

DHC 3.25.96



Southern
Rockies
Business
Unit

February 16, 1996

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



Application for Exception to Rule 303-C
Downhole Commingling
Baca Gas Com A#1 Well
1670' FNL & 1175' FEL, Unit H Section 26-T29N-R10W
Otero Chacra (Pool IDN 82329) and Blanco Mesaverde (Pool IDN 72319) Pools
San Juan County, New Mexico

Amoco Production Company hereby requests administrative approval to downhole commingle production from the Blanco Mesaverde and Otero Chacra Pools in the Baca Gas Com A#1 well referenced above. The Baca Gas Com A#1 is currently a dual completion in the Mesaverde and Chacra formations. We plan to complete the well with both the Mesaverde and Chacra formations being downhole commingled in the wellbore. The two zones are expected to produce at a total commingled rate of about 80 MCFD with approximately 1.5 BCPD. Downhole commingling should improve productivity of the well as the dual equipment tends to restrict the Mesaverde production due to liquid loading. Downhole commingling will offer an economical method of production while protecting against reservoir damage, waste of reserves and violation of correlative rights. The ownership (WI, RI, ORI) of these pools is not common in this wellbore. Offset operators to this well and all interest owners in the well will receive a copy of this application by certified mail.

The allocation method that we plan to use for this commingled well is as follows. Both formations have been producing at stabilized rates for some time. We recommend that the Mesaverde and Chacra formations gas and condensate be allocated based on current rates. The Mesaverde is currently producing 50 MCFD with 1.5 BCPD while the Chacra is currently producing 30 MCFD with no condensate. The recommended allocation percentages after downhole commingling would be set as a percentage of the total rate with the Mesaverde attributing 62% of gas production and 100 % of condensate production. The Chacra would be allocated at 38% of gas production and no condensate production. 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, a historical and recent production plot and a C-102 for each formation. This spacing unit involves federal lease number SF-077082 and a copy of this application will be sent to the BLM as their notice.

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

Sincerely,



Pamela W. Staley

Enclosures

cc: Steve Webb
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

Application for Exception to Rule 303: SEGREGATION OF PRODUCTION FROM POOLS

Requirements

- (1) Name and address of the operator:

Amoco Production Company
P.O. Box 800
Denver, CO 80201

- (2) Lease name, well number, well location, name of the pools to be commingled:

Lease Name: Baca Gas Com

Well Number: A#1

Well Location: 1670' FNL & 1175' FEL
Unit H Section 26-T29N-R10W
San Juan County, New Mexico

Pools Commingled: Blanco Mesaverde Pool (Pool IDN 72319)
Otero Chacra Pool (Pool IDN 82329)

- (3) A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.

Attached

- (4) A current (within 30 days) 24-hour productivity test on Division Form C-116 showing the amount of oil, gas and water produced from each zone.

The Mesaverde produced an average stabilized rate of 50 MCFD and 1.5 BCPD. The Chacra zone produced at an average rate of about 30 MCFD and 0 BCPD.

- (5) A production decline curve for both zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes.

Otero Chacra Completion:

Historical production curve attached.

Blanco Mesaverde Completion:

Historical production curve attached.

- (6) Estimated bottomhole pressure for each zone. A current (within 30 days) measured bottom hole pressure for each zone capable of flowing.

Bottomhole pressures were estimated from 7 day shut-in pressures taken in June 1995 for the well. Estimated bottomhole pressure in the Chacra formation is 346 PSI while the estimated bottomhole pressure in the Mesaverde is 521 PSI.

- (7) A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the wellbore.

The two formations do not produce any fluids that are expected to prohibit commingling, or promote the creation of emulsions or scale.

- (8) A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams:

Since the BTU content of the produced gasses are very similar, we would expect the commingled production to have a similar value as the sum of the individual streams.

- (9) A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formula:

The allocation method that we plan to use for this commingled well is as follows. Both formations have been producing at stabilized rates for some time. We recommend that the Mesaverde and Chacra formations gas and condensate be allocated based on current rates. The Mesaverde is currently producing 50 MCFD with 1.5 BCPD while the Chacra is currently producing 30 MCFD with no condensate. The recommended allocation percentages after downhole commingling would be set as a percentage of the total rate with the Mesaverde attributing 62% of gas production and 100 % of condensate production. The Chacra would be allocated at 38% of gas production and no condensate production. 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.

- (10) A statement that all offset operators and, in the case of a well on federal land, the United States Bureau of Land Management, have been notified in writing of the proposed commingling.

The offsetting operators listed on the attached sheet as well as the BLM will receive a copy of this application by certified mail.

- (11) Referencing NMOCD Order No. 10470 Rule 303 (D) (11): In a case where there is diversity of ownership between the zones to be commingled (including working royalty, or overriding royalty interest), the applicant shall submit a statement that all such interest owners have been notified in writing of the proposed commingling.

