

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

API 47-087-04772 County ROANE District SMITHFIELD
Quad LOONEYVILLE 7.5' Pad Name EPLING, A.J. Field/Pool Name CLOVER
Farm name FISCHER, RICHARD & RONALD Well Number 215
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 4,284,614 M Easting 475,790 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,284,480 M Easting 475,928 M

Elevation (ft) 1,189' 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 4/7/15 Date drilling commenced 5/7/15 Date drilling ceased 5/13/15
Date completion activities began 6/5/15 Date completion activities ceased 6/11/15
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 1780' 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: 
10/23/2015

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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		Sand In
Surface	8 3/4"	7"	590'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2545.4'	New	J-55		Y
Tubing							
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.

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	130	15.6	1.18	154	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	105/125	13.2/14.2	1.64/1.27	172/186	28'	8
Tubing							

Drillers TD (ft) 2572 Loggers TD (ft) 2566
 Deepest formation penetrated Big Injun 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

20 Centralizers every 68 from bottom on 4 1/2", Centralizer placed mid string on 7"

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	6/5/15	2356'	2364'	32	Big 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	6/11/15	5	1092	1899	1751	2,500	148	

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Please insert additional pages as applicable.

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Big Injun</u>	<u>2182'- 2210'</u> TVD	<u>2337'- 2370'</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	1574	0	1616	
Sand	1574	1647	1616	1698	
Shale	1647	1712	1698	1770	
Sand	1712	1872	1770	1962	
Shale	1872	1880	1962	1970	
Sand	1880	2010	1970	2128	
Little Lime	2010	2038	2128	2160	
Pencil Cave	2038	2049	2160	2176	
Big Lime	2049	2154	2176	2300	
Keener	2154	2182	2300	2337	
Big Injun	2182	2210	2337	2370	Drilled directional S 52.6° E a distance of 622'
Shale	2210	2385	2370	2572	
TD	2385		2572		

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 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Universal Services
 Address Hall 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 *Roger Heldman* Title Operations Manager Date 8/17/15

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

10/23/2015

87.04772

Prepared for:
H G Energy

Dustin Hendershot
304-481-7342



Prepared by:
Producers Service Corp
Daniel L Graham
109 S. Graham St.
Zanesville, OH 43702
740-454-6253

INVOICE #: 18521

WELL NAME: A J Epling 215

COUNTY/STATE: Roane/WV

TOWNSHIP/FIELD: Clover Field

DATE of SERVICE: 6/11/2015

CUSTOMER PO#:

Description	Notes	Amount	Units	Unit Cost	Total Cost
FLUID PUMP CHARGE 0-3000 PSI MIN CHARGE 4 HRS		1	EA		
BLENDER CHARGE 0-10 BPM		1	EA		
MILEAGE CHARGE PER UNIT ONE WAY	2 Units @150Miles		MI		
IC ACID 15%		250	GAL		
PRO HIB II		0.5	GAL		
ACID DELIVERY		2	HR		
PRO CLA LOK (KCL SUBSTITUTE)		15	GAL		
PRO NE-21		5	GAL		
PRO GEL 4		150	LB		
BUFFER I		50	LB		
BUFFER II		50	LB		
BIO CLEAR 750		1	LB		
AP BREAKER		15	LB		
BXL-A		10	GAL		
BXL-10C		10	GAL		
SAND 20/40 OTTAWA		25	CWT		
SAND DELIVERY / TON MILES		100	TMILE		
DATA VAN		1	STAGE		

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Customer Approval: _____