

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT - " for such proposals

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Designation and Serial No. <b>NO-C-14-20-3621</b>
2. Name of Operator <b>Amoco Production Company</b>		6. If Indian, Allottee or Tribe Name
Attention: <b>D. Tallant</b>		7. If Unit or CA, Agreement Designation
3. Address and Telephone No. <b>P.O. Box 800, Denver, Colorado 80201 (303) 830-5294</b>		8. Well Name and No. <b>Gallegos #4E</b>
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) <b>1190'FSL 1800FWL Sec. 33 T 26N R 11W</b>		9. API Well No.
		10. Field and Pool, or Exploratory Area <b>Basin Dakota</b>
		11. County or Parish, State <b>San Juan New Mexico</b>

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	
TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent <input type="checkbox"/> Subsequent Report <input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Abandonment <input type="checkbox"/> Recompletion <input type="checkbox"/> Plugging Back <input type="checkbox"/> Casing Repair <input type="checkbox"/> Altering Casing <input checked="" type="checkbox"/> Other <u>Revise APD</u> <input type="checkbox"/> Change of Plane <input type="checkbox"/> New Construction <input type="checkbox"/> Non-Routine Fracturing <input type="checkbox"/> Water Shut-Off <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Dispose Water
(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

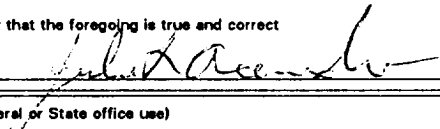
13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Amoco Production Company requests your approval of the attached casing, liner and cementing revisions for the application for permit to drill approved on 02/09/94.

RECEIVED  
APR 04 1994  
OIL CON. DIV.  
DIST. 3

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RECEIVED  
BLM  
94 MAR 21 AM 11:45  
070 FARMINGTON, NM

14. I hereby certify that the foregoing is true and correct			
Signed		Title	Staff Assistant
		Date	03-18-1994
(This space for Federal or State office use)			
Approved by		Title	Date
Conditions of approval, if any:			

Title 18 U.S.C. Section 1001, makes 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.

## GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law and regulations. Any necessary special instructions concerning

the use of this form and the number of copies to be submitted, particularly with regard to local area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

## SPECIFIC INSTRUCTIONS

Item 4 - If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 13 - Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones,

or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

## NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

**AUTHORITY:** 30 U.S.C. 181 et. seq., 351 et. seq., 25 U.S.C. et. seq.; 43 CFR 3160.

**PRINCIPAL PURPOSE** - The information is to be used to evaluate, when appropriate, approve applications, and report completion of secondary well operations, on a Federal or Indian lease.

### ROUTINE USES:

- (1) Evaluate the equipment and procedures used during the proposed or completed subsequent well operations.
- (2) Request and grant approval to perform those actions covered by 43 CFR 3162.3-2(2)
- (3) Analyze future applications to drill or modify operations in light of data obtained and methods used.
- (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal, or regulatory investigations or prosecutions.

**EFFECT OF NOT PROVIDING INFORMATION** - Filing of this notice and report and disclosure of the information is mandatory once an oil or gas well is drilled.

The Paperwork Reduction Act of 1980 (44 U.S.C. 3501, et. seq.) requires us to inform you that:

This information is being collected in order to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

This information will be used to report subsequent operations once work is completed and when requested, to obtain approval for subsequent operations not previously authorized.

Response to this request is mandatory for the specific types of activities specified in 43 CFR Part 3160.

## BURDEN HOURS STATEMENT

Public reporting burden for this form is estimated to average 25 minutes per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management, (Alternate) Bureau Clearance Officer, (WO-771), 18 and C Streets, N.W., Washington, D.C. 20240, and the Office of Management and Budget, Paperwork Reduction Project (1004-0135), Washington, D.C. 20503.

FINAL COPY

AMOCO PRODUCTION COMPANY  
DRILLING AND COMPLETION PROGRAM

File No.: 10082sum

Date: 3/17/94

Lease: Gallegos Well No. #4-E  
 County: San Juan, New Mexico Location: 1090' FSL X 1800' FWL, SEC 33, 26N, 11W  
 Former name: Reference Well #10082 Field: Basin Dakota

