OHC 3-25-96

OIL CONSERVATION DIVISION
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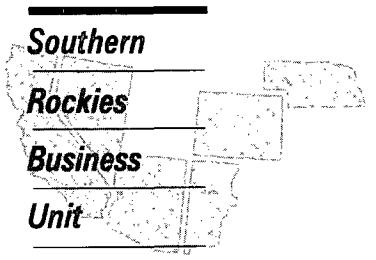


February 20, 1996

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
Heaton LS #1 Well
990' FNL & 900' FEL, Unit A Section 28-T31N-R11W
Basin Dakota (Pool IDN 72319) 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 Basin Dakota and Blanco Mesaverde Pools in the Heaton LS #1 well referenced above. The Heaton LS #1 is currently a dual completion in the Dakota and Mesaverde formations. We plan to complete the well with both the Dakota and Mesaverde formations being downhole commingled in the wellbore. This well will benefit from downhole commingling because both zones produce liquids which are not as efficiently lifted in the dual completion as they will be once commingled. The two zones are expected to produce at a total commingled rate of about 175 MCFD with less than 1 BCPD. The ownership (WI, RI,ORI) of these pools is 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.

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 Dakota formations gas and condensate be allocated based on current rates. The Mesaverde is currently producing at 95 MCFD with 0.03 BCPD while the Dakota is currently producing 80 MCFD with 0.03 BCPD. The recommended allocation percentages after downhole commingling would be set as a percentage of the total rate with the Mesaverde attributing 54% of gas production and 50% of condensate production. The Dakota would be allocated at 46% of gas production and 50% of 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:	1
Well Location:	990' FNL & 900' FEL Unit A Section 28-T31N-R11W San Juan County, New Mexico
Pools Commingled:	Blanco Mesaverde Pool Basin Dakota 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 95 MCFD and 0.03 BCPD. The Basin Dakota zone produced at an average rate of about 80 MCFD and 0.03 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.

Blanco Mesaverde Completion:	Historical production curve attached.
Basin Dakota 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 Dakota formation is 934 PSI while the estimated bottomhole pressure in the Mesaverde is 908 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:

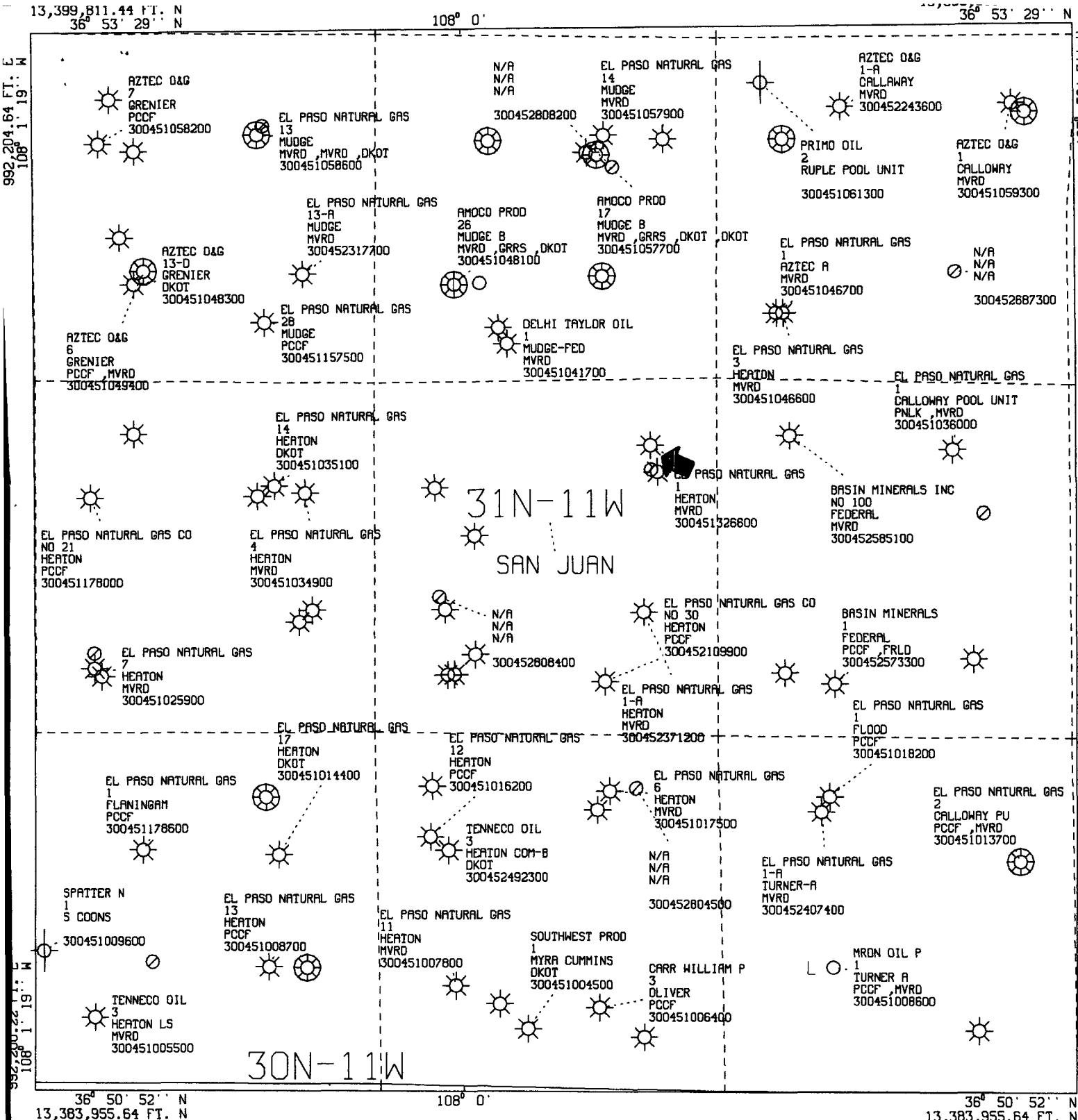
Since the BTU content of the produced gasses are very similar, we would expect the commingled production to have a similar value as the sum of the individual streams.

