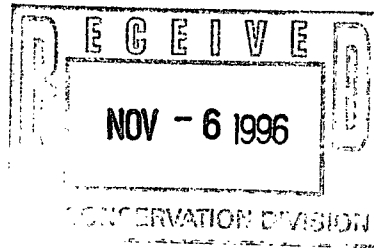


# BURLINGTON RESOURCES

SAN JUAN DIVISION

November 5, 1996

Federal Express



Mr. Michael Stogner  
New Mexico Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

Re: Klein #27  
1590'FSL, 2040'FWL, Section 35, T-26-N, R-6-W, Rio Arriba County, NM  
API #30-039-021603

Dear Mr. Stogner:

This is a request for administrative approval for a non-standard gas well location in the Blanco Mesa Verde and Basin Dakota pools.

Burlington Resources Oil & Gas Company has recompleted the Klein #27 in the Mesa Verde and Gallup pools, and plans to trimingle them with the Dakota, which was drilled and completed in June 1978. Per the Aztec District Office of the New Mexico Oil Conservation Division, no application was made, nor NSL order issued for the Dakota at the time of its drilling and completion.

To comply with the New Mexico Oil Conservation Division rules, Burlington is submitting the following for your approval of this non-standard location:

1. C-102 plat showing location of the well;
2. Plat showing offset owners/operators;
3. Copy of Well Completion Log for original completion;
4. Affidavit of notification of offset owners/operators.

A copy of this application is being submitted to all offset owners/operators by certified mail with a request that they furnish your Santa Fe office with a Waiver of Objection, and return one copy to this office.

Sincerely yours,

Peggy Bradfield  
Regulatory/Compliance Administrator

## WAIVER

\_\_\_\_\_ hereby waives objection to Burlington Resource's application for non-standard location for the Klein #27 as proposed above.

By: \_\_\_\_\_ Date: \_\_\_\_\_

xc: Texaco Exploration & Production

Address I  
O Box 1988, Hobbs, NM 88241-1988  
Address II  
O Drawer DD, Aramis, NM 88211-8719  
Address III  
388 Mio Brans Rd., Aztec, NM 87410  
Address IV  
O 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	72319 <sup>1</sup> Pool Code	Pool Name
30-039-21603	96321/71599	Blanco MV/Ensenada Gal/Basin Dakota
Property Code	Property Name	Well Number
7228	Klein	27
GRID No.	Operator Name	Elevation
14538	MERIDIAN OIL INC.	6331 <sup>1</sup>

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
K	35	26 N	6 W		1590	South	2040	West	R.A.

<sup>11</sup> Bottom Hole Location If Different From Surface

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

<sup>12</sup> Dedicated Acres  
S/320  
160-S/320

<sup>13</sup> Joint or Infill

<sup>14</sup> Consolidation Code

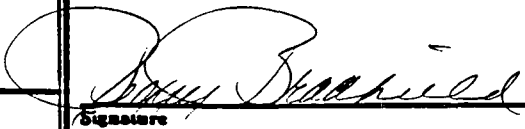
<sup>15</sup> Order No.

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

<sup>16</sup> Not resurveyed, prepared  
from a plat dated 1-16-75  
by David O. Vilven.

