

DATE IN 9/20/99	SUSPENSE 10/12/99	ENGINEER DC	LOGGED BY MV	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

2481

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

SEP 20 1999

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.

Lynne Moon
Print or Type Name

Signature

Regulatory Analyst
Title

Date

9/12/99

MERIT ENERGY COMPANY

12222 Merit Drive, Suite 1500
Dallas, Texas 75251
(972) 701-8377
(972) 960-1252 Fax

September 17, 1999

Mr. David R. Catanach
State of New Mexico
Oil Conservation Commission
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: Application for Downhole Commingling
Federal 4 Com #2
Sec. 4-T21S-R27E
Eddy Co., New Mexico

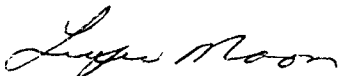
Dear Mr. Catanach:

Merit Energy Company is applying to downhole commingle the Delaware & Bone Springs reservoirs on the above referenced well. I have enclosed the following information for your review. If you have any questions, I can be reached at 972-383-6569.

- 1) Administrative Application Coversheet
- 2) Form C-107-A
- 3) Form C-102 (Both Reservoirs)
- 4) Production Charts
- 5) Allocation Formula
- 6) Plat
- 7) Copy of letter notifying Exxon of application (Offset Operator)
- 8) Procedure & Wellbore Schematic

Sincerely,

MERIT ENERGY COMPANY



Lynne Moon
Regulatory Analyst

Cc: Artesia Office

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 Merit Energy Company Address 12222 Merit Drive Suite 1500 Dallas, Texas 75251
Federal 4 Com 2 B-4-21S-27E Eddy
Lease Well No. Unit Ltr. - Sec - Twp - Rge County
OGRID NO. 014591 Property Code 7669 API NO. 30-015-29422 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	Delaware		Bone Springs
2. Top and Bottom of Pay Section (Perforations)	4955' - 5022'		6310' - 6381' 6497'
3. Type of production (Oil or Gas)	Oil		Oil
4. Method of Production (Flowing or Artificial Lift)	Artificial Lift		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 2550 psi	a.	a. 3300 psi
	b. (Original)	b.	b.
6. Oil Gravity (°API) or Gas BTU Content	43 deg.		42.6 deg.
7. Producing or Shut-In?	Producing		Shut-In
Production Marginal? (yes or no)	No		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, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates:	Date: Rates:	Date: July, 1999 Rates: 10 BOPD, 14 BWPD 60 MCFD
	Date: 09/12/99 Rates: 11 BOPD, 97 BWPD, 41 MCFD	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 52% Gas: 41%	Oil: % Gas: %	Oil: 48% Gas: 59%

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 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

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 Lynne Moon TITLE Regulatory Analyst DATE 09/16/99
TYPE OR PRINT NAME Lynne Moon TELEPHONE NO. (973) 383-6569

District I
1625 N. French Dr., Hobbs, NM 88240

District II
811 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 & Natural Resources

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised March 17, 1995

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-29422		² Pool Code	³ Pool Name Burton Flats, Delaware
⁴ Property Code	⁵ Property Name Federal 4		⁶ Well Number 2
⁷ OGRID No. 014591	⁸ Operator Name Merit Energy Company		⁹ Elevation 3196'

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
B	4	21S	27E		660	North	1980	East	Eddy

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 <u>Lynne Moon</u> Printed Name Lynne Moon Title Regulatory Analyst Date 07/20/99 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

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

DISTRICT IV
PO BOX 2088, SANTA FE, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Instruction on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 96335	Pool Name Burton Flats Bone Springs
Property Code	Property Name FEDERAL "4" WY SJS	Well Number 2
OGRID No.	Operator Name MERIT ENERGY COMPANY	Elevation 3196

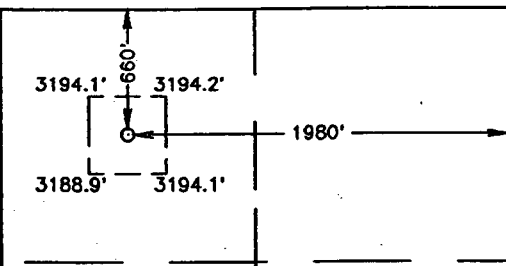
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	4	21 S	27 E		660	NORTH	1980	EAST	EDDY

