

BURLINGTON RESOURCES

SAN JUAN DIVISION

November 13, 1996

Mr. William LeMay
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

RECEIVED
NOV 18 1996

OIL CON. DIV.
DIST. 3

Re: San Juan 28-5 Unit #64M
1190'FNL, 790'FWL Section 28, T-28-N, R-05-W, Rio Arriba County, NM
API #30-039-25589

Dear Mr. LeMay:

This is a request for administrative approval for downhole commingling the Blanco Mesa Verde and Basin Dakota pools in the subject well. This is a new drill Mesa Verde/Dakota well spud October 1996.

To comply with the New Mexico Oil Conservation Division rules, Burlington Resources Oil & Gas Company is submitting the following for your approval of this commingling:

1. Form C107A - Application for Downhole Commingling;
2. C-102 plat for each zone showing its spacing unit and acreage dedication;
3. No production curve attached, as this is a new drill;
4. Notification list of offset operators - Burlington is the operator of the unit;
5. Shut in wellhead pressure and calculated down hole pressure;
6. Nine-section plats for the Mesa Verde and Dakota.

Notification of Mesa Verde and Dakota interest owners is covered under Case #11627 before the New Mexico Oil Conservation Division.

The allocation formula will be based off actual flow rates from the Mesa Verde and Dakota formations.

Please let me know if you require additional data.

Sincerely,


Peggy Bradfield
Regulatory/Compliance Administrator

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**

APPLICATION FOR DOWNHOLE COMMINGLING

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

APPROVAL PROCESS :

☒ Administrative ☐ Hearing

EXISTING WELLBORE

YES X NO

BURLINGTON RESOURCES
Operator

PO BOX 4289 FARMINGTON, NM 87499
Address

SAN JUAN 28-5 UNIT
Lease

64M
Well No.

D-28-28N-5W
Unit Ltr. - Sec - Twp - Rge

RIO ARRIBA
County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 014538 Property Code 7460 API NO. 30-039-25589 Federal X, State , (and/or) Fee X

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	BLANCO MESAVERDE - 72319		BASIN DAKOTA - 71599
2. Top and Bottom of Pay Section (Perforations)	WILL BE SUPPLIED UPON COMPLETION		WILL BE SUPPLIED UPON COMPLETION
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. 591 psi (see attachment) (Original) b. 1302 psi (see attachment)	a. RECEIVED NOV 18 1996 OIL CON. DIV. DIST. 3	a. 871 psi (see attachment) b. 3265 psi (see attachment)
6. Oil Gravity ($^{\circ}$ API) or Gas BTU Content	BTU 1170		BTU 1065
7. Producing or Shut-In?	SHUT - IN		SHUT - IN
Production Marginal? (yes or no)	NO		YES
* If Shut-In and oil/gas/water rates of last production	Date: N/A Rates:	Date: Rates:	Date: N/A Rates:

Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data

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
OperatorPO BOX 4289 FARMINGTON, NM 87499
AddressSAN JUAN 28-5 UNIT
Lease64M
Well No.D-28-28N-5W
Unit Ltr. - Sec - Twp - RgeRIO ARRIBA
County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 014538 Property Code 7460 API NO. 30-039-25589 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	BLANCO MESAVERDE - 72319		BASIN DAKOTA - 71599
2. Top and Bottom of Pay Section (Perforations)	WILL BE SUPPLIED UPON COMPLETION		WILL BE SUPPLIED UPON COMPLETION
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. 591 psi (see attachment) (Original) b. 1302 psi (see attachment)	a. RECEIVED NOV 18 1996 OIL CON. DIV. DIST. 3	a. 871 psi (see attachment) b. 3265 psi (see attachment)
6. Oil Gravity (°API) or Gas BTU Content	BTU 1170		BTU 1065
7. Producing or Shut-In?	SHUT - IN		SHUT - IN
Production Marginal? (yes or no)	NO		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: N/A Rates:	Date: Rates:	Date: N/A Rates:
* If Producing, give data and oil/gas/water water of recent test (within 60 days)	Date: N/A Rates:	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 ☒ No11. 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 ☐ No13. 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. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). Case #11627

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 Peggy Bradfield TITLE Regulatory Administrator DATE 11-12-96TYPE OR PRINT NAME Peggy Bradfield TELEPHONE NO. (505) 326-9700

District I
PO Box 1790, Hobbs, NM 88241-1790
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Hondo Rd., Aztec, NM 87410
District IV
PO 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 30-039-		Pool Code 72310/71599		Pool Name Blanco Mesaverde/Basin Dakota	
Property Code 7460		Property Name San Juan 28-5 Unit			Well Number 64M
OGRID No. 14538		Operator Name MERIDIAN OIL INC.			Elevation 6654'

10 Surface Location

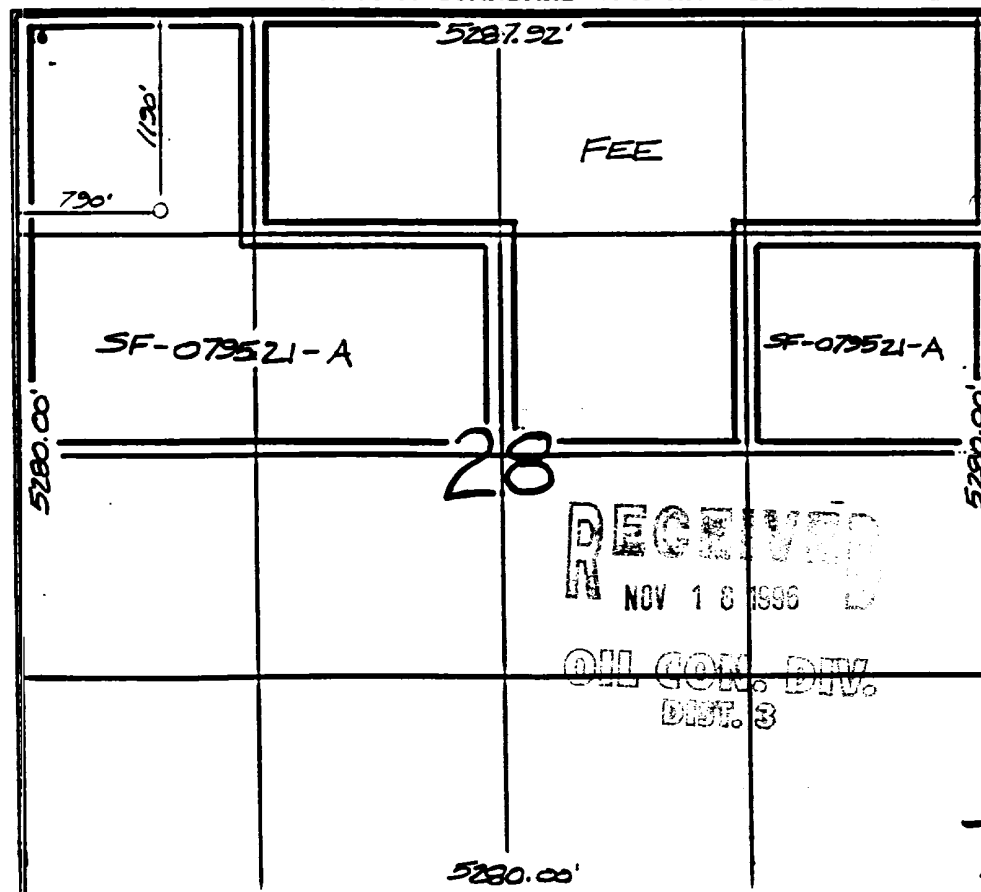
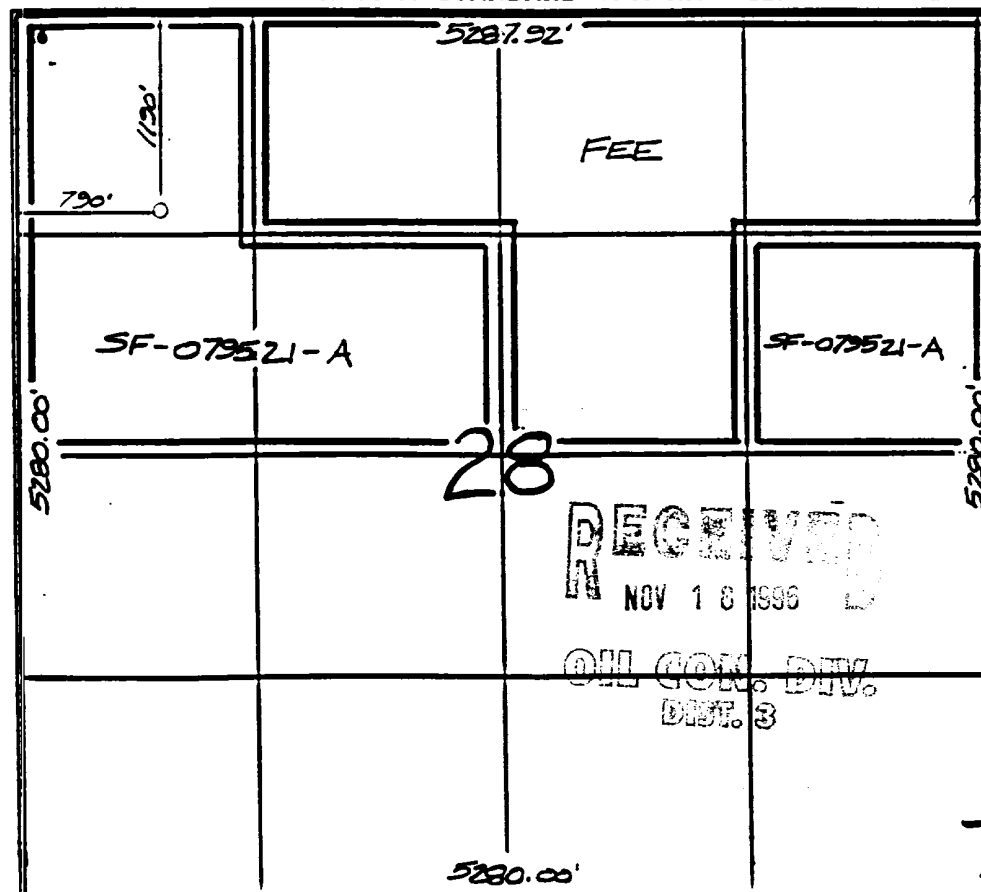
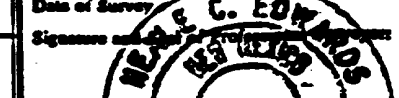
UL or lot no.	Section	Township	Range	Lot Ids	Feet from the	North/South line	Feet from the	East/West line	County
D	28	28 N	5 W		1190	North	790	West	R.A.

11 Bottom Hole Location If Different From Surface

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

Dedicated Acres N / 320 N / 320	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

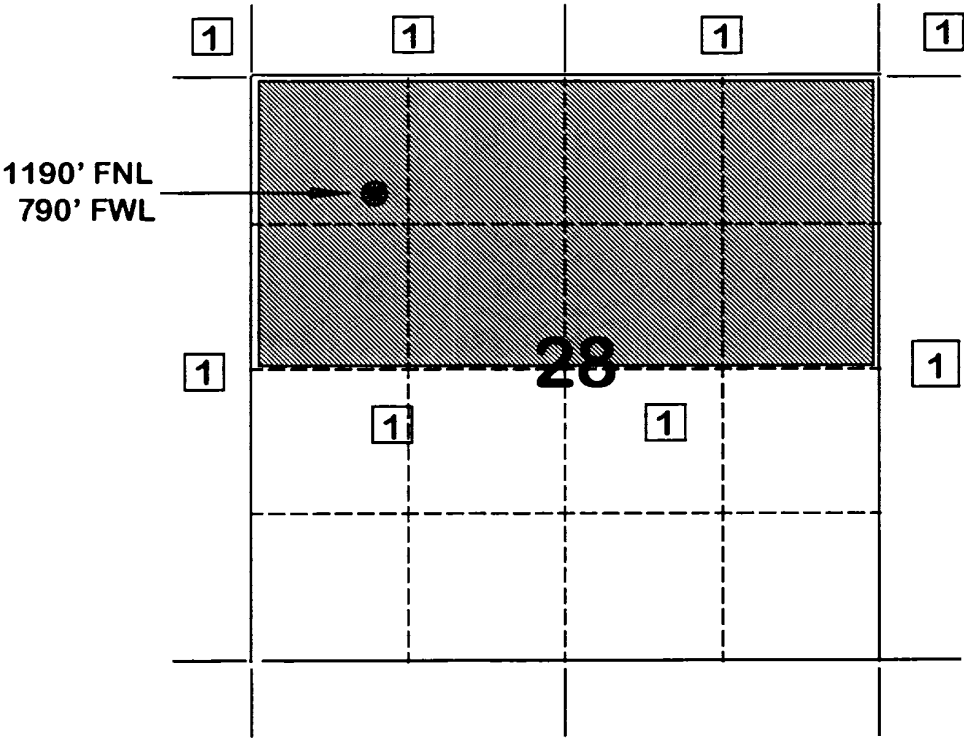
		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Peggy Bradfield Printed Name Regulatory Administrator Title Date 9-3-96	
		18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was placed 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 NEIL C. EDWARDS 6857 6857 Certificate No.	

BURLINGTON RESOURCES OIL AND GAS COMPANY

**San Juan 28-5 Unit #64M
OFFSET OPERATOR \ OWNER PLAT**

Mesaverde / Dakota Formations Commingle Well

Township 28 North, Range 5 West



1) Burlington Resources Oil and Gas Company Successor to Meridian Oil Inc.

SAN JUAN 28-5 #64M

CURRENT DAKOTA PRESSURE
(BASED ON CURRENT AVERAGE OF OFFSET WELLS)

**FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD**

VERSION 1 0 3/13/94

GAS GRAVITY	0.695
COND. OR MISC. (C/M)	C
%N2	0.98
%CO2	1.48
%H2S	0
DIAMETER (IN)	2.375
DEPTH (FT)	7915
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	200
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	716
BOTTOMHOLE PRESSURE (PSIA)	870.6

OFFSET DAKOTA WELLS - CURRENT PRESSURE

SAN JUAN 28-5 UNIT #64 DAKOTA-CURRENT	757
SAN JUAN 28-5 UNIT #44 DAKOTA-CURRENT	607
SAN JUAN 28-5 UNIT #41 DAKOTA-CURRENT	854
SAN JUAN 28-5 UNIT #66 DAKOTA-CURRENT	732
SAN JUAN 28-5 UNIT #60 DAKOTA-CURRENT	782
SAN JUAN 28-5 UNIT #65 DAKOTA-CURRENT	563
AVERAGE SURFACE PRESSURE	716

NOTE : SEE OFFSET WELL PLAT

Page No.: 3

Print Time: Thu Oct 03 11:41:42 1996

Property ID: 1784

Property Name: SAN JUAN 28-5 UNIT | 64 | : : 4357 CF: 92 SIP:

Table Name: K:\ARIES\RR97PDP\TEST.DBF

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

02/19/63	0	2621.0
03/07/63	0	2630.0
05/08/63	47000	2319.0
10/14/63	121000	2232.0
01/02/64	178000	2146.0
07/29/65	442000	2022.0
08/01/66	605000	1966.0
08/04/67	871000	1665.0
05/10/68	1108000	1431.0
05/05/69	1340907	1271.0
11/02/70	1647698	1266.0
04/27/71	1767258	1077.0
05/15/72	2008289	978.0
07/05/73	2269151	917.0
04/30/75	2576562	903.0
07/06/77	2916654	850.0
05/01/79	3203710	762.0
05/04/81	3493733	702.0
02/20/84	3735297	747.0
05/20/85	3834720	751.0
10/23/88	4073551	900.0
04/24/90	4249142	696.0
09/01/92	4414203	757.0

← original

Dakota
Parent well

← current

Page No.: 1

Print Time: Mon Oct 28 09:12:39 1996

Property ID: 1768

Property Name: SAN JUAN 28-5 UNIT | 44 | 53421B-1

Table Name: K:\ARIES\RR97PDP\TEST.DBF

--DATE-- ---CUM_GAS-- M SIWHP

.....Mcf.....Psi

09/10/60	0	2701.0
10/10/60	0	2700.0
10/13/61	247000	2469.0
11/28/62	428000	2397.0
01/07/63	507000	2334.0
01/02/64	585000	2347.0
07/29/65	1109000	2034.0
08/01/66	1260000	2015.0
08/04/67	1604000	1860.0
05/10/68	1944000	1662.0
05/05/69	2322000	1443.0
06/09/70	2588760	1363.0
05/03/71	2816979	1267.0
05/30/72	3094074	1085.0
07/05/73	3344133	1134.0
01/16/76	3688923	700.0
07/06/77	3881960	652.0
05/01/79	4043404	473.0
05/04/81	4419311	484.0
11/09/81	4476519	639.0
03/18/84	4584913	1009.0
11/18/85	4706172	574.0
10/17/88	4855542	664.0
04/21/90	5020783	679.0
07/28/92	5155650	607.0

Dakota offset
of ST 28-5-11-1111

← current

Page No.: 1

Print Time: Mon Oct 28 09:13:13 1996

Property ID: 1766

Property Name: SAN JUAN 28-5 UNIT | 41 | 53419B-1

Table Name: K:\ARIES\RR97PDP\TEST.DBF

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

05/21/60	0	2583.0
07/08/60	0	2582.0
11/06/60	59000	1935.0
06/13/61	178000	1838.0
11/12/62	377000	1782.0
08/02/63	441000	1999.0
04/22/64	489000	1839.0
04/21/65	701000	1431.0
05/26/67	1038000	929.0
05/20/68	1204000	894.0
05/23/69	1330073	904.0
06/19/70	1470881	946.0
04/27/71	1570841	941.0
05/15/72	1701788	959.0
07/05/73	1816529	752.0
04/30/75	1965280	741.0
06/01/77	2112159	637.0
05/01/79	2204770	542.0
05/04/81	2312259	507.0
09/19/83	2391405	645.0
05/17/85	2470903	747.0
10/23/88	2556849	942.0
07/31/90	2611234	854.0

Backlog offset of
950000000

000000000

Page No.: 1

Print Time: Mon Oct 28 09:13:39 1996

Property ID: 1786

Property Name: SAN JUAN 28-5 UNIT	66	50695A-1
-----------------------------------	----	----------

Table Name: K:\ARIES\RR97PDP\TEST.DBF

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

12/06/62	0	2737.0
12/30/62	0	2736.0
08/26/63	137000	2370.0
04/22/64	224000	2242.0
06/21/65	499000	2076.0
05/23/66	751000	1924.0
05/26/67	1017000	1782.0
05/20/68	1376000	1580.0
05/15/69	1753583	1364.0
06/19/70	1978344	1373.0
04/27/71	2196845	1236.0
05/15/72	2471108	1171.0
07/05/73	2731127	1138.0
04/30/75	3098131	992.0
06/01/77	3597270	855.0
05/01/79	3870710	954.0
05/04/81	4270027	715.0
09/19/83	4553194	800.0
05/17/85	4731556	749.0
10/23/88	5022339	887.0
04/21/90	5207326	766.0
09/01/92	5437954	732.0

1. Jackals effort
 2. Jackals effort
 3. Jackals effort

current

Page No.: 1

Print Time: Mon Oct 28 09:14:00 1996

Property ID: 1778

Property Name: SAN JUAN 28-5 UNIT | 60 | 50694A-1

Table Name: K:\ARIES\RR97PDP\TEST.DBF

--DATE-- ---CUM GAS-- M SIWHP
.....Mcft.....Psi

11/29/62	0	2069.0
04/28/63	59000	1844.0
04/22/64	259000	1755.0
01/04/65	315000	1949.0
05/23/66	620000	1945.0
05/26/67	869000	1412.0
05/20/68	1084000	1416.0
05/15/69	1359583	1124.0
06/19/70	1609494	1088.0
04/27/71	1772012	1062.0
05/15/72	1975467	1059.0
07/05/73	2227884	938.0
04/30/75	2515249	921.0
06/01/77	2757933	924.0
05/01/79	2942223	910.0
05/04/81	3114533	890.0
09/19/83	3229436	903.0
06/04/85	3321764	905.0
10/23/88	3475228	882.0
06/29/90	3564454	920.0
09/01/92	3628052	782.0

San Juan 28-5 UNIT
50694A-1

← current

Page No. : 1

Print Time: Mon Oct 28 09:14:19 1996

Property ID: 1785

Property Name:	SAN JUAN 28-5 UNIT	65	50704A-1
----------------	--------------------	----	----------

Table Name: K:\ARIES\RR97PDP\TEST.DBF

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

12/23/62	0	2682.0
01/15/63	0	2689.0
05/06/63	143000	2363.0
04/22/64	396000	2041.0
06/21/65	843000	1922.0
05/23/66	1172000	1782.0
05/26/67	1662000	1545.0
05/20/68	2030000	1529.0
03/07/69	2423115	1353.0
06/19/70	2792749	1312.0
04/27/71	3093844	1187.0
05/15/72	3388021	1195.0
07/05/73	3658485	1131.0
04/30/75	4261786	863.0
07/06/77	4907954	834.0
05/01/79	5390308	718.0
05/04/81	5964056	617.0
09/19/83	6344159	710.0
05/17/85	6567365	754.0
10/23/88	6943320	822.0
04/24/90	7296753	636.0
09/01/92	7675363	672.0
01/31/94	7969381	563.0

Dakota 2000
10/10/2000

← CURRENT

**FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD**

VERSION 1.0 3/13/94

GAS GRAVITY	0.695
COND. OR MISC. (C/M)	C
%N2	0.98
%CO2	1.48
%H2S	0
DIAMETER (IN)	2.375
DEPTH (FT)	7915
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	200
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	2630
BOTTOMHOLE PRESSURE (PSIA)	3265.5

**FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD**

VERSION 1.0 3/13/94

GAS GRAVITY	<u>0.687</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.23</u>
%CO2	<u>1.06</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>2.875</u>
DEPTH (FT)	<u>5780</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>150</u>
FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>512</u>
BOTTOMHOLE PRESSURE (PSIA)	591.3

SAN JUAN 28-5 #50 MESAVERDE CURRENT

Page No.: 1

Print Time: Thu Oct 03 11:41:40 1996

Property ID: 3963

Property Name: SAN JUAN 28-5 UNIT | 50 | : : 2986 CF: 93 SIP:

Table Name: K:\ARIES\RR97PDP\TEST.DBF

--DATE-- ---CUM GAS-- M SIWHP

-----Mcf-----Psi-----

12/17/61	56000	917.0
11/02/62	101000	911.0
05/06/63	170000	903.0
04/22/64	188000	852.0
06/21/65	293000	867.0
05/23/66	373000	832.0
05/26/67	445000	847.0
03/28/68	0	1110.0
05/20/68	556000	710.0
05/23/69	699938	621.0
06/19/70	836804	589.0
04/27/71	939124	688.0
05/15/72	1070695	558.0
07/05/73	1206102	479.0
04/19/74	1294033	442.0
06/25/76	1500750	453.0
08/02/78	1671588	480.0
06/04/80	1809146	453.0
05/31/82	1944115	468.0
05/01/84	2045106	523.0
11/04/86	2152376	564.0
05/09/89	2287125	490.0
04/15/91	2389372	500.0
09/10/91	2414181	512.0
07/30/93	2527148	1012.0

← original

Mesa Verde
Pueblo
28-5 #101

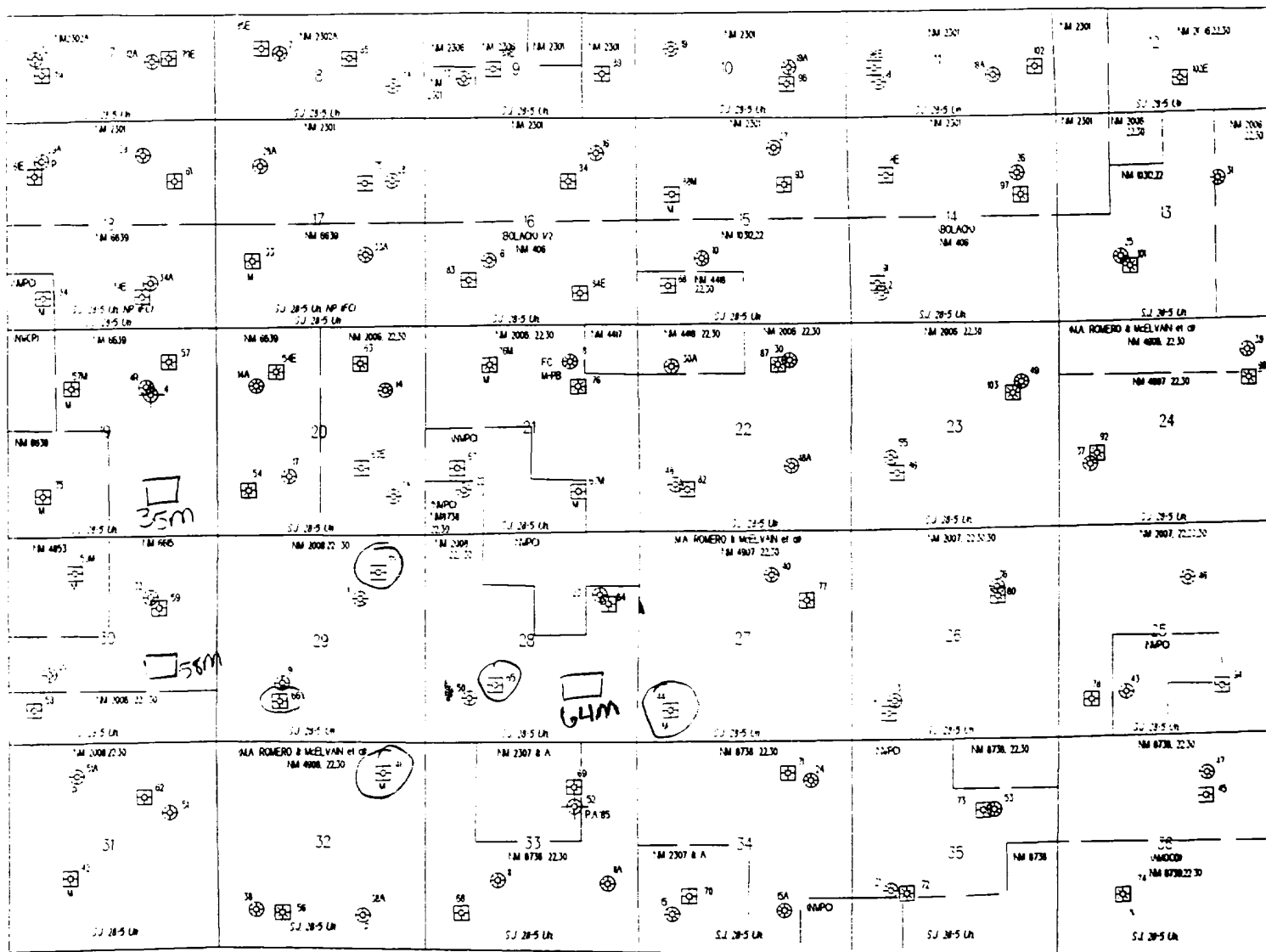
← current

did not use
suspect data point.

**FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD**

VERSION 1.0 3/13/94

GAS GRAVITY	0.687
COND. OR MISC. (C/M)	C
%N2	0.23
%CO2	1.06
%H2S	0
DIAMETER (IN)	2.875
DEPTH (FT)	5780
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	150
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1110
BOTTOMHOLE PRESSURE (PSIA)	1301.5



SAN JUAN 25-5 UNIT