

4-23-95



Southern

Rockies

Business

Unit

March 29, 1995

Mr. William J. LeMay, Director
New Mexico Oil Conservation Division
2040 S. Pacheco Street
P. O. Box 6429
Santa Fe, NM 87504

**Application for Exception to Rule 303-A
Downhole Commingling
Lackey B #13M Well
1025' FNL, 1655' FWL, Section 20-T28N-R9W
Blanco Mesaverde, Basin Dakota, and Otero Chacra Pools
San Juan County, New Mexico**

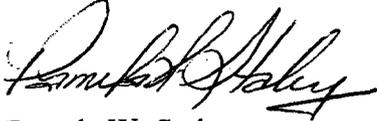
Amoco Production Company hereby requests administrative approval to downhole commingle production from the Blanco Mesaverde, Basin Dakota and Otero Chacra Pools in the Lackey B #13M well referenced above. The Lackey B #13M well was originally completed in the Dakota formation. We plan to recompleate the well to the Mesaverde and Chacra formations with all three zones open in the wellbore. The three zones are expected to produce at a total commingled rate of about 285 MCFD. The ownership (WI, RI, ORRI) of these pools is identical in this wellbore. Downhole commingling will offer an economical method of production while protecting against reservoir damage, waste of reserves and violation of correlative rights.

The allocation method that we plan to use for this commingled well is as follows. We plan to determine the stabilized rate from the Dakota formation prior to the recompleation. During the recompleation of each of the other zones we will establish stabilized rates before proceeding. After finalizing the recompleation and placing the well back on production we will establish a rate from