

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Engineering Bureau -
 2040 South Pacheco, Santa Fe, NM 87505



2115

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATION FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

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]

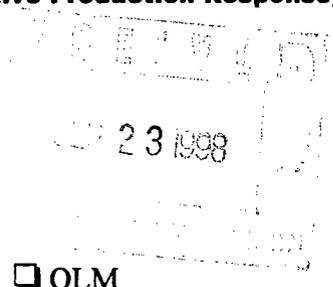
[1] **TYPE OF APPLICATION - Check Those Which Apply for [A]**

- [A] Location - Spacing Unit - Directional Drilling
 NSL NSP DD SD

Check One Only for [B] or [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 - Certification**

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 (including API numbers, pool codes, etc.), pertinent information and any required notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

[Handwritten Signature]

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 87505-6429

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

APPROVAL PROCESS :

Administrative Hearing

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE

YES NO

Burlington Resources Oil & Gas Company

PO Box 4289, Farmington, NM 87499

Operator **San Juan 28-5 Unit** Address **54E C 20-28N-05W Rio Arriba**

Lease **Well No. Unit Ltr. - Sec - Twp - Rge County**

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7460 API NO. 30-039-23813 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	Wildcat Munoz Canyon Gallup - 96767		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	6912' - 7333'		7712' - 7902'
3. Type of production (Oil or Gas)	gas		gas
4. Method of Production (Flowing or Artificial Lift)	flowing		flowing
5. Bottomhole Pressure	(Current) a. 2298	a.	a. 1313
Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Original) b. 2298	b.	b. 3215
6. Oil Gravity (°API) or Gas BTU Content	BTU 1185		BTU 1032
7. Producing or Shut-In?	producing		Shut-in
Production Marginal? (yes or no)	yes		no
* If Shut-In and oil/gas/water rates of last production	Date: n/a Rates:	Date: Rates:	Date: n/a Rates: 0/105/0
<small>Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data</small>			
* If Producing, give data and oil/gas/water water of recent test (within 60 days)	Date: n/a Rates: 40 MCF/D	Date: Rates:	Date: n/a Rates:
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Oil: % Gas: % will be supplied upon completion	Oil: % Gas: %	Oil: % Gas: % will be supplied upon completion

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). R-10695
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 Jennifer Dobson TITLE Production Engineer DATE 9-21-98

TYPE OR PRINT NAME Jennifer Dobson TELEPHONE NO. (505) 326-9700

1980, Hobbs, NM 88241-1980
 District II
 Drawer DD, Artesia, NM 88211-0719
 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 & Natural Resources Department

Form C-10
 Revised February 21, 1995
 Instructions on back
 Submit to Appropriate District Office
 State Lease - 4 Copies
 Fee Lease - 3 Copies

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-23813		Pool Code 96767/71599	Pool Name WC:Munoz Canyon Gallup/Basin Dakota
Property Code 7460	Property Name SAN JUAN 28-5 UNIT		Well Number 54E
GRID No. 14538	Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY		Elevation 6644'

¹⁰ Surface Location

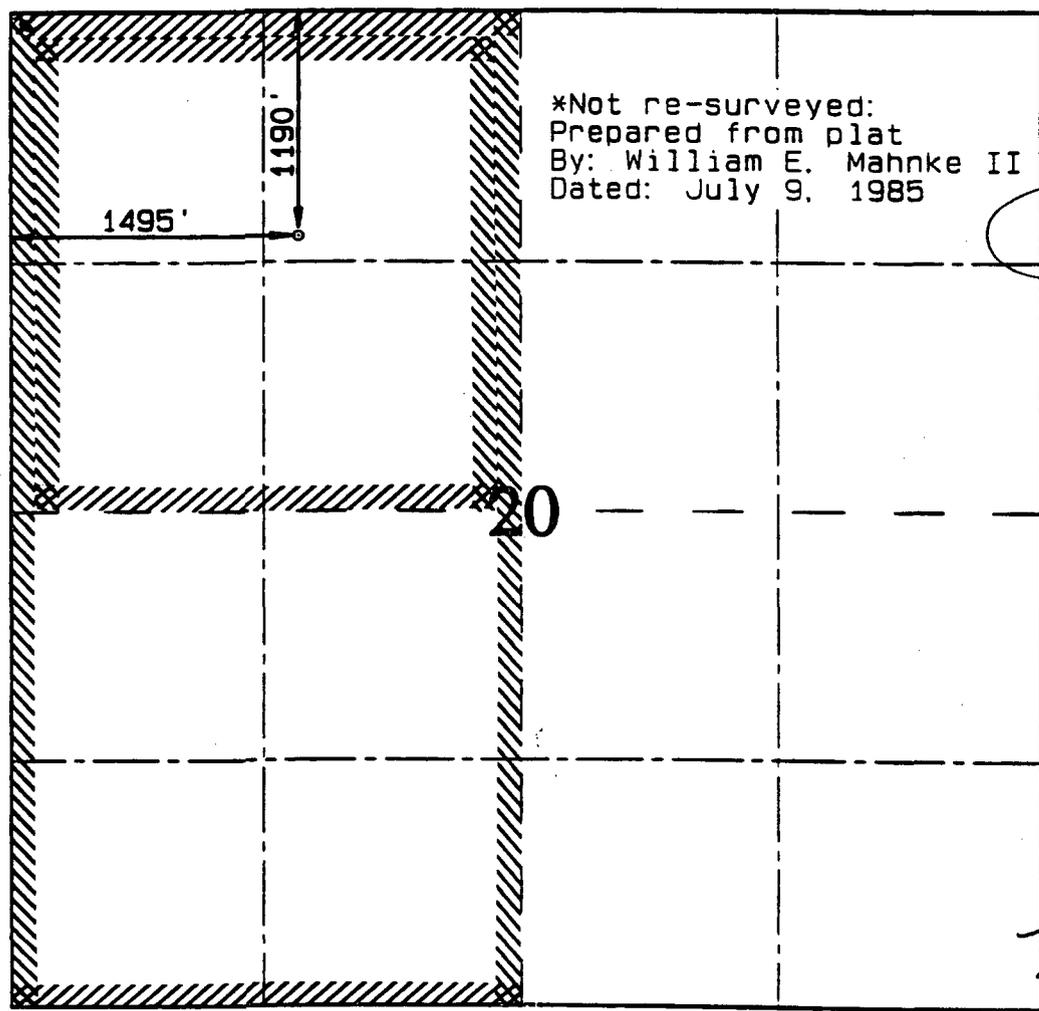
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	20	28N	5W		1190	North	1495	West	RIO ARRIBA

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 Gal - 160 DK - W/320	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



¹⁷ OPERATOR CERTIFICATION

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

Peggy Bradford
 Signature

Peggy Bradford
 Printed Name

Regulatory Administrator
 Title

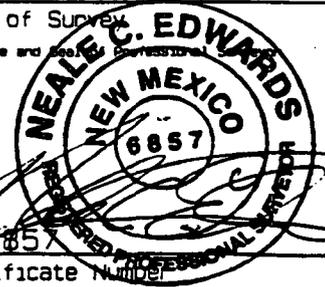
12-2-97
 Date

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.

