



June 12, 1996

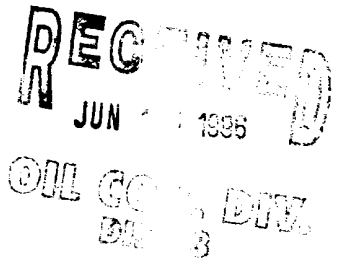
Mr. William J. LeMay, Director
New Mexico Oil Conservation Division
2040 S. Pacheco Street
P. O. Box 6429
Santa Fe, NM 87505

Southern

Rockies

Business

Unit



Application for Exception to Rule 303-C - Downhole Commingling
Florance #2A Well
Unit O Section 20-T30N-R9W
Basin Fruitland Coal and Blanco Mesaverde Pools
San Juan County, New Mexico

Enclosed please find an administrative application form (C-107-A) and attachments for downhole commingling for the captioned well. By copy of this application by certified mail, return receipt requested, Amoco is notifying all offset operators in the formations captioned above as well as all affected interest owners if the ownership of those formations is not common. The Division Director may approve the proposed downhole commingling in the absence of a valid objection from any offset operator or any interest owner in those instances where ownership is not common in the zones to be commingled within 20 days after the receipt of the application if, in his opinion, waste will not result thereby, and correlative rights will not be violated.

Should there be questions concerning this matter, please contact me at (303) 830-5344.

Sincerely,

Pamela W. Staley

Enclosures

cc: Hiep Vu
Patty Haeefe
Wellfile
Proration File
Frank Chavez, Supervisor
NMOCD District III
1000 Rio Brazos Road
Aztec, NM 87410

Duane Spencer
Bureau of Land Management
1235 La Plata Hwy.
Farmington, NM 87401

OIL CONSERVATION DIVISION

APPROVAL PROCESS:

DISTRICT II
811 South First St., Artesia, NM 88210-2835

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

☒ Administrative ☐ Hearing

DISTRICT III
1000 Rio Brazos Rd. Aztec, NM 87410-1603

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE
☒ YES ☐ NO

Amoco Production Company		P.O. Box 800	Denver, CO 80201
Operator Florance	#2A	Address O-20-30N-9W	San Juan
Lease	Well No	Unit Ltr. - Sec Twp - Rge	County

OGRID NO. 000778 Property Code 000518 API NO. 30-045-22150 Spacing Unit Lease Types: (check 1 or more)
Federal ☒ State ☐ (and/or) Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Basin Fruitland Coal 71629		Blanco Mesaverde 72319
2. Top and Bottom of Pay Section (Perforations)	2440'-2610'		4307'-5049'
3. Type of production (Oil or Gas)	gas		gas
4. Method of Production (Flowing or Artificial Lift)	flowing		flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	a. (Current) 143 PSI b. (Original) 1088 PSI	a. b.	a. 112 PSI b. 1083 PSI
6. Oil Gravity (" API) or Gas BTU Content	1140 BTU/mmcf		1216 BTU/mmcf 53.6 API
7. Producing or Shut-In?	producing		producing
Production Marginal? (yes or no)	yes		no
• If Shut-In, give data and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: Rates:	Date: Rates:	Date: Rates:
• If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: 04/96 Rates: 80 mcf/d 0 bopd 0.55 bwpd	Date: Rates:	Date: 04/96 Rates: 430 mcf/d 0.21 bopd 0.22 bwpd
8. Fixed Percentage Allocation Formula -% for each zone	Oil: 0 % Gas: 15 %	Oil: % Gas: %	Oil: 100 % Gas: 85 %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical in all commingled zones? ☐ Yes ☐ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ☐ Yes ☐ No
Have all offset operators been given written notice of the proposed downhole commingling? ☐ Yes ☐ No
11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)
12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No
13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)
14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No SF-078116 SF-077833
15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S) _____
16. ATTACHMENTS:
- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
 - * Production curve for each zone for at least one year. (If not available, attach explanation.)
 - * For zones with no production history, estimated production rates and supporting data.
 - * Data to support allocation method or formula.
 - * Notification list of all offset operators.
 - * Notification list of working, overriding, and royalty interests for uncommon interest cases.
 - * Any additional statements, data, or documents required to support commingling.