the Mesaverde, Chacra and Dakota commingled zones. The allocation percentages would then be fixed at each zone's percentage of the total stabilized post commingling rate. Once these rates have been established we will notify your Aztec District. The actual commercial value of the commingled production will not be less than the sum of the values of the production from each of the common sources of supply.

Attached to aid in your review are plats showing the location of the well and offset wells in the same formation, historical production plots and a C-102 for each formation. This spacing unit is on a federal lease SF-077106. A copy of the application will be sent to the BLM requesting their consent.

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

Sincerely,



Pamela W. Staley
Enclosures

cc: Mike Kutas
Gail Jefferson

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

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

1980
Form C-102
Revised 10-1-78

All distances must be from the outer boundaries of the Section.

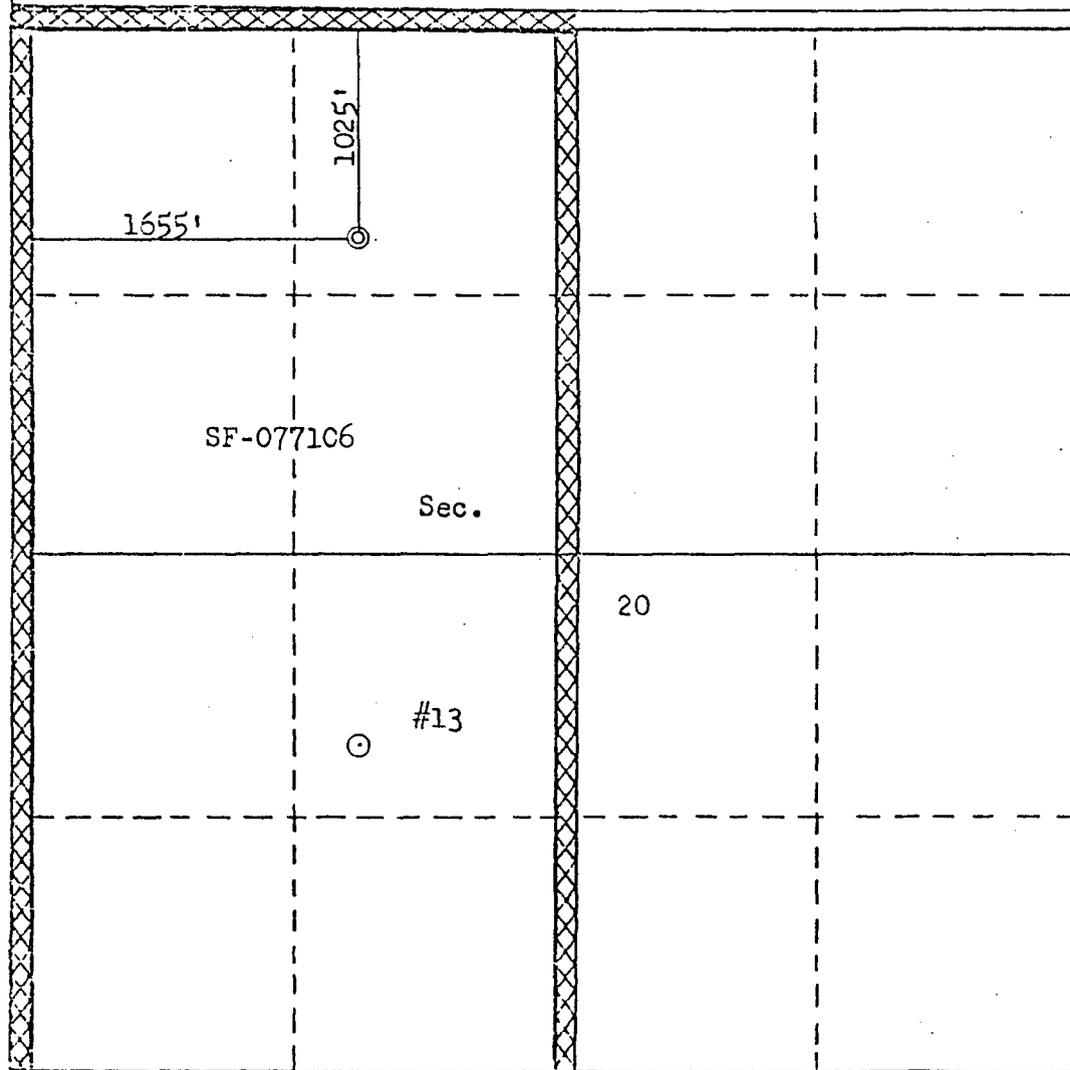
Operator EL PASO NATURAL GAS COMPANY			Lease LACKEY "B" (SF-077106)		Well No. 13-3
Unit Letter C	Section 20	Township 28N	Range 9W	County San Juan	
Actual Footage Location of Well: 1025 feet from the North line and 1655 feet from the West line					
Ground Level Elev. 5335	Producing Formation Dakota		Pool Basin Dakota	Dedicated Acreage: 320.00 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, 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.

