

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

PERMIT MODIFICATION APPROVAL

July 03, 2013

JAY-BEE OIL & GAS 1720 RT. 22 E UNION, NJ 70830

Re: Permit Modification Approval for API Number 9502096, Well #: RPT 5-3

UPDATED ROAD ON PAD

Oil and Gas Operator:

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

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

Sincerely,

Gene Smith

Regulatory/Compliance Manager

Office of Oil and Gas



Received

JUL 1 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

JAY-BEE OIL & GAS, INC.

June 27, 2013

RE: RPT5 Updated Plans

Steve Young,

Enclosed in this envelope are the updated plans for the RPT5, updating the road to the pads.

If you would have any further questions concerning this matter, please feel free to contact our office at the number listed below.

Sincerely,

Shane Dowell Office Manager

MODIFICATION NO. 1

Rec'n: 100 12013

Approven: 7/2/2013

3570 Shields Hill Rd, Cairo, WV 26337 • Phone 304-628-3111 • Fax 304-628-3119

304 869 - 3811



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

April 23, 2013

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-9502096, 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: RPT 5-3

Farm Name: LeMASTERS, DWIGHT ET AL

API Well Number: 47-9502096

Permit Type: Horizontal 6A Well

Date Issued: 04/23/2013



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. <u>Failure to adhere to the specified permit</u> conditions may result in enforcement action.

CONDITIONS

- 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 § 22-6A-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.
- 2. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the fill material shall be within plus or minus 2% (unless soil test results show a greater range of moisture content is appropriate and 95% compaction can still be achieved) of the optimum moisture content as determined by the standard proctor density test, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort. Each lift must meet 95 % compaction of the optimum density based on results from the standard proctor density test of the actual soils used in specific engineered fill sites. 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.
- 3. 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.
- 4. 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.
- 5. 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.

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS W.VA. CODE §22-6A - WELL WORK PERMIT APPLICATION

1) Well Opera	tor: Jay-Bee C	il & Gas Inc		24610	095-Tyler	02-McElroy	Shirley 7.5'
,				Operator ID	County	District	Quadrangle
2) Operator's	Well Number	: RPT5-3		W	ell Pad Nam	e: RPT5	
2 Elauntian a		J. 40701	Ele	untion managed r	and construct	tions	
3 Elevation, c	urrent ground	1: 1278'	Ele	vation, proposed p	ost-construc	uon:	1258'
4) Well Type:	(a) Gas		Oil	-			
	Other						
	(b) If Gas:	Shallow		Deep			
		Horizontal					
5) Existing Pa	d? Yes or No	: No					
6) Proposed To	arget Formati	on(s) Denth	(s) Anticipate	ed Thicknesses and	A ssociated	Pressure(s)	
	_		thick, .2025 pressu		ASSOCIATED	r ressure(s).	
7) Proposed To	otal Vertical I	Depth: 7	,500'				
8) Formation a		_	Marcellus				
9) Proposed To			14,500'				
10) Approxima			oths: 482	2'			
11) Method to				II Record TYL 656-A			
12) Approxima			937' & 1927'				
13) Approxima			837-838'				-
14) Approxima				(arst. other):	None		
				to, active mine?	No		
16) Describe p			•	new Horizontal Well.			
17) Describe fi	racturing/stim	ulating meth	ods in detail:				
300-350' per stage	8,500bbls of water, 1	50,000-400,000lbs of	sand, friction reducer	, 1# per gallon, scale inhibitor	and bacteria preventi	on 1/4# per gallon 20	00 gallons 15% vol acid.
10) 77 . 1		1		• • • • • • • • • • • • • • • • • • • •			
(8) Total area	to be disturbe	ed, including	roads, stockp	ile area, pits, etc, (acres):	22.4 Acres	
19) Area to be	disturbed for	well pad onl	y, less access	road (acres):	6.4 acres		

RECEIVED
Office of Oil and Gas

APR 05 2013

WV Department of Environmental Protection

20)

