

PM

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

API 47 - 017 - 06521 County Doddridge District New Milton 7.5  
Quad New Milton 7.5 Pad Name Key Oil Field/Pool Name \_\_\_\_\_  
Farm name Shirley Plauger Well Number A.W. Robinson #2  
Operator (as registered with the OOG) Key Oil Company  
Address 22 Garton Plaza City Weston State WV Zip 26452

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 39'1937 Easting 80.7253  
Landing Point of Curve Northing N/A Easting N/A  
Bottom Hole Northing N/A Easting N/A

Elevation (ft) 1060 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 06/26/2014 Date drilling commenced 08/08/14 Date drilling ceased 08/14/2014  
Date completion activities began 09/16/14 Date completion activities ceased 09/16/14  
Verbal plugging (Y/N) N/A 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 60 Open mine(s) (Y/N) depths \_\_\_\_\_  
Salt water depth(s) ft 1200 Void(s) encountered (Y/N) depths \_\_\_\_\_  
Coal depth(s) ft N/A Cavern(s) encountered (Y/N) depths \_\_\_\_\_  
Is coal being mined in area (Y/N) N

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API 47-017 - 06521 Farm name Shirley Plauger Well number A.W. Robinson #2

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	20"	13-3/8"	38	NEW	J-55	N/A	N
Surface							
Coal	N/A						
Intermediate 1	12-1/4"	9-5/8"	168	NEW	J-55	110	70 SKS. CTS (Y)
Intermediate 2	8-3/4"	7"	1183	NEW	J-55		170 SKS. CTS (Y)
Intermediate 3							
Production	6-1/4"	4-1/2"	2880	NEW	J-55		150 SKS. CBL POZ (N)
Tubing							ETOC 1100'
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	N/A	N/A	N/A	N/A	N/A	N/A	
Surface	CLASS A	70	15.6	1.13		CTS	8 HRS.
Coal							
Intermediate 1							
Intermediate 2	CLASS A	170	15.6	1.23		CTS	8 HRS.
Intermediate 3							
Production	CBL POZ	150	13.5	1.53		ETOC 1100'	
Tubing							

Drillers TD (ft) 2970 Loggers TD (ft) 2950  
 Deepest formation penetrated GORDON 2730 Plug back to (ft) \_\_\_\_\_  
 Plug back procedure \_\_\_\_\_

Kick off depth (ft) N/A

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 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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 \_\_\_\_\_

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PRODUCING FORMATION(S)	DEPTHS		
GORDON	2727	TVD	2733 MD
WEIR	2307		2399
INJUN	2137		2159
KEENER	2106		2122

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 1350 psi Bottom Hole 2548 psi DURATION OF TEST 72 hrs

OPEN FLOW Gas 671 mcfpd Oil 3 bpd NGL 0 bpd Water 0 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)
	0		0		
SAND & SHALE	0	1180	0	1180	BROWN
SHALE	1180	1960	1180	1960	BROWN
LITTLE LIME	1960	2000	1960	2000	GRAY
BLUE MONDAY	2000	2020	2000	2020	GRAY
BIG LIME	2020	2120	2020	2120	GRAY
INJUN	2120	2170	2120	2170	BROWN
SHALE	2170	2350	2170	2350	BROWN
WEIR	2350	2380	2350	2380	GRAY
SAND & SHALE	2380	2710	2380	2710	GRAY
GORDON	2710	2730	2710	2730	GRAY
SHALE	2730	2970	2730	2970	GRAY
TD	2970				

Please insert additional pages as applicable.

Drilling Contractor NEXUS DRILLING  
Address INDUSTRIAL PARK City JANE LEW State WV Zip 26378

Logging Company NABORS  
Address 82 OLD ELKINS ROAD City BUCKHANNON State WV Zip 26201

Cementing Company UNIVERSAL WELL SERVICE  
Address 5 HALL RUN ROAD City BUCKHANNON State WV Zip 26201

Stimulating Company UNIVERSAL WELL SERVICE  
Address 5 HALL RUN ROAD City BUCKHANNON State WV Zip 26201

Please insert additional pages as applicable.

Completed by JAN CHAPMAN Telephone (304) 269-7102  
Signature [Signature] Title PRESIDENT Date NOV 20 2014

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry NOV 20 2014

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