

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

1915

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

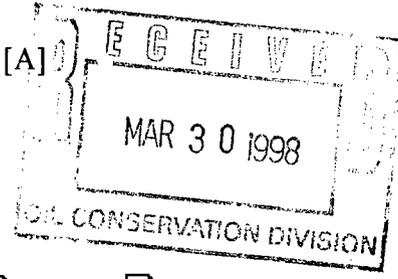
Check One Only for [B] and [C]

[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.

Kay Maddox Kay Maddox Regulatory Agent 3/26/98
Print or Type Name Signature Title Date

DISTRICT I
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 I First St. Artesia NM 88210 2835

OIL CONSERVATION DIVISION

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

APPROVAL PROCESS:
 Administrative Hearing

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

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE
 YES NO

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

Lease Ludwick LS Well No #21M Unit Ltr Sec Twp Rge Section 31, T-30-N, R-10-W, C County San Juan

OGRID NO. 005073 Property Code _____ API NO. _____ 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	Blanco Mesaverde 72319		Basin Dakota 71599
2. TOP and Bottom of Pay Section (Perforations)	4400-5000'		6865-6965'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Expected Flowing		Expected Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Or Measured Original	a (Current) 609	a.	a. 768
	b(Original) 1229	b.	b. 2493
6. Oil Gravity (°API) or Gas BT Content	1200est		1200est
7. Producing or Shut-In?	No		Yes
Production Marginal? (yes or no) • If Shut-In give date and oil/gas/water rates of last production <small>Note For new zones with no production history applicant should be required to attach production estimates and supporting data</small> • If Producing, date and oil/gas/water rates of recent test (within 60 days)	Date Rates	Date Rates	Date Rates
	To be supplied upon Completion	To be supplied upon Completion	To be supplied upon Completion
8. Fixed Percentage Allocation Formula - % of each zone	oil: % Gas %	oil: % Gas %	oil: % Gas %

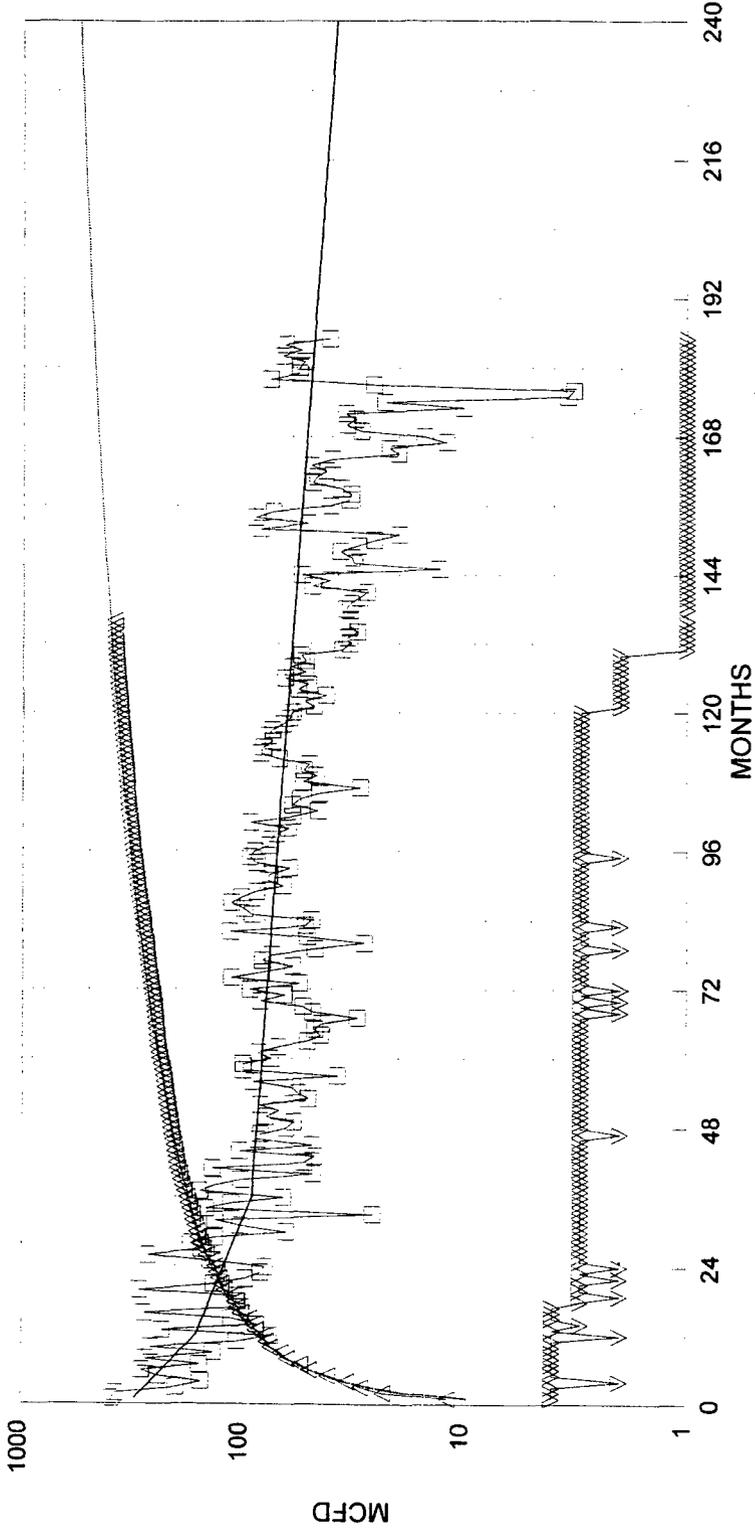
9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical 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 Kay Maddox TITLE Regulatory Agent DATE 3/26/98
TYPE OR PRINT NAME Kay Maddox TELEPHONE NO. (915) 686-5798