NOVEMBER 20, 1997
 Date of Survey

Signature and Seal of Professional Surveyor



6857
 Certificate Number

DK

SAN JUAN 20-5 UNIT : 54E : 54329A-1

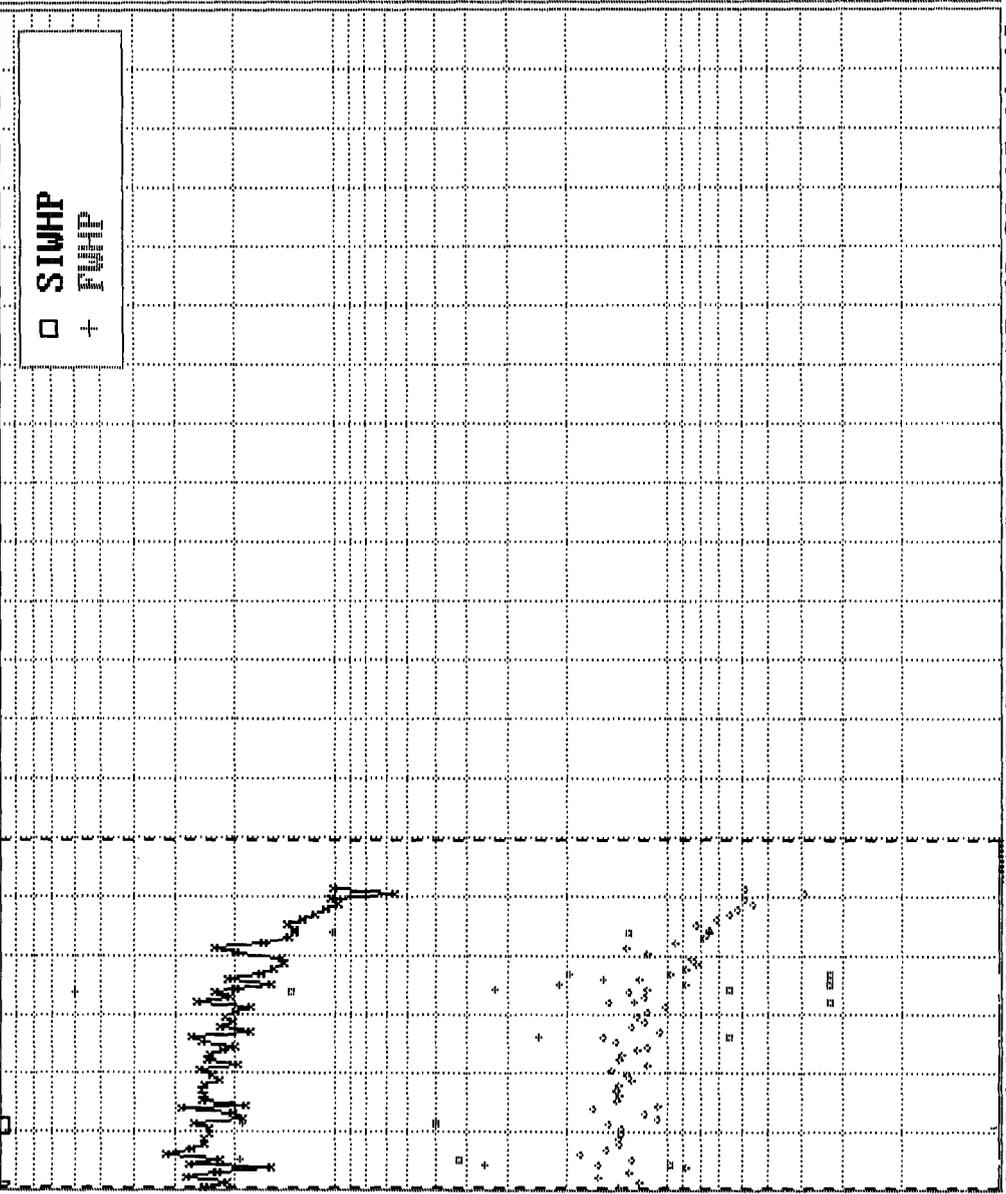
Prop 1629 *

• WATER
• OIL/GAS
• OIL
• GAS

□ SIWHP
+ FWHP

• GAS Mcf/d
• OIL Bbl/d
• OIL/GAS
• WATER Bbls/d

RateTime
Semi Log



Major = GAS

93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12

Gallup

SAN JUN 20-5 UNIT | 54E | 54329D-1

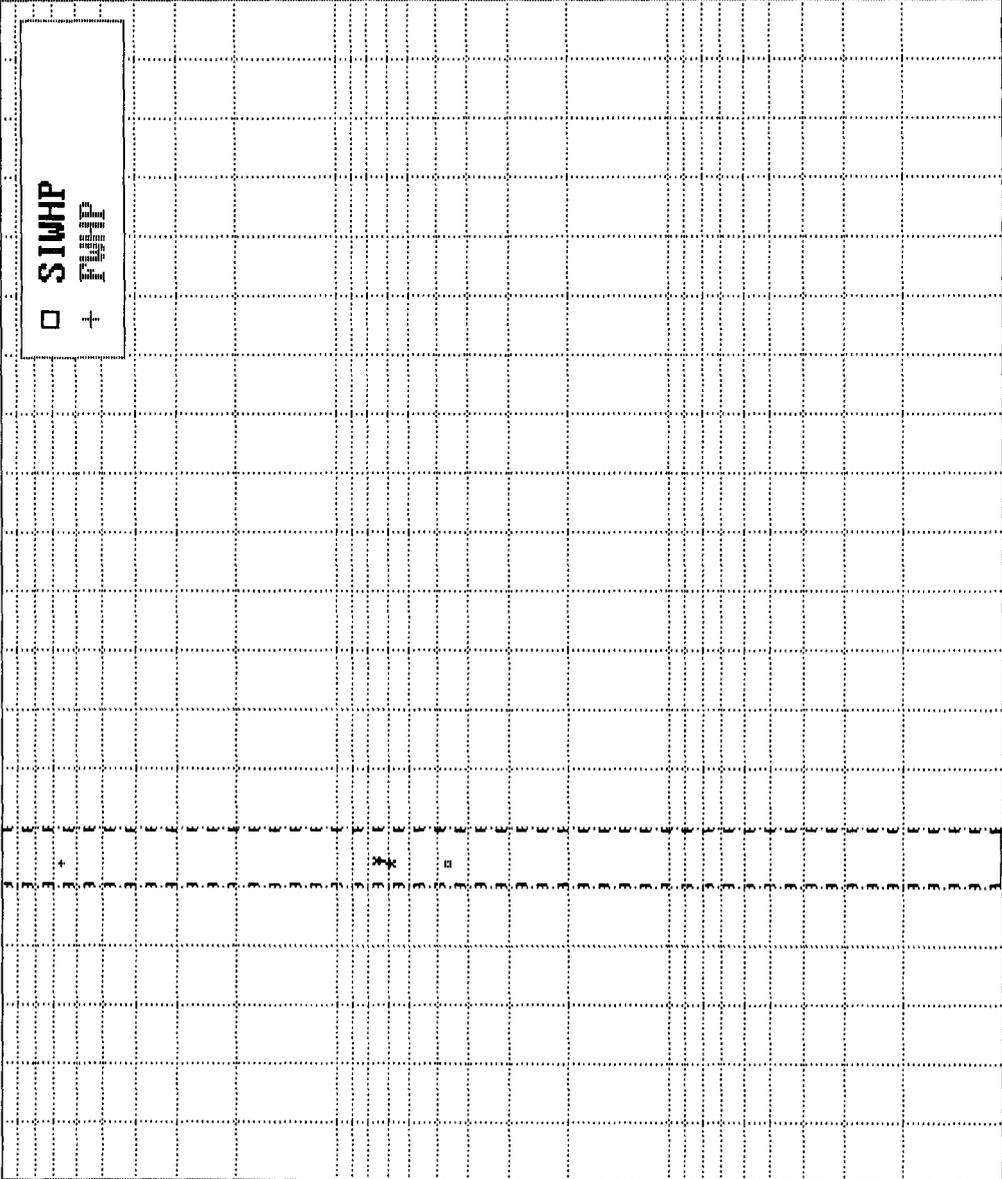
• WATER
• OIL/GAS
• OIL
• GAS

□ SIMHP
+ FWHP

Prop 7

● * GAS Mcf/d
○ OIL Bbl/d
○ OIL/GAS
○ WATER Bbls/d

RateTime
Semi Log



Major = GAS

SJ 28-5 #54E
Bottom Hole Pressures
Cullender and Smith Method
 Version 1.0 3/13/94

Dakota	
<u>DK-Current</u>	
GAS GRAVITY	<u>0.621</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.15</u>
%CO2	<u>1.22</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>1.5</u>
DEPTH (FT)	<u>7967</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>148</u>
FLOWRATE (MCFPD)	<u>113</u>
SURFACE PRESSURE (PSIA)	<u>1083</u>
BOTTOMHOLE PRESSURE (PSIA)	<input style="width: 100px;" type="text" value="1313.5"/>
<u>DK-Original</u>	
GAS GRAVITY	<u>0.621</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.15</u>
%CO2	<u>1.22</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>1.5</u>
DEPTH (FT)	<u>7967</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>148</u>
FLOWRATE (MCFPD)	<u>113</u>
SURFACE PRESSURE (PSIA)	<u>2625</u>
