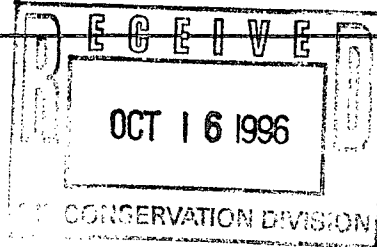


**BURLINGTON
RESOURCES**

SAN JUAN DIVISION



October 15, 1996

Mr. William LeMay
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Re: Mexico Federal R #1
1830'FNL, 790'FEL Section 12, T-31-N, R-13-W, San Juan County, NM
API #30-045-22126

Dear Mr. LeMay:

This is a request for administrative approval for downhole commingling the Blanco Mesa Verde and Basin Dakota pools in the subject well. This is currently a dual Mesa Verde/Dakota well.

To comply with the New Mexico Oil Conservation Division rules, Burlington Resources Oil & Gas Company is submitting the following for your approval of this commingling:

1. Form C107A - Application for Downhole Commingling;
2. C-102 plat for each zone showing its spacing unit and acreage dedication;
3. Production curve for both the Dakota and Mesa Verde for at least one year;
4. Notification list of offset operators;
5. Shut in wellhead pressure and calculated down hole pressure;
6. Nine-section plats for the Mesa Verde and Dakota.

The ownership for both the Mesa Verde and Dakota are common in this well. No notification to interest owners is required.

The allocation formula is included, showing 83% from the Mesa Verde and 17% from the Dakota formation.

Please let me know if you require additional data.

Sincerely,

A handwritten signature in cursive script that reads "Peggy Bradfield".

Peggy Bradfield
Regulatory/Compliance Administrator

encs.

DISTRICT I

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

DISTRICT II

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

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429Form C-107-A
New 3-12-96

APPROVAL PROCESS :

☒ Administrative
☐ Hearing

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE

☒ YES ☐ NO

Burlington Resources Oil & Gas Company

PO Box 4289, Farmington, NM 87499

Operator

Address

Mexico Federal R

1

I-12-31N-13W

San Juan

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7311 API NO. 30-045-22126 Federal ☒ , State , (and/or) Fee

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)	4484-4524'		6665-6890'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure	(Current) a. 653 psi, (see attachment)	a.	a. 1051 psi (see attachment)
Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Original) b. 1106 psi (see attachment)	b.	b. 1450 psi (see attachment)
6. Oil Gravity (°API) or Gas BTU Content	BTU 1209		BTU 1143
7. Producing or Shut-In?	shut-in		producing
Production Marginal? (yes or no)	yes		yes
* If Shut-In and oil/gas/water rates of last production	Date: 3-98 Rates: 30 MCF/D	Date: Rates:	Date: 1988 Rates: 53 MCF/D
Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data			
* If Producing, give data and oil/gas/water of recent test (within 60 days)	Date: Rates:	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)	Oil: % Gas: % Will be supplied when completed	Oil: % Gas: %	Oil: % Gas: % Will be supplied when completed

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?

☒ Yes ☐ No

If not, have all working, overriding, and royalty interests been notified by certified mail?

☒ Yes ☐ No

Have all offset operators been given written notice of the proposed downhole commingling?

☒ Yes ☐ No11. 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 ☐ No13. 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

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.
- * 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_Regulatory Administrator DATE 10-14-96