APPLICATION FOR DOWNHOLE COMMINGLING
Ludwick LS 21M (31C 30N 10W)

As shown in the attached production plot for offsets to the Ludwick LS 21M, estimated ultimate recoveries and initial production rates from infill wells to the Dakota formation are insufficient to justify drilling stand alone wells. Furthermore, production plots from each zone indicate a similar decline profile and a fixed allocation formula can be utilized. Upon completion, both zones will be tested and stabilized flow rates will be used to allocate production from each zone. This procedure is common practice in Burlington's 29-7 Unit and reference is made to Order R-10697 as it applies to downhole commingling of marginal zones and the allocation of production between such zones.

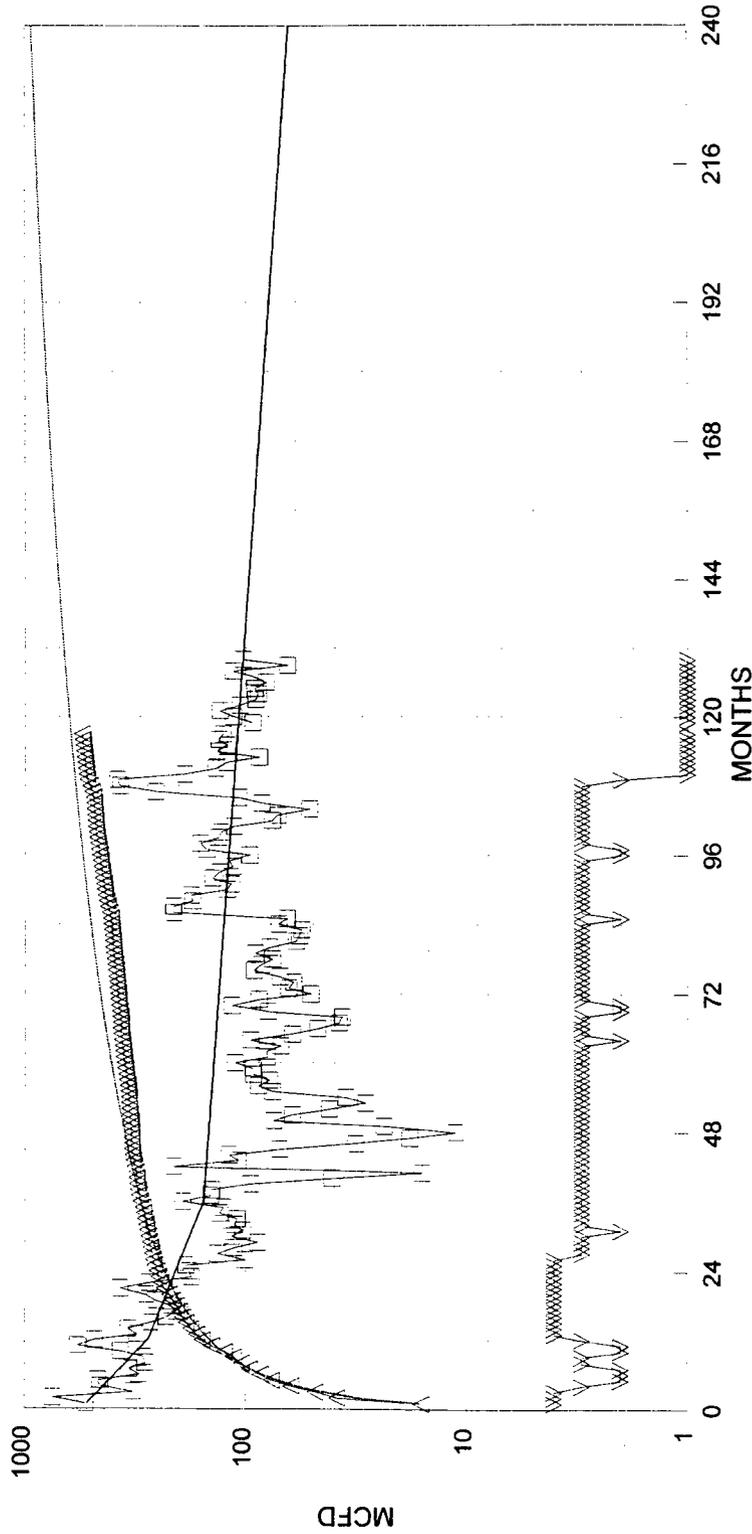
NORMALIZED DAKOTA PRODUCTION
4 WELLS SINCE 1980; OFFSET TO SECTION 36-30N-11W



— FIT MCFD ▲ NORMALIZED MCFD ▲ NORM CUM MMCF
 ▼ WELLS ON PRODUCTION — FIT CUM MMCF — RISKED MCFD

NORMALIZED AVG:	0% RISK
648 MMCF EUR	648 MMCF EUR
555 MMCF IN 20 YRS	555 MMCF IN 20 YRS
25 MCFD E.L.	25 MCFD E.L.
0.0050 bbl/mcf oil yield	0.0050 bbl/mcf oil yield
325 MCFD IP	325 MCFD IP
50% DECLINE, 1ST 12 MONTHS	50.0% DECLINE, 1ST 12 MONTHS
25% DECLINE, NEXT 24 MONTHS	25.0% DECLINE, NEXT 24 MONTHS
5.0% FINAL DECLINE	5.0% FINAL DECLINE