<sup>17</sup> OPERATOR CERTIFICATION

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

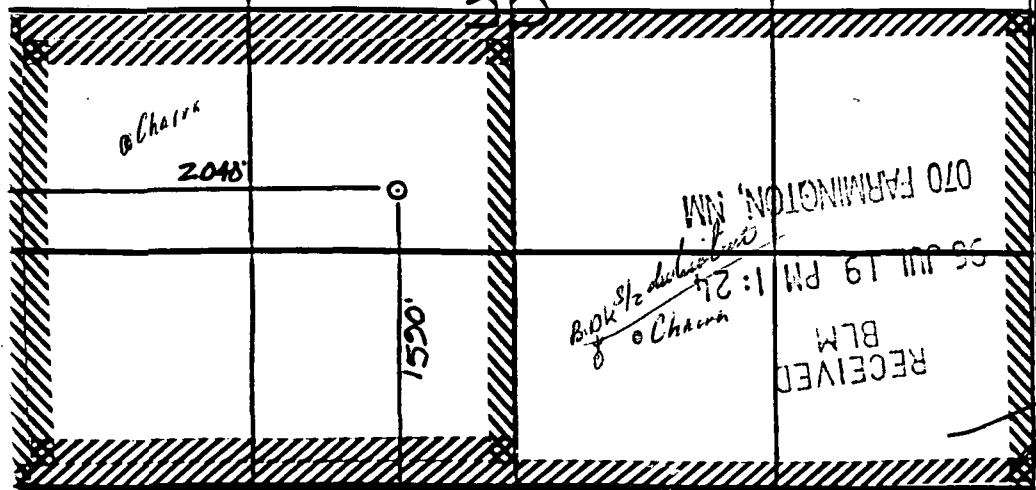
  
Signature  
Peggy Bradfield  
Printed Name  
Regulatory Administrator  
Title  
7-15-96  
Date

<sup>18</sup> 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.

7-11-96

Date of Survey  
Signature and Seal of Professional Surveyor  
  
Certificate Number



**BURLINGTON RESOURCES OIL AND GAS COMPANY**

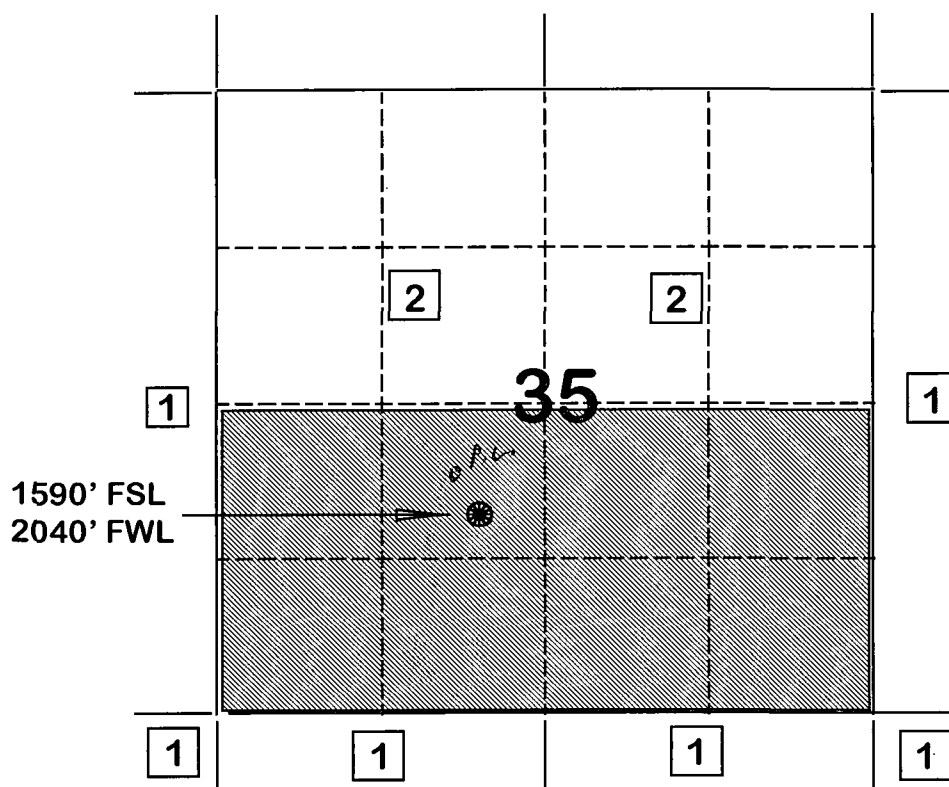
**Klein #27**

**OFFSET OPERATOR \ OWNER PLAT**

**Nonstandard Location**

**Mesaverde (S/2), Gallup (SW/4) & Dakota (S/2) Formations Well**

**Township 26 North, Range 6 West**



- 1) Burlington Resources Oil and Gas Company Successor to Meridian Oil Inc.
- 2) Texaco Exploration & Production Inc.  
P.O. Box 2100  
Denver, CO 80201

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN D

DATE\*  
other in-  
structions on  
reverse side)Form approved.  
Budget Bureau No. 42-R355.6.

