

District I
PO Box 1980, Hobbs, NM 88241-1980

District II

811 South First, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-101

Revised October 18, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 6 Copies

Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address. Amoco Production Company P.O. Box 800 Denver, CO 80201		² OGRID Number 000778
		³ API Number 30 - 0 45-29228
⁴ Property Code 16904	⁵ Property Name Roberts	⁶ Well No. 1

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	14	29N	13W		1160	North	850	East	San Juan

⁸ Proposed 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
⁹ Proposed Pool 1 Kutz, W Pictured Cliffs Ext					¹⁰ Proposed Pool 2				

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary Rotary	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 5356'
¹⁶ Multiple No	¹⁷ Proposed Depth 1514'	¹⁸ Formation Pictured Cliffs	¹⁹ Contractor Aztec	²⁰ Spud Date 4/30/95

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
8.75"	7"	23#	250'	100	Surface
6.25"	3.5"	9.2#	1514'	220	Surface

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

*This updated form replaces
older approved and has followed the*

RECEIVED
SEP 18 1995

OIL CON. DIV.
DIST. 3

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Patty Haeefe

Printed name:

Patty Haeefe

Title:

Staff Assistant

Date:

9/14/95

Phone:

(303) 830-4988

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

C-101 Instructions

Measurements and dimensions are to be in feet/inches. Well locations will refer to the New Mexico Principal Meridian.

IF THIS IS AN AMENDED REPORT CHECK THE BOX LABELED "AMENDED REPORT" AT THE TOP OF THIS DOCUMENT.

program. Attach additional sheets if necessary.

23

The signature, printed name, and title of the person authorized to make this report. The date this report was signed and the telephone number to call for questions about this report.

- 1 Operator's OGRID number. If you do not have one it will be assigned and filled in by the District office.
- 2 Operator's name and address
- 3 API number of this well. If this is a new drill the OCD will assign the number and fill this in.
- 4 Property code. If this is a new property the OCD will assign the number and fill it in.
- 5 Property name that used to be called 'well name'
- 6 The number of this well on the property.
- 7 The surveyed location of this well New Mexico Principal Meridian NOTE: If the United States government survey designates a Lot Number for this location use that number in the 'UL or lot no.' box. Otherwise use the OCD Unit Letter.
- 8 The proposed bottom hole location of this well at TD
- 9 and 10 The proposed pool(s) to which this well is being drilled.
- 11 Work type code from the following table:

N	New well
E	Re-entry
D	Drill deeper
P	Plugback
A	Add a zone
- 12 Well type code from the following table:

O	Single oil completion
G	Single gas completion
M	Multiple completion
I	Injection well
S	SWD well
W	Water supply well
C	Carbon dioxide well
- 13 Cable or rotary drilling code

C	Propose to cable tool drill
R	Propose to rotary drill
- 14 Lease type code from the following table:

S	State
P	Private
- 15 Ground level elevation above sea level
- 16 Intend to multiple complete? Yes or No
- 17 Proposed total depth of this well
- 18 Geologic formation at TD
- 19 Name of the intended drilling company if known.
- 20 Anticipated spud date.
- 21 Proposed hole size ID inches, proposed casing OD inches, casing weight in pounds per foot, setting depth of the casing or depth and top of liner, proposed cementing volume, and estimated top of cement
- 22 Brief description of the proposed drilling program and BOP

Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-101
Revised 1-1-89

OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

API NO. (assigned by OCD on New Wells)

30-045-29228

5. Indicate Type of Lease

STATE ☐

FEE ☒

6. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work:

DRILL ☒

RE-ENTER ☐

DEEPEN ☐

PLUG BACK ☐

b. Type of Well:

OIL
WELL ☐

GAS
WELL ☒

OTHER

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

7. Lease Name or Unit Agreement Name

Roberts

2. Name of Operator

AMOCO PRODUCTION COMPANY 778

Attention:

Julie L. Acevedo

8. Well No.

#1

3. Address of Operator

P.O. Box 800 Denver Colorado 80201

9. Pool name or Wildcat

16904
79682 Kutz, West, Richard (Cliff) EXT 160

4. Well Location

Unit Letter A : 1160 Feet From The North Line and 850 Feet From The East Line

Section 14 Township 29N Range 13W NMPM SAN JUAN County

10. Proposed Depth

1514' TD

11. Formation

Pictured Cliffs

12. Rotary or C.T.

Rotary

13. Elevations (Show whether DF, RT, GR, etc.)

5356' GR

14. Kind & Status Plug. Bond

15. Drilling Contractor

Aztec

16. Approx. Date Work will start

4/30/95

17. PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
8.75"	7"	23#	250'	1 00sx Cl B	Surface
6.25"	3.5"	9.2#	1514'	220 Cl B	Surface

