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JUN 25 2008

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Bureau of Land Management  
Farmington Field Office

APPLICATION FOR PERMIT TO DRILL OR REENTER

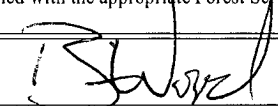
1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. <b>NO-G-0611-1748</b>	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name <b>NAVAJO ALLOTMENT</b>	
2. Name of Operator <b>Pro NM Energy, Inc.</b>		7. If Unit or CA Agreement, Name and No. <b>N/A</b>	
3a. Address <b>460 St. Michael's Drive Santa Fe, NM 87505</b>		8. Lease Name and Well No. <b>Bisti Otero 25 #1-E</b>	
3b. Phone No. (include area code) <b>(505) 988-4171</b>		9. API Well No. <b>30-045-34751</b>	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface <b>810' FSL &amp; 865' FWL</b> At proposed prod. zone <b>Same</b>		10. Field and Pool, or Exploratory <b>Bisti Lower-Gallup &amp; Basin Dakota</b>	
14. Distance in miles and direction from nearest town or post office* <b>14 air miles NW of Nageezi, NM</b>		11. Sec., T. R. M. or Blk. and Survey or Area <b>M 25-25N-11W NMPM</b>	
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg. unit line, if any) <b>810'</b>	16. No. of acres in lease <b>160</b>	17. Spacing Unit dedicated to this well <b>80ac 3'20ac</b> <b>S2SW4 (Gallup) &amp; W2 (Dakota)</b>	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>990' (TP 25 #2)</b>	19. Proposed Depth <b>6,500'</b>	20. BLM/BIA Bond No. on file <b>B4502</b>	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>6,615' GL</b>	22. Approximate date work will start* <b>09/01/2008</b>	23. Estimated duration <b>4 weeks</b>	

24. Attachments

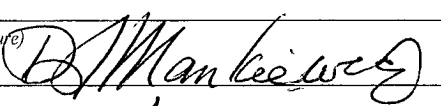
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, shall be attached to this form:

- 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

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

25. Signature 	Name (Printed/Typed) <b>BRIAN WOOD</b>	Date <b>05/10/2008</b>
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Title **CONSULTANT** PHONE: (505) 466-8120 FAX: (505) 466-9682

Approved by (Signature) 	Name (Printed/Typed) <b>D. Manley</b>	Date <b>10/28/08</b>
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Title <b>AFM</b>	Office <b>FFO</b>
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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 a false statement, or representation as to any matter within its jurisdiction.

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

NOV 07 2008

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

NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENT

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

NMOCD

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

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JUN 25 2008

Form C-102

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240State of New Mexico  
Energy, Minerals & Natural Resources Department  
Bureau of Land Management

Revised October 12, 2005

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

OIL CONSERVATION DIVISION

Submit to Appropriate District Office

1220 South St. Francis Dr.

State Lease - 4 Copies

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

Santa Fe, NM 87505

Fee Lease - 3 Copies

DISTRICT IV  
1220 South St. Francis Dr., Santa Fe, NM 87505☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-34751		<sup>2</sup> Pool Code 5890	<sup>3</sup> Pool Name BISTI LOWER-GALLUP
<sup>4</sup> Property Code 37460	<sup>5</sup> Property Name BISTI OTERO 25		<sup>6</sup> Well Number 1-E
<sup>7</sup> GRID No. 018118	<sup>8</sup> Operator Name PRO NM ENERGY INC.		<sup>9</sup> Elevation 6615

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	25	25-N	11-W		810	SOUTH	865	WEST	SAN JUAN

<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 80			<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.		

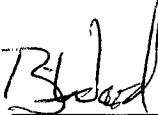
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>16</p> <p>FD. 2 1/2" BC. 1932 U.S.G.L.O.</p>	<p>25</p> <p>LAT: 36°22'01.21280" N. (NAD 83) LONG: 107°57'41.78829" W. (NAD 83) LAT: 36°22'01.17630" N. (NAD 27) LONG: 107°57'39.55337" W. (NAD 27)</p>	<p>17</p> <p><b>OPERATOR CERTIFICATION</b></p> <p>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 of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Brian Wood</i> 5-10-08 Signature Date <b>BRIAN WOOD</b> Printed Name</p>
<p>N 00-05-24 E 2643.60' (M)</p> <p>865'</p> <p>810'</p> <p>FD. 2 1/2" BC. 1932 U.S.G.L.O.</p>	<p>N 89-34-28 E 2635.23 (M)</p> <p>FD. 2 1/2" BC. 1932 U.S.G.L.O.</p>	<p>18</p> <p><b>SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p>NOVEMBER 4, 2007 Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p> <p><i>[Signature]</i></p> <p>Certificate Number</p>

