

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

BURLINGTON RESOURCES OIL & GAS COMPANY

PO Box 4289, Farmington, NM 87499

Operator

Address

San Juan 27-4 Unit

13

G, Sec. 20, T27N, R04W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7452 API NO. 30-039-06992 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	Tapacito Pictured Cliffs-85920		Blanco Mesa Verde-72319
2. Top and Bottom of Pay Section (Perforations)	3636' - 3664'		5406' - 5934'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Current) a. 579 psia @ 3650' (Original) b. 1012 psia @ 3650'	a. OIL CON. DIV DIST. 3 b.	a. 641 psia @ 5670' b. 1319 psia @ 5670'
6. Oil Gravity ($^{\circ}$ API) or Gas BTU Content	1163 Btu		1176 Btu
7. Producing or Shut-In?	Shut-In		Shut-In
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In 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	Date: 9/94 Rates: 3 MCFD, 0 BOD, 0 BWD	Date: Rates:	Date: 11/94 Rates: 2 MCFD, 0 BOD, 0 BWD
* If Producing, give data and oil/gas/water of recent test (within 60 days)	Date: Rates:	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Oil: ☐ Gas: ☐ Will supply after commingling	Oil: ☐ Gas: ☐	Oil: ☐ Gas: ☐ Will supply after commingling

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 Kevin L. Midkiff TITLE Operations Engineer DATE 07-17-98TYPE OR PRINT NAME Kevin L. Midkiff TELEPHONE NO. (505) 326-9700

Location and Acreage Dedication Plat

Section A.

Date JUNE 20, 1957

Operator EL PASO NATURAL GAS COMPANY Lease SAN JUAN 27-4 UNIT SF 080669
 Well No. 13(PM) Unit Letter G Section 20 Township 27-N Range 4-W NMPM
 Located 1800 Feet From NORTH Line, 1500 Feet From EAST Line
 County RIO ARriba G.L. Elevation 6749 Dedicated Acreage 320 & 160 Acres
 Name of Producing Formation MESA VERDE & PICTURED CLIFF Pool BLANCO MV, WHITE PT PC

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? Specific
 Yes X No _____
2. If the answer to question one is "no", have the interests of all the owners been consolidated by communization agreement or otherwise? Yes _____ No _____ If answer is "yes," Type of Consolidation _____
3. If the answer to question two is "no," list all the owners and their respective interests below

Owner

Land Description

Section B

This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

El Paso Natural Gas Company
 (Operator)
 Original Signed D. C. Johnson
 (Representative)

