

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

RECEIVED  
Office of Oil and Gas

JAN 21 2021

API 47-043-03601 County LINCOLN District DUVAL WV Department of Environmental Protection  
Quad GRIFFITHSVILLE 7.5' Pad Name MASON & TACKETT Field/Pool Name GRIFFITHSVILLE  
Farm name RUSSELL & KATHRYN WRIGHT Well Number 519  
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 4,233,095 M Easting 415,640 M  
Landing Point of Curve Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Bottom Hole Northing 4,232,910 M Easting 415,726 M

Elevation (ft) 1,006' 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 4/24/20 Date drilling commenced 12/3/21 Date drilling ceased 12/9/21  
Date completion activities began 12/21/21 Date completion activities ceased 1/12/22  
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 N/A Void(s) encountered (Y/N) depths None  
Coal depth(s) ft 315, 502' Cavern(s) encountered (Y/N) depths None  
Is coal being mined in area (Y/N) N

Reviewed  
*Jackie Thornton*  
1/25/2022

Reviewed by: 

01/28/2022

API 47-043 - 03601 Farm name RUSSELL & KATHRYN WRIGHT Well number 519

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"	13'	New	LS		Sand In
Surface	8 3/4"	7"	585.6'	New	LS		Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2769.5'	New	LS		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 55 sks to surface on 7" job. Circulated Est. 35 sks to surface on 4 1/2" cement 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	170	15.6	1.18	201	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	325'	8
Tubing							

Drillers TD (ft) 2811' Loggers TD (ft) 2800'  
 Deepest formation penetrated Berea Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 650'

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 7"

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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 \_\_\_\_\_

01/28/2022



API 47- 043 - 03601 Farm name RUSSELL & KATHRYN WRIGHT Well number 519

PRODUCING FORMATION(S)      DEPTHS  
Berea      2483'- 2501' TVD      2613'- 2633' MD

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Environmental Protection

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 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	502	0	502	
Pittsburgh Coal	502	508	502	508	
Sand/Shale	508	1770	508	1838	
Big Lime	1770	1966	1838	2058	
Big Injun	1966	2066	2058	2170	
Shale	2066	2463	2170	2593	
Coffee Shale	2463	2483	2593	2613	
Berea	2483	2501	2613	2633	Drilled directional S 25° E a distance of 667'
Shale	2501	2670	2633	2811	
TD	2670		2811		

Please insert additional pages as applicable.

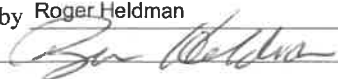
Drilling Contractor Noah Horn Well Drilling  
 Address 1070 Sandy Valley Lane      City Vansant      State VA      Zip 24656

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 1/11/22

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

01/28/2022



# 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

# Invoice

<b>P.O.#</b>	<b>Inv. Date</b>	<b>Invoice #</b>
12050	1/5/2022	12188

<b>Job Date</b>	<b>DUE DATE</b>
1/5/2022	2/4/2022

HG Energy, LLC  
 5260 DuPont Rd  
 Parkersburg, WV 26101

API#	Lease	Well#	State	County	Stages	Terms & Type
	Mason Tackett	519	WV	Lincoln	1	Oil/Gas

Description	Quantity	Unit Price	Amount
Pump Truck Charge (#134)	1		
Blender Truck Charge (#209)	1		
Control Van Charge (#710)	1		
Acid Transport/Iron Truck Charge (#507)	1		
Acid HCL 15%	250		
AI-600 - Acid Inhibitor (in acid)	1		
ICA 400 - Iron-Sequestering Agent (in acid)	1		
Sand: Bulk 20/40 API/100 LB (#626)	50		
AP-1 - Oxidizing Breaker	10		
Pro Gel 4.0L - Liquid Guar	30		
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		
<b>NON DISCOUNTED ITEMS</b>			
Mileage (5 Trucks @ 200 miles/way - Waived after first well of same trip)	0		0.00
Fuel Surcharge (Per Stage Under 1 Hr)	1		