5. LEASE DESIGNATION AND SERIAL NO.

SF 079265

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Klein

9. WELL NO.

27

10. FIELD AND POOL, OR WILDCAT

Basin Dakota

11. SEC., T., R., M., OR BLOCK AND SURVEY  
OR AREASec. 35, T-26-N, R-6-W  
NMPM12. COUNTY OR  
PARISH

Rio Arriba

13. STATE

New Mexico

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other \_\_\_\_\_

b. TYPE OF COMPLETION:

NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other \_\_\_\_\_

2. NAME OF OPERATOR

EL PASO NATURAL GAS CO.

3. ADDRESS OF OPERATOR

BOX 990, FARMINGTON, NEW MEXICO

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*

At surface 1590'S, 2040'W

At top prod. interval reported below

At total depth

14. PERMIT NO.

DATE ISSUED

15. DATE SPUDDED 6/20/78 16. DATE T.D. REACHED 7/9/78 17. DATE COMPL. (Ready to prod.) 9/20/78 18. ELEVATIONS (DF, REB, RT, GR, ETC.)\* 6331 GL 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD &amp; TVD 7134' 21. PLUG, BACK T.D., MD &amp; TVD 7118' 22. IF MULTIPLE COMPL., HOW MANY\* 23. INTERVALS DRILLED BY 0-7134 ROTARY TOOLS CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* 6825-6991 (DAK) 25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN IEL-GR; CDL-GR; Temp. Survey 27. WAS WELL CORED No

## 28. CASING RECORD (Report all strings set in well)

CASINO SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9 5/8"	36#	214'	13 3/4"	354 cf.	
4 1/2"	10.5#	7134'	8 3/4"	353 cf.	

## 29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2 3/8"	6987'	

31. PERFORATION RECORD (Interval, size and number) 6825, 6906, 6912, 6918, 6949, 6957, 6984, 6991 with 1 SPZ.

## 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
6825-6991	62,000# 40/60 sand; 10,490 gal.w

33.\*

## PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS: (Producing or shut-in)	
		After Frac Gauge - 784 MCF/D				Shut-In	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
9/20/78			→				
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
SI 1256	SI 2472	→	RECEIVED PASO NATURAL GAS COMPANY			RECEIVED	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)							

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

EL PASO NATURAL GAS COMPANY  
FARMINGTON OFFICE

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

SIGNED

D. J. Lucio

TITLE

Drilling Clerk

U. S. GEOLOGICAL SURVEY  
DURANGO, COLO.

\*(See Instructions and Spaces for Additional Data on Reverse Side)

Re: Klein #27  
1590'FSL, 2040'FWL, Section 35, T-26-N, R-6-W, Rio Arriba County, NM  
API #30-039-21603

I hereby certify that the following offset owners/operators have been notified by certified mail of our application for administrative approval for non-standard well location of the above well.

Texaco Exploration & Production  
PO Box 2100  
Denver, CO 80201

  
Peggy Bradfield  
Regulatory/Compliance Administrator

**STATE OF NEW MEXICO  
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:**

**CASE NO. 11038  
Order No. R-10239**

**APPLICATION OF MERIDIAN OIL INC.  
FOR DOWNHOLE COMMINGLING, RIO  
ARRIBA COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on August 18, 1994, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 14th day of November, 1994, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

**FINDS THAT:**

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Meridian Oil Inc., seeks exceptions from Division General Rule 303(C) to establish, on an area wide basis, authorization for downhole commingling of Dakota, Mesaverde and Gallup production in the wellbores of existing or subsequently drilled wells anywhere within Sections 26 through 30, 33, 34, and the S/2 of 35, all in Township 26 North, Range 6 West, NMPM, Rio Arriba County, New Mexico.