(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:

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 Dakota formations gas and condensate be allocated based on current rates. The Mesaverde is currently producing at 95 MCFD with 0.03 BCPD while the Dakota is currently producing 80 MCFD with 0.03 BCPD. The recommended allocation percentages after downhole commingling would be set as a percentage of the total rate with the Mesaverde attributing 54% of gas production and 50% of condensate production. The Dakota would be allocated at 46% of gas production and 50% of 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.

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.



POLYCONIC CENTRAL MERIDIAN - 107° 59' 43" W LON
SPHEROID - 6

AMOCO PRODUCTION COMPANY
PLAT MAP
Heaton LS 1
Offset Wells

SCALE 1 IN. = 2,000 FT. MAY 1, 1995

NEW MEXICO OIL CONSERVATION COMMISSION

Well Location and Acreage Dedication Plat

Section A.

Date MAY 24, 1960

Operator EL PASO NATURAL GAS COMPANY Lease HEATON SF 078097

Well No. 1(MD) Unit Letter A Section 28 Township 31-N Range 11-W NMPM

Located 990 Feet From NORTH Line, 900 Feet From EAST Line

County SAN JUAN G. L. Elevation 5798 Dedicated Acreage 320 & 320 Acres

Name of Producing Formation MESA VERDE AND DAKOTA Pool BLANCO MV AND WILDCAT DAKOTA

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below?
   Yes X No ____.
2. If the answer to question one is "no", have the interests of all the owners been consolidated by communitization agreement or otherwise? Yes ____ No ____. If answer is "yes", Type of Consolidation.
3. If the answer to question two is "no", list all the owners and their respective interests below:

Owner	Land Description

RECEIVED
JUN3 1960
OIL CON. COM.
DIST. 3

Section B.

This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

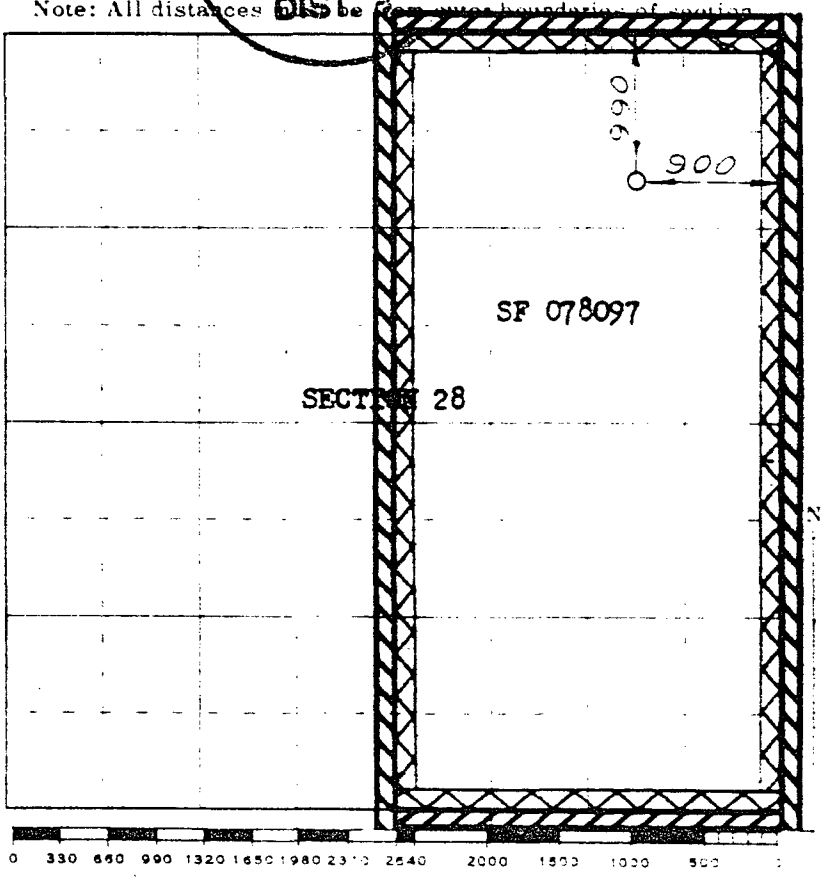
El Paso Natural Gas Company
(Operator)

