

Ernie Busch

From: Ernie Busch
To: Ben Stone
Subject: AMOCO HEATON LS#9(DHC)
Date: Thursday, March 21, 1996 1:51PM
Priority: High

B-32-31N-11W
RECOMMEND: APPROVAL

FORM C-115 - OPERATORS MONTHLY REPORT (CONTINUATION)

OPERATOR: LOUIS DREVILS NATURAL GAS CORP

OGRID: 025773

MONTH/YEAR 08/95

PAGE 20 OF 26

7 POOL NO. AND NAME PROPERTY NO. AND NAME WELL NO. AND U-L-S-T-R API NUMBER		INJECTION		PRODUCTION				DISPOSITION OF OIL, GAS, AND WATER									
		8 C O D E 1	9 VOLUME	10 PRESSURE	11 C O D E 2	12 BBL'S OF OIL/COND- ENSATE PRODUCED	13 BBL'S OF WATER PRODUCED	14 GAS PRODUCED (MCF)	15 DAYS PRODUCED	16 C O D E 3	17 POINT OF DISPOS- ITION	18 GAS BTU OR OIL API GRAV	19 OIL ON HAND AT BEGINNING OF MONTH	20 VOLUME (BBL'S/MCF)	21 TRANS- PORTER OGRID	22 C O D E 4	23 OIL ON HAND AT END OF MONTH
33-24	N-33-27N-11W 30-045-24978	F				0	0	1326	31		G 1188530	1048		2339	025244		
33-31	B-33-27N-11W 30-045-24794	F				0	60	2431	31		G 1188630	1168		1179	025244		
33-44	P-33-27N-11W 30-045-24967	F				0	0	1221	31		G 1188730	1171		1190	025244		
											G 1188830	1162		1121	025244		
											G 1188550			108			
005959	HANCOCK										M 1188550			220			
001	I-12-27N-12W 30-045-06668	F				0	0	48	31					60			
002	K-12-27N-12W 30-045-06652	S				0	0	0	0								
005	4-01-27N-12W 30-045-06926	F				0	0	580	31								
006	D-11-27N-12W 30-045-06735	F				0	0	976	31								
007	D-12-27N-12W 30-045-06734	F				0	0	1251	31								



Southern

Rockies

Business

Unit

March 12, 1996

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

RECEIVED
MAR 18 1996
OIL CON. DIV.
DIST. 3

Application for Exception to Rule 303-C
Downhole Commingling

Heaton LS #9 Well

990' FNL & 1495' FEL, Unit B Section 32-T31N-R11W

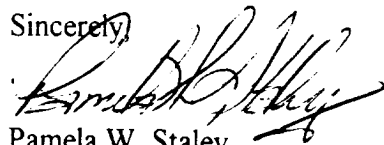
Aztec Pictured Cliffs (Pool IDN 71280) and Blanco Mesaverde (Pool IDN 72319) Pools
San Juan County, New Mexico

Amoco Production Company hereby requests administrative approval to downhole commingle production from the Aztec Pictured Cliffs and Blanco Mesaverde Pools in the Heaton LS #9 well referenced above. The Heaton LS #9 is currently a dual completion in the Pictured Cliffs and Mesaverde formations. We plan to complete the well with both the Pictured Cliffs and Mesaverde formations being downhole commingled in the wellbore. This well will benefit from downhole commingling because of the reduced costs of operation offered by commingling and because the well logs off due to low gas rates and liquid loading. The two zones are expected to produce at a total commingled rate of about 64 MCFD with less than 1 BCPD. The ownership (WI, RI, ORI) of these pools is not common 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. Offset operators to this well will receive a copy of this application by certified mail. All interest owners will also receive a copy of this application as their notice.

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 Pictured Cliffs formations gas and condensate be allocated based on current rates. The Mesaverde is currently producing at 59 MCFD with 0.01 BCPD while the Pictured Cliffs is currently producing 5 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 92% of gas production and 100% of condensate production. The Pictured Cliffs would be allocated at 8% 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 is located on a federal lease (SF-078097) and we will send a copy of the application 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: Khanh Vu
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: Heaton LS

Well Number: 9

Well Location: 990' FNL & 1495' FEL
Unit B Section 32-T31N-R11W
San Juan County, New Mexico

Pools Commingled: Blanco Mesaverde Pool
Aztec Pictured Cliffs Pool

- (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 Blanco Mesaverde produced an average stabilized rate of 59 MCFD and 0.01 BCPD. The Aztec Pictured Cliffs zone produced at an average rate of about 5 MCFD and no condensate.

- (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.

