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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

July 23, 2014

**WELL WORK PERMIT**

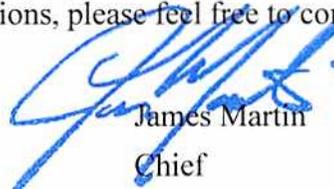
**Horizontal Well**

This permit, API Well Number: 47-1304743, issued to BUCKEYE OIL PRODUCING 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 completion of permitted well work, 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

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: J.M. BENNETT 2H  
Farm Name: TAYLOR, DOUGLAS E. & SHIRLE  
**API Well Number: 47-1304743**  
**Permit Type: Horizontal Well**  
Date Issued: 07/23/2014

**Promoting a healthy environment.**

## PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

### CONDITIONS

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1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to [DEPOOGNotify@wv.gov](mailto:DEPOOGNotify@wv.gov) within 30 days of commencement of drilling.

WW - 2B  
(Rev. 8/10)

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

1) Well Operator: Buckeye Oil Producing Co.      306103      Calhoun      Sheridan      Grantsville 7.5'  
Operator ID      County      District      Quadrangle

2) Operator's Well Number: Bennett #2H      3) Elevation: 1002'

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

5) Proposed Target Formation(s): Berea      Proposed Target Depth: 2467' T.V.D.

6) Proposed Total Depth: 5045 TMD Feet      Formation at Proposed Total Depth: Berea

7) Approximate fresh water strata depths: 61'

8) Approximate salt water depths: 2011'

9) Approximate coal seam depths: None

10) Approximate void depths, (coal, Karst, other): None

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

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)

Drill & set 30" conductor. Drill & set 300' 9-5/8 casing & cement to surface. Drill to 1775 and set 7" casing & cement to surface. Drill to 1800' and start to build curve 8°- 100'. At 90° drill to T.D. run 4-1/2 casing & set 8-10 packers. See attached sheet. Cement above K.O.P. Also see attached well bore schematic.

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	11-3/4	J-55	38#	<del>30-60</del>	<del>30</del>	C.T.S. (Grout)
Fresh Water	9-5/8	J-55	29#	300	300	C.T.S.
Coal						
Intermediate	7"	J-55	17#	1775	1775	C.T.S.
Production	4-1/2	J-55	11.6#	5045	5045	By Rule 35 CSR 4-11.1
Tubing						
Liners						

D.T. 6-13-14  
S.T. 6-13-14

H.S. 6/13/14

Received

Packers: Kind: Peak  
 Sizes: 4-1/2 x 5.75" open hole packer  
 Depths Set 1600 to 5045 setting 10 packers

JUN 16 2014

*Signature*, President

**BENNETT #2H****Frac well -**

<b>Stage 1</b>	<b>Pump end of 4-1/2" with 550 Bbl. total water and 25,000# 20/40 sand</b>
<b>Stage 2</b>	<b>Frac with 500 Bbls. total water and 25,000# 20/40 sand</b>
<b>Stage 3</b>	<b>Frac with 500 Bbls. total water and 25,000# 20/40 sand</b>
<b>Stage 4</b>	<b>Frac with 500 Bbls. total water and 25,000# 20/40 sand</b>
<b>Stage 5</b>	<b>Frac with 500 Bbls. total water and 25,000# 20/40 sand</b>
<b>Stage 6</b>	<b>Frac with 500 Bbls. total water and 25,000# 20/40 sand</b>
<b>Stage 7</b>	<b>Frac with 500 Bbls. total water and 25,000# 20/40 sand</b>
<b>Stage 8</b>	<b>Frac with 500 Bbls. total water and 25,000# 20/40 sand</b>
<b>Stage 9</b>	<b>Frac with 600 Bbls. total water and 25,000# 20/40 sand</b>

