

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: BBGJ, Inc. Operator Well No.: Cox Heirs #M3

LOCATION: Elevation: 752' Quadrangle: Smithville 7.5'

District: Murphy County: Ritchie  
Latitude: 1,270 Feet South of 39 Deg. 02 Min 30 Sec.  
Longitude 20 Feet West of 81 Deg. 02 Min 30.2 Sec.

Company: Murvin & Meier Oil Co.

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: P. O. Box 396 Olney, Illinois 62450	16	20	20	
Agent: P. Nathan Bowles, Jr.	11 3/4"	170'	170'	106.2
Inspector: Mr. David Cowan				
Date Permit Issued: 06/15/2010	8 5/8 "	1658.2'	1658.2'	444.2
Date Well Work Commenced: 08/15/2011				
Date Well Work Completed: 09/23/2011	4 1/2"	5936.8'	5936.8'	656.0
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Depth (feet): 5,975'				
Fresh Water Depth (ft.): 15'				
Salt Water Depth (ft.): None				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): None				

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Environmental Protection

OPEN FLOW DATA

Producing formation Alexander, 2<sup>nd</sup> Elk, Rhinestreet Pay zone depth (ft) 4654' to 5902'  
Gas: Initial open flow show MCF/d Oil: Initial open flow - Bbl/d  
Final open flow 150 MCF/d Final open flow show Bbl/d  
Time of open flow between initial and final tests 24 Hours  
Static rock Pressure 1325 psig (surface pressure) after 72 Hours

Speechly, Balltown,

Second producing formation Bradford, Benson Pay zone depth (ft) 3694' to 4506'  
Gas: Initial open flow show MCF/d Oil: Initial open flow - Bbl/d  
Final open flow 150 MCF/d Final open flow show Bbl/d  
Time of open flow between initial and final tests 24 Hours  
Static rock Pressure 1325 psig (surface pressure) after 72 Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: MURVIN & MEIER OIL CO.  
By: Cayden Hill Vice-Pres.  
Date: October 21, 2011

9/13/2011

Ran Sonic Bond Log and perforated Lower Rhinestreet Formation from 5768' to 5902' with 40 holes. Fractured pers using a slick water with nitrogen assist system consisting of 1000 gals 15% HCL, 1565 bbls fluid, 263 MSCF nitrogen, 10,000 lbs 80/100, and 46,000 lbs 20/40 sand.

Perforated Rhinestreet Formation from 5496' to 5666' with 22 holes. Fractured perfs using a 90Q foam consisting of 500 gals 15% HCL, 94 bbls fluid, 987 MSCF nitrogen, and 30,000 lbs 20/40 sand.

Perforated 2nd Elk Formation from 5153' to 5336' with 16 holes. Fractured perfs using a 90Q foam consisting of 500 gals 15% HCL, 75 bbls fluid, 915 MSCF nitrogen, and 30,000 lbs 20/40 sand.

Perforated Alexander Formation from 4654' to 4768' with 16 holes. Fractured perfs using a nitrogen system consisting of 500 gals 15% HCL and 700 MSCF nitrogen.

Perforated Benson Formation from 4448' to 4506' with 12 holes. Fractured perfs using a nitrogen system consisting of 500 gals 15% HCL and 500 MSCF nitrogen.

Perforated Speechly, Balltown, and Bradford Formations from 3694' to 4200' with 28 holes. Fractured perfs using a nitrogen system consisting of 750 gals 15% HCL and 700 MSCF nitrogen.

#### WELL LOG

<b>Formation</b>	<b>Top</b>	<b>Bottom</b>
Fill	0	5
Sand	5	15
Sand/Shale	15	61
Sand	61	391
Sand/Shale/Red Rock	391	530
Sand	530	600
Shale	600	670
Red Rock	670	695
Sand/Shale	695	735
Red Rock	735	755
Sand/Shale	755	820
Red Rock	820	830
Sand/Shale	830	932

Sand	932	1280
Sand/Shale	1280	1315
Sand	1315	1341
Sand/Shale	1341	1525
Maxon	1525	1565
Sand/Shale	1565	1657
Little Lime	1657	1681
Shale	1681	1696
Big Lime	1696	1787
Injun	1787	1834
Sand/Shale	1834	4188
Bradford	4188	4200
Shale	4200	4501
Benson	4501	4505
Shale	4505	4736
Alexander	4736	4769
Shale	4769	5318
2nd Elk	5318	5338
Shale	5338	5493
Rhinestreet	5493	5832
Shale	5832	5975

