

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

API 47-021-05778 County Gilmer District Glenville  
Quad Burnsville Pad Name Marshall # 3-A Field/Pool Name \_\_\_\_\_  
Farm name I. L. Morris Well Number Marshall 3-A  
Operator (as registered with the OOG) Horizon Energy Corporation  
Address Sand Fork Road Box 111 City Sand Fork State WV Zip 26430

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Landing Point of Curve Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Bottom Hole Northing \_\_\_\_\_ Easting \_\_\_\_\_

Elevation (ft) 1023' 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) \_\_\_\_\_

Date permit issued 06/23/2014 Date drilling commenced 07/23/2014 Date drilling ceased 07/30/2014  
Date completion activities began 08/20/2014 Date completion activities ceased 08/20/2014  
Verbal plugging (Y/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 \_\_\_\_\_ Open mine(s) (Y/N) depths \_\_\_\_\_  
Salt water depth(s) ft \_\_\_\_\_ Void(s) encountered (Y/N) depths \_\_\_\_\_  
Coal depth(s) ft \_\_\_\_\_ Cavern(s) encountered (Y/N) depths \_\_\_\_\_  
Is coal being mined in area (Y/N) No

RECEIVED  
Office of Oil and Gas \_\_\_\_\_  
Reviewed by: \_\_\_\_\_  
DEC 01 2014  
WV Department of  
Environmental Protection

01/16/2015

API 47-021 - 05778

Farm name I. L. Morris

Well number Marshall 3-A

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							
Surface	10 3/4	9 5/8	303	New	29		Yes
Coal							
Intermediate 1	8 3/4	7"	717	new	17		Yes
Intermediate 2							
Intermediate 3							
Production	6.50	4 1/2	2938	new	10.5		no
Tubing							
Packer type and depth set							

Comment Details \_\_\_\_\_

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	Type 1	200					8 hrs.
Coal							
Intermediate 1	Type 1	150					8 hrs.
Intermediate 2							
Intermediate 3							
Production	Strong lite 150	90					
Tubing							

Drillers TD (ft) 3030 Loggers TD (ft) 3022

Deepest formation penetrated 5 ft Sand Plug back to (ft) \_\_\_\_\_

Plug back procedure \_\_\_\_\_

Kick off depth (ft) \_\_\_\_\_

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 4 1/2 casing centralizers #2, #5, #15, #20

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 \_\_\_\_\_

RECEIVED  
Office of Oil and Gas  
DEC 01 2014  
WV Department of  
Environmental Protection

API 47-021 - 05778 Farm name I. L. Morris Well number Marshall 3-A

**PERFORATION RECORD**

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	8/30/2014	2849	2867	16	5th Sand
2	8/30/2014	2176	2220	16	Injun

Please insert additional pages as applicable.

**STIMULATION INFORMATION PER STAGE**

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	08/20/14	27.3	2100	1465	1580	350	142	223,465
2	08/20/14	27.1	1558	2165	600	350	155	223,400

RECEIVED  
Office of Oil and Gas  
DEC 01 2014

Please insert additional pages as applicable.

WV Department of Environmental Protection

API 47- 021 - 05778 Farm name I. L. Morris Well number Marshall 3-A

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>5 Th Sand</u>	<u>2843</u> TVD	<u>2847</u> MD
<u>Injun</u>	<u>2176</u>	<u>2220</u>
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 550 psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST 48 hrs

OPEN FLOW Gas 310 mcfpd Oil 4 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 <sub>2</sub> S, ETC)
Clay	0	10	0		
Sd/Sh	10	1940			
Little Lime	1940	1953			
Sd/Sh	1953	2002			
Big Lime	2002	2158			
Injun	2158	2204			
Sd/Sh	2204	2834			
5th Sand	2834	2846			
Sd/Sh	2846	3030			
T.D.	3030				

RECEIVED  
Office of Oil and Gas  
DEC 01 2014  
WV Department of  
Environmental Protection

Please insert additional pages as applicable.

Drilling Contractor Waco Oil & Gas  
Address 1595 U.S. 33 City Glennville State WV Zip 26351

Logging Company Weatherford Wireline Services  
Address 7777 North River Avenue City Weston State wv Zip 26452

Cementing Company Universal Well Service  
Address 14 Sewer Plant Road City Buckhannon State WV Zip 26201

Stimulating Company Universal Well Service  
Address 14 Sewer Plant Road City Buckhannon State WV Zip 26201

Please insert additional pages as applicable.

Completed by ROBERT R. JONES II Telephone 304-462-5758  
Signature \_\_\_\_\_ Title PRESIDENT Date 12-1-2014

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

01/16/2015