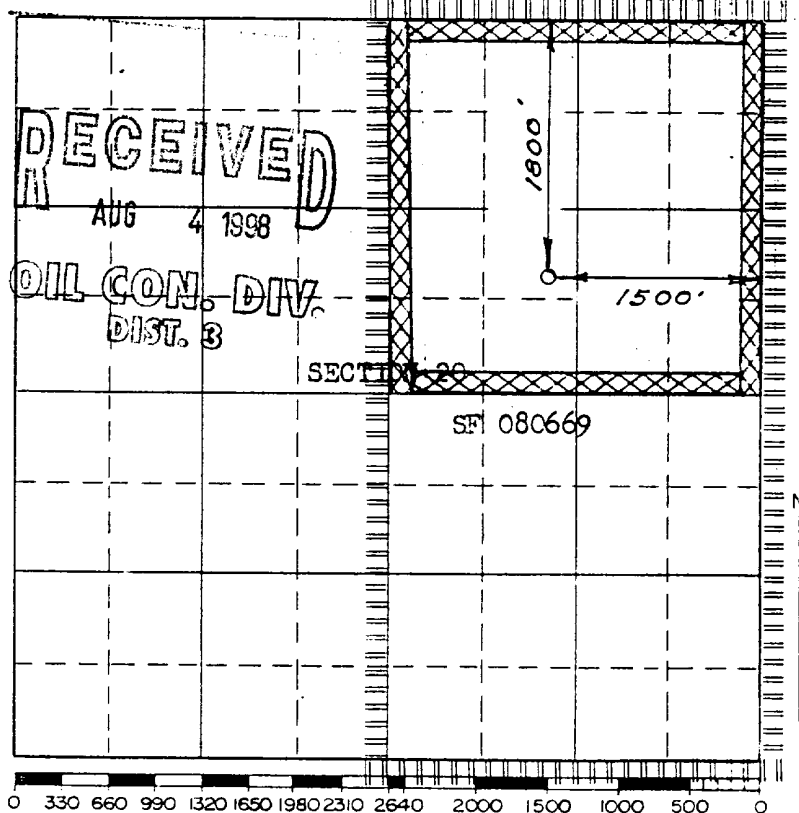
Box 997

Address

Farmington, New Mexico

NOTE: THIS PLAT IS RE-ISSUED TO SHOW DUAL COMPLETION AND PICTURED CLIFF DEDICATION.
 7 9 58

Note: All distances must be from outer boundaries of section.



Scale 4 inches equal 1 mile

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

(Seal)

Farmington, New Mexico

Date Surveyed MAY 29, 1957

S. O. Walker
 Registered Professional Engineer and/or Land Surveyor

* OIL
* OIL/GAS
* GAS
* WATER

	McF/m	
* OIL	100	
* OIL/GAS	1000	
* GAS	1000	
* WATER	1000	

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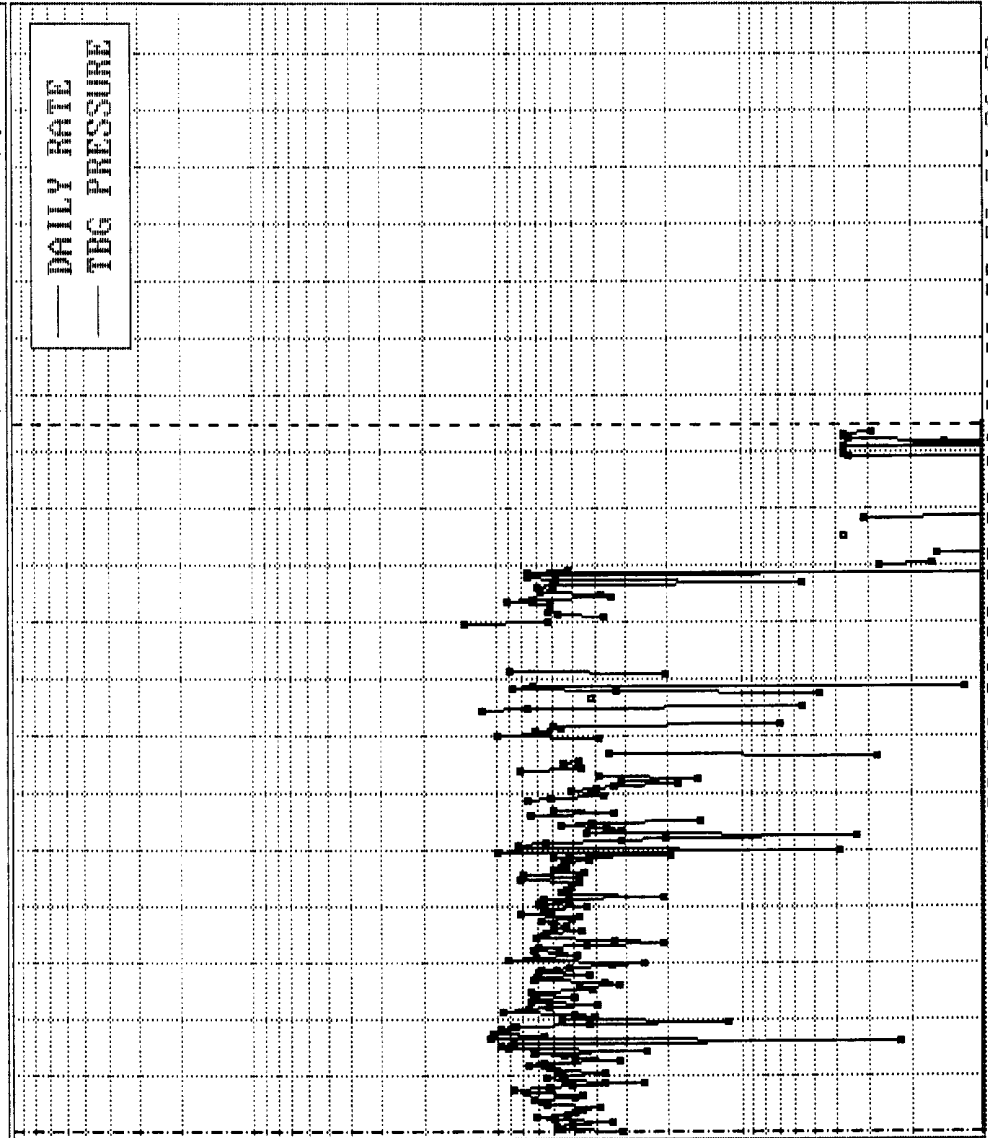
SAN JUAN 27-4 UNIT : 13 : 53306B-1 Pictured C.I.f.f.s

