

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

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Office of Oil and Gas
FEB 12 2014

WV Department of
Environmental Protection

API 47 - 085 - 10050 County Ritchie District Murphy
Quad Smithville 7.5' Pad Name none Field/Pool Name Eva Field
Farm name Kirby, Margaret etal Well Number Kirby Etal #2
Operator (as registered with the OOG) Murvin & Meier Oil Co.
Address P. O. Box 396 City Olney State IL Zip 62450

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,320,445 Easting 495,237
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 1138 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)
SC-900 shale control co-polymer

Date permit issued June 4, 2013 Date drilling commenced August 12, 2013 Date drilling ceased August 25, 2013
Date completion activities began September 6, 2013 Date completion activities ceased September 27, 2013
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 15 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 2000 Void(s) encountered (Y/N) depths N
Coal depth(s) ft None Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

04/04/2014

API 47-085 - 10050 Farm name Kirby, Margaret etal Well number Kirby Etal #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							
Surface	15"	11 3/4"	295.4	new	A500 32#	42'	Y
Coal							
Intermediate 1	11"	8 5/8"	1452.0	new	J-55 24#	1320'	Y
Intermediate 2							
Intermediate 3							
Production	7 7/8"	4 1/2"	6270.84	new	WT65 10.5#	4532' 5322'	N
Tubing							
Packer type and depth set							

Comment Details _____

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	A	170	15.6	1.18	201	surface	8
Coal							
Intermediate 1	A	312	14.8	1.40	437	surface	8
Intermediate 2							
Intermediate 3							
Production	CBL Poz	550	13.5	1.54	847	3000	
Tubing							

Drillers TD (ft) 6,362' Loggers TD (ft) 6,293'
 Deepest formation penetrated Rhinestreet 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" x 7 7/8": 6201', 6025', 5850', 5630',
5410', 5190', 4927', 4707', 4488', 4225', 4006', 3787', 3568', 3,392

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
same as perforation record _____ TVD _____ MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump
 SHUT-IN PRESSURE Surface 1400 psi Bottom Hole _____ psi DURATION OF TEST 48 hrs
 OPEN FLOW Gas Oil NGL Water GAS MEASURED BY
 100 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 ₂ S, ETC)
	0	12	0	12	
Sand, Sh, RR	12	325	12	325	
Sd, Sh	325	755	325	755	
Sand	755	840	755	840	
Sd, Sh	840	1005	840	1005	
Shale	1005	1065	1005	1062	
Red Rock	1062	1120	1062	1120	
RR, Sh	1120	1152	1120	1152	hole damp @ 1152
Shale	1152	1684	1152	1684	
Sand	1684	1878	1684	1878	
Sh, Sd	1878	1975	1878	1975	
Maxon	1975	2000	1975	2000	hole damp @ 2000
Shale	2000	2010	2000	2010	
L. Lime	2010	2053	2010	2053	

Please insert additional pages as applicable.

Drilling Contractor Nexus Drilling Corporation
 Address P. O. Box 903 City Jane Lew State WV Zip 26378

Logging Company Precision Energy Services, Inc.
 Address 500 Winscott Road City Ft Worth State TX Zip 76126

Cementing Company Universal Well Services, Inc.
 Address P. O. Box 200969 City Dallas State TX Zip 75320

Stimulating Company Universal Well Services, Inc.
 Address P. O. Box 200969 City Dallas State TX Zip 75320

Please insert additional pages as applicable.

Completed by Kate M. Blackford Telephone 618-395-4405
 Signature *Kate M Blackford* Title Executive Vice-President Date 2/10/2014

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

Lithology / Formation	Top	Bottom	Top	Bottom	Described Rock Type and Record Quantity and Type of Fluid (Freshwater, Brine, Oil, Gas, H2S, etc.)
	Depth in FT Name TVD	Depth in FT TVD	Depth in FT MD	Depth in FT MD	
Shale	2053	2062	2053	2062	
B. Lime	2062	2140	2062	2140	
Big Injun	2140	2185	2140	2185	
Sd, Sh	2185	2410	2185	2410	
Weir	2410	2444	2410	2444	
Shale	2444	2540	2444	2540	
Berea	2540	2560	2540	2560	
Shale	2560	2786	2560	2786	
Gordon	2786	2794	2786	2794	
Shale	2794	3543	2794	3543	
Warren	3543	3594	3543	3594	
Shale	3594	4578	3594	4578	
Bradford	4578	4593	4578	4593	
Shale	4593	4886	4593	4886	
Benson	4886	4914	4886	4914	
Shale	4914	5032	4914	5032	
Alexander	5032	5159	5032	5159	
Shale	5159	5416	5159	5416	
First Elk	5416	5456	5416	5456	
Shale	5456	5710	5456	5710	
Second Elk	5710	5744	5710	5744	
Shale	5744	5882	5744	5882	
Rhinestreet	5882	6298	5882	6298	
Shale	6298	6362	6298	6362	
Total Depth	6362		6362		