

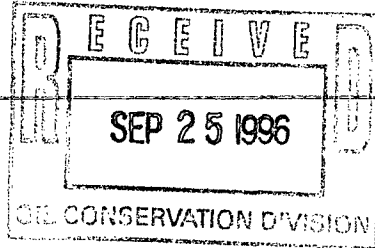
DHC

10/15/96

1383

**BURLINGTON
RESOURCES**

SAN JUAN DIVISION



September 24, 1996

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

Re: Culpepper Martin SRC #10
1650'FSL, 1650'FWL Section 32, T-32-N, R-12-W, San Juan County, NM
API #30-045-11800

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 currently a dual Mesa Verde/Dakota well.

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. Production curve for both the Dakota and Mesa Verde for at least one year;
4. Notification list of offset operators;
5. Shut in wellhead pressure and calculated down hole pressure;
6. Nine-section plats for the Mesa Verde and Dakota.

The ownership for both the Mesa Verde and Dakota are common in this well. No notification to interest owners is required.

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,

A handwritten signature in cursive script, appearing to read "Peggy Bradfield".

Peggy Bradfield
Regulatory/Compliance Administrator

encs.

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

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE

☒ YES ☐ NO

Burlington Resources Oil & Gas Company

PO Box 4289, Farmington, NM 87499

Operator

Address

Culpepper Martin SRC

10

K-32-32N-12W

San Juan

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 18505 API NO. 30-045-11800 Federal , 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)	4606-4878'		6800-6898'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure	(Current) a. 689 psi (see attached)	a.	a. 1002 psi (see attached)
Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Original) b. 1172 psi (see attached)	b.	b. 2080 psi (see attached)
6. Oil Gravity (°API) or Gas BTU Content	BTU 1191		BTU 1177
7. Producing or Shut-In?	producing		producing
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: 1-92 Rates: 8 MCF/D, 0 BOPD
Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data			
* If Producing, give data and oil/gas/water of recent test (within 60 days)	Date: 8-96 Rates: 14 MCF/D, 0.18 BOPD	Date: Rates:	Date: 8-96 Rates: 9 MCF/D, 0 BOPD
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Will be supplied upon completion		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). _____
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 9-24-96TYPE OR PRINT NAME Peggy Bradfield TELEPHONE NO. (505) 326-9700

N MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

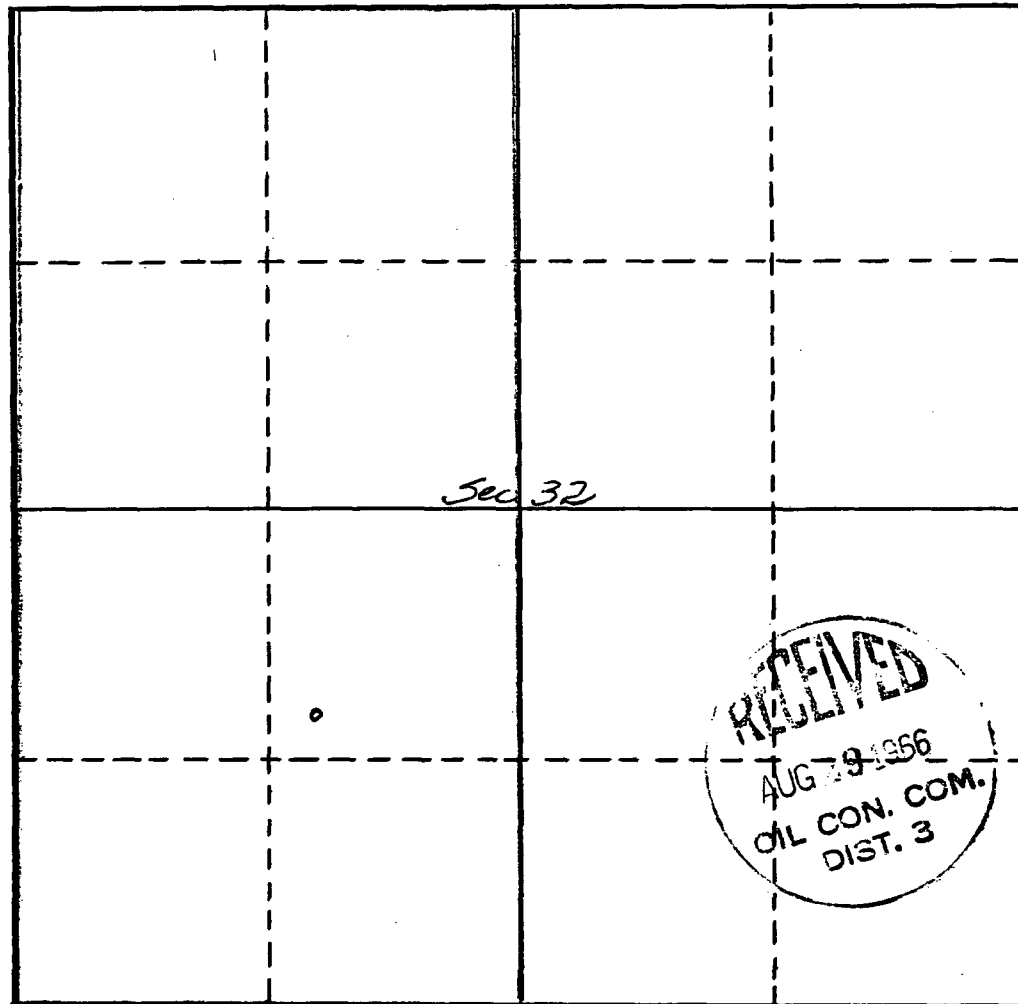
Operator Astec Oil and Gas			Lease Calpepper Martin			Well No. 10		
Unit Letter K	Section 32	Township 32N	Range 12W	County San Juan				
Actual Footage Location of Well: 1650 feet from the South line and 1650 feet from the West line								
Ground Level Elev: 5893		Producing Formation Dakota		Pool Basin			Dedicated Acreage: 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Original Signed By
Carl E. Jamison

