



**Application of Amoco Production Company
For Downhole Commingling
Ruth #1 Well, Section 8, T31N-R10W
San Juan County, New Mexico**

NMOCD Case 11155

**BEFORE THE
OIL CONSERVATION DIVISION
Santa Fe, New Mexico**

Case No. 11155 Exhibit No. 1

Submitted by: Amoco Production Company

Hearing Date: January 19, 1995

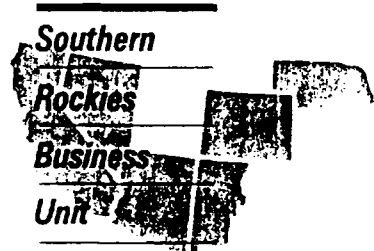
January 19, 1995

Amoco Production Company



November 7, 1994

Mr. William J. LeMay
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504



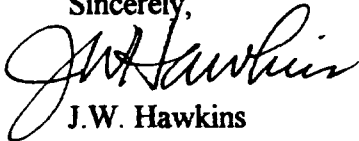
**Application for Exception to Rule 303-A
To Downhole Commingle Production
Ruth #1 Well, Section 8, T31N-R10W
Blanco Pictured Cliffs Pool, Basin Fruitland Coal Pool
San Juan County, New Mexico**

Amoco Production Company hereby makes application for exception to NMOCD general rule 303(A) to downhole commingle production from the Blanco Pictured Cliffs Pool and the Basin Fruitland Coal Pool in the Ruth #1 well. The well is proposed to be drilled at a legal location 940' FNL and 790' FEL of Section 8, T31N-R10W, San Juan County, New Mexico. In support of this application, Amoco states the following:

1. Amoco is the operator of the Blanco Pictured Cliffs Pool underlying the NE/4 Section 8, T31N-R10W, San Juan County, New Mexico which will be dedicated to the Ruth #1 well.
2. Amoco is the operator of the Basin Fruitland Coal Pool underlying the N/2 Section 8, T31N-R10W, San Juan County, New Mexico which will be dedicated to the Ruth #1 well.
3. The ownership of the formations proposed for commingling is not common (WI, RI, ORI).
4. Development of the Blanco Pictured Cliffs Pool and the Basin Fruitland Coal Pool with separate wells for each pool would be uneconomic and downhole commingling is necessary to economically produce the two formations.
5. Approval of this application will otherwise be in the best interest of conservation, the prevention of waste and the protection of correlative rights.

Amoco requests that this application be set for examiner hearing of the Oil Conservation Division on December 1, 1994. A copy of this application will be sent to offset operators and to owners in the well(WI, RI, ORI) by certified mail, return receipt requested.

Sincerely,


J.W. Hawkins

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator AMOCO PRODUCTION COMPANY			Lease Ruth		Well No. #1
Unit Letter A	Section B	Township 31 NORTH	Range 10 WEST	County NMPM SAN JUAN	
Actual Footage Location of Well: 940 feet from the NORTH line and 790 feet from the EAST line					
Ground level Elev. 5952	Producing Formation Fruitland Coal		Pool Fruitland Coal		Dedicated Acreage: E/2 318.74 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 interest of all owners been consolidated by communalization, 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 communalization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.

RECEIVED JUL 10 1994 OIL CON. DIV. FILE 3		B	
		2	
4		5	

OPERATOR CERTIFICATION

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

Signature
Julie L. Acevedo
Printed Name
Julie L. Acevedo
Position
Sr. Staff Assistant
Company
Amoco Production Company
Date
7/1/94

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 knowledge and belief.

Date Surveyed
July 29, 1993

Signature & Seal of
Professional Surveyor
GARY D. VANN
7016
7016
REGISTERED PROFESSIONAL LAND SURVEYOR

0 110 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT I

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1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator AMOCO PRODUCTION COMPANY			Lease Ruth		Well No. #1
Unit Letter A	Section B	Township 31 NORTH	Range 10 WEST	County NMPM	SAN JUAN
Actual Footage Location of Well:					
940 feet from the NORTH line and		790 feet from the EAST line			
Ground level Elev. 5952	Producing Formation Pictured Cliffs	Pool Blanco	Dedicated Acreage: 160 NE/4 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 interest of all owners been consolidated by communization, unitization, force-pooling, etc?
☐ Yes ☐ No If answer is "yes" type of consolidation _____
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I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature *Julie L. Acevedo*
Printed Name **Julie L. Acevedo**
Position **Sr. Staff Assistant**
Company **Amoco Production Company**
Date **7/1/94**

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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
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Signature & Seal of Professional Surveyor
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7016
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7016
REGISTERED PROFESSIONAL LAND SURVEYOR

RECEIVED
JUL 10 5 1994
OIL CON. DIV.
DIST. 3

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

Amoco Production Company

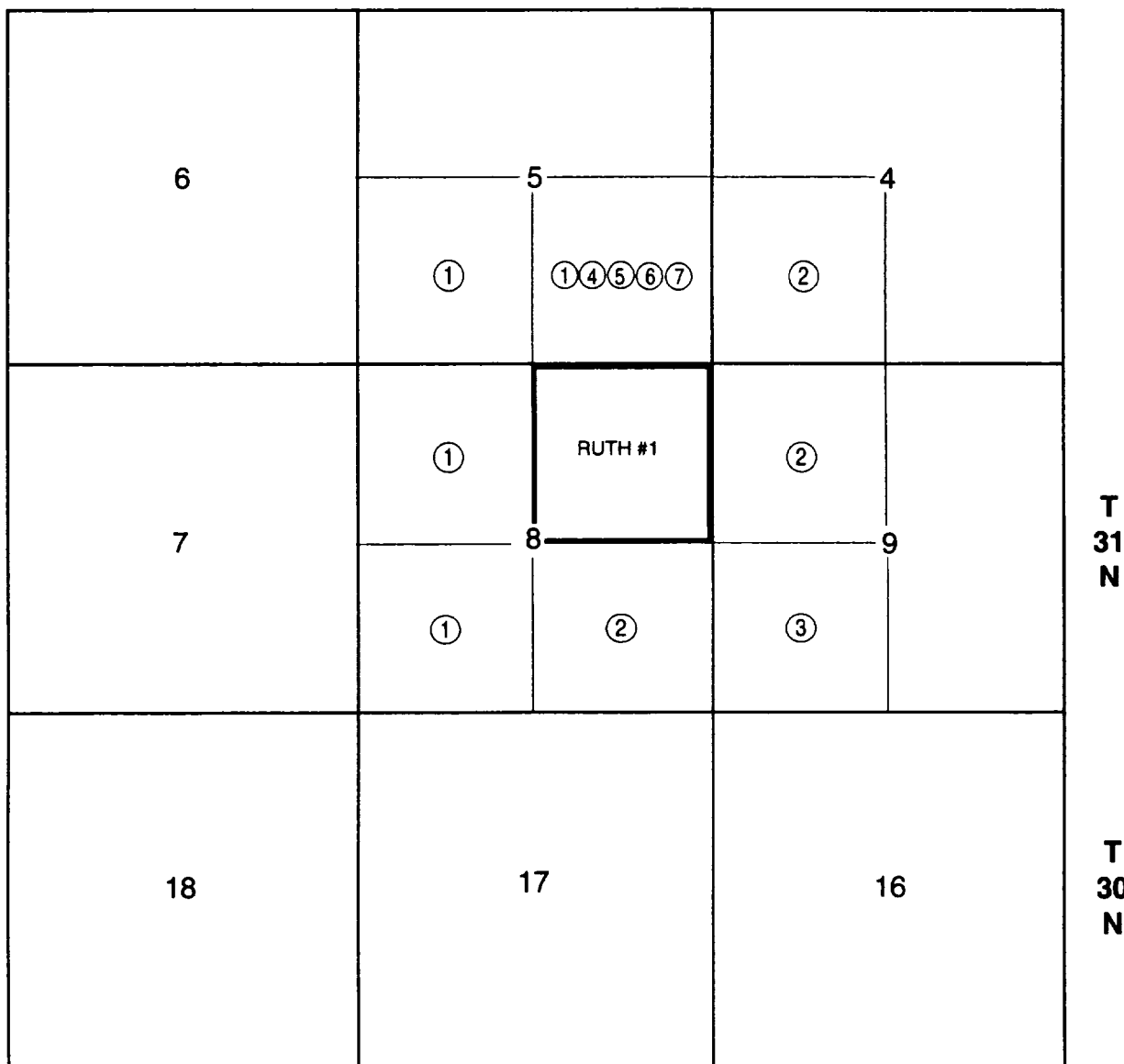
Offset Operator Plat

Ruth #1

T31N-R10W, Sec. 08

940' FNL & 790' FEL

Pictured Cliffs Formation



- ① Amoco Production Company
- ② Meridian Oil Inc.
- ③ El Paso Production Company
- ④ Cross Timbers Oil Company
- ⑤ Lee Wayne Moore & Jo Ann
Montgomery Moore
- ⑥ Robert W. Umbach
- ⑦ George W. Umbach