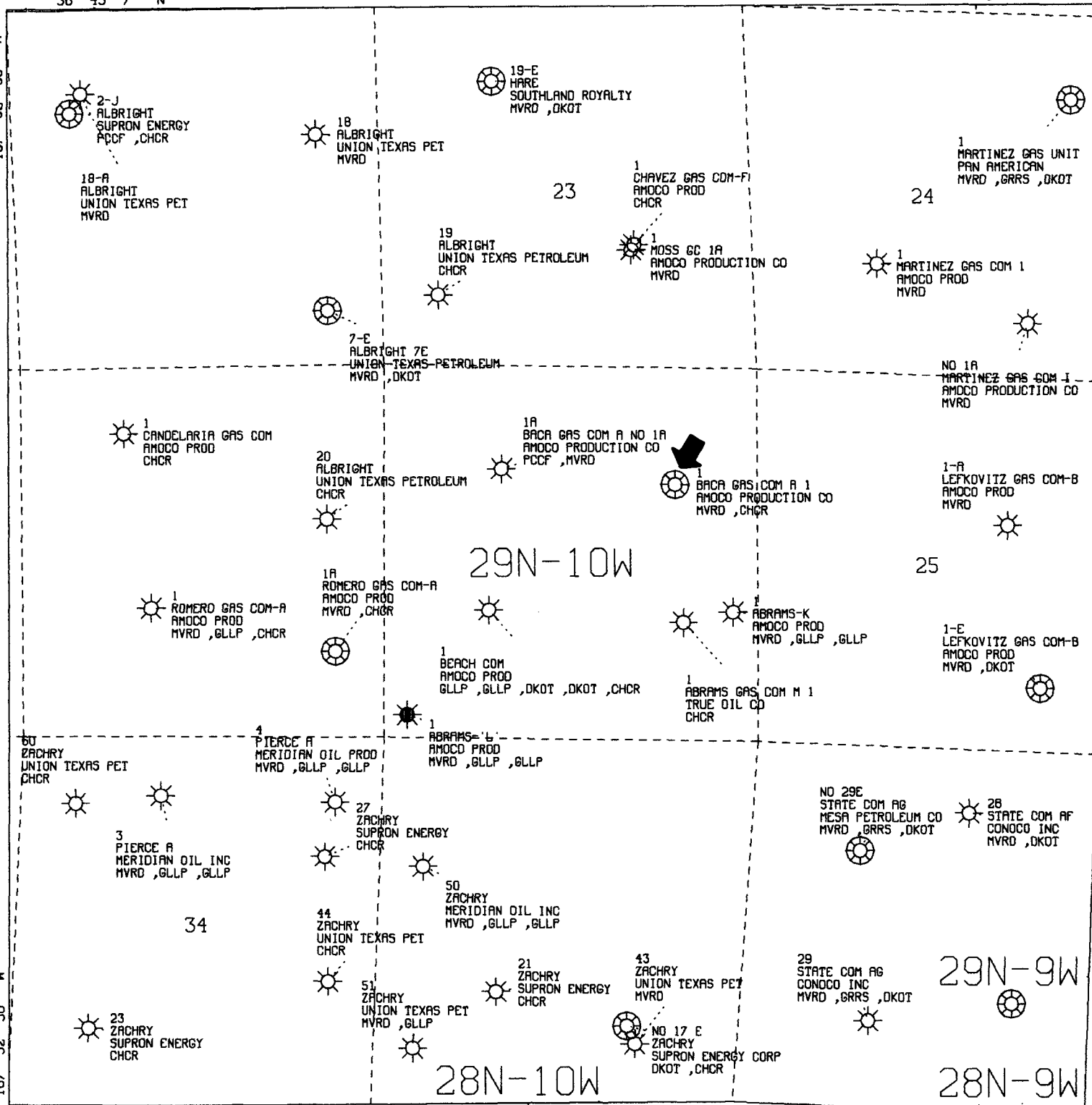
All interest owners in the two formations will receive a copy of this application by certified mail.

13,336,913.23 FT. N
36° 43' 7" N

13,336,913.23 FT. N
36° 43' 7" N

992,198.84 FT. E
107° 52' 50" W

107° 49' 39" W
1,007,401.16 FT. E



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.