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]

01/28/2022



# Reliance

WELL SERVICES LLC

170 Oakberry Street  
 Suite 200  
 One, WV 26007  
 Phone 844-454-6444  
 Fax 304-824-1700  
 Email info@reliance-wv.com

**Operator:** HG Energy, LLC  
**Lease:** Mason Tackett  
**Well #:** 519  
**Location:** Lincoln County, WV

**Supervisor:** Tony Lewellen  
**Pump Time:** 11:10 AM  
**Flush Time:** 11:38 AM  
**Date:** 1/5/2022

Stage	Depth	Breakdown (psi)	Clean Vol H2O (bbls)	Slurry Discharge (bbls)	Acid 15% HCL (gals)	(in acid)			Ave. Treating (psi)	5 min. SIP (psi)	10 min SIP (psi)	15 min SIP (psi)	AP-1 Breaker (lbs)	Pro Gel 4.0L Guar Gel (lbs)	BXL-10C X-Linker (gals)	BXL-A Breaker Activator (gals)	Pro CLA Firm LP Clay Control (gals)	Pro Flo II Surfactant (gals)	BioClear 1000 Biocide (lbs)
						AI-600 Acid Inhibitor (gals)	ICA-400 Iron Control (gals)	API 20/40 Sand (sacks)											
1	2613	3,182	163	169	<u>250.00</u>	<u>1.00</u>	<u>1.00</u>	<u>50.00</u>	1,336	898	835	797	<u>10.00</u>	<u>30.00</u>	<u>10.00</u>	<u>10.00</u>	<u>10.00</u>	<u>10.00</u>	<u>1.00</u>
<b>Total</b>					<b>250.00</b>	<b>1.00</b>	<b>1.00</b>	<b>50.00</b>					<b>10.00</b>	<b>30.00</b>	<b>10.00</b>	<b>10.00</b>	<b>10.00</b>	<b>10.00</b>	<b>1.00</b>

**Comments:**

Stage 1 1/5/2022: Treated per design.

*Quality Control Job Sheet*

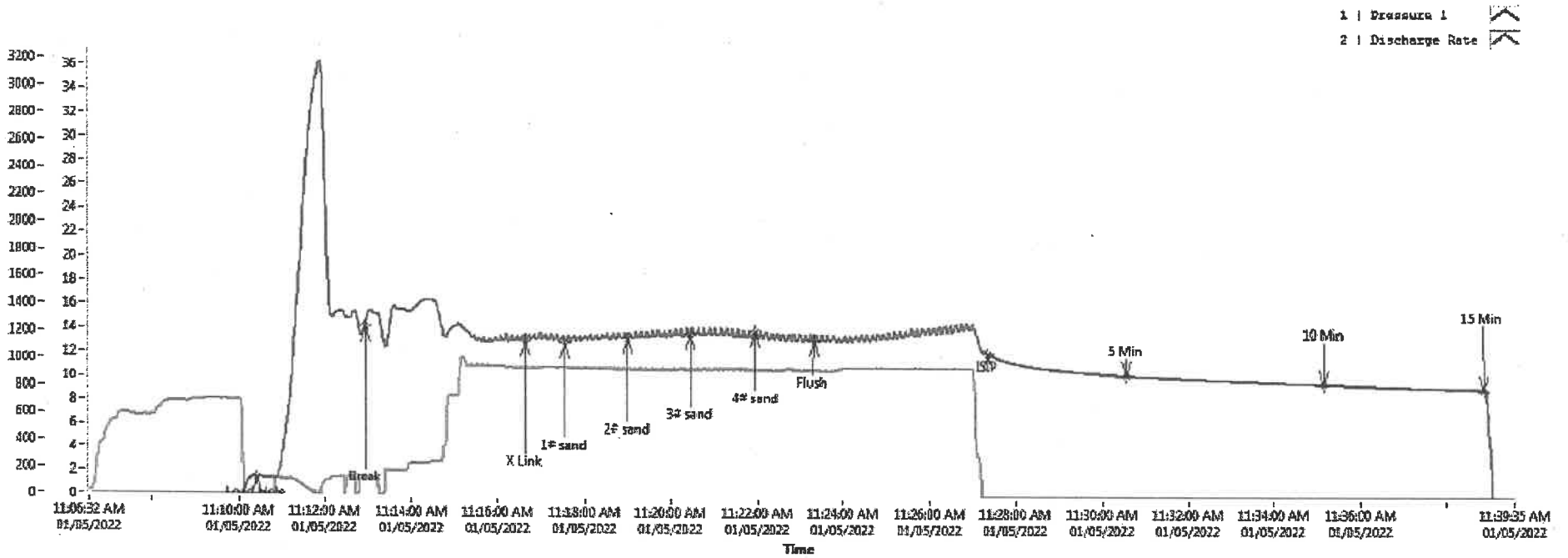
Customer	HG Energy, LLC	
Date	1/5/2022	
Well	Mason Tacket #519	

