

DATE IN - 9/5/97	SUSPENSE 9/25/97	ENGINEER DC	LOGGED BY NW	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

1689

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

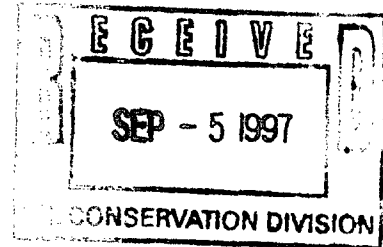
Check One Only for [B] and [C]

[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.

Jerry W. Hoover
Print or Type Name

Jerry W. Hoover
Signature

Sr. Conservation Coordinator
Title

9/3/97
Date

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241 1980

DISTRICT II
811 Southl 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 87505-6429

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

APPROVAL PROCESS:
☒ Administrative ☐ Hearing
EXISTING WELLBORE
☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Conoco Inc. Address 10 Desta Dr. Ste 100W, Midland, Tx. 79705-4500

Lease Warren Unit Well No 100 Unit Ltr Sec Twp Rge P, Section 28, T-20-S, R-38-E Lea Lea County Lea

OGRID NO. 005073 Property Code 03122 API NO. 30-025-33016 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	Warren Grayburg - San Andres 96343		Warren - Glorietta 96247
2. TOP and Bottom of Pay Section (Perforations)	3989 - 4534'		5364 - 5614'
3. Type of production (Oil or Gas)	Oil		Oil
4. Method of Production (Flowing or Artificial Lift)	Bean Pump		Bean pump
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a (Current) 900	a.	a. 1300
	b(Original) 1350	b.	b. 1600
6. Oil Gravity (°API) or Gas BT Content	41.0		38.9
7. Producing or Shut-In?	Producing		Shut-in
Production Marginal? (yes or no) • 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 • If Producing, date and oil/gas/ water rates of recent test (within 60 days)	Yes		Yes
	Date Rates	Date Rates	Date Rates Incremental production by subtraction
	Date Rates Mid-year average producing rates - see attached table	Date Rates	Date Rates
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? ☒ 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 ☐ 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 others ☒ 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
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 Jerry W. Hoover TITLE Sr. Conservation Coord DATE 9/3/97
TYPE OR PRINT NAME Jerry W. Hoover TELEPHONE NO. (915) 686-6548