NORMALIZED MESAVERDE PRODUCTION
4 WELLS SINCE 1980; OFFSET TO SECTION 36-30N-11W



--- FIT MCFD □ NORMALIZED MCFD ^ NORM CUM MMCF
 ∇ WELLS ON PRODUCTION --- FIT CUM MMCF — RISKED MCFD

NORMALIZED AVG:		RISKED AVG:		0% RISK	
1220 MMCF EUR	550 MCFD IP	1220 MMCF EUR	550 MCFD IP	550 MCFD IP	550 MCFD IP
940 MMCF IN 20 YRS	50% DECLINE, 1ST 12 MONTHS	940 MMCF IN 20 YRS	50.0% DECLINE, 1ST 12 MONTHS	50.0% DECLINE, 1ST 12 MONTHS	50.0% DECLINE, 1ST 12 MONTHS
25 MCFD E.L.	25% DECLINE, NEXT 24 MONTHS	25 MCFD E.L.	25.0% DECLINE, NEXT 24 MONTHS	25.0% DECLINE, NEXT 24 MONTHS	25.0% DECLINE, NEXT 24 MONTHS
0.0021 bbl/mcf oil yield	5.0% FINAL DECLINE	0.0021 bbl/mcf oil yield	5.0% FINAL DECLINE	5.0% FINAL DECLINE	5.0% FINAL DECLINE

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised February 21, 1994

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

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

Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

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

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number		*Pool Code		*Pool Name	
		72319 / 71599		BLANCO MESAVERDE / BASIN DAKOTA	
*Property Code		*Property Name			*Well Number
		LUDWICK LS			21M
*OGRID No.		*Operator Name			*Elevation
005073		CONOCO, INC.			6086'