*PHYSICAL INVENTORY*

<b>Chemical</b>	<b>Starting Inventory</b>	<b>Final Inventory</b>	<b>Total Pumped</b>
AP-1 Breaker	10.00	0.00	10.00
Pro Gel 4.0L	195.00	165.00	30.00
BXL-10C	20.00	10.00	10.00
BXL-A	10.00	0.00	10.00
Pro CLA Firm LP	10.00	0.00	10.00
Pro Flow II	10.00	0.00	10.00
BioClear1000	1.00	0.00	1.00

<b>Acid</b>	<b>Acid Volume Out</b>	<b>Gals AI 600 Added</b>	<b>Gals ICA 400 Added</b>	<b>Acid Volume In</b>	<b>Total</b>
Acid 15%	250	1	1	0	250

HG ENERGY, LLC – MASON TACKETT #519 – STAGE 1 COMMENTS





**JOB COMMENTS AND DETAILS**

<b>Job Name</b>	Mason Tackett #519
<b>Location</b>	Lincoln County, WV
<b>Company</b>	HG Energy, LLC
<b>Comments</b>	Stage 1 of 1. Treated Per Design.

**GRAPH NOTES AND RANGES**

Timestamp	Annotation	Pressure 1	Discharge Rate	Stage Total (gal)	Grand Total (gal)	Stage Total (bbl)	Grand Total (bbl)
1/5/2022 11:10:24 AM	Load Hole	130.26	0.00	1056.59	1056.59	25.16	25.16
1/5/2022 11:12:55 AM	Break	1244.78	1.40	1145.18	1145.18	27.27	27.27
1/5/2022 11:16:38 AM	X Link	1149.08	10.76	2112.52	2112.52	50.30	50.30
1/5/2022 11:17:32 AM	1# sand	1133.17	10.79	2527.57	2527.57	60.18	60.18
1/5/2022 11:19:00 AM	2# sand	1162.19	10.67	653.69	3181.26	15.56	75.74
1/5/2022 11:20:27 AM	3# sand	1194.35	10.65	635.06	3831.27	15.12	91.22
1/5/2022 11:21:58 AM	4# sand	1219.03	10.65	673.30	4512.03	16.03	107.43
1/5/2022 11:23:19 AM	Flush	1150.87	10.65	595.71	5115.20	14.18	121.79
1/5/2022 11:27:22 AM	ISIP	1056.42	0.00	1706.97	6844.56	40.64	162.97
1/5/2022 11:30:35 AM	5 Min	897.82	0.00	1706.97	6844.56	40.64	162.97
1/5/2022 11:35:10 AM	10 Min	835.79	0.00	1706.97	6844.56	40.64	162.97
1/5/2022 11:38:52 AM	15 Min	797.36	0.00	1706.97	6844.56	40.64	162.97