Amoco Production Company

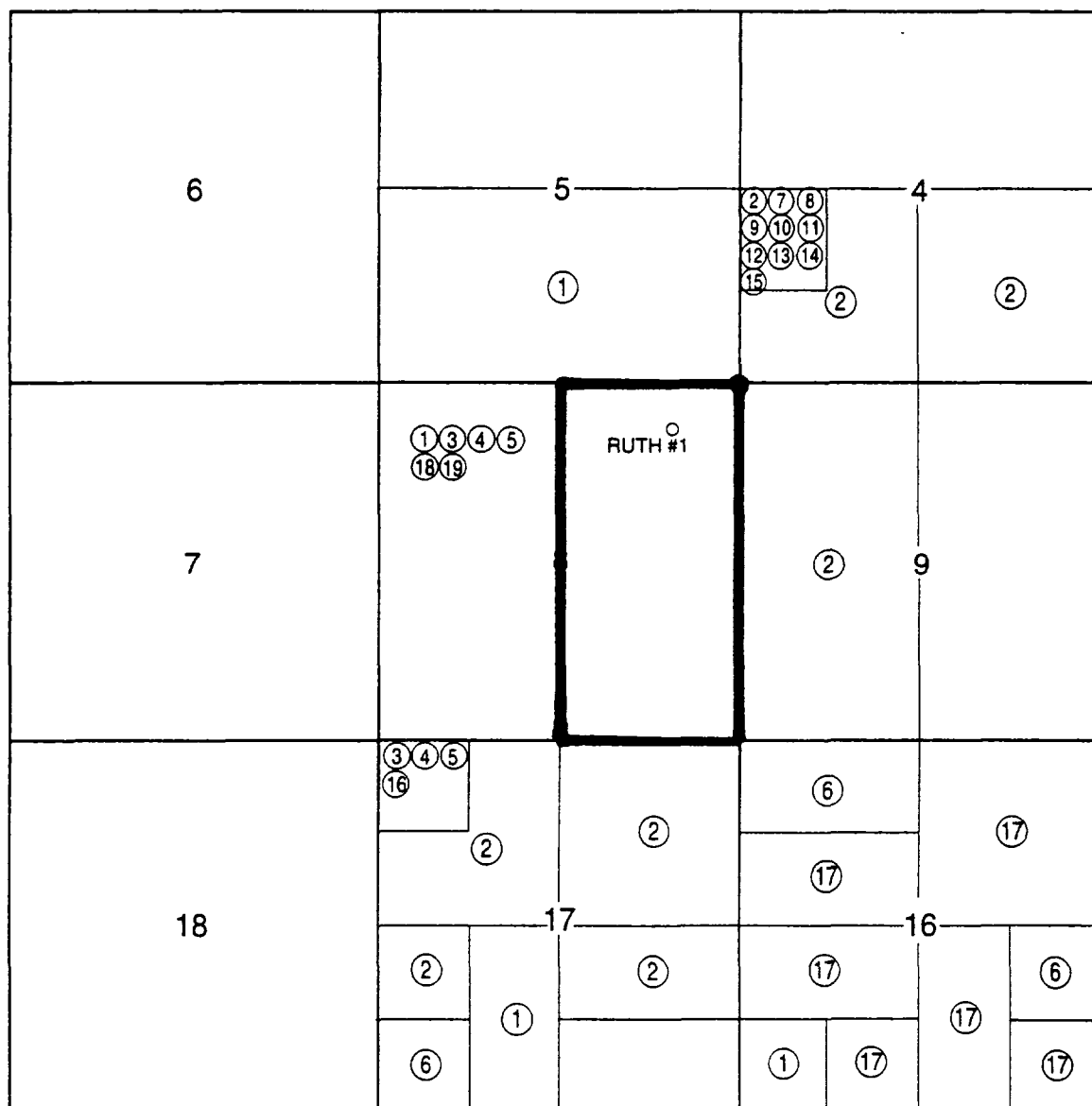
Offset Operator Plat

Ruth #1

T31N-R10W, Sec. 08

940' FNL & 790' FEL

Fruitland Coal Formation



T
31
N

T
30
N

- ① Amoco Production Company
- ② El Paso Production Company
- ③ William Umbach
- ④ Robert Umbach
- ⑤ Lee Wayne Moore & Jo Ann Montgomery Moore
- ⑥ Southland Royalty Company
- ⑦ Dacresca Corporation
- ⑧ Walter O. Berger
- ⑨ Cyrene L. Inman
- ⑩ C. Fred Luthy, Jr.

- ⑪ Cyrene F. Mapel
- ⑫ Roger B. Nielsen
- ⑬ Sunwest Bank of Albuquerque, N.A.
- ⑭ Minatome Corporation
- ⑮ Meridian Oil Production, Inc.
- ⑯ Crown Central Petroleum Corporation
- ⑰ Meridian Oil Inc.
- ⑱ Conoco Inc.
- ⑲ Cross Timbers Oil Company

INTEREST OWNERS

FRUITLAND COAL FORMATION T31N-R10W E/2 8
PICTURE CLIFFS FORMATION T31N-R10W NE/4 8

WORKING INTEREST OWNERS

	Fruitland Coal	Picture Cliffs	ROYALTY INTEREST OWNERS	Fruitland Coal	Picture Cliffs	OVERRIDING ROYALTY	Fruitland Coal	Picture Cliffs
Amoco Production Company P.O. Box 800 Denver, Colorado 80201	Yes	Yes	Bureau of Land Management Minerals Management Service Royalty Management Program P.O. Box 5810 TA Denver, Colorado 80217-5810	Yes	No	William J. Carey c/o Northpark National Bank Acct. #20-4949-2 P.O. Box 12206 Dallas, Texas 75225-0206	Yes	Yes
Total Production Company P.O. Box 201769 Houston, Texas 77216-1769	Yes	No	R. L. Sprott Route 2 Jemore, Kansas 67854-9802	Yes	Yes	Cross Timbers Oil Company P.O. Box 840287 Dallas, Texas 75284-0287	Yes	Yes
El Paso Production Company c/o Meridian Oil Inc. P.O. Box 4289 Farmington, New Mexico 87499-4289	Yes	No	Ida Bartholomew Trust Ida M. Bartholomew Trustee 1630 Cameron Drive Lemon Grove, California 91945-4430	Yes	Yes	Moore Loyal Trust Lee Wayne Moore Trustee 403 North Marienfield Midland, Texas 79701-4323	Yes	Yes
Meridian Oil Inc. P.O. Box 4289 Farmington, New Mexico 87499-4289	Yes	Yes	Edith I. Blair 4622 Semunole Drive San Diego, California 92115-4119	Yes	Yes	Ben J. & Mary Val Case Revocable Trust Ben J. Case & Mary Val Case Trustees 3416 West Elm Phoenix, Arizona 85017-3016	Yes	Yes
Conoco, Inc. 10 Destia Drive, Suite 100W Midland, Texas 79705-4500	Yes	Yes	Denver & Rio Grande Western Railroad Company P.O. Box 209711 Houston, Texas 77212	Yes	Yes	Case Family Revocable Trust Vanis W. & Gertrude Case Trustees 825 S. Loyola Drive Tucson, Arizona 85710-4610	Yes	Yes
Robert Umbach P.O. Box 5310 Farmington, New Mexico 87499-5310	Yes	Yes	Lena and John Will Faris Living Trust Lena E. Faris Trustee 5002 Tarry Terrace Farmington, New Mexico 87402-4848	Yes	Yes	Hennietta E. Schultz Trustee Lincoln Plaza Suite 2160 LB-1 500 North Akard Dallas, Texas 75201-3360	Yes	Yes
George Umbach P.O. Box 95247 Las Vegas, Nevada 89193-5427	Yes	Yes	Kenvon Family Trust William B. & Doris M. Kenvon CoTrustees 4447 Vista De La Tierra Del Mar, California 92014-4103	Yes	Yes	Gene W. and Billie R. Hewett 3799 Euclid Avenue Dallas, Texas 75025-3161	Yes	Yes
Joann Montgomery Moore Trust Lee Wayne & Joann Montgomery Moore Trustee 403 N. Marienfield Midland, Texas 79701-4323	Yes	Yes	Jerald T. Marcotte P.O. Box 40111 Casper, Wyoming 82604-1111	Yes	Yes			

WORKING INTEREST OWNERS

Fruitland
Coal

Picture
Cliffs

ROYALTY INTEREST OWNERS

Fruitland
Coal

Picture
Cliffs

OVERRIDING ROYALTY

Fruitland
Coal

Picture
Cliffs

G. Wright and Velma McEwen Trustees
2232 US 550
Aztec, New Mexico 87410-2826

Yes

Yes

Estelle Hudgeons
c/o Bank of Santa Fe
Deposit Acct. # C0627-92-8
P.O. Box 2027
Santa Fe, New Mexico 87504-2027

