

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

2481

ADMINISTRATIVE APPLICATION COVERSHEET

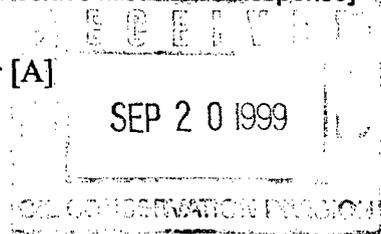
THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

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



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

Lynne Moon
Signature

Regulatory Analyst
Title

9/12/99
Date

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

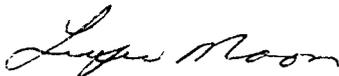
Dear Mr. Catanach:

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

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

OIL CONSERVATION DIVISION

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

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

Lease: Federal 4 Com, Well No. 2, Unit Ltr. - Sec - Twp - Rge: B-4-21S-27E, County: Eddy

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: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current 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, 1999

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		⁴ Property Name Federal 4			⁴ 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 <i>Lynne Moon</i>	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" ROY 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

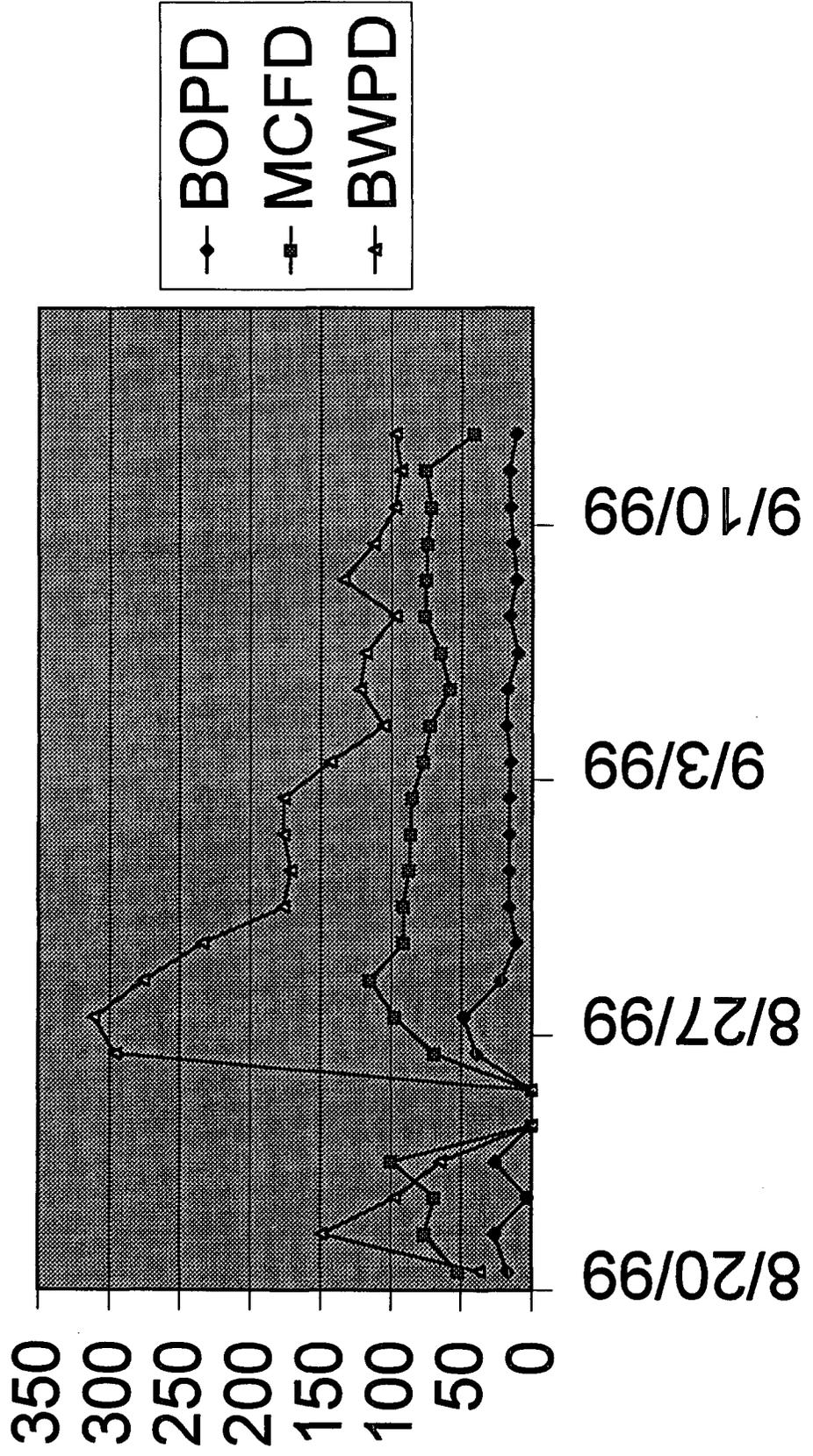
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
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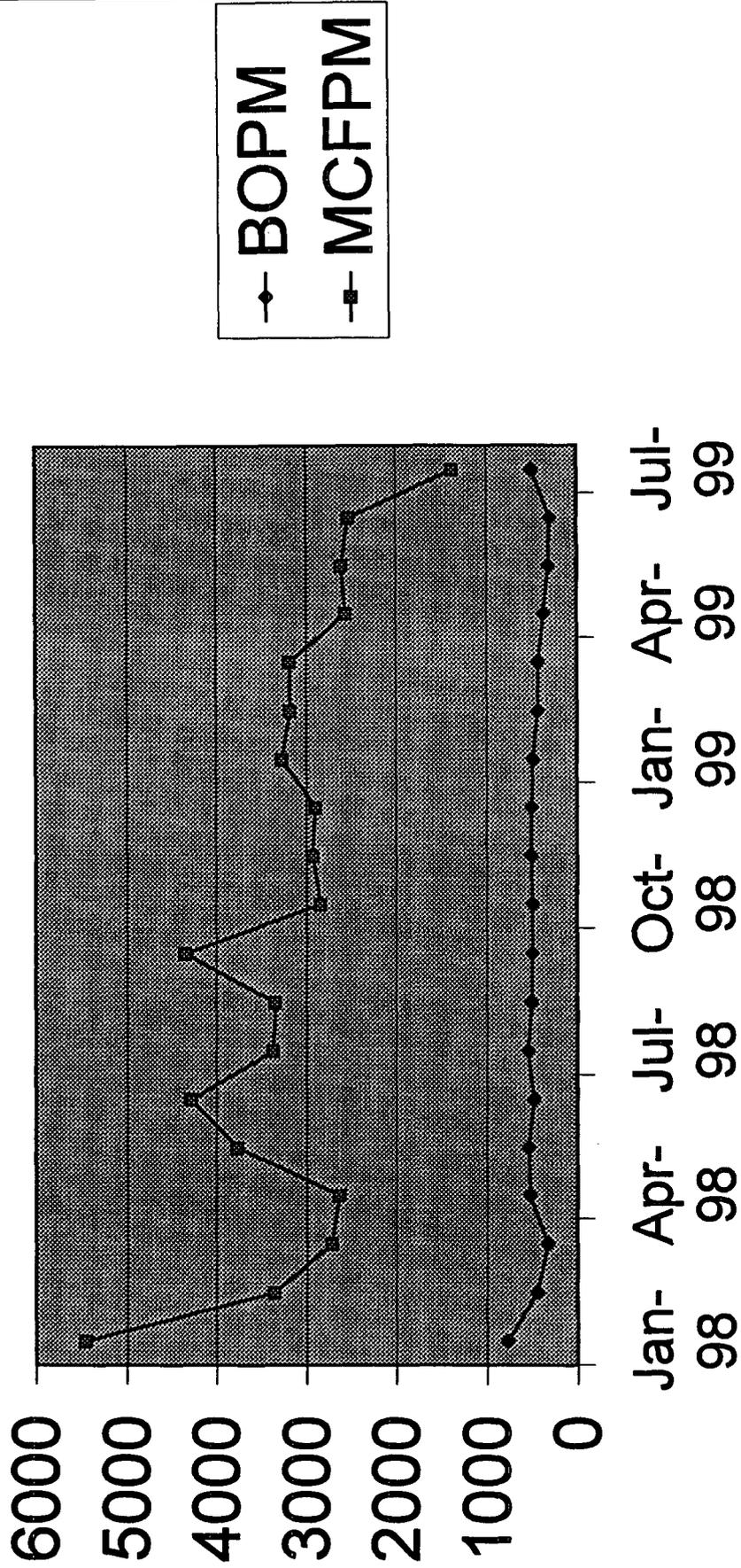
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>OPERATOR CERTIFICATION</p> <p><i>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p><i>Russell White</i> Signature</p> <p>Russell White Printed Name</p> <p><i>Operations Supt.</i> Title</p> <p>6-12-95 Date</p>
	<p>SURVEYOR CERTIFICATION</p> <p><i>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.</i></p> <p style="text-align: center;">APRIL 28, 1995</p>
	<p>Date Surveyed</p> <p>Signature of Seal of Professional Surveyor</p> <p style="text-align: center;"> </p>
	<p>Certification No. 3239 WEST Professional Surveyor RONALD J. EDSON 676 EIDSON 3239 EIDSON 12641</p>

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 EXXON CORP.
7
YATES FEDERAL
35C

BUNNEL ROBERT L
COONS
FEDERAL 4 2
2

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

MERIT ENERGY CORP.
FEDERAL COM
1

MBLE OIL & REFIN
RTH CEDAR HILLS

4

TAYLOR BILL
WELCH YATES C. FED.
7WD

RIGGS GEORGE D
WELCH FEDERAL
3

WELCH YATES
WELCH ETAL
EXXON CORP.
3 5

RIGGS GEORGE D
WELCH FEDERAL
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' PBTD=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 PBTD 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

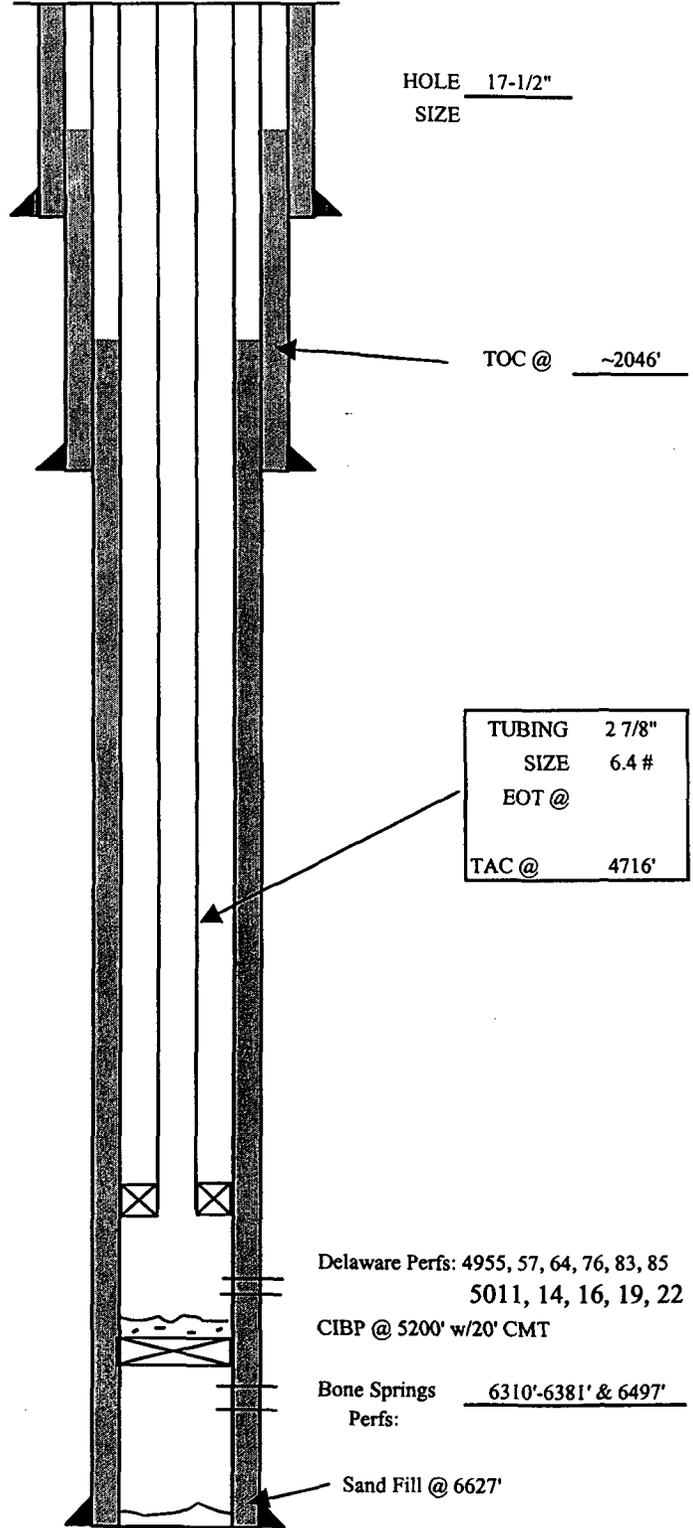
WELL HISTORY

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'



Delaware Perfs: 4955, 57, 64, 76, 83, 85
 5011, 14, 16, 19, 22
 CIBP @ 5200' w/20' CMT

Bone Springs 6310'-6381' & 6497'
 Perfs:

Sand Fill @ 6627'