

Submit 3 Copies  
to Appropriate  
District Office

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

DISTRICT I  
P.O. Box 1980, Hobbs NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

WELL API NO.	30-039-25658
5. Indicate Type of Lease	STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.	E-347-41
7. Lease Name or Unit Agreement Name	009258 San Juan 30-5 Unit
8. Well No.	#110M
9. Pool name or Wildcat	B1 MV & Basin Dakota
10. Elevation (Show whether DF, RKB, RT, GR, etc.)	

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"  
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:  
OIL WELL ☐ GAS WELL ☐ OTHER Cathodic groundbed

2. Name of Operator  
Phillips Petroleum Company 017654

3. Address of Operator  
5525 Highway 64, NBU 3004, Farmington, NM 87401

4. Well Location  
Unit Letter E : 1840 Feet From The North Line and 790 Feet From The West Line  
Section 16 Township 30N Range 5W NMPM Rio Arriba County

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐  
OTHER: drill groundbed-cathodic protection ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐  
CASING TEST AND CEMENT JOB ☐  
OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Phillips proposes to drill a cathodic protection deep well groundbed. Will drill a 6-7/8" hole to an anticipated minimum depth of 300' (maximum depth of 500'). Cement plugs will not be used unless more than one water zone is encountered. Prior drilling history for the area indicates only one zone to that depth. If more than one water zone is encountered the OCD will be notified and details of cement and casing will be provided.

All drilling activity will remain on existing well pad and "Tierra Dynamic Company" of Farmington will be doing the drilling for Phillips.

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

SIGNATURE Patsy Clugston TITLE Regulatory Assistant DATE 6-19-97  
TYPE OR PRINT NAME Patsy Clugston TELEPHONE NO. 505-599-3454

(This space for State Use)

APPROVED BY ORIGINAL SIGNED BY ERNIE BUSCH TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 43 DATE JUN 26 1997  
CONDITIONS OF APPROVAL, IF ANY:

## 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

EXISTING WELLBORE

☒ YES ☐ NO

## APPLICATION FOR DOWNHOLE COMMINGLING

Operator Phillips Petroleum Company Address 5525 Hwy. 64, Farmington, NM 87401Lease San Juan 30-5 Unit #110M E Sec. 16 T30N, R5W, Rio Arriba Well No. Unit Ltr. - Sec - Twp - Rge CountyOGRID NO. 017654 Property Code 009258 API NO. 30-039-25658 Spacing Unit Lease Types: (check 1 or more)  
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	72319 Blanco Mesaverde		71599 Basin Dakota
2. Top and Bottom of Pay Section (Perforations)			7740' 7859'
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) 1030 psi (est.) b. (Original) 1294 psi (est.)	a. b.	a. (24 hr. SI) 1156 psig b. 3412 psi (est.)
6. Oil Gravity ( $^{\circ}$ API) or Gas BTU Content	1030 BTU/Cu ft.		1000 BTU / Cu ft.
7. Producing or Shut-In?			Producing
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In, give date 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: Rates:	Date: Rates:	Date: Rates:
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Estimate Rates: 420 mcf/d	Date: Rates:	Date: 9/10/97 Rates: 382 mcf/d 0 bwpd
8. Fixed Percentage Allocation Formula - % for each zone	Oil: % Gas: %	Oil: % Gas: %	Oil: % Gas: %

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? ☒ 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 ☐ No (see attached)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 ☐ No15. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-10771

## 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 Mark Stodola Staff Reservoir Engineer TITLE Engineer DATE 9-25-97TYPE OR PRINT NAME Mark Stodola TELEPHONE NO. ( 505 ) 599-3455

District I  
170 Box 1780, Hobbs, NM 88241-1780  
District II  
811 South First, Artesia, NM 88210  
District III  
1000 Rio Hondo Rd., Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2030 South Pacheco  
Santa Fe, NM 87505

Form O-102  
Revised October 18, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 5 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