Blanco Mesaverde Completion:	Historical production curve attached.
Aztec Pictured Cliffs 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 72 hour shut-in pressures during a packer leakage test for the well. Estimated bottomhole pressure in the Pictured Cliffs formation is 465 PSI while the estimated bottomhole pressure in the Mesaverde is 746 PSI. See attached calculations.

- (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 measurable amount of fluids and therefore are not expected to any effect that would 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:

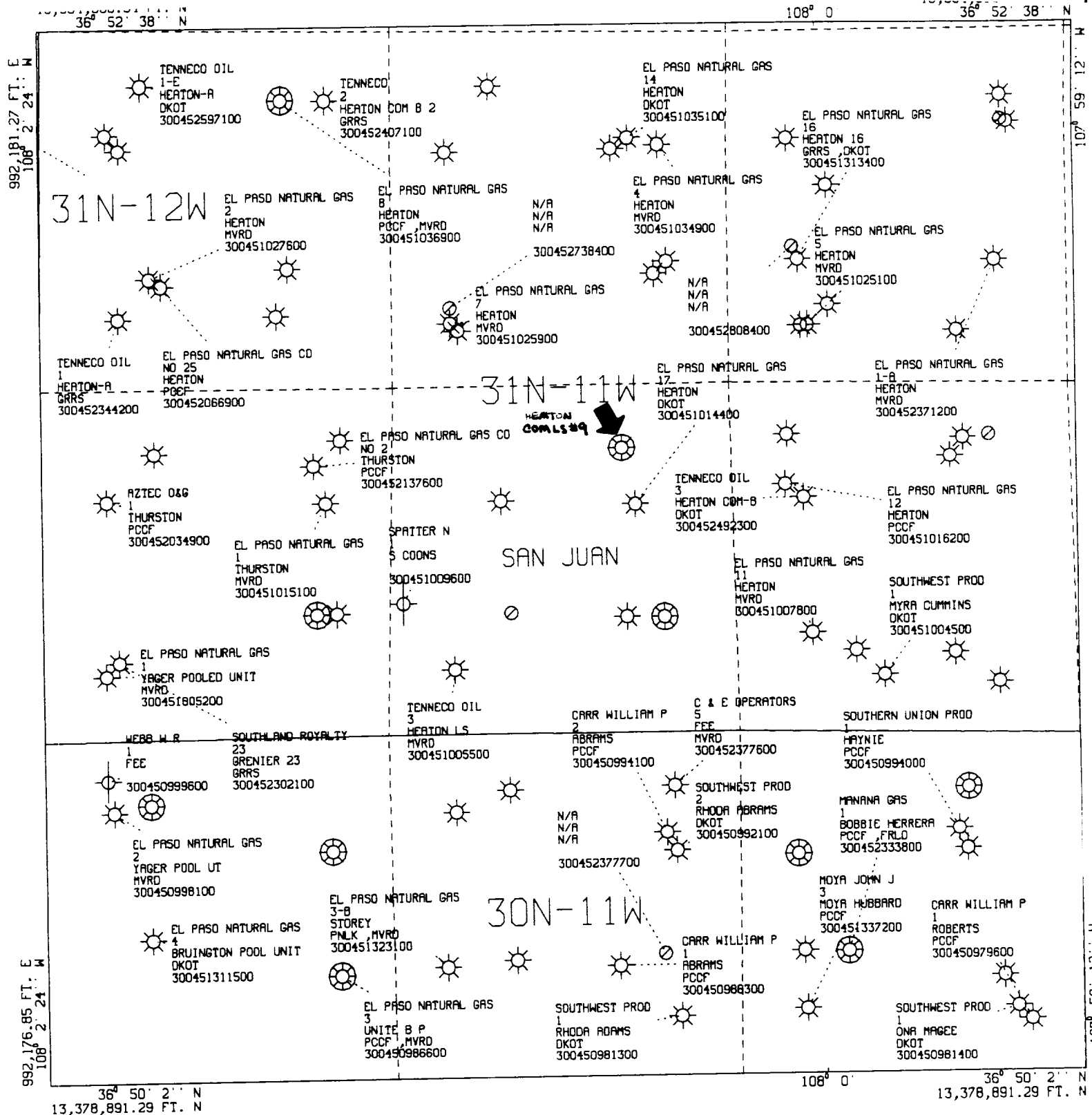
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- (10) A statement that all offset operators and, in the case of a well on federal land, the United States Bureau of Land Management, have been notified in writing of the proposed commingling.