Yes

Yes

No

R. L. Sprott
P.O. Box 630
Santa Fe, New Mexico 87504-0630

Yes

Yes

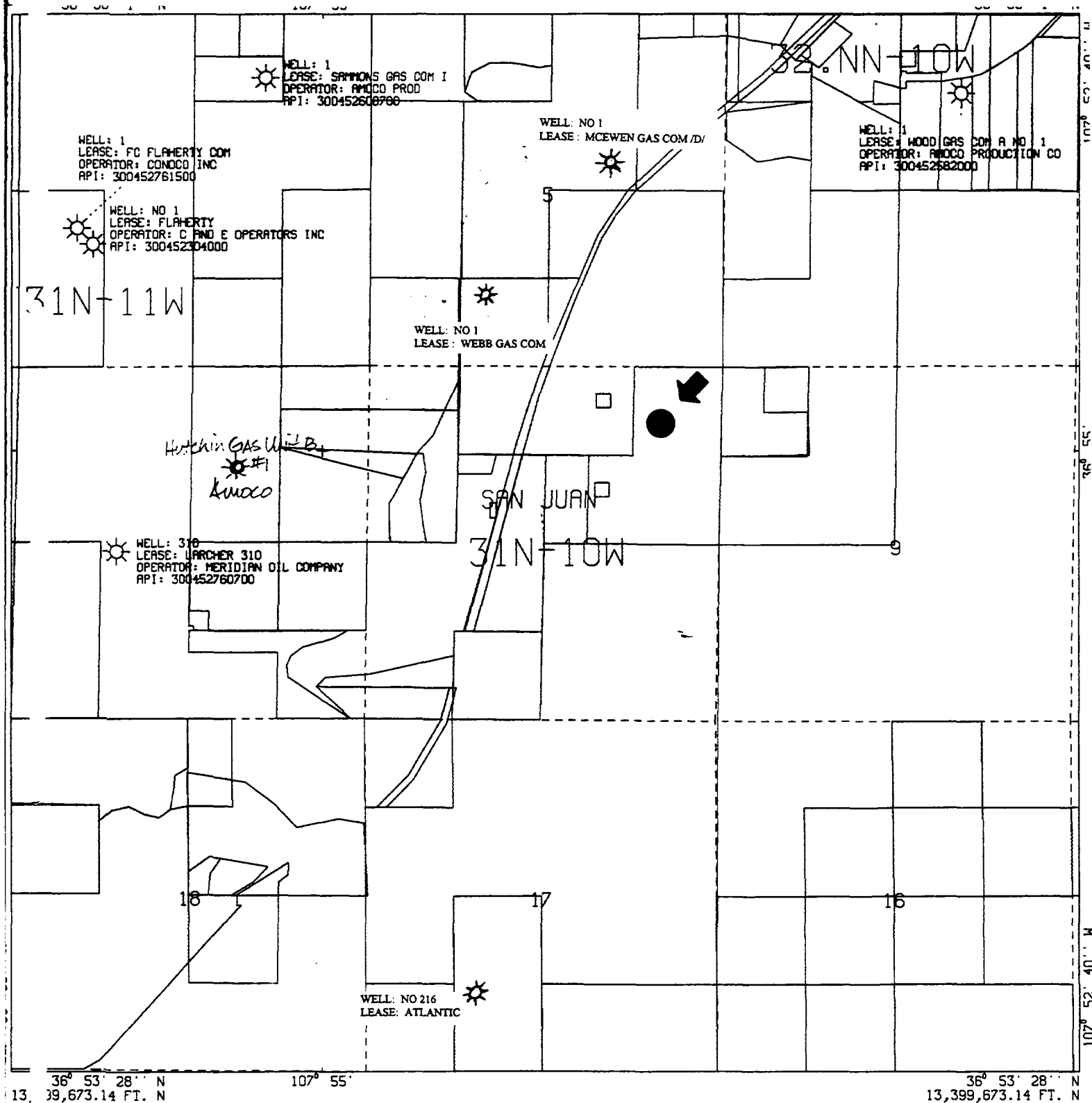
Yes

Ruthellen Stark
3708 East Juarez
Tucson, Arizona 85713-2460

Yes

Yes

Yes



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AMOCO PRODUCTION COMPANY PLAT MAP

FRUITLAND COAL OFFSET TO THE RUTH #1
SAN JUAN COUNTY NEW MEXICO

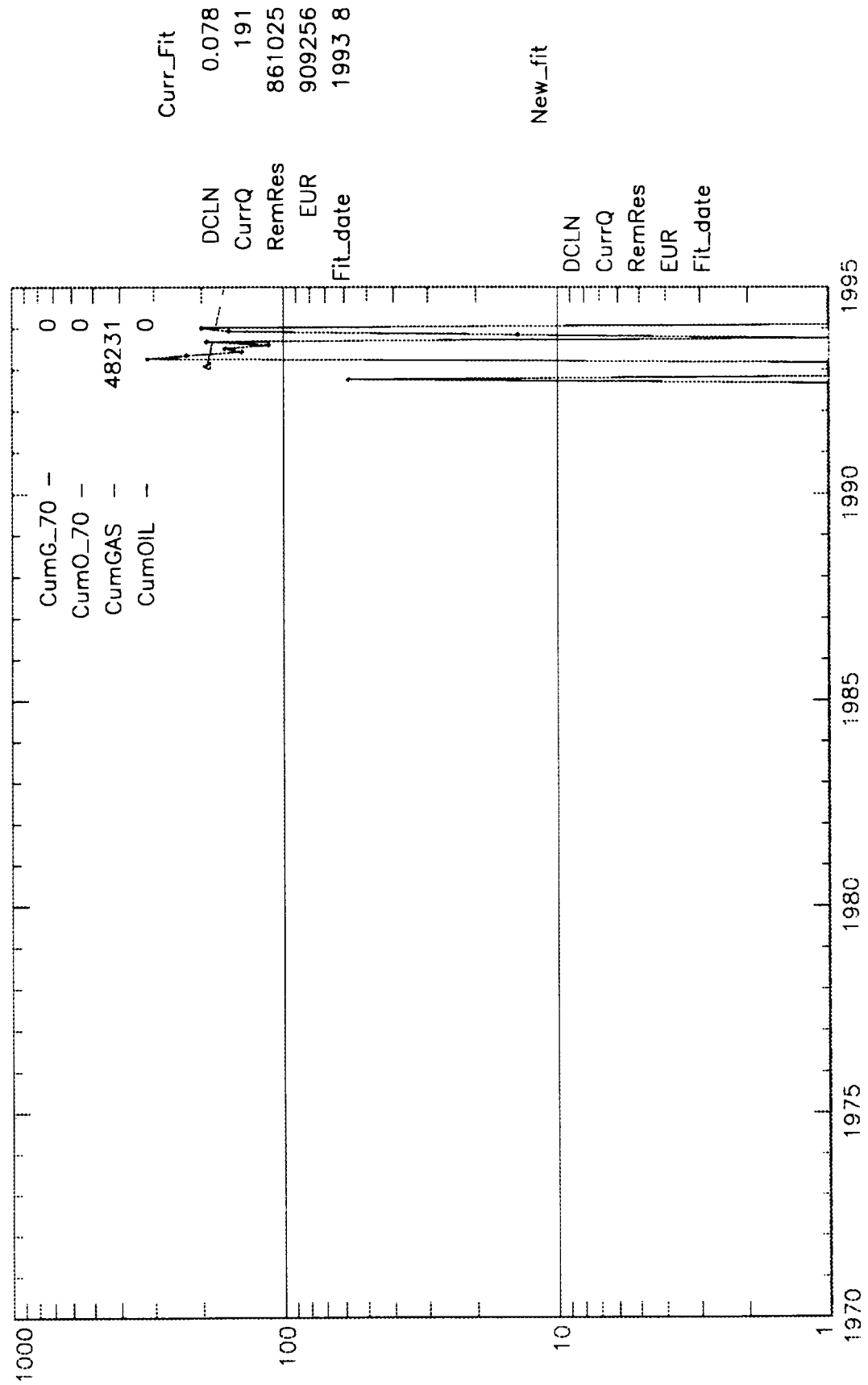
POLYCONIC CENTRAL MERIDIAN - 107° 54' 18'' W LON
SPHEROID - 6

