



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

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

October 08, 2014

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-9502147, issued to JAY-BEE OIL & GAS, 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: HAPPY 2
Farm Name: BLOOM, ARTHUR & LOIS
API Well Number: 47-9502147
Permit Type: Horizontal 6A Well
Date Issued: 10/08/2014

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10/10/2014

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) 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

1. This proposed activity will require permit coverage from the United States Army Corps of Engineers (USACE) and WV DEP Department of Water and Waste Management (DWWM). No activity authorized under this permit shall be commenced until all necessary permits from USACE and DWWM are obtained.
2. 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 § 22-6A-5a (12), 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.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
9. 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 within 30 days of commencement of drilling.

10/10/2014



west virginia department of environmental protection

Office of Oil and Gas
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Earl Ray Tomblin, Governor
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**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: Jay-Bee Oil and Gas
R1 1 Box 5
Cairo, WV 26337

DATE: October 8, 2014
ORDER NO.: 2014-W-5

CC: Jay-Bee Oil and Gas
1720 Rt. 22E
Union, NJ 07083

INTRODUCTION

This Order (hereinafter "Order") is issued by the Office of Oil and Gas (hereinafter "OOG"), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.*, and Jay-Bee Oil & Gas (hereinafter "Jay-Bee" or "Operator"), collectively the "Parties."

FINDINGS OF FACT

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. Jay-Bee Oil & Gas is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as 1720 Rt. 22E; Union, NJ 07083.
3. On January 2nd, 2014, Jay-Bee Oil & Gas submitted permit applications for gas wells identified as API numbers 47-095-02147 and 47-095-02148, located on the Happy Pad, McElroy District, Tyler County, West Virginia.
4. On August 5th, 2014 Jay-Bee Oil & Gas requested a waiver for Wetland 20 and Wetland 21, outlined in Exhibit A, from well location restriction requirements in W. Va. Code §22-6A-12(b) for gas well permit applications identified as API numbers: 47-095-02147 and 47-095-02148, located on the Happy Pad, McElroy District, Tyler County, West Virginia.

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CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “[i]n addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the Office of Oil and Gas shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The Office of Oil and Gas may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary.”

ORDER

Therefore, the Office of Oil and Gas grants Jay-Bee Oil & Gas a waiver for Wetland 20 and Wetland 21 from well location restriction requirements in W. Va. Code §22-6A-12(b) for gas well permit applications identified as API numbers 47-095-02147 and 47-095-02148, located on the Happy Pad, McElroy District, Tyler County, West Virginia. The Office of Oil and Gas hereby **ORDERS** that Jay-Bee Oil & Gas shall meet the following site construction and operational requirements for the Happy well pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least two feet (2') in height;
- b. Orange safety fencing shall be installed on the project boundary to ensure no encroachment onto wetland area;
- c. Super silt fence and erosion control blankets shall be installed on all slopes and down gradient locations of the pad and topsoil pile areas as erosion and sediment controlling BMPs;
- d. Super silt fences shall be installed along all slopes and down gradient locations of the pad adjacent to Wetland 20 and Wetland 21;
- e. Jay-Bee Oil & Gas Field Supervisors will mark erosion and sediment control devices adjacent to Wetland 20 and Wetland 21 with wetland delineated tape, and view these controls weekly after construction.
- f. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- g. Drilling muds shall be disposed of in a permitted landfill;
- h. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- i. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- j. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- k. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½") rain within any twenty-four (24) hour period;
- l. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- m. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 8th day of October, 2014.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By:



JAMES A. MARTIN, CHIEF

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Wetland Waiver Request

API Number 47-095-02147 Well Number Happy 2
Operator Jay-Bee Oil & Gas, Inc Pad Name Happy Pad

Submit a conclusive demonstration to justify the proposed activity by addressing the following:

1. Demonstrate that there is not a practical alternative to impact the Waters of the U.S. by including other alternatives that were considered but eliminated.
 - a. Include a No-Action Alternative as to show "the future without the project"
 - b. Location Alternatives must be shown
 - c. Must demonstrate why a 100' buffer cannot be maintained
2. Show that treatment facilities (Erosion and Sediment Control Features) will be located as close as practical to the source(s) with which it is associated.
3. Demonstrate that all proposed activity will not impact Waters of the U.S. more than is necessary to accommodate the proper construction and operation of the facility.
 - a. Specify and identify wetlands using unique identification and/or perennial streams located within 100' of the pad's limit of disturbance (including erosion and sediment controls).
 - b. Is the proposed project the least environmentally damaging practicable alternative to the waters of the United States, so long as the alternative does not have other environmental consequences
4. Provide mapping, plans, specifications and design analysis for the preferred alternative to the project.
 - a. Specify in writing what additional controls, measures, devices, monitoring, etc will be utilized to protect these wetlands and/or perennial streams.

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Office of Oil and Gas

AUG 05 2014

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10/10/2014

Happy Pad Wetland Waiver Request Submittal

Jay-Bee Oil & Gas, Inc


1. The submitted engineered drawings portrayed the only practical solution to building the Happy Pad. Keep in mind, the majority of this road is an existing farm road. The road happened to be the better choice, but was not the determining factor on placement. After review, the choice that was made created the least amount of damage, fill, and touched as few waters as possible.
 - a. In the attachment, there are two alternatives.
 - i. Alternative A:
 1. Crosses 5 unclassified streams.
 2. Grade was too steep compared to chosen alternative.
 3. The pad used more fill than the chosen alternative.
 - ii. Alternative B:
 1. Crosses 4 unclassified streams.
 2. Still removes Wetland 20.
 3. Still runs within 100 feet of Wetland 20 and Wetland 21.
 4. Environmental damage was increased due to additional length of road, compared to the chosen alternative.
 5. The pad used more fill than the chosen alternative.
 - b. Alternatives shown in attachment.
 - c. The 100' buffer could not be maintained due to choosing the path and placement of the pad that did the least amount of environmental damage. Wetlands 12, 12A, 14, 17, 18, 20, 21, were chosen only due to terrain. Since the alternatives did more damage than good, the road was placed near Wetlands 12, 12A, 14, 17 and 18. There is far less fill where the pad is chosen on Wetland 20 and near Wetland 21.
2. The controls are placed as tight as possible away from Wetlands 12, 12A, 14, 17, 18. The terrain and existing structures had already been installed. The temporary storage pile is placed in the only location possible, and is as far away from all wetlands as possible. The controls were brought closer to the source on Wetland 12, 12A, 14, 17 and 18.
3. Once again, due to the alternatives being more damaging, there is no alternative but to build on Wetland 20. With controls in place, there will be no damage on Wetlands 12, 12A, 14, 17, 18, and 21.
4. Our controls consist of Super Silt Fence with a 4' high chain link fabric, buried minimum of 12" in the ground. The posts that retain the fence barrier are a 2.5" galvanized post. The controls will be placed on the east side of Wetland 21, and installed properly as stated above. The controls will be placed on the north side of the pad, bisecting Wetland 20 as shown, and installed properly as stated above. Additionally, during and after construction, all wetlands within the scope of the project will be fenced separately, marked with Wetland Delineated tape, so that all employees, vendors and personnel on site will know what and where the confirmed wetlands are located. Our field supervisors will also mark the E&S controls nearest the confirmed wetlands with the delineated tape, and view these controls weekly after construction. The erosion control devices will be inspected by Jay-Bee personnel weekly and after every significant rainfall event (1yr/24hr) or a localized rain causing streams to flood outside their normal banks.

