Form 3160-5
(June 1990)

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

5. Lease Designation and Serial No.
NO-C-14-20-3621

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
Gallegos #4E

2. Name of Operator
Amoco Production Company

Attention:
D. Tallant

9. API Well No.

3. Address and Telephone No.
P.O. Box 800, Denver, Colorado 80201

(303) 830-5294

10. Field and Pool, or Exploratory Area
Basin Dakota

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1190'FSL 1800FWL Sec. 33 T 26N R 11W

11. County or Parish, State
San Juan New Mexico

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☐ Abandonment	☐ Change of Plans
☐ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other Revise APD	☐ 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.

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

APPROVED
FEB 24 1994
DISTRICT MANAGER

94 MAR 24 AM 10:29
070 FARMINGTON, NM

RECEIVED
BLM

14. I hereby certify that the foregoing is true and correct

Signed [signature] Title Staff Assistant Date 03-23-1994

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

ACCEPTED FOR RECORD
MAR 24 1994
FARMINGTON DISTRICT OFFICE
BY

RECEIVED
MAR 24 1994
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT

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.

* See Instructions on Reverse Side

NMOCD

AMOCO PRODUCTION COMPANY

FINAL COPY 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

OBJECTIVE: Evaluate and develop Gallup and Dakota reserves.

METHOD OF DRILLING

TYPE OF TOOLS	DEPTH OF DRILLING
Rotary	0 - TD

LOGGING PROGRAM

TYPE	DEPTH
DIL-CAL-GR	
FDC-CNL-4 ARM CALIPER	SFC--TD

REMARKS:

APPROXIMATE DEPTHS OF GEOLOGICAL MARKER

Actual GL---------Estimated KB 6292 6308

Marker	Depth (ft.)	SS Elev. (ft.)
Ojo Alamo, base	483	5,825
Fruitland*	1,073	5,235
Pictured Cliffs*	1,383	4,925
Lewis Shale	1,483	4,825
Cliff House*	2,784	3,524
Menefee*	2,866	3,442
Point Lookout*	3,767	2,541
Mancos Shale	4,085	2,223
Greenhorn	5,685	623
Dakota#	5,797	511
TOTAL DEPTH	6,193	115

* Possible pay
#Probable completion
OJO ALAMO IS POSSIBLE USEABLE WATER

SPECIAL TESTS

TYPE	DEPTH INTERVAL, ETC
None	

Remarks:

DRILL CUTTING SAMPLES

FREQUENCY	DEPTH
None	**10'

DRILLING TIME

FREQUENCY	DEPTH
Geograph	0 - TD

Remarks:
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.	NC
SCP---TD	LSND	8.8-9.5	Sufficient to clean hole and maintain integrity if log.	

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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 though 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:	APPROVED:	APPROVED:
F. Seidel/A. Logan bilyeu/mod/3/17/94		
Form 46 7-84hw	For Production Dept.	For Exploration Dept.

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 reservior.
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:

Quanity (ft)	Size (in)	Weight (ppf)	Description	Cement program
750	8 5/8"	32	J-55, ST&C	696 cf Class B, 2% CaCl2 + 0.25 #/sx Flocele. 1.18 cf/sx, 15.6 ppg

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

Production Casing

Quanity (ft)	Size (in)	Weight (ppf)	Description	Cement program
6193	5 1/2"	15.50 or 17.00	J-55, LT&C	*3 stage to cover corrosive Menefee water zone and protect Mesaverde.

* 1st Stg Lead: 388 cf Class B, 50/50 poz, 2% gel, 0.4% Halad 413, 0.1% SCR 100, 5 #/sx Gilsonite, 5% Microbond HT, 0.4% VersaSet, 0.25 #/sx Flocele. 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 Flocele. 1.58 cf/sx, 15.8 ppg.

Top Picture Cliffs	1383	ft
Top of Mesa Verde	2784	ft
Top of Mancos shale.	4085	ft.
Top of Greenhorn	5685	tt.
Upper stage tool depth	2284	ft, 500' above top of Mesa Verde.
Lower stage tool depth.	4285	ft. 200' below btm. of Mesaverde.

2nd stage tail: 555 cf Class B, 50/50 poz, 2% gel, 0.4% Halad 413, 5 #/sx Gilsonite, 5% Microbond HT, 0.4% VersaSet, 0.25 #/sx Flocele. 1.35 cf/sx, 13.4 ppg.

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

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

BY:BRAD BILYEU/BARRY PEISER 03/23/94

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