ORIGINAL SIGNED A.M. SMITH
(Representative)

Box 990
(Address)

Farmington, New Mexico

Note: All distances must be from outer boundaries of section.



Scale 4 inches equal 1 mile

NOTE: THIS PLAT IS RE-ISSUED TO SHOW DAKOTA DEDICATION. 5 24 60

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.

(Seal)

Date Surveyed JUNE 7, 1952

Farmington, New Mexico

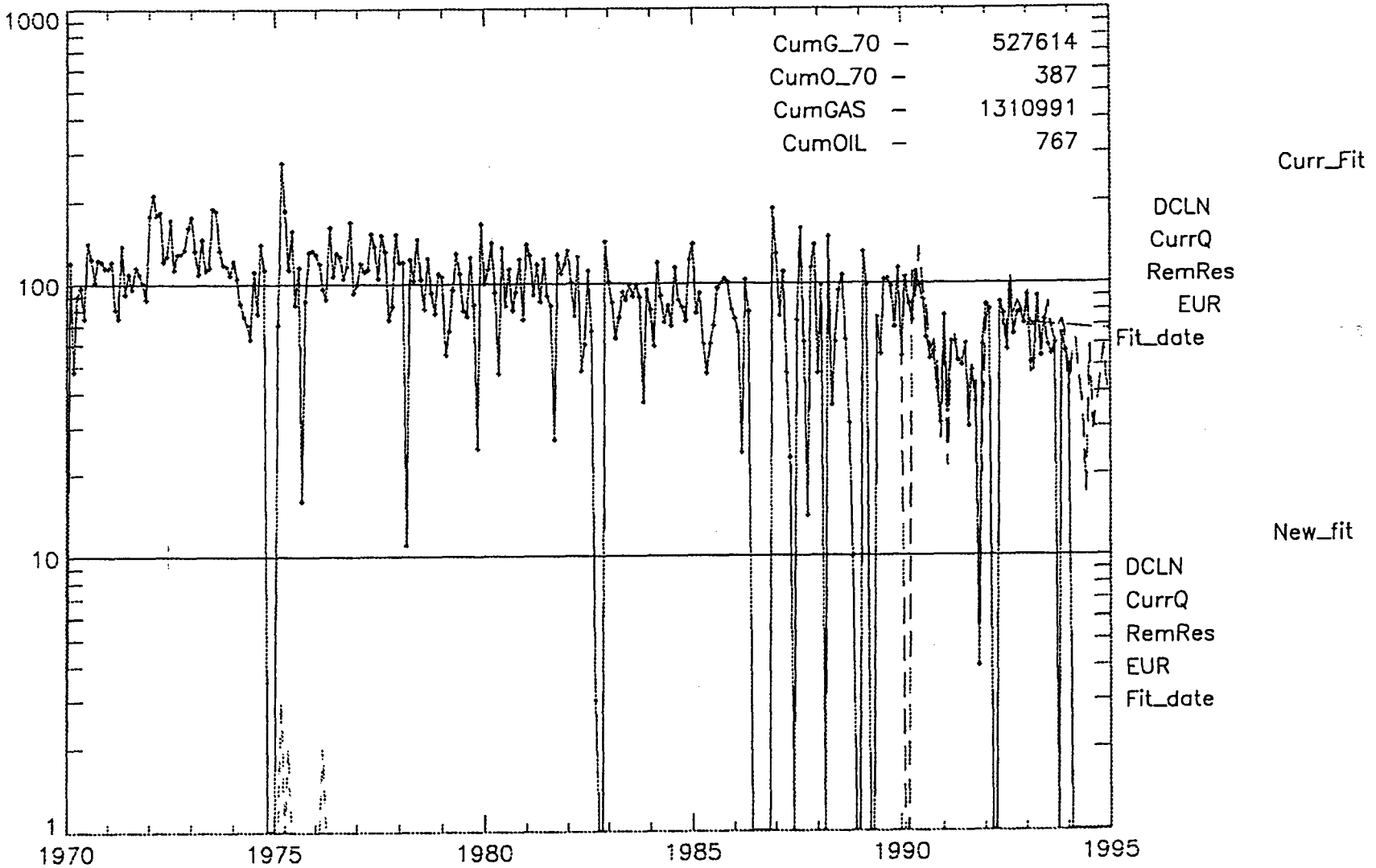
C. O. Vracken
Registered Professional Engineer and or Land Surveyor