POLYCONIC CENTRAL MERIDIAN - 107° 51' 14" W LON
SPHEROID - 6

AMOCO PRODUCTION COMPANY
PLAT MAP
Baca Gas Com A 1
CK & MV Formations

SCALE 1 IN. = 2,000 FT. SEP 18, 1995

OIL CONSERVATION DIVISION

P. O. BOX 2048

SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-1-78

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

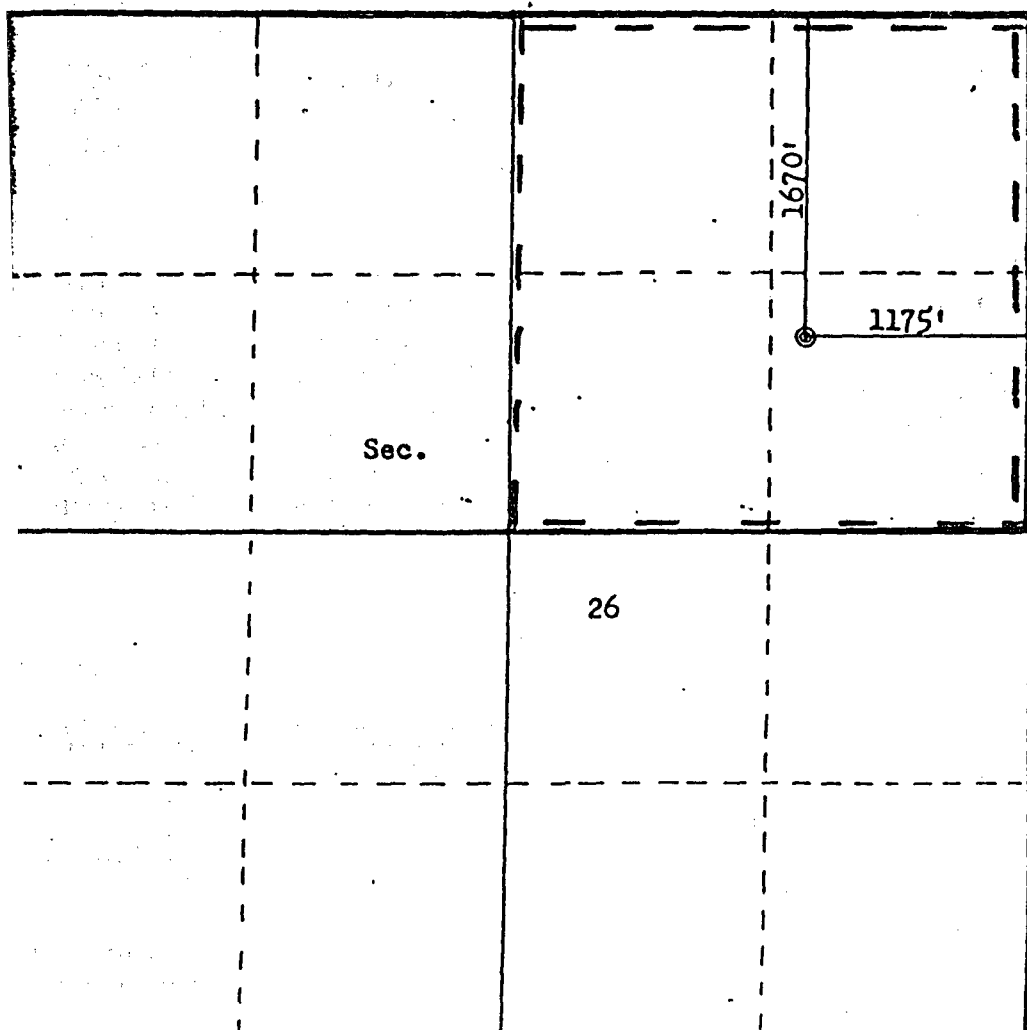
Operator AMOCO PRODUCTION COMPANY		Lease BACA GAS COM "A"		Well No. 1
Unit Letter H	Section 26	Township 29N	Range 10W	County San Juan
Actual Footage Location of Well: 1670 feet from the North line and 1175 feet from the East line				
Ground Level Elev: 5534	Producing Formation Mesaverde + Chacra	Pool Blanco Mesaverde + Otero Chacra	Dedicated Acreage 320 / 160 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 Communitized

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.