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

SIGNATURE Pamela W. Staley TITLE Regulatory Affairs Engineer DATE 6/10/96

TYPE OR PRINT NAME Pamela W. Staley TELEPHONE NO. (303) 830-5344

All distances must be from the outer boundary of the Section

Operator Amoco Production		Locality Marance		Well No. 2A
Unit Letter 0	Section 20	Township 30N	Range 9W	County San Juan
Actual Location of Well: 790 feet from the South line and 1475 feet from the E line. Ground Level Elev. 5985' Producing Formation Fruitland Pool Basin/Fruitland Coal Gas Dedicated Acreage 3.20 E/2 Acres				

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, force-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.

RECEIVED
MAIL ROOM
FEB 25 1989
FARMINGTON RESOURCE AREA
FARMINGTON, NEW MEXICO

CERTIFICATION

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

B.D. Shaw

Name B.D. Shaw

Position Adm. Supv

Company Amoco

Date 2-25-89

I hereby certify that the well location shown on this plot 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 knowledge and belief.

On file

Date Surveyed _____

Registered Professional Engineer
and/or Land Surveyor

NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACERAGE DEDICATION PLAT

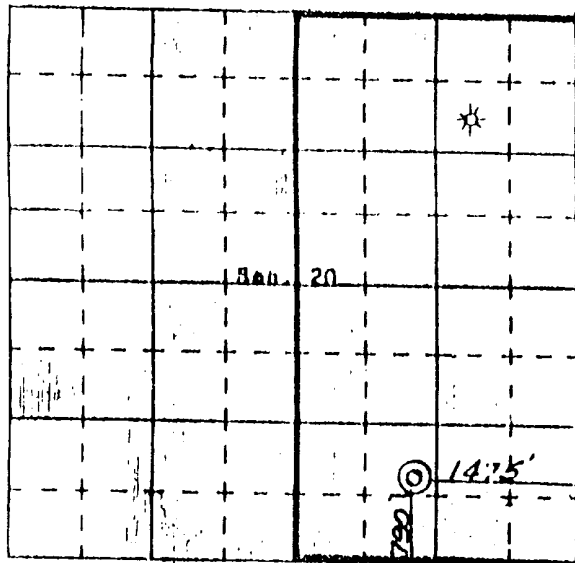
All distances must be from the outer boundaries of the Section

Operator TENNECO OIL COMPANY				Lease FLORANCE		Well No. 2-A	
Unit Letter P-0	Section 20	Township 30 NORTH	Range 9 WEST	County SAN JUAN			
Actual Footage Location of Well: 790 feet from the SOUTH line and 1175 feet from the EAST line							
Ground Level Elev. 5985	Produce from Blanco Mesa Verde		Pool Blanco Mesa Verde		Average 1175		
Acres							

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
 - If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
 - If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?
- ☒ Yes ☐ No If answer is "yes" type of consolidation **Communitization**

If answer is "no," list the owners and tract descriptions which have actually consolidated (Use reverse side of this form if necessary)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name John P. Drake
Position Production Clerk
Company Tenneco Oil Company
Date July 29, 1976

I hereby certify that the well location shown on this plat was obtained from (a) a survey made by me or under my supervision and that the same is true and correct to the best of my knowledge and belief.

