Amoco Production Company

Denver Region
1670 Broadway
P.O. Box 800
Denver, Colorado 80201
303-830-4040

Via Federal Express

February 9, 1989

William J. Lemay
Division Director
Oil Conservation Division
PO Box 2088
Santa Fe, New Mexico 87504

File: NWA-283-986.511

Application of Benson-Montin-Greer for
Amendment of Order R-6469 to rescind approval
of certain non-standard spacing units
Rio Arriba County, New Mexico
Comments for the Record, Case 9525

Amoco Production Company submits the following comments for the record in Case 9525. Amoco is an interest owner in lands adjacent to Sections 23 and 24, T24N-R1W included in the subject application and does not object to the approval of the subject application.

However, we received a copy of exhibits prepared by Benson-Montin-Greer for Case 9525 the night before the hearing. Since we were made aware of this testimony at such a late date and had relied upon the call of the hearing in formulating our position not to object to the application, we were precluded from presenting testimony at the hearing which may be contradictory to the applicants. We believe it would be inappropriate for the examiner to render a decision or make a finding-of-fact based upon testimony which was beyond the scope of the call of the hearing.

Sincerely,

J.W. Hawkins

JWH/ae

MONTGOMERY & ANDREWS

PROFESSIONAL ASSOCIATION
ATTORNEYS AND COUNSELORS AT LAW

OF COUNSEL
William R. Federici

J. O. Seth (1883-1963)
A. K. Montgomery (1903-1987)
Frank Andrews (1914-1981)

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REPLY TO SANTA FE OFFICE

February 9, 1989

(HAND-DELIVERED)

RECEIVED

FEB 10 1989

OIL CONSERVATION DIVISION

David Catanach, Hearing Examiner
Oil Conservation Division
State Land Office Building
310 Old Santa Fe Trail, Room 206
Santa Fe, New Mexico 87503

Re: Application of Benson-Montin-Greer
Case No. 9525

Dear Mr. Catanach:

Enclosed please find comments submitted by Mobil Producing Texas-New Mexico Inc. in response to the information submitted by the applicant at the hearing of this matter on February 1, 1989.

These comments are submitted in order to make it clear that although Mobil has no objection to the purpose of the application filed by Benson-Montin-Greer in this matter, it objects to findings being entered in this matter which are not properly a part of this case.

In the event that you have any questions about these materials, please do not hesitate to contact me or Mr. Mark Craig. Mr. Craig is the Petroleum Engineer with Mobil in their Denver office who is responsible for this matter. Mr. Craig's direct telephone number is (303) 688-5429.

Thank you for your consideration of these materials.

Sincerely,

W. Perry Pearce

WPP:mp/201
cc (w/enclosure):
William F. Carr, Esquire
Craig Eggerman (w/o enclosure)
Mark Craig "
Jeff Maisch "

February 8, 1989

To: Examiner, Oil Conservation Commission Of The New Mexico Department Of Energy and Minerals

Subject: Statement of Mobil Oil Corporation in Oil Conservation Commission Case #9525

Mobil Oil Corporation does not protest the establishment of regular 640 acre proration units in Sections 23 & 24 of Township 24N, Range 1W. **However, we feel that a vast majority of the Benson-Montin-Greer Drilling Corp. Exhibit #1 (Sections E through T), presented by Mr. Greer, are extraneous and misleading to the case at hand.**

Specifically, we feel it would be inappropriate to the intent of this case for a "finding of fact" to be made as to the following points Mr. Greer seeks in support for the application (B-M-G Exhibit #1, Section B):

1) "That drainage across, (into) the unit's south boundary area has occurred in the past."

2) "That drainage is now occurring across (away from) the unit over its south boundary; and that a high degree of potential exists for future drainage of significant amounts."

We see the basic reason for the establishment of these regularly shaped proration units as avoiding the case where Mobil drills a well and the Canada Ojitos Unit drills a direct northern offset and both parties end up with low capacity wells (as shown in B-M-G Exhibit #1, Section D).

Please take note that Mr. Greer presented no exhibits in support of termination of the five other nonstandard proration units contained within the application.