Original Signed By
B. D. Shaw

Name

B. D. Shaw

Position

Admin. Supervisor

Company

Amoco Production Company

Date

10-8-84

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

October 6, 1984

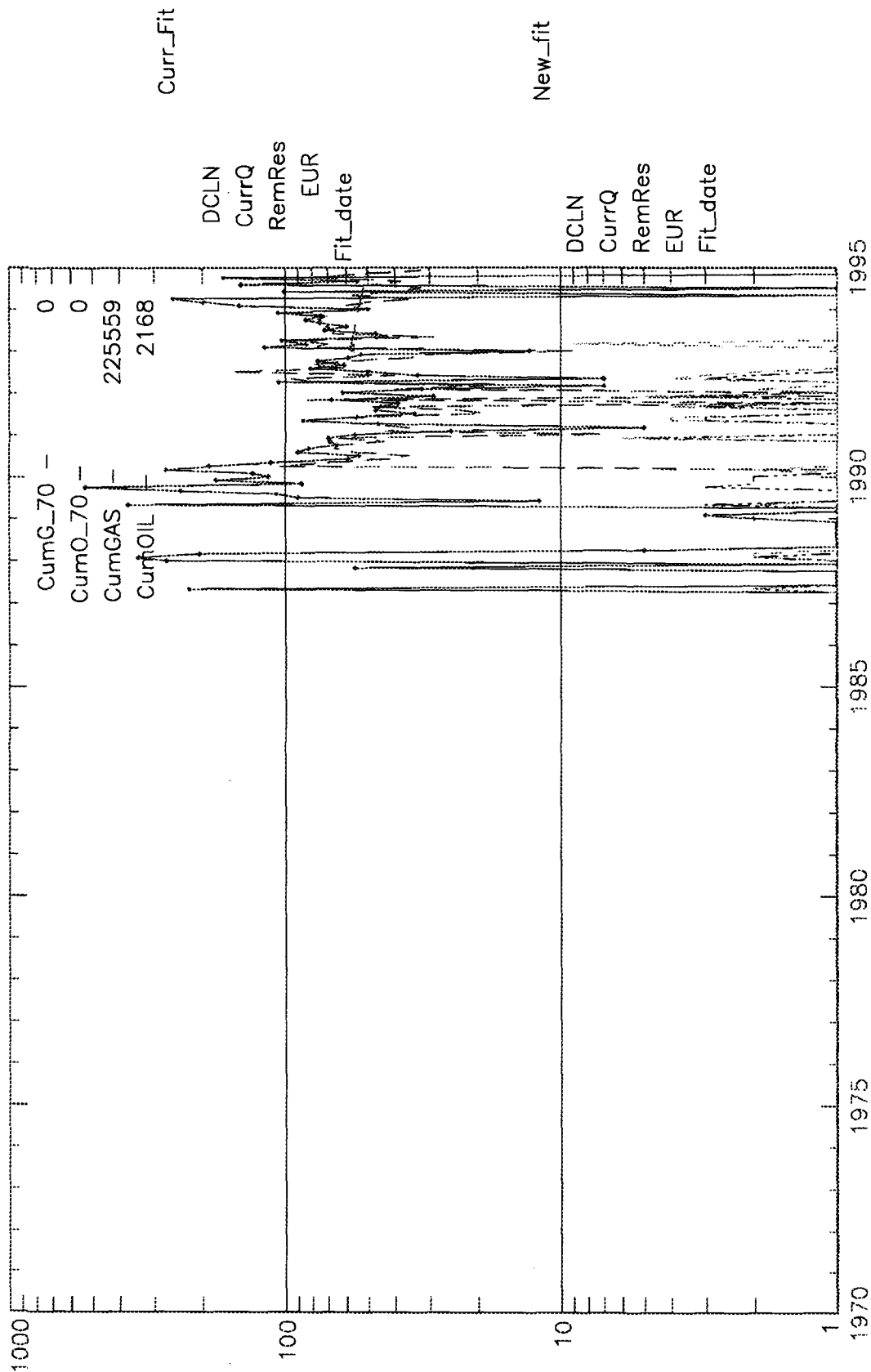
Registered Professional Engineer and Land Surveyor

Fred B. Kern Jr.