RECEIVED
MAR 28 1995
OIL CON. DIV.
DIST. 3

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Julie L. Acevedo

TITLE

Sr. Staff Assistant

DATE

03-24-1995

TYPE OR PRINT NAME

Julie L. Acevedo

TELEPHONE NO. (303) 830-6003

(This space for State Use)

APPROVED BY

Ernie Burch

TITLE

DEPT. 3-29-95

DATE

MAR 29 1995

CONDITIONS OF APPROVAL, IF ANY:

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Hondo 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

API Number 30-045-29228		Pool Code 79680	Pool Name Kutz West - Pictured Cliffs EXT
Property Code 16904	Property Name Roberts		Well Number #1
OGRID No. 00778	Operator Name AMOCO PRODUCTION COMPANY		Elevation 5356




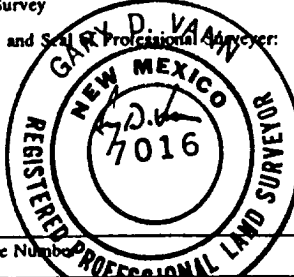
¹⁰ Surface Location

UL or lot no. A	Section 14	Township 29 N	Range 13 W	Lot Idn	Feet from the 1160	North/South line NORTH	Feet from the 850	East/West line EAST	County SAN JUAN
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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 160					¹³ Joint or Infill					¹⁴ Consolidation Code	¹⁵ 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

¹⁶									
<div style="text-align: center;"></div>									¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief <div style="text-align: right;"> Signature Julie L. Acevedo Printed Name Sr. Staff Assistant Title 3/24/95 Date</div>
<div style="text-align: center;"></div>									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 1, 1994 Date of Survey Signature and Seal of Professional Surveyor: <div style="text-align: center;"> 7016 Certificate Number</div>

**AMOCO PRODUCTION COMPANY
DRILLING PROGRAM**

File No.: roberts1.xlw
Date: 1/25/95

Lease: Roberts Well No. #1
County: San Juan County, New Mexico Surface Location: 1160' FNL & 850' FEL of Section 14, T29N, R13W
Former name: Field:

OBJECTIVE: Develop PC				
METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER		
TYPE OF TOOLS	DEPTH OF DRILLING	GL.....Estimated KB	5356	5369
Rotary	Ground Level - TD	Marker	Depth (ft.)	SS Elev. (ft.)
LOGGING PROGRAM		Ojo Alamo		
TYPE	DEPTH	PC **	1,224	4,145
Triple Combo (FDC-CNL HRI-SP-GR-Micro)	TD to surface in one run	Lewis Shale	1,464	3,905
		Cliff House		
		Menefee Shale		
		Point Lookout		
		Mancos		
		Gallup		
		Greenhorn		
		Dakota		
REMARKS:		TOTAL DEPTH	1,514	3,855
		* Possible pay ** Probable completion Ojo Alamo is possible usable water		
SPECIAL TESTS		DRILL CUTTING SAMPLES		DRILLING TIME
TYPE	DEPTH INTERVAL, ETC	FREQUENCY	DEPTH	FREQUENCY
None				Geograph
REMARKS:		Int - TD		
		Remarks:		
		Mud Logging Program: None		
		Coring Program: None		

MUD PROGRAM:

Approx. Interval	Type Mud	Weight, #/g	Vis, sec/qt	W/L, cc's/30 min.
0 - 250'	Spud			
Production	LSND	8.6 - 9.5	Sufficient to clean hole	

REMARKS:

CASING PROGRAM:

Casing String	Estimated Depth	Casing Size	Hole Size	Landing Point, Cement, Etc
Conductor				
Surface	250	7"	8.75"	1
Intermediate				
Production	1,514	3.5"	6.25"	1, 2, 3

Remarks:

- 1 - Circulate cement to surface.
- 2 - Production cement to be designed by Denver drilling staff.
- 3 - Casing set 50' into the Lewis Shale.

GENERAL REMARKS:

Business Unit Engineering staff to design completion program.