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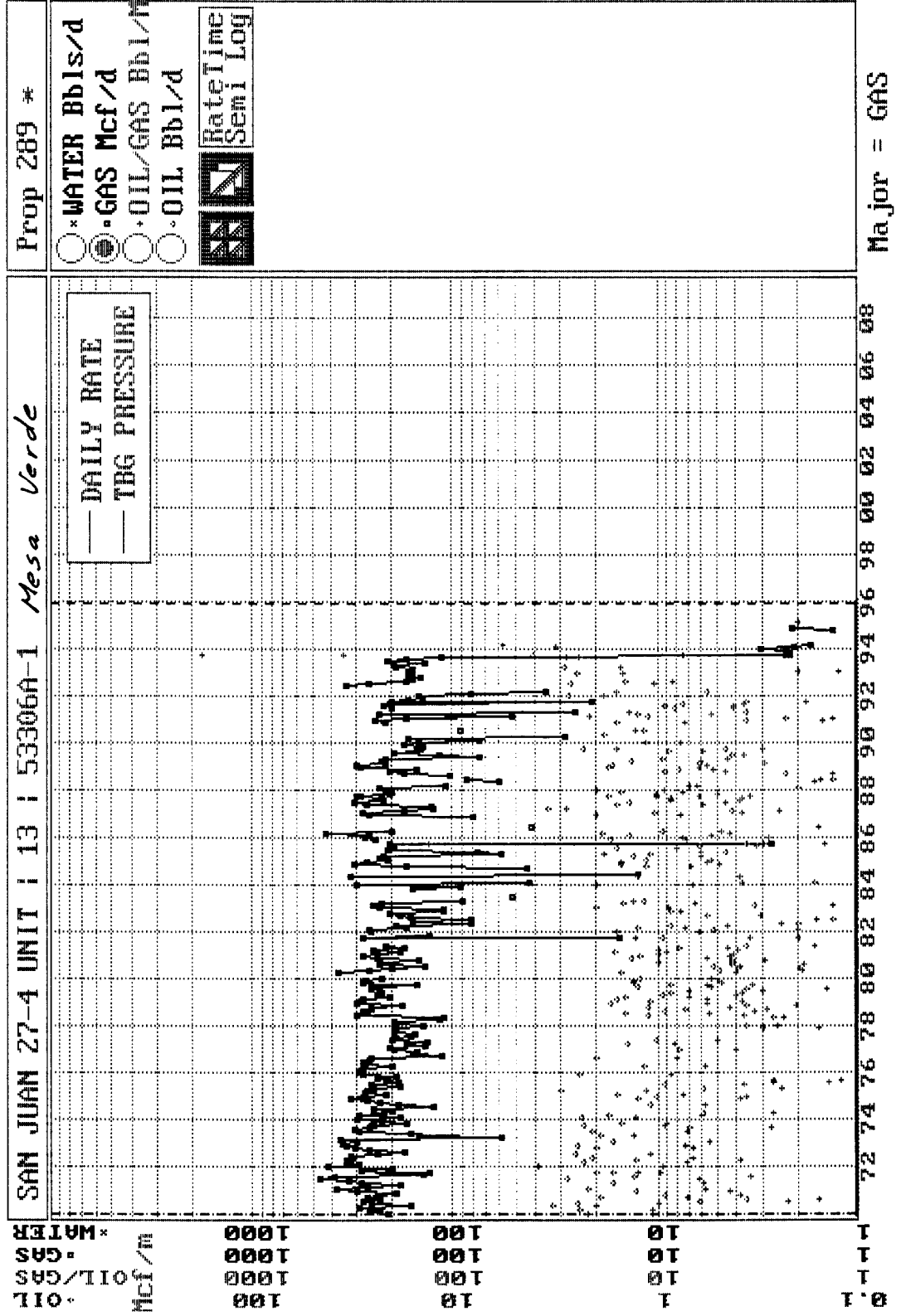
Prop 290 *