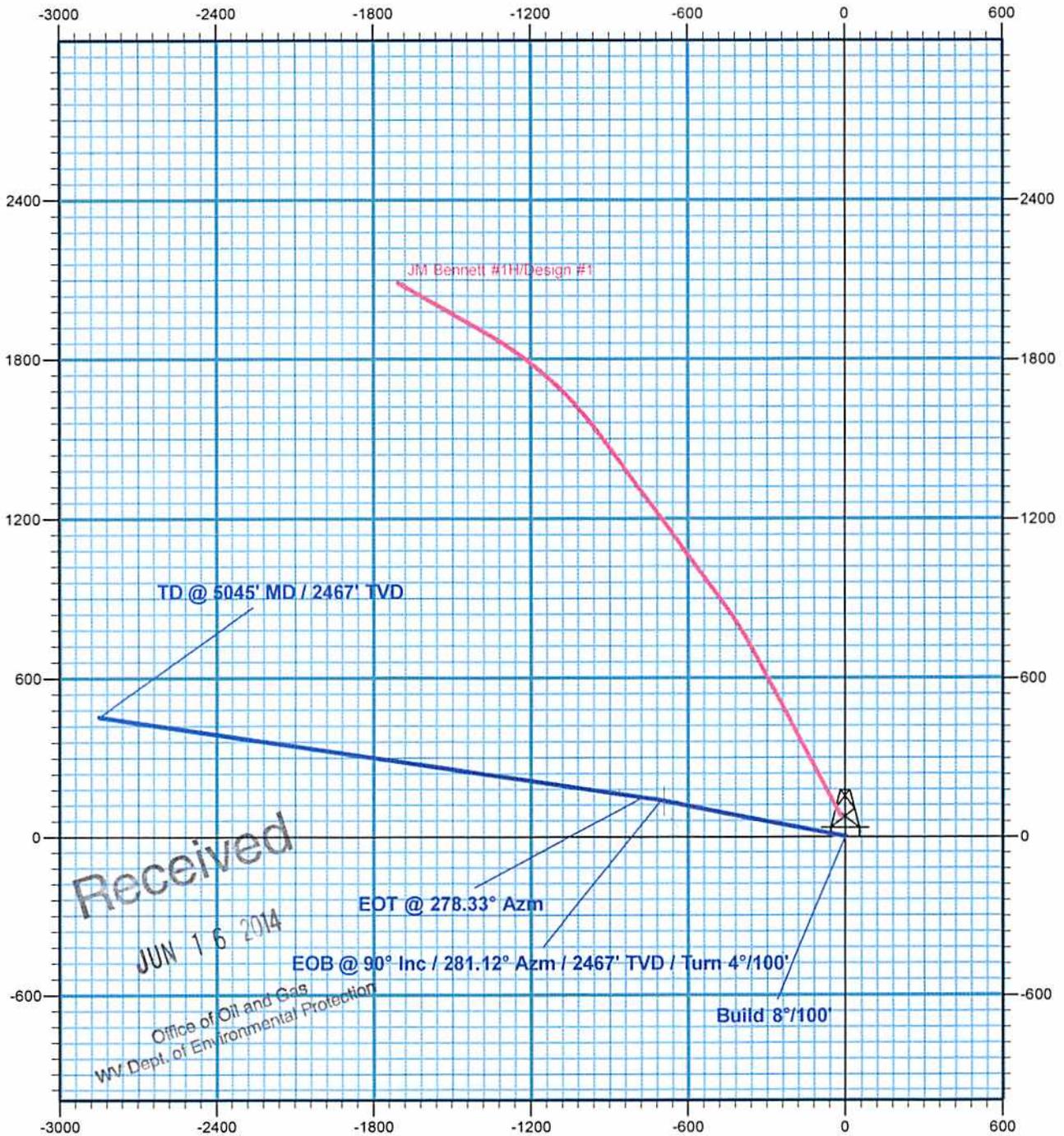
**Received****JUN 16 2014**

130 4743H

PLAN VIEW

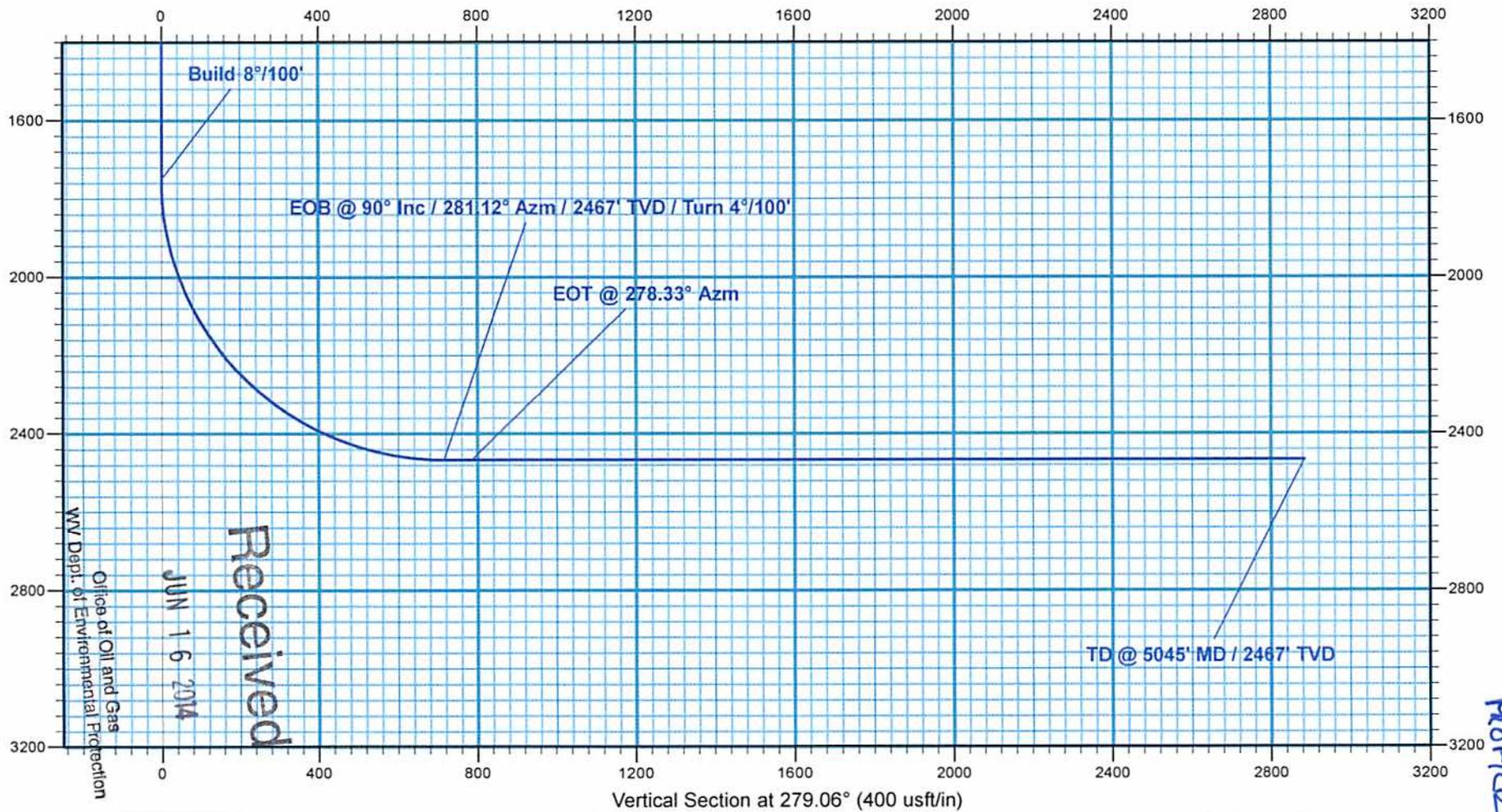
# Buckeye Oil Producing

Calhoun, West Virginia  
JM Bennett #2H  
Design #1



# Buckeye Oil Producing

Calhoun, West Virginia  
JM Bennett #2H  
Design # 1



Office of Oil and Gas  
WV Dept. of Environmental Protection

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Received

Profile

130474314

# Buckeye Oil Producing

Calhoun, West Virginia

JM Bennett

JM Bennett #2H

Wellbore #1

Plan: Design #1

## DDC Well Planning Report

, 12 May, 2014

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Office of Oil and Gas  
WV Dept. of Environmental Protection