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**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 of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.*



Signature 5-10-08

Date

**BRIAN WOOD**

Printed Name

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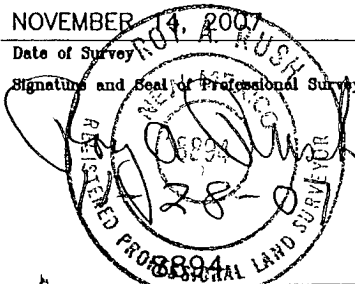
**18** **SURVEYOR CERTIFICATION**

*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.*

NOVEMBER 14, 2007

Date of Survey

Signatures and Seal of Professional Surveyor:



Certificate Number

Pro NM Energy Inc.  
Bisti Otero 25 #1-E  
810' FSL & 865' FWL  
Sec. 25, T. 25 N., R. 11 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'	15'	+6,615'
Pictured Cliffs Sandstone	1,459'	1,474'	+5,141'
Mesa Verde Sandstone	2,254'	2,269'	+4,361'
Gallup Sandstone	4,712'	4,727'	+1,888'
Dakota Sandstone	6,006'	6,021'	+594'
Total Depth (TD)	6,500'	6,515'	+115'

### 2. NOTABLE ZONES

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

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded.

### 3. PRESSURE CONTROL

BOP systems will follow Onshore Order No. 2. The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A typical model is shown on the Page 3.

Once out from under the surface casing, a minimum 3,000 psi BOP and choke

Pro NM Energy Inc.  
Bisti Otero 25 #1-E  
810' FSL & 865' FWL  
Sec. 25, T. 25 N., R. 11 W.  
San Juan County, New Mexico

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manifold system will be used. BOP controls will be installed before drilling the surface casing plug and used until the well is completed or abandoned.

Pressure tests to  $\approx 2,500$  psi will be conducted with a BOP tester. All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and operated at least daily to assure good mechanical working order. The inspection will be recorded on the daily drilling report.

#### 4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Pounds/Foot</u>	<u>Grade</u>	<u>Age</u>	<u>Connections</u>	<u>Depth Set</u>
12-1/4"	8-5/8"	24	J-55	New	S T & C	320'
7-7/8"	5-1/2"	17	J-55	New	S T & C	6,500'

Surface casing will be cemented to the surface with  $\approx 275$  sacks ( $\approx 324.5$  cubic feet) of Class B cement containing 2%  $\text{CaCl}_2$  and 1/4 pound per sack cello flakes. Yield = 1.18 cubic feet per sack. Weight = 15.6 pounds per gallon. Excess >100%. A centralizer will be placed on the bottom joint.

Production casing will be cemented to the surface in two stages with >100% excess. DV tool will be set at least 50' into the Mancos shale. Will install centralizer above and below DV tool and  $\approx 6$  centralizers each across Gallup and across Dakota.

First stage:  $\approx 670$  sacks ( $\approx 1,380$  cubic feet) of Class B cement containing 2% sodium metasilicate followed by  $\approx 100$  sacks ( $\approx 118$  cubic feet) of Class B cement containing 2%  $\text{CaCl}_2$ . Second stage:  $\approx 360$  sacks ( $\approx 742$  cubic feet) of Class B cement containing 2% sodium metasilicate followed by  $\approx 100$  sacks ( $\approx 118$  cubic feet) Class B cement containing 2%  $\text{CaCl}_2$ . The total cement volume for the long string will be  $\approx 2,358$  cubic feet.

Pro NM Energy Inc.  
Bisti Otero 25 #1-E  
810' FSL & 865' FWL  
Sec. 25, T. 25 N., R. 11 W.  
San Juan County, New Mexico

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#### 5. MUD PROGRAM

<u>Depth</u>	<u>Type</u>	<u>ppg</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0 - 320'	Spud mud and Gel Lime	8.8	50	N/A
300' - 4000'	Spud mud and Gel Lime	8.8	50	N/A
4000' - TD	LSND	9.2	45	10 cc

#### 6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. The following logs will be run from TD to the base of the surface casing:

dual induction, formation density  
compensated neutron, SP, gamma ray

#### 7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum expected bottom hole pressure will be  $\approx$ 2,200 psi.