☐ *WATER Bbls/d
☒ -GAS Mcf/d
☐ *OIL/GAS Bbl/ft
☐ -OIL Bbl/d

Rate Time



Major = GAS



Page No.: 1

Print Time: Wed Jun 24 09:43:48 1998

Property ID: 289

MESA VERDE

Property Name: SAN JUAN 27-4 UNIT | 13 | 53306A-1

Table Name: S:\ARIES\KLMWORK\TEST.DBF

--DATE-- ---CUM_GAS-- M SIWHP
Mcf Psi

12/12/57	0	1107.0	<i>Initial Pressure</i>
04/28/58	0	1106.0	
09/14/58	79000	778.0	
09/22/59	165000	757.0	
03/06/60	205000	860.0	
05/28/61	364000	780.0	
08/06/62	468000	763.0	
07/16/63	544000	753.0	
10/22/64	697000	726.0	
05/10/65	757000	702.0	
04/19/66	866000	699.0	
05/16/67	979000	666.0	
05/02/68	1079000	551.0	
05/29/69	1179955	653.0	
08/28/70	1286435	642.0	
04/08/71	1350452	625.0	
08/09/72	1489331	552.0	
08/20/73	1585416	572.0	
08/01/74	1666184	636.0	
07/21/76	1841241	543.0	
01/08/78	1936877	639.0	
11/08/78	2002675	639.0	
06/23/80	2132824	614.0	
11/01/82	2273341	671.0	
06/05/84	2330979	689.0	
04/21/86	2446430	544.0	
09/18/89	2640427	530.0	
03/18/91	2697549	441.0	
09/11/91	2718092	453.0	
05/03/93	2809916	550.0	
05/01/98	2825436	541	<i>Based on Pressure vs. Cumulative Gas Plot</i>

Page No.: 1
 Print Time: Wed Jun 24 09:44:04 1998
 Property ID: 290
 Property Name: SAN JUAN 27-4 UNIT | 13 | 53306B-1
 Table Name: S:\ARIES\KLMWORK\TEST.DBF

Pictured Cliffs

--DATE--	---CUM GAS--	M SIWHP
	Mcf	Psi

12/12/57	0	901.0
02/03/58	0	900.0
09/14/58	13000	833.0
09/22/59	43000	725.0
03/06/60	57000	790.0
09/13/61	99000	710.0
08/06/62	118000	699.0
04/19/63	129000	731.0
10/22/64	160000	709.0
10/25/65	180000	631.0
04/19/66	191000	637.0
05/16/67	213000	633.0
05/02/68	230000	622.0
05/29/69	250000	640.0
08/28/70	274057	609.0
04/08/71	287370	581.0
08/09/72	314781	558.0
08/20/73	342518	459.0
11/16/73	349000	459.0
00/11/74	349351	485.0
00/11/74	349351	485.0
10/11/74	368144	485.0
07/21/76	404949	470.0
05/10/78	441806	478.0
06/23/80	483022	400.0
11/01/82	512561	525.0
06/05/84	530333	531.0
04/21/86	547093	553.0
09/08/89	583303	522.0
09/11/91	587621	409.0
05/01/98	588383	514

Initial Pressure

Based on Pressure vs. Cumulative Gas Plot

San Juan 27-4 Unit No. 13
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method
Version 1.0 3/13/94