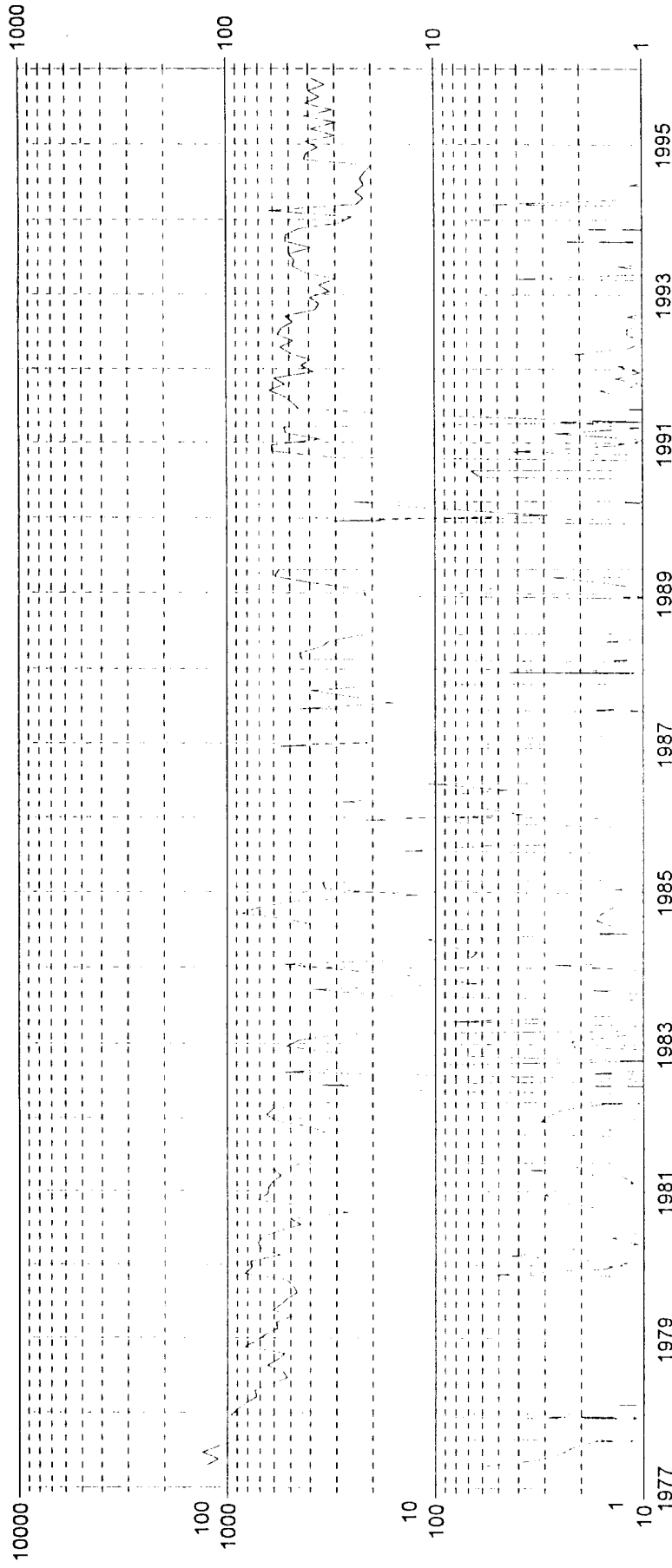
Date Surveyed 25 June, 1976
Registered Professional Engineer
and/or Land Surveyor
James P. Leone

1463
Certificate No.

Dwights

Lease: FLORANCE 00002A

Retrieval Code: 251,045,30N09W20O00M



County: SAN JUAN

State: NM

F.P. Date: 04/77

Date: 03/27/96

Field: BLANCO (MESAVERDE) MV

Oil Cum: 5291 bbl

Reservoir: MESAVERDE

Gas Cum: 2295 mmcf

Water (bbl/day)