WV Department of
Environmental Protection

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Office of Oil and Gas

OCT 07 2014

10/10/2014

	Applicant: JAY BEE OIL & GAS Reference ID: Happy 2 (12/11/2013) Status: New	Type: Horizontal 6A Well Permit ID: 9502147 Printed: May. 27, 2014 3:17 PM


DEP Findings - General Information

API Number:	<input type="text" value="47-095-02147"/>
<input checked="" type="checkbox"/> Check received	
<input checked="" type="checkbox"/> Mylar plat received	
<input checked="" type="checkbox"/> UTM coordinates correct	
<input type="text" value="NOTTINGHAM, JUSTIN"/>	<input type="text" value="1/24/2014"/>
Authorized Representative	Date

WW-6B: General and Location Information

API Number:	<input type="text" value="47-095-02147"/> (47-____-____)
Operator's Well Number:	<input type="text" value="Happy 2"/>
Filing Fee:	<input checked="" type="radio"/> First Well on Pad <input type="radio"/> Subsequent Well on Pad <input type="text" value="10,150.00"/>
Well Pad Name:	<input type="text" value="Happy (T3043) Pad"/>
Surface Owner:	<input type="text" value="Arthur & Lois Bloom"/>
Public Road Access:	<input type="text" value="Walnut Fork Rd"/>
Please attach each of the following as separate documents: <ul style="list-style-type: none"> • Well Plat • Wellbore Schematic 	

County:	<input type="text" value="Tyler"/>	District:	<input type="text" value="McElroy-xx"/>
Quadrangle:	<input type="text" value="SHIRLEY"/>		
Top Hole(UTM NAD83):			
Easting:	<input type="text" value="521436.15"/>	Northing:	<input type="text" value="4368944.47"/>
		Zone:	<input type="text" value="17"/>
Proposed Landing Point(UTM):			
Easting:	<input type="text" value="521276.7"/>	Northing:	<input type="text" value="4368668.6"/>
		Zone:	<input type="text" value="17"/>
Proposed Bottom Hole(UTM):			

Easting: Northing: Zone: 

Elevations (feet) -- Current Ground: Proposed Post-Construction:

Well Type: Gas Oil
 Underground Storage Other

Will well be drilled more than 100 feet into the Onondaga Group? Yes No

Depth Type: Shallow Deep

Existing Pad? Yes No

DEP Findings - Deep Well Approval

This permit application has been reviewed by the WV Oil and Gas Conservation Commission for Deep Well Approval.

Comments:

Deep Well Approval: Approve Deny Not Applicable

Exception Location Hearing Date:

<input type="text"/>	<input type="text" value="i6"/>
Authorized Representative	Date

Deep Well Site Safety Plan Approved

<input type="text"/>	<input type="text" value="i6"/>
Field Authorized Representative	Date

WW-6B: Target Formations

Complete the following table.

Target Formation	Depth-Top (ft)	Anticipated Thickness (ft)	Associated Pressure (psi)
<input type="text" value="Marcellus"/>	<input type="text" value="7254"/>	<input type="text" value="40"/>	<input type="text" value="3500"/>

WW-6B: Well Work and Mine Details

Is proposed well location directly overlying or tributary to an active mine?

Yes No

If Yes, indicate name, depth, coal seam and owner of mine:

Coal Seam: Depth:
 Mine Name: Owner:

Describe proposed well work, including the drilling and plugging back of any pilot hole.

Drill and Stimulate a new Horizontal Well. Using a top hole rig, we will drill top hole to kick off point by drilling the conductor, freshwater and intermediate holes. Using a directional rig we will drill the production holes.

Describe fracturing/stimulating methods in detail, including anticipated max pressure and anticipated max rate.

300-350' per stage 8,500bbls of water, 150,000-400,000lbs of sand, friction reducer, 1# per gallon, scale inhibitor and bacteria prevention 1/4# per gallon 2000 gallons 15% vol acid.

Total area to be disturbed, including roads, stockpile area, pits, etc, (acres):

Area to be disturbed for well pad only, less access road (acres):

WW-6B: FRAC Additives

Please select the chemical names of each additive used in your fracturing compounds.

You may opt to provide these compounds listed in the form of an attachment. See Attached.

Chemical (CAS) Number	Name/Description
<input type="text"/>	<input type="text"/>

Please list any and all chemicals and compounds used not found in list above.

CAS Number	Chemical/Compound Name
07732-18-5	Water
00107-21-1	Ethylene Glycol
00111-30-8	Glutaraldehyde

00064-17-5	Ethyl Alcohol
07647-01-0	Hydrochloric Acid
14808-60-7	Sand
64742-47-8	Distillates (petroleum),hydrotreated light(Friction Reducer)
10043-52-4	Calcium chloride
7173-51-5	Didecyldimethylammonium chloride
68424-85-1	Benzalkonium chloride

WW-6B: Depth Specifics

Proposed Post-Construction Elevation:

Proposed Total Vertical Depth: (ft.)

Formation at Total Vertical Depth:

Proposed Total Measured Depth: (ft.)

Proposed Total Horizontal Leg Length: (ft.)

Method to Determine Fresh Water Depth:

Approximate Fresh Water Strata Depths

(ft.)

Approximate Coal Seam Depths

<input type="text" value="456.5"/> (ft.)	Coal Seam Name, if known: <input type="text"/>
<input type="text" value="595.5"/> (ft.)	Coal Seam Name, if known: <input type="text"/>
<input type="text" value="689.5"/> (ft.)	Coal Seam Name, if known: <input type="text"/>
<input type="text" value="848.5"/> (ft.)	Coal Seam Name, if known: <input type="text"/>
<input type="text" value="911.5"/> (ft.)	Coal Seam Name, if known: <input type="text" value="Pittsburgh"/>

Approximate Depth to Possible Void(coal mine, karst, other)

(ft.) Not Anticipated:

Approximate Saltwater Depths

1474.5 (ft.)

WW-6B: Casing and Cementing

Complete the following table, adding as many rows of each Type as needed.

Type	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	Footage: For Drilling	Intervals: Left in Well
Conductor	16	New	J55	40	30	30
Wellbore Diameter (in)		Wall Thickness (in)		Burst Pressure (psi)		
17 1/2		.495		3000		
Cement Type		Yield (cu. ft./sk)	Fillup - Cubic Feet	Top of Cement	Circulated to Surface?	
Class A Cement		1.19	8.22	0	<input checked="" type="checkbox"/>	
Type	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	Footage: For Drilling	Intervals: Left in Well
Fresh Water	11 3/4	New	J55	32	425	425
Wellbore Diameter (in)		Wall Thickness (in)		Burst Pressure (psi)		
15		.333		1500		
Cement Type		Yield (cu. ft./sk)	Fillup - Cubic Feet	Top of Cement	Circulated to Surface?	
Class A Cement		1.26	201.52	0	<input checked="" type="checkbox"/>	
Type	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	Footage: For Drilling	Intervals: Left in Well
Intermediate	8 5/8	New	J55	24/23	2000	2000
Wellbore Diameter (in)		Wall Thickness (in)		Burst Pressure (psi)		
11		.264		2500		
Cement Type		Yield (cu. ft./sk)	Fillup - Cubic Feet	Top of Cement	Circulated to Surface?	
Class A Cement		1.45	508.43	0	<input checked="" type="checkbox"/>	
Type	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	Footage: For Drilling	Intervals: Left in Well
Production	5 1/2	New	P110	17/20	15505	15505
Wellbore Diameter (in)		Wall Thickness (in)		Burst Pressure (psi)		
7 7/8		.304		15000		
Cement Type		Yield (cu. ft./sk)	Fillup - Cubic Feet	Top of Cement	Circulated to Surface?	
Type 1 Cement		1.34	2686.31	1000	<input type="checkbox"/>	

WW-6B: Centralizers, Cement, Borehole

Describe proposed borehole conditioning procedures.