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



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 - 108° 0' 48" W LON
SPHEROID - 6

AMOCO PRODUCTION COMPANY
PLAT MAP
Heaton Com LS 9
Offset Wells

COPIED 1 IN 2 000 FT MAY 1 1995

NEW MEXICO
OIL CONSERVATION COMMISSION

Form C-128

Well Location and/or Gas Proration Plat

Date 9-24-57

Operator El Paso Natural Gas Company Lease Heaton

Well No. 9 Section 32 Township 31N Range 11W NMPM

Located 990 Feet From North Line, 1495 Feet From East Line,

San Juan County, New Mexico. G. L. Elevation 5887

Name of Producing Formation Pictured Cliffs Pool Aztec P. C. Dedicated Acreage 160

(Note: All distances must be from outer boundaries of Section)

		SF 078097	E-397-2

NOTE

This section of form is to be used for gas wells only.



SCALE: 1"=1000'

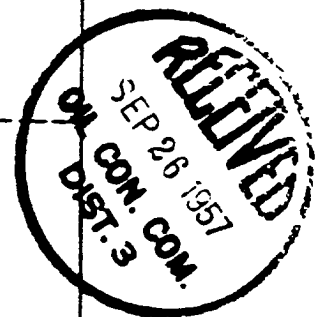
1. Is this Well a Dual Comp. ? Yes X No .
2. If the answer to Question 1 is yes, are there any other dually completed wells within the dedicated acreage? Yes No X.

Name Original Signed D. C. Johnston
Position Petroleum Engineer
Representing El Paso Natural Gas Company
Address Box 997, Farmington, New Mexico