A. G. Busch

Name **Drilling Clerk**

Position **El Paso Natural Gas**

Company **October 11, 1979**

Date

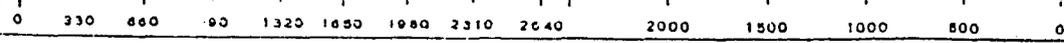
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed **September 11, 1979**

Registered Professional Engineer and/or Land Surveyor

Fred R. Korr Jr.
Fred R. Korr Jr.

Certificate No. **3950**



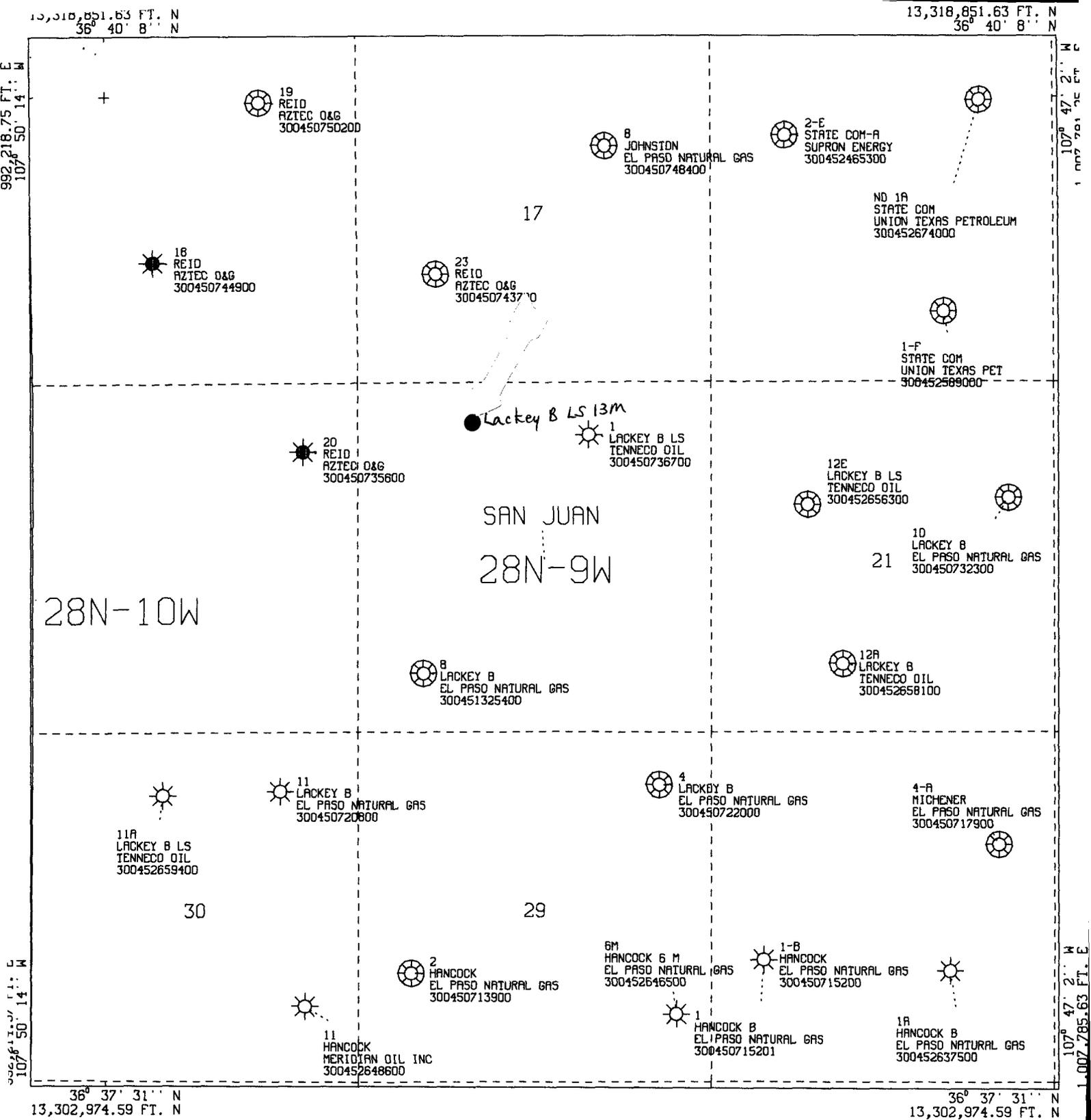
OFFSET OPERATORS ADDRESS LIST
LACKEY B #13M

- 1 Meridian Oil, Inc.
P.O. Box 4289
Farmington, NM 87401

- 2 El Paso Natural Gas
C/O Meridian Oil, Inc.
P.O. Box 4289
Farmington, NM 87401

- 3 Southland Royalty Company
P.O. Box 840656
Dallas, Texas 75284

- 4 Union Texas Petroleum Corp.
P.O. Box 200128
Houston, TX 77216



All geological and geophysical data, including the interpretation thereof, appearing on this map is the private and confidential property of Amoco Production Company. The publication or reproduction thereof without the written permission of said Company is strictly prohibited.