TYPE OR PRINT NAME_Peggy Bradfield

TELEPHONE NO. (505) 326-9700

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION

Form C-102
Supersedes C-128
Effective 1-1-65

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

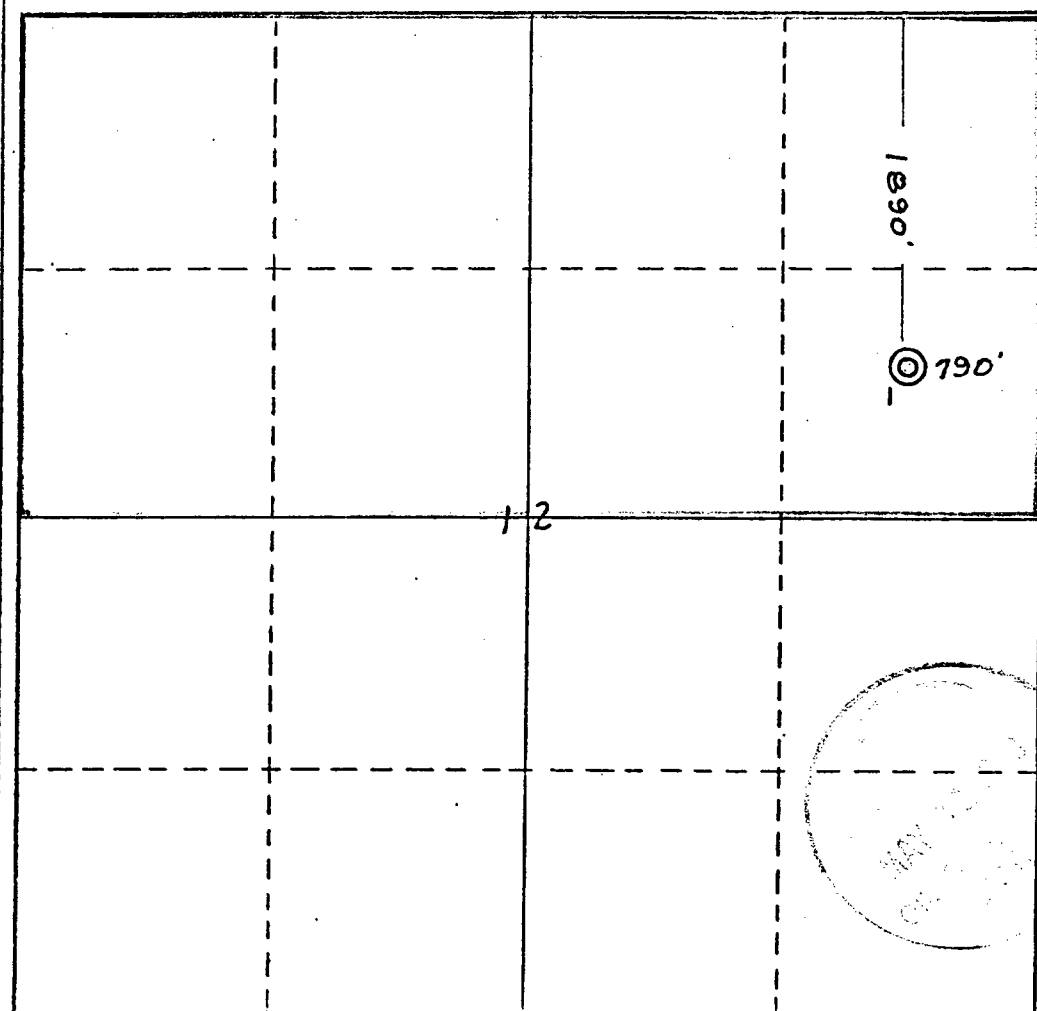
Operator Getty Oil Company			Lease Mexico - Federal "R"		Well No. 1
Unit Letter H	Section 12	Township 31N	Range 13W	County San Juan	
Actual Postage Location of Well: 1830 feet from the North line and 790 feet from the East line					
Ground Level Elev. 5799'	Producing Formation Dakota		Pool Basin		Dedicated Acreage: 320 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 Communitization

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.

H. E. Aab

Name

H. E. Aab

Position

Area Superintendent

Company

Getty Oil Company

Date

May 22, 1978

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

Registered Professional Engineer and/or Land Surveyor

Certificate No.