Air Hole: 15" hole for the 11 3/4 fresh water case - Circulate until clean with air. If soaping, slug then dry.
 Air Hole: 11" hole for the 8 5/8 intermediate base - Circulate until clean with air. If soaping, slug then dry.
 7 7/8" hole for the 5 1/2 production case - Circulate with mud and sweeps for two times bottoms up.
 If needed weight up mud until no cuttings retrieved, then circulate with mud and sweeps for two times bottoms up.

Centralizers Type and Placement.

Vertical - Every 500' Bow Centralizer, and 50' from top of ground. Horizontal every 42' Spiral Centralizer, Curve - Every 84' Spiral Centralizer.

Cement Additives.

Superior Well Services - 15" hole for the 11 3/4 fresh water case, Class A Cement, 2% Calcium Chloride, 1/4# flake.
 Superior Well Services - 11" hole for the 8 5/8 intermediate base, Class A Cement, 2% Calcium Chloride
 Baker Hughes - 7 7/8" hole for the 5 1/2 production case, Type 1 Cement, Fly Ash, Barite, Finetol 300L, R-3 Celio Flake, Sugar, CD-32, FL-62

DEP Findings - Casing and Cementing Plan (Inspector)

Comments:

Field Reviewed? Yes No Recommendation: Approve Deny

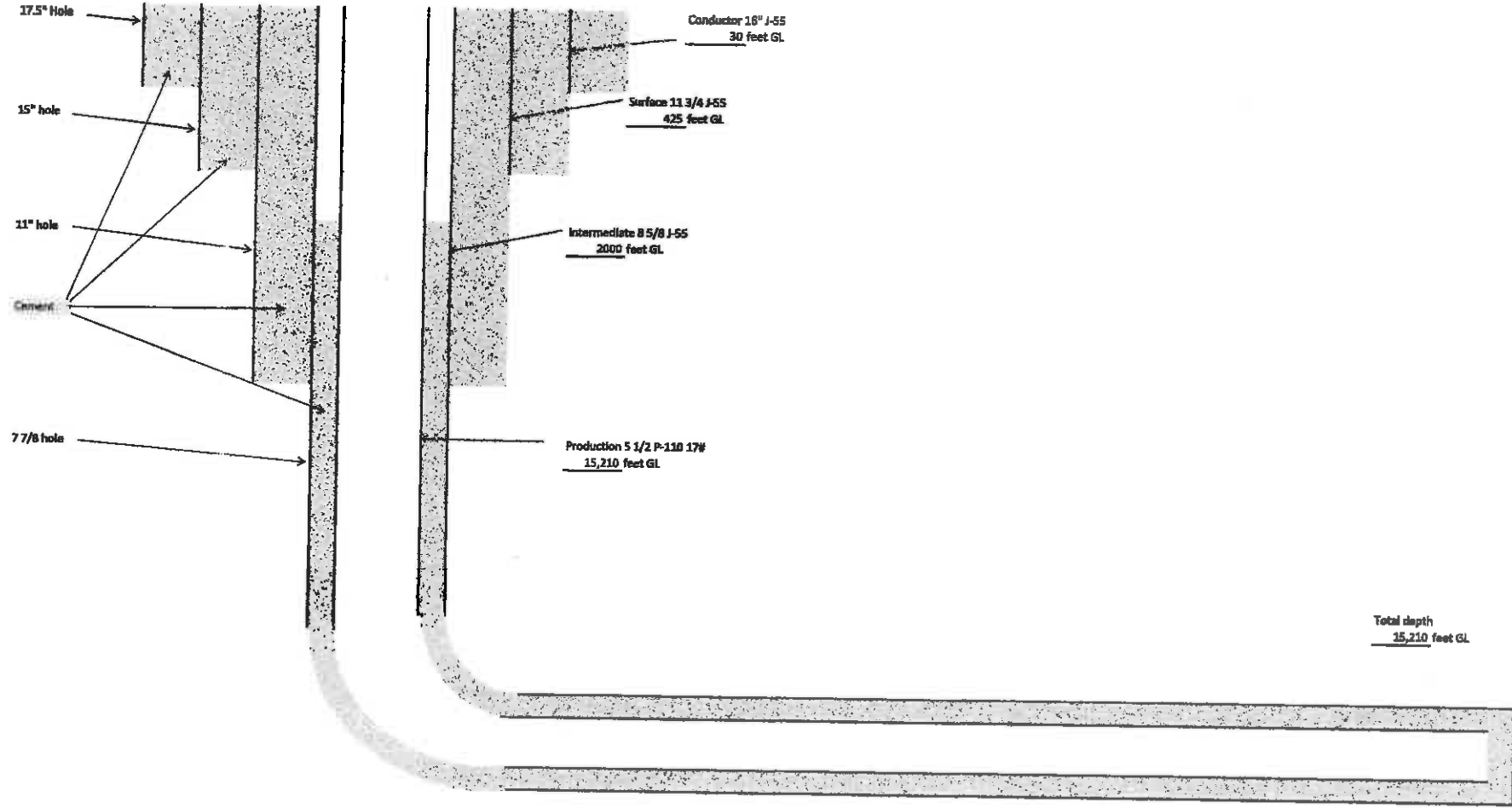
<input type="text" value="TAYLOR, JOE"/>	<input type="text" value="1/3/2014"/>
Authorized Representative	Date

WW-6B: Packers

Jay-Bee Oil & Gas Inc.
Well Name Happy 6
GL Elevation 1259.5
KB 14 feet

Date 12/23/2013
District McElroy
County Tyler
State West Virginia

Input by: Shane Dowell



Water Based

Additives to be used in drilling medium?
Bentonite, Salt, Soda Ash

Solid Waste disposal method from Plugging Activities:

Leave in Pit (Indicate medium used: cement, sawdust, lime, etc):

Landfill (name/permit number?) Meadowfill/Permit 101219WW

Removed Offsite (name/permit number?) Meadowfill/Permit 101219WW

Other: (please explain)

Proposed Revegetation Treatment:

Acres Disturbed: 27.2 Prevegetation pH: 6.8

Lime Tons/acre to correct to pH: 3

Fertilizer (10-20-20 or equivalent): 750 lbs/acre

Mulch Hay 2000 lbs/acre

Comments:

Attach a Reclamation Plan/Drawing

Seed Mixtures		
Area Type	Seed Type	lbs/acre
Permanent	KY-31	20
Permanent	Creeping Red Fescue	30
Permanent	Lathco Flat Pea/Perennial Ryegrass	30
Temporary	Annual Ryegrass	40

DEP Findings - Fluids, Cuttings Disposal and Reclamation Plan (Inspector)

Comments:

Field Reviewed? Yes No Recommendation: Approve Deny

TAYLOR, JOE	1/3/2014
Authorized Representative	Date

WW-PN: Public Notice

**Horizontal Natural Gas Well Work Permit
Application Notice By Publication**

Notice is hereby given:

Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper:
County:
First Public Notice Date:
Second Public Notice Date:

The following applicant intends to apply for a horizontal natural well work permit which disturbs three acres or more of surface excluding pipelines, gathering lines and roads or utilizes more than two hundred ten thousand gallons of water in any thirty day period.

