

# RECEIVED

Form 3160-3  
(April 2004)

MAY 29 2008

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Farmington Field Office

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM-114380
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator ROSETTA RESOURCES OPERATING LP		7. If Unit or CA Agreement, Name and No. N/A
3a. Address 1200 17th ST., SUITE 770 DENVER, CO 80202	3b. Phone No. (include area code) (720) 359-9144	8. Lease Name and Well No. WEST BISTI 18 #1
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1370' FNL & 1300' FEL At proposed prod. zone SAME		9. API Well No. 30-045- 34724
14. Distance in miles and direction from nearest town or post office* 21 AIR MILES S OF FARMINGTON, NM		10. Field and Pool, or Exploratory BASIN FRUITLAND COAL GAS
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1,300'	16. No. of acres in lease 2,136.17	11. Sec., T. R. M. or Blk. and Survey or Area H 18-25N-13W NMPM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2,370' (18 #4)	19. Proposed Depth 1,500'	12. County or Parish SAN JUAN
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,387' GL	22. Approximate date work will start* 08/01/2008	13. State NM
20. BLM/BIA Bond No. on file BLM STATE WIDE NMB000371		
23. Estimated duration 2 WEEKS		

### 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature 	Name (Printed/Typed) BRIAN WOOD	Date 05/26/2008
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Title CONSULTANT PHONE: (505) 466-8120 FAX: (505) 466-9682

Approved by (Signature) 	Name (Printed/Typed)	Date 6/23/08
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Title AFM	Office FFO
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Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

NOTIFY AZTEC OCD 24 HRS  
PRIOR TO CASING & CEMENT

NMOCD

JUN 25 2009

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

RCVD JUN 24 '09  
OIL CONS. DIV.  
DIST. 3

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER PERMIT OR AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II  
1301 W. Grand Avenue, Artesia, N.M. 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

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Form C-102  
Revised October 12, 2005

OIL CONSERVATION DIVISION MAY 29 2008

1220 South St. Francis Dr.

Santa Fe, NM 87505

Bureau of Land Management  
Farmington Field Office

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-045-34724</b>	<sup>2</sup> Pool Code <b>71629</b>	<sup>3</sup> Pool Name <b>BASIN FRUITLAND COAL</b>
<sup>4</sup> Property Code <b>37729</b>	<sup>5</sup> Property Name <b>WEST BISTI 18</b>	<sup>6</sup> Well Number <b>1</b>
<sup>7</sup> OGRID No. <b>239235</b>	<sup>8</sup> Operator Name <b>ROSETTA RESOURCES OPERATING LP</b>	<sup>9</sup> Elevation <b>6387'</b>

<sup>10</sup> Surface Location

UL or lot no. <b>H</b>	Section <b>18</b>	Township <b>25N</b>	Range <b>13W</b>	Lot Idn	Feet from the <b>1370'</b>	North/South line <b>NORTH</b>	Feet from the <b>1300'</b>	East/West line <b>EAST</b>	County <b>SAN JUAN</b>
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres <b>320.62</b> <i>cm</i>		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16

N 89°58'25" W 5890.13' (M)  
WEST 5884.56' (R)

FND 3 1/4" BC  
BLM 1956

FND 2 1/4" BC  
GLO 1911

3 2 1

4 5 6

9 8 7

10 11 12

18

LAT. 36.40470° N  
LONG. 108.25550° W  
DATUM (NAD 1983)

5282.05' (M)  
5280.00' (R)

S 0°02'39" E  
S 0°03' E

FND 2 1/4" BC  
GLO 1911

<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner or a compulsory pooling order heretofore entered by the Division.