CASING AND TUBING PROGRAM

TYPE	Size	New or Used	Grade	Weight per ft.	FOOTAGE: For Drilling	INTERVALS: Left in Well	CEMENT: Fill -up (Cu. Ft.)
Conductor	16	New	J55	40	30	30	
Fresh Water	11 3/4	New	J55	32	560	560	CTS +25%
Coal							
Intermediate	8 5/8	New	J55	24	2,000	2,000	CTS +15%
Production	5 1/2	New	P110	17	14,500	14,500	Cement up to 1000' From Surface
Tubing							
Liners							

TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield
Conductor	16	17 1/2	.495	3,000#	Class A Cement	1.19CF per Sack
Fresh Water	11 3/4	15	.333	1,500#	Class A Cement	1.19CF per Sack
Coal					The state of the s	
Intermediate	8 5/8	11	.264	2,500#	Class A Cement	1.19CF per Sack
Production	5 1/2	7 7/8	.304	15,000#	Type 1 Cement	1.19CF per Sack
Tubing						
Liners						in in

1-8.13

PACKERS

Kind:	N/A		
Sizes:			
Depths Set:		111111111111111111111111111111111111111	

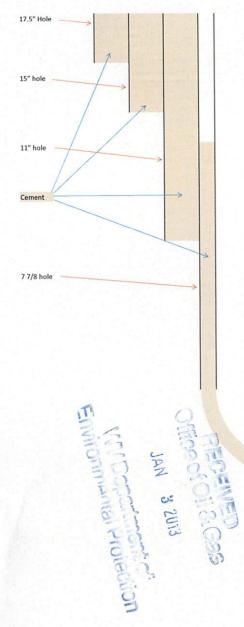
Describe centralizer placement for each casing string.
/ertical - Every 500' Bow Centralizer, and 50' from top of ground. Horizontal every 42' Spiral Centralizer, Curve - Every 84' Spiral Centra
Describe all cement additives associated with each cement type.
Superior Well Services - 15" hole for the 11 3/4 fresh water case, Class A Cement, 2% Calcium Chloride, 1/4# fl
Superior Well Services - 15 Hole for the 11 3/4 flesh water case, class A certient, 2 % Calcium Chloride, 1/4# fi
Superior Well Services - 11" hole for the 8 5/8 intermediate base, Class A Cement, 2% Calcium Chloride, 1/4# Super Flake, No Foam, Bentonite Super
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, F
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.
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.
f needed weight up mud until no cuttings retrieved, then circulate with mud and sweeps for two times bottoms u

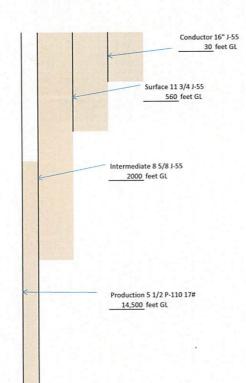
*Note: Attach additional sheets as needed.

Jay-Bee Oil & Gas Inc.
Well Name RPT5-3
GL Elevation 1278'
KB 14 feet

Date District County State 1/2/2013 McElroy Tyler West Virginia

Input by: Shane Dowell





Total depth

14,500 feet GL

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name_Jay-Bee Oil & Gas Inc	OP Code 24610
Watershed_Big Run (Quadrangle Shirley 7.5'
Elevation 1278' (ground) 1258' (proposed) County 095-Tyler	District 02-McElroy
Description of anticipated Pit Waste: Drill Water and Various Formation	Cuttings
Do you anticipate using more than 5,000 bbls of water to complete to	the proposed well work? Yes X No
Will a synthetic liner be used in the pit? Yes If so,	what mil.? 60Mil
Proposed Disposal Method For Treated Pit Wastes: Land Application	
Underground Injection (UIC Permit Nu	
Reuse (at API Number other wells on same	
Off Site Disposal (Supply form WW-9 form Other (Explain Using Contract Haulers Magnut	or disposal location) m Hunter (API's 34-121-23995, 34-121-24086) hauling to their disposal wells
Drilling medium anticipated for this well? Air, freshwater, oil based	d, etc. Brine Base Drilling Mud
-If oil based, what type? Synthetic, petroleum, etc.	
Additives to be used? Bentonite, Salt, Soda Ash	
Will closed loop system be used ? Possible Centrifuge	and the second s
Drill cuttings disposal method? Leave in pit, landfill, removed offs	ite, etc land fill
-If left in pit and plan to solidify what medium will be used	1? Cement, lime, and sawdust, removed to landfill
-Landfill or offsite name/permit number? Waste Managemer	nt Meadowfill/Permit 101219WV
on August 1, 2005, by the Office of Oil and Gas of the West Virging provisions of the permit are enforceable by law. Violations of any or regulation can lead to enforcement action. I certify under penalty of law that I have personally exapplication form and all attachments thereto and that, based on my the information, I believe that the information is true, accurate, a submitting false information, including the possibility of fine or improved the company Official Signature Company Official (Typed Name) Shane Dowell Company Official Title Office Manager	term or condition of the general permit and/or other applicable law samined and am familiar with the information submitted on this inquiry of those individuals immediately responsible for obtaining and complete. I am aware that there are significant penalties for
	A COLOR
Subscribed and sworn before me this day of day of	nuary, 20 13000
Danull J. Buc	Notary Public JAN 3 2013
My commission expires Dotolus 23, 2020	OFFICIAL SEAL Denielle L. Butler Notory Public State of West Virginia My Commission Expires October 23 2020 20 1
	St. Mary's, WV 26170