RECEIVED

JUN 20 1978

CASPER AREA

E&P DEPARTMENT

MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLATSupersedes C-120
Effective 1-1-65

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

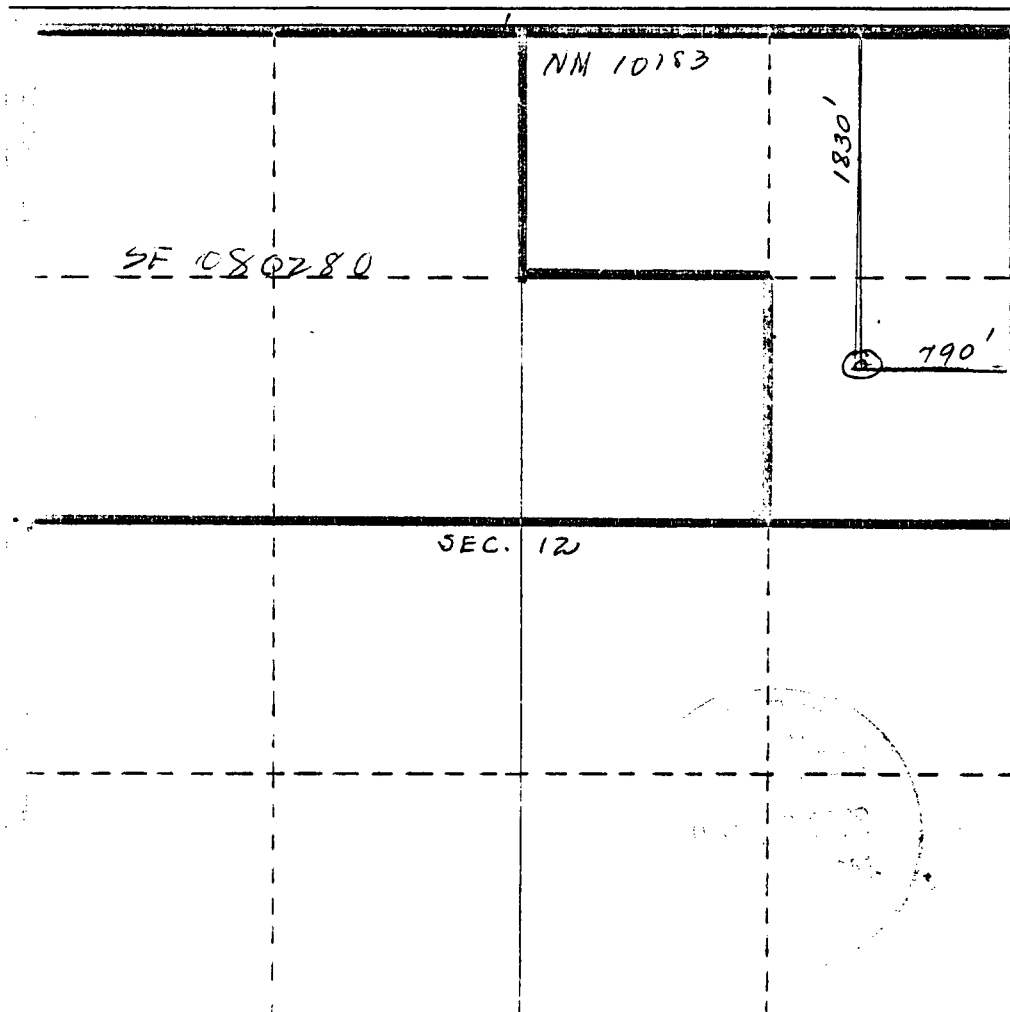
Getty Oil Co.			Lease Mexico Federal R		Well No. 1
Unit Letter H	Section 12	Township 31N	Range 13W	County San Juan	
Actual Footage Location of Well:					
1830 feet from the North line and		790 feet from the East line			
Ground Level Elev. 5799	Producing Formation Mesaverde	Pool Blanco Mesaverde		Dedicated Acreage: N 320 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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 communitization

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.

Name
Paul D. Berhou

Position
Engineer Technician

Company
Getty Oil Co.