Engr: zdws22

HEATON LS 1

Operator— AMOCO PRODUCTION CO

300451326600MV A283111—001 MV APC_WI — 0.50000000

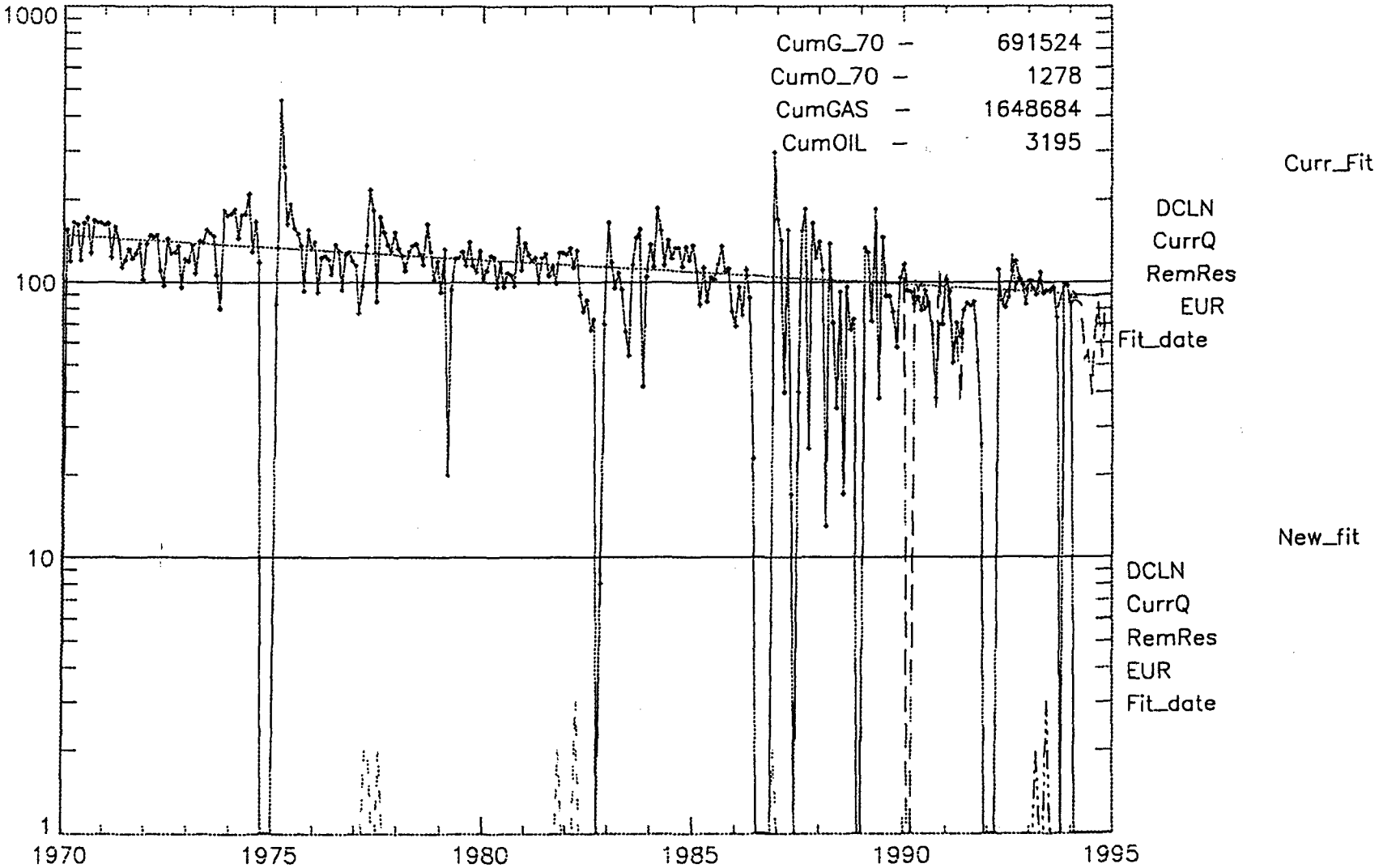


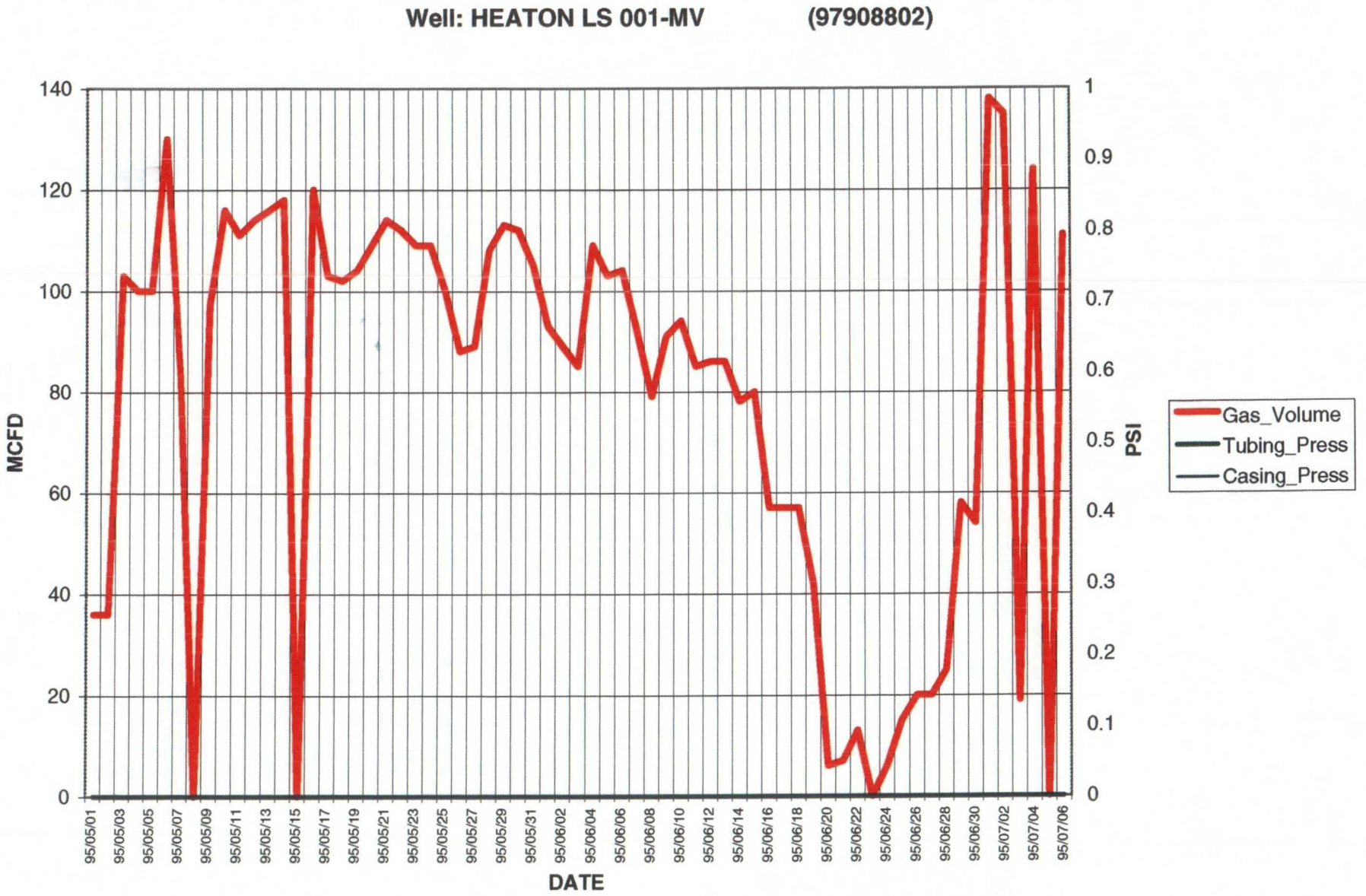
Engr: zdws22

HEATON LS 1

Operator– AMOCO PRODUCTION CO

300451326600DK A283111–001 DK APC_WI – 0.50000000




Well: HEATON LS 001-MV (97908802)
MCFD
PSI