AMOCO PRODUCTION COMPANY
PLAT MAP
Lackey B ls 13M(E)
Offset MV wells

POLYCONIC CENTRAL MERIDIAN - 107° 48' 38" W LON
SPHEROID - 6

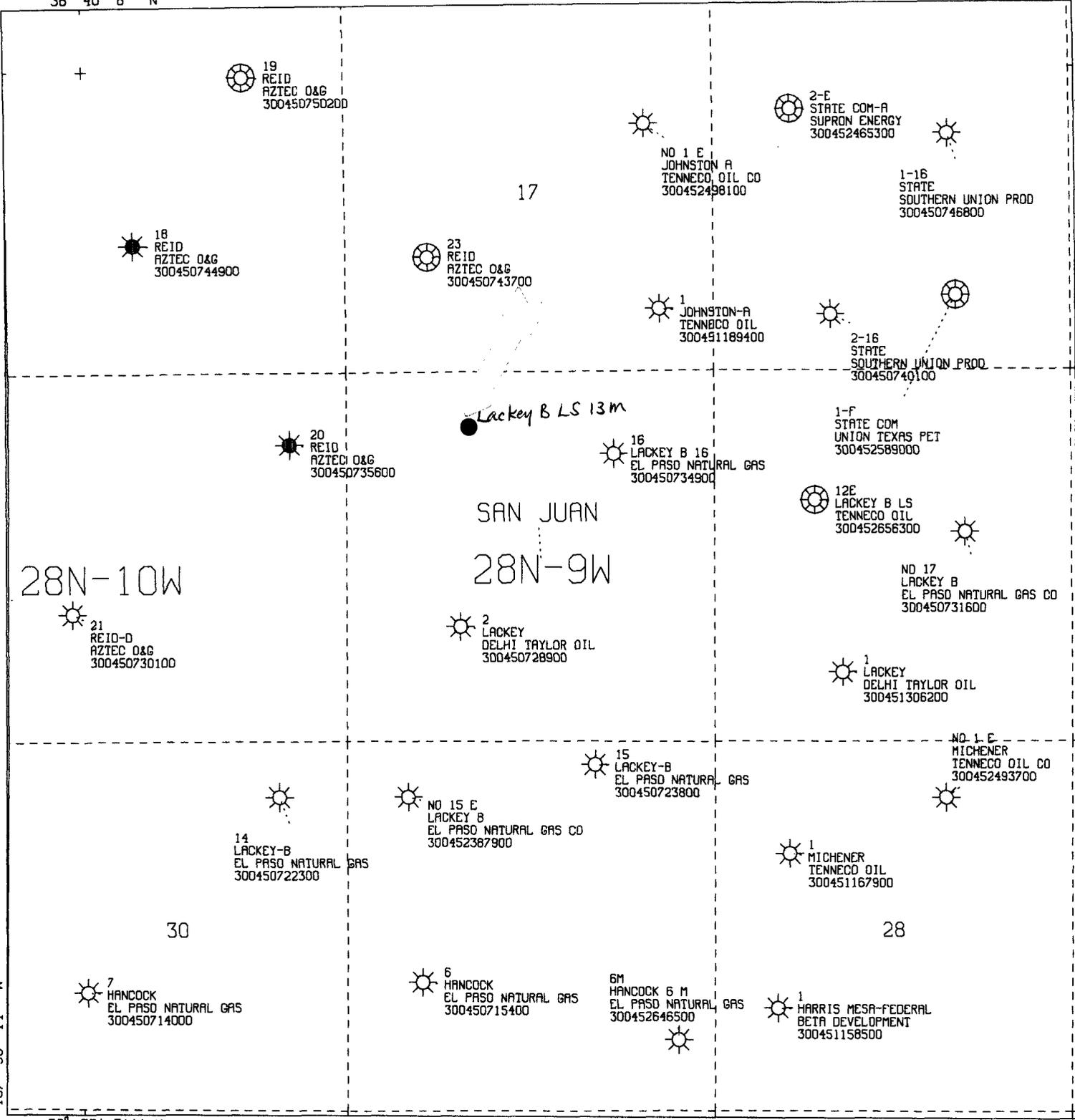
SCALE 1 IN. = 2,000 FT. MAR 20. 1995

13,318,851.63 FT. N
36° 40' 8" N

13,318,851.63 FT. N
36° 40' 8" N

992,218.75 FT. E
107° 50' 14" W

107° 47' 2" W



992,214.37 FT. E
107° 50' 14" W

107° 47' 2" W

36° 37' 31" N
13,302,974.59 FT. N

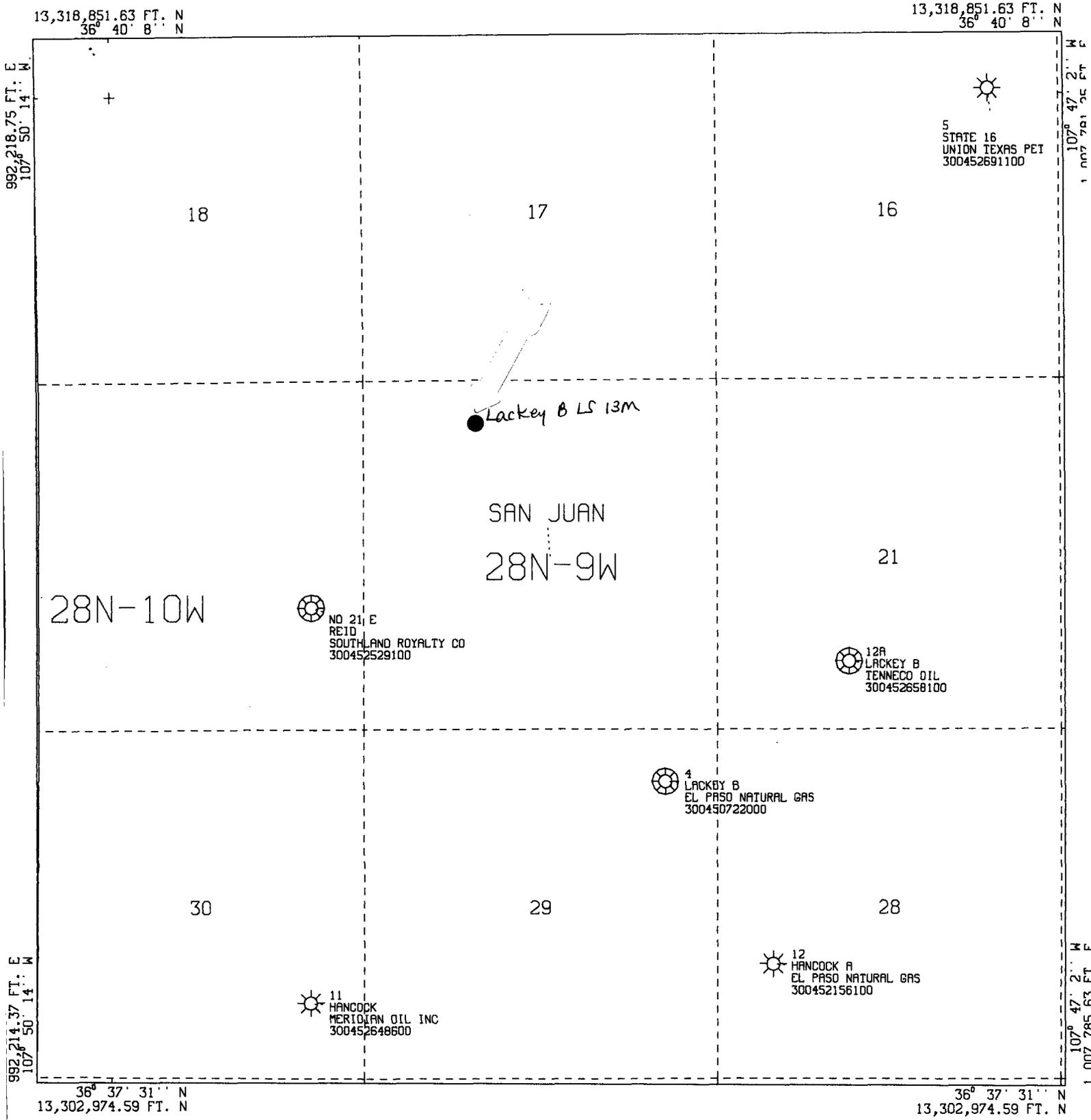
36° 37' 31" N
13,302,974.59 FT. N

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AMOCO PRODUCTION COMPANY
 PLAT MAP
 Lackey B ls 13M(E)
 Offset DK wells

SCALE 1 IN. = 2,000 FT. MAR 20, 1995

POLYCONIC CENTRAL MERIDIAN - 107° 48' 38" W LON
SPHEROID - 6



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AMOCO PRODUCTION COMPANY
 PLAT MAP
 Lackey B ls 13M(E)
 Offset CK wells

SCALE 1 IN. = 2,000 FT. MAR 20. 1995

POLYCONIC CENTRAL MERIDIAN - 107° 48' 38" W LON
 SPHEROID - 6

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

OK
 (5)

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

OIL CONSERVATION DIVISION
 PO Box 2088
 Santa Fe, NM 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 3004523888		2 Pool Code 72319		3 Pool Name Blanco MesaVerde	
4 Property Code 71599		5 Property Name Lackey "B" LS			6 Well Number 13 M
7 OGBID No. 000778		8 Operator Name Amoco Production Company			9 Elevation 5835' GL

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	20	28 N	9W	C	1025	North	1655	West	San Juan

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 3.20	13 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

16 1655' 1025'		17 OPERATOR CERTIFICATION
		<i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i>
		Signature: <i>Lois Raeburn</i> Printed Name: Lois Raeburn Title: Business Assistant Date: 12 13 94
		18 SURVEYOR CERTIFICATION
		<i>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.</i>
		Date of Survey: Sept. 11, 1979 Signature and Seal of Professional Surveyor: On File 3950 Certificate Number

LIST OF ATTACHMENTS
LACKEY B LS #13E

ATTACHMENTS

- 1 List of offset operators and their addresses**
- 2 9 section plat for Mesaverde showing offset wells**
- 3 9 section plat for Dakota showing offset wells**
- 4 9 section plat for Chacra showing offset wells**
- 5 Form C-102 for the Basin Dakota formation**
- 6 Form C-102 for the Blanco Mesaverde formation**
- 7 Form C-102 for the Otero Chacra formation**
- 8 Pressure information for all three horizons**
- 9 Historical production Curve for Dakota formation**
- 10 Recent production Curve for Dakota formation**