Date
5-15-78

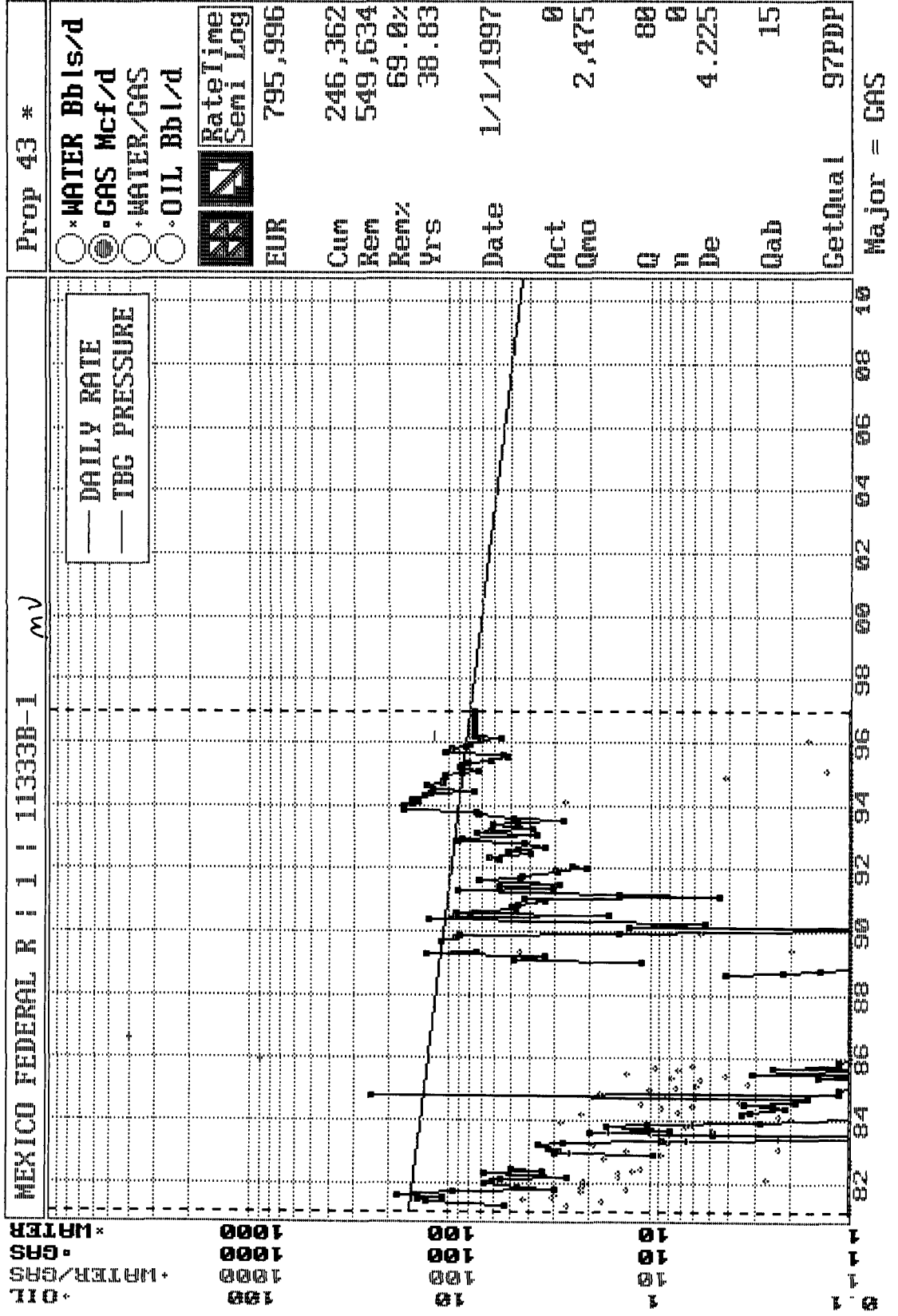
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