Mr Greer seems intent, however, on establishing that the wells to the south of the Canada Ojitos Unit are receiving pressure support from this unit. It is this conclusion with which we have problems. We feel we have an obligation to present a short data summary in contradiction of Mr. Greer's theories.

1) Mr. Greer stated that he expects the A-14 injector to provide "piston-like displacement" of oil to the south of the Canada Ojitos Unit (see also: B-M-G Exhibit #1, Section G, Yellow Pages, Paragraph 3).

   If this were true, then the gas-oil ratios of the Amoco State CC #1 should be significantly higher than those in the next well to the south, the Nassau Resources Wishing Well #7. Gas should break through to the State CC #1 prior to the Wishing Well #7. Please refer to the attached map and plots of oil, gas, and gas-oil ratios for these two wells.

STATE CC #1
Jan 1-19, 1989: Average Production = 293 BOPD & 246 MCFPD
Jan 1-19, 1989: Average GOR = 840 SCF/STB .

WISHING WELL #7
Jan 2-16, 1989: Average Production = 127 BOPD & 745 MCFPD
Jan 2-16, 1989: Average GOR = 5866 SCF/STB

As you can see, the gas-oil ratio for the Wishing Well #7 is currently **seven** times higher than that for the State CC #1. This is exactly the opposite of what would be expected if Mr. Greer were correct (there is little chance the gas from the A-14 gas injection well is "going around" the State CC #1 and being produced in the Wishing Well #7; these two wells have been shown to be in pressure communication with each other).

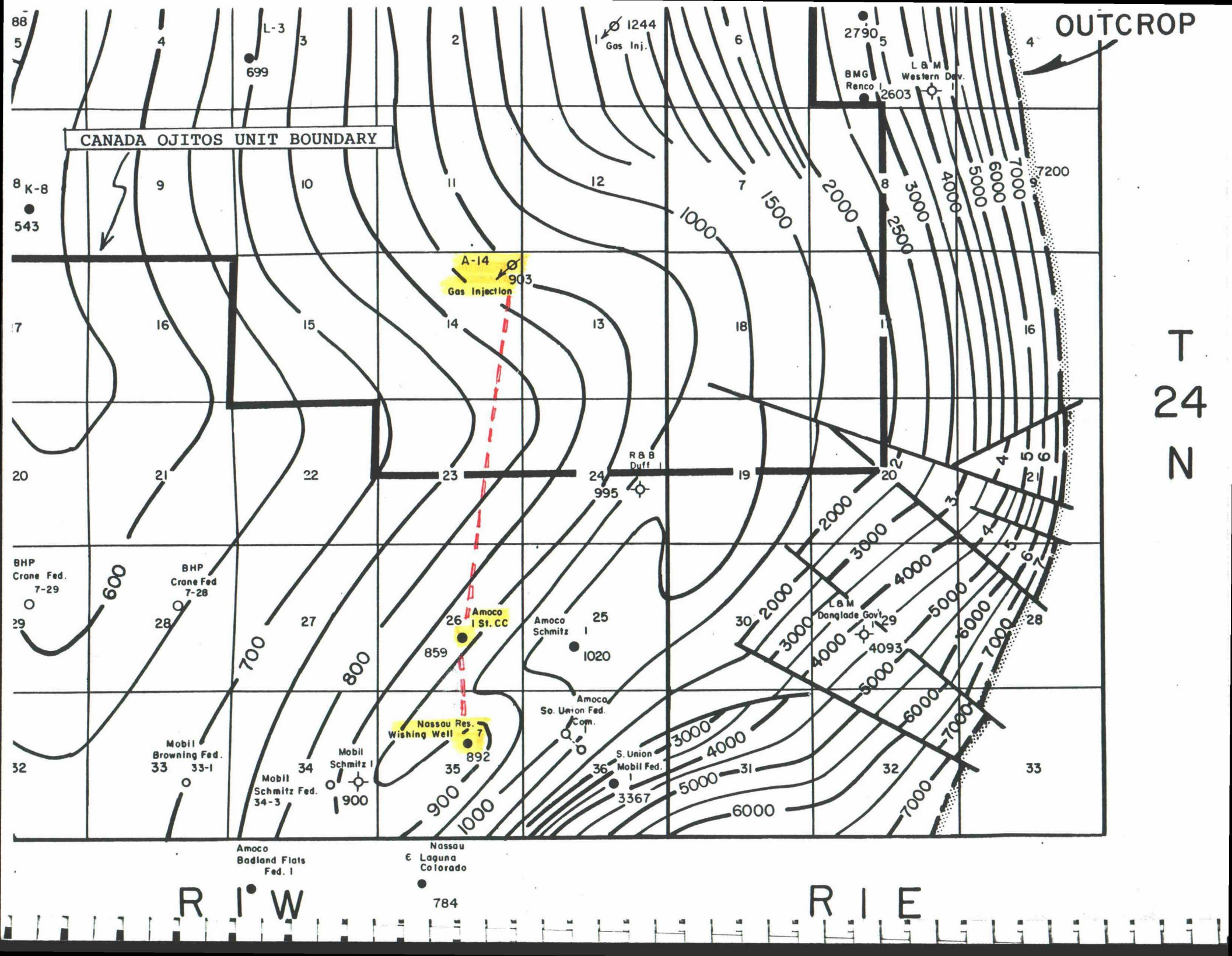
2) Mr. Greer's analogy to Craft & Hawkins' description of "attic oil" production by downdip gas injection (B-M-G Exhibit #1, Section G, Grey Pages) is meaningless as he later states that no such analogy exists. Recovery of "attic oil" requires that a gravity stable gas cap be formed, oil and gas would be vertically separated, with gas pushing the oil **downward**. Instead, Mr. Greer states that: "gas drive here will operate initially with a "piston" action forcing oil **ahead** of it until gas break-through occurs."