BOTTOMHOLE PRESSURE (PSIA)	<input style="width: 100px;" type="text" value="3215.2"/>

OK Parent

Page No.: 1
Print Time: Thu Aug 20 16:55:42 1998
Property ID: 1628
Property Name: SAN JUAN 28-5 UNIT | 54 | 50693A-1
Table Name: Q:\PUBLIC\GENTITY\GDPNOS\TEST.DBF

--DATE--	---CUM GAS--	M FWHP-	M FBHP-	M SIWHP	M SIBHP
.....Mcf.....Psi.....Psi.....Psi.....Psi.....
12/24/62	0	0.0	<i>Orig</i>	2625.0	3097.0
01/15/63	0			2629.0	
05/06/63	41000			1679.0	
04/22/64	137000			1348.0	
06/21/65	256000			1229.0	
05/23/66	361000			1141.0	
05/26/67	473000			984.0	
05/20/68	572000			957.0	
06/19/70	755870	436.0		858.0	1002.0
04/27/71	822634	386.0		822.0	959.0
05/15/72	905811	460.0		833.0	972.0
07/23/73	972655	431.0		1046.0	1224.0
05/05/75	1057586	249.0		1132.0	1326.0
07/05/77	1137950	274.0		1182.0	1386.0
10/04/79	1206041	422.0		1182.0	1386.0
08/12/81	1252029	306.0		1224.0	1436.0
12/12/85	1351967	308.0		1160.0	1360.0
10/04/88	1410682	369.0		1112.0	1303.0
04/08/90	1431387	352.0		1522.0	1790.0
04/04/94	1512579		<i>Cur</i>	1083.0	

DK Parent

** DATA AT 14.730 PSIG UNLESS NOTED **

	MOL %	GPM (AT 14.73)
HYDROGEN	_____	
HELIUM	_____	
NITROGEN	__0.15	
OXYGEN	_____	
HYDROGEN SULFIDE	_____	
CARBON DIOXIDE	__1.22	
METHANE	__91.71	
ETHANE	__4.62	1.2359
PROPANE	__1.29	0.3555
ISO-BUTANE	__0.26	0.0850
N-BUTANE	__0.30	0.0946
ISO-PENTANE	__0.12	0.0439
N-PENTANE	__0.08	0.0290
HEXANE	_____	
HEXANE PLUS	__0.25	0.1091
HEPTANE PLUS	_____	
TOTALS	100.00	1.9530