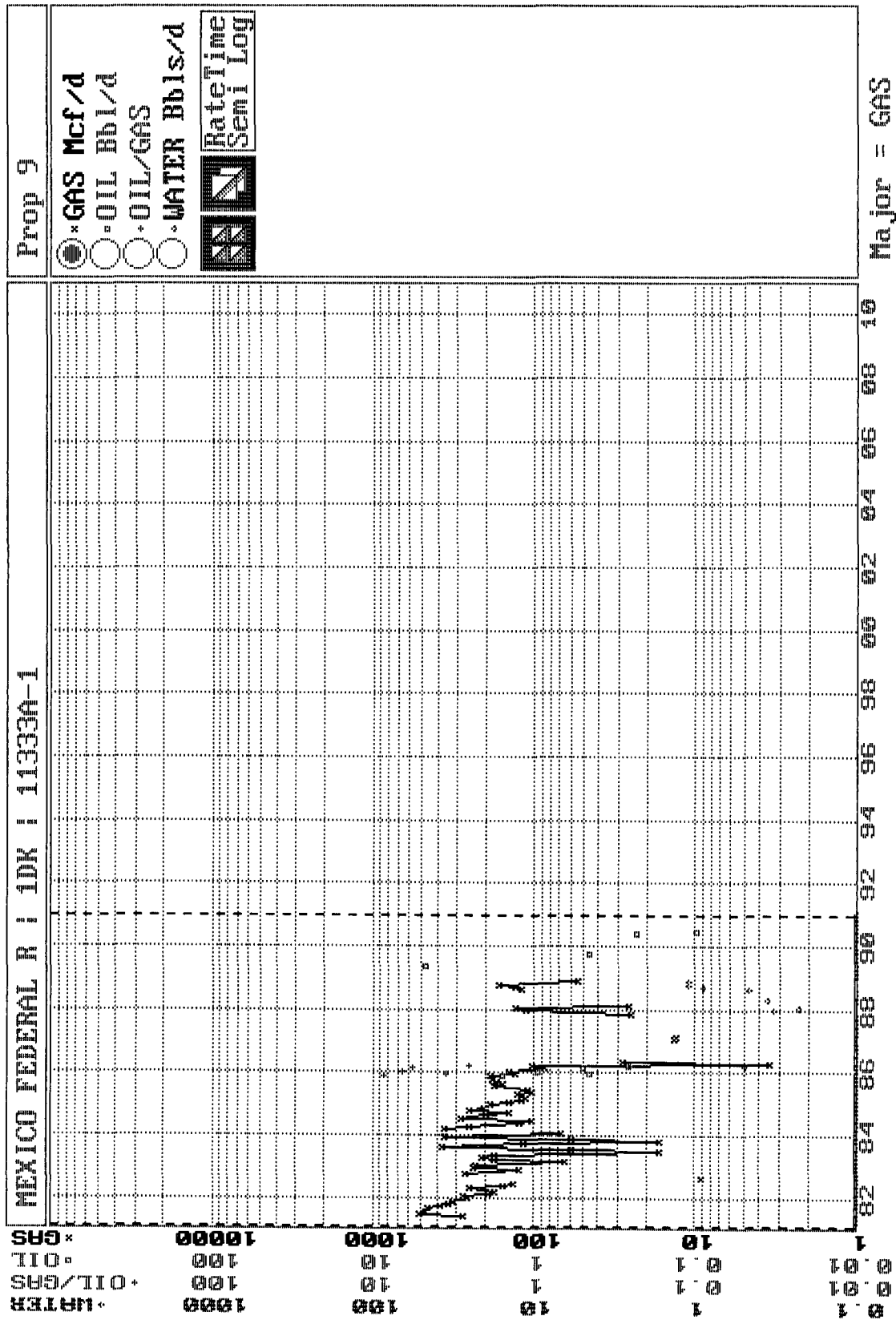
Date Surveyed

Registered Professional Engineer
and/or Land Surveyor

Certificate No.