Applicant: JAY BEE OIL & GAS
Well Number: Happy 2

Representative:
Title:
Email:
Street:

City:
State:
Zip: **Phone:** **Ext.:**
Facsimile:

Business Conducted: Natural gas production.

Location --

State: West Virginia **County:** Tyler
District: 05 **Quadrangle:** SHIRLEY
Zone: 17
Northing: 4368944.47 **Easting:** 521436.15

Coordinate Conversion:

To convert the coordinates above into longitude and latitude, visit http://tagis.dep.wv.gov/convert/llutm_conus.php

Electronic notification:

https://epermit.dep.wv.gov/webapp/_dep/securearea/application/templates/PrintApp.cfm?S... 5/27/2014

10/10/2014

To receive an email when applications have been received or issued by the Office of Oil and Gas, at <http://www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx> to sign up.

Reviewing Applications:

Copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE Charleston, WV 25304 (304-926-0450). Full copies or scans of the proposed permit application will cost \$15, whether mailed or obtained at DEP headquarters. Copies may be requested by calling the office or by sending an email to DEP.oog@wv.gov.

Submitting Comments:



Comments may be submitted online at <https://apps.dep.wv.gov/oog/comments/comments.cfm>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Please reference the county, well number, and operator when using this option.

Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling in West Virginia visit: <https://www.dep.wv.gov/oil-and-gas/pages/default.aspx>.

WW-6A: Notice of Application

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Operator Well Number:	<u>Happy 2</u>
Well Pad Name:	<u>Happy (T3043) Pad</u>
Date of Notice:	<input type="text" value="1/2/2014"/> 
Date Permit Application Filed:	<input type="text" value="1/2/2014"/> 

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Pursuant to W. Va. Code § 22-6A-10(b), no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons:

- (1) The owners of record of the surface of the tract on which the well is or is proposed to be located;
 - (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article;
 - (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located is known to be underlain by one or more coal seams;
 - (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article;
 - (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and
 - (6) The operator of any natural gas storage field within which the proposed well work activity is to take place.
- (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section

https://epermit.dep.wv.gov/webapp/_dep/securearea/application/templates/PrintApp.cfm?S... 5/27/2014

10/10/2014

hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code.

- (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice, WSSP Notice, E&S Plan Notice and Well Plat Notice is hereby provided to:

See Attached

Delivery Method:

- Recipient Type:
- Surface Owner(s)
 - Surface Owner(s) (Road and/or Other Disturbance)
 - Surface Owner(s) (Impoundments/Pits)
 - Coal Owner or Lessee
 - Coal Operator
 - Surface Owner of Water Well and/or Water Purveyor(s) within 1500'
 - Operator of Any Natural Gas Storage Field

Name:

Street:

City:

State: Zip Code:

See Attached

Delivery Method:

- Recipient Type:
- Surface Owner(s)
 - Surface Owner(s) (Road and/or Other Disturbance)
 - Surface Owner(s) (Impoundments/Pits)
 - Coal Owner or Lessee
 - Coal Operator
 - Surface Owner of Water Well and/or Water Purveyor(s) within 1500'
 - Operator of Any Natural Gas Storage Field

Name:

Street:

City:

State: Zip Code:

See Attached

Delivery Method: Registered Mail

- Recipient Type:
- Surface Owner(s)
 - Surface Owner(s) (Road and/or Other Disturbance)
 - Surface Owner(s) (Impoundments/Pits)
 - Coal Owner or Lessee
 - Coal Operator
 - Surface Owner of Water Well and/or Water Purveyor(s) within 1500'
 - Operator of Any Natural Gas Storage Field

Name: Ronald E. & Janet Thompson

Street: HC 62 Box 118

City: Lima

State: West Virginia Zip Code: 26377

See Attached

Delivery Method: Registered Mail

- Recipient Type:
- Surface Owner(s)
 - Surface Owner(s) (Road and/or Other Disturbance)
 - Surface Owner(s) (Impoundments/Pits)
 - Coal Owner or Lessee
 - Coal Operator
 - Surface Owner of Water Well and/or Water Purveyor(s) within 1500'
 - Operator of Any Natural Gas Storage Field

Name: Delma M. Thompson

Street: HC 62 Box 121

City: Lima

State: West Virginia Zip Code: 26377

See Attached

Delivery Method: Registered Mail

- Recipient Type:
- Surface Owner(s)
 - Surface Owner(s) (Road and/or Other Disturbance)
 - Surface Owner(s) (Impoundments/Pits)
 - Coal Owner or Lessee

- Coal Operator
- Surface Owner of Water Well and/or Water Purveyor(s) within 1500'
- Operator of Any Natural Gas Storage Field

Name:

Street:

City:

State: Zip Code:

See Attached

Delivery Method:

Recipient Type:

- Surface Owner(s)
- Surface Owner(s) (Road and/or Other Disturbance)
- Surface Owner(s) (Impoundments/Pits)
- Coal Owner or Lessee
- Coal Operator
- Surface Owner of Water Well and/or Water Purveyor(s) within 1500'
- Operator of Any Natural Gas Storage Field

Name:

Street:

City:

State: Zip Code:

See Attached

Delivery Method:

Recipient Type:

- Surface Owner(s)
- Surface Owner(s) (Road and/or Other Disturbance)
- Surface Owner(s) (Impoundments/Pits)
- Coal Owner or Lessee
- Coal Operator
- Surface Owner of Water Well and/or Water Purveyor(s) within 1500'
- Operator of Any Natural Gas Storage Field

Name:

Street:

City:

State: Zip Code:

See Attached

Delivery Method:

Recipient Type:

- Surface Owner(s)
- Surface Owner(s) (Road and/or Other Disturbance)
- Surface Owner(s) (Impoundments/Pits)
- Coal Owner or Lessee
- Coal Operator
- Surface Owner of Water Well and/or Water Purveyor(s) within 1500'
- Operator of Any Natural Gas Storage Field

Name:

Street:

City:

State: Zip Code:

See Attached

Delivery Method:

Recipient Type:

- Surface Owner(s)
- Surface Owner(s) (Road and/or Other Disturbance)
- Surface Owner(s) (Impoundments/Pits)
- Coal Owner or Lessee
- Coal Operator
- Surface Owner of Water Well and/or Water Purveyor(s) within 1500'
- Operator of Any Natural Gas Storage Field

Name:

Street:

City:

State: Zip Code:

See Attached

Delivery Method:

Recipient Type:

- Surface Owner(s)
- Surface Owner(s) (Road and/or Other Disturbance)
- Surface Owner(s) (Impoundments/Pits)
- Coal Owner or Lessee
- Coal Operator
- Surface Owner of Water Well and/or Water Purveyor(s) within 1500'
- Operator of Any Natural Gas Storage Field

Name:

Street:

City:

State: Zip Code:

See Attached

Delivery Method:

- Recipient Type:
- Surface Owner(s)
 - Surface Owner(s) (Road and/or Other Disturbance)
 - Surface Owner(s) (Impoundments/Pits)
 - Coal Owner or Lessee
 - Coal Operator
 - Surface Owner of Water Well and/or Water Purveyor(s) within 1500'
 - Operator of Any Natural Gas Storage Field

Name:

Street:

City:

State: Zip Code:

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall also include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of

submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall:

- (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis;
- (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability;
- (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and
- (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No wellpad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows:

- (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir.
- (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake.
- (3) For a groundwater source, the distance shall be measured from the wellhead or spring.