* AIT Number 30-039-25658	* Pool Code 72319	* Pool Name Blanco Mesaverde
* Property Code 009258	* Property Name SAN JUAN 30-5 UNIT	
* OGRID No. 017654	* Operator Name PHILLIPS PETROLEUM CO.	* Well Number 110M
		* Elevation 6346

10 Surface Location

UI, or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	16	30N	5W		1840	NORTH	790	WEST	RIO ARriba

11 Bottom Hole Location If Different From Surface

UI, or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E									
" Dedicated Acres 320		" Joint or Infill Y		" Consolidation Code U		" 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

	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>R A Allred</i> Signature R. A. Allred Printed Name Drilling/Production Spvr Title March 18, 1997 Date</p> <p>18 SURVEYOR CERTIFICATION</p> <p>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 belief.</p> <p>Date Signature of Professional Surveyor   Certificate Number</p>
--	--

District I  
Box 1980, Hobbs, NM 88241-1980  
District II  
811 South First, Azusa, NM 88210  
District III  
1000 Rio Brazos Rd., Azusa, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-102

Revised October 18, 1994

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State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

* API Number 30-039-25658	* Pool Code 71509	* Pool Name Basin Dakota
* Property Code 009258	* Property Name SAN JUAN 30-5 UNIT	
* OGRID No. 017654	* Operator Name PHILLIPS PETROLEUM CO.	
		* Well Number 110M
		* Elevation 6346

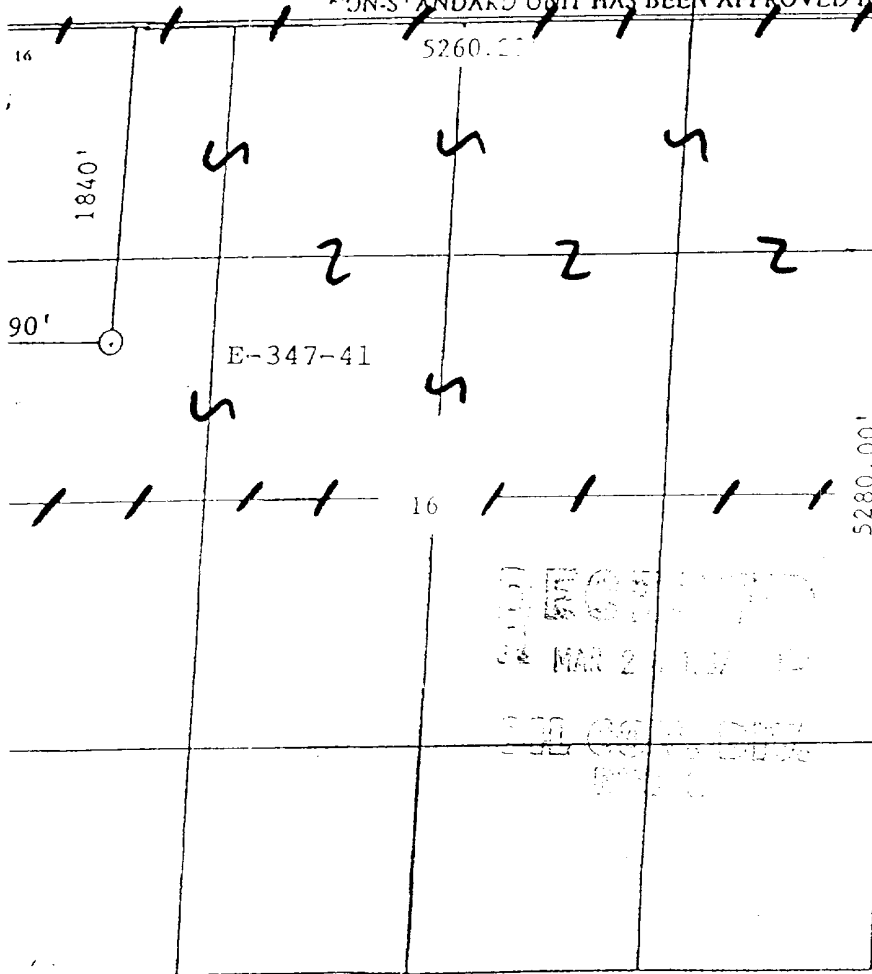
10 Surface Location

UL or lot no.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
E	16	30N	5W		1840	NORTH	790	WEST	RIO ARRIBA