0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000



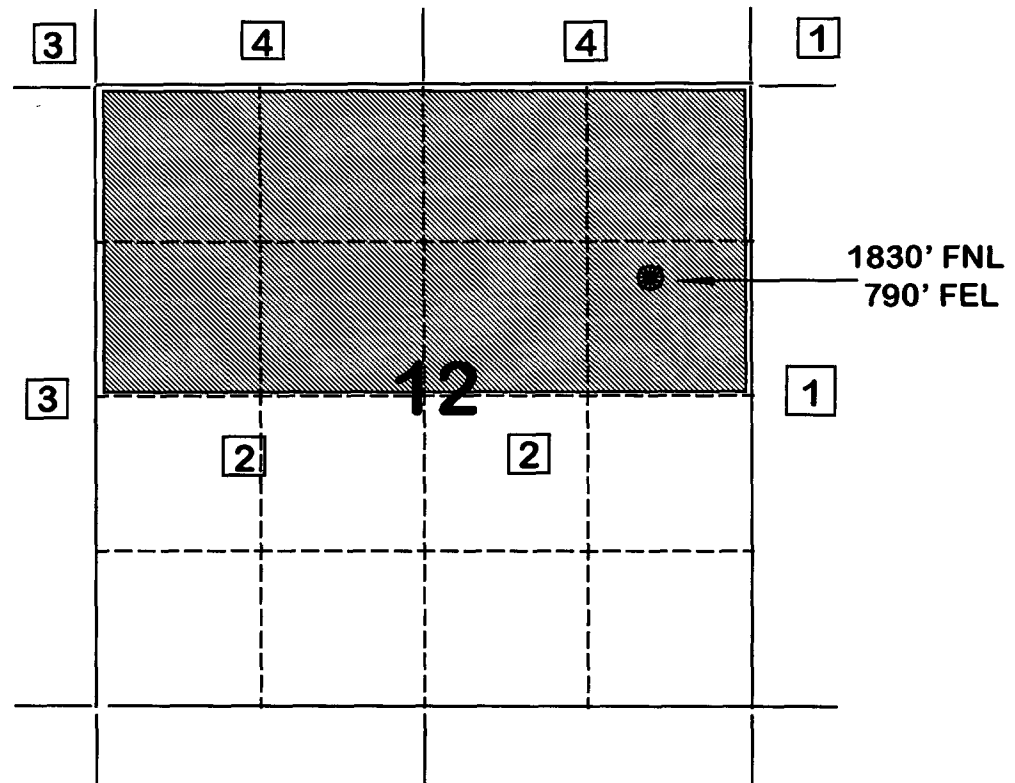


BURLINGTON RESOURCES OIL AND GAS COMPANY

**Mexico Federal R #1
OFFSET OPERATOR \ OWNER PLAT**

Mesaverde / Dakota Formations Commingle Well

Township 31 North, Range 13 West



- 1) Burlington Resources Oil and Gas Company Successor to Meridian Oil Inc.
- 2) Dugan Production Corp.
P.O. Box 420
Farmington, NM 87499
- 3) Snyder Oil Corp.
777 Main, Suite 2500
Ft. Worth, TX 76102
- 4) Hallwood Petroleum Inc.
4582 S. Ulster Street Pkwy, Suite 1700
Denver, CO 80237

**FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD**

VERSION 1.0 3/13/94

GAS GRAVITY	0.7
COND. OR MISC. (C/M)	C
%N2	0.2
%CO2	0.74
%H2S	0
DIAMETER (IN)	2.2
DEPTH (FT)	4466
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	150
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	582
BOTTOMHOLE PRESSURE (PSIA)	652.9

MEXICO FEDERAL R #1 MESAVERDE - (CURRENT)

**FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD**

VERSION 1.0 3/13/94

GAS GRAVITY	0.7
COND. OR MISC. (C/M)	C
%N2	0.2
%CO2	0.74
%H2S	0
DIAMETER (IN)	2.2
DEPTH (FT)	4466
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	150
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	978
BOTTOMHOLE PRESSURE (PSIA)	1106.3

MEXICO FEDERAL R #1 MESAVERDE - (ORIGINAL)

Organize Data ScreenGraph Economics Report Plot Utility Quit
 Browsing: MEXICO FEDERAL R | 1MV | 11333B-1 Property No.: 10
 Table(T): TEST/M,P,H,E,T,Z,C,A,O,D,N,1,2,3,B,U,S Rec: 1/6/192
 Item: 11/32/33 Name: OIL_RATE Type: Numeric Len: 8/197/203 Dec: 0