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed 4-25-56

Registered Professional Engineer and/or Land Surveyor



Engr: zdws22

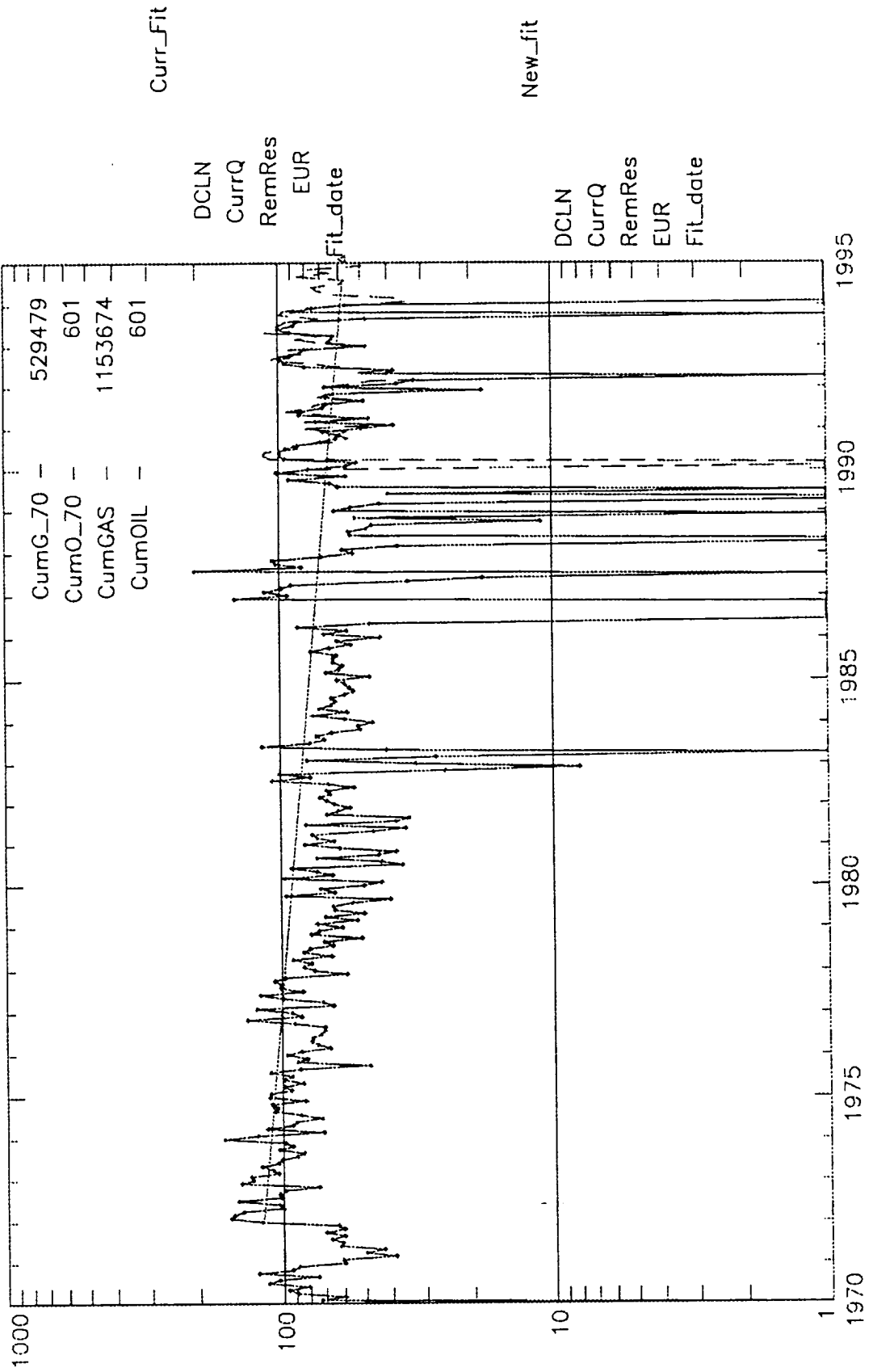
HEATON COM LS 9

Operator- AMOCO PRODUCTION CO

300451017000MV

B323111-009 MV

APC_WI - 0.25000000



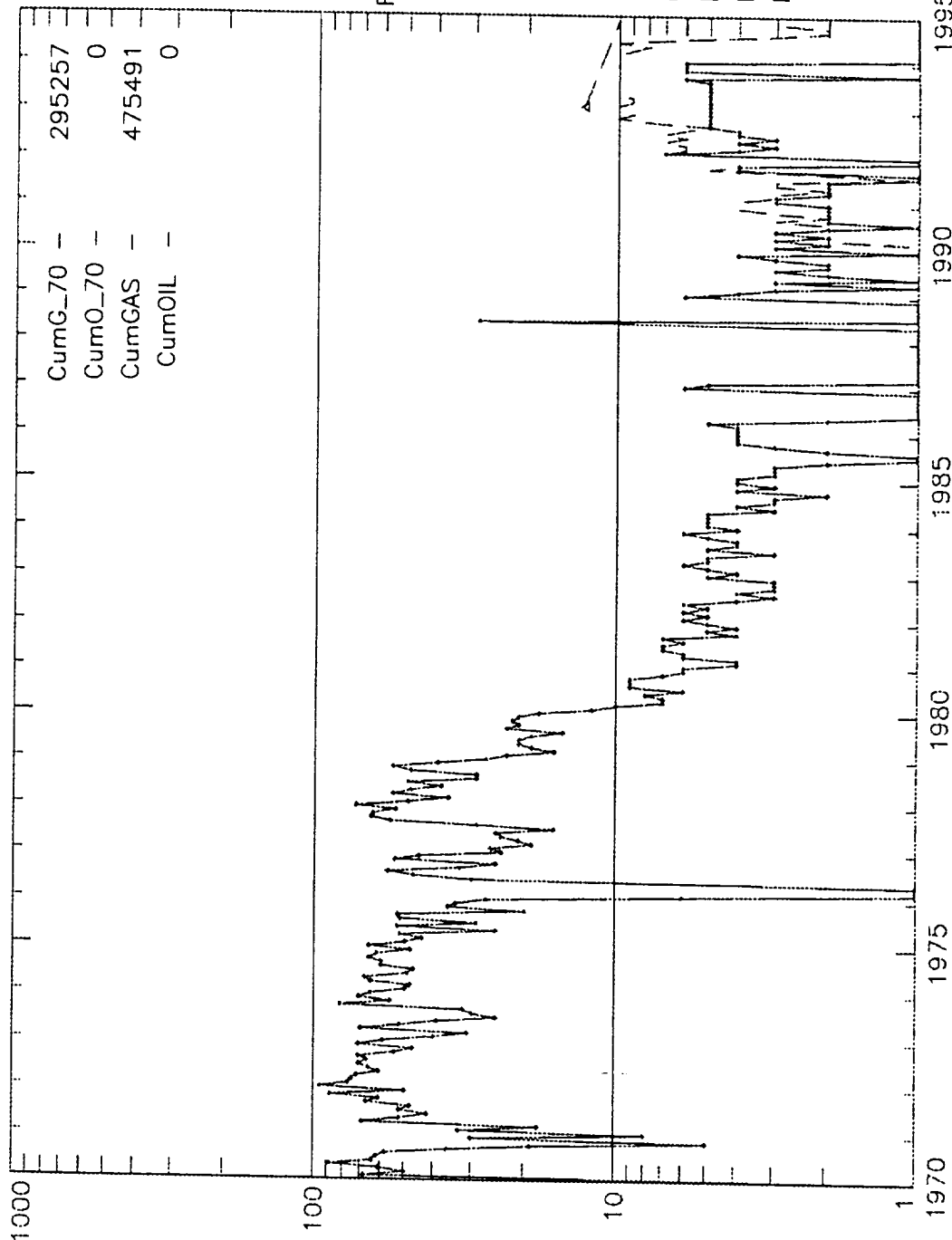
Engr: zdws22

HEATON COM LS 9

Operator- AMOCO PRODUCTION CO

300451017000PC B323111-009 PC

APC_WI - 0.25000000



ESTIMATED BOTTOMHOLE PRESSURES BY FORMATION
Heaton LS #9

PC Perforations at 2400-2442' midperf at 2421'
MV Perforations at 4651-4766' midperf at 4708'