OFFSET OPERATORS ADDRESS LIST
LACKEY B #13M

- 1 Meridian Oil, Inc.
P.O. Box 4289
Farmington, NM 87401
- 2 El Paso Natural Gas
C/O Meridian Oil, Inc.
P.O. Box 4289
Farmington, NM 87401
- 3 Southland Royalty Company
P.O. Box 840656
Dallas, Texas 75284
- 4 Union Texas Petroleum Corp.
P.O. Box 200128
Houston, TX 77216

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

1980
Form O-102
Revised 10-1-78

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

All distances must be from the outer boundaries of the Section.

Operator EL PASO NATURAL GAS COMPANY			Lease LACKEY "B" (SF-077106)		Well No. 13-E
Unit Letter C	Section 20	Township 28N	Range 9W	County San Juan	

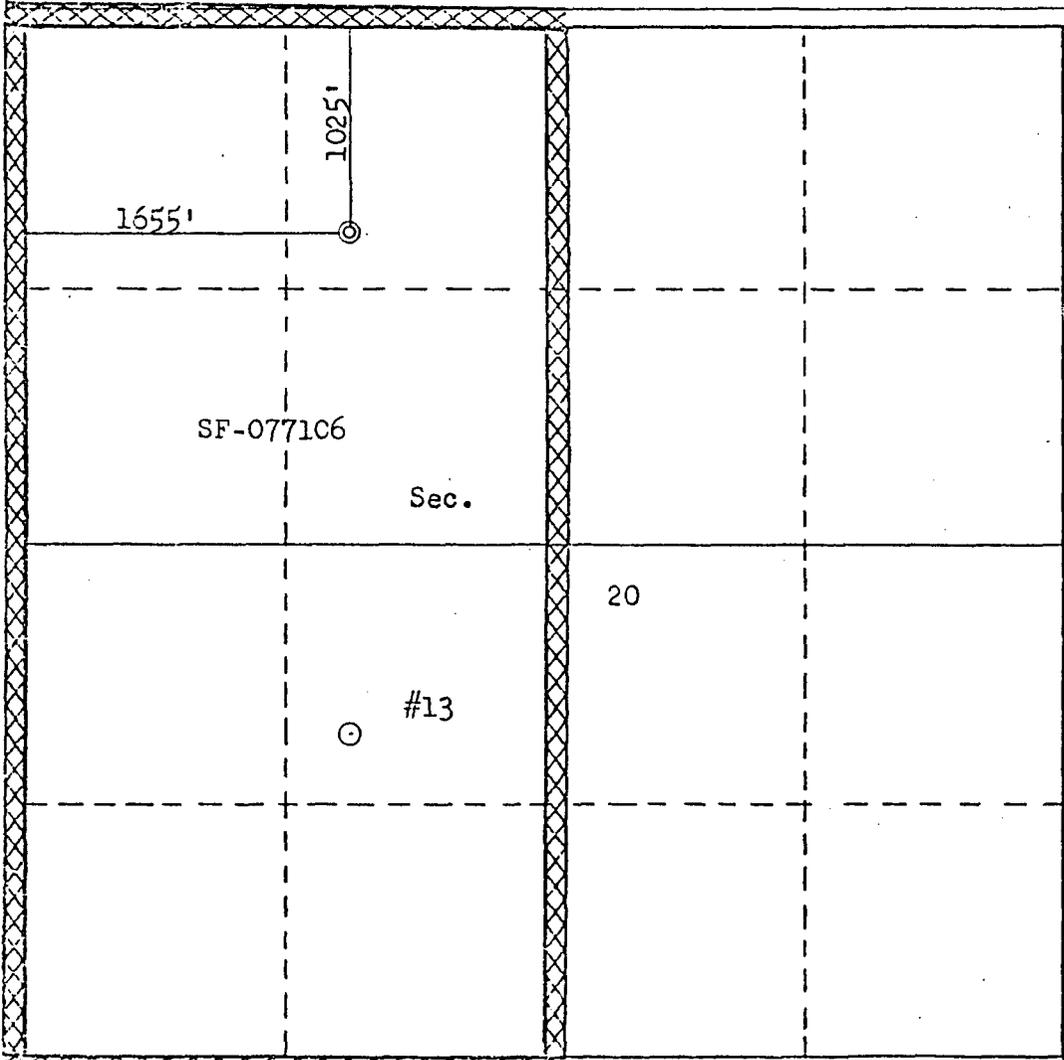
Actual Footage Location of Well:
1025 feet from the **North** line and **1655** feet from the **West** line
 Ground Level Elev. **5335** Producing Formation **Dakota** Pool **Basin Dakota** Dedicated Acreage: **320.00** Acres

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 _____

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CERTIFICATION

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

A. G. Bruce

Name **Drilling Clerk**
 Position **El Paso Natural Gas**
 Company **October 11, 1979**
 Date

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 knowledge and belief.