(3) The subject area is comprised of two separate Federal leases, the Vaughn Federal Lease (NM-602), which consists of Sections 26 through 29, and the Klein Federal Lease (NM-601), which consists of Sections 30, 33, 34 and the S/2 of 35.

(4) The evidence presented indicates that the interest ownership underlying the Vaughn Federal Lease is common, and the interest ownership underlying the Klein Federal Lease is common.

(5) According to applicant's testimony, it currently operates within the Klein-Vaughn Lease area:

- 26- Basin-Dakota Gas Pool producing wells
- 7- Blanco-Mesaverde Gas Pool producing wells
- 1- Undesignated Gallup producing well

(6) The applicant's proposed plan of operation for the Klein-Vaughn Lease area is as follows:

- a) the Basin-Dakota Gas Pool producing wells which are currently producing at or below a pre-determined economic threshold will be temporarily abandoned in the Dakota formation, and each well will be completed and tested in the Mesaverde and Gallup formations. After sufficient production information is obtained to establish an allocation formula, all three formations will be commingled in the wellbore;
- b) existing Blanco-Mesaverde Gas Pool wells will not be commingled with either the Dakota or Gallup formations;
- c) approximately five new wells will be drilled within the Klein-Vaughn Lease area and will initially be dually completed as Mesaverde and commingled Dakota/Gallup producers. At such time as these wells become uneconomic, they will be commingled in the Mesaverde, Dakota and Gallup formations.

(7) The twenty-four Basin-Dakota Gas Pool producing wells the applicant proposes to commingle are as follows:

<u>WELL NAME</u>	<u>WELL LOCATION</u>
Vaughn No. 8	Unit A, 26-26N-6W
Vaughn No. 12E	Unit C, 26-26N-6W
Vaughn No. 12	Unit K, 26-26N-6W
Vaughn No. 8E	Unit P, 26-26N-6W
Vaughn No. 13	Unit A, 27-26N-6W
Vaughn No. 14E	Unit D, 27-26N-6W
Vaughn No. 14	Unit K, 27-26N-6W
Vaughn No. 15	Unit A, 28-26N-6W
Vaughn No. 30E	Unit D, 28-26N-6W
Vaughn No. 30	Unit K, 28-26N-6W

Vaughn No. 15E	Unit P, 28-26N-6W
Vaughn No. 31	Unit B, 29-26N-6W
Vaughn No. 32E	Unit D, 29-26N-6W
Vaughn No. 31E	Unit I, 29-26N-6W
Vaughn No. 32	Unit K, 29-26N-6W
Klein No. 28E	Unit C, 33-26N-6W
Klein No. 26	Unit H, 33-26N-6W
Klein No. 28	Unit K, 33-26N-6W
Klein No. 19	Unit A, 34-26N-6W
Klein No. 19E	Unit C, 34-26N-6W
Klein No. 24E	Unit I, 34-26N-6W
Klein No. 24	Unit L, 34-26N-6W
Klein No. 27	Unit K, 35-26N-6W
Klein No. 27E	Unit O, 35-26N-6W

(8) The evidence presented indicates that twenty-two of the twenty-four above-described Dakota producing wells are currently marginal with production averaging approximately 88 MCF gas per day.

(9) The Vaughn Well Nos. 12E and 14 are currently non-marginal with production averaging approximately 419 MCF gas per day, however, applicant testified that these wells, as well as the other Dakota producing wells within the Klein-Vaughn Lease area, are experiencing liquid loading problems which would be greatly alleviated by the proposed downhole commingling.

(10) The current average production from Blanco-Mesaverde Gas Pool wells within the Klein-Vaughn Lease area is approximately 351 MCF gas per day.

(11) The single Gallup producing well within the Klein-Vaughn Lease area currently produces at a rate of approximately 45 MCF gas per day.

(12) The evidence and testimony indicate that the present wellbore configurations of the existing Dakota producers within the Klein-Vaughn Lease area precludes completing these wells as dual producers.