Warren Unit No.100 Downhole Commingle Application

San Andres Production Forecast

DECLINE (%/YR) Oil 0.3092
LOSS RATIO Oil 0.6908

DECLINE (%/YR) Gas 0.2400
LOSS RATIO Gas 0.7600

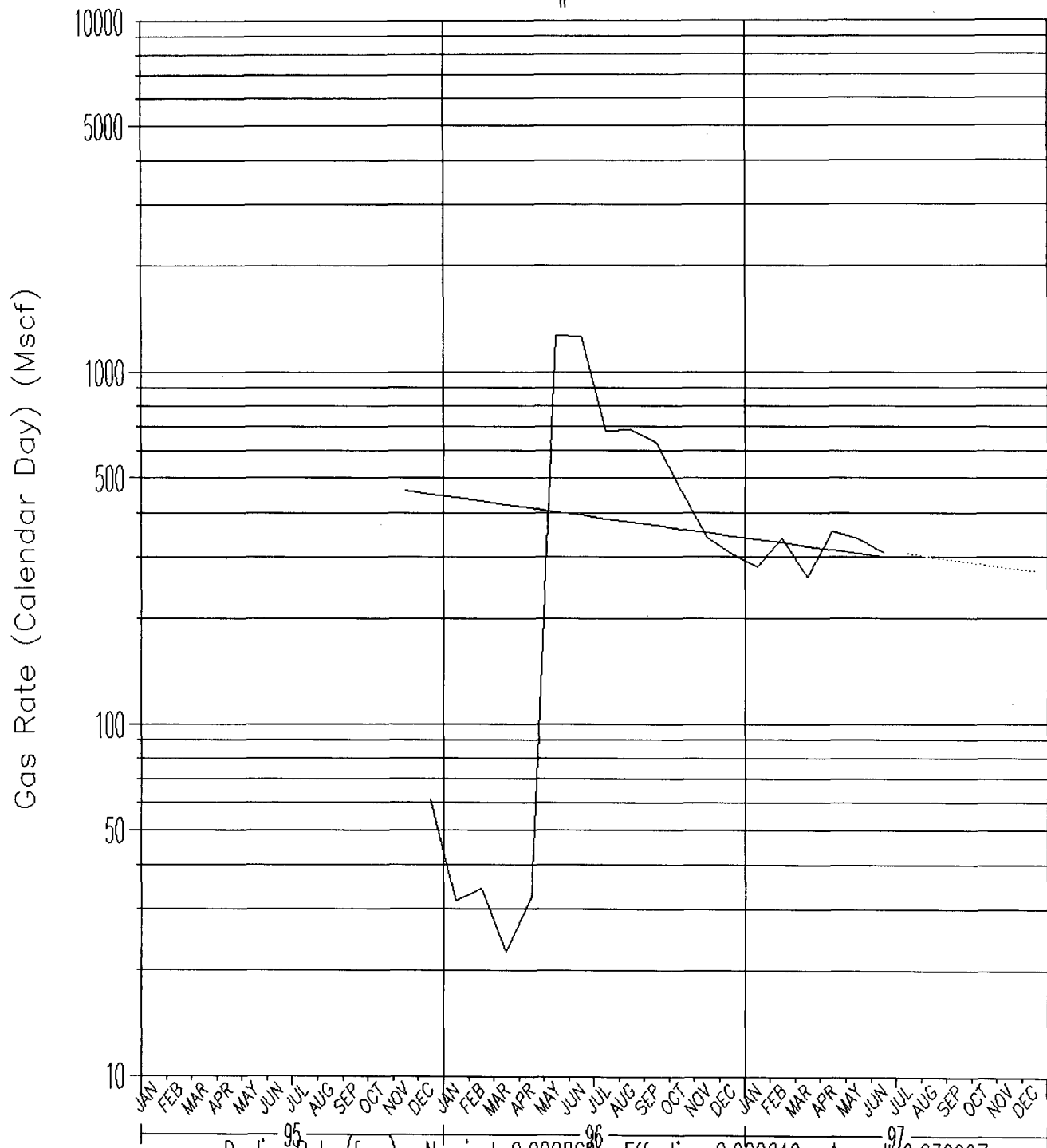
INITIAL RATE (BOPD) 80
INITIAL RATE (MCFD) 308

NO.MONTHS 1ST YEAR 6
ECON LIMIT (BOPD) 1

Year	Forecasted Formation	Oil Annual Decline Constant	Gas Annual Decline Constant	Forecasted Oil Production (BO)	Forecasted Gas Production (MCF)	Forecasted Oil Production Daily Average (BOPD)	Forecasted Gas Production Daily Average (MCFPD)
2nd Half 1997	San Andres	0.3092	0.2400	13329	52507	73.0	287.7
1st Half 1998	San Andres	0.3092	0.2400	11078	45776	60.7	250.8
2nd Half 1998	San Andres	0.3092	0.2400	9207	39907	50.5	218.7
1st Half 1999	San Andres	0.3092	0.2400	7652	34791	41.9	190.6
2nd Half 1999	San Andres	0.3092	0.2400	6360	30331	34.8	166.2
1st Half 2000	San Andres	0.3092	0.2400	5286	26442	29.0	144.9
2nd Half 2000	San Andres	0.3092	0.2400	4393	23052	24.1	126.3
1st Half 2001	San Andres	0.3092	0.2400	3651	20097	20.0	110.1