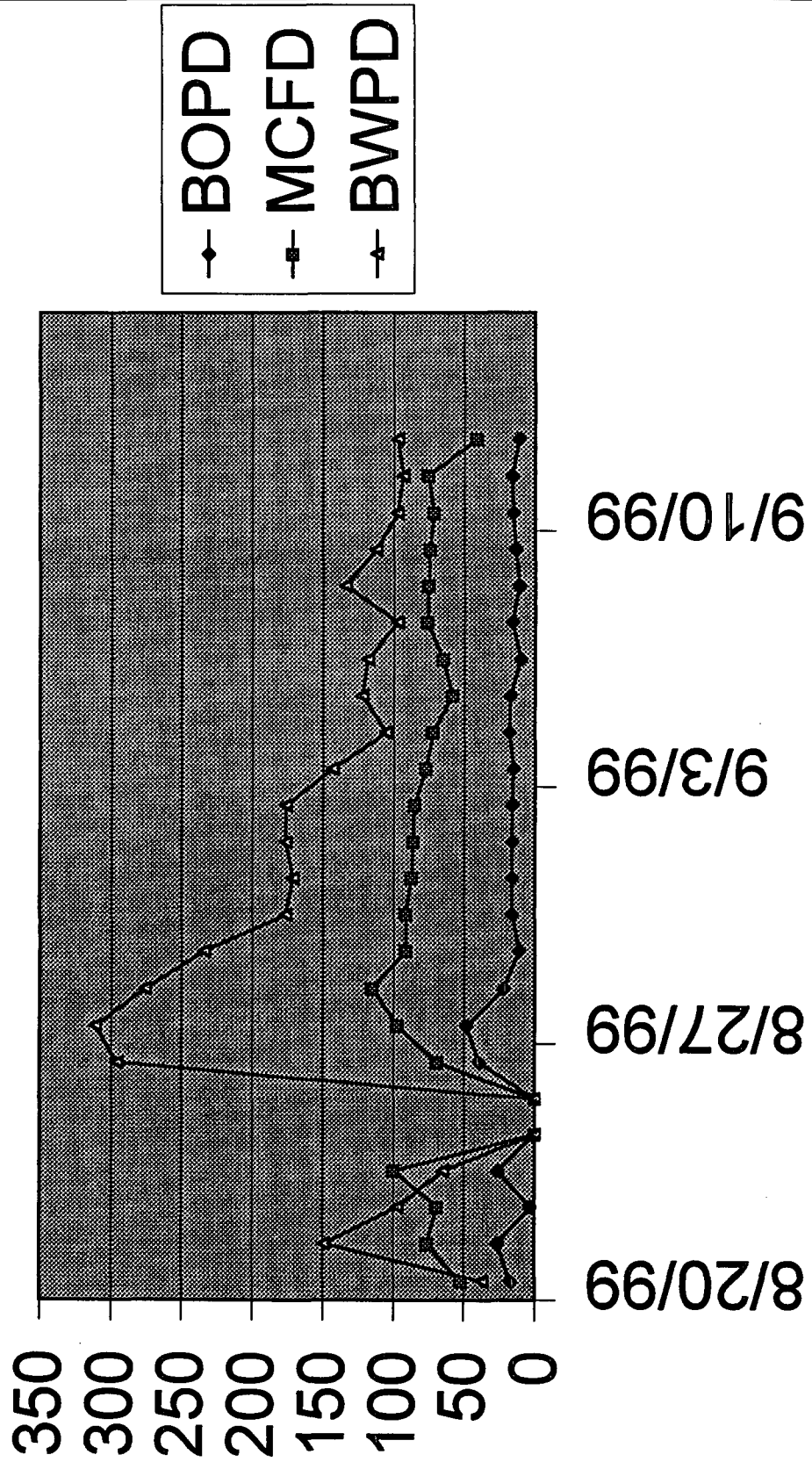
Bottom Hole Location If Different From Surface

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.						