3) The last bottom-hole pressure build-up test in the State CC #1, run 9-10-88, showed a decrease in pressure in the last 12 hours of the 108 hour test. This indicates a lack of general pressure support in the area of communication with this well. A plot and copy of the build-up test data is attached.

4) The State CC #1 is experiencing pressure decline indicating a lack of pressure support.

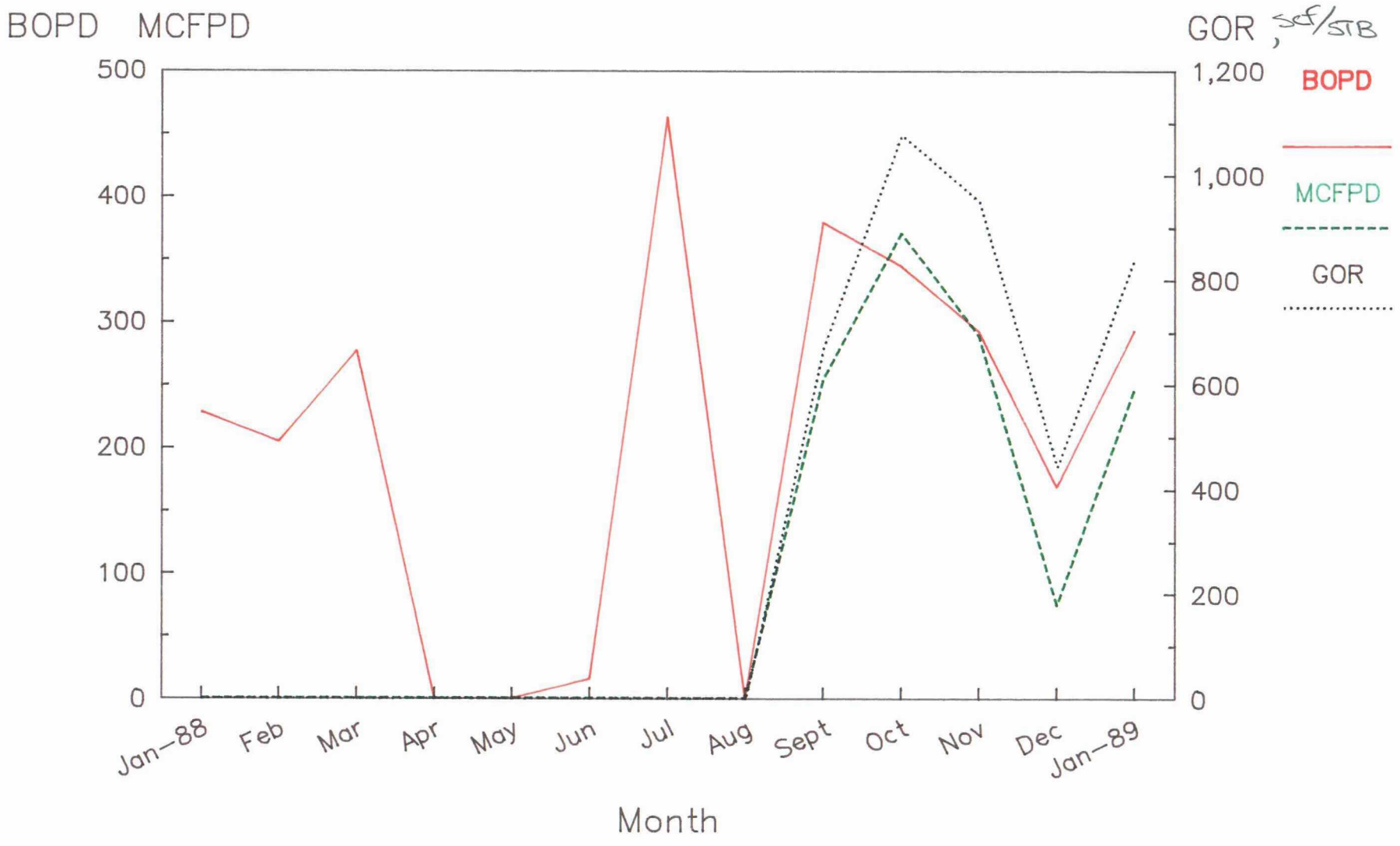
   The initial calculated pressure (P^*) in the State CC #1 on 2-15-88 was 1520 psi corrected to a datum of 370' subsea. The maximum pressure measured in this well on 9-10-88 was 1244 psi at datum, after the well had produced only 24,362 barrels of oil.

In conclusion, we agree with the basic intent of this case: to prevent waste by establishing regular 640 acre proration units in Sections 23 & 24 of Township 24N, Range 1W. However, we do feel that Mr. Greer is including data into the record which is irrelevant and not supported by the available data.


OUTCROP
CANADA OJITOS UNIT BOUNDARY
T 24 N
R 1 W
R 1 E
K-8
543
L-3
699
1244
Gas Inj.
2790
BMG
Renco 1
L & M
Western Dev.
1
2603
7200
A-14
Gas Injection
903
R & B
Duff 1
995
BHP
Crane Fed.
7-29
BHP
Crane Fed
7-28
Amoco
1 St. CC
859
Amoco
Schmitz 1
1020
L & M
Danglade Govt.
4093
Amoco
So. Union Fed.
Com.
Nassau Res.
Wishing Well 1
892
Mobil
Browning Fed.
33-1
Mobil
Schmitz Fed.
34-3
Mobil
Schmitz 1
900
S. Union
Mobil Fed.
1
3367
Amoco
Badland Flats
Fed. 1
Nassau
& Laguna
Colorado
784

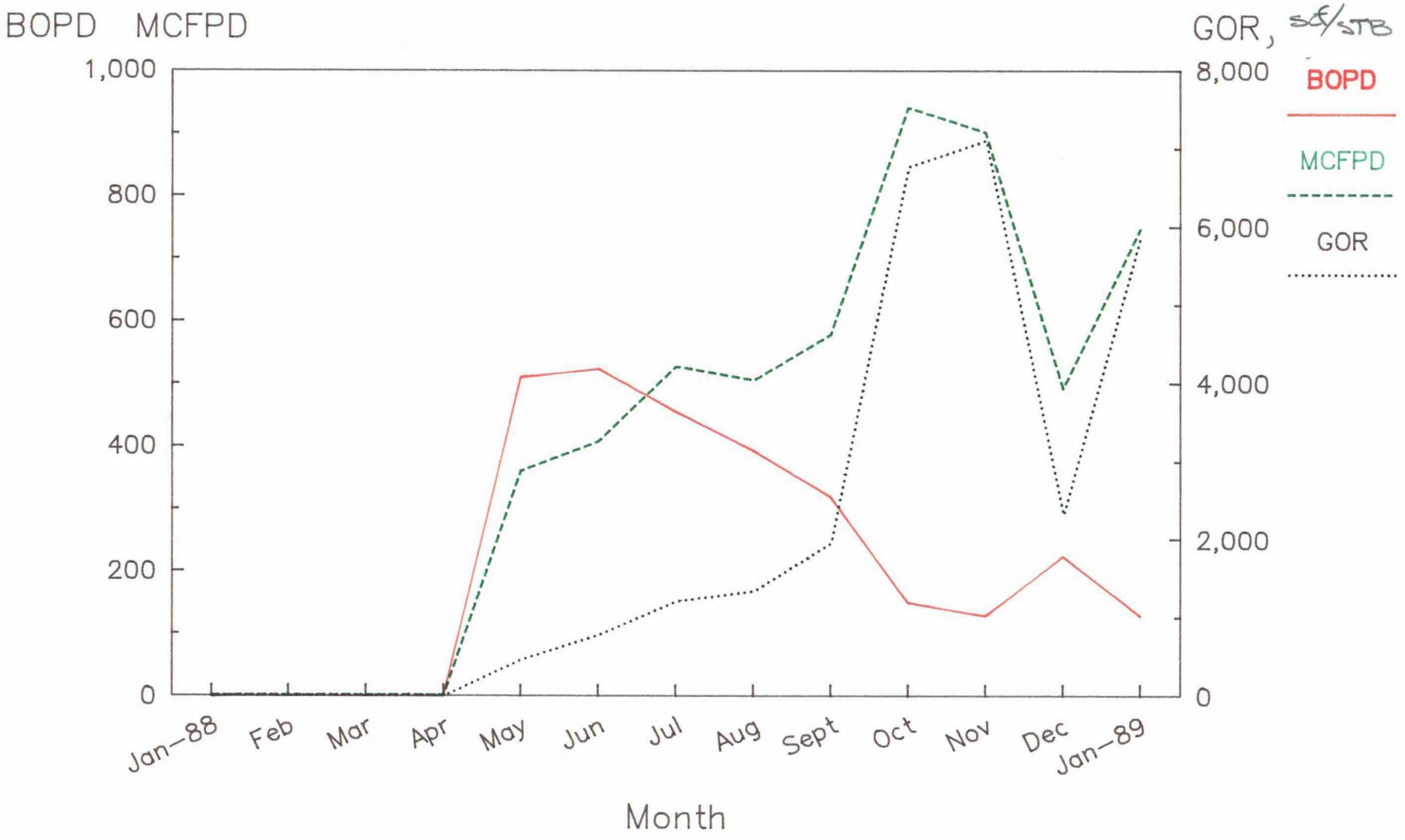
STATE CC #1

Monthly Average Prod.