**DDC**  
Well Planning Report

13047431+

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well JM Bennett #2H
<b>Company:</b>	Buckeye Oil Producing	<b>TVD Reference:</b>	Mean Sea Level (Sys
<b>Project:</b>	Calhoun, West Virginia	<b>MD Reference:</b>	Mean Sea Level (Sys
<b>Site:</b>	JM Bennett	<b>North Reference:</b>	Grid
<b>Well:</b>	JM Bennett #2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	Calhoun, West Virginia		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	West Virginia Southern Zone		

<b>Site</b>	JM Bennett		
<b>Site Position:</b>		<b>Northing:</b>	724,087.31 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,936,322.61 usft
<b>Position Uncertainty:</b>		<b>Slot Radius:</b>	13-3/16 " Grid Convergence:

<b>Well</b>	JM Bennett #2H		
<b>Well Position</b>	+N/-S	-78.0 usft	<b>Latitude:</b>
	+E/-W	16.1 usft	<b>Longitude:</b>
<b>Position Uncertainty</b>		<b>Wellhead Elevation:</b>	0.0 usft
			<b>Ground Level:</b>

<b>Wellbore</b>	Wellbore #1		
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>
	IGRF2010	5/9/2014	(°)
			-8.17
			<b>Dip Angle</b>
			(°)
			66.63

**Design** Design #1

**Audit Notes:**

**Version:** Phase: PLAN Tie On Depth:

<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>
	(usft)	(usft)	(usft)
	0.0	0.0	0.0

**Received**

0.0  
JUN 16 2014  
Direction  
(°)

279.06  
Office of Oil and Gas  
WV Dept. of Environmental Protection

**Plan Sections**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.00
1,750.8	0.00	0.00	1,750.8	0.0	0.0	0.00
2,875.8	90.00	281.12	2,467.0	138.1	-702.8	8.00
2,945.5	90.00	278.33	2,467.0	149.9	-771.4	4.00
5,045.3	90.00	278.33	2,467.0	454.2	-2,849.1	0.00

**Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vert Sec (us)
0.0	0.00	0.00	0.00	0.0	0.0	0.0
100.0	0.00	0.00	100.0	0.0	0.0	0.0
200.0	0.00	0.00	200.0	0.0	0.0	0.0
300.0	0.00	0.00	300.0	0.0	0.0	0.0
400.0	0.00	0.00	400.0	0.0	0.0	0.0
500.0	0.00	0.00	500.0	0.0	0.0	0.0

13047434

600.0	0.00	0.00	600.0	0.0	0.0
700.0	0.00	0.00	700.0	0.0	0.0
800.0	0.00	0.00	800.0	0.0	0.0
900.0	0.00	0.00	900.0	0.0	0.0
1,000.0	0.00	0.00	1,000.0	0.0	0.0
1,100.0	0.00	0.00	1,100.0	0.0	0.0
1,200.0	0.00	0.00	1,200.0	0.0	0.0
1,300.0	0.00	0.00	1,300.0	0.0	0.0
1,400.0	0.00	0.00	1,400.0	0.0	0.0
1,500.0	0.00	0.00	1,500.0	0.0	0.0
1,600.0	0.00	0.00	1,600.0	0.0	0.0
1,700.0	0.00	0.00	1,700.0	0.0	0.0
<b>Build 8°/100'</b>					
1,750.8	0.00	0.00	1,750.8	0.0	0.0
1,800.0	3.94	281.12	1,800.0	0.3	-1.7
1,900.0	11.94	281.12	1,898.9	3.0	-15.2
2,000.0	19.94	281.12	1,995.0	8.3	-42.1
2,100.0	27.94	281.12	2,086.3	16.1	-81.9
2,200.0	35.94	281.12	2,171.1	26.3	-133.8
2,300.0	43.94	281.12	2,247.7	38.7	-196.7
2,400.0	51.94	281.12	2,314.7	53.0	-269.5
2,500.0	59.94	281.12	2,370.6	68.9	-350.7
2,600.0	67.94	281.12	2,414.5	86.2	-438.8
2,700.0	75.94	281.12	2,445.5	104.6	-532.0
2,800.0	83.94	281.12	2,463.0	123.5	-628.5
<b>EOB @ 90° Inc / 281.12° Azm / 2467' TVD / Turn 4°/100'</b>					
2,875.8	90.00	281.12	2,467.0	138.1	-702.8
2,900.0	90.00	280.15	2,467.0	142.6	-726.5
<b>EOT @ 278.33° Azm</b>					
2,945.5	90.00	278.33	2,467.0	149.9	-771.4
3,000.0	90.00	278.33	2,467.0	157.8	-825.4
3,100.0	90.00	278.33	2,467.0	172.3	-924.3
3,200.0	90.00	278.33	2,467.0	186.8	-1,023.3
3,300.0	90.00	278.33	2,467.0	201.3	-1,122.2
3,400.0	90.00	278.33	2,467.0	215.8	-1,221.1
3,500.0	90.00	278.33	2,467.0	230.3	-1,320.1
3,600.0	90.00	278.33	2,467.0	244.7	-1,419.0
3,700.0	90.00	278.33	2,467.0	259.2	-1,518.0
3,800.0	90.00	278.33	2,467.0	273.7	-1,616.9
3,900.0	90.00	278.33	2,467.0	288.2	-1,715.9
4,000.0	90.00	278.33	2,467.0	302.7	-1,814.8
4,100.0	90.00	278.33	2,467.0	317.2	-1,913.8
4,200.0	90.00	278.33	2,467.0	331.7	-2,012.7
4,300.0	90.00	278.33	2,467.0	346.2	-2,111.6
4,400.0	90.00	278.33	2,467.0	360.7	-2,210.6
4,500.0	90.00	278.33	2,467.0	375.2	-2,309.5
4,600.0	90.00	278.33	2,467.0	389.7	-2,408.5

**Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vert Sec (us)
4,700.0	90.00	278.33	2,467.0	404.1	-2,507.4	
4,800.0	90.00	278.33	2,467.0	418.6	-2,606.4	
4,900.0	90.00	278.33	2,467.0	433.1	-2,705.3	
5,000.0	90.00	278.33	2,467.0	447.6	-2,804.3	
<b>TD @ 5045' MD / 2467' TVD</b>						
5,045.3	90.00	278.33	2,467.0	454.2	-2,849.1	

**Design Targets**

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Eas (us)
- hit/miss target							
- Shape							
LP JM Bennett #2H	0.00	0.00	0.0	136.0	-691.7	724,145.33	1,9
- plan misses target center by 705.0usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E)							
- Point							

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JUN 16 2014

PBHL JM Bennett #2H  
- plan hits target center  
- Point

0.00    0.00    2,467.0    454.2    -2,849.1    724,463.53    1.9

1304743H

**Plan Annotations**

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,750.8	1,750.8	0.0		0.0 Build 8"/100'
2,875.8	2,467.0	138.1		-702.8 EOB @ 90° Inc / 281.12° Azm / 2467' TVI
2,945.5	2,467.0	149.9		-771.4 EOT @ 278.33° Azm
5,045.3	2,467.0	454.2		-2,849.1 TD @ 5045' MD / 2467' TVD

5/12/2014 10:53:09AM

Page 4

Received

JUN 16 2014

Office of Oil and Gas  
WV Dept. of Environmental Protection

MAY APPLY TO BENNETT LH

WR-35

DATE: 2/19/09  
API #: 47-130-4690

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

13.04690

Well Operator's Report of Well Work

Farm name: J. M. BENNETT Operator Well No.: 24

LOCATION: Elevation: 1024 Quadrangle: GRANTSVILLE

District: SHERIDAN County: CALHOON  
Latitude: \_\_\_\_\_ Feet South of \_\_\_\_\_ Deg. \_\_\_\_\_ Min. \_\_\_\_\_ Sec.  
Longitude \_\_\_\_\_ Feet West of \_\_\_\_\_ Deg. \_\_\_\_\_ Min. \_\_\_\_\_ Sec.

Company: BUCKEYE OIL PRODUCING CO.

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: P.O. BOX 129	9 5/8			
WOOSTER, OH 44691	7	251	251	CMT TO SURFACE
Agent: WINNIE SINNETT	4 1/2	2945	2945	1600'
Inspector: ED GAINER				
Date Permit Issued: 9/8/08				
Date Well Work Commenced: 9/17/08				
Date Well Work Completed: 10/16/08				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable _____ Rig				
Total Depth (feet): 2950				
Fresh Water Depth (ft.): 90'				
Salt Water Depth (ft.): 1000'				
Is coal being mined in area (N/Y)? NO				
Coal Depths (ft.): _____				

**RECEIVED**  
Office of Oil & Gas  
MAR 02 2009  
WV Department of  
Environmental Protection

OPEN FLOW DATA

Producing formation GORDAN-GANTZ Pay zone depth (ft) 2568-2830  
Gas: Initial open flow - MCF/d Oil: Initial open flow - Bbl/d  
Final open flow 50 MCF/d Final open flow 1 Bbl/d  
Time of open flow between initial and final tests - Hours  
Static rock Pressure 400 psig (surface pressure) after 18 Hours

Second producing formation BEREA Pay zone depth (ft) 2446-2462  
Gas: Initial open flow - MCF/d Oil: Initial open flow - Bbl/d  
Final open flow 20 MCF/d Final open flow 1 Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure 400 psig (surface pressure) after 18 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: Mark S. Lytle  
By: MARK S. LYTLE, PRESIDENT  
Date: 2/19/09



