

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMSF - 078502
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
2. Name of Operator AMOCO PRODUCTION COMPANY		7. If Unit or CA Agreement, Name and No.
Contact: MARY CORLEY E-Mail: corley@m.com		8. Lease Name and Well No. VANDEWART B 1M
3a. Address P.O. BOX 3092 HOUSTON, TX 77253	3b. Phone No. (include area code) Ph: 281.366.4491 Fx: 281.366.0700	9. API Well No. 30-045-30904
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESE Tract P 660FSL 880FEL 36.43200 N Lat, 107.38400 W Lon At proposed prod. zone		10. Field and Pool, or Exploratory BASIN DAKOTA/BLANCO MESAVER
14. Distance in miles and direction from nearest town or post office* 23 MILES EAST OF BLOOMFIELD, NEW MEXICO		11. Sec., T., R., M., or Blk. and Survey or Area P Sec 14 T29N R8W Mer NMP
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'	16. No. of Acres in lease 320.00	12. County or Parish SAN JUAN
17. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	18. Proposed Depth 8100 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6733 GL	22. Approximate date work will start 01/15/2001	19. Spacing Unit dedicated to this well 320.00 E/2
23. Estimated duration		20. BLM/BIA Bond No. on file

24. Attachments

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.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification  |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature (Electronic Submission)	Name (Printed/Typed) MARY CORLEY	Date 11/02/2001
Title AUTHORIZED REPRESENTATIVE		
Approved by (Signature) /s/ Jim Lovato	Name (Printed/Typed)	Date DEC - 3 2001
Title	Office	

Application approval does not warrant or certify 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.

Additional Operator Remarks (see next page)

Electronic Submission #8452 verified by the BLM Well Information System  
For AMOCO PRODUCTION COMPANY, sent to the Farmington  
Committed to AFMSS for processing by Maurice Johnson on 11/08/2001 ()

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

SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS"

\*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\*

NMOC

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District I  
PO Box 1980, Hobbs NM 88241-1980  
District II  
PO Drawer KK, Artesia, NM 87211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1 API Number <b>30-045-30904</b>		2 Pool Code <b>71599-72319</b>		3 Pool Name <b>Basin Dakota; Blanco Mesaverte</b>	
4 Property Code <b>001204</b>		5 Property Name <b>Vandewart B</b>			6 Well Number <b># 1M</b>
7 OGRID No. <b>000778</b>		8 Operator Name <b>AMOCO PRODUCTION COMPANY</b>			9 Elevation <b>6733</b>