2nd Half 2001	San Andres	0.3092	0.2400	3035	17520	16.6	96.0
1st Half 2002	San Andres	0.3092	0.2400	2522	15274	13.8	83.7
2nd Half 2002	San Andres	0.3092	0.2400	2096	13316	11.5	73.0
1st Half 2003	San Andres	0.3092	0.2400	1742	11609	9.5	63.6
2nd Half 2003	San Andres	0.3092	0.2400	1448	10120	7.9	55.5
1st Half 2004	San Andres	0.3092	0.2400	1203	8823	6.6	48.3
2nd Half 2004	San Andres	0.3092	0.2400	1000	7692	5.5	42.1
1st Half 2005	San Andres	0.3092	0.2400	831	6706	4.6	36.7
2nd Half 2005	San Andres	0.3092	0.2400	691	5846	3.8	32.0
1st Half 2006	San Andres	0.3092	0.2400	574	5097	3.1	27.9
2nd Half 2006	San Andres	0.3092	0.2400	477	4443	2.6	24.3
1st Half 2007	San Andres	0.3092	0.2400	397	3873	2.2	21.2
2nd Half 2007	San Andres	0.3092	0.2400	330	3377	1.8	18.5
1st Half 2008	San Andres	0.3092	0.2400	274	2944	1.5	16.1
2nd Half 2008	San Andres	0.3092	0.2400	228	2567	1.2	14.1
1st Half 2009	San Andres	0.3092	0.2400	189	2237	1.0	12.3
2nd Half 2009	San Andres	0.3092	0.2400	157	1951	0.9	10.7
1st Half 2010	San Andres	0.3092	0.2400	131	1701	0.7	9.3
2nd Half 2010	San Andres	0.3092	0.2400	109	1483	0.6	8.1