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
E									
* Dedicated Acres 320		* Joint or Infill Y		* Consolidation Code U		* 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



17 OPERATOR CERTIFICATION

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

Signature

R. A. Allred

Printed Name

Drilling/Production Spvr

Title

March 18, 1997

Date

18 SURVEYOR CERTIFICATION

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 belief.

Date

Signature

REGISTERED SURVEYOR

11393

Certificate Number

5267.46'

PHILLIPS PETROLEUM COMPANY

5525 HWY 64 NEU 3004

FARMINGTON, NEW MEXICO 87401

DATE: SEPTEMBER 16 1997

WELL NAME: SAN JUAN 30-5 # 110M

FORMATION: DAKOTA

TYPE TEST: STATIC GRADIENT

COUNTY: RIO ARriba

STATE: NEW MEXICO

ELEVATION: SL

TOTAL DEPTH: FBTD 7770'

PERFORATIONS: MID PERFS 7800'

TUBING SIZE: 2 3/8 TO 7711'

CASING SIZE: 72

PACKER:

OTHER: F NIPPLE @ 7690'

CASING PRESSURE: 970

TUBING PRESSURE: 970

STC LEVEL:

WATER LEVEL:

TEMPERATURE:

AMERADA ELEMENT NUMBER: 45876

RANGE: 0-3000

WELL STATUS: SHUT IN

25 HOURS 15 MIN.