Certificate No. 11-10001

Engr: zdws22

BACA GAS COM A 1
300452611000MV H262910-001 MV
Operator- AMOCO PRODUCTION CO
APC_WI - 0.87500000



Engr: zdws22

BACA GAS COM A 1
300452611000CK H262910-001 CK
Operator- AMOCO PRODUCTION CO
APC_WI - 1.00000000

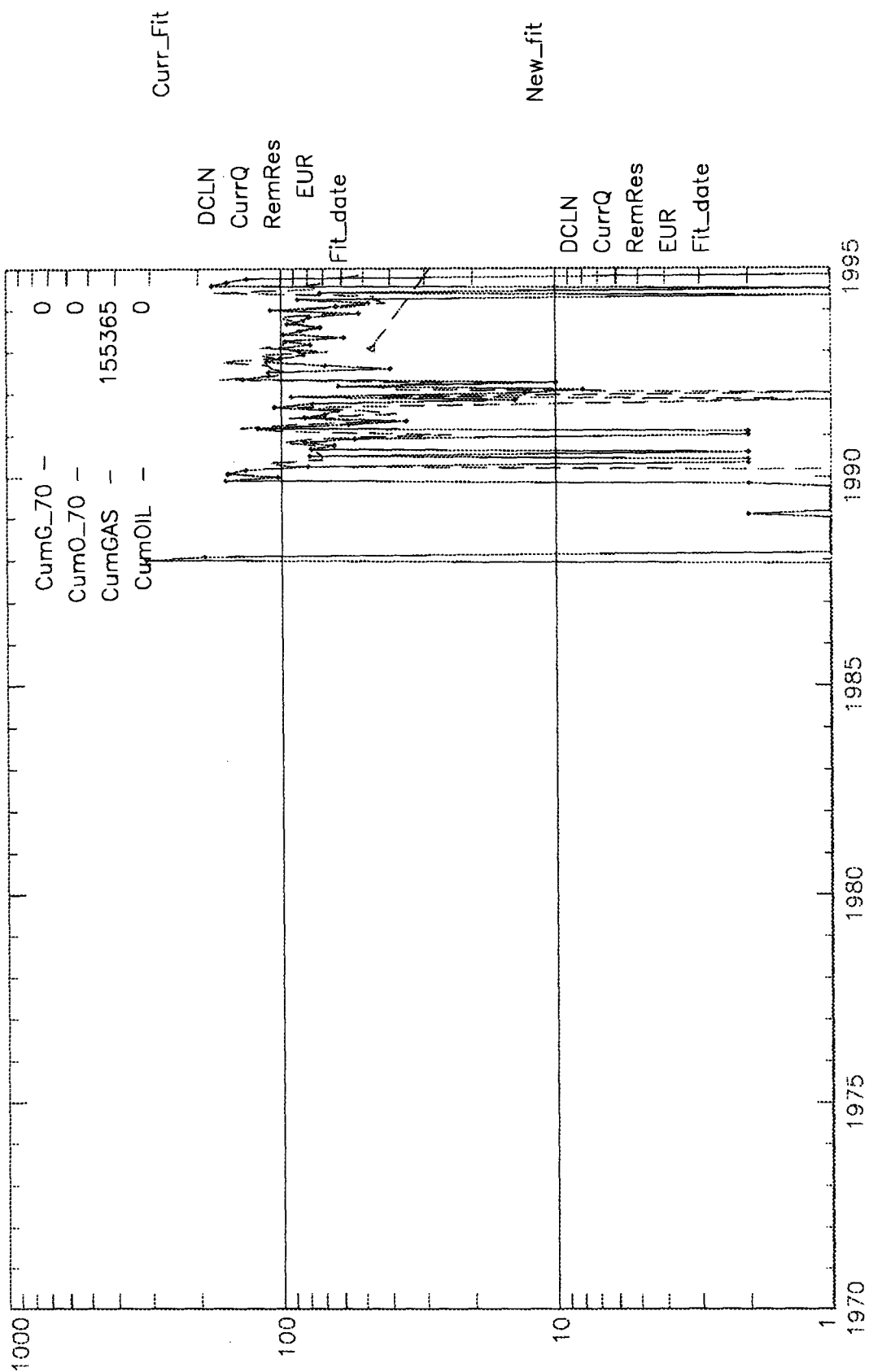


Chart1

Well: BACA GAS COM A 001-CK (84629802)

