Form 3160-3
(April 2004)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM-114380

6. If Indian, Allotee or Tribe Name
N/A

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
N/A

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
WEST BISTI 6 #3

2. Name of Operator
ROSETTA RESOURCES OPERATING LP

9. API Well No.
30-045- 34801

3a. Address **1200 17th ST., SUITE 770**
DENVER, CO 80202

3b. Phone No. *(include area code)*
(720) 359-9144

10. Field and Pool, or Exploratory
BASIN FRUITLAND COAL GAS

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface **1445' FSL & 1945' FWL**
At proposed prod. zone **SAME**

11. Sec., T. R. M. or Blk. and Survey or Area
6-25N-13W NMPM

14. Distance in miles and direction from nearest town or post office*
19 AIR MILES S OF FARMINGTON, NM

12. County or Parish
SAN JUAN

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) **1,945'**

16. No. of acres in lease
2,136.17

17. Spacing Unit dedicated to this well
LOTS 3 - 14 (= 389.62 acres) W2

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. **2,627' (6 #4)**

19. Proposed Depth
1,600'

20. BLM/BIA Bond No. on file
BLM STATE WIDE NMB000371

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6,435' GL

22. Approximate date work will start*
12/01/2008

23. Estimated duration
2 WEEKS

24. Attachments

RCVD MAR 2'11
OIL CONS. DIV.
DIST. 3

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

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

25. Signature [signature] Name *(Printed/Typed)* **BRIAN WOOD** Date **09/15/2008**

Title **CONSULTANT** **PHONE: (505) 466-8120** **FAX: (505) 466-9682**

Approved by *(Signature)* [signature] Name *(Printed/Typed)* Date 2/23/2011

Title AFM Office FFO

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.

MAR 04 2011

NMOCD

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

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".

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

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-34801	71629	BASIN FRUITLAND COAL

[4] Property Code	[5] Property Name	[6] Well Number
38010	WEST BISTI 6	3

[7] OGRID No.	[8] Operator Name	[9] Elevation
239235	ROSETTA RESOURCES OPERATING LP	6435'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	6	25N	13W	9	1445'	SOUTH	1945'	WEST	SAN JUAN

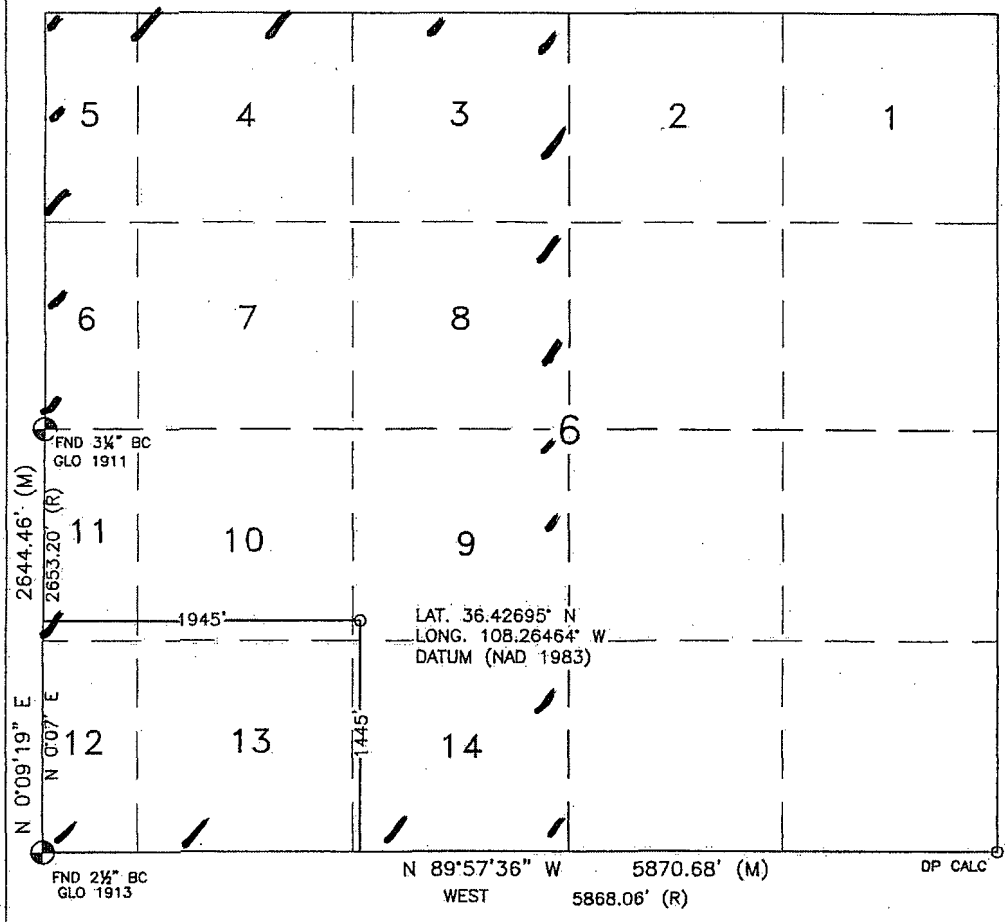
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
389.62 W2			

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



[17] 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.