¹⁰ Surface Location

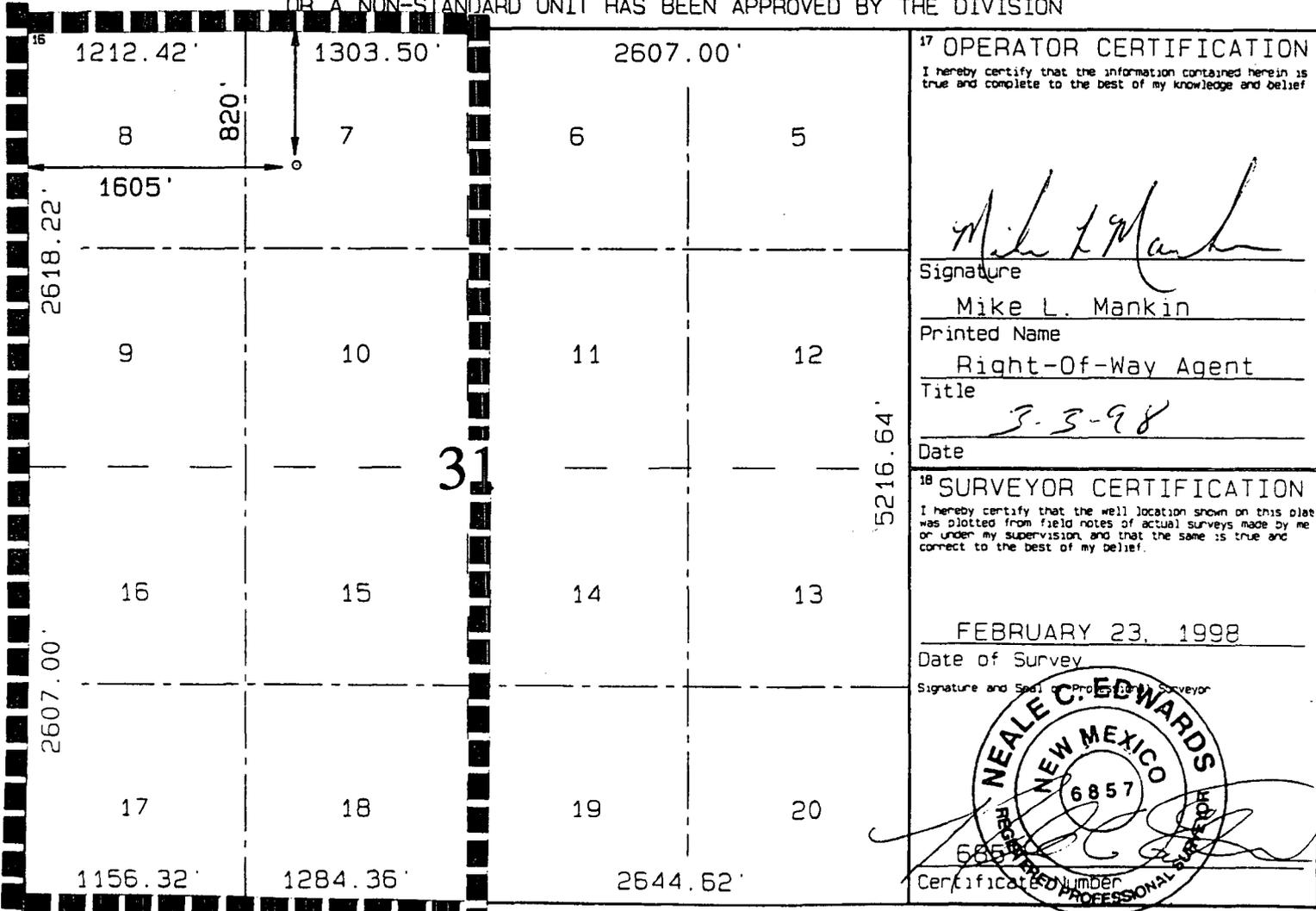
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	31	30N	10W		820	NORTH	1605	WEST	SAN JUAN

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	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
320			

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



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
 DRILL DEEPEN
 b. TYPE OF WELL
 OIL WELL GAS WELL OTHER
 SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 Conoco Inc.

3. ADDRESS AND TELEPHONE NO
 10 Desta Dr. Ste 430E, Midland, Tx. 79705-4500 915-686-5794

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements *)
 At surface 820' FNL & 1605' FWL
 At proposed prod. zone 820' FNL & 1605' FWL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 San Juan NM

5. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if Any)	16 NO OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
8. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	19. PROPOSED DEPTH	20. ROTARY OR CABLE TOOLS
21. ELEVATIONS (Show whether DF, RT, GR, etc)	6086' GR	22. APPROX. DATE WORK WILL START*
		4/15/98

23 PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	K-55, 9-5/8"	36#	250'	135 sxs, circ.
8-3/4"	K-55, 7"	23#	2800'	335 sxs, circ.
6-1/4"	K-55, 4-1/2"	9.5#	7092'	470 sxs, toc @ 2600'

It is proposed to drill a vertical wellbore to the Blanco Mesaverde and Basin Dakota Pools. NOS was filed 2/21/98. The well will be drilled and equipped according to the following additional attachments:

1. Well Location & Acreage Dedication Plat (C-102).
2. Proposed Well Plan Outline.
3. Cementing Plan.
4. Blowout Preventer Hookup.
5. Surface Use Plan with Production Facility Layout.
6. Pipeline survey plat.

This application includes ROW's for the well pad, access road and pipeline.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Mike L. Mankin TITLE Right-of-Way Agent DATE March 3, 1998

(This space for Federal or State office use)

PERMIT NO _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
 CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY _____ TITLE _____ DATE _____

*See Instructions On Reverse Side

Conoco, Inc.
Ludwick LS #21M
Section 31, T-30-N, R-10-W, C
San Juan, New Mexico

RE: Application to Downhole Commingle (C-107A)

Notification Of Offset Operators:

Dugan Production Corp.
PO Box 420
Farmington, NM 87499-0420

Amoco
PO Box 800
Denver, CO 80201

Burlington Resources
PO Box 4239
Houston, TX 77210-4239