Name

Position

Carl E. Jamison

Company

District Engineer

Date

Astec Oil and Gas

August 26, 1966

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 knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.



NEW MEXICO OIL CONSERVATION COMMISSION

Well Location and Acreage Dedication Plat

Section A.

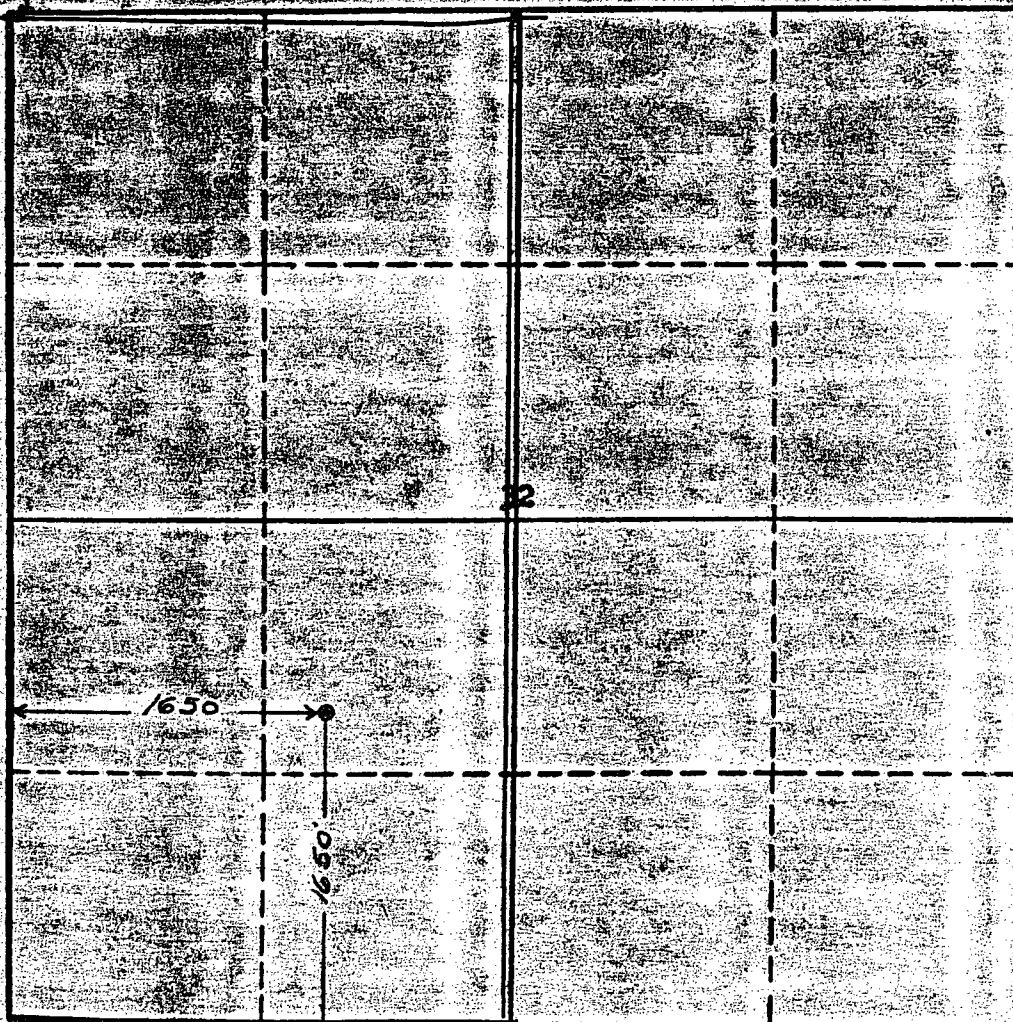
Date June 12, 1959

Operator Aztec Oil And Gas Company Lease Culpepper-Martin SR
Well No. 10 Unit Letter Section 32 Township 32 North Range 12 West NMPN