**Total Depth** 5975



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**west virginia** department of environmental protection

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Office of Oil and Gas  
601 57th Street SE  
Charleston, WV 25304  
(304) 926-0450  
(304) 926-0452 fax

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

**PERMIT MODIFICATION APPROVAL**

May 12, 2011

MURVIN & MEIER OIL CO.  
POST OFFICE BOX 396  
OLNEY, IL 62450

Re: Permit Modification Approval for API Number 8509882 , Well #: COX HEIRS M3

*Revised Casing Program*

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith  
Regulatory/Compliance Manager  
Office of Oil and Gas

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

- 1) Well Operator Murvin & Meier Oil Co 307980 Ritchie Murphy Smithville 35'  
Operator ID County District Quadrangle
- 2) Operator's Well Number: Cox Heirs M3 3) Elevation: 752
- 4) Well Type: (a) Oil \_\_\_\_\_ or Gas X  
(b) If Gas: Production X / Underground Storage \_\_\_\_\_  
Deep \_\_\_\_\_ / Shallow X
- 5) Proposed Target Formation(s): Warren thru Rhinestreet Proposed Target Depth: 5825  
6) Proposed Total Depth: 5825 Feet Formation at Proposed Total Depth: Rhinestreet  
7) Approximate fresh water strata depths: None - Permits 0297 and 1296  
8) Approximate salt water depths: None - Permits 0297 and 1296  
9) Approximate coal seam depths: None Permits 0297 and 1296  
10) Approximate void depths, (coal, Karst, other): None  
11) Does land contain coal seams tributary to active mine? No  
12) Describe proposed well work in detail Drill and Complete New Well

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13) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill-up (Cu. Ft.)
Conductor	16"	S.S.		20	20	
Fresh Water	11 3/4"	L.S.	32	150	150	CTS
Coal						
Intermediate	8 5/8"	L.S.	20	950	950	CTS
Production	4 1/2"	J/K	9.5	5775	5775	550
Tubing						
Liners						

Packers: Kind  
Sizes  
Depths Set

2011  
3-10-11  
DWC



**west virginia** department of environmental protection

Office of Oil and Gas  
601 57th Street SE  
Charleston, WV 25304  
(304) 926-0450  
(304) 926-0452 fax

Joe Manchin III, Governor  
Randy C. Huffman, Cabinet Secretary  
dep.wv.gov

June 15, 2010

**WELL WORK PERMIT**

**New Well**

This permit, API Well Number: 47-8509882, issued to MURVIN & MEIER OIL CO., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto.

Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, well operators report of well work, is to be submitted to this office within 90 days of completion of drilling, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin  
Chief

Operator's Well No: COX HEIRS M3

Farm Name: BBGJ, INC.

**API Well Number: 47-8509882**

**Permit Type: New Well**

Date Issued: 06/15/2010

**Promoting a healthy environment.**

85-09882

Form: WW - 2B

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

1) Well Operator Murvin and Meier Oil Co 307980 85 Ritchie 3 Murphy 612 Smithville 7.5'  
Operator ID County District Quadrangle

2) Operator's Well Number: Cox Heirs M3 3) Elevation: 752

4) Well Type: (a) Oil \_\_\_\_\_ or Gas x  
(b) If Gas: Production x / Underground Storage \_\_\_\_\_  
Deep \_\_\_\_\_ / Shallow x

5) Proposed Target Formation(s): Warren thru Rhinestreet

6) Proposed Total Depth: 5825 Feet

7) Approximate fresh water strata depths: None - (Permits 0297 & 1296)

8) Approximate salt water depths: None (Permits 0297, 1296)

9) Approximate coal seam depths: None (Permits 0297, 1296)

10) Does land contain coal seams tributary to active mine? No

11) Describe proposed well work Drill and Complete New Well

12) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor						
Fresh Water	<u>11 3/4</u>	<u>L.S.</u>	<u>36</u>	<u>132</u>	<u>132</u>	<u>CTS</u>
Coal						<u>DNV 20/3</u>
Intermediate	<u>8 5/8</u>	<u>L.S.</u>	<u>20</u>	<u>750</u>	<u>750</u>	<u>118</u>
Production	<u>4 1/2</u>	<u>J/K</u>	<u>9.5</u>	<u>5775</u>	<u>5775</u>	<u>550</u>
Tubing						
Liners						

Packers: Kind \_\_\_\_\_  
Sizes \_\_\_\_\_  
Depths Set \_\_\_\_\_

3830  
650

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MAY 28 2010

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