*Brian Wood* 5-26-08  
Signature Date

**BRIAN WOOD**

Printed Name

<sup>18</sup> SURVEYOR CERTIFICATION

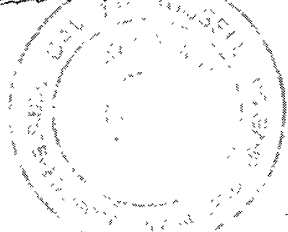
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

SEPTEMBER 13, 2007

Date of Survey

Signature and Seal of Professional Surveyor:

*David Russell*



**DAVID RUSSELL**

Certificate Number

**10201**

Rosetta Resources Operating LP  
West Bisti 18 #1  
1370' FNL & 1300' FEL  
Sec. 18, T. 25 N., R. 13 W.  
San Juan County, New Mexico

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## Drilling Program

### 1. ESTIMATED FORMATION TOPS

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Nacimiento	0'	5'	+6,387'
Kirtland Shale	662'	667'	+5,725'
Fruitland Coal	1,237'	1,242'	+5,150'
Pictured Cliffs	1,287'	1,292'	+5,100'
Lewis Shale	1,392'	1,397'	+4,995'
Total Depth (TD)	1,500'	1,505'	+4,887'

### 2. NOTABLE ZONES

<u>Oil &amp; Gas Zones</u>	<u>Water Zone</u>	<u>Coal Zone</u>
Fruitland	Nacimiento	Fruitland
Pictured Cliffs		

Water zones will be protected with casing, cement, and fresh water weighted mud. Fresh water encountered during drilling will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

### 3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. (A typical 2,000 psi model is on PAGE 3.) BOP and choke manifold system will be installed and tested to  $\approx$ 500 psi before drilling surface casing plug. It will remain in use until the well is completed or abandoned. A safety valve and sub with a full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for

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use when kelly is not in use.

All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and opened and closed at least daily to check mechanical working order. Inspections will be recorded on the daily drilling report. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place.

#### 4. CASING & CEMENT

<u>Hole Size</u>	<u>O.D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Type</u>	<u>Age</u>	<u>Depth Set</u>
8-3/4"	7"	23#	J-55	S T & C	New	120'
6-1/4"	4-1/2"	10.5#	J-55	L S S T & C	New	1,500'

Surface casing will be cemented to the surface with  $\approx 35$  cubic feet ( $\approx 30$  sacks) Class B with 1/4 pound per sack cellophane + 2%  $\text{CaCl}_2$ . Yield = 1.18 cubic feet per sack. Weight = 15.2 pounds per gallon. Volume = 100% excess. Centralizers will be installed on the middle of the shoe joint and every other ~~centralizer~~ thereafter. Thread lock the guide shoe and bottom of float collar only. Will use API casing dope.

joint

Production casing will be cemented to the surface with  $\approx 271$  cubic feet ( $\approx 230$  sacks) Class B with 1/4 pound per sack cellophane + 2%  $\text{CaCl}_2$ . Yield = 1.18 cubic feet per sack. Weight = 15.2 pounds per gallon. Five or more centralizers will be used. Volume = 75% excess.

#### 5. MUD PROGRAM

A nine pound polymer and fresh water mud system with a viscosity of  $\approx 35$  will be used. Sufficient material to maintain mud qualities, control lost circulation, and contain a blowout will be available at the well while drilling.

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6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. DIL/GR log may be run from TD to surface. CNL/FSC log may be run over certain intervals.

