

DHC 3.25.96



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MAR 4 1996

OIL CONSERVATION DIV.
SANTA FE

Southern

Rockies

Business

Unit

February 26, 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
Bruington LS #3 Well
1625' FSL & 800' FWL, Unit G Section 6-T30N-R11W
Blanco Mesaverde (Pool IDN 72319) and Aztec Pictured Cliffs (Pool IDN 71280) Pools
San Juan County, New Mexico

Amoco Production Company hereby requests administrative approval to downhole commingle production from the Blanco Mesaverde and Aztec Pictured Cliffs Pools in the Bruington LS #3 well referenced above. The Bruington LS #3 is currently a dual completion in the Mesaverde and Pictured Cliffs formations with the Pictured Cliffs temporarily abandoned. We plan to complete the well with both the Mesaverde and Pictured Cliffs formations being downhole commingled in the wellbore thereby returning the Pictured Cliffs to production. The two zones are expected to produce at a total commingled rate of about 34 MCFD with less than 1BCPD. 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 and all interest owners involved in the two formations 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 historically produced at stabilized rates until the Pictured Cliffs became temporarily abandoned due to low productivity. We recommend that the Mesaverde and Pictured Cliffs formations gas and condensate be allocated based on historical rates. The Mesaverde is currently producing 32 MCFD with 0.03 BCPD while the Pictured Cliffs is historically produced at 2 MCFD with less than 1 BCPD. The recommended allocation percentages after downhole commingling would be set as a percentage of the total rate with the Mesaverde attributing 95% of gas production and 95 % of condensate production. The Pictured Cliffs would be allocated at 5% of gas production and 5 % 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-078781) 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
Proration File
Well File

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: Bruington

Well Number: LS #3

Well Location: 1625' FSL & 800' FWL
Unit G Section 6-T30N-R11W
San Juan County, New Mexico

Pools Commingled: Blanco Mesaverde Pool (Pool IDN 72319)
Aztec Pictured Cliffs Pool (Pool IDN 71280)

- (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 32 MCFD and 0.03 BCPD. The Aztec Pictured Cliffs zone historically produced at an average rate of about 2 MCFD and less than 1 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.

Aztec Pictured Cliffs 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 72 hour shut-in pressures during a packer leakage test for the well. Estimated bottomhole pressure in the Pictured Cliffs formation is 482 PSI while the estimated bottomhole pressure in the Mesaverde is 464 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 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 historically produced at stabilized rates until the Pictured Cliffs became temporarily abandoned due to low productivity. We recommend that the Mesaverde and Pictured Cliffs formations gas and condensate be allocated based on historical rates. The Mesaverde is currently producing 32 MCFD with 0.03 BCPD while the Pictured Cliffs is historically produced at 2 MCFD with less than 1 BCPD. The recommended allocation percentages after downhole commingling would be set as a percentage of the total rate with the Mesaverde attributing 95% of gas production and 95 % of condensate production. The Pictured Cliffs would be allocated at 5% of gas production and 5 % 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.

- (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.

LIST OF ADDRESSES FOR OFFSET OPERATORS
Bruington LS #3

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

36° 51' 46" N

36° 51' 46" N

31N-12W

31N-11W

BETA DEVELOPMENT CO
1 STATE GAS UNIT A 1
GRAS, DKOT
300451006200

TEXACO INC
1 STATE UNIT-M
DKOT
300451017300

AZTEC O&G
1 THURSTON
PCCF
300452034900

EL PASO NATURAL GAS
1 THURSTON
MVRD
300451015100

EL PASO NATURAL GAS
17 HEATON
DKOT
300451014400

EL PASO NATURAL GAS
1 YAGER POOLED UNIT
MVRD
300451005200

SPATTER N
3 COONS
300451009600

TENNECO OIL
3 HEATON LS
MVRD
300451005500

EL PASO NATURAL GAS
13 HEATON
PCCF
300451008700

PAN AMERICAN
1 SCOTT GAS UNIT
DKOT
300450999100

WEAB W R

1 FEE
300450999600

SOUTHLAND ROYALTY
23 GRENIER 23
GRRS
300452302100

AMOCO PROD
3A BRUINGTON LS
MVRD, FRLD, DKOT
300452597000

SOUTHWEST PROD
2 RHODA ABRAMS
DKOT
300450992100

MCKAY PAYNE & ZACHRY
1 MAXWELL
PCCF
300450991800

TOM BOLACK
NO 1
TOMMY BOLACK
OLLP, DKOT
300452457500

EL PASO NATURAL GAS
1-F BOLACK
PCCF, FRLD
300450986500

MEX-COLORADO
1 MILLER
300450988100

EL PASO NATURAL GAS
2 YAGER POOL UT
MVRD
300450998100

EL PASO NATURAL GAS
3 UNITE B P
PCCF, MVRD
300450986600

EL PASO NATURAL GAS
3-B STOREY
PNLK, MVRD
300451323100

CARR WILLIAM P
1 ABRAMS
PCCF
300450986300

EL PASO NATURAL GAS
4 BRUINGTON POOL UNIT
DKOT
300451311500

SAN JUAN

SOUTHWEST PROD
1 RHODA ADAMS
DKOT
300450981300

30N-12W

30N-11W

C & E OPERATORS
12-A FEE
PCCF, MVRD
300452533400

TEXACO INC
1 L M BARTON
MVRD, DKOT
300450971500

CARR WILLIAM P
1 MCGRATH
PCCF
300450971700

CARR WILLIAM P
1 JONES
PCCF
300450971100

CARR WILLIAM P
1 BIRD
PCCF
300450971000

FLORANCE M
1 FLORANCE POOL UNIT
PCCF
300450967600

CARR WILLIAM P
1 HARTMAN
PCCF
300450976500

CARR WILLIAM P
1 JENSEN
PCCF
300450967400

CARR WILLIAM P
1 UTTER
PCCF
300450967300

MOYA J J
1 JONES
PCCF
300450966700

CARR WILLIAM P
1 OLIVER
PCCF
300450966600

SOUTHWEST PROD
1 KATE STANDAGE
DKOT
300450964800

SOUTHWEST PROD
1 NELL HALL
DKOT
300450961900

MANANA GAS
1 CHARLIE
PCCF
300452286900

SOUTHWEST PROD
1 GLENN SWIRE
DKOT
300450960600

36° 49' 9" N
13,373,535.69 FT. N

36° 49' 9" N
13,373,535.69 FT. N

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
Bruington LS 3
Offset Wells

POLYCONIC CENTRAL MERIDIAN - 108° 1' 52" W LON
SPHEROID - 6

SCALE 1 IN. = 2,000 FT. APR 28, 1995

NEW MEXICO
OIL CONSERVATION COMMISSION

Form C-128

WELL LOCATION AND/OR GAS PRORATION PLAT

DATE JANUARY 15, 1957

OPERATOR EL PASO NATURAL GAS COMPANY LEASE BRUINGTON POOL UNIT SF 078781

WELL NO. 3 (PM) SECTION 6 TOWNSHIP 30-N RANGE 11-W NMPM

LOCATED 1625 FEET FROM SOUTH LINE 800 FEET FROM EAST LINE

SAN JUAN

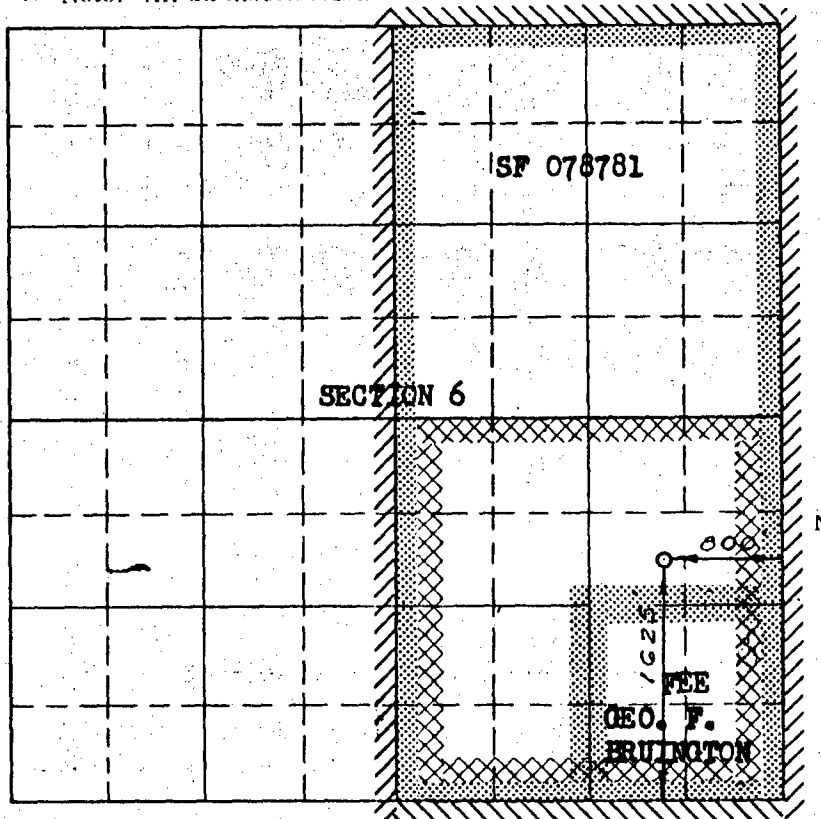
COUNTY, NEW MEXICO

G.L. ELEVATION

5873

NAME OF PRODUCING FORMATION P.C. & M.V. POOL AZTEC EXTEN. - PC 157.12 ~~100~~ ACRES (PC)
BLANCO - MV DEDICATED ACREAGE 320.12 AC. (MV)
314.26 (1881 PLAT)

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



RECEIVED
JAN 17 1957
U. S. GEOLOGICAL SURVEY
FARMINGTON, NEW MEXICO

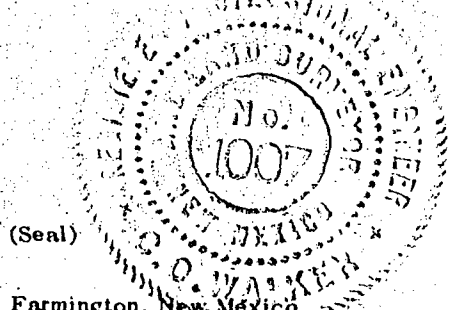
NOTE

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

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 DECEMBER 21, 1956

C. O. Walker
Registered Professional Engineer and/or Land Surveyor



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. L. Ellsworth

Position Petroleum Engineer

Representing El Paso Natural Gas

Address Box 997, Farmington, N.M.

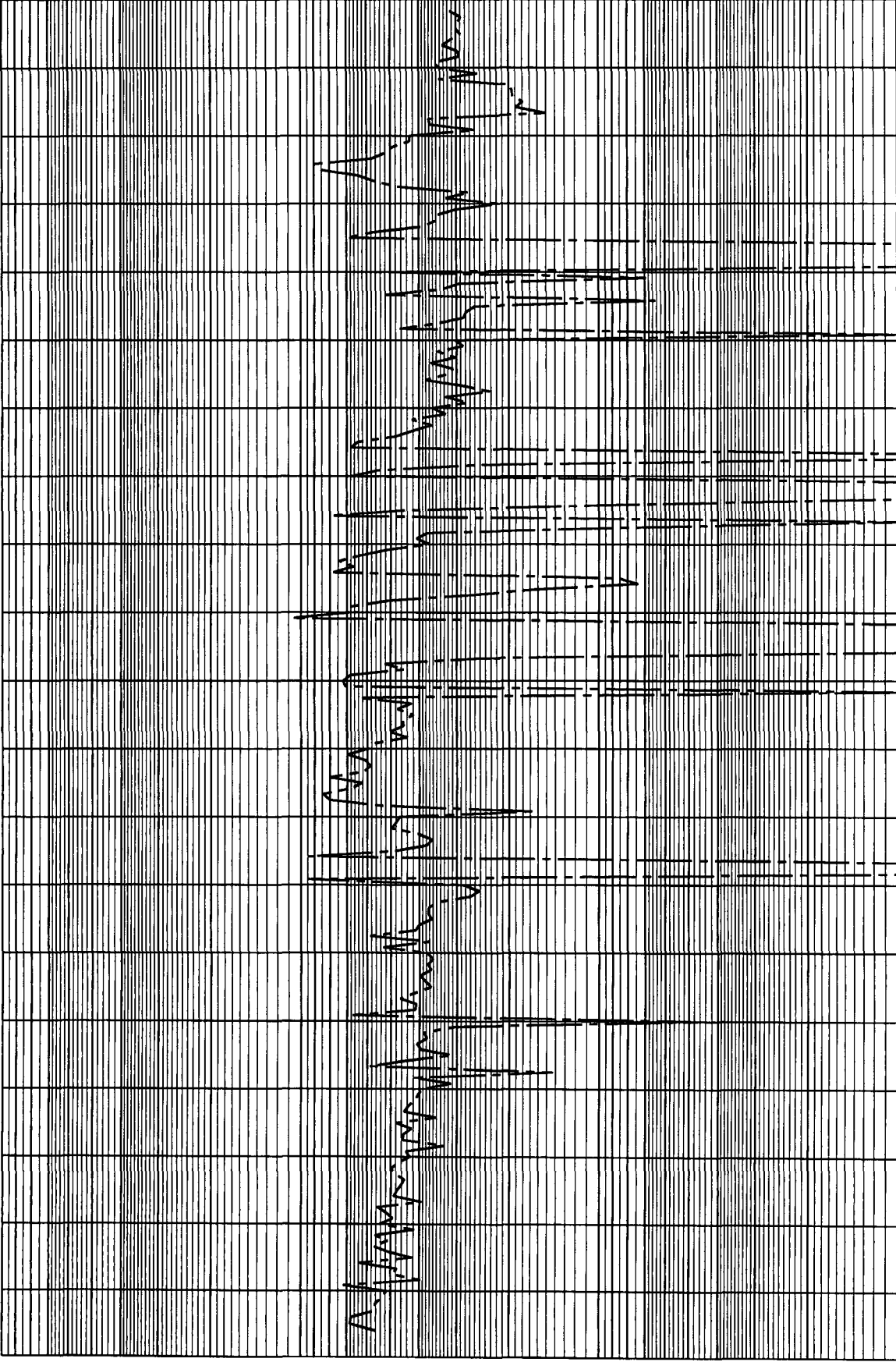
1000 Lease: BRUINGTON LS

000003

Dwights

Retrieval Code: 251, 045, 30N11W06100MV

1000



OIL (BBL/DAY)

GAS (MCF/DAY)

67- Annual Data

77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95

County: SAN JUAN	State: NM
Field: BLANCO (MESAVERT) MV	
Reservoir: MESAVERT	
Operator: AMOCO PRODUCTION CO	
Oil Cum: 48	Gas Cum: 748870
Location: 61.30N 11W	

F.P. Date 02-58

Date: 02-13-96

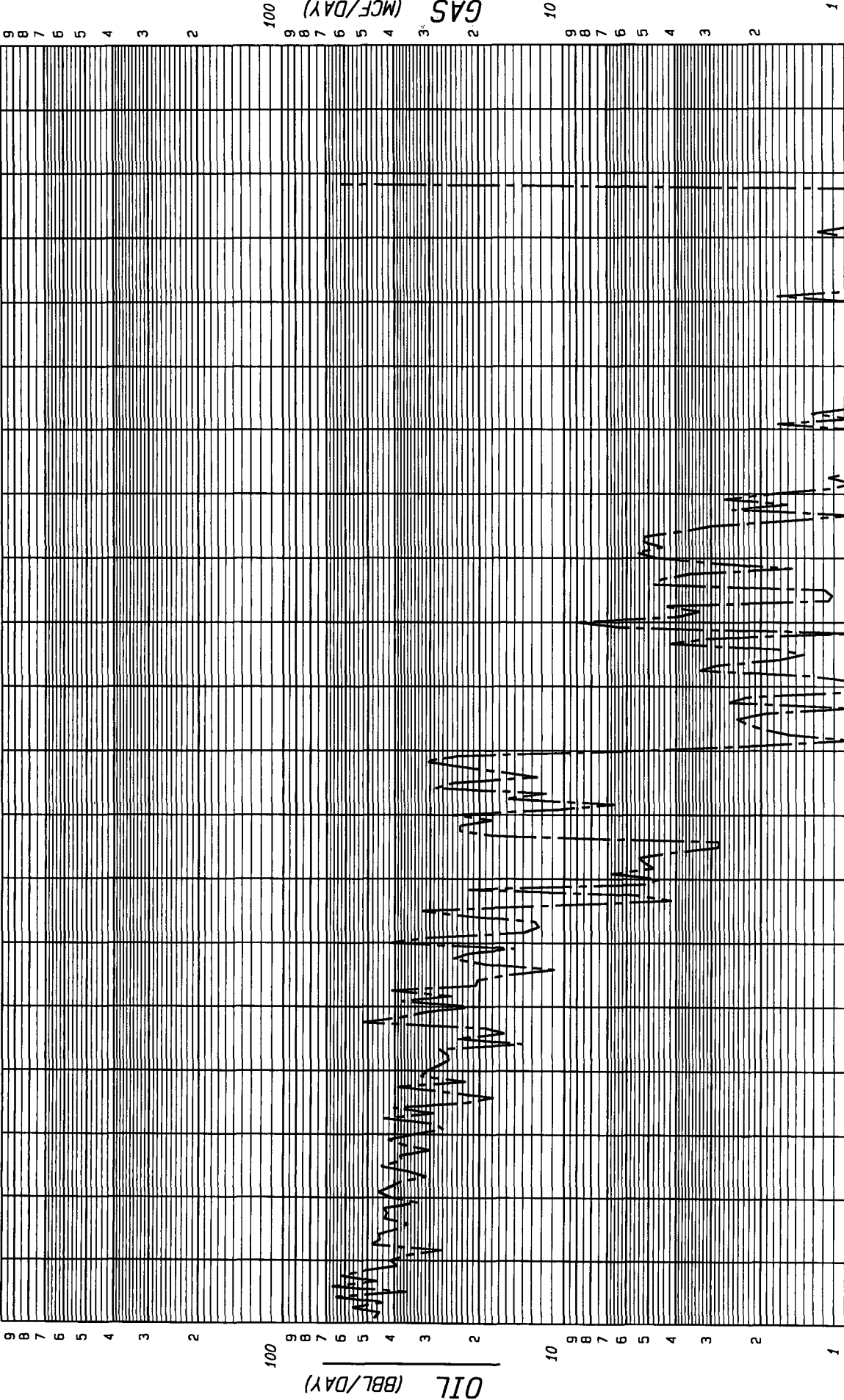
1000 Lease: BRUINGTON LS

000003

Dwights

Retrieval Code: 251, 045, 30N11W06I00PC

1000



70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89

County: SAN JUAN
Field: AZTEC (PICTURED CLIFFS) PC
Reservoir: PICTURED CLIFFS
Operator: AMOCO PRODUCTION CO
Oil Cum: 0
Gas Cum: 305979
Location: 6L 30N 11W

State: NM

F.P. Date 02-58

Date: 02-13-96

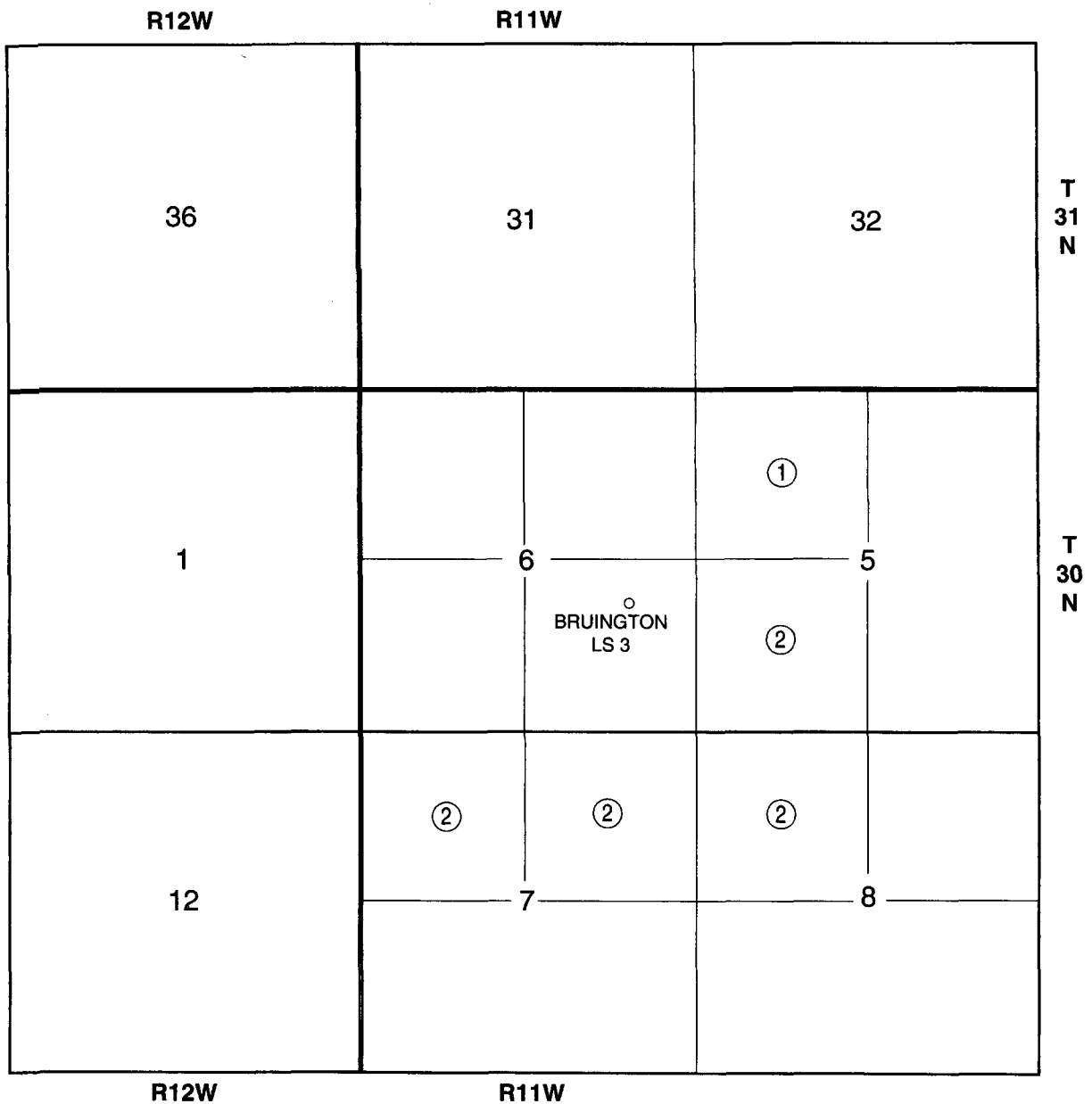
Amoco Production Company

Offset Operator Plat

Bruington LS 3

T30N-R11W Sec. 6

Blanco Pictured Cliffs Formation



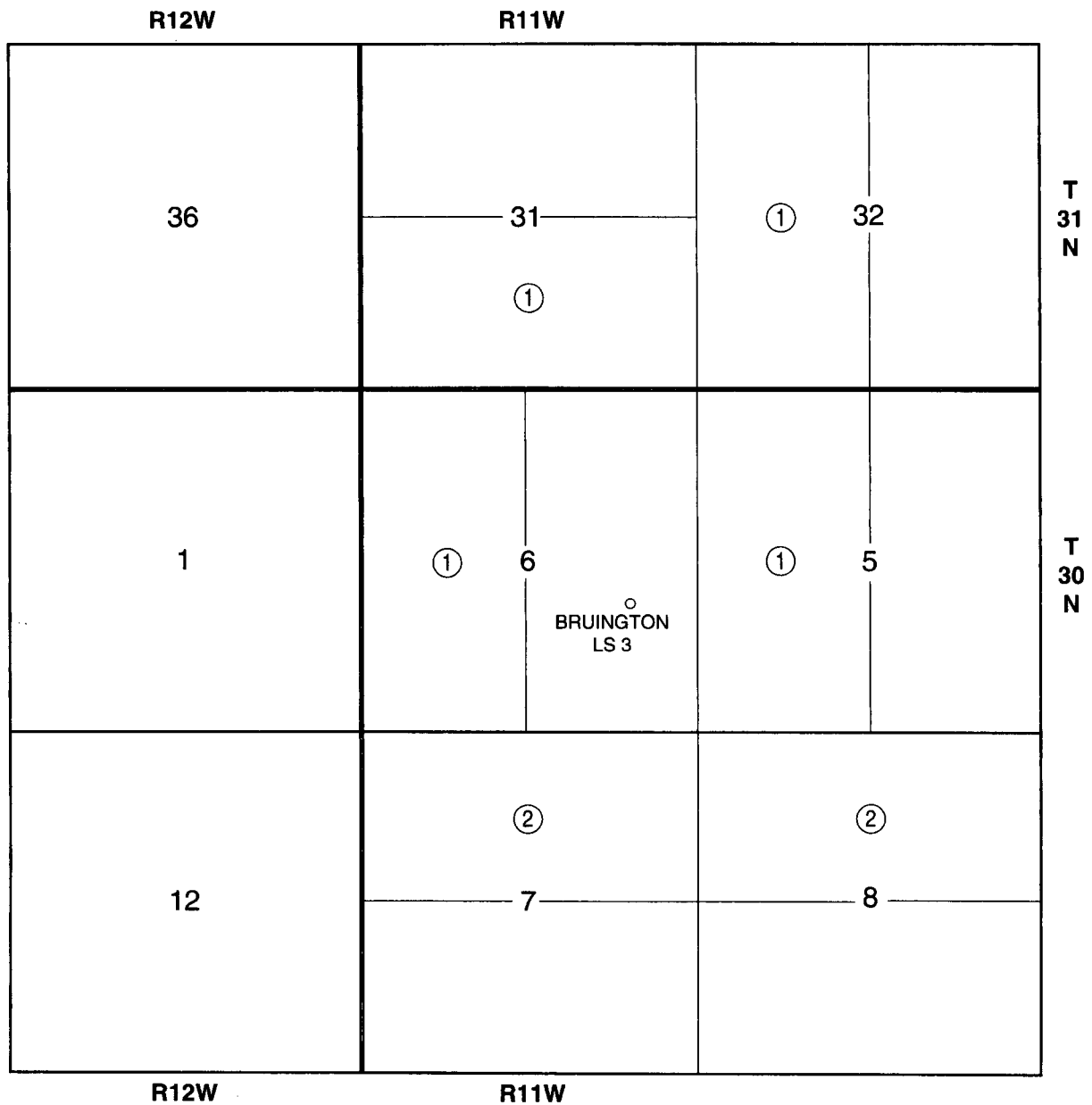
Amoco Production Company

Offset Operator Plat

Bruington LS 3

T30N-R11W Sec. 6

Blanco Mesaverde Formation



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

OIL CONSERVATION DIVISION
NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

I-6-30-11

Operator: AMOCO PRODUCTION COMPANY Lease/Well #: BRUINGTON LS 003
Meter #: 71881 RTU: 0-000-00 County: SAN JUAN

	NAME RESERVOIR OR POOL	TYPE PROD	METHOD PROD	MEDIUM PROD
UPR COMP	BRUINGTON LS 003 APC 71880	GAS	FLOW	TBG
LWR COMP	BRUINGTON LS 003 BMV 71881	GAS	FLOW	TBG

PRE-FLOW SHUT-IN PRESSURE DATA

	Hour/Date Shut-In	Length of Time Shut-In	SI Press. PSIG	Stabilized
UPR COMP	06/15/94	72	411	no
LWR COMP	06/15/94	72	326	yes

FLOW TEST DATE NO.1

Commenced at (hour,date)* 9:20 AM 6-15-94					Zone Producing (Upr/Lwr)	
TIME (hour, date)	LAPSED TIME SINCE*	PC Upper	PRESSURE MV Lower	Prod Temp.	REMARKS	
06/15/94	Day 1	BLINDED 397	315		Both Zones SI	
06/16/94	Day 2	429	475		Both Zones SI	
06/17/94	Day 3	429	475		Both Zones SI	
06/18/94	Day 4	411	326		flowed lower zone	
06/19/94	Day 5	409	324		"	
06/20/94	Day 6	428	316		4	

Production rate during test

Oil: _____ BOPD based on _____ BBLs 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	BLINDED			
LWR COMP	9:20 A.M. - 6-15-94	50 HOURS	475"	316"

(Continue on reverse side)

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JUN 21 1994
OIL CON. DIV.
SANDIA

69896900 00001
617000 00
AMOCO PRODUCTION COMPANY
P O BOX 591
TULSA

ZJAM63
OK 74102-0591

69896900 00001
710000 01
MINERALS MANAGEMENT SERVICE
ROYALTY MANAGEMENT PROGRAM
PO BOX 5810 TA
DENVER

ZJAM63
CO 80217-5810

69896900 00001
710152 00
GRACE A BRUINGTON ESTATE
LEONA OLIVER, GUARDIAN
C/O JOSEPH F BURNS ATTY-AT-LAW
109 SOUTH MESA VERDE
AZTEC

ZJAM63
NM 87410-2142

69896900 00001
923286 00
W L PETERS
MARY PETERS MCCULLEY ATTY IN FACT
441 LONGLEAF ROAD
SHREVEPORT

ZJAM63
LA 71106-1221

69881100 00001
616847 00
WILLIAM P CARR
8333 DOUGLAS SUITE 950
DALLAS

ZJAM63
TX 75225-5811

69896900 00001
449599 00
PAUL SLAYTON
P O BOX 2035
ROSWELL

ZJAM63
NM 88202-2035

69896900 00001
603416 25
CONOCO INC
P O BOX 951063
DALLAS

ZJAM63
TX 75395-1063

69896900 00001
923248 00
MARY ELIZABETH WALKER LIFE ESTATE
1617 SOUTH COLUMBIA DRIVE
WEST COLUMBIA

ZJAM63
TX 77486-3607

69896900 00001
926370 00
EL PASO PRODUCTION COMPANY
P O BOX 840656
DALLAS

ZJAM63
TX 75284-0656

69896900 00001
923042 00
MARTHE PETERS WERLLA
PETER CLAUDE JACOBSEN ATTY IN FACT
3724 CRESTLINE ROAD
FORT WORTH

ZJAM63
TX 76107-3334

69896900 00001
924825 00
HAZEL L GENTLE
1117 SOUTH MICHIGAN
ROSWELL

ZJAM63
NM 88201-4339

69896900 00001
491749 00
HANSON MCBRIDE PETROLEUM COMPANY
A/W RUIDOSO STATE BANK
ATTN T A ANDERSON
P O DRAWER B
RUIDOSO

ZJAM63
NM 88345-7505

69896900 00001
922999 00
MARY MCCULLEY
441 LONGLEAF DRIVE
SHREVEPORT

ZJAM63
LA 71106-1221