 5/8"

RECEIVED
Office of Oil and Gas

MAR 03 2022

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WV Department of
Environmental Protection

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

03/04/2022

API 47- 043 - 03618

Farm name JOSHUA BRUMFIELD, JUSTIN WHITE Well number 141

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Berea</u>	<u>2400'- 2421'</u> TVD	<u>2538'- 2562'</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	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	
Sand/Shale	0	402	0	402	
Pittsburgh Coal	402	408	402	408	
Sand/Shale	408	1675	408	1738	
Big Lime	1675	1885	1738	1970	
Big Injun	1885	1983	1970	2080	
Shale	1983	2380	2080	2518	
Coffee Shale	2380	2400	2518	2538	
Berea	2400	2421	2538	2562	Drilled directional N 5.6° E a distance of 678'
Shale	2421	2570	2562	2723	
TD	2570		2723		

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

RECEIVED
Office of Oil and Gas

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

MAR 09 2022

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

WV Department of
Environmental Protection

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
Signature  Title Operations Manager Date 2/24/22

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

03/04/2022



Reliance

WELL SERVICES LLC

510 Cranberry Street
 Suite 230
 Erie, PA 16507
 Phone 814.454.1644
 Fax 814.454.1164
 24 Hour 412.906.0992

NO MASON 141

Invoice

P.O.#	Inv. Date	Invoice #
12050	1/31/2022	12197

Job Date	DUE DATE
1/31/2022	3/2/2022

HG Energy, LLC
 5260 DuPont Rd
 Parkersburg, WV 26101

API#	Lease	Well#	State	County	Stages	Terms & Type
	Nathaniel	141	WV	Lincoln	1	Oil/Gas

Description	Quantity	Unit Price	Amount
Pump Truck Charge (#136)	1		
Blender Truck Charge (#210)	1		
Control Van Charge (#710)	1		
Iron/Connections Truck Charge (#507)	1		
Acid HCL 15%	250		
4 N 1 - Inhibitor & Iron Control (in acid)	1		
Sand: Bulk 20/40 API/100 LB (#628)	50		
AP-1 - Oxidizing Breaker	10		
Pro Gel 4.0L - Liquid Guar	36		
BXL 10C - Crosslinker	10		
BXL-A - Breaker Activator	10		
Pro CLA Firm LP - Clay Control	10		
Pro Flo II - Surfactant	10		
BioClear 1000 - Dry Biocide	1		
DISCOUNT FOR PAYMENT WITHIN TERMS	1		
NON DISCOUNTED ITEMS			
Mileage (5 Trucks @ 200 miles/way)	2,000		
Fuel Surcharge (Per Stage Under 1 Hr)	1		

RECEIVED
 Office of Oil and Gas
 MAR 03 2022
 WV Department of
 Environmental Protection

Thank you for your business. **Total** [REDACTED]

Terms are Net 30, based on the job completion date. Balances not paid after 30 days are subject to a monthly 1.5% service charge in addition to the Non Discounted total amount due. **Balance Due** [REDACTED]

03/04/2022