Operator: AMOCO PRODUCTION CO

Location: 20O 30N 9W

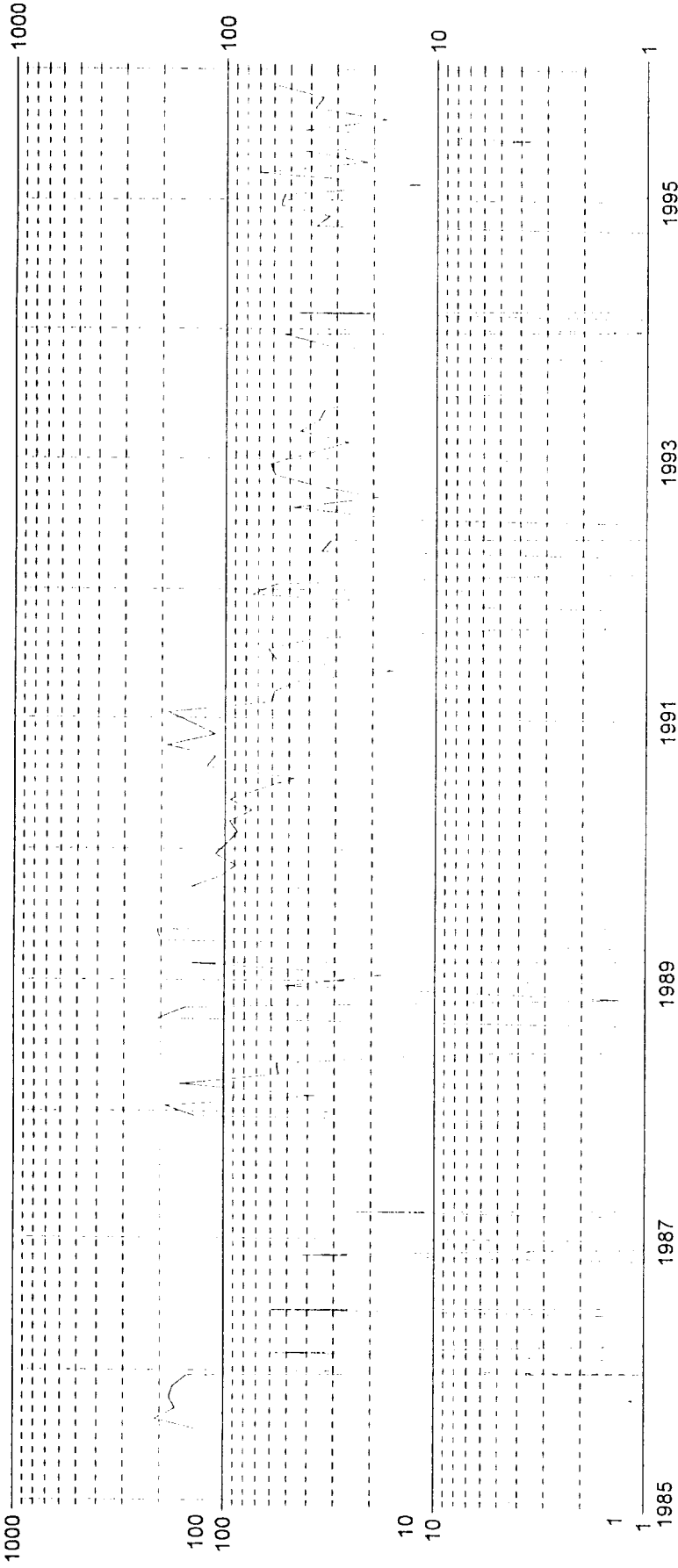
Gas (mcf/day)

Oil (bbl/day)

Dwights

1000 Lease: FLORANCE 00002A

Retrieval Code: 251,045,30N09W20O00F



County: SAN JUAN

State: NM

F.P. Date: 07/85

Date: 03/27/96

Field: BASIN (FRUITLAND COAL) FT

Oil Cum: 410 bbl

Reservoir: FRUITLAND COAL

Gas Cum: 193176 mcf

Water (bbl/day)

Operator: AMOCO PRODUCTION CO

Location: 200 30N 9W

Gas (mcf/day)

Oil (bbl/day)

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Douglas M Boone

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Version 3.0M

09-Apr-96

-- FLOWBHP --

-- Pwf with correction for liquids --

Well Name: Florance #2A MV

Gas Gravity: 0.8

Condensate (yes=1): 1

Reservoir Temp: 126.1 F

Surface Temp: 70 F

Depth of Zone: 4678 Feet

TVD: 4678 Feet

Tubing ID: 1.995 inches

Oil Production 0.21 Bopd

Oil Gravity 53.6 API

Water Production 0.22 Bwpd

Water SG 1

FTP Rate Pwf

Psia Mcfd psia

75 430

112

0.978

114

INSTRUCTIONS:

- 1) Enter the shut-in tubing or flowing pressure.
- 2) Press [F9] to calculate the BHP and Z factor
- 3) Press [Ctrl][Home] to return to information screen.