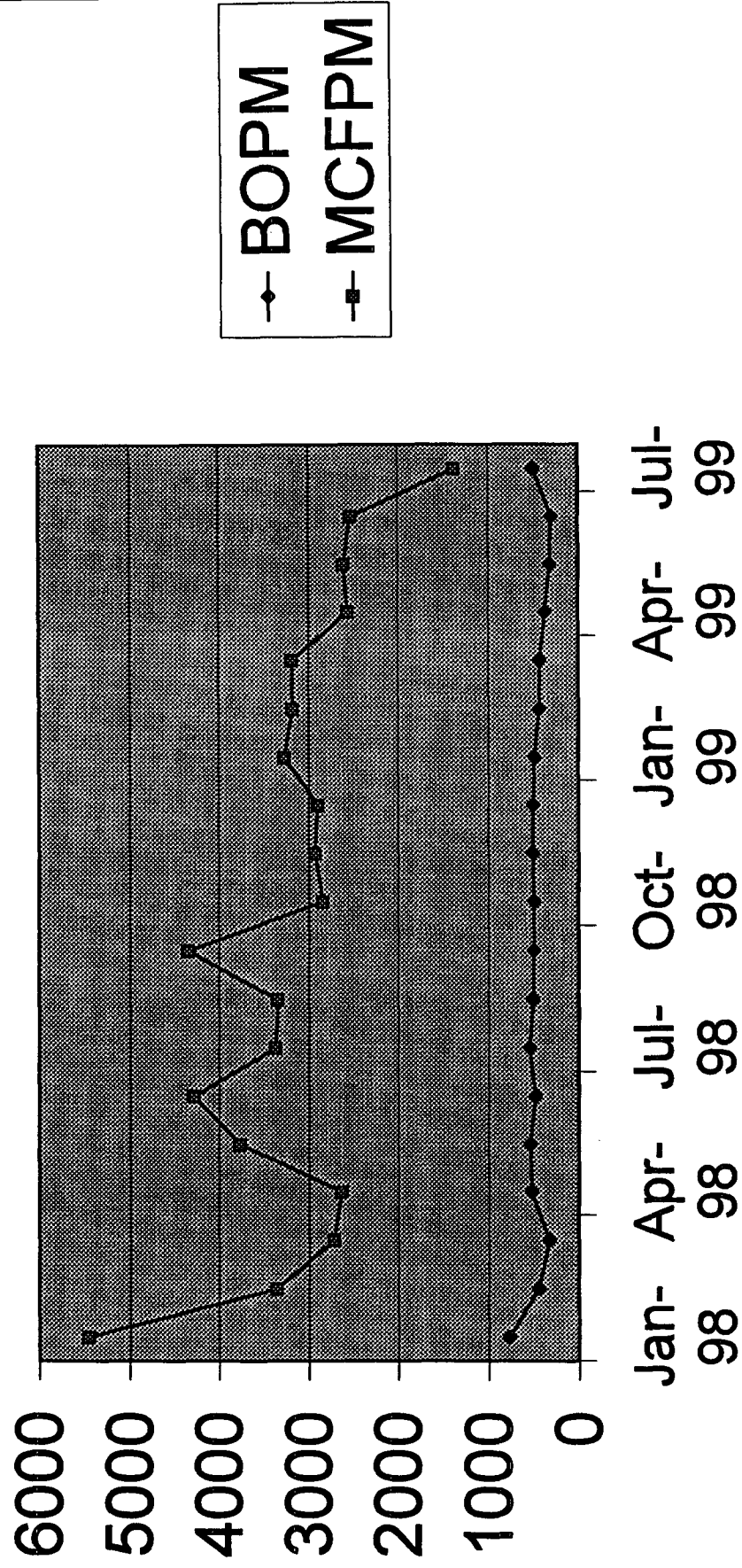
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <u><i>Russell White</i></u> Signature <u>Russell White</u> Printed Name <u>Operations Supt.</u> Title <u>6-12-95</u> Date	
	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. APRIL 28, 1995 Date Surveyed <u><i>ALDO J. EDISON</i></u> Signature of Surveyor Professional Surveyor NEW MEXICO 3239 No. 95-140670 Certified by ALDO J. EDISON JSA	
	No. 95-140670 WEST EDISON 12641	