Pr	roperty Boundar	,		-	Diversion	
Ro	oad	===	====	====	Spring	
E	xisting Fence	×	××	X	Wet Spot	
PI	lanned Fence				Drain Pipe w/ size in inches	12
St	tream	-	~~			
О	pen Ditch		>>-	- >	Waterway	
R	ock	0,0	000		Cross Drain	
			N N		Artificial Filter Strip XXXXXX	**************************************
	orth	- · · - <u></u>	N		Pit: Cut Walls	ELL LINE
В	uildings				Pit: Compacted Fill Walls	Juni Prince
	Vater Wells Irill Sites	(Area for Land Application of Pit Waste	(-0.00 - 0.00)
_			1			
roposed Rev	vegetation Tre	eatment: A	cres Disturbe	d 5.65 +/-	Prevegetatio	n pH
				orrect to pH		
Fert	ilizer (10-20-	20 or equiv	valent) 1/3 tor	lbs/a	cre (500 lbs minimum)	
Mul	ch hay/2			Tons/acr	re	
				Seed	Mixtures	
						Area II
See	d Type	Area I	bs/acre		Seed Type	lbs/acre
	d Type	40			Orchard Grass	15
KY-31		40				
Alsike Clover	r	5			Alsike Clover	5
Annual Rye	Grass	1	5			
Attach:						
Drawing(s)	of road, locat	ion,pit and	proposed area	a for land appl	ication.	
Photocopied	d section of in	volved 7.5	topographic :	sheet.		
	/	1	2	5		
Plan Appro	ved by:	of Vi	/			
Comments:	//					
Comments.		200				
	-					
_	7.1				Date: 1-8-13	
Title:	enspecto				Date:	
Field Revie	wed?	(X) Yes	() No	

west virginia department of environmental protection



Water Management Plan: **Secondary Water Sources**



WMP-00950

API/ID Number

047-095-02096

Operator:

Jay-Bee Oil & Gas, Inc.

RPT5-3

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: 10819 Source Name

RPT8 Centralized Freshwater Impoundment #1

Source start date:

4/1/2013

Source end date:

4/1/2014

Max. Daily Purchase (gal)

Total Volume from Source (gal):

5,000,000

DEP Comments:

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-910



WMP-00950 API/ID Number 047-095-02096 Operator: Jay-Bee Oil & Gas, Inc.

RPT5-3

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.

Source ID: 10820 Source Name RPT8 Centralized Freshwater Impoundment #2

Source start date: 4/1/2013

Source end date:

4/1/2014

Max. Daily Purchase (gal)

Total Volume from Source (gal):

5,000,000

DEP Comments:

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-909

Recycled Frac Water

Source ID: 10821 Source Name McIntyre Pad; W701 Pad; Schulberg Pad; T1213

Source start date:

4/1/2013

Source end date:

4/1/2014

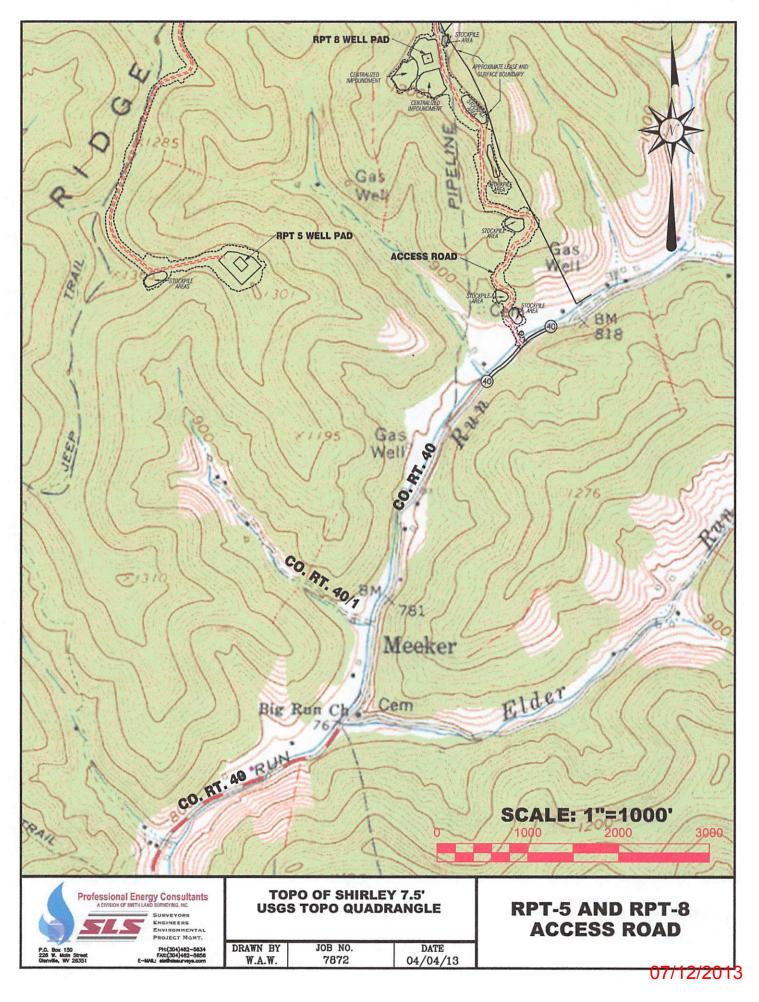
Max. Daily Purchase (gal)

Total Volume from Source (gal):

210,000

DEP Comments:

APPROVED FEB 1 9 2013



PROJECT NAME: RPT 5 H1-H6 PROJECT INFORMATION

DEFACT OMENS:

DEFACT OMENS:

LO W. NECK, LT AL. 1054 A. ACES:

LAWS A. NECK, HIS. T. L. 55.0 A.CES:

DEFACT LA MIS. T. L. 55.0 A.CES:

DEFACT LA MIS. S. T. A.CES:

LOCA A. HAIR. S. T. A.CES:

LOCA

OLATO GAS BOYALT OWNER.

OLATO TAS NOTICES 11.50 ACRESS
OF A MORRE TO THE CONTROL OF THE CONTROL

LOCATION:
THE RET 5 SITE IS LOCATED ON A RIDGE NORTH OF CO. RT. 40,
APPROXIMATELY 15.850 FT NORTHEAST OF THE CO. RT. 40 AND CO.
RT. 13 INTERSECTION.

GRID NORTH AND ELEVATIONS SHOWN HEREKON WERKE ESTABLESHED BY SURVEY GRADE GPS

LOCATION COORDINATES

SITE DISTURBANCE COMPUTATIONS

RPT 5 H1-H6 WELL PAD LATITUDE: 39.476910 LONGITUDE: -80.793249 (NAD 83) RPT 5 HI-HS WELL PAD ENTRANCE AT CO. RT. 40.
LATITUDE: 39.474597 LONGITUDE: -80.782174 (NAD 83)

PAD ARLA = 6.4 ± ACRES
ACCESS RADO = 16.0 ± ACRES
ACCESS RADO = 16.0 ± ACRES
ACCESS RADO = 16.0 ± ACRES
ACCESS RADO = 17.0 ± ACRES
ACCESS RADO = 17. THE DISTRIBANCE FOR ACCESS RADO "A" 15 SHOWN IN
THE REF O 18.1-96 STEP EAW.