**10 Surface Location**

UL or Lot No. <b>P</b>	Section <b>14</b>	Township <b>29 N</b>	Range <b>8 W</b>	Lot Idn	Feet from the <b>660</b>	North/South line <b>SOUTH</b>	Feet from the <b>880</b>	East/West line <b>EAST</b>	County <b>SAN JUAN</b>
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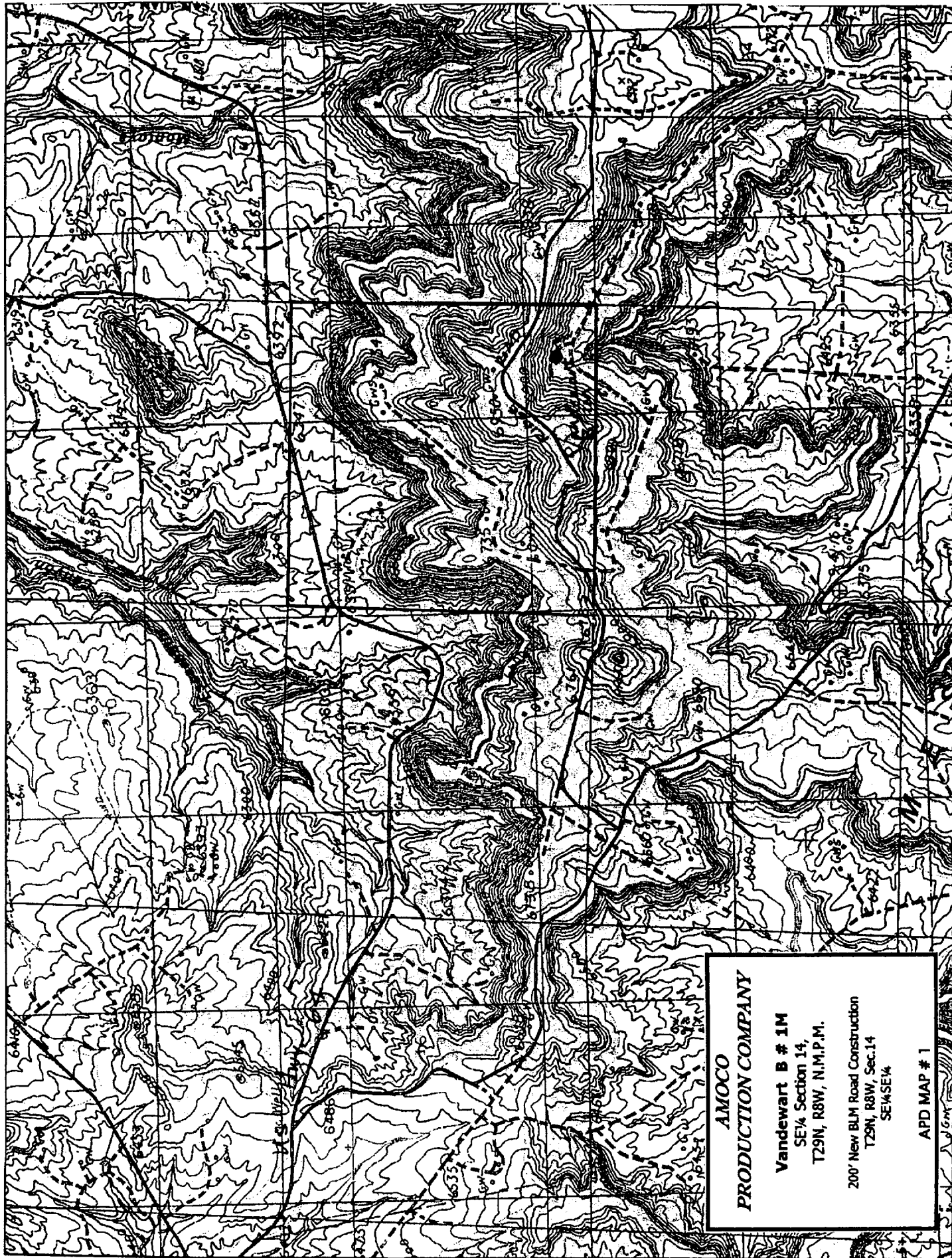
**11 Bottom Hole Location If Different From Surface**

7 UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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13 Dedicated Acres <b>3.20</b>	12 Joint or Infill	14 Consolidation Code	15 Order No.
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**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**

	<b>17 OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: <i>Mary Corley</i> Printed Name: <b>Mary Corley</b> Title: <b>Regulatory Analyst</b> Date: <b>11-02-2001</b>
	<b>18 SURVEYOR CERTIFICATION</b> 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. Date of Survey: <b>July 6, 2001</b> Signature and Seal of Professional Surveyor:  Certificate Number: <b>7016</b>



**AMOCO  
PRODUCTION COMPANY**

**Vandewart B # 1M  
SE 1/4 Section 14,  
T29N, R8W, N.M.P.M.**

**200' New BLM Road Construction  
T29N, R8W, Sec.14  
SE 1/4 SE 1/4**

**APD MAP # 1**

**AMOCO PRODUCTION COMPANY  
DRILLING AND COMPLETION PROGRAM**

**Prospect Name:** Vandewart B  
**Lease:** VANDEWART B  
**County:** San Juan  
**State:** New Mexico  
**Date:** November 2, 2001

**Well No:** 1M  
**Surface Location:** 14-29N-8W, 660 FSL, 880 FEL  
**Field:** Blanco Mesaverde/Basin Dakota

**OBJECTIVE:** Drill 400' below the base of the Greenhorn Limestone, set 41/2" production casing, Stimulate CH, MF, PL and DK intervals