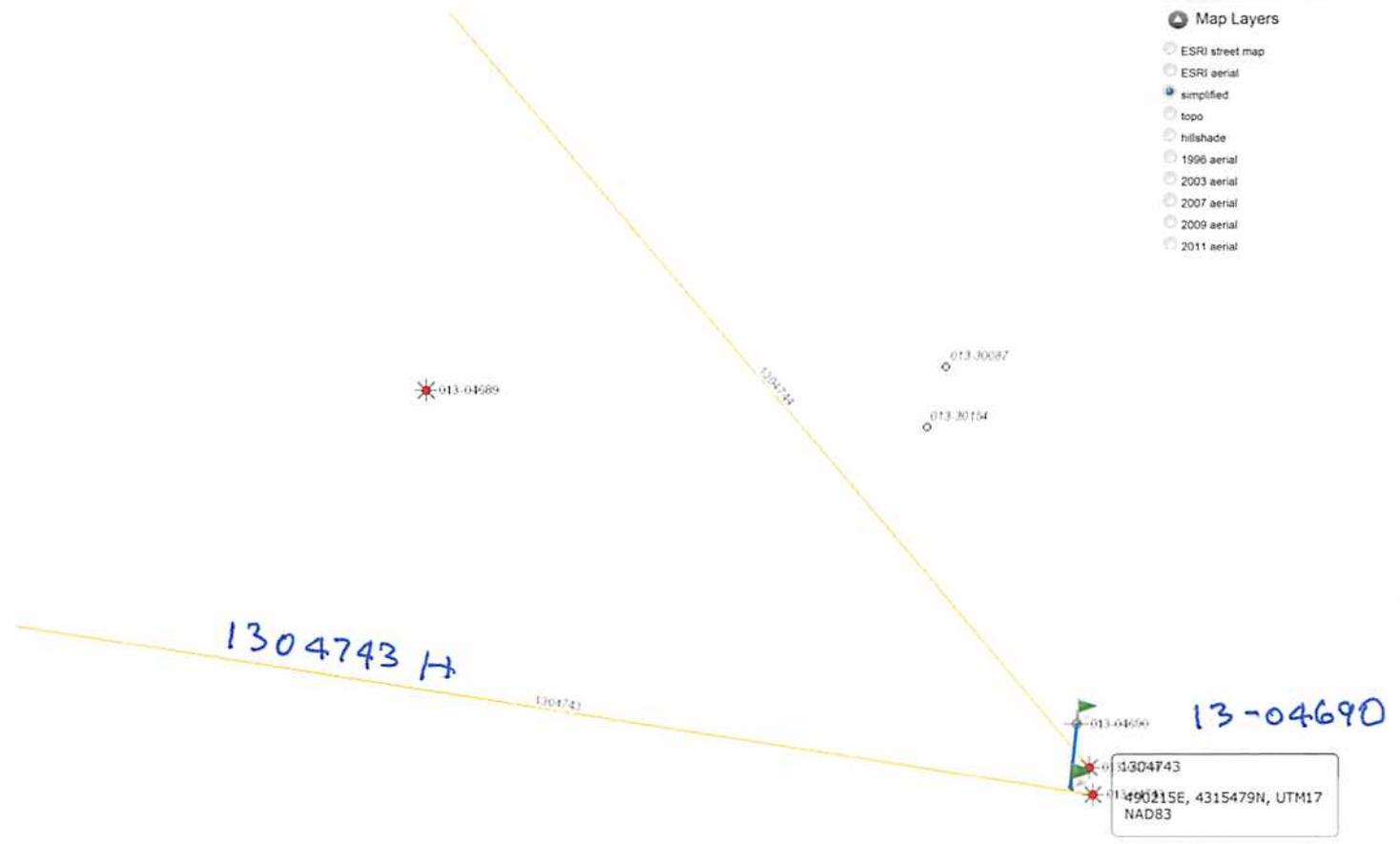
1304743H



- oil & gas permits
- mining permits
- underground mines

Map Layers

- ESRI street map
- ESRI aerial
- simplified
- topo
- hillshade
- 1996 aerial
- 2003 aerial
- 2007 aerial
- 2009 aerial
- 2011 aerial

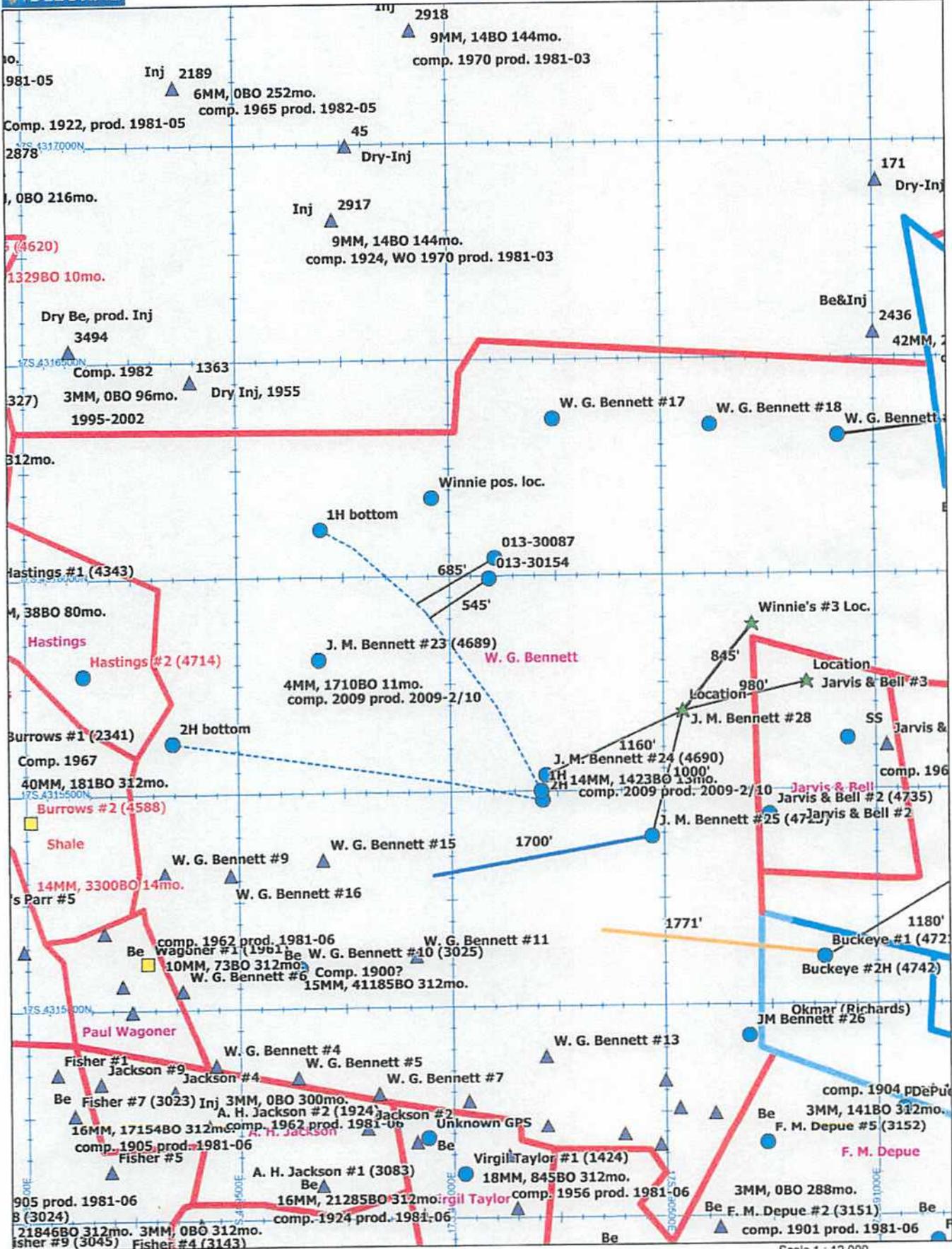


1304743  
 490215E, 4315479N, UTM17  
 NAD83

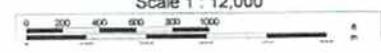
13-04690

1304743 H

Measurement
Feet
Measurement Result
<u>196.3 Feet</u>



Data use subject to license.



Permit Addendum

J. M. Bennett #2H

There remains question as to the whereabouts and identity of old well bores on the J. M. Bennett lease.