MP NUMBER 73516
EFFECTIVE DATE 19970101

-- GASOLINE CONTENT (GPM) --
26/70 GASOLINE _____
100% PROPANE _____
EXCESS BUTANES _____
TOTAL _____

----- SPECIFIC GRAVITY -----
CALCULATED _0.6210
MEASURED _____

SULPHUR GRAINS / 100 CU FT _____

03=MAIN SCREEN

24=HELP

PA1=TERMINATE

OK Print

FUNCTION (A,C,D,I) I ** DATA AT TEST PRESSURE UNLESS NOTED **

MP NUMBER 73516 SAN JUAN 28-5 UNIT 54

EFFECTIVE DATE 19970101

REGION CD 42 SAN JUAN

MP TYPE CODE 10 GAS METER - WELLHEAD SALES

SAMPLE TYPE CODE (GAS,LIQ,BTU) GAS ----- BTU/CF -----

SAMPLE DATE 19961207 --- (AT 14.73 PSIG) ---

SAMPLE LINE PRESSURE (PSIG) _____ WET 1066.136 DRY 1085.000

SAMPLE LINE TEMPERATURE (DEG F) _____

TEST DATE _____ ----- BTU/CF -----

TEST PRESSURE (PSIG) _14.730 WET _1066.136 DRY _1085.000

TEST TEMPERATURE (DEG F) 60 VAPOR FACTOR _____

TEST LIFE (MONTHS) _6

TESTER SOURCE BA NUMBER 098795 EL PASO FIELD SERVICES

TEST PURPOSE CODE _____

03=DETAIL SCR	04=MP-NM BRWS	06=MP/DS LST	07=MP/WN LST
11=PREV SCR	12=MAIN MENU		20=NEXT REC
21=REFRESH SCR	22=PREV MENU	24=HELP	PA1=TERMINATE

Page No.: 1

Print Time: Tue Aug 11 09:59:10 1998

Property ID: 1629

Property Name: SAN JUAN 28-5 UNIT | 54E | 54329A-1

Table Name: Q:\PUBLIC\GENTITY\GDPNOS\TEST.DBF

--DATE-- ---CUM GAS-- M FWHP- M FBHP- M SIWHP M SIBHP
■■■■■■■■■■ ■■■■■■Mcf■■■■■■ ■■■■Psi■■■ ■■■■Psi■■■ ■■■■Psi■■■ ■■■■Psi■■■

10/07/85	0		1602.0	<i>original</i>
12/12/85	42225	315.0	1057.0	0.0
09/19/86	117591	318.0	882.0	0.0
12/18/87	260717	379.0	728.0	0.0
10/04/88	329905	358.0	702.0	0.0
04/08/90	401308	389.0	912.0	0.0
09/29/92	573187		619.0	
01/31/94	694337		501.0	<i>Current</i>

FUNCTION (A,C,D,I) I ** DATA AT TEST PRESSURE UNLESS NOTED **
 MP NUMBER 95515 SAN JUAN 28-5 UNIT 54E
 EFFECTIVE DATE 19970101
 REGION CD 42 SAN JUAN
 MP TYPE CODE 10 GAS METER - WELLHEAD SALES

 SAMPLE TYPE CODE (GAS,LIQ,BTU) GAS ----- BTU/CF -----
 SAMPLE DATE 19961210 --- (AT 14.73 PSIG) --
 SAMPLE LINE PRESSURE (PSIG) _____ WET 1014.057 DRY 1032.000
 SAMPLE LINE TEMPERATURE (DEG F) _____
 TEST DATE _____ ----- BTU/CF -----
 TEST PRESSURE (PSIG) 14.730 WET 1014.057 DRY 1032.000
 TEST TEMPERATURE (DEG F) 60 VAPOR FACTOR _____
 TEST LIFE (MONTHS) 6
 TESTER SOURCE BA NUMBER 098795 EL PASO FIELD SERVICES
 TEST PURPOSE CODE _____

 03=DETAIL SCR 04=MP-NM BRWS 06=MP/DS LST 07=MP/WN LST
 11=PREV SCR 12=MAIN MENU 20=NEXT REC
 21=REFRESH SCR 22=PREV MENU 24=HELP PA1=TERMINATE _____

** DATA AT 14.730 PSIG UNLESS NOTED **

	MOL %	GPM (AT 14.73)
HYDROGEN	_____	
HELIUM	_____	
NITROGEN	__0.17	
OXYGEN	_____	
HYDROGEN SULFIDE	_____	
CARBON DIOXIDE	__1.63	
METHANE	__95.03	
ETHANE	__2.39	0.6393
PROPANE	__0.35	0.0965
ISO-BUTANE	__0.12	0.0393
N-BUTANE	__0.08	0.0252
ISO-PENTANE	__0.06	0.0220
N-PENTANE	__0.03	0.0109
HEXANE	_____	
HEXANE PLUS	__0.14	0.0611
HEPTANE PLUS	_____	
TOTALS	100.00	0.8943

MP NUMBER 95515
EFFECTIVE DATE 19970101

-- GASOLINE CONTENT (GPM) --
26/70 GASOLINE _____
100% PROPANE _____
EXCESS BUTANES _____
TOTAL

----- SPECIFIC GRAVITY -----
CALCULATED _0.5940
MEASURED _____

SULPHUR GRAINS / 100 CU FT _____

03=MAIN SCREEN

24=HELP

PA1=TERMINATE

DP NO: 54329A

DATE: 980504 (YYMMDD FORMAT)

SAN JUAN 28-5 UNIT *OK*

54E

SCROLL FORWARD BY DATE: _

S

E L	DATE	HOURS	-OIL PRODN-		-GAS PRODN-		-WATER PRODN-	
	PRODUCED	ON	(BOPD	BOPM)	(MCFD	MCFM)	(BWPD	BWPM)
—	05/04/98	0.0	0.00	0.00	0	0	0.00	0.00
—	05/03/98	0.0	0.00	0.00	0	0	0.00	0.00
—	05/02/98	0.0	0.00	0.00	0	0	0.00	0.00
—	05/01/98	6.3	0.00	0.00	0	0	0.00	0.00
—	04/30/98	24.0	0.00	0.00	12	3138	0.00	0.00
—	04/29/98	24.0	0.00	0.00	12	3126	0.00	0.00
—	04/28/98	24.0	0.00	0.00	71	3114	0.00	0.00
—	04/27/98	24.0	0.00	0.00	79	3043	0.00	0.00
—	04/26/98	24.0	0.00	0.00	98	2964	0.00	0.00
—	04/25/98	24.0	0.00	0.00	102	2866	0.00	0.00
—	04/24/98	24.0	0.00	0.00	93	2764	0.00	0.00

ENTER I UNDER SEL FOR MAINTENANCE

PF6=NRI PF10=BROWSE MENU PF11=INQ/UPDATE MENU
 PF12=MAIN MENU ENTER=BACKWARDS PF24=HELP

DP NO: 54329B

DATE: 980709 (YYMMDD FORMAT)