Conoco Inc.

WARREN UNIT # 100 - San Andres



Decline Rate (frac) Nominal: 0.022869 Effective: 0.022610 Annual: 0.239997

Current Gas rate: 307.90 Mscf/d

Economic Limit: 20.000 Mscf/d

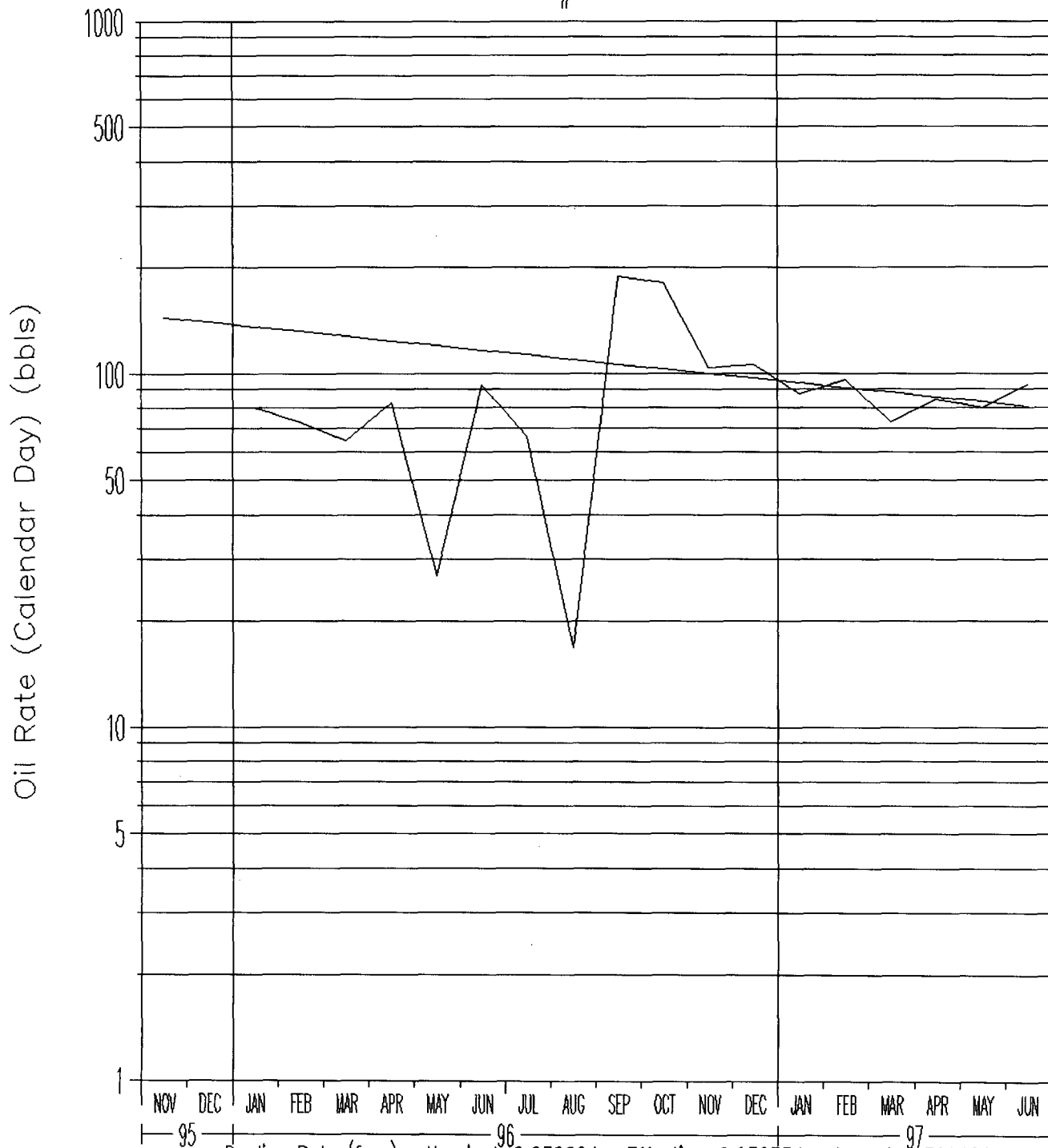
Cumulative Gas Produced: 234.70 MMscf

Remaining Reserves: 383.2 MMscf

Total Reserves: 617.9 MMscf - At the Economic Limit

Conoco Inc.

WARREN UNIT # 100 - San Andres



Decline Rate (frac) Nominal: 0.030824 Effective: 0.030354 Annual: 0.309190

Current Oil rate: 80.0 bbls/d

Economic Limit: 1.0 bbls/d

Cumulative Oil Produced: 48.6 Mbbls

Remaining Reserves: 78.0 Mbbls

Total Reserves: 126.5 Mbbls - At the Economic Limit

District I
PO Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals & Natural Resources Department

Revised February 21, 1994

instructions on back

District II
PO Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION

Submit to Appropriate District Office

District III
1000 Rio Brazos Rd. Aztec, NM 87410

PO Box 2088

State Lease - 4 Copies

District IV
PO Box 2088, Santa Fe, NM 87504-2088

Santa Fe, NM 87504-2088

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-33016		2 Pool Code 96247		3 Pool Name Warren Glorieta	
4 Property Code 03122		5 Property Name Warren Unit			6 Well Number 100
7 OGRID No. 005073		8 Operator Name Conoco Inc., 10 Desta Drive, Ste. 100W, Midland, TX 79705-4500			9 Elevation 3531'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	28	20S	38E		990	South	740	East	Lea

11 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

12 Dedicated Acres 40	13 Joint or Infill	14 Consolidation Code	15 Order No.
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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

16			

17 OPERATOR CERTIFICATION

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

[Signature]
Signature

Jerry W. Hoover

Printed Name

Sr. Conservation Coordinator

Title

Date

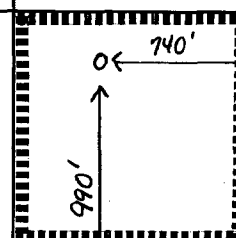
18 SURVEYOR CERTIFICATION

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 of Survey

Signature and Seal of Professional Surveyor:

Certificate Number



1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code NA	Pool Name Wildcat San Andres
Property Code 003127	Property Name WARREN UNIT		Well Number 100
GRID No. 005073	Operator Name CONOCO, INC.		Elevation 3531'

