

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

API 47-087-04751 County ROANE District SMITHFIELD
Quad LOONEYVILLE 7.5' Pad Name KINKEAD, S.B. Field/Pool Name CLOVER
Farm name SNODGRASS, REVA ET AL Well Number 104
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 4,285,363 M Easting 475,278 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,285,543 M Easting 475,446 M

Elevation (ft) 1,110' 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 11/14/14 Date drilling commenced 1/1/15 Date drilling ceased 1/3/15
Date completion activities began 2/4/15 Date completion activities ceased 4/30/15
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 1820' Void(s) encountered (Y/N) depths None
Coal depth(s) ft None Caprock(s) encountered (Y/N) depths None
Is coal being mined in area (Y/N) N Office of Oil and Gas

Office of Oil and Gas
Department of Environmental Protection
Reviewed by: JK 6/15/17
WS 6/25/17

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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"	546'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2618.3'	New	J-55		N
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 25 sks to surface on 7" surface cement job. Did not circulate cement 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	140	15.6	1.18	165	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	110/125	13.2/14.2	1.64/1.27	180/186	604'	8
Tubing							

Drillers TD (ft) 2850' Loggers TD (ft) 2598'
 Deepest formation penetrated Big Injun Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 550'

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"

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS RECEIVED Office of Oil and Gas

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS JUN 08 2015

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED WV Department of Environmental Protection

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Big Injun</u>	<u>2156'- 2182'</u> TVD	<u>2450'- 2492'</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	1610	0	1600	
Sand	1610	1642	1600	1649	
Shale	1642	1736	1649	1766	
Sand	1736	1806	1766	1910	
Shale	1806	1830	1910	1950	
Sand	1830	1980	1950	2180	
Little Lime	1980	1997	2180	2210	
Pencil Cave	1997	2009	2210	2226	
Big Lime	2009	2134	2226	2426	
Keener	2134	2156	2426	2450	
Big Injun	2156	2182	2450	2492	Drilled directional N 41° E a distance of 888'
Shale	2182	2290	2492	2650	
TD	2290		2650		

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.

RECEIVED
Office of Oil and Gas

Completed by Roger Heldman Telephone 304-420-1107
Signature  Title Operations Manager Date 5/4/15 JUN 08 2015

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 #: 18505

WELL NAME: S B Kinkead 104

COUNTY/STATE: Roane/WV

TOWNSHIP/FIELD: Clover Field

DATE of SERVICE: 4/30/2015

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 @40Miles		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	\$	\$
2 INCH FLOW METER		1	EA	\$	\$

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Customer Approval: _____