DATE
140
120
100
80
60
40
20
0
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
95/05/01
95/05/03
95/05/05
95/05/07
95/05/09
95/05/11
95/05/13
95/05/15
95/05/17
95/05/19
95/05/21
95/05/23
95/05/25
95/05/27
95/05/29
95/05/31
95/06/02
95/06/04
95/06/06
95/06/08
95/06/10
95/06/12
95/06/14
95/06/16
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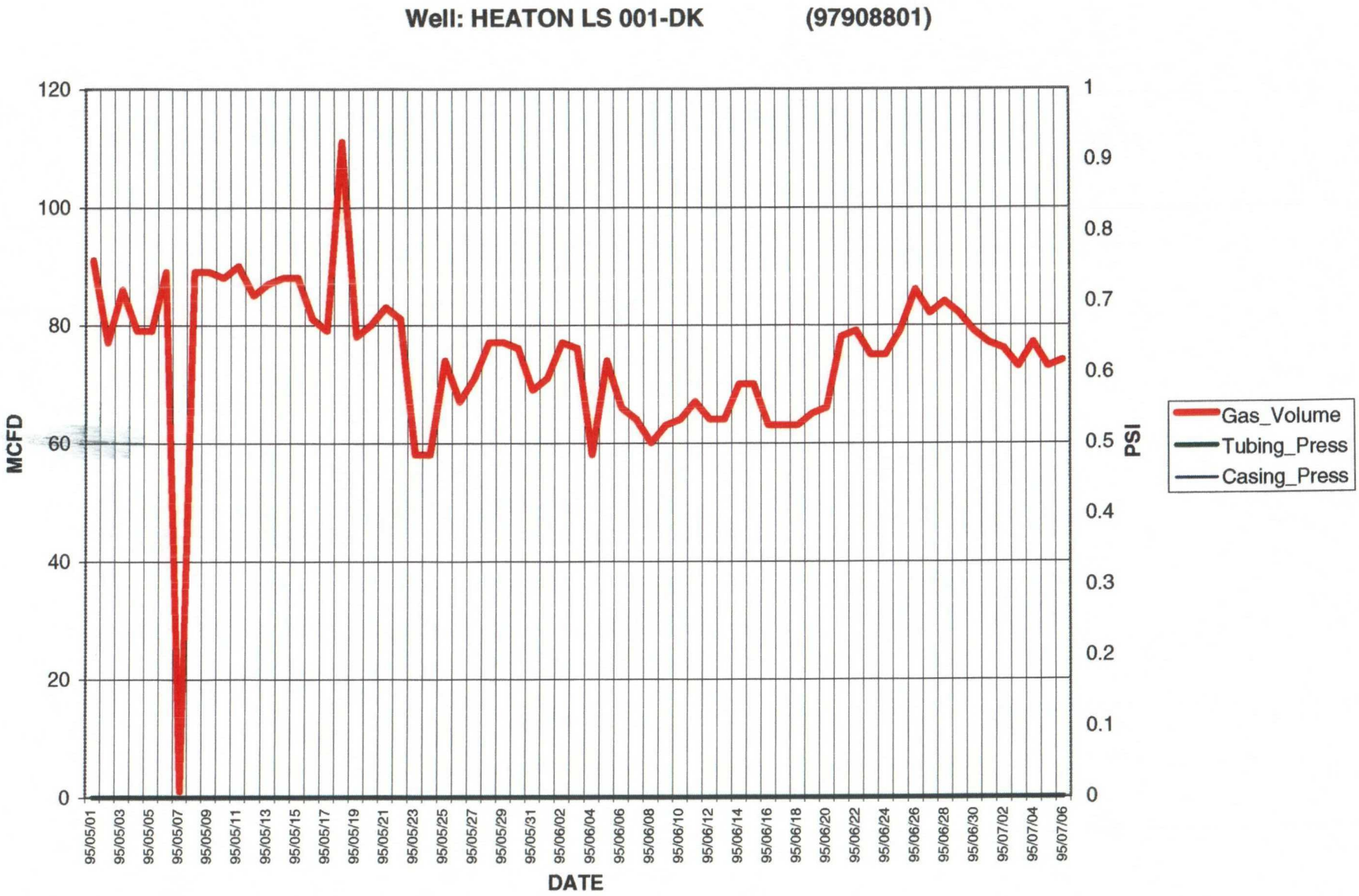
95/07/04
95/07/06
Gas_Volume
Tubing_Press
Casing_Press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MCFD
PSI
DATE
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100
80
60
40
20
0
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
95/05/01
95/05/03
95/05/05
95/05/07
95/05/09
95/05/11