Mesa Verde		Pictured Cliffs	
<u>MV - Current</u>		<u>PC-Current</u>	
GAS GRAVITY	0.6898	GAS GRAVITY	0.6808
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	M
%N2	0.95	%N2	0.93
%CO2	0.13	%CO2	0.96
%H2S	0	%H2S	0
DIAMETER (IN)	4.95	DIAMETER (IN)	6.97
DEPTH (FT)	5670	DEPTH (FT)	3650
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	128	BOTTOMHOLE TEMPERATURE (DEG F)	104
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	553	SURFACE PRESSURE (PSIA)	526
BOTTOMHOLE PRESSURE (PSIA)	640.8	BOTTOMHOLE PRESSURE (PSIA)	578.5
<u>MV - Original</u>		<u>PC-Original</u>	
GAS GRAVITY	0.6898	GAS GRAVITY	0.6808
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	M
%N2	0.95	%N2	0.93
%CO2	0.13	%CO2	0.96
%H2S	0	%H2S	0
DIAMETER (IN)	4.95	DIAMETER (IN)	6.97
DEPTH (FT)	5670	DEPTH (FT)	3650
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	128	BOTTOMHOLE TEMPERATURE (DEG F)	104
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1119	SURFACE PRESSURE (PSIA)	913
BOTTOMHOLE PRESSURE (PSIA)	1319.2	BOTTOMHOLE PRESSURE (PSIA)	1011.5

FARMINGTON 1994 MONTHLY PRODUCTION FOR 53306A
 SAN JUAN 27-4 UNIT 13
 BLANCO MESAVERDE (PRORATED GAS FIELD) MESAVERDE ZONE

PHS030M1

DAYS =====				OIL =====		=====		GAS =====						
MO	T	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER	PROD	C
1	2		31	02			01	92	31	1169	15.025			0
2	2		28	02	2		01	63	28	1184	15.025			0
3	2	F	24	02	3		01	52	24	1184	15.025			0
4	2			02			01			1184	15.025			0
5	2			02			01			1184	15.025			0
6	2			02			01			1184	15.025			0
7	2			02			01			1184	15.025			0
8	2	S		02			01			1184	15.025			0
9	2	S		02			01				15.025			
10	2	F	18	02			01	40	18		15.025			
11	2	S	30	02			01	65	30		15.025			
12	2	S		02			01				15.025			

PF6 - RETURNS TO ANNUAL DISPLAY
 PF10 - HELP INFORMATION

PF3 - TRANSFER TO UPDATE
 PF9 - DISPLAY MONTHLY INJECTION
 PRS 02/04/95

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FARMINGTON
SAN JUAN 27-4 UNIT
TAPACITO P.C. (PRO GAS) FIELD

1994 MONTHLY PRODUCTION FOR 53306B
13

PHS030M1

PICTURED CLIFFS ZONE

DAYS =====			OIL =====		=====		GAS =====							
MO	T	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER	PROD	C
1	2						01		1	1197	15.025			0
2	2						01	22	6	1197	15.025			0
3	2	F					01	114	31	1197	15.025			0
4	2						01	26	8	1197	15.025			0
5	2						01	44	12	1197	15.025			0
6	2						01	110	30	1197	15.025			0
7	2						01	114	31	1197	15.025			0
8	2	F					01	114	31	1197	15.025			0
9	2	S					01	89	25		15.025			
10	2	S					01				15.025			
11	2	S					01				15.025			
12	2	S					01				15.025			