7/94 shut in pressures --- MV =370 PSIG
PC =272 PSIG

GRADIENT = 0.08 PSI/FT

MV BHP =370 PSIG + 4708' X 0.08 PSIG
=746 PSIG

PC BHP = 272 PSIG +2421' X 0.08 PSIG
=465 PSIG

STATE OF NEW MEXICO
ENERGY and MINERALS DEPARTMENT

Location of Well: B323111 Page 1

OIL CONSERVATION DIVISION
NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator: AMOCO PRODUCTION COMPANY Lease/Well #: HEATON COM LS 009
Meter #: 71692 RTU: 0-000-00 County: SAN JUAN

	NAME RESERVOIR OR POOL	TYPE PROD	METHOD PROD	MEDIUM PROD
UPR COMP	HEATON COM LS 009 PC 71692	GAS	FLOW	TBG
LWR COMP	HEATON COM LS 009 MV 71584	GAS	FLOW	TBG

PRE-FLOW SHUT-IN PRESSURE DATA

	Hour/Date Shut-In	Length of Time Shut-In	SI Press. PSIG	Stabilized
UPR COMP	07/20/95	7.2	278	yes
LWR COMP	07/20/95	7.2	370	yes

FLOW TEST DATE NO. 1

Commenced at (hour, date) *

TIME (hour, date)	LAPSED TIME SINCE*	PRESSURE		Zone Producing (Upr/Lwr)	
		Upper	Lower	Prod Temp.	REMARKS
07/20/95	Day 1	179	399		Both Zones SI
07/21/95	Day 2	215	410		Both Zones SI
07/22/95	Day 3	242	415		Both Zones SI
07/23/95	Day 4	272	370		Flowed back to
07/24/95	Day 5	304	347		
07/25/95	Day 6	330	325		

Production rate during test

Oil: _____ BOPD based on _____ BRLs in _____ Hrs _____ Grav _____ GOR _____
Gas: _____ MFCPD: Tested thru (Orifice or Meter): METER

MID-TEST SHUT-IN PRESSURE DATA

	Hour, Date SI	Length of Time SI	SI Press. PSIG	Stabilized (yes/no)
UPR COMP				
LWR COMP				

(Continue on reverse side)