SAN JUAN 28-5 UNIT *GL*

54E

SCROLL FORWARD BY DATE: _

S

E	DATE	HOURS	-OIL PRODN-		-GAS PRODN-		-WATER PRODN-	
L	PRODUCED	ON	(BOPD	BOPM)	(MCFD	MCFM)	(BWPD	BWPM)
-	07/09/98	24.0	0.00	0.00	40	335	0.00	0.00
-	07/08/98	24.0	0.00	0.00	36	295	0.00	0.00
-	07/07/98	24.0	0.00	0.00	36	259	0.00	0.00
-	07/06/98	24.0	0.00	0.00	36	223	0.00	0.00
-	07/05/98	24.0	0.00	0.00	31	187	0.00	0.00
-	07/04/98	24.0	0.00	0.00	38	156	0.00	0.00
-	07/03/98	24.0	0.00	0.00	48	118	0.00	0.00
-	07/02/98	24.0	0.00	0.00	33	70	0.00	0.00
-	07/01/98	24.0	0.00	0.00	37	37	0.00	0.00
-	06/30/98	24.0	0.00	0.00	65	2381	0.00	0.00
-	06/29/98	24.0	0.00	0.00	48	2316	0.00	0.00

ENTER I UNDER SEL FOR MAINTENANCE

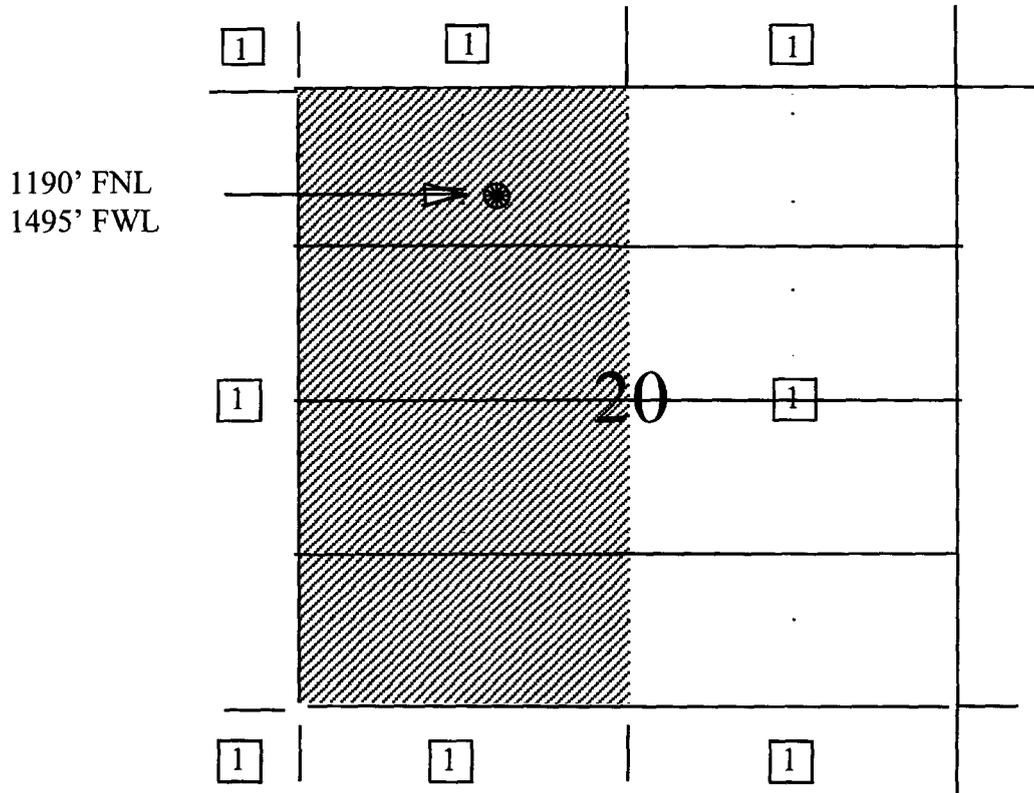
PF6=NRI PF10=BROWSE MENU PF11=INQ/UPDATE MENU
 PF12=MAIN MENU ENTER=BACKWARDS PF24=HELP

BURLINGTON RESOURCES OIL AND GAS COMPANY

**San Juan 28-5 Unit #54E
OFFSET OPERATOR \ OWNER PLAT
Downhole Commingle**

Dakota (W/2) / Gallup (NW/4) Formations Well

Township 28 North, Range 5 West



1) Burlington Resources

DATE: July 28, 1998
 NAME: SAN JUAN 28-5 UNIT 54E
 FORM: DAKOTA

LOCATION
 UNIT: C
 SEC: 20
 TWN: 28N
 RNG: 5W

<p>11/85 * San Juan 28-5 Unit 81E 52/256 (97) 0/0</p> <p>7/59 * San Juan 28-5 Unit 34 83/2690 (97) 0/4</p>	<p>12/62 * San Juan 28-5 Unit 61 91/1973 (97) 0/0</p> <p>11/85 * San Juan 28-5 Unit 34E 92/550 (97) 0/0</p>	<p>9/68 * San Juan 28-5 Unit 75 73/1404 (97) 0/0</p> <p>12/68 * INA</p> <p>0/2298 (98) San Juan 28-5 Unit 33 0/0</p>	<p>4/71 * San Juan 28-5 Unit 84 168/2931 (97) [16] 0/1</p> <p>9/69 * San Juan 28-5 Unit 83 115/2332 (97) 0/0</p> <p>1/86 * San Juan 28-5 Unit 84E 221/1161 (97) 0/2</p>
<p>7/82 * San Juan 28-5 Unit 57M 119/829 (97) 0/1 [19] 1/97</p> <p>11/59 * San Juan 28-5 Unit 35M 131/40 (97) 0/0</p> <p>11/59 * San Juan 28-5 Unit 35 62/1500 (97) 0/1</p>	<p>11/85 * San Juan 28-5 Unit 54E 140/966 (97) 0/0</p> <p>12/62 * San Juan 28-5 Unit 54 113/1598 (97) 0/0</p>	<p>11/62 * San Juan 28-5 Unit 63 247/4876 (97) 0/1</p> <p>11/85 * San Juan 28-5 Unit 63E 95/327 (97) 0/0</p> <p>12/62 * San Juan 28-5 Unit 54 113/1598 (97) 0/0</p>	<p>2/86 * San Juan 28-5 Unit 76M 168/678 (97) 0/0</p> <p>9/68 * San Juan 28-5 Unit 76 28/1591 (97) [21] 0/1</p> <p>6/67 * San Juan 28-5 Unit 67 76/2083 (97) 0/0</p> <p>2/86 * San Juan 28-5 Unit 67M 81/514 (97) 0/0</p>
<p>11/81 * San Juan 28-5 Unit 59M 172/1030 (97) 0/1</p> <p>[30] 0/1 San Juan 28-5 Unit 59 80/2677 (97)</p> <p>10/62 * San Juan 28-5 Unit 58M 507/154 (97) 0/0</p> <p>10/62 * San Juan 28-5 Unit 58 82/2109 (97) 0/0</p>	<p>11/62 * San Juan 28-5 Unit 60M 167/35 (97) 0/0</p> <p>5/97 * San Juan 28-5 Unit 60M 167/35 (97) 0/0</p> <p>12/62 * San Juan 28-5 Unit 66 357/6008 (97) 0/4</p>	<p>11/62 * San Juan 28-5 Unit 60 84/3762 (97) 0/0</p> <p>7/97 * San Juan 28-5 Unit 66M 96/14 (97) 1/0</p> <p>12/62 * San Juan 28-5 Unit 65 594/8749 (97) 0/13</p> <p>7/97 * San Juan 28-5 Unit 65M 237/36 (97) 0/0</p>	<p>12/96 * San Juan 28-5 Unit 64M 228/83 (97) 1/0</p> <p>2/63 * San Juan 28-5 Unit 64 278/4898 (97) 1/14</p> <p>[28] 12/62 * San Juan 28-5 Unit 65 594/8749 (97) 0/13</p> <p>7/97 * San Juan 28-5 Unit 65M 237/36 (97) 0/0</p>