Calculations based on Cullender-Smith with corrections for condensate and water production. The is also a correction for the gas equivalent of the condensate.

GAS Ghc =	0.80	BHT	SURFT	GOR - water	1,954,545	cf/Bbl liqui
Tchc =	405.51	A =	0.0642	GOR - oil	2,047,619	cf/Bbl liqui
Pchc =	657.45	B =	0.1239	GOR total	1,000,000	cf/Bbl liqui
CWA =	0.00	C =	-0.9191	Mo	128	
Tavg =	557.72	D =	1.3753	Oil Grav	0.764	
Tc' =	405.51	E =	0.3603	SG wg	0.801	
Pc' =	657.45	F =	0.6845	Mix Grav	0.885	
Pc =	657.45	Tr =	1.375	SG mix	0.803	
Tc =	405.51	Tavg	559.05	G	797	
		F	0.01494	Rate corr	430	
				Gas Grav cor	0.803	

Pr	G	pro	f(pr)	f(pr)'	pro'	Z	Pwf	Zavg	A
0.114	0.031	0.024	0.000	1.260	0.024	0.982	84	0.983	0.256
0.127	0.034	0.025	0.000	1.330	0.025	0.983	112	0.980	0.257
0.170	0.046	0.034	0.000	1.314	0.034	0.978	112	0.980	0.257
0.170	0.046	0.034	0.000	1.314	0.034	0.978	112	0.980	0.257
0.170	0.046	0.034	0.000	1.314	0.034	0.978	112	0.980	0.257

-- FLOWBHP --
-- Pwf with correction for liquids --
Well Name: **Florence #2A FRT**
Gas Gravity: **0.8**
Condensate (yes=1): **0**
Reservoir Temp: **100 F** % N2 **0.00 %**
Surface Temp: **70 F** % CO2 **0.00 %**
Depth of Zone: **2500 Feet** % H2S **0.00 %**
TVD: **2500 Feet**
Tubing ID: **1.38 inches**
Oil Production **0 Bopd**
Oil Gravity **0 API**
Water Production **0.55 Bwpd**
Water SG **1**

Rate **80** Pwf **143** Z **1.000** Pwf/Z **143**
Mcf/d psia
90 **80** **143** **1.000** **143**
Psia

FTP
1

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Version 3.0M
04-Apr-96

GAS Ghc = **0.01**
Tchc = **170.29**
Pchc = **677.10**
CWA = **0.00**
Tavg = **544.67**
Tc' = **170.29**
Pc' = **677.10**
Pc = **677.10**
Tc = **170.29**

BHT
A = **0.0642**
B = **1.0998**
C = **-0.0954**
D = **3.1984**
E = **0.0666**
F = **0.6845**
Tr = **3.198**
Tavg = **546**
F **0.01618**

SURFT
0.0642
1.0527
-0.1264
3.1103
0.0705
0.6845
3.110

GOR - water
GOR - oil
GOR total
Mo
Oil Grav
SG wg
Mix Grav
SG mix
G
Rate corr
Gas Grav cor

145,455
10
10
-1031
0.000
0.007
1.000
4.059
0
80
4.059

cf/Bbl liqui
cf/Bbl liqui
cf/Bbl liqui

INSTRUCTIONS:

- 1) Enter the shut-in tubing or flowing pressure.
- 2) Press [F9] to calculate the BHP and Z factor
- 3) Press [Ctrl][Home] to return to information screen.

Calculations based on Cullender-Smith with corrections for condensate and water production. There is also a correction for the gas equivalent of the condensate.

OFFSET OPERATORS

Meridian Oil, Inc.
P.O. Box 4289
Farmington, NM 87499