	OIL RATE	GAS RATE	WTR RATE	WHT	M FWHP-	M FBHP-	M SIWHP	M SIBHP	C FWHP-	
	■■■■■■■■	■■■■■■■■	■■■■■■■■	■■■	■■■Psi■■■	■■■Psi■■■	■■■Psi■■■	■■■Psi■■■	■■■■■■■■	
«	0		0		0.0		978.0	0.0		»
«	0		0		338.0		551.0	0.0		»
«	0		0		395.0		601.0	0.0		»
«	0		0		303.0		557.0	0.0		»
«	0		0		357.0		491.0	0.0		»
«	0		0		401.0		582.0	0.0		»

F1=Help F3=PrvPro F5=PrvTbl F7=Calcu F9=Utils Alt+TableLtr=Change Table
 F2=Jump F4=NxtPro F6=NxtTbl F8=Print F10=Exit Shift+<- ->=Fast Tbl R & L

**FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD**

VERSION 1.0 3/13/94

GAS GRAVITY	<u>0.69</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.27</u>
%CO2	<u>1.26</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>2.4</u>
DEPTH (FT)	<u>6844</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>200</u>
FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>1212</u>
BOTTOMHOLE PRESSURE (PSIA)	<div>1450.1</div>

MEXICO FEDERAL R #1 DAKOTA - (ORIGINAL)

**FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD**

VERSION 1.0 3/13/94

GAS GRAVITY	0.69
COND. OR MISC. (C/M)	C
%N2	0.27
%CO2	1.26
%H2S	0
DIAMETER (IN)	2.4
DEPTH (FT)	6844
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	200
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	885
BOTTOMHOLE PRESSURE (PSIA)	1050.9

MEXICO FEDERAL R #1 DAKOTA - (CURRENT)

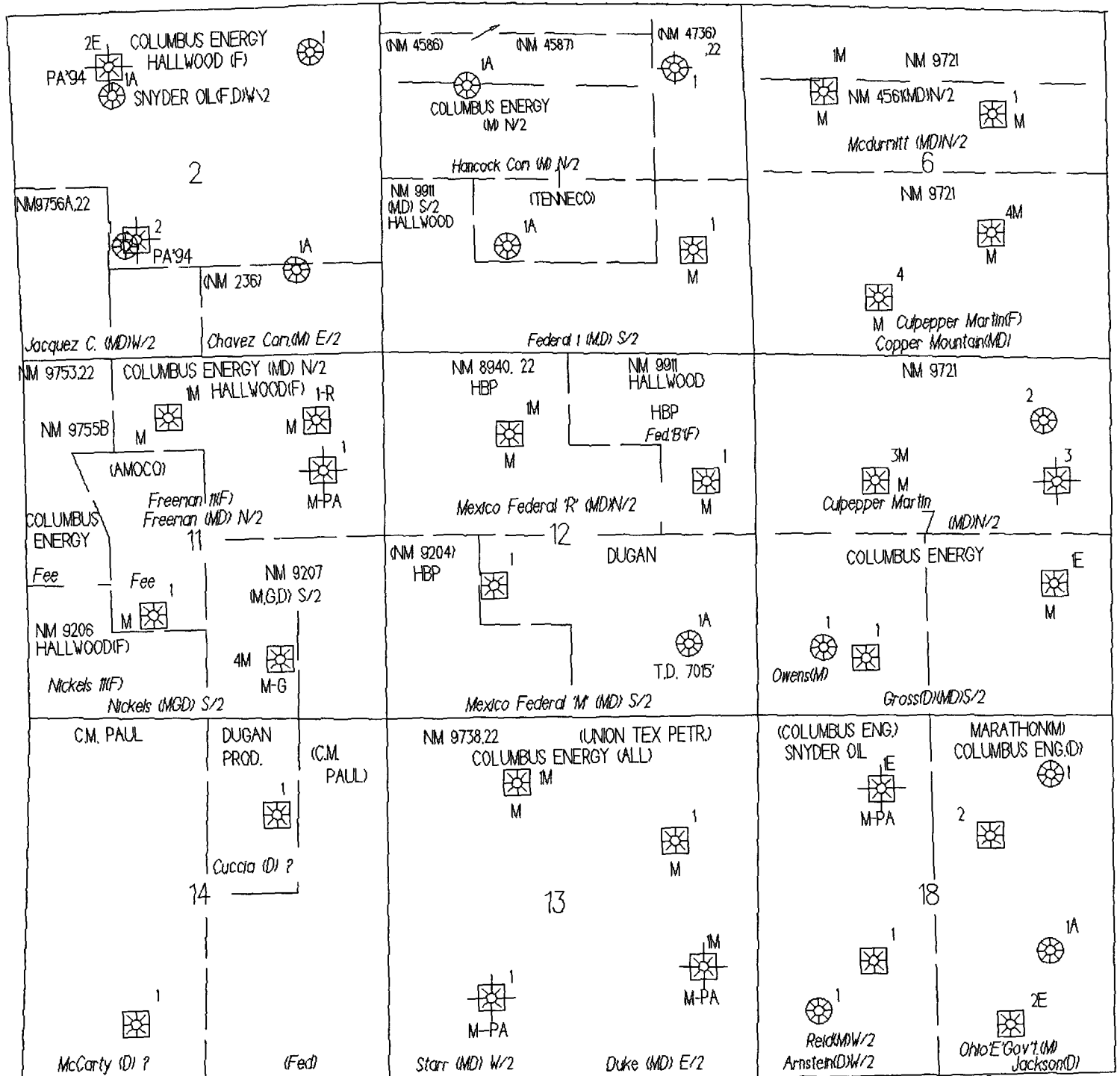
STATE: 30
PROD : 2
IDENT: 31N13M
DISTRICT: 4
LOCATION: 12K31N13M
RETRIEVAL CODE: 251,045,31N13M12K00DK
GAS GATH: ELNAT
API NO: 1089700