Federal 4 Com #2 - Delaware



FEDERAL 4 COM #2 - BONE SPRINGS



MERIT ENERGY COMPANY
FEDERAL 4 2
SEC. 4-T21S-R27E
EDDY CO., NEW MEXICO

FORMULA ALLOCATION

Delaware	11 BOPD	41 MCF
Bone Springs	<u>10</u> BOPD	<u>60</u> MCF
TOTAL	21 BOPD	101 MCF

Delaware	$\frac{11}{21} = 52\%$	$\frac{41}{101} = 41\%$
Bone Springs	$\frac{10}{21} = 48\%$	$\frac{60}{101} = 59\%$
Total	100%	100%

RIG
MA
4

WELCH VAN S
WELCH ETAL
7
YATES FEDERAL
35C

MERIT ENERGY
FEDERAL 4 2
4-2

BUNNEL ROBERT L
COONS
GO
2

EXXON
YATES FEDERAL
22
EXXON CORP
RIGGS GEORGE D
YATES FEDERAL
19C
WELCH ETAL FEDERA
4

MBLE OIL & REFIN
RTH CEDAR HILLS

MERIT ENERGY CORP.
FEDERAL COM
1

4

TAYLOR BILL
WELCH YATES C. FED.
7WD

RIGGS GEORGE D
WELCH FEDERAL
3

WELCH YATES
WELCH ETAL
3
5
XXON CORP.

RIGGS GEORGE D
WELCH ETAL
5
6

WELCH YATES
FEDERAL
4

GEORGE D
FEDERAL ETA

HAMON JAKE L
FEDERAL 4 COMB
1

TEXACO, INC.
BH TRIGG FEDERAL
1

R JM III RECTOR JM III
NE MAURINE BARNETT F
2
MANZANO OIL
RADKE FEDERAL
1

MERIT ENERGY COMPANY

12222 Merit Drive, Suite 1500
Dallas, Texas 75251
(972) 701-8377
(972) 960-1252 Fax

September 16, 1999

Exxon Corporation
P. O. Box 4538
Houston, Texas 77210-4358

Re: Application for Downhole Commingling
Federal 4 2
Sec. 4-T21S-R27E
Eddy Co., New Mexico

Dear Sir or Madam:

Merit Energy Company is applying to the Oil Conservation Division of the State of New Mexico to downhole commingle the above referenced well. A copy of the application is enclosed for your review.

You are being notified of the application because Merit's records indicate you are an offset operator to our lease. If you should have any questions, I can be reached at 972-383-6569.

Sincerely,

MERIT ENERGY COMPANY



Lynne Moon
Regulatory Analyst

September 16, 1999

Fed 4 Com #2
Sand Dunes WestField,
Eddy County, NM

MECHANICAL DETAIL:

PERMANENT ZERO POINT: KB- 3441'
TD= 12743' PBD=12550'

PRODUCTION CSG: 5 1/2" 15.5 @ 6678'
TUBING: 2 7/8" 6.4#,
TBG ANCHOR: 4716'

OBJECTIVE: ADD PERFS TO CURRENT DELAWARE.

- 1) MIRU WORKOVER RIG. POOH W/RODS. POOH W/TBG & DOWNHOLE EQUIPMENT.
- 2) TAG FILL/CMT ON TOP OF CIBP@ 5200', TOP OF CMT @ 5180'.
- 3) TAG FILL & VERIFY PBD BELOW BONE SPRINGS. CLEAN OUT TO VERIFY PERFS ARE UNCOVERED IF NECESSARY.
- 4) RIH W/ PRODUCTION EQUIPMENT. PUT WELL ON PRODUCTION.

Federal '4' Com #2

LEASE & WELL NO. Fed '4' Com #2
 FIELD NAME Burton Flats
 LOCATION 660' FN & 1980' FEL Sec 4 T-21S R-27E

FORMER NAME _____
 COUNTY & STATE Eddy Co., NM
 API NO. 30-015-29422

K.B. ELEV. 3206'
 D.F. ELEV. 3205.0'
 GROUND LEVEL 3196'
 CORR. ?