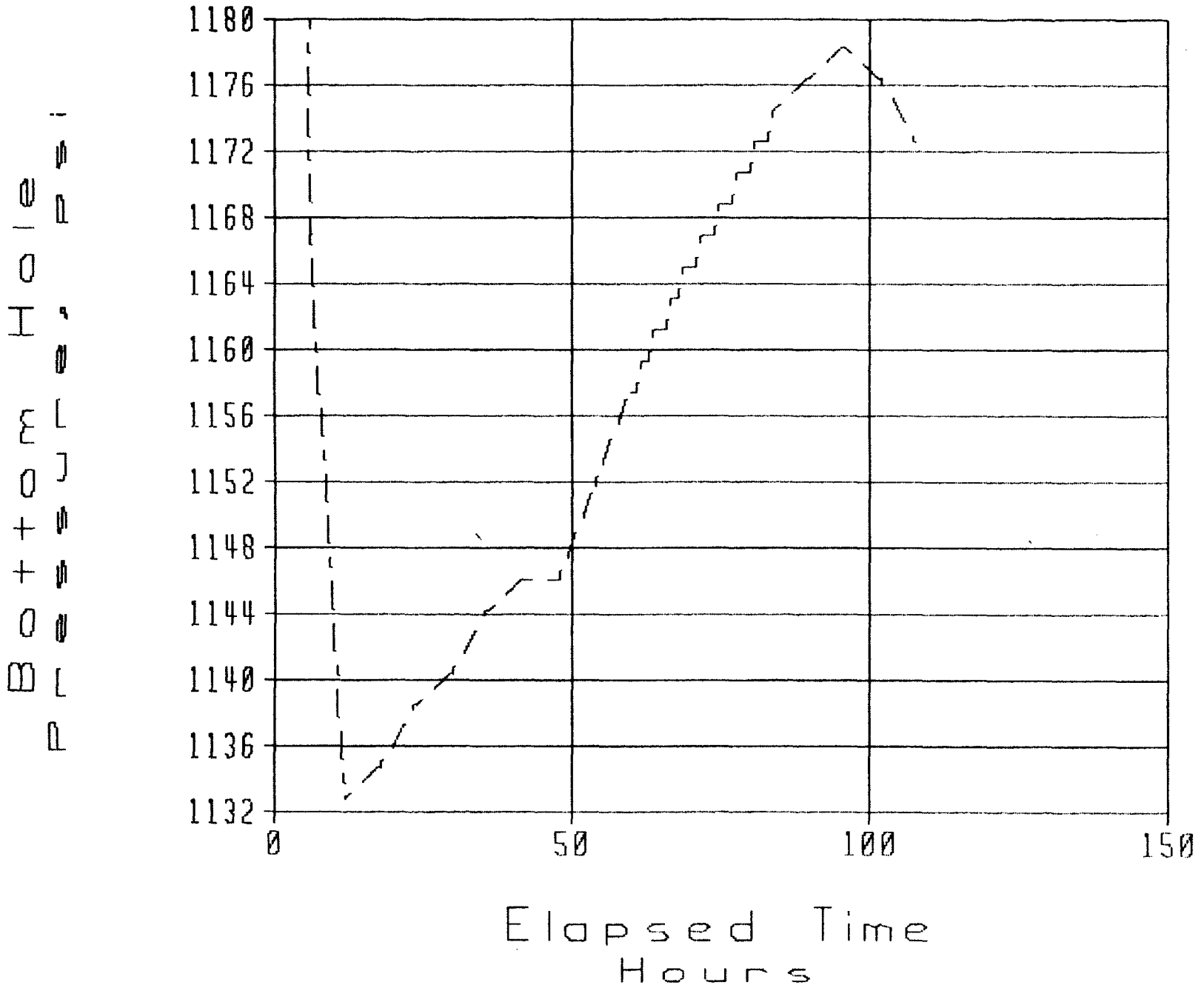
WISHING WELL #7

Monthly Average Prod.



STATE CC #1

Pressure Test 9-10-88



PRESSURE BUILDUP TEST - STATE CC #1

COMPANY NAME..... B&R SERVICE CO.
GUAGE TYPE..... KPG
GUAGE NUMBER..... 68319
TICKET NUMBER.... 701
BHP RECORDED AT.. 6709' G.L.

Elapsed Hours	Pressure	Date	Comment
0	1400.23	9-10-88	Well Equalizing
6	1166.92		Well Equalizing
12	1132.78		Pressure Stabilizes
18	1134.67		
24	1138.47		
30	1140.36		
36	1144.16		
42	1146.05		
48	1146.05		
54	1151.75		
60	1157.44		
61	1157.44		
62	1159.33		
63	1159.33		
64	1161.23		
65	1161.23		
66	1161.23		
67	1163.13		
68	1163.13		
69	1165.02		
70	1165.02		
71	1165.02		
72	1166.92		
73	1166.92		
74	1166.92		
75	1168.82		
76	1168.82		
77	1168.82		
78	1170.71		
79	1170.71		
80	1170.71		
81	1172.61		
82	1172.61		
83	1172.61		
84	1174.51		
90	1176.40		
96	1178.30	------>	Maximum Pressure Recorded
102	1176.40	------>	Pressure Falling
108.4	1172.61	------>	Pressure Falling