Located 1650' Feet From South Line, 1650' Feet From West Line
County San Juan G. L. Elevation 5893 Dedicated Acreage 320 Acres
Name of Producing Formation Mesaverde Pool Blanco Mesaverde

1. Is the Operator the only owner* in the dedicated acreage outlined on the plat below?
Yes X No
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization 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.

AZTEC OIL & GAS COMPANY
(Operator)

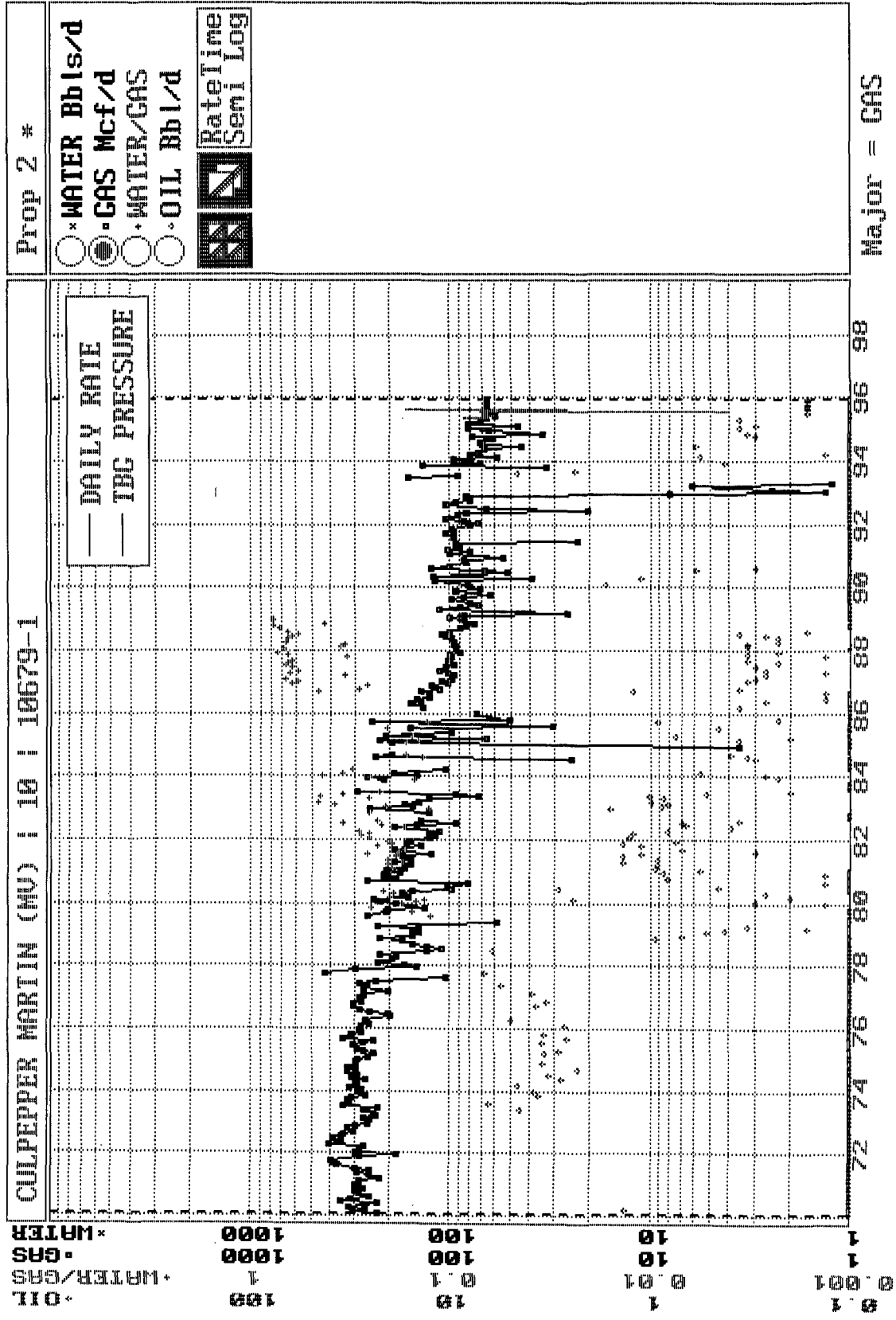
(Representative)
P O Box 786
Farmington, New Mexico
Address

This is to certify that the well location shown on the plat in Section B was plotted from field notes of a well survey made by me or under my supervision and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed June 10, 1959

Ernest V. Echohawk
Ernest V. Echohawk
Registered Land Surveyor.

Certificate No. 1545



Major = GAS

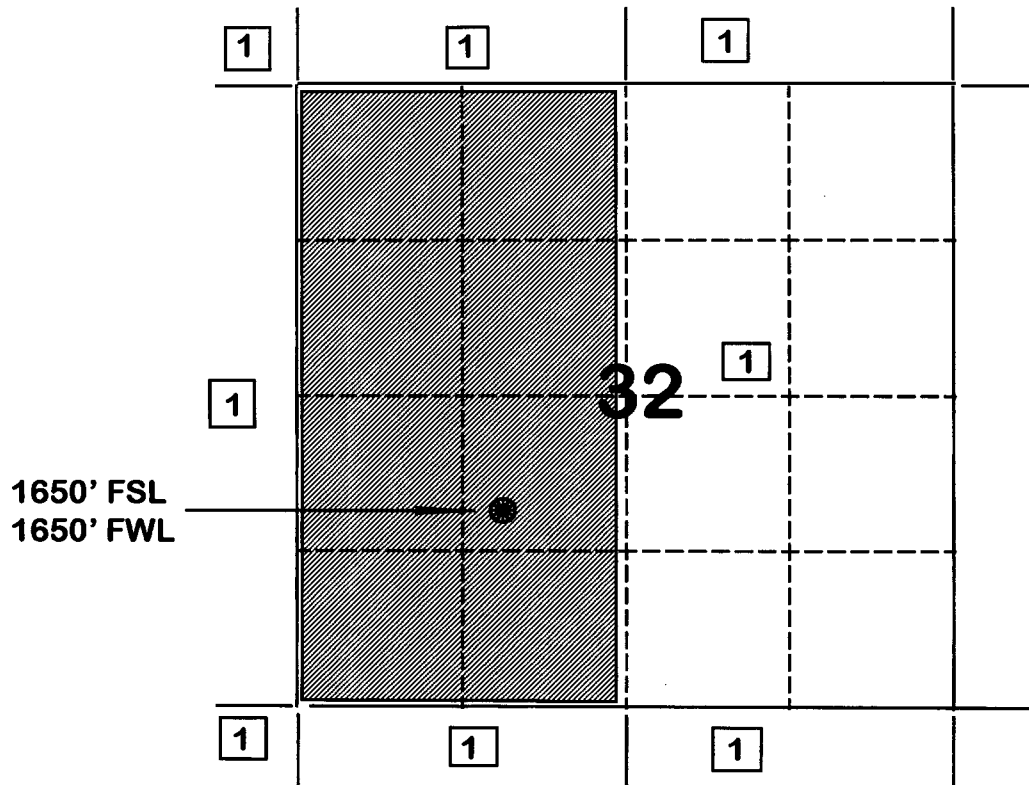
BURLINGTON RESOURCES OIL AND GAS COMPANY

CULPEPPER MARTIN SRC #10

OFFSET OPERATOR \ OWNER PLAT

Mesaverde/Dakota Formations Commingle Well

Township 32 North, Range 12 West



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

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.7
COND. OR MISC. (C/M)	C
%N2	0.25
%CO2	1.18
%H2S	0
DIAMETER (IN)	2.5
DEPTH (FT)	4878
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	150
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1023
BOTTOMHOLE PRESSURE (PSIA)	1171.5

CULPEPPER MARTIN SRC #10 MESAVERDE - (ORIGINAL)

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.7
COND. OR MISC. (C/M)	C
%N2	0.25
%CO2	1.18
%H2S	0
DIAMETER (IN)	2.5
DEPTH (FT)	4878
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	150
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	607
BOTTOMHOLE PRESSURE (PSIA)	688.6

CULPEPPER MARTIN SRC #10 MESAVERDE - (CURRENT)

State: 30 Lease Name: CULPEPPER MARTIN
 Prod: 2 County Name: SAN JUAN
 Ident: 32N12W32K00MV Reservoir Name: MESAVERDE
 District: 4 Operator Name: MERIDIAN OIL INC
 Location: 32K 32N 12W Field Name: BLANCO (MESAVERDE)
 Retrieval code: 251,045,32N12W32K00MV Well: 000010 Total Depth: 4901
 Gas Gath: SUG Status: ACT Upper Perf: 4843
 API No: 1180000 Comp Date: 195907 Lower Perf: 4878

Date	Cum to Test	WHSIP	BHP	P/Z	BDWtr	BDCnd	WHFlw	Poten	MC	Pt	Z	FAC
19590722	0	1023	1181	1376	0	0	0	4599	C	2	58.000	
19701130	1,475,643	524	597	647	0	0	482	223	C	2	23.000	
19710317	1,506,219	531	605	656	0	0	440	288	C	2	22.000	
19720317	1,615,081	497	566	611	0	0	429	374	C	2	27.000	
19730617	1,754,625	502	572	618	0	0	403	257	C	2	26.000	
19740502	1,851,560	456	519	557	0	0	355	310	C	2	32.000	
19760617	2,070,988	425	483	515	0	0	328	326	C	2	37.000	
19780416	2,232,223	436	496	530	0	0	381	193	C	2	35.000	
F1=HELP	F2=SPLIT	F3=END	F4=RETURN	F5=RFIND	F6=RCHANGE							
F7=UP	F8=DOWN	F9=SWAP	F10=LEFT	F11=RIGHT	F12=RETRIEVE							

B MY JOB LU #17

State: 30 Lease Name: CULPEPPER MARTIN
 Prod: 2 County Name: SAN JUAN
 Ident: 32N12W32K00MV Reservoir Name: MESAVERDE
 District: 4 Operator Name: MERIDIAN OIL INC
 Location: 32K 32N 12W Field Name: BLANCO (MESAVERDE)
 Retrieval code: 251,045,32N12W32K00MV Well: 000010 Total Depth: 4901
 Gas Gath: SUG Status: ACT Upper Perf: 4843
 API No: 1180000 Comp Date: 195907 Lower Perf: 4878

Date	Cum to Test	WHSIP	BHP	P/Z	BDWtr	BDCnd	WHFlw	Poten	MC	Pt	Z	FAC
19800607	2,357,336	473	539	580	0	0	409	147	C	2	30.000	
19820407	2,464,834	441	502	537	0	0	403	59	C	2	34.000	
19840822	2,563,137	495	564	608	0	0	421	268	C	2	27.000	
19861029	2,647,873	497	566	611	0	0	358	135	C	2	27.000	
19891026	2,751,128	492	560	604	0	0	321	96	C	2	27.000	
19910813	2,803,585	495	564	608	0	0	385	110	C	2	27.000	
19931229	2,859,540	607	693	761	0	0	372	70	C	2	0.911	
***** BOTTOM OF DATA *****												
F1=HELP	F2=SPLIT	F3=END	F4=RETURN	F5=RFIND	F6=RCHANGE							
F7=UP	F8=DOWN	F9=SWAP	F10=LEFT	F11=RIGHT	F12=RETRIEVE							

B MY JOB LU #17

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.7
COND. OR MISC. (C/M)	C
%N2	0.27
%CO2	1.53
%H2S	0
DIAMETER (IN)	2.5
DEPTH (FT)	6898
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	200
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	841
BOTTOMHOLE PRESSURE (PSIA)	1001.9

CULPEPPER MARTIN SRC #10 DAKOTA - (CURRENT)

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.7
COND. OR MISC. (C/M)	C
%N2	0.27
%CO2	1.53
%H2S	0
DIAMETER (IN)	2.5
DEPTH (FT)	6898
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	200
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1715
BOTTOMHOLE PRESSURE (PSIA)	2079.5

CULPEPPER MARTIN SRC #10 DAKOTA - (ORIGINAL)

State: 30 Lease Name: CULPEPPER MARTIN
 Prod: 2 County Name: SAN JUAN
 Ident: 32N12W32K00DK Reservoir Name: DAKOTA
 District: 4 Operator Name: MERIDIAN OIL INC
 Location: 32K 32N 12W Field Name: BASIN (DAKOTA)
 Retrieval code: 251,045,32N12W32K00DK Well: 000010 Total Depth: 6980
 Gas Gath: SUG Status: ACT Upper Perf: 6800
 API No: 1180000 Comp Date: 196609 Lower Perf: 6898

Date	Cum to Test	WHSIP	BHP	P/Z	BDWtr	BDCnd	WHFlw	Poten	MC	Pt	Z	FAC
19660913	0	1715	2063	2374	0	0	0	2311	C	2	69.000	
19700718	186,779	805	952	1033	0	0	473	100	C	2	22.000	
19720718	240,210	805	952	1033	0	0	473	100	C	2	22.000	
19730617	260,008	920	1091	1196	0	0	401	60	C	2	12.000	
19750417	309,429	729	860	926	0	0	364	64	C	2	29.000	
19770516	361,260	672	792	848	0	0	317	62	C	2	34.000	
19790501	396,386	639	752	803	0	0	428	51	C	2	37.000	
19810623	421,486	808	955	1036	0	0	416	50	C	2	22.000	

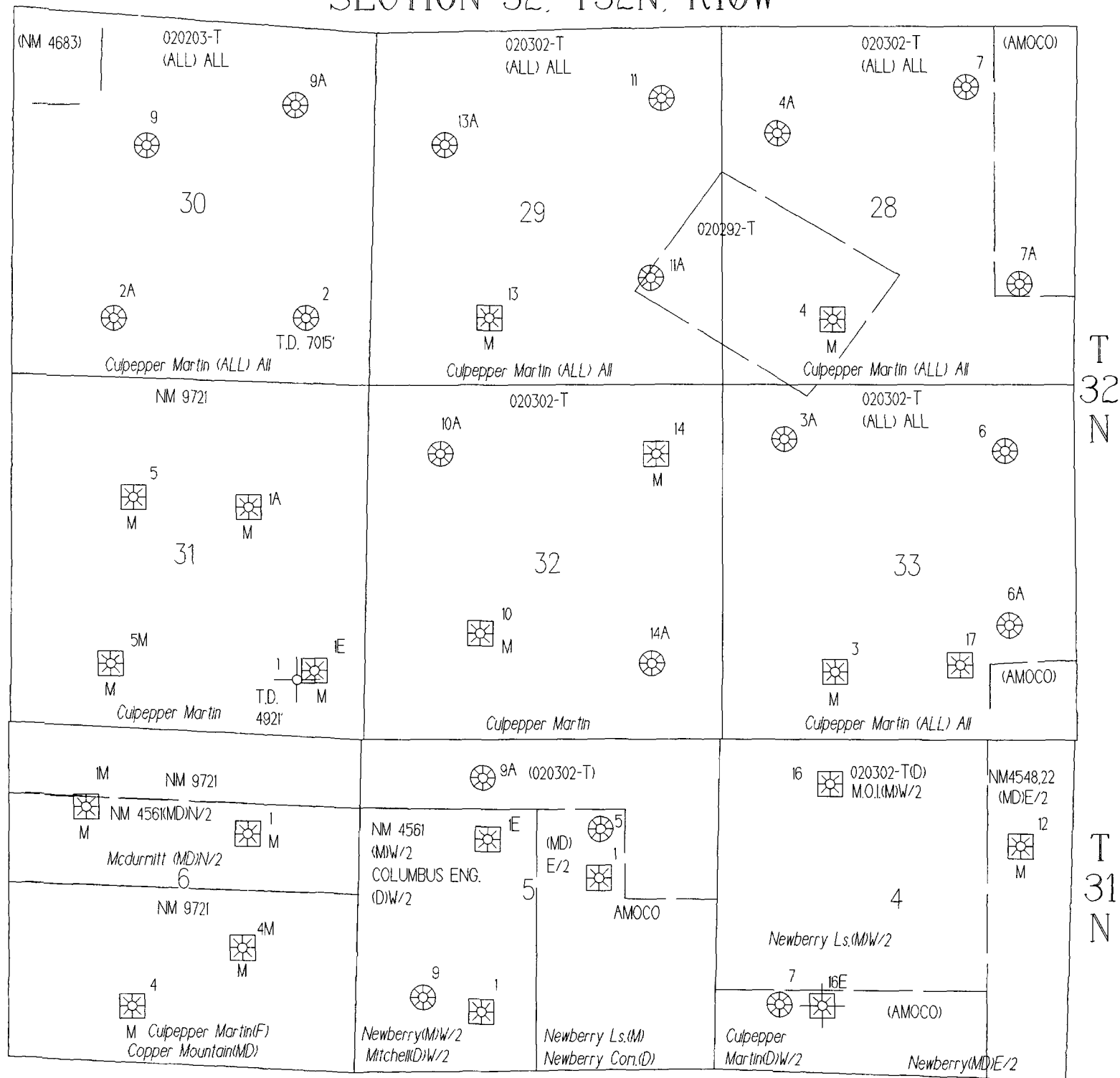
F1=HELP F2=SPLIT F3=END F4=RETURN F5=RFIND F6=RCHANGE
 F7=UP F8=DOWN F9=SWAP F10=LEFT F11=RIGHT F12=RETRIEVE
 B MY JOB LU #17

State: 30 Lease Name: CULPEPPER MARTIN
 Prod: 2 County Name: SAN JUAN
 Ident: 32N12W32K00DK Reservoir Name: DAKOTA
 District: 4 Operator Name: MERIDIAN OIL INC
 Location: 32K 32N 12W Field Name: BASIN (DAKOTA)
 Retrieval code: 251,045,32N12W32K00DK Well: 000010 Total Depth: 6980
 Gas Gath: SUG Status: ACT Upper Perf: 6800
 API No: 1180000 Comp Date: 196609 Lower Perf: 6898

Date	Cum to Test	WHSIP	BHP	P/Z	BDWtr	BDCnd	WHFlw	Poten	MC	Pt	Z	FAC
19750417	309,429	729	860	926	0	0	364	64	C	2	29.000	
19770516	361,260	672	792	848	0	0	317	62	C	2	34.000	
19790501	396,386	639	752	803	0	0	428	51	C	2	37.000	
19810623	421,486	808	955	1036	0	0	416	50	C	2	22.000	
19830608	446,642	823	973	1056	0	0	437	17	C	2	21.000	
19850403	466,781	864	1023	1116	0	0	363	15	C	2	17.000	
19900608	505,987	841	995	1083	0	0	329	35	C	2	19.000	

***** BOTTOM OF DATA *****
 F1=HELP F2=SPLIT F3=END F4=RETURN F5=RFIND F6=RCHANGE
 F7=UP F8=DOWN F9=SWAP F10=LEFT F11=RIGHT F12=RETRIEVE
 B MY JOB LU #17

CULPEPPER MARTIN #10 BLANCO MESAVERDE/BASIN DAKOTA SECTION 32, T32N, R10W



R-12-W

PRODUCTION ALLOCATION FORMULA METHOD

**Culpepper Martin #10
(Mesaverde/Dakota) Commingle
Unit K, NE/4, 32-T32N-R12W
San Juan County, New Mexico**

Allocation Formula Method:

Current Production from Mesaverde formation = 55 MCFD

Current Production from Dakota formation = 15 MCFD

$$\frac{[(MV \& DK) 70 \text{ MCFD} - (MV) 55 \text{ MCFD}]}{(MV \& DK) 70 \text{ MCFD}} = (DK) \% \text{ Dakota 21\%}$$

$$\frac{[(MV \& DK) 70 \text{ MCFD} - (DK) 15 \text{ MCFD}]}{(MV \& DK) 70 \text{ MCFD}} = (MV) \% \text{ Mesaverde 79\%}$$