# INDIVIDUAL WELL DATA SHEET

## FLOWING GRADIENT TRAVERSE

DEPTH  
FEET

PRESSURE  
PSIG

GRADIENT  
WF/LF

0  
3000  
4000  
5000  
6000  
7000  
7400  
7600

970  
1022  
1069  
1118  
1140  
1170  
1190  
1210

0.026  
0.024  
0.025  
0.026  
0.026  
0.027  
0.027  
0.027

WELL NAME: SAN JUAN 30-5 # 110M

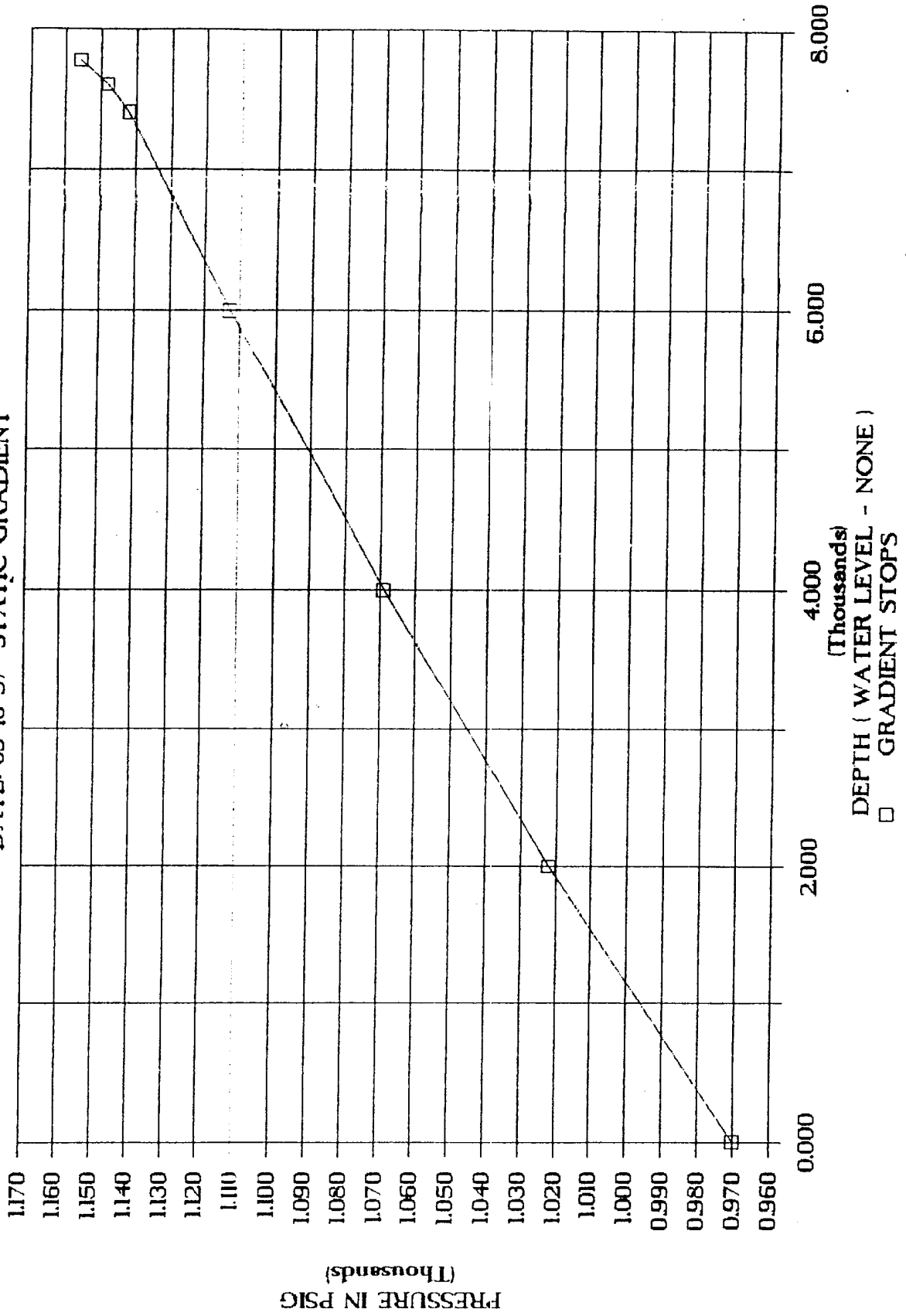
DATE: SEP 16 1997

WELL STATUS: SHUT IN

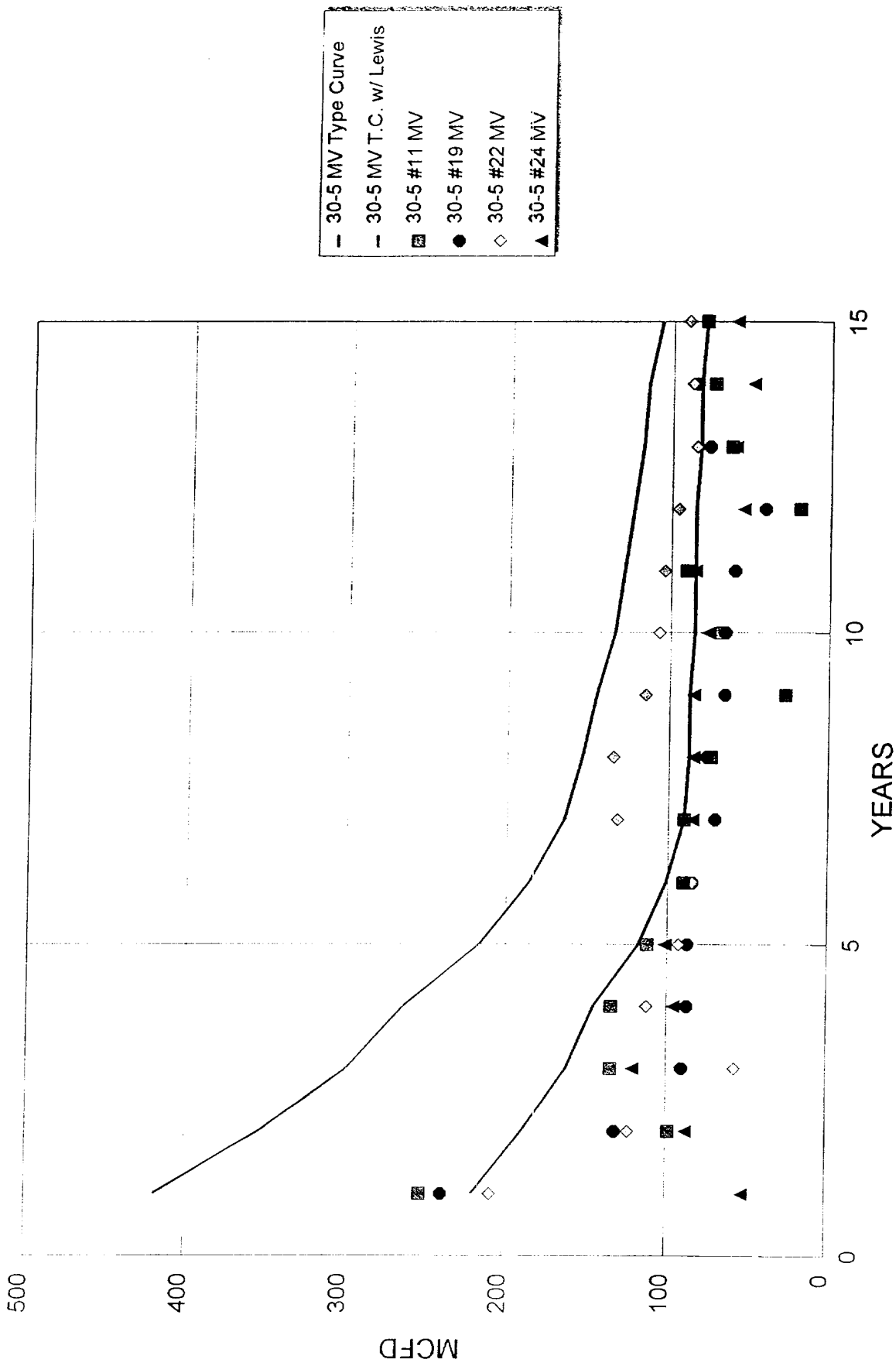
TEST TYPE: STATIC GRADIENT

# PHILLIPS PETROLEUM SAN JUAN 30-5 # 110M

DATE: 09-16-97 STATIC GRADIENT



# SAN JUAN 30-5 UNIT MESAVERDE



## Production Allocation Methodology

### ♦ New drill wells - Fixed Allocation Method

Allocate production to each zone based on initial stabilized production rate from each zone.

- Measure initial stabilized flow rate from lower zone producing into sales line.
- Measure initial stabilized flow rate from both zones commingled producing into sales line.
- Lower zone allocation = Lower zone rate / Commingled rate
- Upper zone allocation =  $\frac{(\text{Commingled rate} - \text{Lower zone rate})}{\text{Commingled rate}}$
- Example: Lower zone rate - 400 MCFD  
Commingled rate - 1,000 MCFD

$$\begin{aligned}\text{Lower zone allocation} &= 400/1,000 \\ &= 40\%\end{aligned}$$

$$\begin{aligned}\text{Upper zone allocation} &= (1,000-400)/1,000 \\ &= 60\%\end{aligned}$$



**Attachment**

**OCD Form C-107A (3/12/96)**

**Item No. 12 - additional explanation:**

**Based on water analysis from the Mesaverde and Dakota zones and discussions with the chemical treating/analysis company the water from these two zones are compatible. Lab analysis of the individual waters from both the Mesaverde and Dakota formations resulted in positive scaling indices for barium sulfate. There was a slight increase in the barium sulfate scaling index of the combined waters relative to the scaling index of the individual waters.**

**None of the waters, combined or individual, had meaningful scaling tendencies and combined with the fact that typical water production from either of these zones in San Juan 30-5 are 0-1 BWPD and no barium sulfate scale has been detected to date, no negative impacts to the formations are anticipated.**