¹⁰ Surface Location

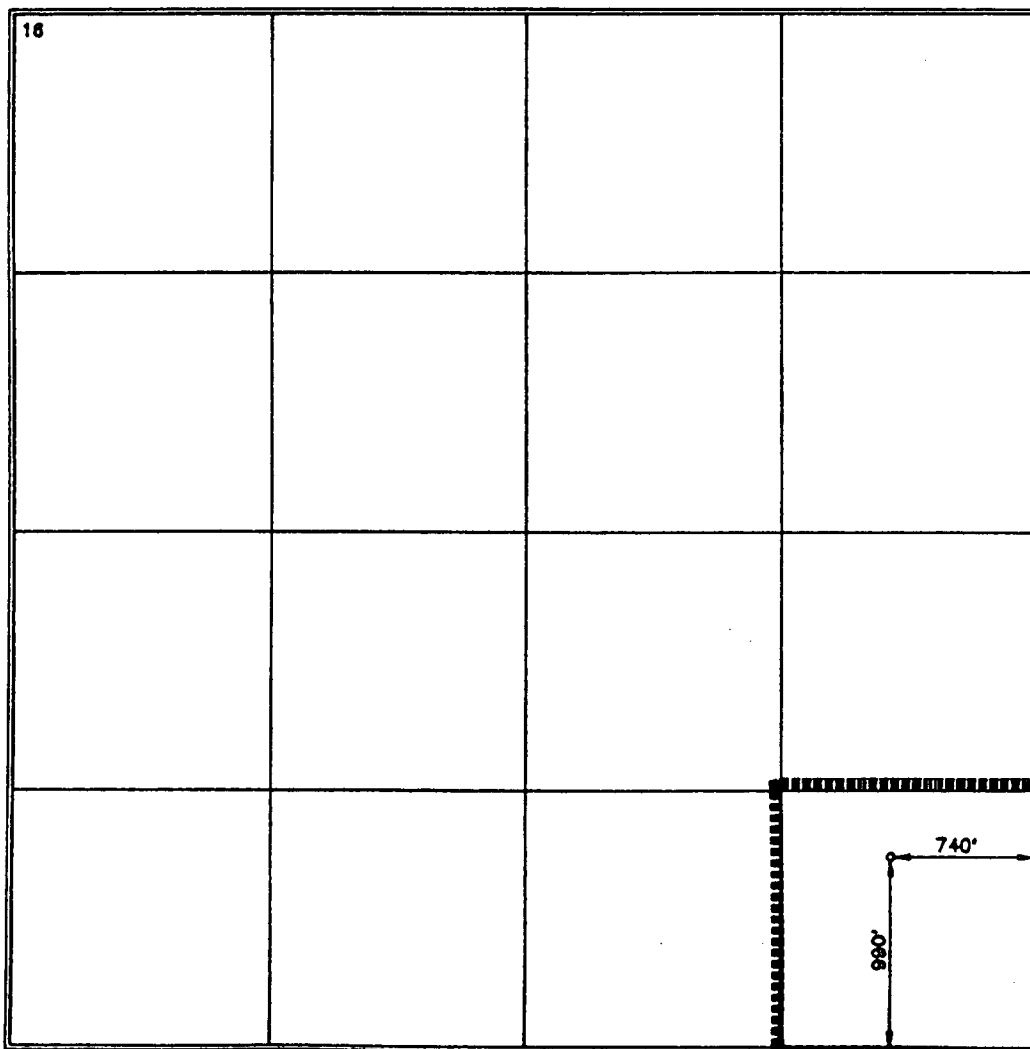

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	28	20-S	38-E		990	SOUTH	740	EAST	LEA

¹¹ 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 Acres 40	Joint or Infill	Consolidation Code	Order No.
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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

<div>16</div> 	<div>17 OPERATOR CERTIFICATION</div> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Jerry W. Hoover</i> Signature JERRY W. HOOVER Printed Name SR. CONSERVATION COORDINATOR Title 5/25/95 Date</p>	
	<div>18 SURVEYOR CERTIFICATION</div> <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 best of my belief.</p> <p>APR 12 1995 Date of Survey Signature and Seal of Professional Surveyor 8278</p> 	
	Certificate Number 8278	

Conoco, Inc.
Warren Unit Well # 100
Section 28, T-20-S, R-38-E
Lea County, New Mexico

RE: Application For Downhole Commingling

Offset Operators:

Conoco, Inc is the only offset operator