LEASE NAME: MEXICO FEDERAL M
COUNTY NAME: SAN JUAN
RESERVOIR NAME: DAKOTA
OPERATOR NAME: DUGAN PRODUCTION CORP
FIELD NAME: BASIN (DAKOTA)
WELL: 1
STATUS: ACT
COMP DATE: 196105

TOTAL DEPTH: 6875
UPPER PERF: 6580
LOWER PERF: 6800

DATE	CUM TO TEST	WHSIP	BHP	P/Z	BDPTR	BDCND	WHFLW	POTEN M/C POT	Z FAC
19610515	0	0	0	0	0	0	0	1574	2
19710526	529985	1212	1439	1617	0	0	384	63 C	90.000
19720706	577982	1127	1336	1493	0	0	340	110 C	95.000
19750404	679177	937	1106	1217	0	0	310	98 C	9.000
19770525	750142	885	1043	1141	0	0	278	71 C	14.000

MEXICO FEDERAL R #1 SECTION 12, T31N, R13W BLANCO MESAVERDE/BASIN DAKOTA



T
31
N

R-13-W

R-12-W

PRODUCTION ALLOCATION FORMULA METHOD

MEXICO FEDERAL R #1
(Mesaverde/Dakota) Commingle
Unit I, 12-T31N-R13W
San Juan County, New Mexico

Allocation Formula Method:

Current Production from Mesaverde formation = 96 MCFD

Current Production from Dakota formation = 20 MCFD

$$\frac{[(MV \& DK) 116 \text{ MCFD} - (MV) 96 \text{ MCFD}]}{(MV \& DK) 116 \text{ MCFD}} = (DK) \% \quad \underline{\text{Dakota 17\%}}$$

$$\frac{[(MV \& DK) 116 \text{ MCFD} - (DK) 20 \text{ MCFD}]}{(MV \& DK) 116 \text{ MCFD}} = (MV) \% \quad \underline{\text{Mesaverde 83\%}}$$