(13) The applicant's geologic evidence and testimony indicate that:

- a) the Klein-Vaughn Lease area is located on the southwest edge of the Blanco-Mesaverde Gas Pool;



- b) the only member of the Mesaverde formation which has potential for gas production in the Klein-Vaughn Lease area is the Point Lookout, and, due to the non-homogeneous nature of the Point Lookout, there is limited potential for further production;
- c) there is potential for Gallup production throughout the Klein-Vaughn Lease area, however, such production is likely to be marginal, as evidenced from the recent completion of the Klein Well No. 28E which is capable of producing approximately 45 MCF gas per day.
- d) the Basin-Dakota is fully developed within the Klein-Vaughn Lease area with the exception of Section 30 and the SE/4 of Section 33.

(14) The expected producing rates within the Mesaverde and Gallup formations within the Klein-Vaughn Lease area are insufficient to justify drilling stand alone wells to recover these reserves.

(15) The proposed downhole commingling is necessary in order for the applicant to economically recover Blanco-Mesaverde and Undesignated Gallup Pool reserves underlying the Klein-Vaughn Lease area.

(16) The applicant further demonstrated through its evidence and testimony that within the wells it proposes to commingle within the Klein-Vaughn Lease area:

- a) there will be no crossflow between the commingled pools;
- b) none of the commingled zones exposes the others to damage by produced liquids;
- c) the fluids from each zone are compatible with the other;
- d) the bottomhole pressure of the lower pressure zones should not be less than 50 percent of the bottomhole pressure of the higher pressure zone adjusted to a common datum; and,
- e) the value of the commingled production is not less than the sum of the values of the individual production.

(17) No interest owner and/or offset operator appeared at the hearing in opposition to the application.

(18) The downhole commingling of the twenty-four wells described in Finding No. (7) above in the Dakota, Mesaverde and Gallup formations will allow the applicant the opportunity to recover additional gas reserves from the Klein-Vaughn Lease area which may otherwise not be recovered, thereby preventing waste, and will not violate correlative rights.

(19) The applicant further seeks to establish an administrative procedure whereby the Supervisor of the Aztec District Office of the Division may approve the downhole commingling of subsequently drilled wells within the Klein-Vaughn Lease area provided that the wells meet a certain economic threshold, and that sufficient information is presented to establish an allocation formula.

(20) There are relatively few new drills which will be subsequently downhole commingled within the Klein-Vaughn Lease area.

(21) Obtaining Division approval as per Division Rule No. 303(C) for a relatively few number of wells within the Klein-Vaughn Lease area does not represent an excessive regulatory burden on the applicant.

(22) The applicant should be required to obtain approval to downhole commingle Dakota, Mesaverde and Gallup production within the wellbores of subsequently drilled wells within the Klein-Vaughn Lease area from the Santa Fe Office of the Division upon submittal of the data required by Division Rule No. 303(C).

(23) The applicant should consult with the supervisor of the Aztec District Office of the Division subsequent to the completion of testing operations on the subject wells in order to determine a proper allocation of production.

(24) The operator should immediately notify the supervisor of the Aztec district office of the Division any time any of the subject wells have been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.

**IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Meridian Oil Inc., is hereby authorized to commingle gas production from the Basin-Dakota, Blanco-Mesaverde and Undesignated Gallup Gas Pools within the following described wells in Rio Arriba County, New Mexico:

<u>WELL NAME</u>	<u>WELL LOCATION</u>
Vaughn No. 8	Unit A, 26-26N-6W
Vaughn No. 12E	Unit C, 26-26N-6W
Vaughn No. 12	Unit K, 26-26N-6W
Vaughn No. 8E	Unit P, 26-26N-6W
Vaughn No. 13	Unit A, 27-26N-6W
Vaughn No. 14E	Unit D, 27-26N-6W
Vaughn No. 14	Unit K, 27-26N-6W
Vaughn No. 15	Unit A, 28-26N-6W
Vaughn No. 30E	Unit D, 28-26N-6W
Vaughn No. 30	Unit K, 28-26N-6W
Vaughn No. 15E	Unit P, 28-26N-6W
Vaughn No. 31	Unit B, 29-26N-6W
Vaughn No. 32E	Unit D, 29-26N-6W
Vaughn No. 31E	Unit I, 29-26N-6W
Vaughn No. 32	Unit K, 29-26N-6W
Klein No. 28E	Unit C, 33-26N-6W
Klein No. 26	Unit H, 33-26N-6W
Klein No. 28	Unit K, 33-26N-6W
Klein No. 19	Unit A, 34-26N-6W
Klein No. 19E	Unit C, 34-26N-6W
Klein No. 24E	Unit I, 34-26N-6W
Klein No. 24	Unit L, 34-26N-6W
Klein No. 27	Unit K, 35-26N-6W
Klein No. 27E	Unit O, 35-26N-6W