Engr: zgeg10

WEBB GAS COM 1

Operator- AMOCO PRODUCTION CO

300452861600FT K053110-001 FT APC_WI - 0.88020000



Engr: zgeg10

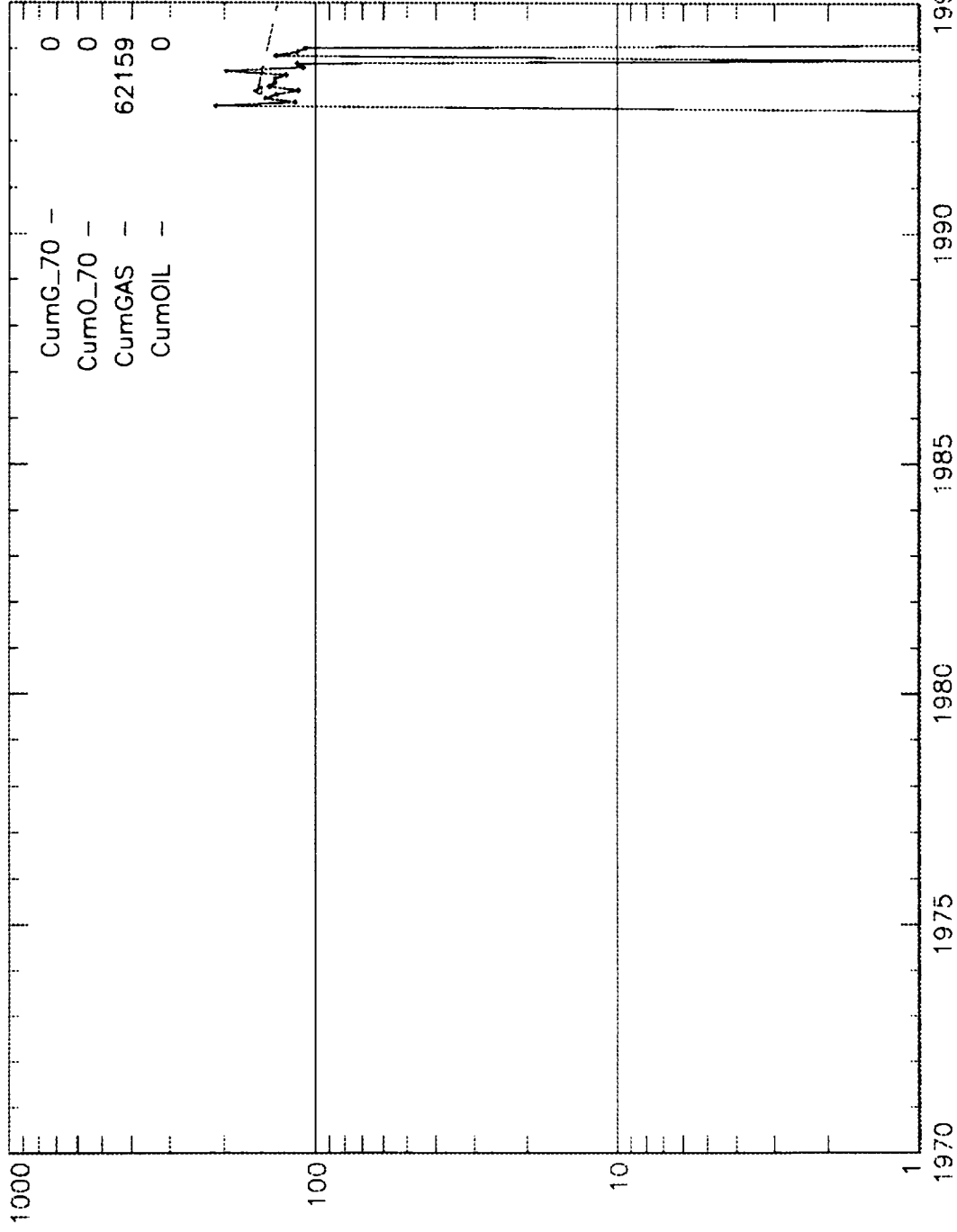
FC FLAHERTY COM 1

Operator- CONOCO INC

300452761500FT

FT

APC_WI - 0.00000000



Curr_Fit
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155
675250
737409
1993 8

New_fit

DCLN
CurrQ
RemRes
EUR
Fit_date

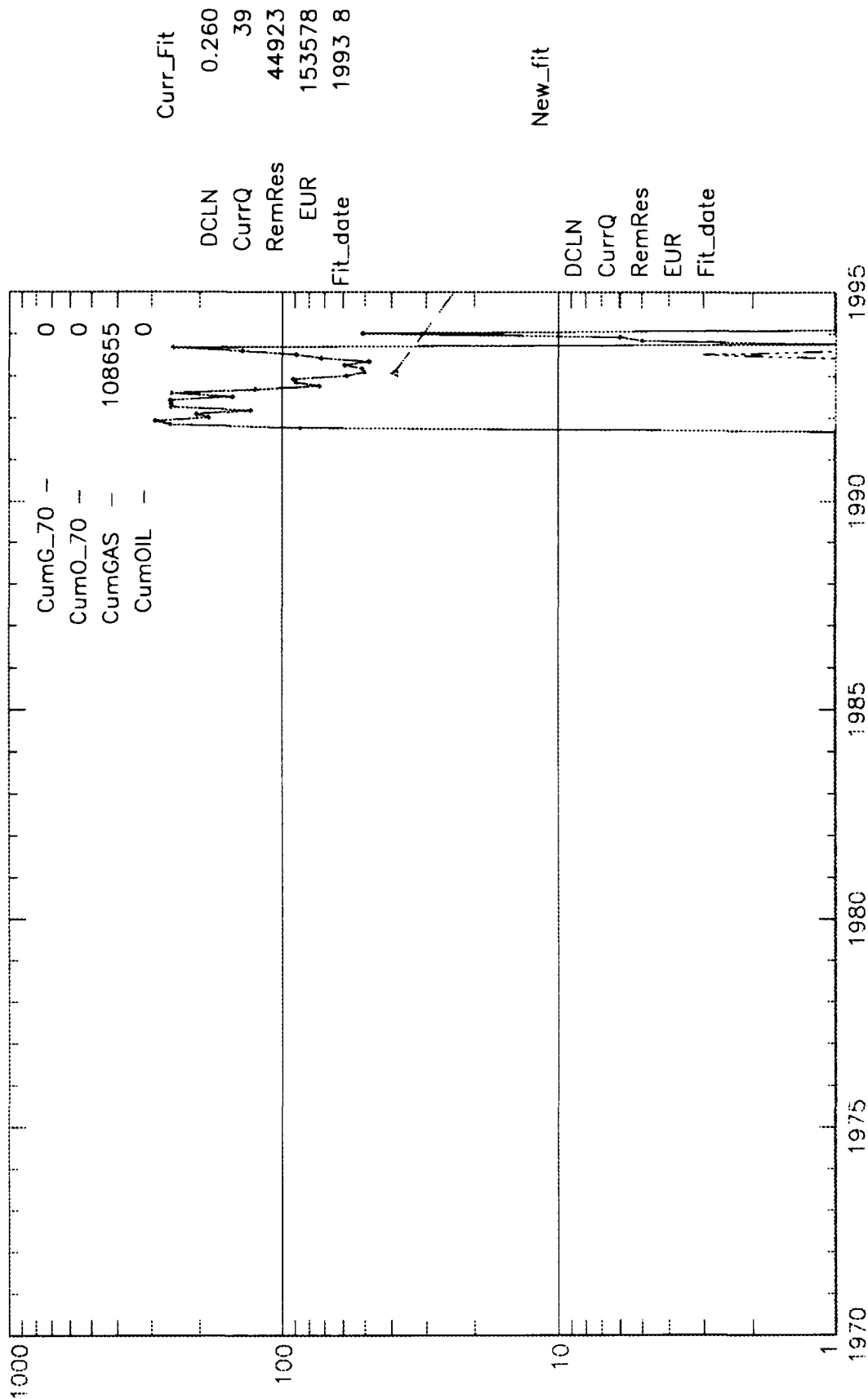
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HUTCHIN GAS UNIT B 1