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INSTR. 3

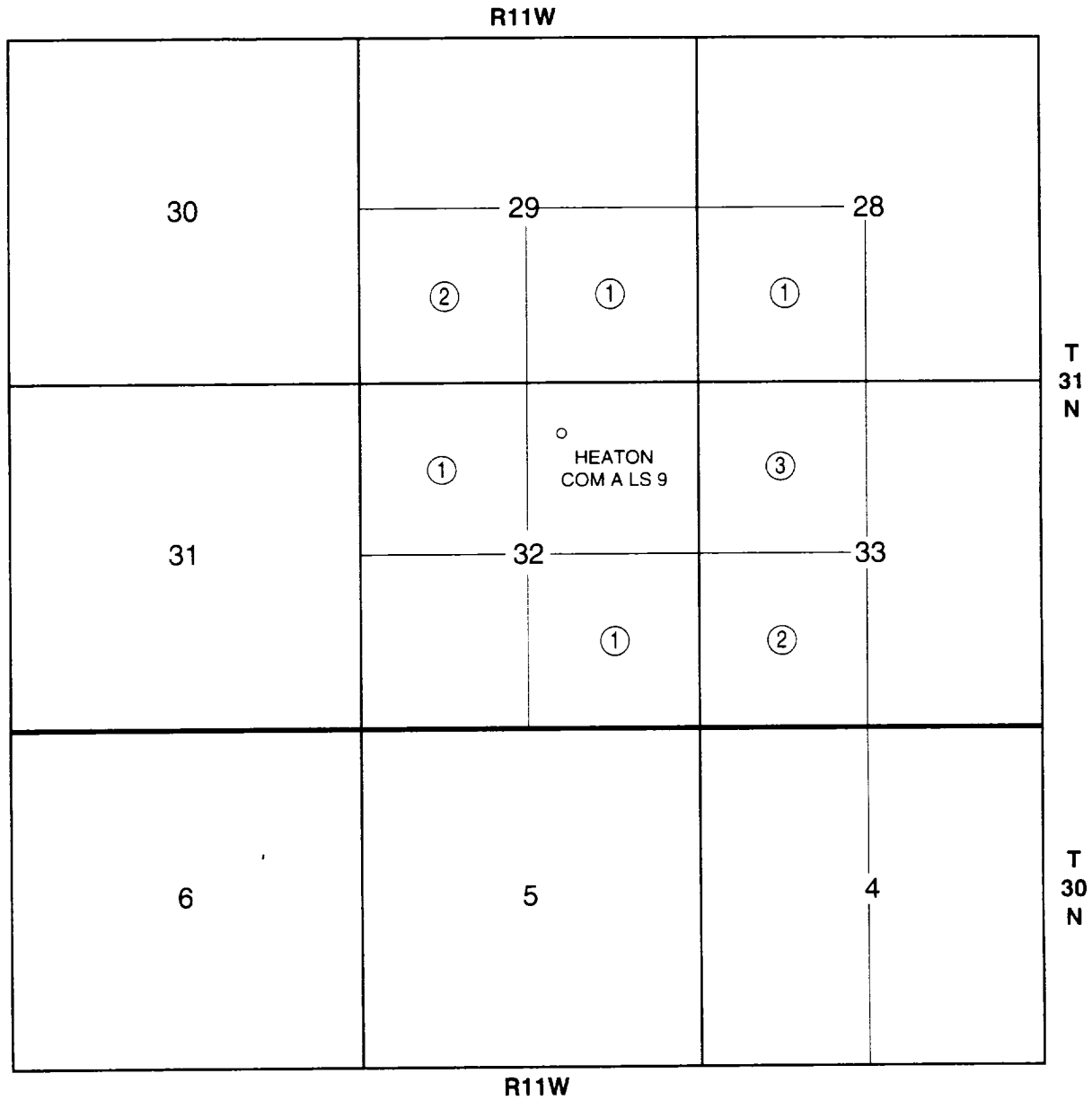
Amoco Production Company

Offset Operator Plat

Heaton Com A LS 9

T31N-R11W Sec. 32

Aztec Pictured Cliffs Formation



① Amoco Production Company

② Meridian Oil Production Inc.

③ Conoco Inc.