NTRANCE PERMIT

N' BEZ DIL AND DAS, INC WILL DETAIN AN ENCROACHIENT PERMIT (PORM
MA-100) PROM THE WEST VIRGINIA, DEPARTMENT OF TRANSPORTATION
NYSION OF HIGHWAYS, PROSE TO COMMENCEMENT OF CONSTRUCTION

UTILITY STATEMENT
ILLTY OF WEST VEGINA WAS NOTIFIED FOR THE LOCATING OF
MINITY OF WEST VEGINA, WAS NOTIFIED FOR THE LOCATING OF
MINITY OF WEST VEGINA, TICKET #1228381381.
TION, MISS UTILITY WILL BE CONTACTED PRIOR TO START OF THE

FLOODPLAIN NOTE INTER PROPOSED LIAITS OF THE PROPOSED IN THE PROPOSED LIAITS OF THE FLOOD INSURANCE RATE MAP (FIRM) NUMBER LACOD ZOUGE, X, PER THE FLOOD INSURANCE RATE MAP (FIRM) NUMBER SHORGOITEC, DATED MAY CG, 2010.

ENVIRONMENTAL NOTES WAS DEMANDATION WERE PERSONALD ON HIT HE DOZE, ALKERY A, DOZE, AND OCTIONS D. HE PORREVOCA, LLT DE SECHET PER SET TO REALIZED THE SETTING THE METAL THE METAL OF THE METAL THE M

GENERAL DESCRIPTION

THE WELL PAD IS BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS.

MISS Utility of West Virginia
1-800-245-4848
West Virginia State Law
(Section XV: Chapter 24-C)
Requires that you call two
business days before you dig in
the state of West Virginia.
IT'S THE LAW!

JAY BEE OIL AND GAS, I OPERATOR ID: 307800 ROUTE 1, BOX 5 CAIRO, WY 26337 PHONE (304) 628-3111

NAVITUS ENGINEERING, II 151 WINDY HILL LANE WINCHESTER, VA 22602 PHONE (888) 862-4185 ENGINEER

SMITH LAND SURVEYING, 226 WEST MAIN STREET P.O. BOX 150 GLENVILLE, WY 26351 PHONE (304) 462-5634 SURVEYOR

> FILE NO. SCALE 1" - 2000" DESIGNED BY: CSK/1M

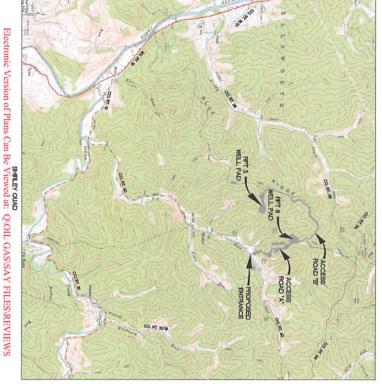
7672

DATE 12/28/2012

OPERATOR

JAY BEE OIL AND GAS, INC. RPT 5 H1-H6 SITE PLAN

SITUATE ON THE WATERS OF TRIBUTARIES OF BIG RUN IN MCELROY DISTRICT, TYLER COUNTY, WEST VIRGINIA

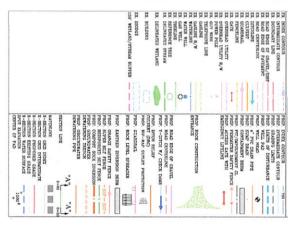


API#9502096 API#9502097 API#9502097

LIST OF DRAWINGS

- 2 NOTES
- 3 OVERALL PLAN VIEW & VOLUMES 5-6 - ACCESS 'A' ROAD DETAILS - WELL PAD DETAILS
- 11-13 ROAD 'A' PROFILES 10 - WELL PAD SECTION 7-9 - ACCESS ROAD "B" DETAILS
- 26 WELL PAD RECLAMATION PLAN 27 STREAM CROSSING DETAILS 20-25 - ROAD "B" SECTIONS 14-16 - ROAD "B" PROFILES 17-19 - ROAD "A" SECTIONS

28-31 - CONSTRUCTION DETAILS



LOCATION MAI

RPT-5 MCELROY DISTRICT TYLER COUNTY, WV











WVDEP OOG

APPROVED

Engineering Survey 07/4-2/2013