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28
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LEGEND
 COMPLETION DATE *
 WELL NAME
 MCF/D-CUM(MMF)
 BOP/D-CUM(MBO)

DATE: July 28, 1998
 NAME: SAN JUAN 28-5 UNIT 54E
 FORM: GALLUP

LOCATION
 UNIT: C
 SEC: 20
 TWN: 28N
 RNG: 5W

LEGEND
 COMPLETION DATE *
 WELL NAME
 MCFD-CUM(MMF)
 BOPD-CUM(MBO)

[16]	[17]	[18]	[21]	[20]	[19]	[28]	[29]	[30]
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5/98 *
 San Juan 28-5 Unit 54E
 208/2 (98)
 0/0

Company: BURLINGTON RESOURCES
 Well: SAN JUAN 28-5 UNIT #54E
 Field: CALLUP FORMATION
 Engineer:
 Gauge Type: AMERADA
 Gauge Range: 0-3000
 Gauge Depth: 7300 ft
 Serial No.: 31196

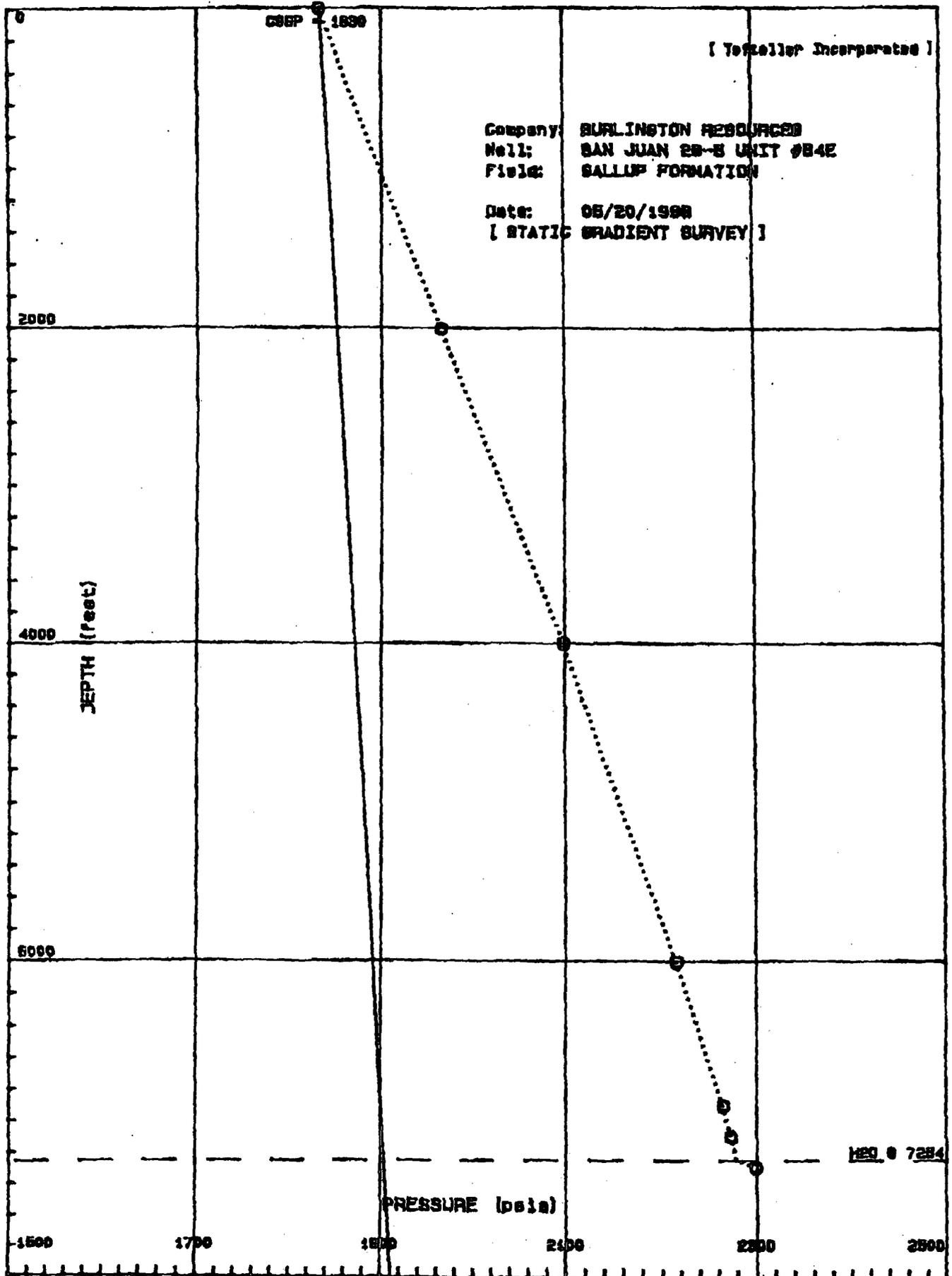
County: RIO ARRIBA
 State: NEW MEXICO
 Date: 05/20/1998
 Well Type:
 Test Type: STATIC GRADIENT
 Status: SHUT-IN
 File Name: 31918