The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from

conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses:

- (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test.
- (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test.
- (3) The water supply is not within one thousand five hundred feet of the well.
- (4) The pollution occurred more than six months after completion of drilling or alteration activities.
- (5) The pollution occurred as the result of some cause other than the drilling or alteration activity.

(d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to:

- (1) Provide an emergency drinking water supply within twenty-four hours;
- (2) Provide temporary water supply within seventy-two hours;
- (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and
- (4) Pay all reasonable costs incurred by the real property owner in securing a water supply.

(g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

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

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

Time Limits and Methods for Filing Comments

The law requires these materials to be served on or before the date the operator files its Application. You have THIRTY (30) 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 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.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and 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.

Disclaimer: All comments received will be placed on our web site www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

1. The proposed well work will constitute a hazard to the safety of persons;
2. The plan for soil erosion and sediment control is not adequate or effective;
3. Damage would occur to publicly owned lands or resources; or
4. The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

WW-6AC: Notice Certification

Date of Notice Certification: **16**
 Operator Well Number: Happy 2
 Well Pad Name: Happy (T3043) Pad

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State: West Virginia County: Tyler
 District: 05 Quadrangle: SHIRLEY
 Zone: 17
 Northing: 4368944.47 Easting: 521436.15

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:

***PLEASE CHECK ALL THAT APPLY**

1. NOTICE OF SEISMIC ACTIVITY or
 NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED
2. NOTICE OF ENTRY FOR PLAT SURVEY or
 NO PLAT SURVEY WAS CONDUCTED
3. NOTICE OF INTENT TO DRILL or
 NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or
 WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)
4. NOTICE OF PLANNED OPERATION
5. PUBLIC NOTICE
6. NOTICE OF APPLICATION

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

WW-6A3: Notice of Entry for Plat Survey

Operator Well Number: Happy 2

Notice Time Requirement: Notice shall be provided at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to entry.

Date of Notice: 8/15/2013  Additional Date of Notice: 12/13/2013 

Date of Planned Entry: 8/26/2013 

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

See Attached

Delivery Method: Registered Mail

- Recipient Type: Surface Owner(s)
- Surface Owner(s) (Road and/or Other Disturbance)
- Surface Owner(s) (Impoundments/Pits)
- Coal Owner or Lessee
- Mineral Owner(s)

Name: Arthur Thomas Bloom

Street: 193 Genteel Rd.

City: Wellsburg,

State: West Virginia Zip Code: 26070

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

WW-6A5: Notice of Planned Operation

Operator Well Number: Happy 2

Notice Time Requirement: Notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 1/2/2014 **Date Permit Application Filed:** 1/2/2014

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

See Attached

Delivery Method: Hand Delivery Certified Mail Return Receipt Requested

Name: Arthur T. & Lois J. Bloom

Street: 193 Gentech-Ridge

City: Wellsburg

State: West Virginia **Zip Code:** 26070

See Attached

Delivery Method: Hand Delivery Certified Mail Return Receipt Requested

Name: Craig F. Bessinger

Street: 290 Ferguson Rd.

City: Elkins

State: West Virginia **Zip Code:** 26241

See Attached

Delivery Method: Hand Delivery Certified Mail Return Receipt Requested

Name: Ronald E. & Janet Thompson

Street: HC 62 Box 118

City: Lima

State: West Virginia **Zip Code:** 26377

See Attached

Delivery Method: Hand Delivery Certified Mail Return Receipt Requested

Name:

Street:

City:

State: Zip Code:

See Attached

Delivery Method: Hand Delivery Certified Mail Return Receipt Requested

Name:

Street:

City:

State: Zip Code:

Oil and Gas Privacy Notice:
 The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 deprivacyofficer@wv.gov.

WW-6A1: Lease Form

Operator's Well Number: Happy 2

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
 Chapter 22, Article 6A, Section 5(a)(5)
 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:

See Attached

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
T3040-T3041AA (1)	Wilma Fiber	JB Exploration I, LLC	12.5%	410-337
T3042A1 (1)	John Lambert Ice	JB Exploration I, LLC	12.5%	411-746
T3039E (2, 3, 4, 5)	Glenna Ruth McMullen	JB Exploration I, LLC	12.5%	423-331
T3039A (6, 8)	Mary Ann Ketelson	JB Exploration I, LLC	12.5%	396-644
T3046 (7)	Gilbert Hufford	Jay-Bee Production Company	12.5%	387-532
T3013 (9)	Gilbert Hufford	Jay-Bee Production Company	12.5%	387-532

**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 ResourcesWV 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.

Well Operator: JAY BEE OIL & GAS

By: Shane Dowell
 Its: Office Manager

General Attachments


Please attach each of the following as separate documents:

- Site Safety Plan
- Site Construction Plan, Reclamation Plan, and Erosion and Sediment Control Plan
- Topographic Map Showing Access Road

DEP Findings - Erosion and Sediment Control (Inspector)

Erosion and Sediment Control Comments:


Field Reviewed? Yes No Recommendation: Approve Deny


 Authorized Representative Date

DEP Findings - Site Safety Plan (Inspector)

Site Safety Plan Comments:

Recommendation: Approve Deny


 Authorized Representative Date

Water Management Plan - Water Addendum: Section I: Operator Information

WMP Number: Modification?

*Registered in the Frac Water Reporting Website? Yes No

Contact Name: Shane Dowell
 Contact Title: Office Manager
 Mailing Address: 3570 Shields Hill Rd

City: Cairo State: West Virginia Zip Code: 26337
 Phone: 304-628-3111 Ext.: Is TelephoneExt
 Email: sdowell@jaybeeoil.com

*If no, the operator will be required to register with the WVDEP Water Use Section; contact dep.water.use@wv.gov

Water Management Plan - Water Addendum: Section II: Well Overview

Operator's Well Number: Happy 2
 Well Pad Name: Happy (T3043) Pad
 Plan Type: Well
 Anticipated Frac Date: 4/1/2014
 Provide Well Location (decimal degrees, NAD83):
 NAD: NAD83 Latitude: 39.469817 Longitude: -80.75078
 County: Tyler

Water Management Plan - Water Addendum: Section III: Source Water Overview

Check all that apply:
 Streams/Rivers Lakes/Reservoirs Ground Water
 Purchased Water (PSD) Purchased Water (Private) Recycled Frac Water
 Multi-Site Impoundment Other

Withdrawal Dates: 4/1/2014 to 4/1/2015
 Total Withdrawal from Source(gal): 7854000

Aquatic Life Protection
 Describe Entrainment and Impingement Prevention Plan:
 Entrainment plan is screens on hose ends for withdrawal hoses.
 Impingement plain is visual focus due to the low volume of vacuum from our water trucks.

Describe Invasive Species Transfer Prevention Plan:
 Back-flow prevention device, washing hoses when obtaining from multiple locations.