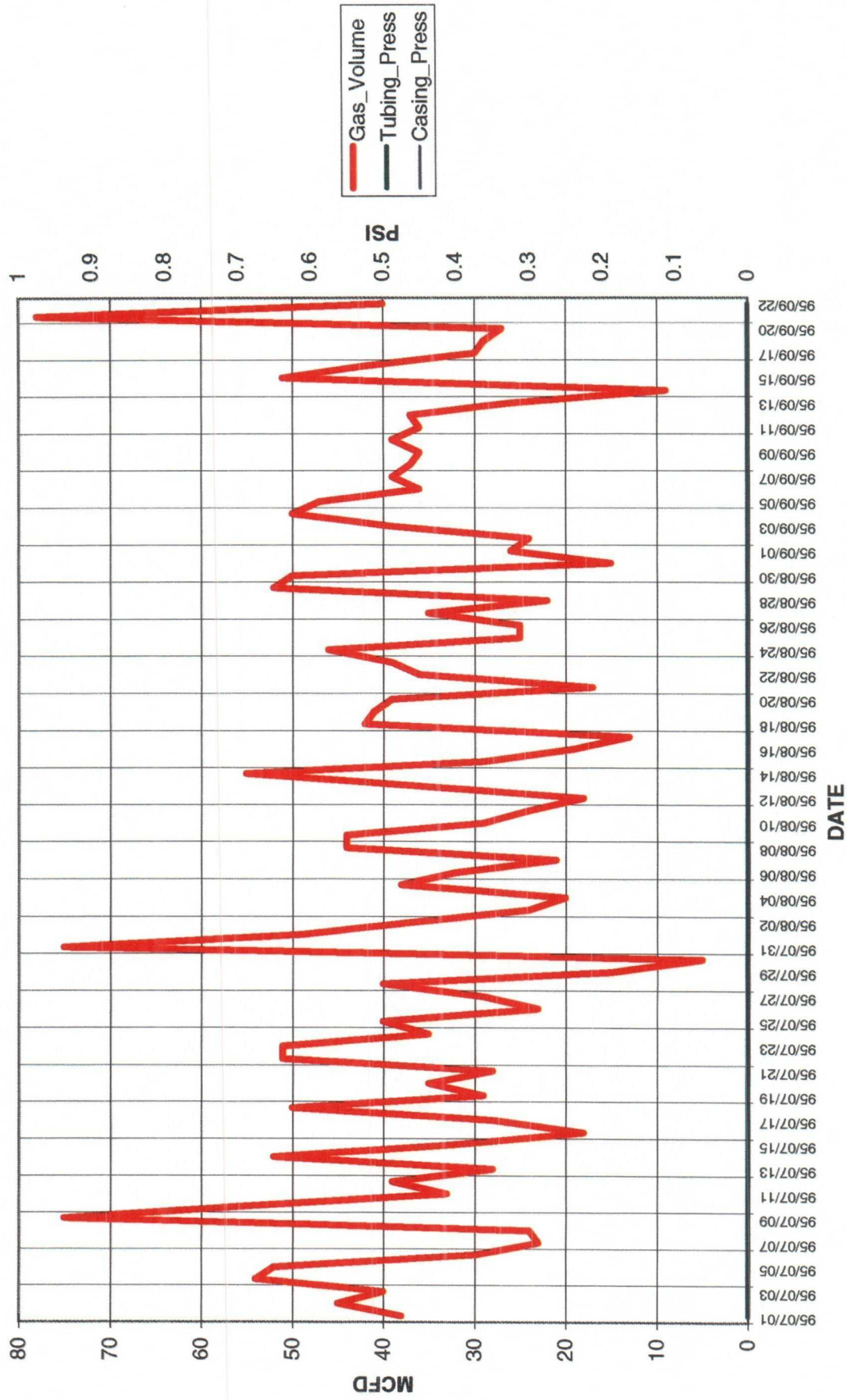


Chart1

Well: BACA GAS COM A 001-MV (84629801)



OFFSET OPERATOR LIST
BACA GAS COM "A" #1

MESAVERDE OFFSET OPERATORS

S/2 SEC 22 T29N-R10W - MERIDIAN OIL, INC
S/2 SEC 23 T29N-R10W - AMOCO PRODUCTION COMPANY
S/2 SEC 24 T29N-R10W - AMOCO PRODUCTION COMPANY
N/2 SEC 27 T29N-R10W - AMOCO PRODUCTION COMPANY
S/2 SEC 27 T29N-R10W - AMOCO PRODUCTION COMPANY
S/2 SEC 26 T29N-R10W - AMOCO PRODUCTION COMPANY
W/2 SEC 25 T29N-R10W - AMOCO PRODUCTION COMPANY

CHACRA OFFSET OPERATORS

SW/4 SEC 23 T29N-R10W - MERIDIAN OIL, INC
SE/4 SEC 23 T29N-R10W - AMOCO PRODUCTION COMPANY
SW/4 SEC 24 T29N-R10W - NO CHACRA WELL
NW/4 SEC 25 T29N-R10W - NO CHACRA WELL
SW/4 SEC 25 T29N-R10W - NO CHACRA WELL
N/2 SEC 27 T29N-R10W - AMOCO PRODUCTION COMPANY
NW/4 SEC 26 T29N-R10W - AMOCO PRODUCTION COMPANY
SW/4 SEC 26 T29N-R10W - AMOCO PRODUCTION COMPANY
SE/4 SEC 26 T29N-R10W - AMOCO PRODUCTION COMPANY

OPERATOR ADDRESSES

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

16078800 00001 130034 00 GEORGIA F ANDERSON LIVING TRUST GEORGIA F ANDERSON TRUSTEE U/A DATED 03-09-1990 322 SOUTH MAIN AZTEC	ZJAM63 NM 87410-2125	16078800 00001 318037 00 JOE BACA 8100 GRANDVIEW AVE ARVADA	ZJAM63 CO 80002-2406
16078800 00001 617000 00 AMOCO PRODUCTION COMPANY P O BOX 591 TULSA	ZJAM63 OK 74102-0591	16078800 00001 113634 00 LEONARD C BACA 3751 S MELLIS RD 289 LAS VEGAS	ZJAM63 NV 89121-3131
16078800 00001 684722 00 JERRY J ANDREW 408 LONGWOODS HOUSTON	ZJAM63 TX 77024-5617	16078800 00001 318057 00 LUCY BACA 5327 INDEPENDENCE ST ARVADA	ZJAM63 CO 80002-2971
16078800 00001 339947 00 JULIE ANN ANTWEIL TRUST ESTATE 4408 CANYON COURT NE ALBUQUERQUE	ZJAM63 NM 87111-3010	16078900 00001 118681 00 MANUEL BACA JR P O BOX 19 IGNACIO	ZJAM63 CO 81137-0019
16078800 00001 106659 00 SUSIE ARMENTA LIVING TRUST SUSIE M ARMENTA TRUSTEE U/A 03/15/91 P O BOX 1593 TAHLEQUAH	ZJAM63 OK 74465-1593	16078800 00001 318065 00 MARTHA J BACA 127 DURAN ST (REAR) SANTE FE	ZJAM63 NM 87501-1817
16078800 00001 318058 00 AMARANTE FELIPE BACA C/O CHRISTOPHER P BACA 6901 TULSA CIRCLE LAS VEGAS	ZJAM63 NV 89108-5419	16078900 00001 118682 00 MARY BACA BOX 19 IGNACIO	ZJAM63 CO 81137-0019
16078800 00001 318056 00 FELIX I BACA 4645 EAST GRANADA RD PHOENIX	ZJAM63 AZ 85008-4142	16078900 00001 249672 00 CARMEN BACA BARKDULL 3848 SOUTH ECHO ROAD P O BOX 16 ECHO	ZJAM63 UT 84024-0016
16078800 00001 113776 00 FRED M BACA P O BOX 150534 E FLY	ZJAM63 NV 89315-0534	16078800 00001 682516 00 R E BEAMON III SUITE 470 THREE RIVERWAY HOUSTON	ZJAM63 TX 77056-1942