Operator- AMOCO PRODUCTION CO

300452784200FT G073110-001 FT

APC_WI - 0.51336000



Engr: zgeg10

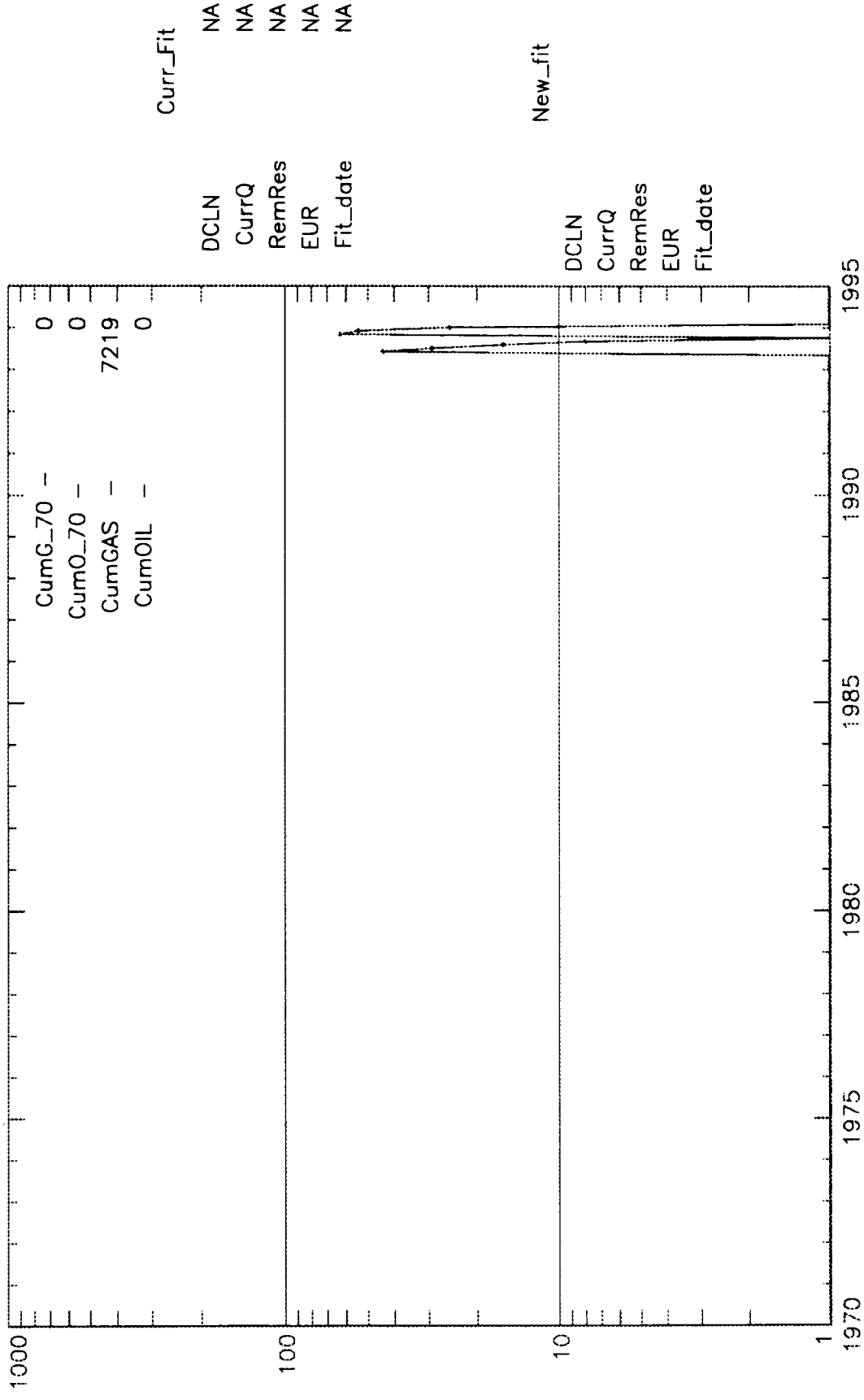
LARCHER 310

Operator-- MERIDIAN OIL INC

300452760700FT

FT

APC_WI - 0.0000000

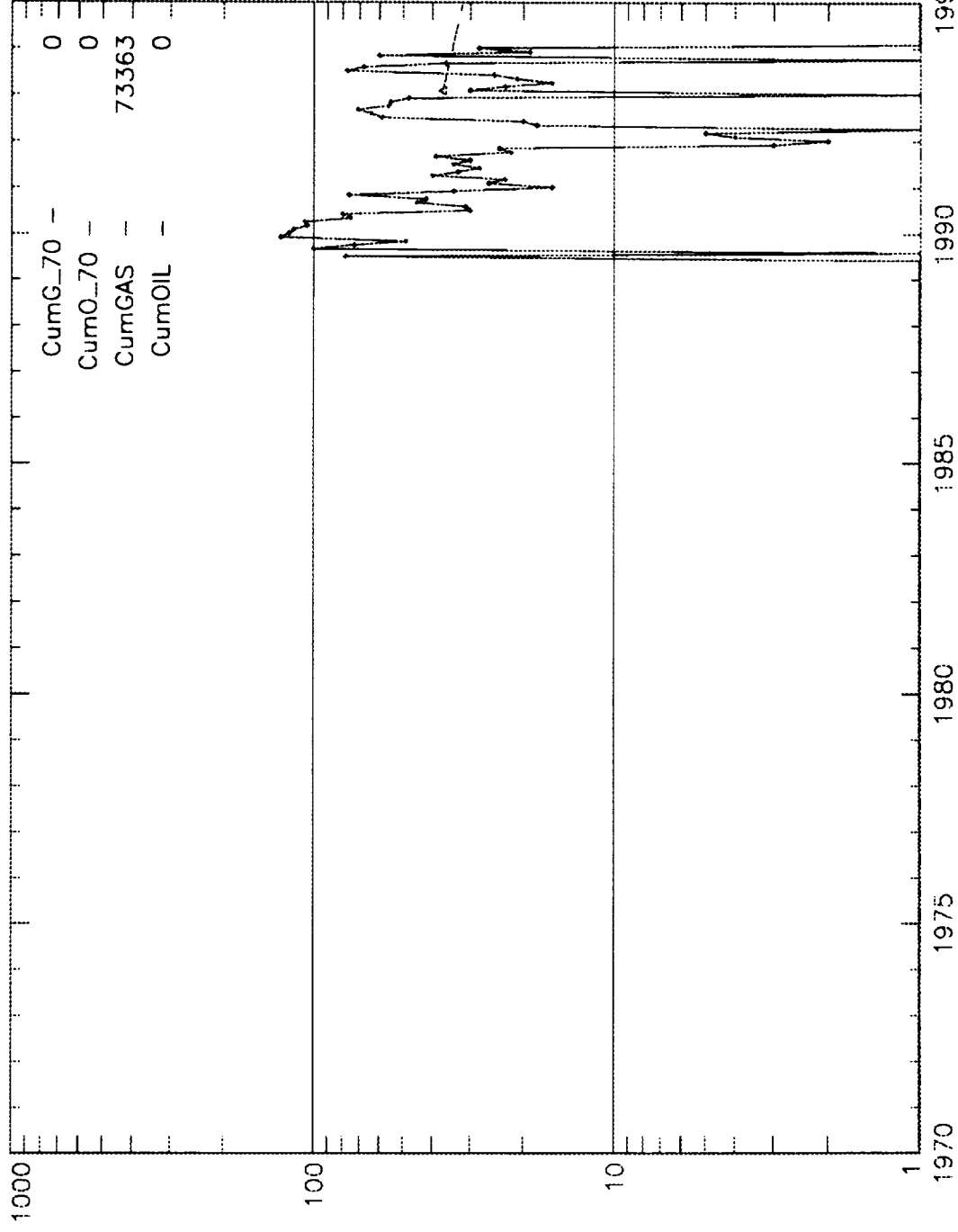


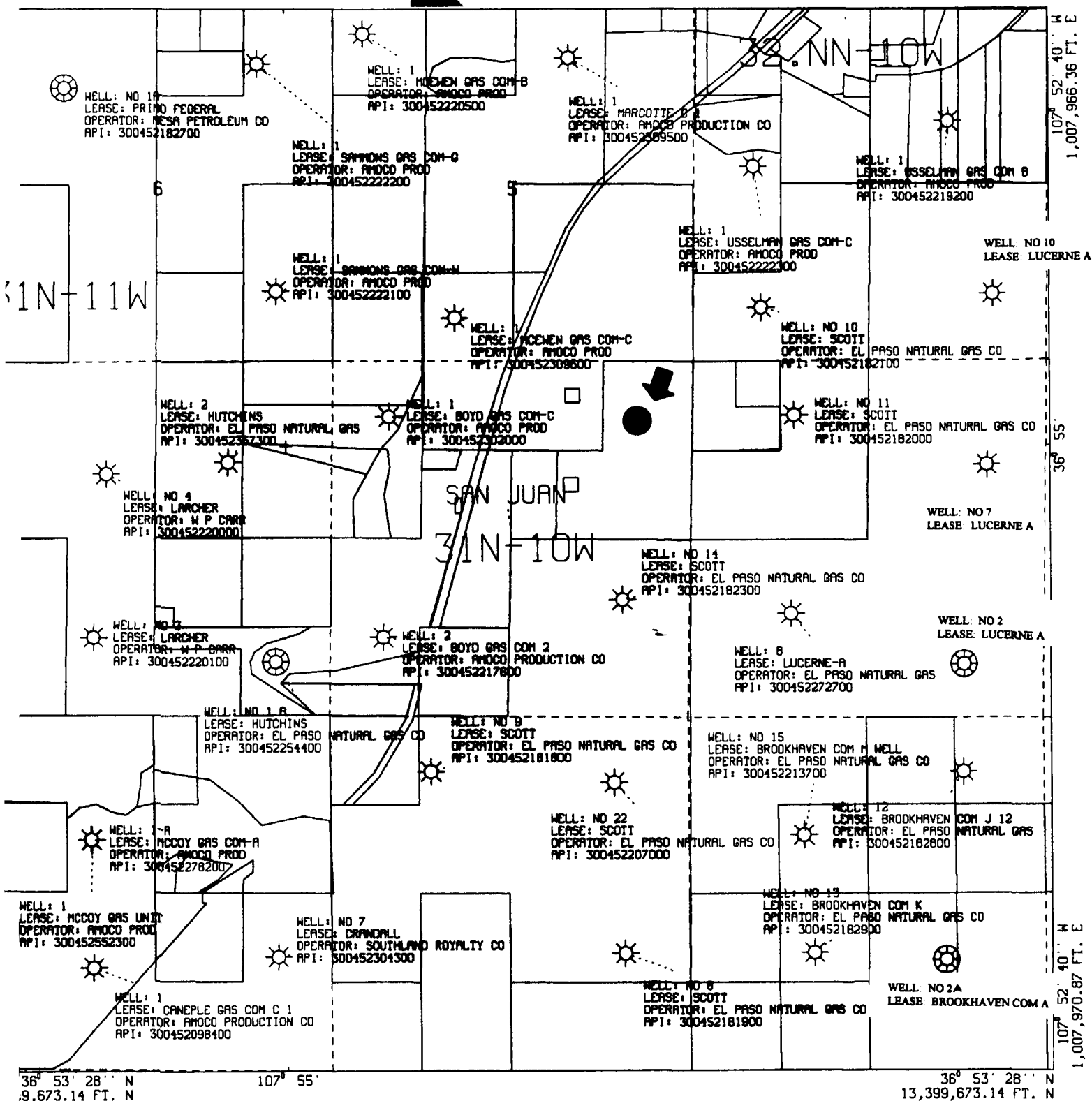
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ATLANTIC C 216