Date Surveyed **September 11, 1979**
 Registered Professional Engineer and/or Land Surveyor
Fred A. Kerr Jr.
 Certificate No. **3950**



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

OK

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

OIL CONSERVATION DIVISION
 PO Box 2088
 Santa Fe, NM 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 3004523888		2 Pool Code 72319		3 Pool Name Blanco MesaVerde	
4 Property Code 71599		5 Property Name Lackey "B" LS			6 Well Number 13 M
7 GRID No. 000778		8 Operator Name Amoco Production Company			9 Elevation 5835' GL

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	20	28 N	9W	C	1025	North	1655	West	San Juan

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 3.20									
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 	RECEIVED SEP 11 1994 OIL CON. DIV. SEP 8		17 OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i> Signature Lois Raeburn Printed Name Business Assistant Title 12 13 94 Date
			18 SURVEYOR CERTIFICATION <i>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.</i> Sept. 11, 1979 Date of Survey Signature and Seal of Professional Surveyor: On File 3950 Certificate Number

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-102
 Revised October 18, 1994
 Instructions on back
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AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 3004523888		² Pool Code 82329		³ Pool Name Otero Chacra	
⁴ Property Code 71599		⁵ Property Name Lackey "B" LS			⁶ Well Number 13M
⁷ OGRID No. 000778		⁸ Operator Name Amoco Production Company			⁹ Elevation 5835' GL

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	20	28N	9W		1025	North	1655	West	San Juan

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 160.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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¹⁶ 	¹⁷ OPERATOR CERTIFICATION	
	<i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i>	
	Signature: <u>Gail M. Jefferson</u> Printed Name: <u>Gail M. Jefferson</u> Title: <u>Business Assistant</u> Date: <u>3/21/1995</u>	
¹⁸ SURVEYOR CERTIFICATION		
<i>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.</i>		
Date of Survey: <u>September 11, 1979</u> Signature and Seal of Professional Surveyer: _____		
Certificate Number: <u>3950</u>		

RECOMPLETION PRESSURE EVALUATION

LACKEY B LS 13M

Estimated Dakota BHP (from 3 surface pressure tests) = 900 psi

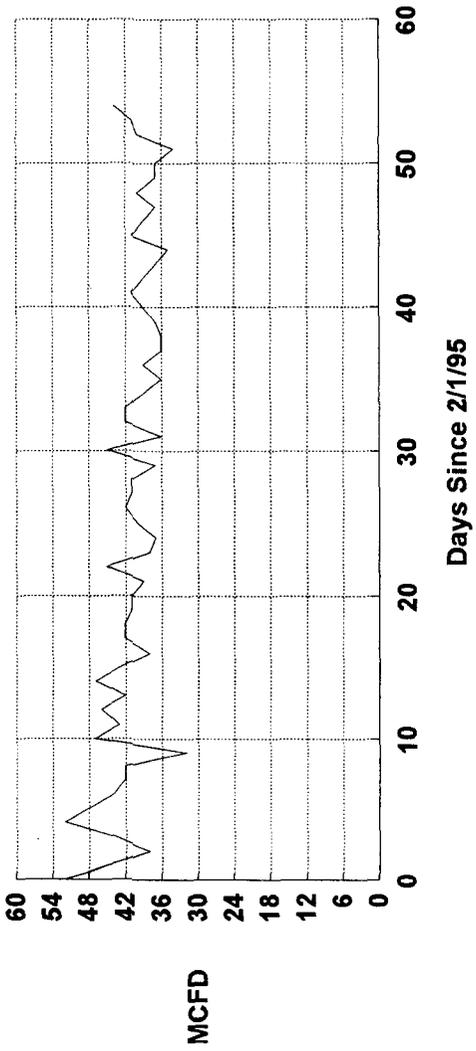
Estimated BHP for Chacra completions in area = 1248 psi