The W. G. Bennett #15 located over 700' south of our projected Bennett #2 is assumed plugged is assumed plugged.

The J. M. Bennett #23 permit # 013-04689 and located over 750' north of our projected Bennett #2H borehole was drilled on 2-11-2009 to a TD of 2908' and is currently producing from the Gordon and Gantz formations.

The J. M. Bennett #2H was designed to best avoid any geological hazards such as the wells noted above and as such precautions are being taken to avoid any issues that could occur.

The J. M. Bennett #2H will be completed using a packer system, and as such questionable portions of the wellbore will be isolated.

A distance of 700' at a minimum is believed to be adequate distance from a shot hole using 500 barrels of total fluid per stage in a 300' staged frac.

The general area in which the wells are located or thought to have once existed will be monitored daily throughout the drilling and completion process.

1304743H  
✓ 952250  
L5000

WW-2A  
(Rev. 6-07)

1.) Date: June 11, 2014  
2.) Operator's Well Number Bennett #2H  
State 47- County 013 Permit 04743H  
3.) API Well No.:

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

4) Surface Owner(s) to be served:  
(a) Name Doug & Shirley Taylor W  
Address 3868 Yellow Creek Rd.  
Big Bend, WV 26136  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Ed Gainer  
Address PO Box 821  
Spencer, WV 25276  
Telephone 304-389-7582  
5) (a) Coal Operator  
Name N/A  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name N/A No minerable coal in area  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name N/A  
Address \_\_\_\_\_

**TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:**

OR Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_ on the above named parties by:

- Personal Service (Affidavit attached)
- Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator [Signature]  
By: Steven W. Sigler  
Its: President  
Address PO Box 129  
Wooster, OH 44691  
Telephone 330-264-8847

JUN 16 2014

Office of Oil and Gas  
WV Dept. of Environmental Protection

Subscribed and sworn before me this 11th day of June, 2014

Cheryl K. Becken

Notary Public

My Commission Expires November 4, 2017

**Oil and Gas Privacy Notice**

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov)

WW-2A Surface Waiver

SURFACE OWNER WAIVER

County Calhoun

Operator  
Operator well number

Buckeye Oil Producing Co.  
Bennett #2H

**INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A**

The well operator named on page WW2A is applying for a permit from the State to do oil or gas well work. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

**NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

**WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:**

Chief, Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

**Time Limits and methods for filing comments.** The law requires these materials to be served on or before the date the operator files his Application. You have **FIFTEEN (15) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure a adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

**Comments must be in writing.** Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation...".

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

**List of Water Testing Laboratories.** The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

**VOLUNTARY STATEMENT OF NO OBJECTION**

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application for a Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through \_\_\_ including a work order on Form WW2-B, a survey plat, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

*Douglas Taylor*  
Signature

Date 6-12-14

Company Name \_\_\_\_\_  
By \_\_\_\_\_  
Its \_\_\_\_\_

DOUGLAS TAYLOR  
Print Name

**Received** Date \_\_\_\_\_

*Shirley Taylor* Date 6-12-14

Signature JUN 16 2014 Date \_\_\_\_\_

Printed Name: Shirley Taylor

WW-2A1  
(Rev. 1/11)

Operator's Well Number Bennett #2H

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6, Section 8(d)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Okmar Oil Company	Buckeye Oil Producing Co.	1/8th	229 / 543

**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Received

Well Operator: Buckeye Oil Producing Co.  
By: Its:  JUN 16 2014  
President

WW-2B1  
(5-12)

Well No. Bennett #2H

West Virginia Department of Environmental Protection  
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name Microboc Lab  
Sampling Contractor Buckeye Oil Producing Co.

Well Operator Buckeye Oil Producing Co.  
Address PO Box 129  
Wooster, OH 44691  
Telephone 330-264-8847

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underlining which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

Doug & Shirley Taylor (1)  
SURFACE OWNERS  
WILL BE TESTED.

3868 Yellow Creek Road  
BIG BEND, WV 26136

Received

JUN 16 2014

1304743H

WW-9  
(5/13)

Page \_\_\_\_\_ of \_\_\_\_\_  
API Number 47 - \_\_\_\_\_ - \_\_\_\_\_  
Operator's Well No. Bennett #2H

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Buckeye Oil Producing Co. OP Code 306103

Watershed (HUC 10) unnamed drain & Big Run of Yellow Creek Quadrangle Grantsville

Elevation 1002 County Calhoun District Sheridan

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes \_\_\_\_\_ No X

Will a pit be used for drill cuttings? Yes X No \_\_\_\_\_

If so, please describe anticipated pit waste: rock cuttings/drilled solids, drilling & completion fluids

Will a synthetic liner be used in the pit? Yes X No \_\_\_\_\_ If so, what ml.? 30

Proposed Disposal Method For Treated Pit Wastes:

D.T. 6-13-14  
S.T. 6-13-14  
H.S.  
6/13/14

- Land Application
- Underground Injection ( UIC Permit Number 34-167-2-9395 )
- Reuse (at API Number \_\_\_\_\_)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Enbank will haul to disposal)

*[Handwritten signatures and dates]*  
6/13/14  
6/13/14

Will closed loop system be used? air drilling operations, no fluid drilling (if necessary) - Yes

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. air, foam/soap, fresh water, water base polymer mud

-If oil based, what type? Synthetic, petroleum, etc. N/A

Additives to be used in drilling medium? drilling mud - sodium/calcium/potassium chlorides, starch, xanthan gum, sodium bicarbonate, caustic soda, biocide.