PF6 - RETURNS TO ANNUAL DISPLAY
PF10 - HELP INFORMATION

PF3 - TRANSFER TO UPDATE
PF9 - DISPLAY MONTHLY INJECTION
PRS 02/04/95

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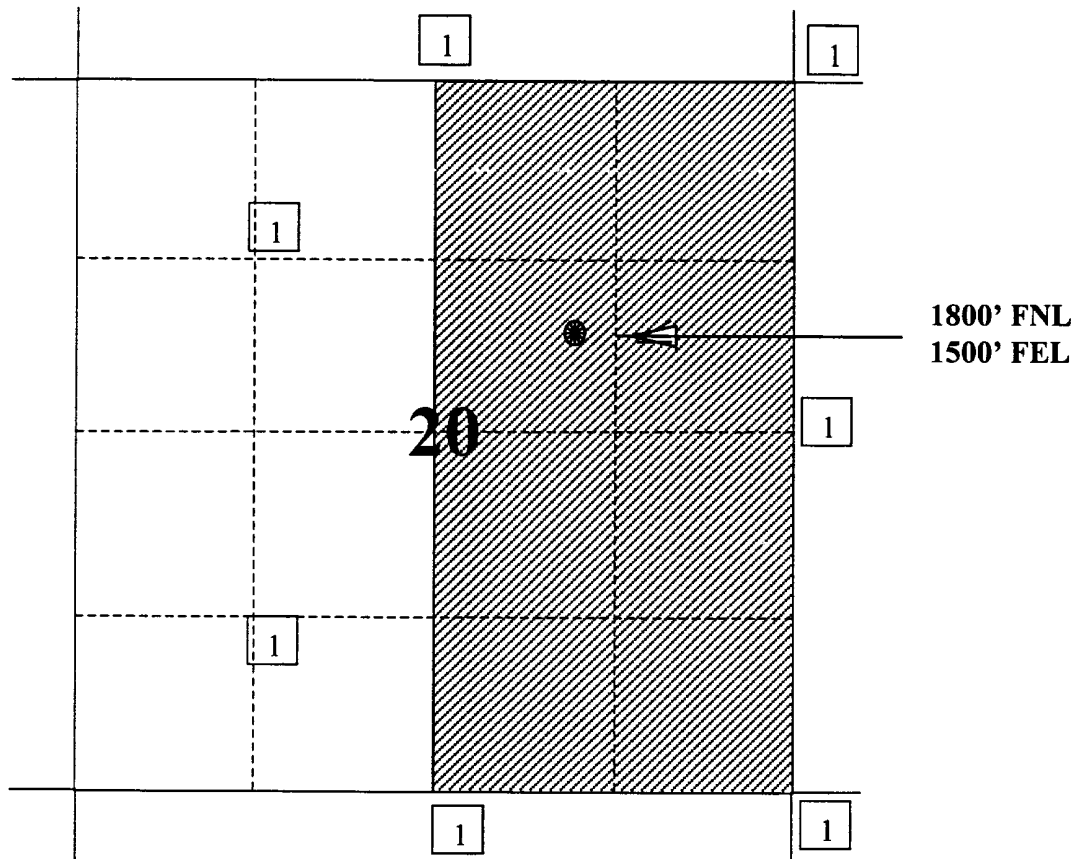
BURLINGTON RESOURCES OIL AND GAS COMPANY

San Juan 27-4 Unit #13

OFFSET OPERATOR/OWNER PLAT

Pictured Cliffs (NE/4) / Mesaverde (E/2) Formations Commingle Well

Township 27 North, Range 4 West



1) Burlington Resources

121  18 121A 	 16A 17 16 	 99A 16 72  138  99 	141 
105  19	San Juan 27-4 Unit #13  126 20  13A 	75  142  76  78 21 77  145 	79  149 
21  25  30 89 	 113 29 17  20A 	87  144  28 101  88 	133A  