<b>OBJECTIVE:</b> Evaluate and develop Gallup and Dakota reserves.				
<b>METHOD OF DRILLING</b>		<b>APPROXIMATE DEPTHS OF GEOLOGICAL MARKER</b>		
<b>TYPE OF TOOLS</b>	<b>DEPTH OF DRILLING</b>	Actual GL-----Estimated KB	6292	6308
Rotary	0 - TD	Marker	Depth (ft.)	SS Elev. (ft.)
<b>LOGGING PROGRAM</b>		Ojo Alamo, base	483	5,825
<b>TYPE</b>	<b>DEPTH</b>	Fruitland*	1,073	5,235
		Pictured Cliffs*	1,383	4,925
DIL-CAL-GR		Lewis Shale	1,483	4,825
FDC-CNL-4 ARM CALIPER	SFC--TD	Cliff House*	2,784	3,524
		Menefee*	2,866	3,442
		Point Lookout*	3,767	2,541
		Mancos Shale	4,085	2,223
<b>REMARKS:</b>		Greenhorn	5,685	623
		Dakota#	5,797	511
		<b>TOTAL DEPTH</b>	6,193	115
		* Possible pay		
		# Probable completion		
		<b>OJO ALAMO IS POSSIBLE USEABLE WATER</b>		
<b>SPECIAL TESTS</b>		<b>DRILL CUTTING SAMPLES</b>		<b>DRILLING TIME</b>
<b>TYPE</b>	<b>DEPTH INTERVAL, ETC</b>	<b>FREQUENCY</b>	<b>DEPTH</b>	<b>FREQUENCY</b>
None		None	** 10'	Geograph
<b>REMARKS:</b>		<b>REMARKS:</b>		
		Mud Logging Program: ** Full two-man mud logging services from top Gallup (4,827') to TD.		
		Coring Program: None		

**MUD PROGRAM:**

Approx. Interval	Type Mud	Weight, #/gal	Vis, sec/qt.	W/L, cc's/30 min.
0-----SCP	SPUD	8.5--9.0	Sufficient to clean hole.	
SCP---TD	LSND	8.8-9.5	Sufficient to clean hole and maintain integrity of logs.	

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**REMARKS:**

\* Use minimum mud weight to control formation pressures.

Note: Mud weight will be raised to +/- 9.5 ppg at 5,700' to test hole integrity. If any problems occur; 5,500" intermediate casing will be set, a 4,750" hole will be drilled through the Dakota and a 3,500" or 4,000" liner will be set for production.

**CASING PROGRAM:**

Casing String	Estimated Depth	Casing Size	Hole Size	Landing Point, Cement, Etc
Conductor				
Surface	750	8 5/8"	12 1/4"	1,2,3
Production	6,193	5 1/2"	7 7/8"	2,4

**REMARKS:**

1. Circulate cement to surface.
2. Southern Rockies Drilling Team top design cement programs.
3. Casing set below base of Ajo Alamo.
4. The Burro Canyon member of the Dakota will be drilled if open hole is considered competent to stand 9.5 ppg mud.

**GENERAL REMARKS:**

Southern Rockies Dakota Engineer to design completion program.

Form 46 Reviewed by:

Logging program reviewed by:

PREPARED BY:  
F. Seidel/A. Logan

bilyeu/mod/3/17/94

APPROVED:

For Production Dept

APPROVED:

For Exploration Dept.

Form 46 7-84bw

# AMOCO PRODUCTION COMPANY

Cementing Procedure/form 46

Well Name: Gallegos #4-E Basin Dakota

Amoco proposes to drill the well to further develop the Dakota reservoir.

The well will be drilled to the surface casing point using native mud.

The well will then be drilled to the production casing point with a non dispersed mud system.

Reference Well #10082

## Surface Casing:

Quantity (ft)	Size (in)	Weight (ppf)	Description	Cement program
750	8 5/8"	47	J-55, ST&C	896 cf Class B, 2% CaCl2 + 0.25 #/sx Floccle. 1.18 cf/sx, 15.8 ppg

Hole Size: 12 1/4" Excess cement: 1.25

## Production Casing

Quantity (ft)	Size (in)	Weight (ppf)	Description	Cement program
6180	5 1/2"	15.50 or 17.00	J-55, LT&C	* 2 stage/3 stage if Mesaverde has potential

\* 1st Stg Lead: 388 cf Class B, 50/50 poz, 2% gel, 0.4% Halad 413, 0.1% SCR 100,  
5 #/sx Gilsomite, 5% Microbond HT, 0.4% VersaSet, 0.25 #/sx Floccle.  
1.35 cf/sx, 13.4 ppg.

\* 1st Stg Tail: 141 cf Class G, 35% SSA 1, 1.0% CFR 3, 0.5% Halad 24, 0.25#/sx Floccle.  
1.58 cf/sx, 15.8 ppg.

Top Picture Cliffs	1383	ft	Est Top Cmt	1283
Top of Mesa Verde	2794	ft		
Top of Mancos shale.	4085	ft.		
Top of Greenhorn	5085	ft.		
Upper stage tool depth	2284	ft, 500' above top of Mesa Verde.		
Lower stage tool depth.	4285	ft. 200' below btm. of Mesaverde.		

(to be utilized only if Mesaverde has potential.)

2nd stage tail: Will be cemented only if Mesaverde has potential.  
Cement program will cover area between the two stage tools.

\*3rd Stg Tail: 558 cf Class B, 50/50 poz, 2% gel, 0.4% Halad 413,  
5 #/sx Gilsomite, 5% Microbond HT, 0.4% VersaSet, 0.25 #/sx Floccle.  
1.35 cf/sx, 13.4 ppg.

Hole size: 7 7/8" Excess cement: 60%

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BY:BRAD BLYEU/BARRY PEISER

03/18/94

- input depths from form 46 in shaded areas to calculate cement volumes.