Section III (f): Reused FRAC Water

Complete for each source

API # of Previous Well (anticipated sources)
Various (any flowback wells within WVDEP guidelines)

Section III (e): Centralized Freshwater Impoundment - Centralized Waste Pit

Complete for each source

Impoundment Name:

Pit or Impoundment Registration Number:

Referenced WMP Number:

Location (decimal degrees, NAD83)

NAD: Latitude: Longitude:

County:

Land Owner:

Mailing Address:

City:

State: Zip:

Phone: Ext.:

Permission to Withdraw Obtained from Owner: Yes No

Withdrawal Details from Impoundment to well-site

Water Management Plan - Water Addendum: Section IV: Planned Disposal Method

UIC	Name: <input type="text" value="Green Hunter Disposal Services"/>	Permit: <input type="text" value="47-085-09721"/>
	Estimate % each facility is to receive --	
	Fracturing: <input type="text" value="25"/>	Stimulation: <input type="text" value="0"/> Production: <input type="text" value="75"/>
	NAD: <input type="text" value="NAD83"/>	Latitude: <input type="text" value="39.258428"/> Longitude: <input type="text" value="-81.09997"/>
NPDES	Name: <input type="text"/>	Permit: <input type="text"/>
(Treatment Plant)	Estimate % each facility is to receive --	
	Fracturing: <input type="text"/>	Stimulation: <input type="text"/> Production: <input type="text"/>
	NAD: <input type="text"/>	Latitude: <input type="text"/> Longitude: <input type="text"/>
Re-Use	Name: <input type="text"/>	Permit: <input type="text"/>
	Estimate % each facility is to receive --	
	Fracturing: <input type="text"/>	Stimulation: <input type="text"/> Production: <input type="text"/>
	NAD: <input type="text"/>	Latitude: <input type="text"/> Longitude: <input type="text"/>
Other	Name: <input type="text"/>	Permit: <input type="text"/>
	Estimate % each facility is to receive --	
	Fracturing: <input type="text"/>	Stimulation: <input type="text"/> Production: <input type="text"/>
	NAD: <input type="text"/>	Latitude: <input type="text"/> Longitude: <input type="text"/>

Water Management Plan - Water Addendum: DEP: DEP Findings - Water Management Plan

WMP Number: <input type="text"/>	API/ID Number: <input type="text"/>
Operator: <input type="text"/>	Total Volume(gal): <input type="text"/>
Facility: <input type="text"/>	
Start Date: <u>Is_WithdrawalStart</u>	End Date: <u>Is_WithdrawalEnd</u>

For each proposed primary water source (including source intakes for purchased water sources) identified in your water management plan, and summarized herein, DEP has made an evaluation concerning water availability over the specified date range. DEP's assessment is based on the following considerations:

- Statistical analysis of historical USGS stream gauge data (transferred to un-gauged locations as necessary);
- Identification of sensitive aquatic life (endangered species, mussels, etc.);
- Quantification of known existing demands on the water supply (Large Quantity Users);
- Minimum flows required by the Army Corps of Engineers; and
- Designated stream uses.

Based on these factors, DEP has provided, for each intake location (and origination point for purchased water), a reference gauge location and discharge flow reading which must be surpassed prior to withdrawals. Additionally, DEP has established a minimum passby flow at the withdrawal location which must also be surpassed prior to withdrawals. These thresholds are considered terms of the permit and are enforceable as such.

DEP is aware that some intake points will be used for multiple wells and well sites. In these cases, the thresholds set by the Water Management Plan are to be interpreted as total withdrawal limits for each location over the specified date range regardless of how many wells are supported by that intake.

For all purchased water intakes, determinations of water availability are made at the original source intake location. It is the responsibility of the Oil and Gas Operator, not the seller, to cease withdrawal of water from the seller when flows are less than the minimum gauge reading at the stream gauge referenced by the Water Management Plan in order to protect stream uses.

Note that the determinations made herein are based on the best available data, but it is impossible to predict water availability in the future. While the DEP has carefully established these minimum withdrawal thresholds, it remains the operator's responsibility to protect aquatic life at all times. Approval to withdrawal is contingent upon permission from the land owner. It is the responsibility of the operator to secure and maintain permission prior to any withdrawals.

The operator is reminded that 24-48 hours prior to withdrawing (or purchasing) water, DEP must be notified by email at DEP.water.use@wv.gov.

DEP Decision: Approved Denied

Authorized Representative Date

Water Management Plan - Water Addendum: Section V: Planned Additives

Attach a copy of Planned Additives to be used in Fracturing or Stimulations.

Water Management Plan - Water Addendum: Section VI: Operator Comments

Operator Comments

WW-6A7: Well Restriction Checklist

Operator's Well Number:	Happy 2
Well Pad Name:	Happy (T3043) Pad
Operator Name:	JAY BEE OIL & GAS

WELL RESTRICTIONS	
<input checked="" type="radio"/>	At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR
<input type="radio"/>	DEP Waiver and Permit Conditions
<input checked="" type="radio"/>	At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR
<input type="radio"/>	DEP Waiver and Permit Conditions
<input checked="" type="radio"/>	At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR
<input type="radio"/>	DEP Waiver and Permit Conditions
<input checked="" type="radio"/>	At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR
<input type="radio"/>	Surface Owner Waiver and Recorded with County Clerk, OR
<input type="radio"/>	DEP Waiver and Permit Conditions
<input checked="" type="radio"/>	At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR
<input type="radio"/>	Surface Owner Waiver and Recorded with County Clerk, OR
<input type="radio"/>	DEP Waiver and Permit Conditions
<input checked="" type="radio"/>	At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad, OR
<input type="radio"/>	Surface Owner Waiver and Recorded with County Clerk, OR
<input type="radio"/>	DEP Waiver and Permit Conditions

DOWELL, SHANE	12/16/2013 
Authorized Representative	Date

DEP Only Section

WWDEP Staff :	<input type="text" value="Laura Cooper"/>	Date:	<input type="text" value="3/26/14"/>
Comment:	<input type="text" value="Please fill out the attached Waiver Request Questions and upload with General Attachments."/>		



**Water Management Plan:
Secondary Water Sources**



WMP: 01785

API/ID Number: 047-095-02148

Operator: Jay-Bee Oil & Gas, Inc.

Happy 6

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

- For groundwater supply wells, DEP recommends that the operator contact the local health department prior to drilling any new well; and reminds the operator that all drinking water wells within 1,500 feet of a water supply well shall be flow- and quality-tested by the operator at the request of the drinking well owner prior to operation of the water supply well.
- For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

Multi-site impoundment

Source ID: 34228	Source Name	W701 Fresh Water Centralized Impoundment		Source start date:	4/1/2014
				Source end date:	4/1/2015
	Source Lat:	39.438678	Source Long:	-80.720864	County: Tyler
	Max. Daily Purchase (gal)		Total Volume from Source (gal):	7,845,000	
DEP Comments:	095-FWC-00001				

The intake identified above has been defined in a previous water management plan. The thresholds established in that plan govern this water management plan unless otherwise noted.

Reference: WMP-577

APPROVED FEB 03 2014

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

•For groundwater supply wells, DEP recommends that the operator contact the local health department prior to drilling any new well; and reminds the operator that all drinking water wells within 1,500 feet of a water supply well shall be flow- and quality-tested by the operator at the request of the drinking well owner prior to operation of the water supply well.