Estimated BHP for Mesaverde Infill completions in area = 1343 psi

Maximum BHP differential = DK BHP / MV BHP = 900 PSI / 1343 PSI OR 67%

**NOTE: Dakota pressure is anticipated to be higher since pressure was still building at
2.25 psi/day**

San Juan O.C.
WELL: LACKEY B LS 013E-DK (97959501)
(Downtime excluded)



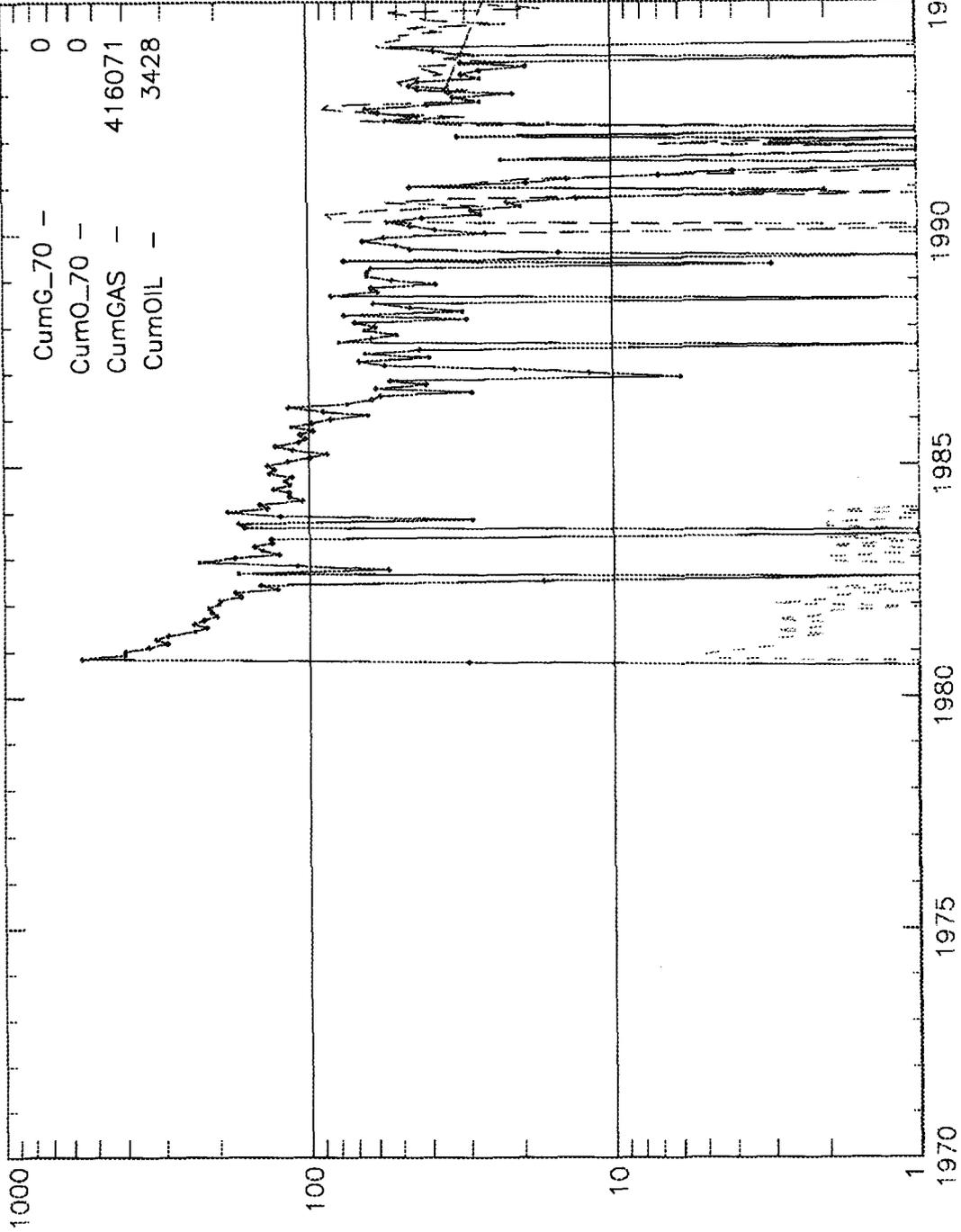
Engr: zrar06

LACKEY B LS 13E

Operator- AMOCO PRODUCTION CO

300452388800DK C202809-013EDK

APC_WI - 0.50000000



Curr_Fit

35

New_fit