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. primary plan - leave in pits; alternate plan - landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) cement

-Landfill or offsite name/permit number? if necessary, haul to Meadowfill Landfill

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature *[Signature]*  
Company Official (Typed Name) Steven W. Sigler  
Company Official Title President

Received

Subscribed and sworn before me this 11th day of June, 20 14  
Cheryl K. Beckel Notary Public

JUN 16 2014

My commission expires 11/04/2017

Proposed Revegetation Treatment: Acres Disturbed 2.3 +/- Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 1/3 ton lbs/acre (500 lbs minimum)

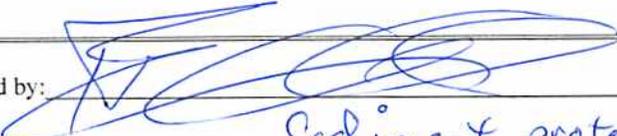
Mulch straw 2 Tons/acre

Seed Mixtures

Seed Type	Area I lbs/acre	Seed Type	Area II lbs/acre
KY - 31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

Attach:  
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: 

Comments: Sediment protection is place at all times,  
Temporary seed & mulch on slopes before rig  
starts drilling.

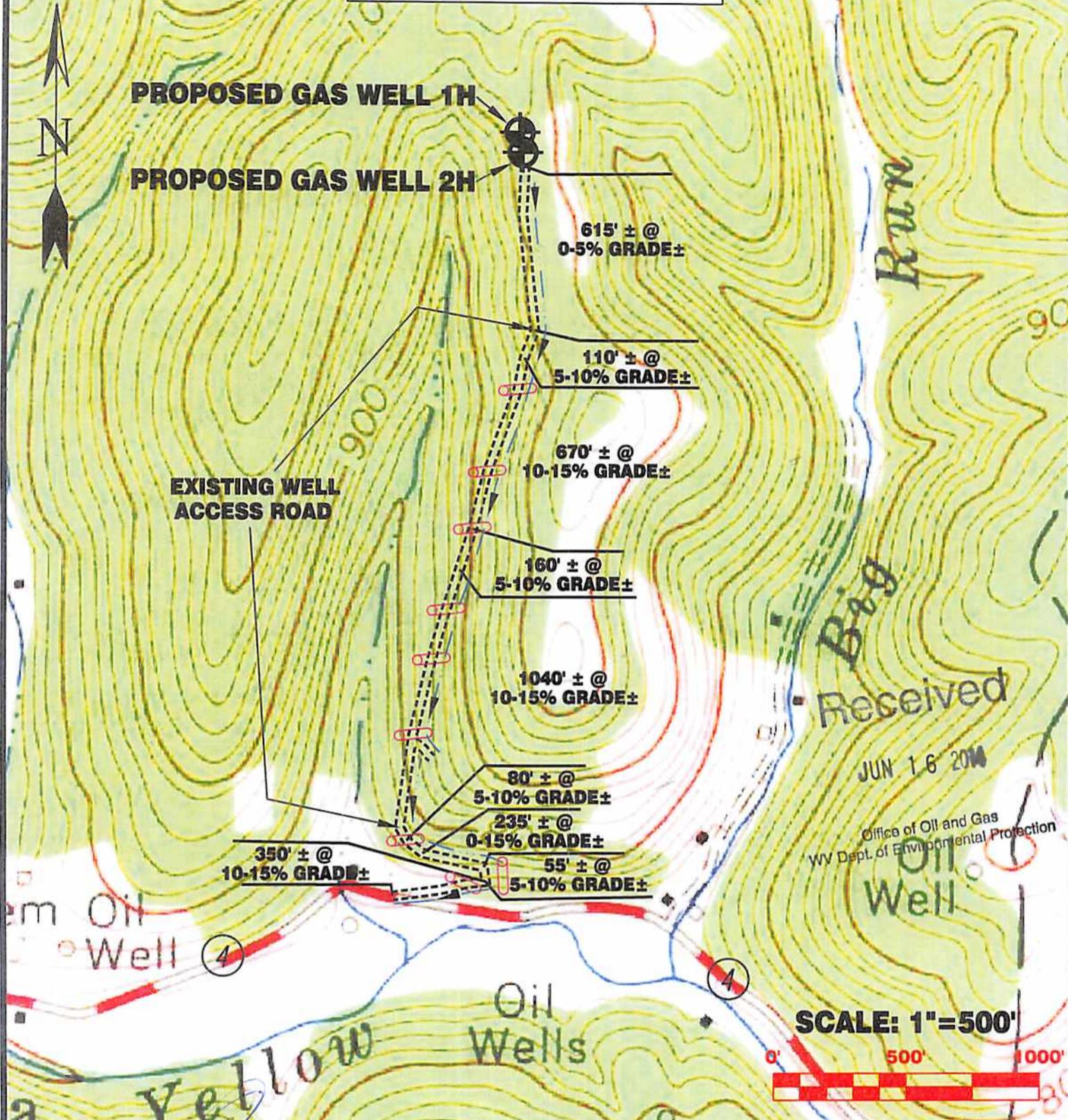
Title: Inspector Date: June 13, 2014

Field Reviewed?  Yes  No

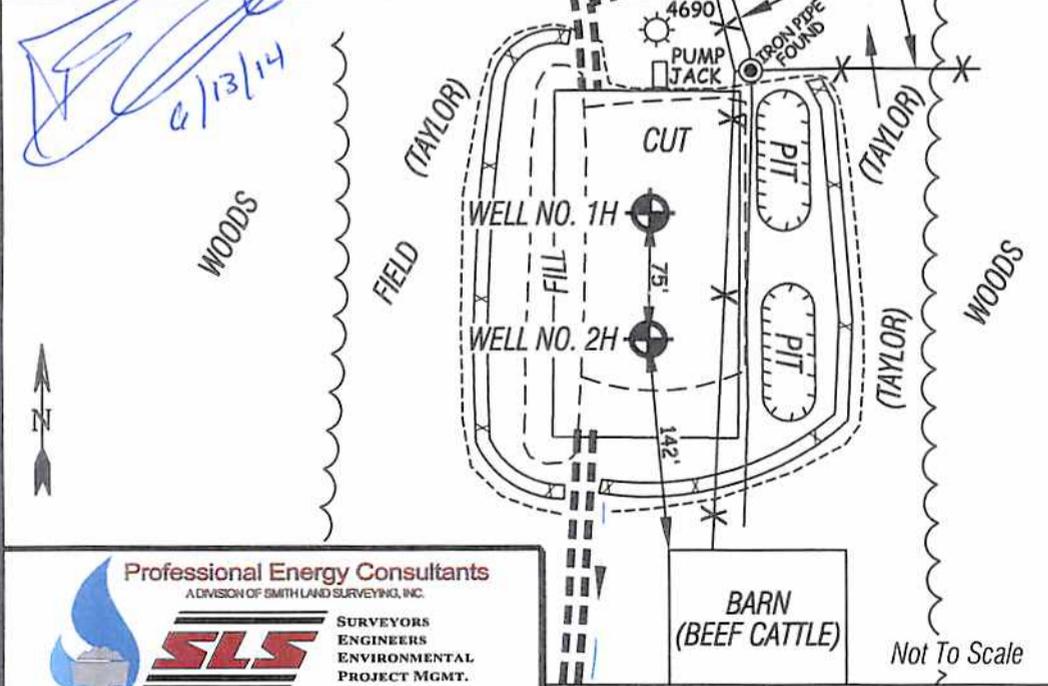
Received

JUN 16 2014

# J.M. BENNETT LEASE WELL NO.S 1H & 2H



Detail Sketch for Proposed Wells 1H & 2H



ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATION. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.

SEDIMENT BASINS (TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT & STACK ALL MARKETABLE TIMBER.

STACKED BRUSH MAY BE USED FOR SEDIMENT CONTROL.

APPLICATIONS FOR SEPARATE PLC PERMITS ON THE ACCESS ROAD STREAM CROSSINGS HAVE BEEN PREPARED (IF APPLIES).

- = EXISTING CULVERT
- = PROPOSED CULVERT 15" MIN. UNLESS OTHERWISE NOTED
- = PROPOSED STREAM CROSSING
- = APPROXIMATE LIMITS OF DISTURBANCE

**Professional Energy Consultants**  
A DIVISION OF SMITH LAND SURVEYING, INC.

**SLS**

SURVEYORS  
ENGINEERS  
ENVIRONMENTAL  
PROJECT MGMT.

(304) 462-5634  
WWW.SLSURVEYS.COM

DRAWN BY: K.D.W. FILE NO.: 8040 DATE: 06/09/14 CADD FILE: 8040REC.1H2H.dwg

TOPO SECTION OF GRANTSVILLE 7.5' USGS TOPO QUADRANGLE

**LEGEND**

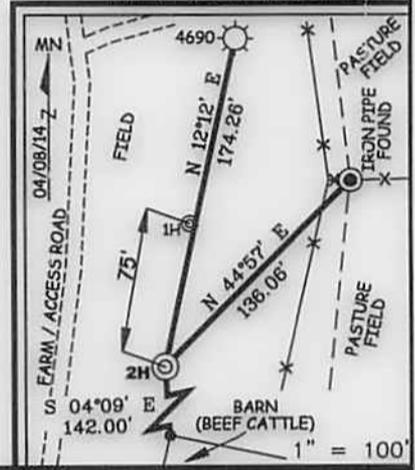
LEASE LINE	---
SURFACE LINE	----