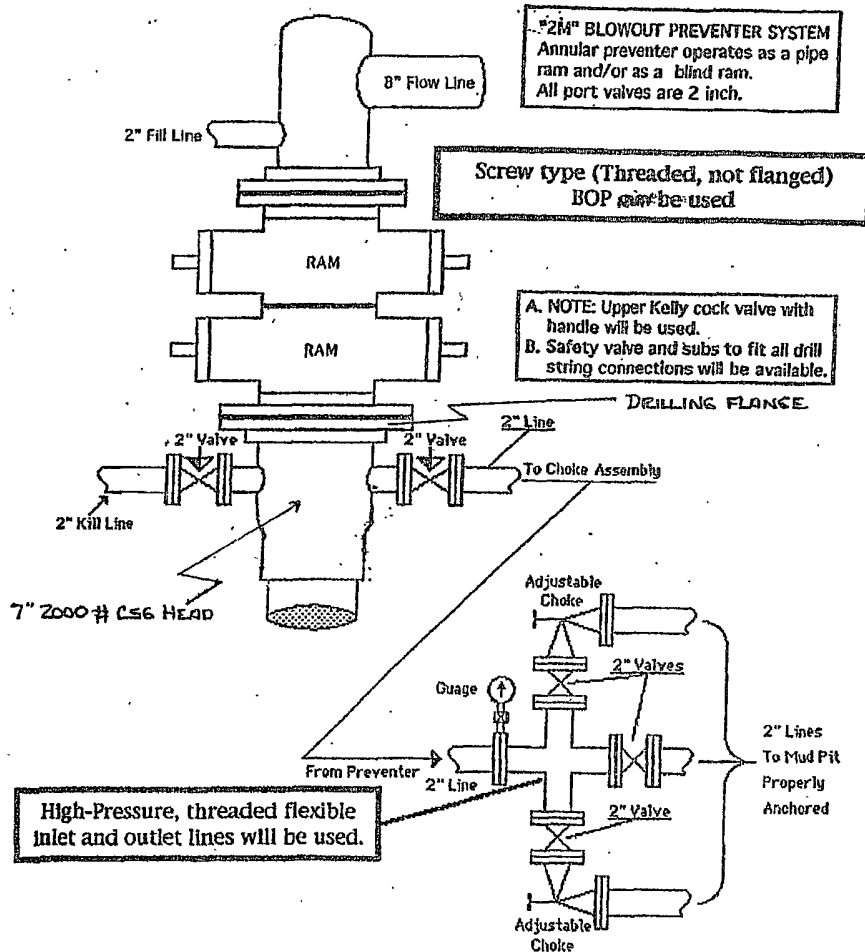
7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum expected bottom hole pressure will be  $\leq 600$  psi.

8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take  $\approx 2$  weeks to drill and complete the well.

## "2M" BLOWOUT PREVENTER SYSTEM



### Chihuahua Rig #201 BOP Testing Procedure.

Refer to the attached diagram for the bradenhead and BOP configuration. No mud cross will be utilized. The choke manifold will be connected to one side of the bradenhead. Connect the third-party testing company's test truck to the opposite side of the bradenhead.

#### Kill Line Valve:

Connect the test truck to the kill line valve and pressure test the valve to 250 psig low and 1,000 psig high. Test each pressure for 10 minutes.

#### Blind Rams:

Close the blind rams and open the bradenhead valve to the choke manifold. Have all three of the choke manifold valves closed. Pressure test the blind rams, casing, bradenhead, and choke manifold to 250 psig low and 1,000 psig high. Test each pressure for 30 minutes. A successful test will not have more than a 10% drop during the 30 minute test period.

If the test is successful proceed with the pipe ram test.

If the test is not successful, open the blind rams and install the test plug at the bottom of the bradenhead (the test plug seal is below the two valves on the bradenhead). Close the bradenhead valve to the choke manifold. Pressure test the blind rams and bradenhead to 250 psig low and 1,000 psig high. Open the bradenhead valve to the choke manifold and repeat the test. If these test fail with no obvious leaks at either the blind rams or the choke manifold, remove the test plug and run a 7" packer into the first joint of casing and repeat both tests. Use caution when pulling the test plug if pressure is trapped below the plug. Recommend closing the pipe rams and opening the bradenhead valve to the choke manifold before trying to pull the test plug.

#### Pipe Rams:

Install the TIW valve on the bottom of one joint of drill pipe. Run the one joint into the well and close the pipe rams. Chain down the joint of drill pipe but leave the top of the pipe open. With the bradenhead valve open and the test truck still connected to the other side of the bradenhead, test the pipe rams to 250 psig low and 1,000 psig high. Hold each pressure for 30 min with no more than a 10% drop during the test period.

#### Upper Kelly Cock:

Install the TIW valve to the bottom of the Kelly. Install the test truck to the TIW Valve. With the TIW valve closed, pressure test the TIW valve to 250 psig low and 1,000 psig high for 10 minutes. Open and the TIW valve and close the upper Kelly cock. Pressure test the Kelly and upper Kelly cock to 250 psig low and 1,000 psig high. Hold each pressure for 10 minutes with 0% drop during the test.