•For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

Recycled Frac Water

Source ID: 34229 Source Name Various

Source start date: 4/1/2014

Source end date: 4/1/2015

Source Lat:

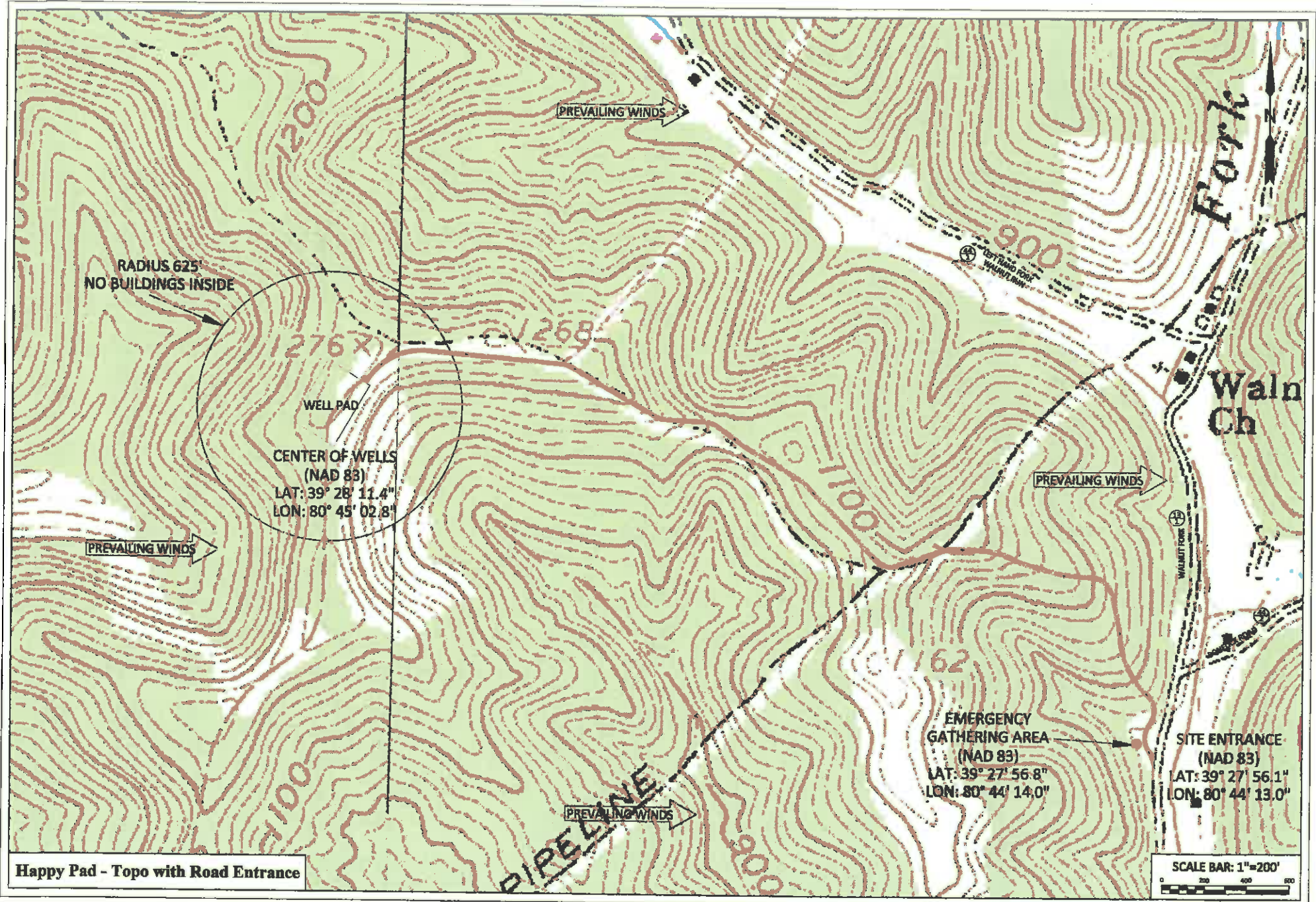
Source Long:

County

Max. Daily Purchase (gal)

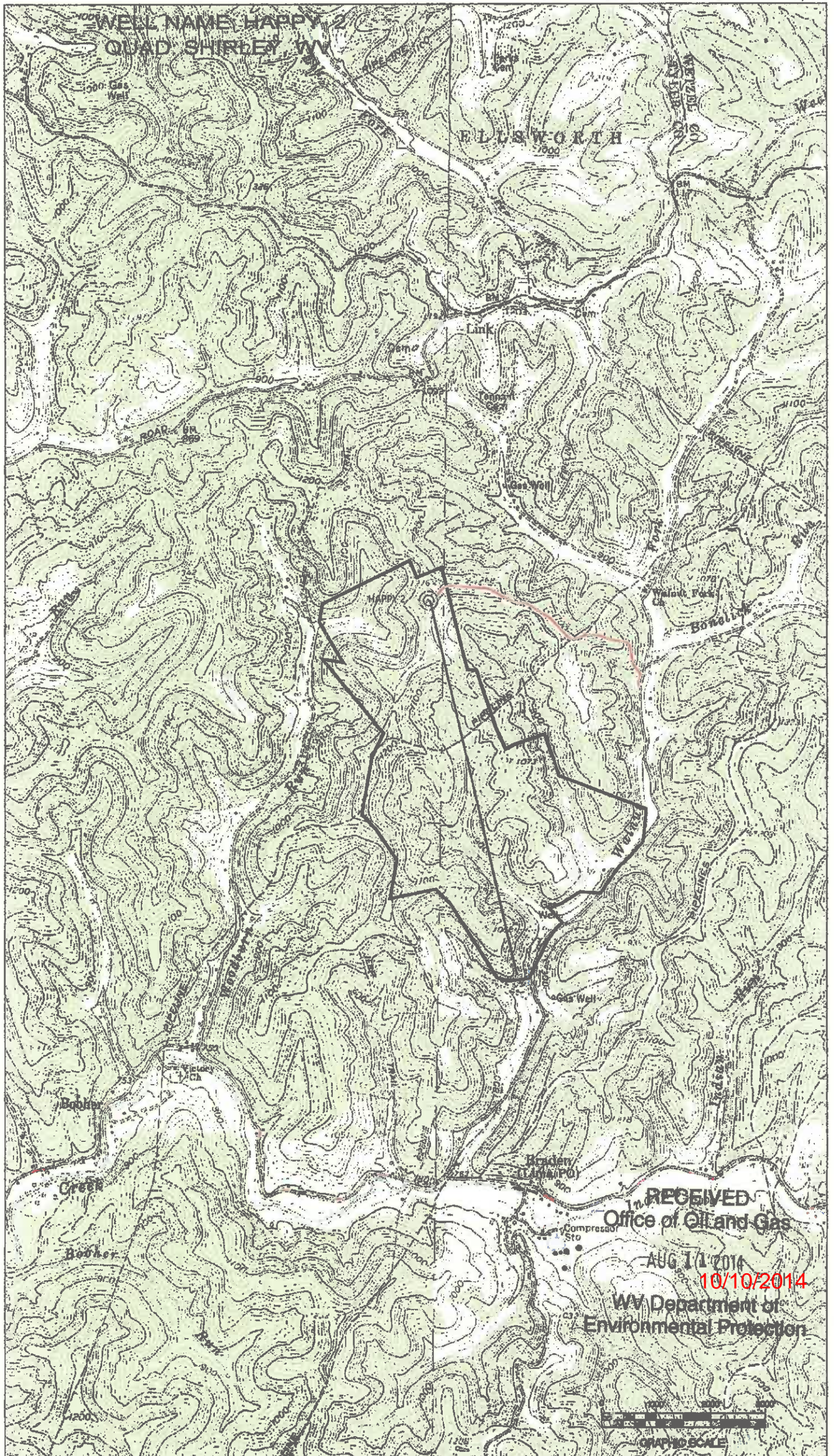
Total Volume from Source (gal): 7,845,000

DEP Comments:



Happy Pad - Topo with Road Entrance

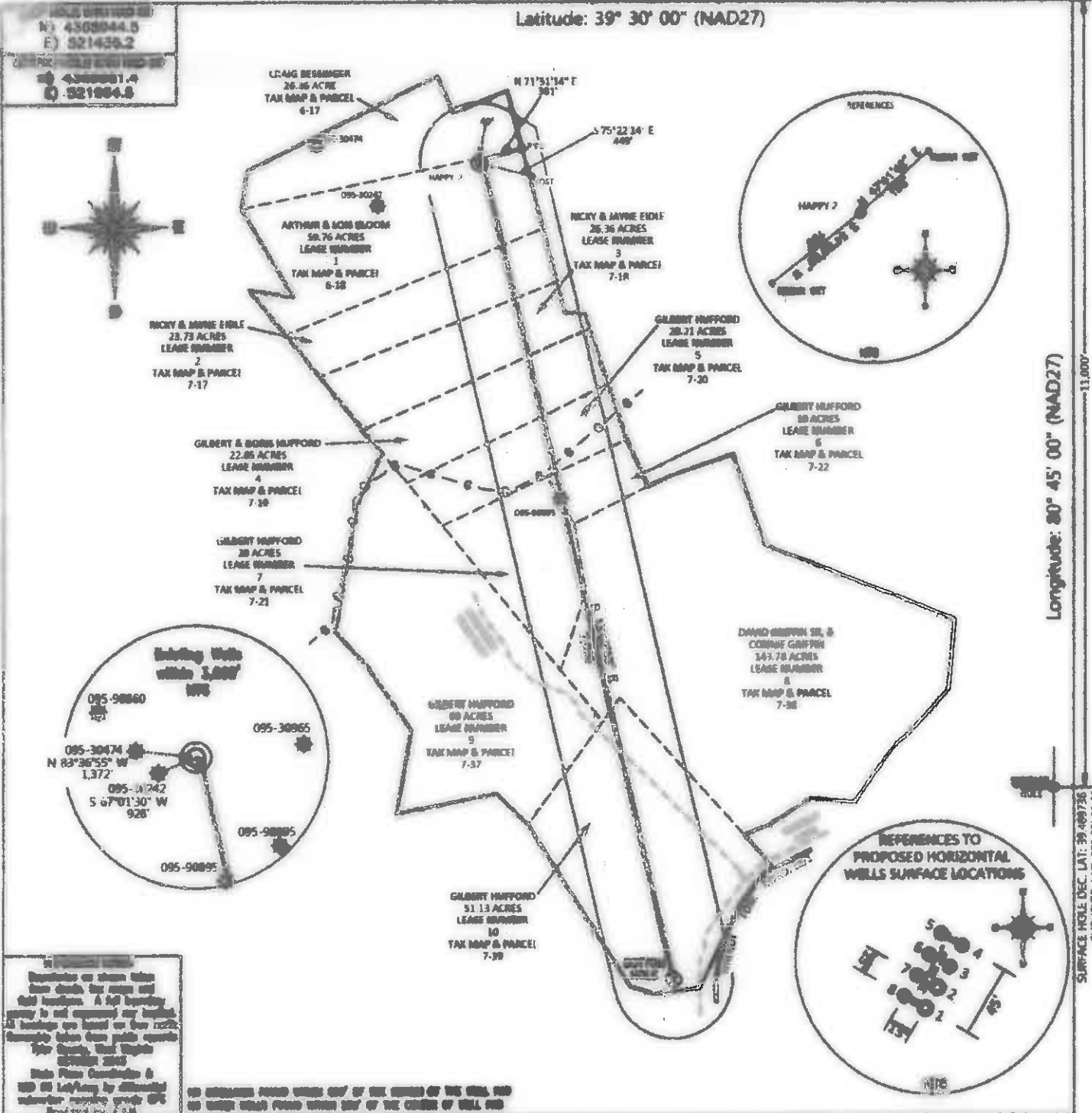
SCALE BAR: 1"=200'
0 200 400 600



Latitude: 39° 30' 00" (NAD27)

Longitude: 80° 45' 00" (NAD27)

SURFACE HOLE DEC. LAT: 39° 30' 11.1" SURVEYED LAT: 39° 28' 11.1"



INSTRUCTIONS TO THE SURVEYOR
 The boundaries shown on this map were obtained from the owner and field locations. A full boundary survey is not required for this map. All bearings are based on true north. Boundary lines from public records are shown in dashed lines.
 State Plane Coordinate & 100 ft 1/4" long by 1/4" wide
 submitted bearing grade 0%
 Projected by: JAY

NO WARRANTY IS MADE BY ANY OF THE PARTIES TO THIS MAP FOR ANY DAMAGE CAUSED BY ANY OF THE PARTIES TO THIS MAP

FILE #: 201367
 DRAWING #: 2
 SCALE: 1" = 100'
 MINIMUM DEGREE OF ACCURACY: 1/300
 PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE OPS

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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.
 Signed: [Signature]
 L.L.S. #2124: Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WV DEP
 OFFICE OF OIL & GAS
 604 57TH STREET
 CHARLESTON, WV 25304

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: OUTLET MIDDLE ISLAND CREEK ELEVATION: 1285'
 COUNTY/DISTRICT: TYLER/McELROY QUADRANGLE: SHIRLEY, WV
 SURFACE OWNER: ARTHUR & LOIS BLOOM ACREAGE: 59.76 +/-
 OIL & GAS ROYALTY OWNER: ARTHUR & LOIS BLOOM ACREAGE: 457.82 +/-
 LEASE NUMBERS: 1. 73842A1, 73842A2, 73842A3, 73842A4, 73842A5, 73842A6, 73842A7, 73842A8, 73842A9, 73842A10, 73842A11, 73842A12, 73842A13, 73842A14, 73842A15, 73842A16, 73842A17, 73842A18, 73842A19, 73842A20, 73842A21, 73842A22, 73842A23, 73842A24, 73842A25, 73842A26, 73842A27, 73842A28, 73842A29, 73842A30, 73842A31, 73842A32, 73842A33, 73842A34, 73842A35, 73842A36, 73842A37, 73842A38, 73842A39, 73842A40, 73842A41, 73842A42, 73842A43, 73842A44, 73842A45, 73842A46, 73842A47, 73842A48, 73842A49, 73842A50, 73842A51, 73842A52, 73842A53, 73842A54, 73842A55, 73842A56, 73842A57, 73842A58, 73842A59, 73842A60, 73842A61, 73842A62, 73842A63, 73842A64, 73842A65, 73842A66, 73842A67, 73842A68, 73842A69, 73842A70, 73842A71, 73842A72, 73842A73, 73842A74, 73842A75, 73842A76, 73842A77, 73842A78, 73842A79, 73842A80, 73842A81, 73842A82, 73842A83, 73842A84, 73842A85, 73842A86, 73842A87, 73842A88, 73842A89, 73842A90, 73842A91, 73842A92, 73842A93, 73842A94, 73842A95, 73842A96, 73842A97, 73842A98, 73842A99, 73842A100

DRILL CONVERT DRILL DEEPER NEDRILL FRACTURE OR STIMULATE
 PLUG OFF FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 7,254' TMD: 15,210'
 WELL OPERATOR: JAY BEE OIL & GAS, LLC DESIGNATED AGENT: SHANE DOWELL
 ADDRESS: 3570 SHIELDS HILL ROAD ADDRESS: 3570 SHIELDS HILL ROAD
 CITY: CAIRO STATE: WV ZIP CODE: 26337 CITY: CAIRO STATE: WV ZIP CODE: 26337

10/10/2014