Operator- MERIDIAN OIL INC

300452707900FT L313110-216 FT APC_WI - 0.0000000





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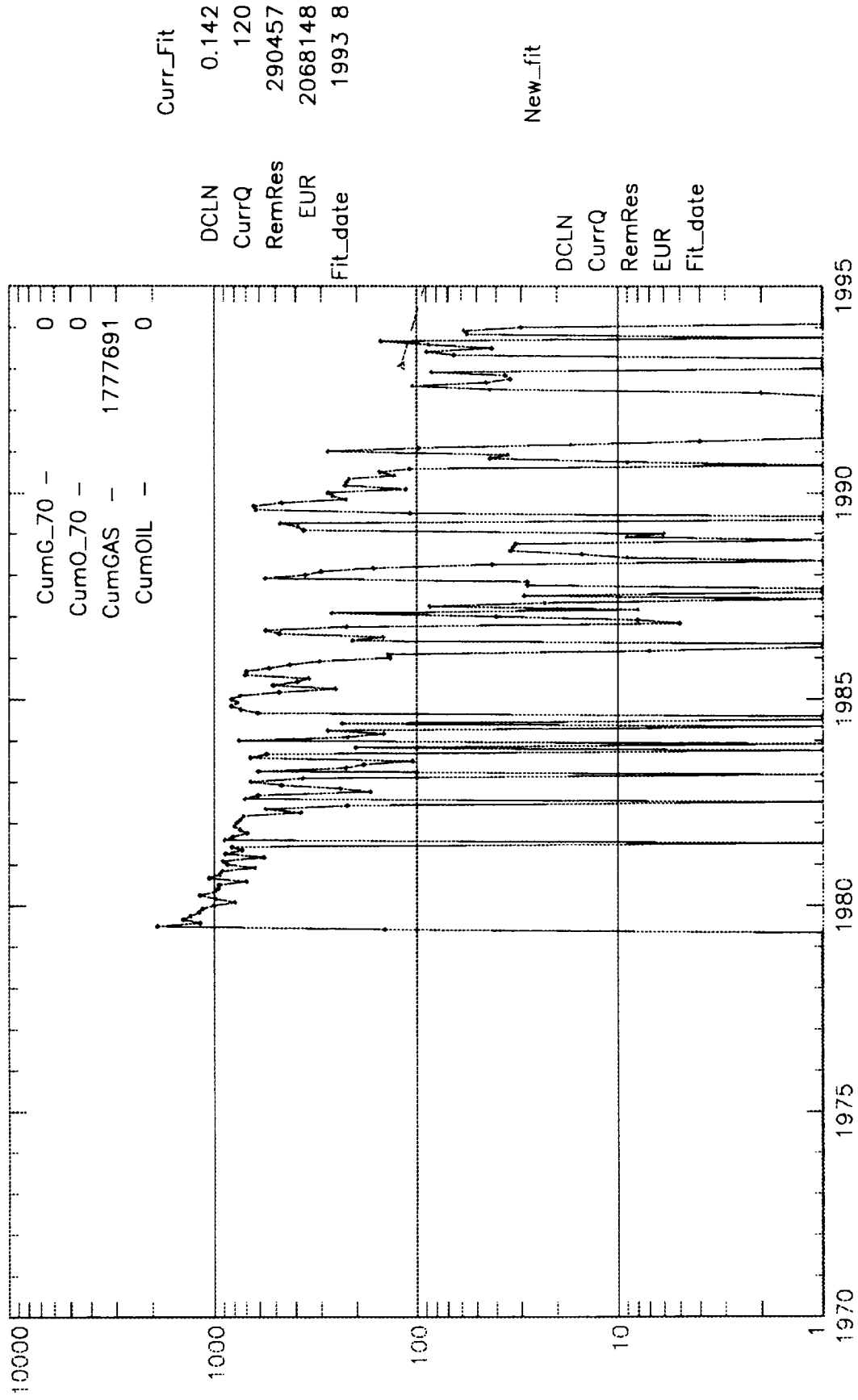
AMOCO PRODUCTION COMPANY
PLAT MAP