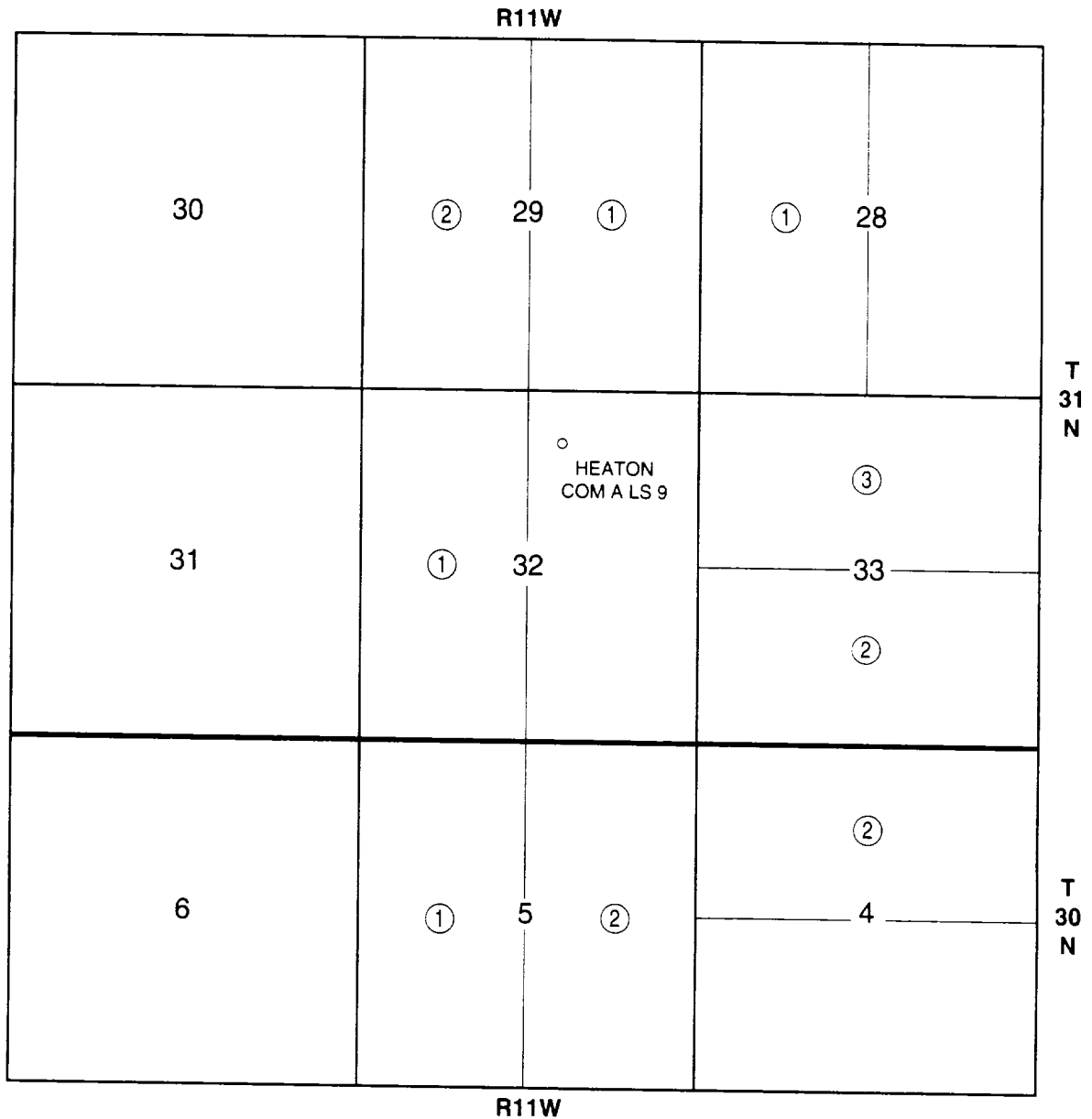
Amoco Production Company

Offset Operator Plat

Heaton Com A LS 9

T31N-R11W Sec. 32

Blanco Mesaverde Formation



- ① Amoco Production Company
- ② Meridian Oil Production Inc.
- ③ Conoco Inc.

LIST OF ADDRESSES FOR OFFSET OPERATORS
Heaton LS #9

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

2 Conoco, Inc.
10 Desta Drive West
Midland, Texas 79705

69896800 00001
617000 00
AMOCO PRODUCTION COMPANY
P O BOX 591
TULSA

ZJAM63

OK 74102-0591

69896800 00001
923334 00
JULIA M CRUTCHER ESTATE
WILLIAM CAREY CRUTCHER, EXECUTOR
C/O COMMUNITY BANK
P O BOX 737
KATY

TX 77492-0737

69896800 00001
921727 00
MICHAEL BARRIER ASTOR
4024 10 FARM HILL BLVD
REDWOOD CITY

ZJAM63

CA 94061

69896800 00001
114597 00
JANE R TURNER
1124 W POPLAR APT 101
ROGERS

ZJAM63

AR 72756-4256

69896800 00001
925512 00
BARTON K BARRIER
14754 EASTVIEW DRIVE
LOS GATOS

ZJAM63

CA 95030-1708

69896800 00001
129569 00
MITZI EASLEY
3900 DOMINION COVE
AUSTIN

ZJAM63

TX 78759-7300

69896800 00001
129567 00
BETSY BRYANT
2201 BROOKHOLLOW
ABILENE

ZJAM63

TX 79605-5507

69896800 00001
926370 00
EL PASO PRODUCTION COMPANY
P O BOX 840656
DALLAS

ZJAM63

TX 75284-0656

69896800 00001
924261 00
HARRIET BUCHENAU
P O BOX 867585
PLANO

ZJAM63

TX 75086-7585

69896800 00001
925519 00
SUSAN GRACE LEEPER GERRARD
8207 MANNIX
LOS ANGELES

ZJAM63

CA 90046-1937

69896800 00001
926545 00
WILLIAM J CAREY
C/O COMERICA BANK TEXAS
P O BOX 650232
DALLAS

ZJAM63

TX 75265-0282

69896800 00001
120851 00
GROVER BROTHERS PARTNERSHIP
P O BOX 3666
MIDLAND

ZJAM63

TX 79702-3666

69896800 00001
603416 25
CONOCO INC
P O BOX 951063
DALLAS

ZJAM63

TX 75395-1063

69896800 00001
634423 00
ARDEN R GROVER
P O BOX 3666
MIDLAND

ZJAM63

TX 79702-3666

69896800 00001
134698 00
CRUSS TIMBERS OIL COMPANY
P O BOX 840287
DALLAS

ZJAM63

TX 75284-0287

69896800 00001
921211 00
PAUL B AND SUSAN D HORTON
C/O MCALL PARKHURST AND HORTON
900 MAXUS ENERGY TOWER
717 NORTH HARWOOD SUITE 900
DALLAS