CAMPBELL & BLACK, P.A.
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November 7, 1988

HAND-DELIVERED

Mr. David Catanach
Examiner
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
State Land Office Building
Santa Fe, New Mexico 87503

Re: Oil Conservation Division Case No. 9525
Application of Benson-Montin-Greer Drilling Corporation for the Amendment of Division Order No. R-6469, as amended, Rio Arriba County, New Mexico

Dear Mr. Catanach:

I would appreciate the Division continuing the above-referenced hearing from the November 9, 1988 Examiner docket to the December 7, 1988 Examiner docket.

Your assistance in this matter is appreciated.

Very truly yours,

William F. Carr

WILLIAM F. CARR
WFC:mlh
cc: W. Perry Pearce, Esq.
Mr. Albert R. Greer

Amoco Production Company
Denver, Colorado

February 1, 1989

Mr. William J. LeMay, Director
New Mexico Oil Conservation Division
PO Box 2088
Santa Fe, New Mexico 87504

Entry of Appearance
Case No. 9525

Amoco Production Company, as an interested party to the above captioned matter, hereby enters our appearance as a party of record.

Very truly yours,

K.J. Lund
Attorney

KJL/ae

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

IN THE MATTER OF THE APPLICATION OF BENSON-MONTIN-GREER DRILLING CORPORATION FOR THE AMENDMENT OF DIVISION ORDER NO. R-6469, AS AMENDED, RIO ARRIBA COUNTY, NEW MEXICO.

CASE NO. 9525

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NOV 4 1
OIL CONSERVATION DIVISION

MOTION FOR CONTINUANCE

COMES NOW Mobil Producing Texas & New Mexico, Inc. by and through its counsel, Montgomery & Andrews, P.A., and moves the Division for a continuance of Case 9525. In support of this motion, Mobil Producing Texas & New Mexico, Inc. ("Mobil") states:

1. The application filed in this matter seeks to reorient proration units presently in existence on the southern part of the Canada Ojitos Unit and proration units south of the present unit boundary.

2. Mobil is an interest owner in the S/2 of Section 23 and Section 24 of Township 24 North, Range 1 West, N.M.P.M., Rio Arriba County, New Mexico.

3. The S/2 of these two sections are not presently in the Canada Ojitos Unit, and under the provisions of the application filed in this matter by Benson-Montin-Greer, the S/2 of each of the sections would be combined with the N/2 of each of these

sections to form two standard 640-acre spacing units, half of which is in the Canada Ojitos Unit and half of which is outside that unit boundary.

4. Mobil is within the next few days beginning a seismic data gathering program along this boundary between the N/2 and the S/2 of these two sections. The purpose of this seismic exploratory activity is to determine whether a geologic barrier exists separating the present Canada Ojitos Unit from lands to the south of that unit.

5. Mobil has contacted Benson-Montin-Greer who has expressed an interest in participating in the cost of this seismic exploration activity in exchange for sharing in the data gathered by that program.

6. Because of the necessity of shooting the seismic lines, interpreting the seismic data and remapping the structures as shown by that seismic data, additional time is needed so that information which is pertinent to the application in this case may be developed.

7. Mobil has proposed and begun to secure regulatory approval and all necessary clearances to drill three wells in this general area which will also contribute additional information on this area.

8. Mobil believes that it is appropriate, if applicant and the Division prefer, for the other parts of the application in Case 9525 to proceed with the proration units in Sections 23 and

24 of Township 24 North, Range 1 West, being continued to a further time.

9. Mobil has contacted counsel for Benson-Montin-Greer who does not agree to this continuance.

WHEREFORE, Mobil moves the Division to grant a continuance of that part of the application dealing with the non-standard proration units presently existing in Sections 23 and 24 of Township 24 North, Range 1 West, until such time as the parties either cooperatively or independently have the results of this seismic exploration activity available for use at the hearing.

Respectfully submitted,

MONTGOMERY & ANDREWS, P.A.

By _____
W. Perry Pearce
Post Office Box 2307
Santa Fe, New Mexico 87504-2307
(505) 982-3873

Attorneys for Mobil Producing Texas & New Mexico, Inc.