16078800 00001 762567 00 HAZEL ASHLEY BRACKEN 101 WESTCOTT NO 403 HOUSTON	ZJAM63 TX 77007-7030	16078800 00001 127453 00 ENCAP INVESTMENTS L C 4600 GREENVILLE AVENUE, SUITE 160 DALLAS	ZJAM63 TX 75206-5036
16078800 00001 124570 00 CHASE OIL CORPORATION P O BOX 1767 ARTESIA	ZJAM63 NM 88211-1767	16078800 00001 127257 00 JAMES L FASHING IRREVOCABLE TRUST DAVID A ROGERS TRUSTEE 4855 N MESA ST SUITE 122 EL PASO	ZJAM63 TX 79912-5989
16078800 00001 318064 00 LYDIA B CORDOVA 2800 CERILLOS ROAD APT 90 SANTA FE	ZJAM63 NM 87501-6011	16078800 00001 472658 00 BILLIE JEAN FAVERINO 2170 THYME DRIVE CORONA	ZJAM63 CA 91719-7786
16078800 00001 297950 00 BARBARA REESE DINGES 6510 SHADOW CREST HOUSTON	ZJAM63 TX 77074-6818	16078800 00001 472659 00 CHRISTOPHER FAVERINO 301 PINION AZTEC	ZJAM63 NM 87410-1733
16078900 00001 114754 01 LOUIS DREYFUS NATURAL GAS CORP REMITTANCE ADDRESS P O BOX 850163 OKLAHOMA CITY	ZJAM63 OK 73185-0163	16078800 00001 409391 00 GLENN FAVERINO 3262 CR 334 IGNACIO	ZJAM63 CO 81137-9607
16078800 00001 221769 00 DUFF LEACH FAMILY TRUST KENNETH C LEACH AND JUDITH DIANNE DUFF LEACH CO-TRUSTEES P O BOX 30396 ALBUQUERQUE	ZJAM63 NM 87190-0396	16078800 00001 409393 00 LOUIS T FAVERINO P O BOX 8 BLOOMFIELD	ZJAM63 NM 87413-0008
16078800 00001 917838 00 T E DUFF TRUST TED EDWARD DUFF, TRUSTEE P O BOX 9908 MIDLAND	ZJAM63 TX 79708-2908	16078800 00001 409392 00 ROBERT FAVERINO 501 CR 4990 BLOOMFIELD	ZJAM63 NM 87413-9630
16078800 00001 926370 00 EL PASO PRODUCTION COMPANY P O BOX 840656 DALLAS	ZJAM63 TX 75284-0656	16078900 00001 166616 00 ANDREA LORI GILLET 1450 DALLAS SUNSET	ZJAM63 UT 84075-9406

16078800 00001 33525 00 RICHARD GRIFFITH 2704 20TH STREET LUBBOCK	ZJAM63	16078800 00001 268550 29 MARATHON OIL COMPANY P O BOX 890882 DALLAS	ZJAM63	TX 75389-0882
	TX 79410-1511			
16078800 00001 149220 00 DAVID HENDERSON 9411 WINDING RIDGE DRIVE DALLAS	ZJAM63	16078800 00001 118683 00 ANNA MARTINEZ P O BOX 19 IGNACIO	ZJAM63	CO 81137-0019
	TX 75238-1449			
16078900 00001 484486 00 AMALIA M JAQUEZ BOX 303 FREDERICK	ZJAM63	16078900 00001 318055 00 CORDIE MARTINEZ PO BOX 103 EAST CARBON CITY	ZJAM63	UT 84520-0103
	CO 80530-0303			
16078800 00001 637894 00 EULA MAY JOHNSTON TST NATIONSBANK OF TEXAS NA TRUST DEPARTMENT #03 661 P O DRAWER 840738 DALLAS	ZJAM63	16078800 00001 318055 00 CORDIE MARTINEZ PO BOX 103 EAST CARBON CITY	ZJAM63	UT 84520-0103
	TX 75284-0738			
16078800 00001 684723 00 JAMES J JOHNSTON P O BOX 570007 HOUSTON	ZJAM63	16078900 00001 287367 00 CARL MCDANIEL 3360 RED UNION CIR COLORADO SPRINGS	ZJAM63	CO 80918-1853
	TX 77257-0007			
16078800 00001 509925 00 V A JOHNSTON FAMILY TRUST KATHERINE PREWITT AND MICHAEL A CHESSER CO-TRUSTEES P O BOX 925 DALLAS	ZJAM63	16078800 00001 710000 01 MINERALS MANAGEMENT SERVICE ROYALTY MANAGEMENT PROGRAM PO BOX 5810 TA DENVER	ZJAM63	CO 80217-5810
	TX 79357-0925			
16078800 00001 680325 00 PATTIE BEAHON LUNDELL 1616 SOUTH VOSS #870 HOUSTON	ZJAM63	16078800 00001 127258 00 MICHELLE D MINICA IRREVOCABLE TRUST DAVID A ROGERS TRUSTEE 4855 N MESA ST SUITE 122 EL PASO	ZJAM63	TX 79912-5989
	TX 77057-2626			
16078900 00001 318060 00 STELLA MANZANARES 3230 227 STREET SW GRAND	ZJAM63	16078900 00001 503453 00 LEATRICE A MORELAND BOX 872 BLOOMFIELD	ZJAM63	NM 87413-0872
	WA 98036-8031			