San Juan 27-4 Unit #13

Sec. 20, T27N, R4W

Pictured Cliffs/Mesaverde

**SAN JUAN 27-4 UNIT
GWI/NWI/NPI/ORRI/RI OWNERS**

FORMATION	INT TYPE	OWNER NAME
Dakota	NPI	BURLINGTON RESOURCES O&G CO
Dakota	NWI	BEDROCK LIMITED PARTNERSHIP
Dakota	NWI	BURLINGTON RESOURCES O&G CO
Dakota	NWI	CINCO GENERAL PARTNERSHIP
Dakota	NWI	HARCO LTD PTSHP
Dakota	NWI	JAMES V HARRINGTON
Dakota	NWI	MARY JONE CHAPPELL
Dakota	NWI	TEMPE LTD PARTNERSHIP
Dakota	ORRI	AMALIA S SANCHEZ
Dakota	ORRI	BEDROCK LIMITED PARTNERSHIP
Dakota	ORRI	DEREK PETER VENEZIA
Dakota	ORRI	EDNA E MORRELL LIVG TRUST
Dakota	ORRI	ELEANOR G HAND
Dakota	ORRI	GERALD F HARRINGTON
Dakota	ORRI	HARCO LTD PTSHP
Dakota	ORRI	JAMES V HARRINGTON
Dakota	ORRI	JOHN C MEADOWS
Dakota	ORRI	JOSEPH R ABRAHAM
Dakota	ORRI	LESLIE C TATUM
Dakota	ORRI	LMA ROYALTIES LTD
Dakota	ORRI	MANUEL A SANCHEZ TRUST
Dakota	ORRI	MARY F ROBERTS
Dakota	ORRI	MARY JO WELLS
Dakota	ORRI	MARY JONE CHAPPELL
Dakota	ORRI	MIKE C ABRAHAM TRUSTEE
Dakota	ORRI	MISS M F ABRAHAM
Dakota	ORRI	PAID BY OTHERS
Dakota	ORRI	PATRICIA ANN ASHBURN
Dakota	ORRI	PATRICIA P SCHIEFFER
Dakota	ORRI	ROBBYE F BAKER
Dakota	ORRI	ROBERT P & ANNA D EARNEST TR
Dakota	ORRI	ROBERT S TATUM
Dakota	ORRI	SCOTT ANTHONY VENEZIA
Dakota	ORRI	TEMPE LTD PARTNERSHIP
Dakota	ORRI	U/W FOSTER MORRELL DECD
Dakota	ORRI	UNION OIL CO OF CALIF
Dakota	RI	JUAN R MONTANO
Dakota	RI	MINERALS MANAGEMENT SERVICE
Dakota	RI	WILLIAM B GREENE

**SAN JUAN 27-4 UNIT
GWI/NWI/NPI/ORRI/RI OWNERS**

Mesaverde	NPI	BURLINGTON RESOURCES O&G CO
Mesaverde	NWI	BEDROCK LIMITED PARTNERSHIP
Mesaverde	NWI	BURLINGTON RESOURCES O&G CO
Mesaverde	NWI	CINCO GENERAL PARTNERSHIP
Mesaverde	NWI	HARCO LTD PTSHP
Mesaverde	NWI	JAMES V HARRINGTON
Mesaverde	NWI	MARY JONE CHAPPELL
Mesaverde	NWI	ROMERO FAMILY LTD PARTNERSHIP
Mesaverde	NWI	TEMPE LTD PARTNERSHIP
Mesaverde	ORRI	AMALIA S SANCHEZ
Mesaverde	ORRI	BEDROCK LIMITED PARTNERSHIP
Mesaverde	ORRI	DEREK PETER VENEZIA
Mesaverde	ORRI	EDNA E MORRELL LIVG TRUST
Mesaverde	ORRI	ELEANOR G HAND
Mesaverde	ORRI	GERALD F HARRINGTON
Mesaverde	ORRI	HARCO LTD PTSHP
Mesaverde	ORRI	JAMES V HARRINGTON
Mesaverde	ORRI	JOHN C MEADOWS
Mesaverde	ORRI	JOSEPH R ABRAHAM
Mesaverde	ORRI	LESLIE C TATUM
Mesaverde	ORRI	LMA ROYALTIES LTD
Mesaverde	ORRI	MANUEL A SANCHEZ TRUST
Mesaverde	ORRI	MARY F ROBERTS
Mesaverde	ORRI	MARY JO WELLS
Mesaverde	ORRI	MARY JONE CHAPPELL
Mesaverde	ORRI	MIKE C ABRAHAM TRUSTEE
Mesaverde	ORRI	MISS M F ABRAHAM
Mesaverde	ORRI	PAID BY OTHERS
Mesaverde	ORRI	PATRICIA ANN ASHBURN
Mesaverde	ORRI	PATRICIA P SCHIEFFER
Mesaverde	ORRI	ROBBYE F BAKER
Mesaverde	ORRI	ROBERT P & ANNA D EARNEST TR
Mesaverde	ORRI	ROBERT S TATUM
Mesaverde	ORRI	SCOTT ANTHONY VENEZIA
Mesaverde	ORRI	TEMPE LTD PARTNERSHIP
Mesaverde	ORRI	U/W FOSTER MORRELL DECD
Mesaverde	ORRI	UNION OIL CO OF CALIF
Mesaverde	RI	JUAN R MONTANO
Mesaverde	RI	MINERALS MANAGEMENT SERVICE
Mesaverde	RI	WILLIAM B GREENE