Form 46 Reviewed by:

Logging program reviewed by:

PREPARED BY: Grotke/Ovitz	APPROVED:	APPROVED:
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Form 46 7-84bw
3/23/95 17:38

For Production Dept

For Exploration Dept.

CEMENTING PROGRAM

blp

Roberts #1

Well Name: **Roberts #1**
Location: 1160' FNL X 850' FEL, Sec 14, T29N, R12W
County: San Juan
State: New Mexico

Field:
API No.
Well Flac
Formation: Pictured Cliff
KB Elev. (est.) 5369 ft.
GL Elev. (est.) 5356 ft.

Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Casing Weight (lb/ft.)	Casing Grade	Thread	TOC (ft.)
Surface	250	8.75	7.000	23	J-55	8R, LT&C	Surface
Production	1,514	6.25	3.500	9.2	H-40	8R, EUE	Surface

Casing Properties:

(No Safety Factor Included)

Casing String	Casing Weight (lb/ft.)	Burst (psi.)	Collapse (psi.)	Joint St. (1000 lbs.)	Capacity (bbl/ft.)	Torque(ft. lbs.) Opt/Min/Max	Drift (in.)
Surface	23	4360	3270	313	0.0393		6.241
Production	9.2	5080	5380	79	0.0087		2.867

Mud Program:

Apx. Interval (ft.)	Mud Type	Mud Weight (lb/gal)	Recommended Mud Properties Prior Cementing:	
			PV	< 20
			YP	< 10
			Fluid Loss	< 15
0 - SCP	Spud	8.6-8.8		
SCP - TD	LSND	8.6-9.5		

Cementing Program:

	Surface	Production
Excess %, Bit	75	30
Excess %, Caliper	NA	30
BHST (est. deg. F)	55	100
Pipe Movement	NA	NA
Rate, Max. (bpm)	1 truck	4
Rate, Recommended (bpm)	6	4
Pressure, Max. (psi)	200	2000
Shoe Joint	40'	40
Batch Mix	NA	NA
Circulating prior cmtng (hr.)	0.5	1
Time Between Stages,(hr.)	NA	NA
Special Instructions	1,6,7	2,4,6,8

- 1 Do not wash pumps and lines
- 2 Wash pumps and lines.
- 3 Do not reverse out
- 4 Run Blend Test on Cement
- 5 Record Rate , Pressure, and Density on 3.5" disk
- 6 Confirm densometer with pressurized mud scales
- 7 1" cement to surface if cement is not circulated.
- 8 If cement is not circulated to the surface, run temp. survey 10-12 hr. after landing plug.

Notes:

- *** Displace top plug on the production casing job with 0.2% Clay Fix II or 2% KCl water.
- *** Do not wash up on top of plug. Wash pumps and lines. We want to do rig less completions.

CEMENTING PROGRAM

blp

Roberts #1

Surface:

Preflush 20 bbl. Fresh Water + dye marker

Slurry 1 100 sk Standard Cement
TOC@Surface + 2% CaCl₂
+ 1/4 lb/sk floccle

~~95 cu. ft.~~ 118 ft³

Slurry Properties:	density (lb/gal)	yield (ft ³ /sk)	water (gal/sk)
slurry 1	15.60	1.18	5.20

Casing Equipment: (Halliburton) 7", 8R, ST&C

- 1 Type M Guide Shoe
- 1 Insert Float w Auto Fill
- 1 Weld A
- 3 S-4 Centralizer
- 1 Top Wooden Plug

CEMENTING PROGRAM

Roberts #1

Production:

Preflush	20 bbl. 10 bbl.	Mud Flush Fresh Water	
Lead Cement Slurry 1		50/50 Std..Cmt/Poz A + 2% gel (total) + 5 lb/sk gilsonite + 0.4% Halad-344 + 1/4 lb/sk flocele	290 cu. ft.

Slurry Properties:	density (lb/gal)	yield (ft ³ /sk)	water (gal/sk)
slurry 1	13.50	1.32	5.59

Note: The job should be pumped at 4 bpm max rate. Do not exceed 2 bpm on displacement. Slow to 2 bpm for the displacement. Displace with 2% KCl or 0.2% Clay Fix II water. This is to be a rigless completion.

Casing Equipment: Halliburton 3 1/2", 8R, EUE, (no need to cut long pin)

- 1 Super Seal II Float Shoe
- 10 S-4 Fluidmaster Centralizer
- 1 Lock Clamp
- 1 Weld A
- 1 Omega Latch Down Plug and Baffle