16078900 00001 255903 00 CHESTER H AND IRMA MARIE PHELPS TRUST CHESTER H AND IRMA PHELPS CO-TRUSTEES P O BOX 724 BLOOMFIELD	ZJAM63 NM 87413-0724	16078800 00001 946788 00 SAN JUAN BASIN POOL LIMITED BOX 1237 PANHANDLE	ZJAM63 TX 79068-1237
16078800 00001 255903 00 CHESTER H AND IRMA MARIE PHELPS TRUST CHESTER H AND IRMA PHELPS CO-TRUSTEES P O BOX 724 BLOOMFIELD	ZJAM63 NM 87413-0724	16078900 00001 317524 00 JIM L SHARP 1020 FOXWOOD LANE WYLLIE	ZJAM63 TX 75098-5129
16078800 00001 297951 00 DAVID ELBERT REESE 2203 N BELMONT RICHMOND	ZJAM63 TX 77469-5501	16078900 00001 651243 00 SINGER BROS ACCOUNT # 2 061 9661 0 C/O BANK OF OKLAHOMA LOCKBOX DEPT P O BOX 2300 TULSA	ZJAM63 OK 74192-2300
16078800 00001 297953 00 ELIZABETH GOODWIN REESE 7800 NAIRN HOUSTON	ZJAM63 TX 77074-5321	16078900 00001 904154 00 EVELYN SMITH 10448 STONE CANYON 204N DALLAS	ZJAM63 TX 75230-4844
16078900 00001 318061 00 SADIE RIVAS 3713 162 SOUTH SEATTLE	ZJAM63 WA 98188	16078900 00001 680713 00 H W SMITH ESTATE GARY W HARVEY INDP EXECUTOR 300 SOUTHWEST 21 STREET SEMINOLE	ZJAM63 TX 79360-3820
16078900 00001 318066 00 MARGARET A RODRIGUEZ 1511 ALAMEDA SANTA FE	ZJAM63 NM 87501-1746	16078900 00001 287368 00 ROSALIE STICKLER P O BOX 366 MONONA	ZJAM63 IA 52159-0366
16078800 00001 748996 00 ROGERS GIBBARD TRUST ORVILLE C ROGERS, SUSAN EVELAND AND ELAINE GIBBARD ALLMAN TRUSTEES 6804 LA COSTA TYLER	ZJAM63 TX 75703-5750	16078900 00001 220307 00 UNITED PIPE AND SUPPLY CO INC 3622 RANCH CREEK DRIVE AUSTIN	ZJAM63 TX 78730-3701
16078800 00001 127259 00 DAVID A ROGERS 4855 N MESA ST SUITE 122 EL PASO	ZJAM63 TX 79912-5989	16078800 00001 615188 03 UNION OIL COMPANY OF CALIFORNIA ATTN REVENUE ACCOUNTING P O BOX 841055 DALLAS	ZJAM63 TX 75284-1055

16078800 00001
220306 00
J BURTON VETETO
607 ABO
HOBBS

ZJAM63

NM 88240-3405

16078800 00001
297952 00
REBECCA ANN REESE WARD
2210 CUSTER PARKWAY
RICHARDSON

ZJAM63

TX 75080-2502

16078800 00001
425246 00
FRANCES HOLMAN WEAVER
4855 NORTH MESA SUITE 122
EL PASO

ZJAM63

TX 79912-5939

16078800 00001
926371 00
L DORIS WILLIAMS ESTATE
WILLIAM P TRAYLOR AND JOHN G HEARD
CO-INDEPENDENT EXECUTORS
PO BOX 8306
HOUSTON

ZJAM63

TX 77288-8306

16078800 00001
339952 00
R M WILLIAMS
408 E ALTO
HOBBS

ZJAM63

NM 88240-4002

16078800 00001
753523 00
CAROL A ZAHARA
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