95/05/13
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95/06/04
95/06/06
95/06/08
95/06/10
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95/06/22
95/06/24
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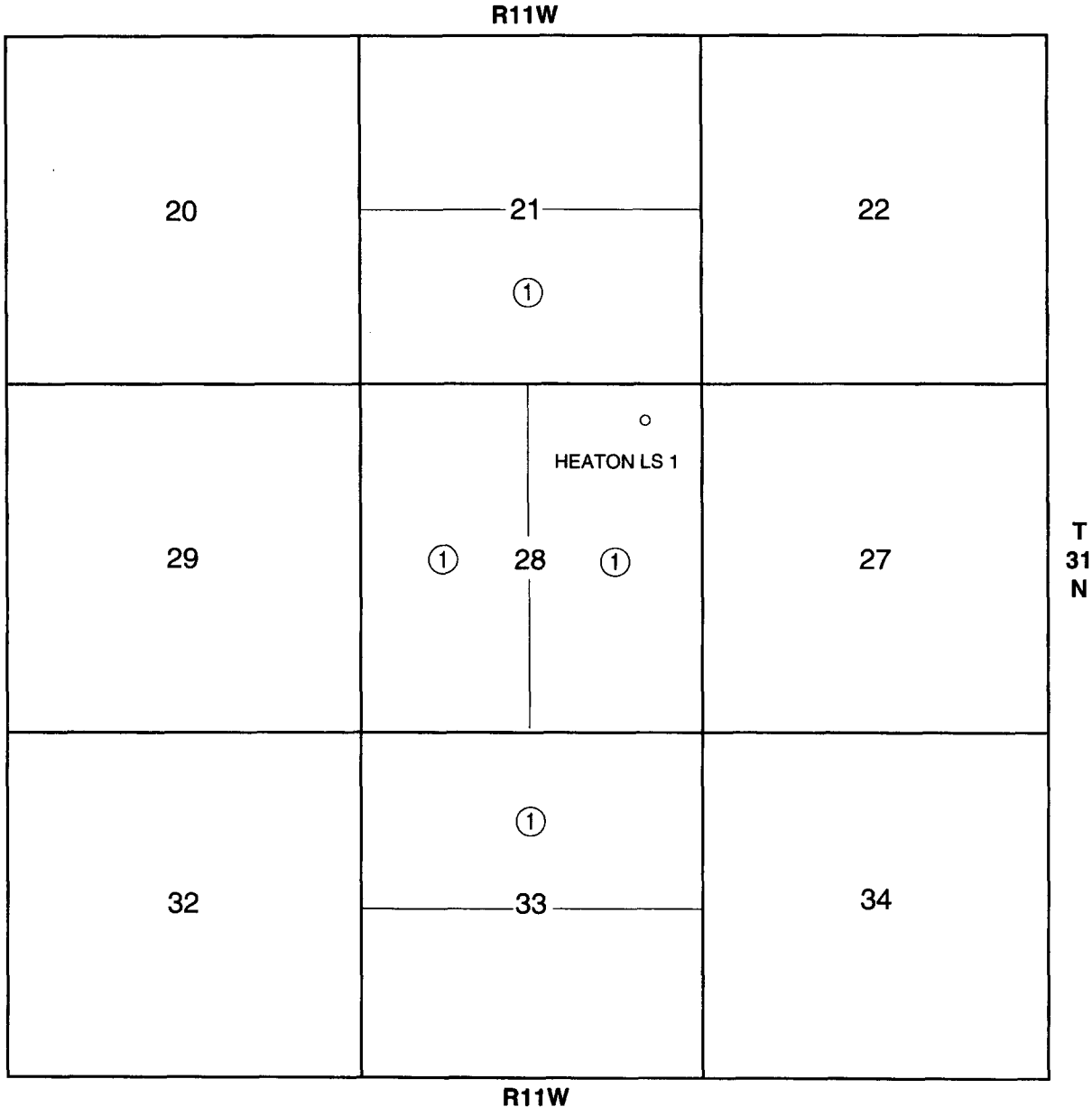
95/06/28
95/06/30
95/07/02
95/07/04
95/07/06
Gas_Volume
Tubing_Press
Casing_Press