(2) The applicant shall consult with the supervisor of the Aztec District Office of the Division subsequent to the completion of testing the subject wells in order to determine a proper allocation of production.

(3) The operator shall immediately notify the supervisor of the Aztec district office of the Division any time any of the subject wells have been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) Approval to downhole commingle subsequently drilled wells within the Klein-Vaughn Lease area shall be obtained from the Santa Fe Office of the Division upon submittal of the data required by Division Rule No. 303(C).

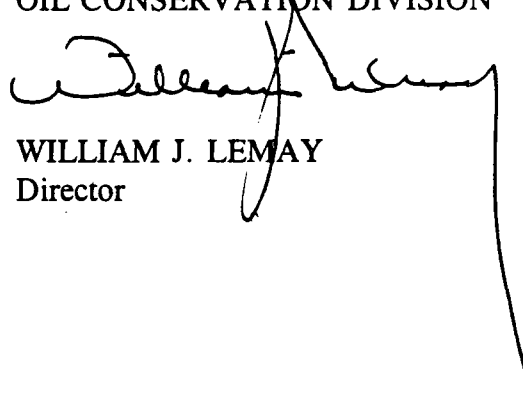
(5) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

CASE NO. 11038  
Order No. R-10239  
Page -7-

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DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

A handwritten signature in dark ink, appearing to read 'William J. Lemay', is written over the printed name and title. The signature is fluid and cursive, with a long vertical line extending downwards from the end of the signature.

WILLIAM J. LEMAY  
Director

S E A L

CMD :  
OG5SECT

ONGARD  
INQUIRE LAND BY SECTION

11/20/96 10:49:49  
OGOMES -EMFG  
PAGE NO: 1

Sec : 35 Twp : 26N Rng : 06W Section Type : NORMAL

D 40.00  Fee owned	C 40.00  Fee owned	B 40.00  Fee owned	A 40.00  Fee owned  A A
E 40.00  Fee owned  A A	F 40.00  Fee owned  A	G 40.00  Fee owned  A	H 40.00  Fee owned

PF01 HELP  
PF07 BKWD

PF02  
PF08 FWD

PF03 EXIT  
PF09 PRINT

PF04 GoTo  
PF10 SDIV

PF05  
PF11

PF06  
PF12

CMD :  
OG5SECT

ONGARD  
INQUIRE LAND BY SECTION

11/20/96 10:50:01  
OGOMES -EMFG  
PAGE NO: 2

Sec : 35 Twp : 26N Rng : 06W Section Type : NORMAL

L 40.00  Federal owned  A	K 40.00  Federal owned  A A	J 40.00  Federal owned  A A	I 40.00  Federal owned  A
M 40.00  Federal owned	N 40.00  Federal owned	O 40.00  Federal owned	P 40.00  Federal owned

PF01 HELP  
PF07 BKWD

PF02  
PF08 FWD

PF03 EXIT  
PF09 PRINT

PF04 GoTo  
PF10 SDIV

PF05  
PF11

PF06  
PF12

## **Mike Stogner**

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**From:** Ernie Busch  
**To:** Mike Stogner  
**Subject:** BURLINGTON RESOURCES KLEIN #27 (NSL)  
**Date:** Friday, November 22, 1996 11:37AM  
**Priority:** High

KLEIN #27  
1590' FSL; 2040' FWL  
K-35-26N-06W  
RECOMMEND: APPROVAL