SURFACE CASING

SIZE 13 3/8" WEIGHT 54.5# DEPTH 650'
 GRADE _____ SX. CMT. 570 sx TOC @ Surf

INTERMEDIATE CASING

SIZE 8 5/8" WEIGHT 24.# DEPTH 2700'
 GRADE _____ SX. CMT. 1305 sx TOC @ Surf

WELL HISTORY

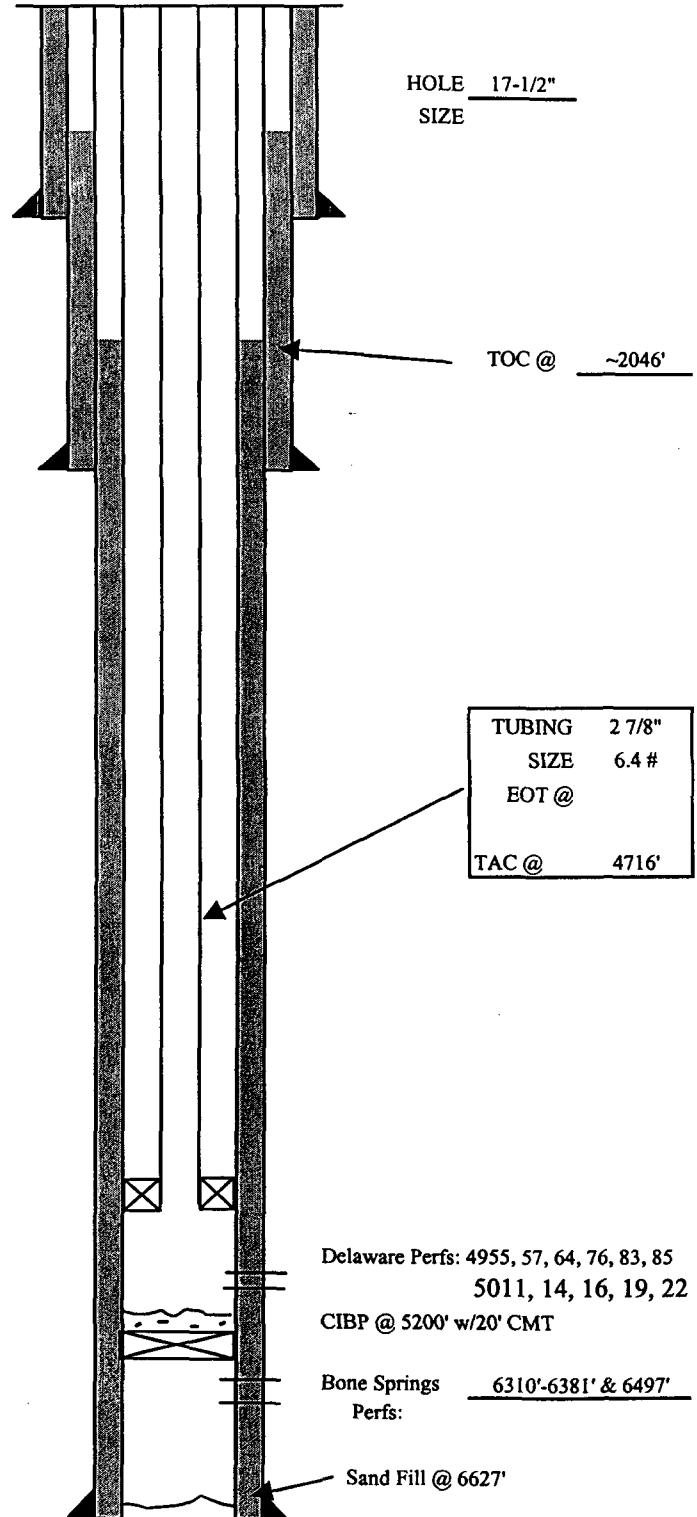
COMPLETION DATE: 05/15/1997

Lost Circulation @ 55'

PRODUCTION STRING

SIZE 5 1/2" WEIGHT 15.5# DEPTH 6678'
 GRADE _____ SX. CMT. 874 sx TOC @ ~2046'

PBTD@ 5180'
 TD@ 6678'



09/16/1999