Signature 9-15-08 Date

BRIAN WOOD
Printed Name

[18] 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 11, 2007
Date of Survey

Signature and Seal of Professional Surveyor:

DAVID R. RUSSELL NEW MEXICO 10201 REGISTERED PROFESSIONAL LAND SURVEYOR

DAVID RUSSELL
Certificate Number 10201

Rosetta Resources Operating LP
West Bisti 6 #3
1445' FSL & 1945' FWL
Sec. 6, T. 25 N., R. 13 W.
San Juan County, New Mexico

Drilling Program

1. ESTIMATED FORMATION TOPS

Formation	GL Depth	KB Depth	Elevation
Nacimiento	0'	5'	+6,435'
Fruitland Coal	1,335'	1,340'	+5,100'
Pictured Cliffs	1,435'	1,435'	+5,000'
Lewis Shale	1,560'	1,565'	+4,875'
Total Depth (TD)	1,600'	1,605'	+4,835'

2. NOTABLE ZONES

Oil & Gas Zones	Water Zone	Coal Zone
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 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 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

Hole Size	O. D.	Weight	Grade	Type	Age	Depth Set
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	1,600'

Surface casing will be cemented to the surface with ≈35 cubic feet (≈30 sacks) Class B with 1/4 pound per sack cellophane + 2% $CaCl_2$. 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~~ joint thereafter. Thread lock the guide shoe and bottom of float collar only. Will use API casing dope.

Production casing will be cemented to the surface with ≈289 cubic feet (≈245 sacks) Class B with 1/4 pound per sack cellophane + 2% $CaCl_2$. 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 ≈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.

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.

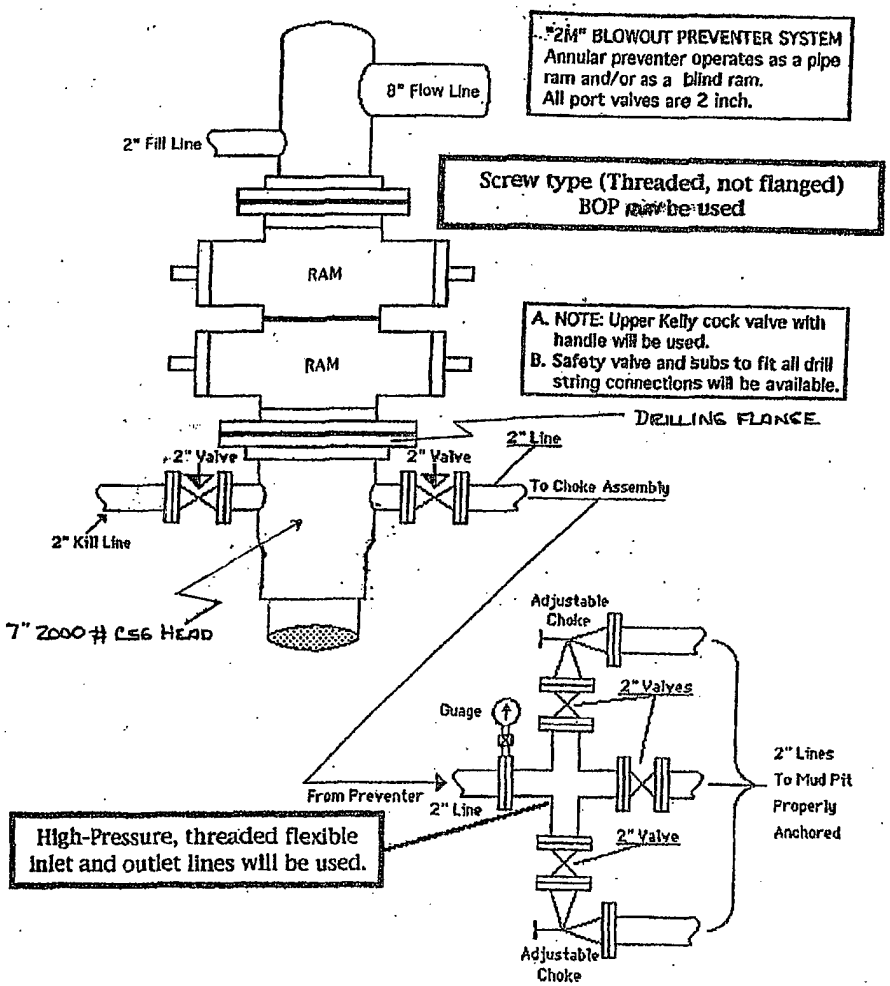
7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum expected bottom hole pressure will be $\leq$640 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 theses 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.