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER					
TYPE OF TOOLS	DEPTH OF DRILLING	Estimated GL: 6733		Estimated KB: 6747			
Rotary	0 - TD	MARKER		SUBSEA	MEAS. DEPTH		
<b>LOG PROGRAM</b>		Ojo Alamo		4385	2362		
<b>TYPE</b>	<b>DEPTH INVERAL</b>	Fruitland Coal	*	3437	2566		
<u>OPEN HOLE</u>		Pictured Cliffs	*	3304	3443		
GR-Induction	TD to 7" shoe	Lewis Shale	#	3217	3530		
Density/Neutron	TD to 7" shoe	Cliff House	#	1690	5057		
<u>CASED HOLE</u>		Menefee Shale	#	1513	5234		
GR-CCL-TDT	TDT - TD to 7" shoe	Point Lookout	#	1133	5614		
CBL	Identify 4 1/2" cement top	Mancos		760	5987		
<b>REMARKS:</b> - Please report any flares (magnitude & duration).		Greenhorn		-853	7600		
		Bentonite Marker		-909	7656		
		Two Wells	#	-950	7697		
		Dakota MB	#	-1076	7823		
		Burro Canyon	*	-1161	7908		
		Morrison	*				
		<b>TOTAL DEPTH</b>		-1253	8100		
		# Probable completion interval		* Possible Pay			
		<b>SPECIAL TESTS</b>		<b>DRILL CUTTING SAMPLES</b>		<b>DRILLING TIME</b>	
		<b>TYPE</b>	<b>FREQUENCY</b>	<b>DEPTH</b>	<b>FREQUENCY</b>	<b>DEPTH</b>	
None	10 feet	Production hole	Geolograph	0-TD			
<b>REMARKS:</b>							

MUD PROGRAM:					
Approx. Interval	Type Mud	Weight, #/ga	Vis, sec/qt	W/L cc's/30 min	Other Specification
0 - 200	Spud	8.6-9.2			
200 - 3630 (1)	Water/LSND	8.6-9.2		<6	
3630 - 8100	Gas/Air/N2/Mist	Volume sufficient to maintain a stable and clean wellbore			

**REMARKS:**  
(1) The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.

**CASING PROGRAM:** (Normally, tubular goods allocation letter specifies casing sizes to be used. Hole sizes will be governed by Contract)

Casing String	Estimated Depth	Casing Size	Grade	Weight	Hole Size	Landing Pt, Cmt, Etc.
Surface/Conductor	200	9 5/8"	H-40 ST&C	32#	12.25"	1 -
Intermediate 1	3630	7"	J/K-55 ST&C	20#	8.75"	1,2 -
Production	8100	4 1/2"	J-55	11.6#	6.25"	3 -

**REMARKS:**  
(1) Circulate Cement to Surface  
(2) Set casing 100' into Lewis Shale  
(3) Bring cement 100' above 7" shoe

**CORING PROGRAM:**

None

**COMPLETION PROGRAM:**

Rigless, 4-6 Stage Limited Entry Hydraulic Frac

**GENERAL REMARKS:**

Notify BLM/NMOCD 24 hours prior to Spud, BOP testing, and Casing and Cementing.

Form 46 Reviewed by: \_\_\_\_\_ Logging program reviewed by: N/A

<b>PREPARED BY:</b>	<b>APPROVED:</b>	<b>DATE:</b>
HGJ/MNP		25 October 2001
Form 46 12-00 MNP		Version 1.0

# Amoco Production Company BOP Pressure Testing Requirements

Well Name: Vandewart B  
County: San Juan

1M  
State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	2362		
Fruitland Coal	2566		
PC	3443		
Lewis Shale	3530		
Cliff House	5057	500	0
Menefee Shale	5234		
Point Lookout	5614	600	0
Mancos	5987		
Dakota	7697	2600	1283

\*\* Note: Determined using the following formula:  $ABHP - (.22 \times TVD) = ASP$

Requested BOP Pressure Test Exception: 3000 psi

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## SAN JUAN BASIN Dakota Formation Pressure Control Equipment

### Background

The objective Dakota formation maximum surface pressure is anticipated to be less than 1000 PSI, based on shut-in surface pressures from adjacent wells. Pressure control equipment working pressure minimum requirements are therefore 2000 PSI. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2000 PSI system per Federal Onshore Order No. 2. Due to available conventional equipment within the area, 3000 PSI rated pressure control equipment will typically be utilized in a double ram type arrangement. Regional drilling rights to be utilized have substructure height limitations which exclude the use of annular preventers; therefore a rotating head will be installed above these rams. This pressure control equipment will be utilized for conventional drilling below conductor to total depth in the Basin Dakota. No abnormal temperature, pressure, or H<sub>2</sub>S anticipated.

### Equipment Specification

#### Interval

Below conductor casing to total depth

#### BOP Equipment

11" nominal or 7 1/16", 3000 PSI  
double ram preventer with rotating head.

All ram type preventers and related control equipment will be hydraulically tested to 250 PSI (low pressure) and 2000 PSI (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, upper kelly cock with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure.