

DATE IN 9/14/99	SUSPENSE 10/4/99	ENGINEER DC	LOGGED KW	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
- Engineering Bureau -

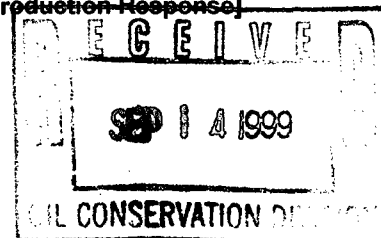
*247*

**ADMINISTRATIVE APPLICATION COVERSHEET**

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

**Application Acronyms:**

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]  
[DD-Directional Drilling] [SD-Simultaneous Dedication]  
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]



**[1] TYPE OF APPLICATION - Check Those Which Apply for [A]**

[A] Location - Spacing Unit - Directional Drilling  
\_ NSL \_ NSP \_ DD \_ SD

Check One Only for [B] and [C]

[B] Commingling - Storage - Measurement  
☒ DHC \_ CTB \_ PLC \_ PC \_ OLS \_ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
\_ WFX \_ PMX \_ SWD \_ IPI \_ EOR \_ PPR

**[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or \_ Does Not Apply**

[A] \_ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] \_ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] \_ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] \_ Waivers are Attached

**[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding**

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Mary Corley  
Print or Type Name

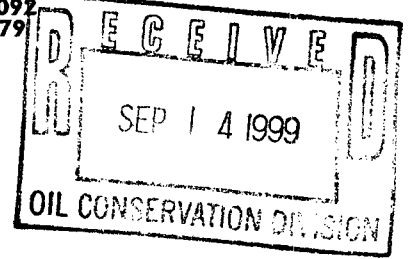
*Mary Corley*  
Signature

Sr. Business Analyst  
Title

8/13/99  
Date

**Amoco Exploration & Production**

501 Westlake Park Blvd.  
Post Office Box 3092  
Houston, TX 77079



**September 13, 1999**

**Ms. Lori Wrotenberg, Director  
New Mexico Oil Conservation Division  
2040 S. Pacheco Street  
P. O. Box 6429  
Santa Fe, NM 87505**

**Application for Exception to Rule 303-A- Downhole Commingling  
Roelofs #1  
Unit F Section 15-T29N-R8W  
Blanco Mesaverde and Basin Dakota Pools  
San Juan County, New Mexico**

Enclosed please find an administrative application form (C-107-A) and attachments for downhole commingling for the captioned well. All working, overriding and royalty interests are identical in both zone, therefore, no notification of this application is required to be submitted via certified mail. By copy of this application, Amoco is notifying all offset operators in the formations captioned above. The Division Director may approve the proposed downhole commingling in the absence of a valid objection from any offset operator or any interest owner in those instances where ownership is not common in the zones to be commingled within 20 days after the receipt of the application if, in her opinion, waste will not result thereby, and correlative rights will not be violated.

Should you have questions regarding this application, do not hesitate to call me at 281-366-4491.

Sincerely,

**Mary Corley  
Enclosures**

**cc: Frank Chavez, Supervisor  
NMOC District III  
1000 Rio Brazos Road  
Aztec, NM 87410**

**Duane Spencer  
Bureau of Land Management  
1235 La Plata Hwy.  
Farmington, NM 87401**

**James Dean**

**Well File**

**OFFSET OPERATORS**

**Roelofs #1**

**Burlington Resources Oil and Gas Co.  
PO Box 4289  
Farmington, NM 87499**

**Conoco Inc.  
10 Desta Drive, Suite 100 West  
Midland, TX 79705-4515**

**PRODUCTION ALLOCATION RECOMMENDATION**

**Roelofs #1**

**Since no Mesaverde Production has been established for the subject well Amoco Production Company proposes to from the Dakota formation in the subject well and the estimated production rate established utilizing the production from Mesaverde wells producing in the immediate area of the subject well. This method of calculation is indicated on the attached Production Allocation Worksheet.**

**WORKING, OVERRIDING, and ROYALTY INTEREST OWNERS NOTIFICATION**

**Roelofs #1**

**All of the working, overriding, and royalty interest are identical in both proposed commingled zones.**



**Amoco Exploration & Production**

501 Westlake Park Blvd.  
Post Office Box 3092  
Houston, TX 77079

**November 9, 1999**

**Ms. Lori Wrotenbery, Director  
New Mexico Oil Conservation Division  
2040 S. Pacheco Street  
P. O. Box 6429  
Santa Fe, NM 87505**

**Request to Amend Allocation Formula  
Administrative Order DHC - 2475  
Roelofs No. 1  
Unit F Section 15-T29N-R8W  
Blanco Mesaverde and Basin Dakota Pools  
San Juan County, New Mexico**

Amoco Production Company respectfully request an amendment to the allocation formula approved under Administrative Order DHC - 2475 dated October 12, 1999. Original production allocation recommended was to be based on utilizing existing production test for the Dakota formation and estimated production from Mesaverde utilizing immediate offset production. It has been brought to our attention that a more accurate allocation of the production for this well would be to allocate based on the subtraction method using the future projection for production from the Dakota. That production shall serve as a base for production subtracted from total production for the commingled well. The balance of production will be attributed to the Blanco Mesaverde. Attached is the future production decline estimate for the Dakota. Also attached is a copy of Form C-107-A for your information.

All working, overriding and royalty interests are identical in both zone, therefore, no notification of this application is required to be submitted via certified mail. By copy of this application, Amoco is notifying all offset operators in the formations captioned above.

Should you have questions regarding this application, do not hesitate to call me at 281-366-4491.

Sincerely,

*Mary Corley*  
Mary Corley  
Enclosures

cc: Frank Chavez, Supervisor  
NMOCD District III  
1000 Rio Brazos Road  
Aztec, NM 87410

James Dean

Duane Spencer  
Bureau of Land Management  
1235 La Plata Hwy.  
Farmington, NM 87401

Well File

**OFFSET OPERATORS**

**Roelofs No. 1**

Burlington Resources Oil and Gas Co.  
PO Box 4289  
Farmington, NM 87499

Conoco Inc.  
10 Desta Drive, Suite 100 West  
Midland, TX 79705-4515

**PRODUCTION ALLOCATION RECOMMENDATION**

**Roelofs No. 1**

Production is proposed to be allocated based on the subtraction method using the future projection of production for production from the Dakota. That production shall serve as a base for production subtracted from total production for the commingled well. The balance of the production will be attributed to the Blanco Mesaverde. Attached is the future production decline estimate for the Dakota.

**WORKING, OVERRIDING, and ROYALTY INTEREST OWNERS NOTIFICATION**

**Roelofs No. 1**

All of the working, overriding, and royalty interest are identical in both proposed commingled zones.

# Roelofs No. 1

## Future Production Decline Estimate

Month	Gas Volume
Jan-2000	57
Feb-2000	57
Mar-2000	57
Apr-2000	56
May-2000	56
Jun-2000	56
Jul-2000	56
Aug-2000	56
Sep-2000	55
Oct-2000	55
Nov-2000	55
Dec-2000	55
Jan-2001	55
Feb-2001	54
Mar-2001	54
Apr-2001	54
May-2001	54
Jun-2001	54
Jul-2001	53
Aug-2001	53
Sep-2001	53
Oct-2001	53
Nov-2001	53
Dec-2001	52
Jan-2002	52
Feb-2002	51
Mar-2002	51
Apr-2002	51
May-2002	50
Jun-2002	50
Jul-2002	49
Aug-2002	49
Sep-2002	49
Oct-2002	48
Nov-2002	48
Dec-2002	47

Month	Gas Volume
Jan-2003	47
Feb-2003	47
Mar-2003	46
Apr-2003	46
May-2003	45
Jun-2003	45
Jul-2003	45
Aug-2003	44
Sep-2003	44
Oct-2003	43
Nov-2003	43
Dec-2003	43
Jan-2004	42
Feb-2004	42
Mar-2004	41
Apr-2004	41
May-2004	41
Jun-2004	40
Jul-2004	40
Aug-2004	39
Sep-2004	39
Oct-2004	39
Nov-2004	38
Dec-2004	38
Jan-2005	37
Feb-2005	37
Mar-2005	37
Apr-2005	36
May-2005	36
Jun-2005	35
Jul-2005	35
Aug-2005	35
Sep-2005	34
Oct-2005	34
Nov-2005	33
Dec-2005	33

Month	Gas Volume
Jan-2006	33
Feb-2006	32
Mar-2006	32
Apr-2006	31
May-2006	31
Jun-2006	31
Jul-2006	30
Aug-2006	30
Sep-2006	29
Oct-2006	29
Nov-2006	29
Dec-2006	28
Jan-2007	28
Feb-2007	27
Mar-2007	27
Apr-2007	27
May-2007	26
Jun-2007	26
Jul-2007	25
Aug-2007	25
Sep-2007	25
Oct-2007	24
Nov-2007	24
Dec-2007	23
Jan-2008	23
Feb-2008	23
Mar-2008	22
Apr-2008	22
May-2008	21
Jun-2008	21
Jul-2008	21
Aug-2008	21
Sep-2008	20
Oct-2008	20
Nov-2008	19
Dec-2008	19
Jan-2009	19

DISTRICT 1  
P.O. Box 1980, Hobbs NM 88241-1980

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107-A  
New 3-12-96

DISTRICT II  
811 South First St., Artesia, NM 88210-2835

2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429

APPROVAL PROCESS:

x\_ Administrative \_\_\_ Hearing

DISTRICT III  
1000 Rio Brazos Rd. Aztec, NM 87410-1693

OIL CONSERVATION DIVISION

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE

\_\_x\_\_ YES \_\_ NO

Amoco Production Company

PO Box 3092 Houston, TX 77253-3092

Operator	1	Address	F 15-29N-08W	San Juan
Lease	Well No.	Unit Ltr. - Sec Twp - Rge	County	

OGRID NO.	000778	Property Code	000990	API NO.	30-045-22874	Federal	X	State	(and/or) Fee
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The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Blanco Mesaverde 72319		Basin Dakota 71599
2. Top and Bottom of Pay Section (Perforations)	4634' - 5334' EST		7293' - 7533'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated or Measured Original	a. (Current) 557 psig (est) b. (Original) 1215 psig (est)	a. b.	a. 768 psig b. 842 psig
6. Oil Gravity (° API) or Gas BTU Content	1274 btu (est)		1091 btu
7. Producing or Shut-In?	New zone		Producing
Production Marginal? (yes or no)	YES		YES
• If Shut-In, give data and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: 150 MCFD EST. Rates: .6 BCFD EST.	Date: Rates:	Date: Rates:
• If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates:	Date: Rates:	8/11/99 Date: 57 MCFD Rates: 0 BCPD 0 BWPD
8. Fixed Percentage Allocation Formula -% for each zone	Oil: 100 % Gas 72 %	Oil: % Gas %	Oil: 0 % Gas 28 %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones?  
If not, have all working, overriding, and royalty interests been notified by certified mail?  
Have all offset operators been given written notice of the proposed downhole commingling?

☒ Yes ☐ No  
☐ Yes ☐ No  
☐ Yes ☐ No

11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☒ Yes ☐ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No

13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)


14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No NO FEDERAL OR STATE LANDS

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S) \_\_\_\_\_

16. ATTACHMENTS:

- \* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- \* Production curve for each zone for at least one year. (If not available, attach explanation.)
- \* For zones with no production history, estimated production rates and supporting data.
- \* Data to support allocation method or formula. SEE ATTACHED
- \* Notification list of all offset operators.
- \* Notification list of working, overriding, and royalty interests for uncommon interest cases.
- \* Any additional statements, data, or documents required to support commingling.

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

SIGNATURE		TITLE	Sr. Business Analyst	DATE	9/13/99
TYPE OR PRINT NAME	Mary Corley	TELEPHONE NO. (	281	)	366-4491

Roelofs 1 Production Allocation

DK	0.08	PC	0.04
MV	0.07	FT	0.04
		CK	0.04

WELL NAME: **ROELOFS 1**

FORMATION: **DK**

SURFACE PRESS: **175**

PERFS TOP: **7293**

BOTTOM: **7533**

$$( 7293 + 7533 ) / 2 = 7413 \text{ Mid Perf}$$

$$7413 \times 0.08 = 593$$

$$593.04 + 175 = 768 \text{ Bottom Hole Pressure}$$

Initial Bottom Hole Pressure= **842**

WELL NAME: **ROELOFS B #2**

FORMATION: **MV**

SURFACE PRESS: **200**

PERFS TOP: **4659**

BOTTOM: **5408**

$$( 4659 + 5408 ) / 2 = 5034 \text{ Mid Perf}$$

$$5033.5 \times 0.07 = 352$$

$$352.35 + 200 = 552 \text{ Bottom Hole Pressure}$$

Initial Bottom Hole Pressure= **1232**

WELL NAME: **ROELOFS B #3**

FORMATION: **MV**

SURFACE PRESS: **188**

PERFS TOP: **4925**

BOTTOM: **5773**

$$( 4925 + 5773 ) / 2 = 5349 \text{ Mid Perf}$$

$$5349 \times 0.07 = 374$$

$$374.43 + 188 = 562 \text{ Bottom Hole Pressure}$$

Initial Bottom Hole Pressure= **1197**

WELL NAME: **ROELOFS 1**

FORMATION: **MV**

$$\text{Initial Bottom Hole Pressure: } ( 1232 + 1197 ) / 2 \approx 1215$$

$$\text{Bottom Hole Pressure: } ( 552 + 562 ) / 2 \approx 557 \text{ est.}$$

$$\text{ROELOFS B 2 + ROELOFS B 3 BBLs } ( 240 + 181 ) / 2 \approx 211 \text{ est. annual production}$$

$$\text{ROELOFS B 2 + ROELOFS B 3 MCF } ( 38551 + 70988 ) / 2 \approx 54770 \text{ est. annual production}$$

**ALLOCATION**

FM	BBL	%	GAS	%
DK	0	0%	20909	28%
MV	211	100%	54770	72%



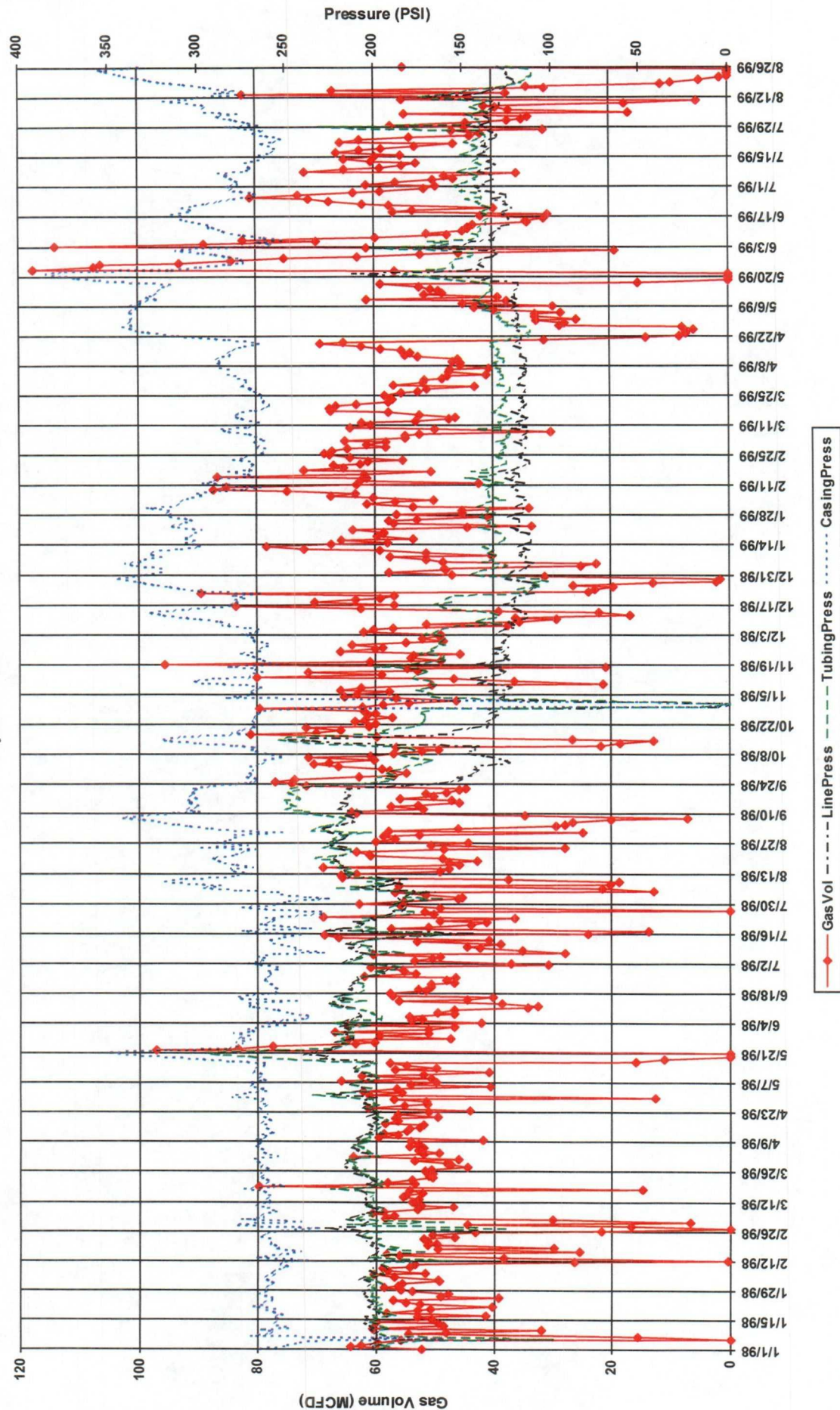
Wellname: ROELOFS 001-DK

Flacwell: 97942601

API: 300452287400

Amoco - OIDB/Synergy Data

Daily Well Production





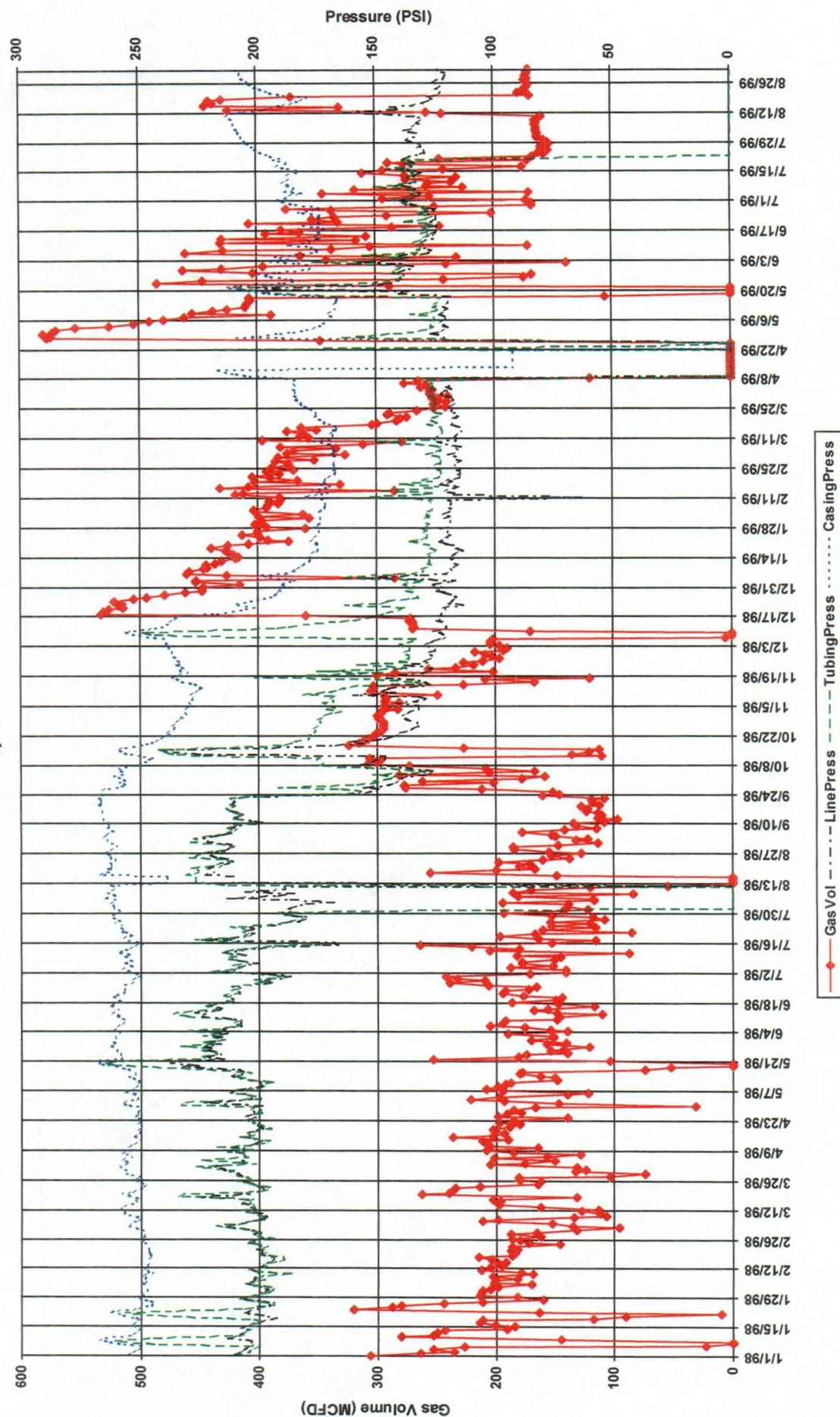
Amoco - OIDB/Synergy Data

API: 300450820800

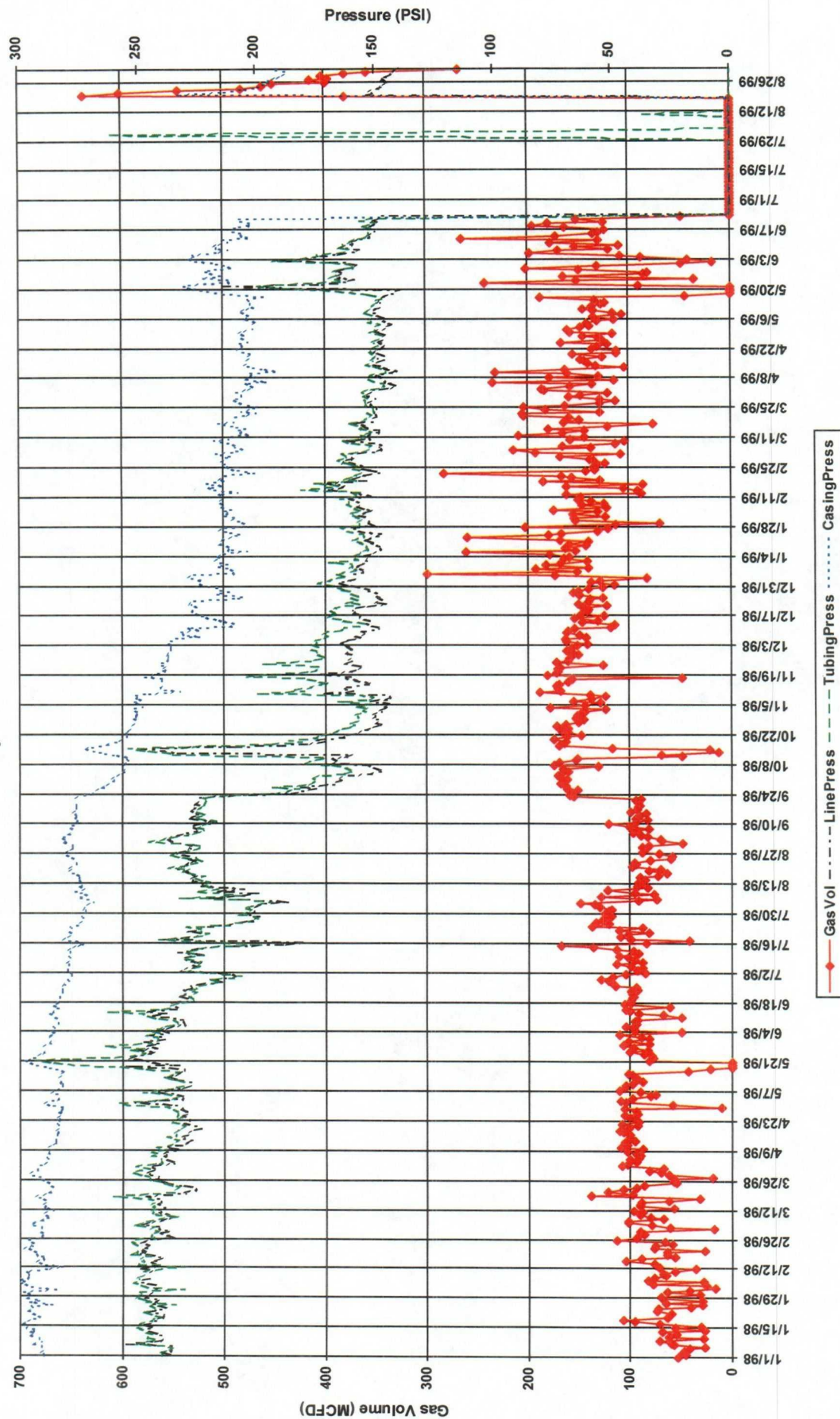
Flacwell: 97863701

Wellname: ROELOFS B 003-MV

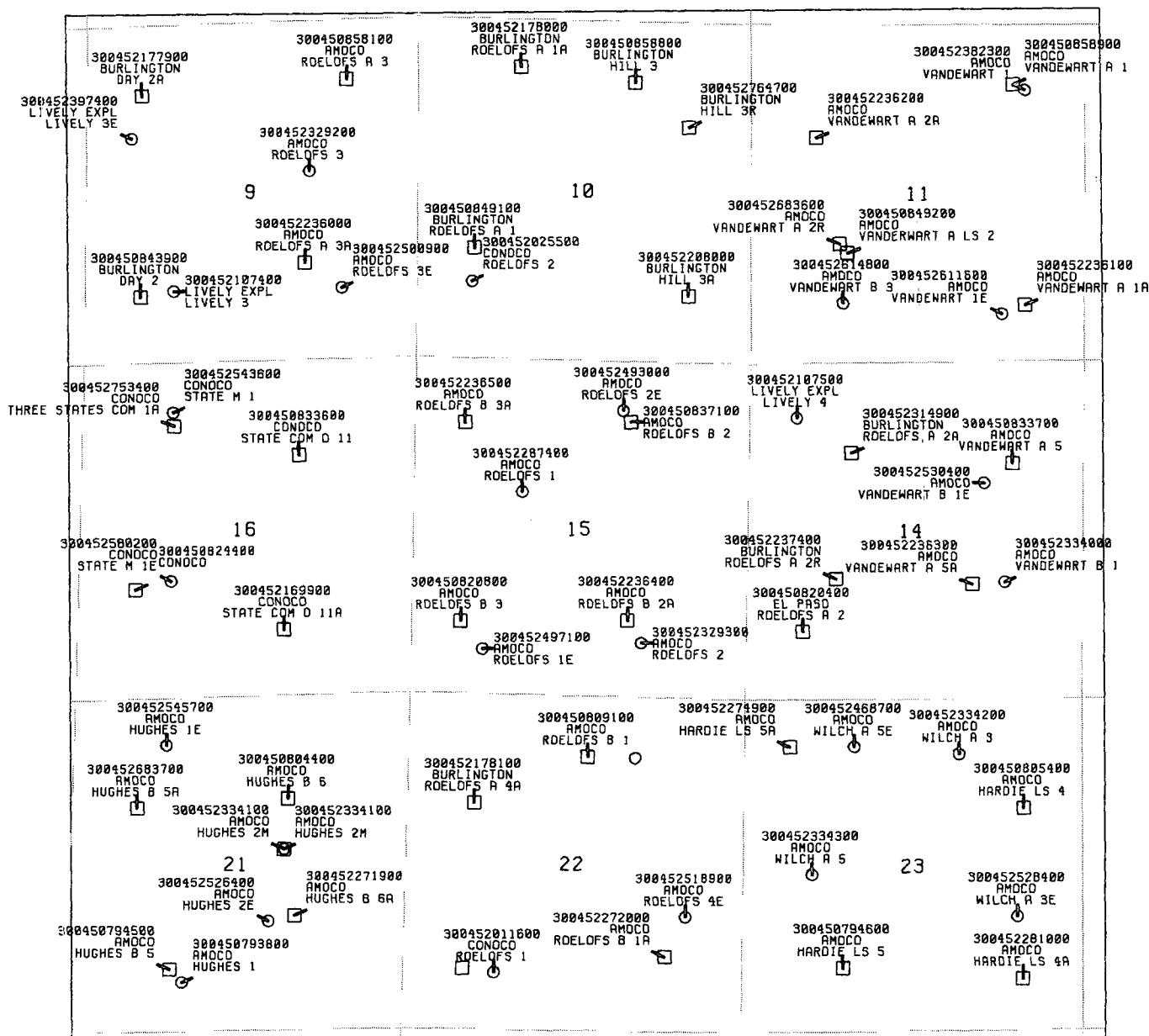
Daily Well Production



Daily Well Production







# AMOCO PRODUCTION COMPANY HOUSTON, TX

ROELOFS #1  
15-29N-08W  
MESAVERDE / DAKOTA WELLS

SCALE 1" = 2500'

DRAWN M. J. RITZ

DATE 2-SEP-1999

DRAWING

Q Mesaverde

Q Dakota

**DISTRICT I**

P.O. Box 1980, Hobbs, NM 88240

**DISTRICT II**

311 South First., Artesia, NM 88210

**DISTRICT III**

1000 Rio Brazos Rd., Aztec, NM 87410

**DISTRICT IV**

2040 South Pacheco, Santa Fe, NM 87505

**State of New Mexico**  
 Energy, Minerals and Natural Resources Department

**OIL CONSERVATION DIVISION**

2040 South Pacheco  
 Santa Fe, New Mexico 87505

Form C-102

Revised October 18, 1994

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number 30-045-22874	Pool Code 72319 & 71599	Pool Name Blanco Mesaverde & Basin Dakota
Property Code 000990	Property Name Roelfos	Well Number 1
OGRID No. 000778	Operator Name AMOCO PRODUCTION COMPANY	Elevation 6422' GR

**Surface Location**

UL or lot no. UNIT F	Section 15	Township 29N	Range 8W	Lot. Idn	Feet from the 2115	North/South Line NORTH	Feet from the 1790	East/West Line WEST	County San Juan
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**Bottom Hole Location If Different From Surface**

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West Line	County
Dedicated Acreage: 320		Joint or Infill	Consolidation Code		Order No.				

**NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
 OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION**

	<b>OPERATOR CERTIFICATION</b>	
	I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief	
	Signature	<i>Mary Corley</i>
	Printed Name	Mary Corley
	Position	Sr. Business Analyst
	Date	08/13/1999
	<b>SURVEY CERTIFICATION</b>	
	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.	
	01/03/1978	
	Date of Survey	
	Signature & Seal of Professional Surveyor	
	Fred B. Kerr Jr.	
	Certificate No.	3950