Tubing: 1 1/2"	TO 7328		
Tubing:	TO	PBTD	7380 ft
Casing:	TO	Oil Level	
Perfs.: 6912-7333		H2O Level	7254 ft
Shut-in Time 168 hrs			

Shut-in BHP	2298 @	7300 ft	Shut-in BHT	0 F @	0 ft
Shut-in WHP	1830		Shut-in WHT	0 F	
Casing CSGP	1830				

[Tefteller Incorporated]

#	MD	TVD	PRESSURE	PSI/ft
1	0	0	1830.00	
2	2000	2000	1965.00	0.068
3	4000	4000	2098.00	0.067
4	6000	6000	2215.00	0.058
5	6900	6900	2264.00	0.054
6	7100	7100	2272.00	0.040
7	7300	7300	2298.00	0.130





2030 AFTON PLACE
 FARMINGTON, N.M. 87401
 (505) 325-6622

ANALYSIS NO. BUR80751
 CUST. NO. 52100- 15725

WELL/LEASE INFORMATION

CUSTOMER NAME	BURLINGTON RESOURCES	SOURCE	METER RUN
WELL NAME	SAN JUAN 28-5 #54E	PRESSURE	265 PSIG
COUNTY/STATE		SAMPLE TEMP	83 DEG.F
LOCATION		WELL FLOWING	N/A
FIELD		DATE SAMPLED	6/16/98
FORMATION	GALLUP	SAMPLED BY	STEVE ADAMS
CUST.STN.NO.		FOREMAN/ENGR.	LARY BYARS

REMARKS

ANALYSIS

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	3.196	0.0000	0.00	0.0309
CO2	0.754	0.0000	0.00	0.0115
METHANE	79.897	0.0000	808.80	0.4426
ETHANE	9.823	2.6277	174.23	0.1020
PROPANE	3.451	0.9511	87.03	0.0525
I-BUTANE	0.655	0.2143	21.35	0.0131
N-BUTANE	0.940	0.2964	30.74	0.0189
I-PENTANE	0.405	0.1482	16.24	0.0101
N-PENTANE	0.251	0.0909	10.09	0.0063
HEXANE PLUS	0.628	0.2740	32.29	0.0202
TOTAL	100.000	4.6025	1,180.77	0.7080

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

** @ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR	(1/Z)	1.0032
BTU/CU.FT (DRY) CORRECTED FOR	(1/Z)	<u>1,184.5</u>
BTU/CU.FT (WET) CORRECTED FOR	(1/Z)	<u>1,163.9</u>
REAL SPECIFIC GRAVITY		0.7104

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

DRY BTU @ 14.650	1,178.1
DRY BTU @ 14.696	1,181.8
DRY BTU @ 14.730	1,184.5
DRY BTU @ 15.025	1,208.3

CYLINDER #	335-9
CYLINDER PRESSURE	236 PSIG
DATE RUN	6/17/98
ANALYSIS RUN BY	DAVE MARTIN



BURLINGTON RESOURCES
WELL ANALYSIS COMPARISON

LEASE : SAN JUAN 28-5 #54E
STN.NO. :

METER RUN
GALLUP

6/17/98
52100- 15725

SMPL DATE	6/16/98	5/26/98
TEST DATE	6/17/98	6/11/98
RUN NR.	BUR80751	BUR80748
NITROGEN	3.196	6.257
CO2	0.754	0.630
METHANE	79.897	75.711
ETHANE	9.823	9.763
PROPANE	3.451	3.714
I-BUTANE	0.655	0.819
N-BUTANE	0.940	1.198
I-PENTANE	0.405	0.604
N-PENTANE	0.251	0.387
HEXANE +	0.628	0.917
BTU	1,184.5	1,190.1
GPM	4.6025	5.0421
SP.GRAV.	0.7104	0.7444

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. 11627
ORDER NO. R-10695

APPLICATION OF BURLINGTON RESOURCES
OIL & GAS COMPANY FOR THE ESTABLISHMENT
OF A DOWNHOLE COMMINGLING "REFERENCE
CASE" FOR ITS SAN JUAN 28-5 UNIT PURSUANT
TO DIVISION RULE 303.E. AND THE ADOPTION
OF SPECIAL ADMINISTRATIVE RULES THEREFOR,
~~SAN JUAN COUNTY, NEW MEXICO.~~

Rio ARRIBA

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 17 and November 7, 1996, at Santa Fe, New Mexico, before Examiners David R. Catanach and Michael E. Stogner, respectively.

NOW, on this 12th day of November, 1996, 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, Burlington Resources Oil & Gas Company (Burlington), pursuant to the provisions of Division Rule 303.E., seeks to establish a downhole commingling "reference case" to provide exceptions for (a) marginal economic criteria, (b) pressure criteria, (c) allocation formulas and (d) modification of notification rules on a unit-wide basis for downhole commingling of Dakota, Mesaverde, Fruitland Coal and Pictured Cliffs gas production within existing or future drilled wells within the San Juan 28-5 Unit, San Juan County, New Mexico.

(3) Division Rule No. 303.E., amended by Order No. R-10470-A, currently states:

"If sufficient data exists on a lease, pool, formation, geographic area, etc., so as to render it unnecessary to repeatedly provide such data on Form C-107-A, an operator may except any of the various criteria required under Paragraph 303.D. of this rule by establishing a "reference case". The Division, upon its own motion, or by application from an operator, may establish "reference cases" either administratively or by hearing. Upon Division approval of such "reference cases" for specific criteria, subsequent applications to downhole commingle (Form C-107-A) will be required only to cite the Division order number which established such exceptions and shall not be required to submit data for those criteria."

(4) The applicant is the current operator of the San Juan 28-5 Unit which encompasses some 17,399 acres in Township 28 North, Range 5 West, NMPM, San Juan County, New Mexico.

(5) Within the San Juan 28-5 Unit, the applicant currently operates sixty-seven (67) Basin-Dakota Gas Pool wells, seventy-one (71) Blanco-Mesaverde Gas Pool wells, sixteen (16) Gobernador-Pictured Cliffs, Oso-Pictured Cliffs and Tapacito-Pictured Cliffs Gas Pool wells, and nineteen (19) Basin-Fruitland Coal Gas Pool wells.

(6) According to its evidence and testimony, Burlington seeks to:

- a) establish a "reference case" for marginal economic criteria in the Dakota and Pictured Cliffs formations whereby these formations and/or pools may be identified as "marginal" on Form C-107-A's subsequently filed for wells within the San Juan 28-5 Unit. The applicant further proposes that the data provided in the immediate case serve as supplemental data or confirmation that these formations and/or pools should be classified as "marginal";
- b) establish a "reference case" for pressure criteria in the Dakota and Pictured Cliffs formations whereby the Division may utilize data provided in the immediate case to verify the pressure data provided on Form C-107-A's subsequently filed for wells within the San Juan 28-5 Unit;

- c) establish a "reference case" whereby the Division utilizes the data presented in the immediate case to endorse or approve certain methods of allocating production whereby the applicant need not submit additional data or justification when proposing a certain method of allocating production on Form C-107-A's subsequently filed for wells within the San Juan 28-5 Unit; and,
- d) establish a "reference case" or an administrative procedure for authorizing the downhole commingling of existing or future drilled wells within the San Juan 28-5 Unit without additional notice to each affected interest owner as required by Division Rule No. 303.D.

(7) In support of its request to except marginal economic criteria, the applicant presented geologic and engineering evidence and testimony which indicates that within the San Juan 28-5 Unit:

- a) the structure and thickness of the Dakota and Pictured Cliffs formations are very consistent;
- b) the average recoverable Dakota and Pictured Cliffs gas reserves underlying an undeveloped drill block are approximately 1,258 MMCFG and 77 MMCFG, respectively;
- c) the average initial producing rate for a newly drilled or recompleted Dakota and Pictured Cliffs gas well is approximately 276 MCFGD and 136 MCFGD, respectively; and,
- d) the estimated ultimate gas recoveries and initial producing rates from the Dakota and Pictured Cliffs formations are insufficient to justify drilling stand alone wells and/or dually completed wells to recover such gas reserves.

(8) The evidence and testimony presented by the applicant indicates that the Dakota and Pictured Cliffs formations within the San Juan 28-5 Unit should be properly classified as "marginal".

(9) In support of its request to except pressure criteria within the Dakota and Pictured Cliffs formations within the San Juan 28-5 Unit, the applicant presented engineering evidence and testimony which indicates that:

- a) the average shut-in bottomhole pressure within the Dakota and Pictured Cliffs formations at the time of initial development were approximately 3,149 psi and 1,143 psi, respectively; and,
- b) the average current shut-in bottomhole pressure within the Dakota and Pictured Cliffs formations are approximately 1,059 psi and 714 psi, respectively.

(10) There is sufficient pressure data available within the San Juan 28-5 Unit so as to except pressure criteria as proposed by the applicant.

(11) The applicant testified that various allocation methods will be utilized for downhole commingled wells within the San Juan 28-5 Unit depending on the circumstances. Some of the methods and circumstances are described as follows:

- a) the subtraction method will likely be utilized in those instances involving the Basin-Fruitland Coal Gas Pool and in those instances where a zone with a well established decline rate is commingled with a newly completed zone;
- b) a fixed allocation formula will be utilized in those instances where production history for both zones is available, or in those instances where newly completed zones are tested and stabilized flow rates obtained.

(12) The allocation methods proposed by the applicant are routinely utilized by industry and approved by the Division and therefore, the proposal to except allocation formulas should be approved.

(13) In support of its request to establish a "reference case" or administrative procedure for providing notice within the San Juan 28-5 Unit the applicant presented evidence and testimony which indicates that:

- a) the interest ownership between two zones within a given wellbore in the San Juan 28-5 Unit is generally not common;
- b) pursuant to Division Rule No. 303.D., applicant is currently required to notify all interest owners within the San Juan 28-5 Unit every time a Form C-107-A is submitted to the Division. There are a considerable number of such interest owners within the unit;

- c) providing notice to each interest owner within the San Juan 28-5 Unit of subsequent downhole comminglings is unnecessary and is an excessive burden on the applicant;
- d) the downhole commingling of wells within the San Juan 28-5 Unit Area will benefit working, royalty, and overriding royalty interest owners. In addition, the downhole commingling of wells within the San Juan 28-5 Unit should not violate the correlative rights of any interest owner;
- e) no interest owner appeared at the hearing in opposition to the establishment of a "reference case" or administrative procedure for notice.

(14) An administrative procedure should be established within the San Juan 28-5 Unit for obtaining approval for subsequent downhole commingled wells without notice to Unit interest owners, provided however that, all other provisions contained within Division Rule No. 303.C. are complied with.

(15) Approval of the proposed "reference cases" for marginal economic criteria, pressure criteria, allocation formulas and notice will lessen the burden on the applicant insofar as providing the data required pursuant to Division Rule No. 303.D. and Form C-107-A, will provide the applicant a streamlined method for obtaining downhole commingling approvals within the San Juan 28-5 Unit, and will not violate correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The application of Burlington Resources Oil & Gas Company to establish a "reference case" for (a) marginal economic criteria, (b) pressure criteria, (c) allocation formulas and (d) modification of notification rules on a unit-wide basis for downhole commingling of Dakota, Mesaverde, Fruitland Coal and Pictured Cliffs gas production within existing or future drilled wells within the San Juan 28-5 Unit, San Juan County, New Mexico, is hereby approved.

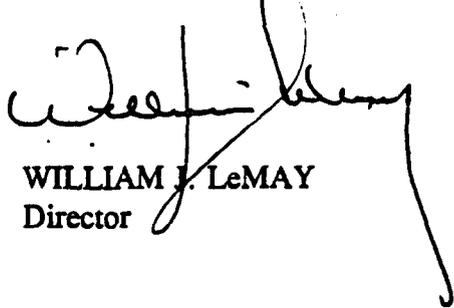
(2) Upon filing of Division Form No. C-107-A's for wells subsequently downhole commingled within the San Juan 28-5 Unit Area, the applicant shall not be required to submit supporting data to justify the classification of the Pictured Cliffs and Dakota formations as "marginal", supporting data to verify the Pictured Cliffs and Dakota pressure information provided, and support or justification for utilizing a given method or formula for allocation of production, provided however, in the event any of the data described above appearing on Form C-107-A appears to be beyond the data range provided in this case, the Division may require the submittal of additional supporting data.

(3) In order to obtain Division authorization to downhole commingle wells within the San Juan 28-5 Unit, the applicant shall file a Form C-107-A with the Santa Fe and Aztec Offices of the Division. Such application shall contain all the information required under Rule No. 303.C. of the Division Rules and Regulations, provided however that the applicant shall not be required to provide notice to all interest owners within the San Juan 28-5 Unit of such proposed commingling.

(4) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LeMAY
Director

S E A L