ZJAM63

TX 75201-658

69896800 00001 283471 00 RICHARD A JENNINGS TRUSTEE P O BOX 3759 MIDLAND	ZJAM63 TX 77702-3759	69896800 00001 682349 00 MORRIS MIZEL 5801 E 41ST ST SUITE 104 TULSA	ZJAM63 OK 74135-5601
69896800 00001 252130 01 W L JENNINGS BILLY G EDWARDS ATTY IN FACT P O BOX 117 ARILENE	ZJAM63 TX 79604-0117	69896800 00001 643101 00 SAM MIZEL P O BOX 703 BROKEN ARROW	ZJAM63 OK 74013-0703
69896800 00001 639077 00 W D KENNEDY 550 W TEXAS 11225 MIDLAND	ZJAM63 TX 79701-4266	69896800 00001 610572 03 STATE OF NEW MEXICO STATE LAND OFFICE SANTA FE	ZJAM63 NM 87501
69896800 00001 242970 00 JAMES E LEECHON JR P O BOX 10561 MIDLAND	ZJAM63 TX 79702-7561	69896800 00001 925529 00 MICHELE ELIZABETH LEEPER NEWBY 7845 HILLROSE SUNLAND	ZJAM63 CA 91040-2505
69896800 00001 268550 29 MARATHON OIL COMPANY P O BOX 890882 DALLAS	ZJAM63 TX 75389-0882	69896800 00001 923541 00 RICHARD GORDON PETTIGREW 734 KINGSWOOD RICHARDSON	ZJAM63 TX 75080-3121
69896800 00001 922507 00 SEGHS ANN LEEPER MCELROY 10903 GATLE CIRCLE DALLAS	ZJAM63 TX 75229-3784	69896800 00001 127135 00 RAFFKIND REVOCABLE TRUST DANIEL AND MYRA RAFFKIND TRUSTEES DATED 6-1-89 3800 DANLURY AMARILLO	ZJAM63 TX 79109-4030
69896800 00001 926364 00 SARAH S MIMS TRUST WILLIAM L MAUSEN AND SARAH S MIMS CO-TRUSTEES P O BOX 111846 CARROLLTON	ZJAM63 TX 75011-1846	69896800 00001 924573 00 CHARLSIE R REARDON P O BOX 872934 WASILLA	ZJAM63 AK 99687-2934
69896800 00001 710000 01 MINERALS MANAGEMENT SERVICE ROYALTY MANAGEMENT PROGRAM PO BOX 5810 TA DENVER	ZJAM63 CO 80217-5810	69896800 00001 129568 00 SUSAN RITTER P O BOX 162606 AUSTIN	ZJAM63 TX 78716-2606

69896800 00001

133354 00

HENRIETTA E SCHULTZ TRUSTEE
LINCOLN PLAZA SUITE 2160 LB-1
500 NORTH AKARD
DALLAS

ZJAM63

TX 75201-3360

69896800 00001

936780 00

JUDITH WITTEN

U/W BARBARA WITTEN, ROBERT WITTEN AND
FREDERICK NATHAN TRUSTEES
C/O ROBERT C WITTEN
535 EAST 86TH STREET
NEW YORK

ZJAM63

NY 10028-7533

69896800 00001

922129 00

JILL FORLEY SHERER
P O BOX 25029
DALLAS

ZJAM63

TX 75225-1029

69896800 00001

922500 00

JUDITH LEE LEEPER WOLFE
14847 DAFFODIL
CANYON COUNTRY

ZJAM63

CA 91351-1905

69896800 00001

925560 00

BROOKE BARRIER SMITH
3824 LAHAINA LANE
MODESTO

ZJAM63

CA 95355-1212

69896800 00001

923379 00

JOHN DAVIS FORLEY
1106 CHESTERTON
RICHARDSON

ZJAM63

TX 75080-2919

69940500 00001

613779 00

SOUTHLAND ROYALTY COMPANY
P O BOX 240655
DALLAS

ZJAM63

TX 75284-0656

69896800 00001

461762 00

JUDY G ZWEIBACK
8914 FARNAM CT
OMAHA

ZJAM63

NE 68114-4076

69896800 00001

114597 00

JANE R TURNER
1124 W POPLAR APT 101
ROGERS

ZJAM63

AR 72756-4256

69940500 00001

128145 00

JULIA ELIZABETH WILLIAMS
1594 AVILA DRIVE
TULSA

ZJAM63

CA 93274-2315

69896800 00001

936778 00

ANDREW WITTEN
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NY 10028-7533

69896800 00001

936779 00

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