PICTURE CLIFFS OFFSET TO THE RUTH #1
SAN JUAN COUNTY NEW MEXICO
SCALE 1 IN. = 2,000 FT. JAN 16, 1995

CONIC CENTRAL MERIDIAN - 107° 54' 18" W LONG
PROJ - 6

Engr: zgeg10

BOYD GAS COM C 1
300452302000PC D083110-001 PC
Operator- AMOCO PRODUCTION CO
APC_WI - 0.82114000



Engr: zgeg10

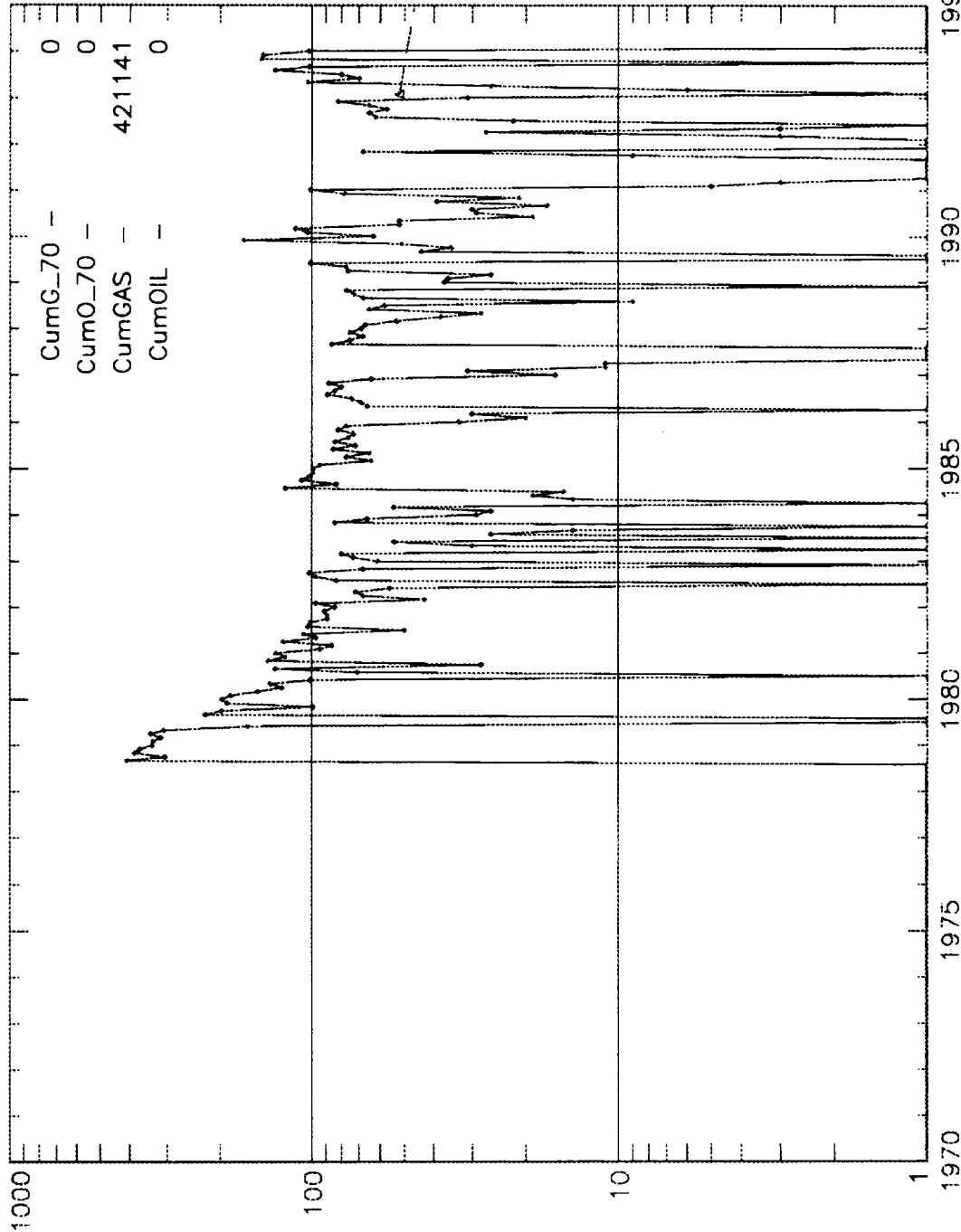
HUTCHIN LS 1A

Operator- AMOCO PRODUCTION CO

300452254400PC

P073110-001APC

APC_WI - 0.43538000



Engr: zgeg10

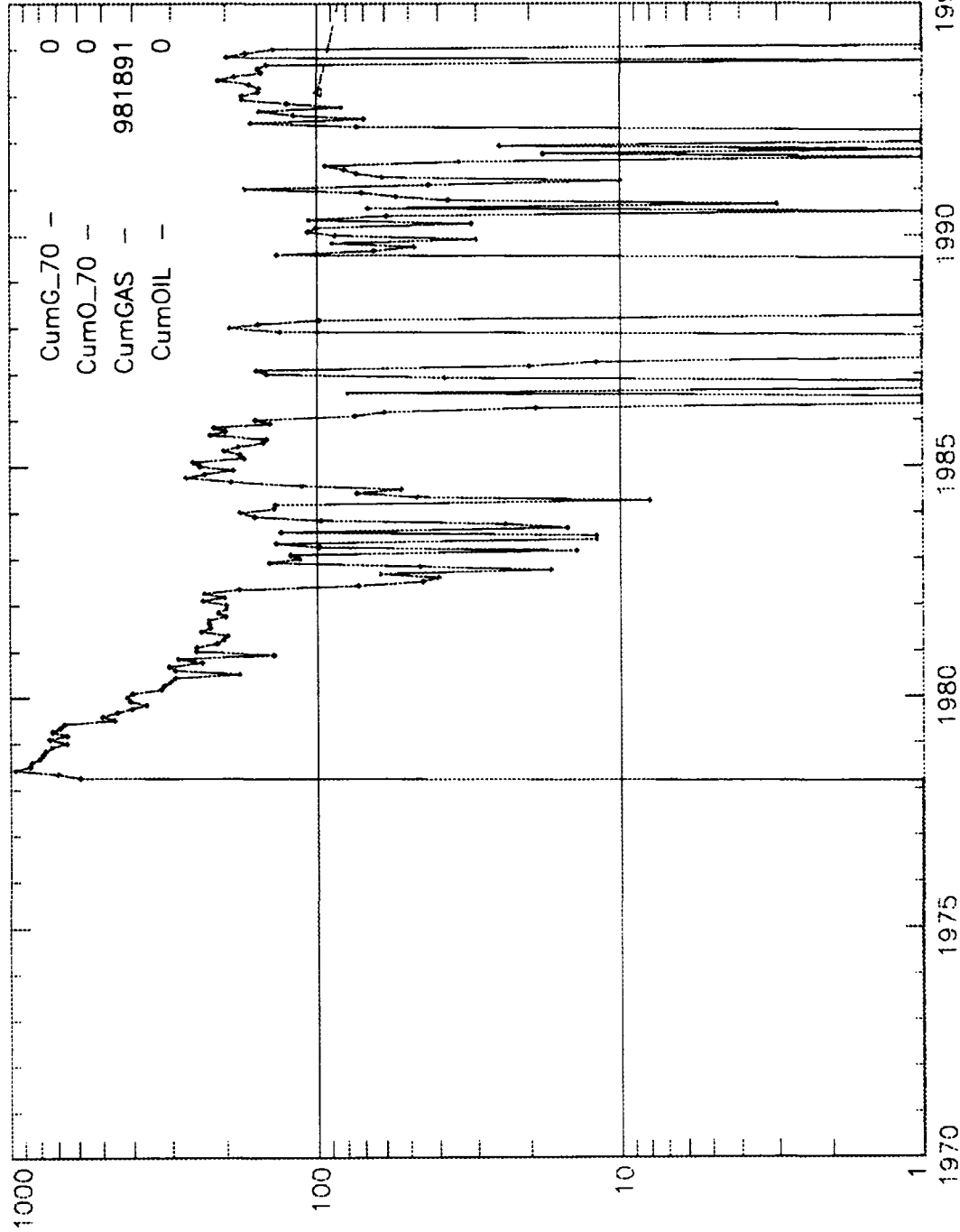
BOYD GAS COM B 1

Operator- AMOCO PRODUCTION CO

APC_Wt - 0.90594000

M083110-001 PC

300452217600PC

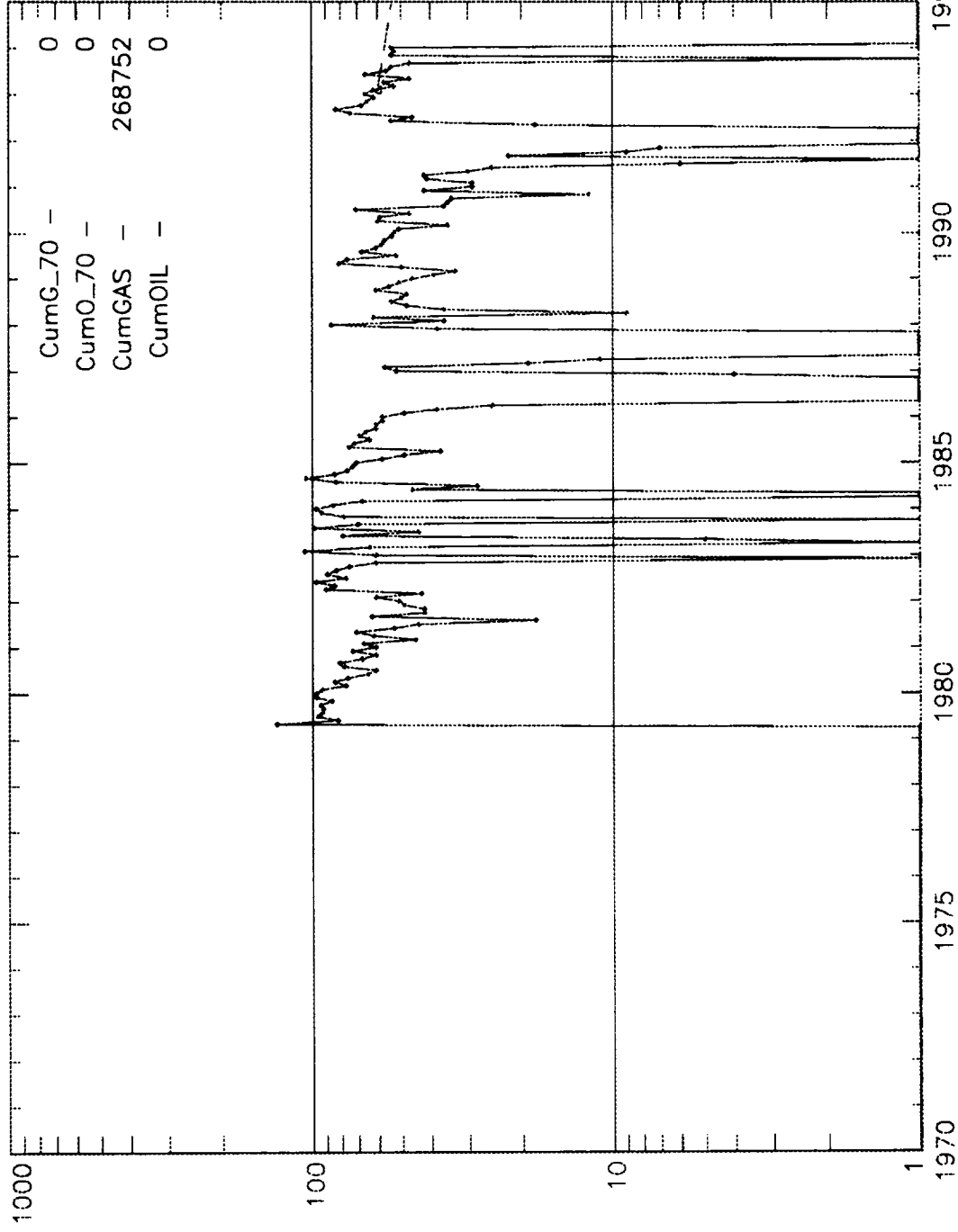


Engr: zgeg10

LUCERNE A 8

Operator- MERIDIAN OIL INC

300452272700PC K093110-008 PC APC_WI - 0.0000000

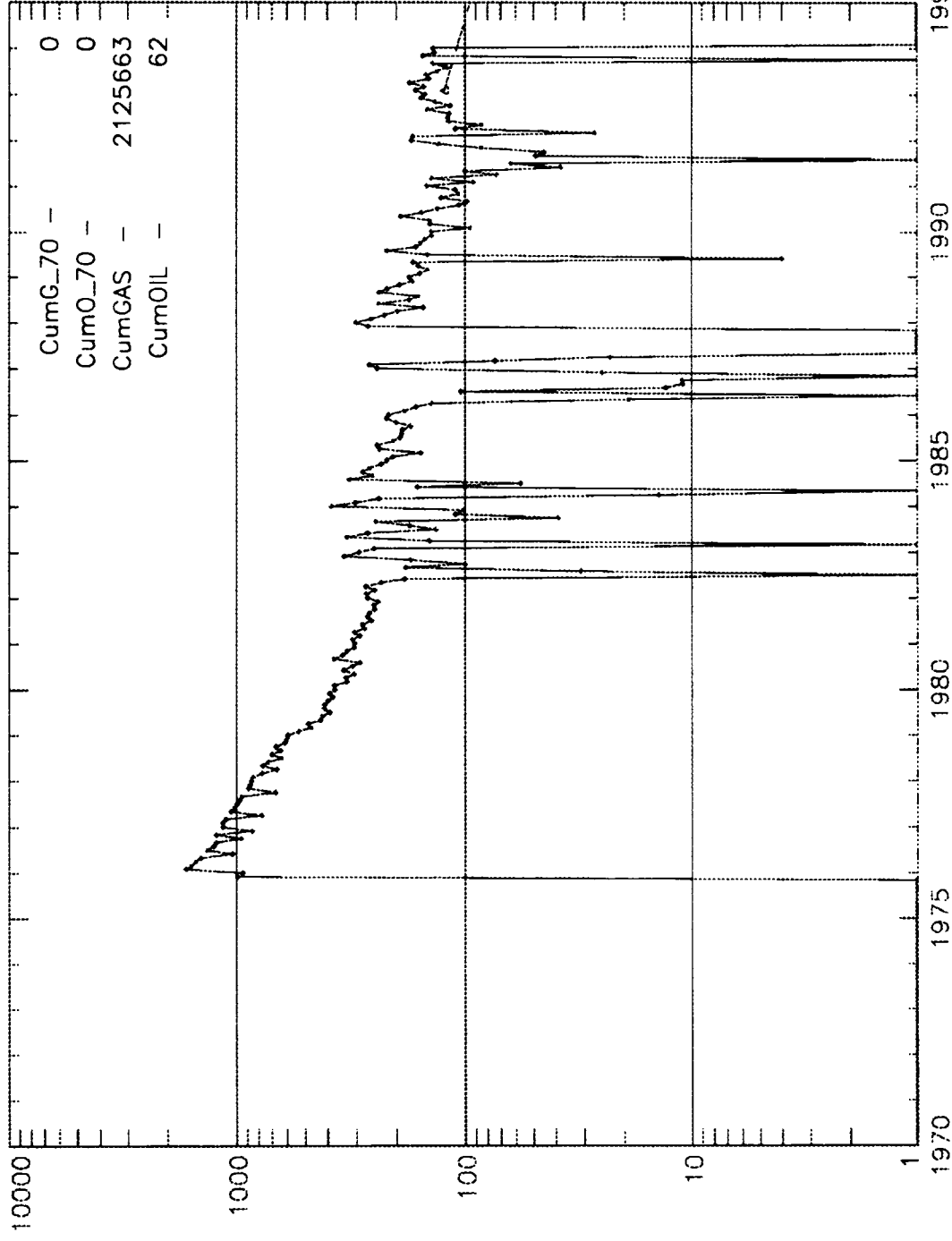


Engr: zgeg10

SCOTT 11

Operator- MERIDIAN OIL INC

300452182000PC C093110-011 PC APC_WI - 0.40352000



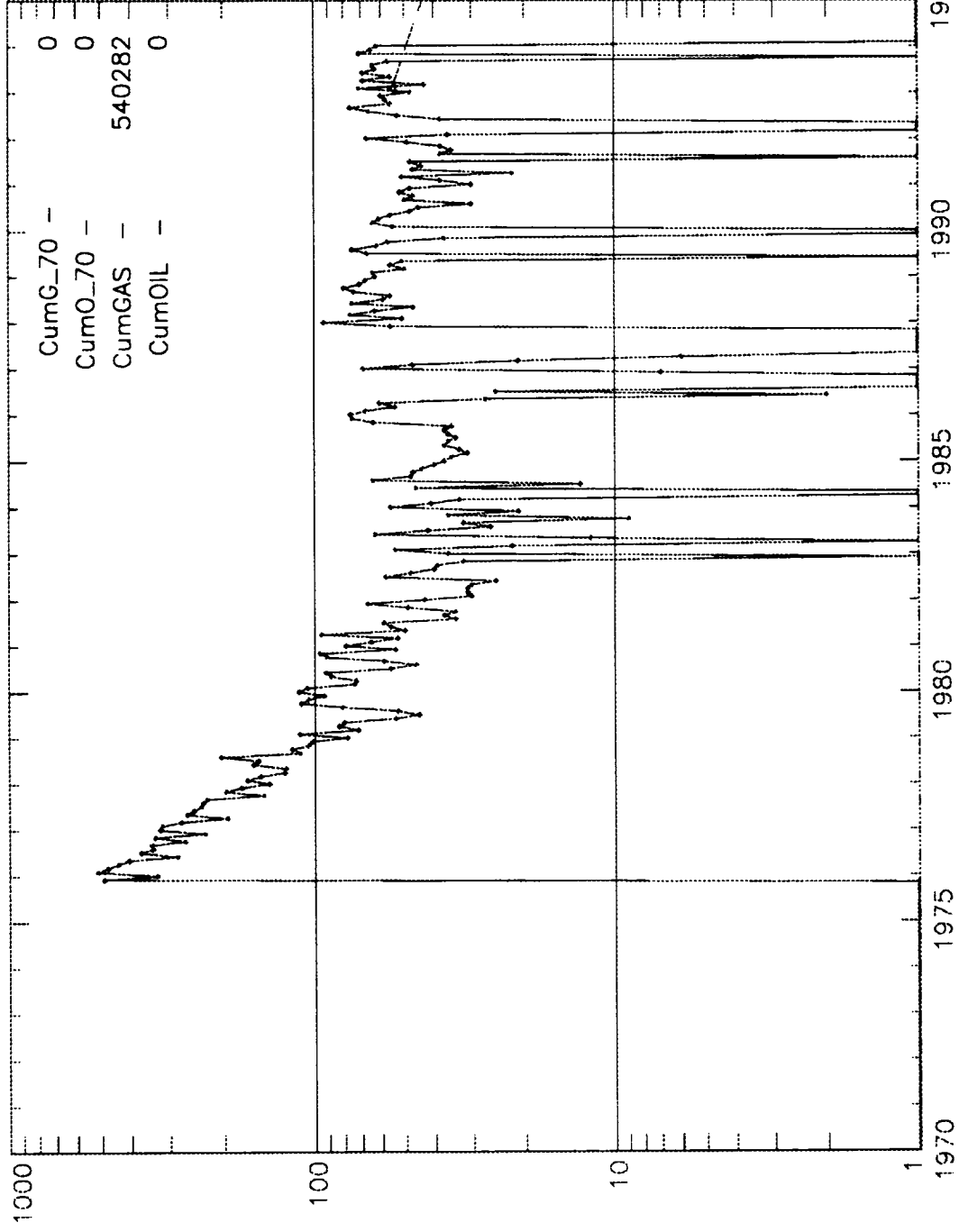
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CurrQ 123
RemRes 313629
EUR 2439292
Fit_date 1993 8

Engr: zgeg10

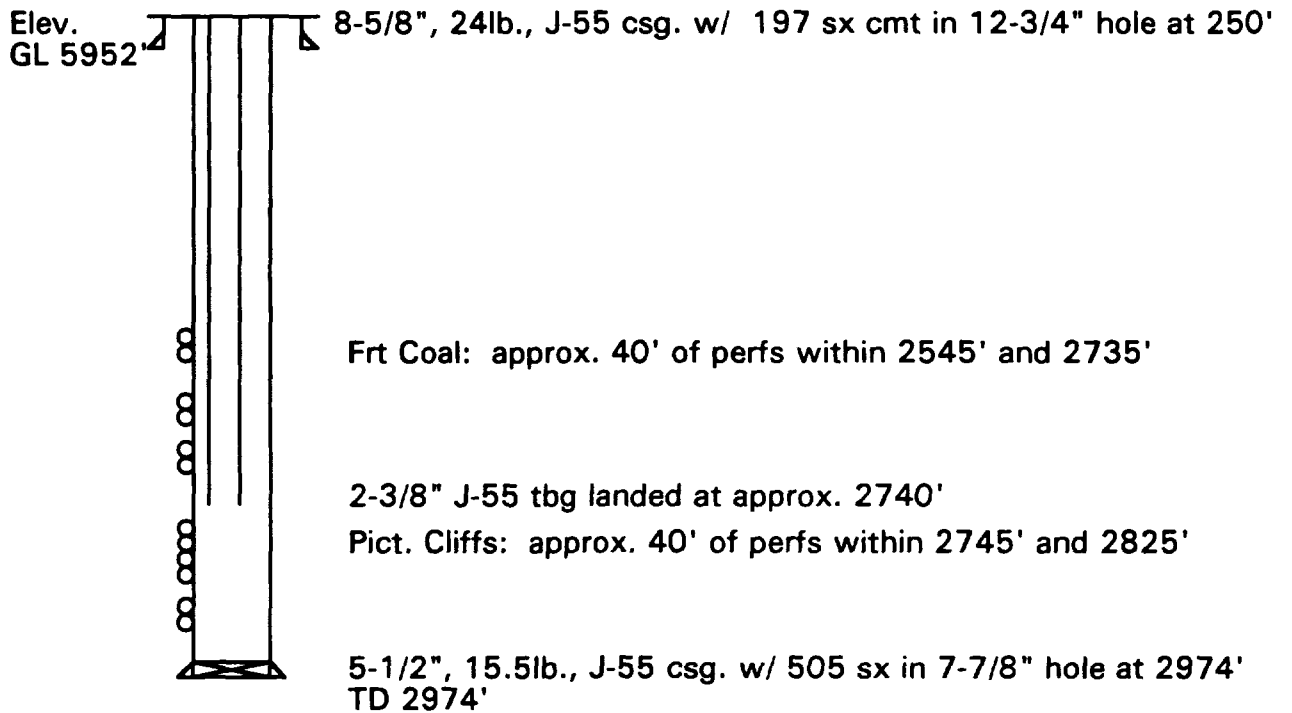
SCOTT 10

Operator- MERIDIAN OIL INC

300452182100PC M043110-010 PC APC_WI - 0.21090000



RUTH #1
PICTURED CLIFFS/FRUITLAND COAL
COMMINGLED DUAL WELLBORE



Allocation of Fruitland Coal and Pictured Cliffs Gas in the Ruth #1

- **Perforate and foam frac PC horizon.**
- **Flow back and clean up until steady gas rates are obtained.**
- **Obtain a 48 hr PC test through a separator and meter run to determine initial production.**
- **Set retrievable bridge plug above the PC.**
- **Perforate and foam frac FT Coal horizon.**
- **Pull RBP, flow back and clean up until steady gas rates are obtained.**