WELL LATERAL	-----
OFFSET LINE	-----
TIE LINE	-----
CREEK	~~~~~
FENCE	* * * * *
PROPOSED WELL	⊙
EXISTING WELL	○
PERMITTED WELL	○
TAX MAP-PARCEL	00-00



**J.M. BENNETT LEASE  
700 ACRES±  
WELL NO. 2H**

(S.P.C. SOUTH ZONE) (UTM(M) ZONE 17 NORTH)  
 NAD'27 S.P.C.(FT) N. 724,001 E. 1,967,837  
 NAD'27 GEO. LAT-(N) 38.98816 LONG-(W) 81.11314  
 NAD'83 UTM (M) N. 4,315,479 E. 490,215  
**BOTTOM HOLE**  
 NAD'27 S.P.C.(FT) N. 724,456 E. 1,964,988  
 NAD'27 GEO. LAT-(N) 39.98940 LONG-(W) 81.12317  
 NAD'83 UTM (M) N. 4,315,617 E. 489,347

**REFERENCES**



**NOTES ON SURVEY**

1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL.

**Professional Energy Consultants**  
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 SURVEYORS  
 ENGINEERS  
 ENVIRONMENTAL  
 PROJECT MGMT.  
 (304) 482-8634  
 WWW.SLSURVEYS.COM



I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. *Gregory A. Smith*  
 677

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE JUNE 09, 20 14  
 REVISED \_\_\_\_\_, 20 \_\_\_\_\_  
 OPERATORS WELL NO. J.M. BENNETT 2H  
 API WELL NO. 47 - 13 - 04743  
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 8040P2H(493-53)  
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (MAPPING GRADE TIE TO CORS NETWORK) SCALE 1" = 500'

STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION  
 OFFICE OF OIL AND GAS

WELL TYPE: OIL \_\_\_\_\_ GAS X LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_ IF "GAS" PRODUCTION X STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW X  
 LOCATION: ELEVATION 1,002' WATERSHED UNNAMED DRAIN & BIG RUN OF YELLOW CREEK  
 DISTRICT SHERIDAN COUNTY CALHOUN QUADRANGLE GRANTSVILLE 7.5'  
 SURFACE OWNER DOUGLAS E. AND SHIRLEY TAYLOR ACREAGE 62±  
 ROYALTY OWNER J.M. BENNETT HEIRS AND/OR ASSIGNS ACREAGE 700±  
 PROPOSED WORK: DRILL X CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW FORMATION \_\_\_\_\_ PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_ OTHER \_\_\_\_\_  
 PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION BEREA  
 ESTIMATED DEPTH TVD 2,467' TMD 5,045'

WELL OPERATOR BUCKEYE OIL PRODUCING CO. DESIGNATED AGENT HENRY W. SINNETT  
 ADDRESS P.O. BOX 129 ADDRESS RT. 1 BOX 150A  
WOOSTER, OH 44691 BIG BEN, WV 26136

COUNTY NAME  
 PERMIT