#### 8. OTHER INFORMATION

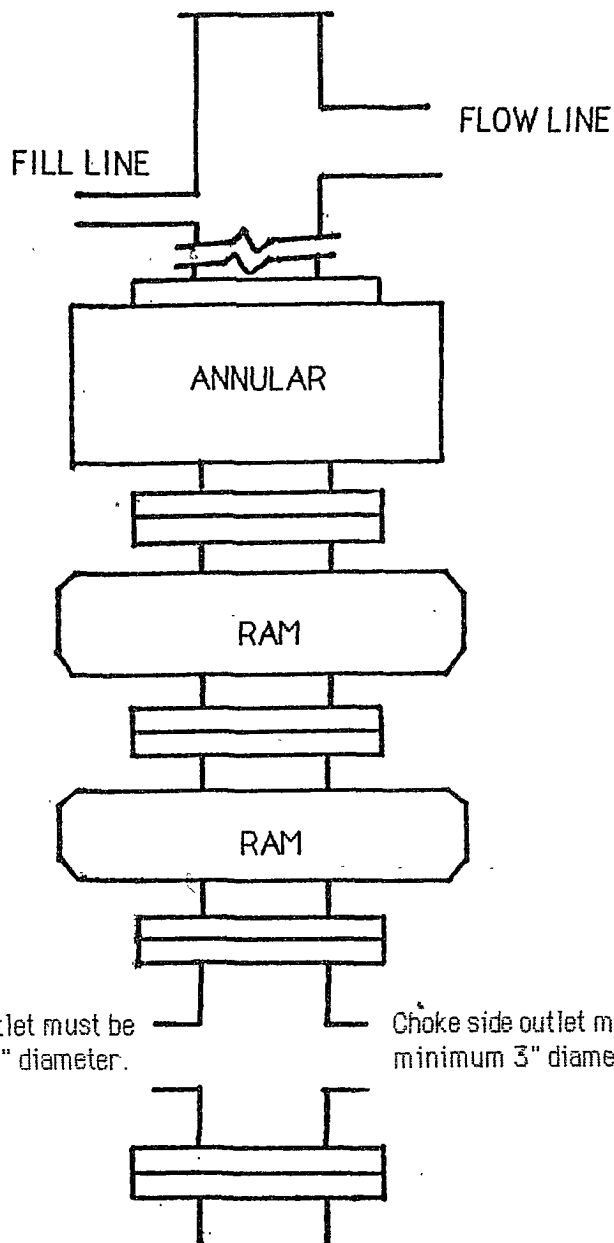
The anticipated spud date is upon approval. It is expected it will take about  $\approx$ 1 month to drill and complete the well.

## **DRILLING CONDITIONS OF APPROVAL**

**Operator:** Pro NM Energy Inc.  
**Lease No.:** NO-G-0611-1748  
**Well Name:** Bisti Otero 25 #1E  
**Well Location:** Sec. 25, T25N, R11W; 810' FSL & 865' FWL

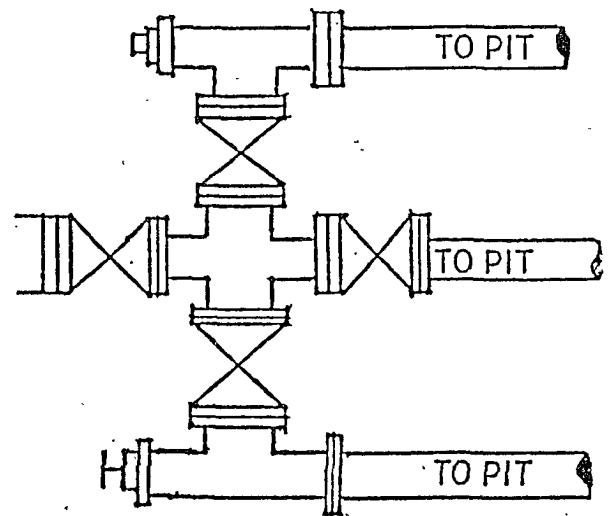
**Refer to Onshore Order 2 III. B. 1. f.**

1. Centralizers must be run on the bottom (3) three joints on the surface casing according to Onshore Order No. 2 *Casing and Cementing Requirements* and NTL –FRA 90-1 *Requirements to Operate on Federal and Indian Leases: Casing and Cementing Requirements*.



TYPICAL BOP STACK  
& CHOKE MANIFOLD

There will be at least 2 chokes and 2 choke line valves (3" minimum). The choke line will be 3" in diameter. There will be a pressure gauge on the choke manifold.



Kill line will be minimum 2" diameter and have 2 valves, one of which shall be a minimum 2" check valve.

Upper kelly cock will have handle available.  
Safety valve and subs will fit all drill string connections in use.  
All BOPE connections subjected to well pressure will be flanged, welded, or clamped.