- **Obtain a 48 hr PC/FT test through a separator and meter run to determine initial production.**
- **Allocate production based on a percentage of gas from each horizon using both production tests.**

Economic Threshold for Development

- **Needed to Drill Fruitland / Pictured Cliffs Well**

- Cost - \$300M
- Reserves - 1.2 BCF
- Initial Stabilized Rate - 250 mcf/d

- **Expected Fruitland Completion**

- Reserves - 0.8 BCF
- Initial Stabilized Rate - 100 mcf/d

- **Expected Pictured Cliffs Completion**

- Reserves - 1.4 BCF
- Initial Stabilized Rate - 300 mcf/d

BEFORE THE
OIL CONSERVATION DIVISION
NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

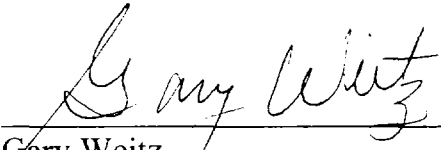
IN THE MATTER OF THE APPLICATION
OF AMOCO PRODUCTION COMPANY
FOR DOWNHOLE COMMINGLING,
SAN JUAN COUNTY, NEW MEXICO.

CASE NO. 11155

AFFIDAVIT

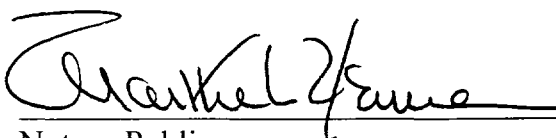
STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

Gary Weitz, landman for Amoco Production Company, the Applicant herein, being first duly sworn, upon oath, states that in accordance with the notice provisions of Rule 1207 of the New Mexico Oil Conservation Division the Applicant has attempted to find the correct addresses of all interested persons entitled to receive notice of this application and that notice has been given to all affected owners set forth in Amoco Production Company's Exhibit No. 1 in the above-referenced case.



Gary Weitz

SUBSCRIBED AND SWORN to before me this 18th day of January, 1995 by Gary Weitz.



Notary Public

My Commission Expires:

August 19, 1995

**BEFORE THE
OIL CONSERVATION DIVISION**
Santa Fe, New Mexico

Case No. 11155 Exhibit No. 2

Submitted by: Amoco Production Company

Hearing Date: January 19, 1995