Amoco Production Company

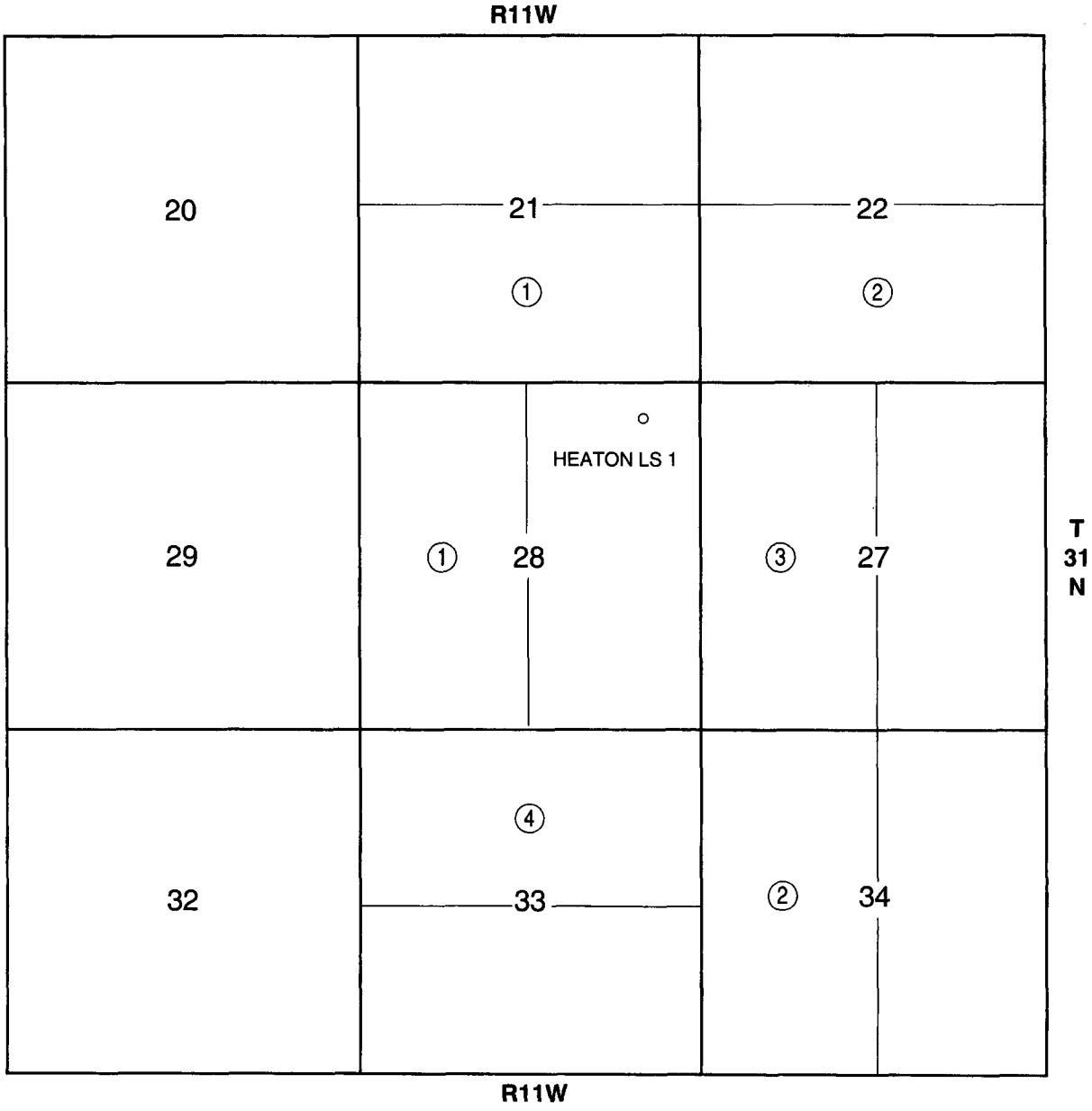
Offset Operator Plat
Heaton Com LS 1
T31N-R11W Sec. 28
Basin Dakota Formation



(1) Amoco Production Company

Amoco Production Company

Offset Operator Plat
Heaton Com LS 1
T31N-R11W Sec. 28
Blanco Mesaverde Formation



① Amoco Production Company
② Meridian Oil Production Inc.
③ Basin Minerals Inc.
④ Conoco Inc.

LIST OF ADDRESSES FOR OFFSET OPERATORS

Heaton LS #1

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

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

3 Basin Minerals, Inc.
C/O Walsh Eng. and Prod. Corp.
204 N. Auburn
Farmington, NM 87401

ESTIMATED BOTTOMHOLE PRESSURES BY FORMATION
Heaton LS #1

MV Perforations at 4928-4968' midperf at 4948'
DK Perforations at 6814-7040' midperf at 6927'

6/94 shut in pressures --- MV =512 PSIG
DK =380 PSIG

GRADIENT = 0.08 PSI/FT

MV BHP = 512 PSIG + 4948' X 0.08 PSIG
= 908 PSIG

DK BHP = 380 PSIG +6927' X 0.08 PSIG
= 934 PSIG