CERTIFICATE OF SERVICE

I hereby certify that I caused a true and correct copy of the foregoing Motion for Continuance to be mailed to William F. Carr, Esquire, Campbell & Black, P.A., Post Office Box 2208, Santa Fe, New Mexico 87504-2208 this 4th day of November, 1988.

_____
W. Perry Pearce

[WPP:94]

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December 22, 1988

HAND-DELIVERED

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DEC 22 1988
OIL CONSERVATION DIVISION

William J. LeMay, Director
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
State Land Office Building
Santa Fe, New Mexico 87503

Re: Oil Conservation Division Case No. 9525
In the Matter of the Application of Benson-Montin-Greer Drilling Corp. for the Amendment of Division Order No. R-6469, as Amended, Rio Arriba County, New Mexico

Dear Mr. LeMay:

I would appreciate the Division continuing the above-referenced hearing from the January 4, 1988 Examiner docket to the February 1, 1989 Examiner docket.

Your assistance in this matter is appreciated.

Very truly yours,

WILLIAM F. CARR

WFC:mlh
cc: W. Perry Pearce, Esq.

Mr. Albert R. Greer
Benson-Montin-Greer Drilling Corp.

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November 28, 1988

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NOV 29 1988
OIL CONSERVATION DIVISION

HAND-DELIVERED

William J. LeMay, Director
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
State Land Office Building
Santa Fe, New Mexico 87503

Re: Oil Conservation Division Case No. 9525
In the Matter of the Application of Benson-Montin-Greer Drilling Corp. for the Amendment of Division Order No. R-6469, as Amended, Rio Arriba County, New Mexico

Dear Mr. LeMay:

I would appreciate the Division continuing the above-referenced hearing from the December 7, 1988 Examiner docket to the January 4, 1989 Examiner docket.

Your assistance in this matter is appreciated.

Very truly yours,

William F. Carr

WILLIAM F. CARR

WFC:mlh
cc: W. Perry Pearce, Esq.

Mr. Albert R. Greer
Benson-Montin-Greer Drilling Corp.

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LAWYERS

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MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
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February 20, 1989

HAND-DELIVERED

W. Perry Pearce, Esq.
Montgomery & Andrews, P.A.
325 Paseo de Peralta
Santa Fe, New Mexico 87501

Re: New Mexico Oil Conservation Division Case 9525:
Application of Benson-Montin-Greer Drilling Corp. for Amendment of Division Order No. R-6469, as Amended, Rio Arriba County, New Mexico

Dear Mr. Pearce:

Enclosed please find the additional information that you requested at the February 1, 1989 hearing in the above-referenced case for Mobil Producing Texas and New Mexico.

If you have questions, concerning the enclosed, please advise.

Very truly yours,

WILLIAM F. CARR
WFC:mlh
Enclosures
cc w/enclosures: Mr. David Catanach

BENSON-MONTIN-GREER DRILLING CORP.

221 PETROLEUM CENTER BUILDING, FARMINGTON, NM. 87401 505-325-8874

February 16, 1989

Mr. William F. Carr
Campbell & Black, P.A.
P.O. Box 2208
Santa Fe, NM 87504-2208

Re: NMOCC CASE NO. 9525:
SUPPLEMENTARY INFORMATION REQUESTED
BY MOBIL

Dear Mr. Carr:

Mobil asked for additional information - particularly raw pressure and gas volume measurement information.

We can understand that engineers unfamiliar with the tight fracture block - high capacity fracture system of reservoir geometry that exists here find it difficult to believe that wells capable of producing only 2 or 3 barrels of oil per day can accept injected reservoir gas volumes of 2000 to 3000 barrels per day - and accordingly they feel there must be something wrong in the calculations: hence Mobil's request for raw data.

Anticipating disbelief of this reservoir's behavior in other specific performances we have, several times in the past, requested that tests be witnessed by Oil Conservation Division and Department of the Interior personnel. We have not had injection tests witnessed by them but have no objection to it. The injected gas volumes have been accurately determined and reported each month to the state and federal authorities.

We send you now - for transmittal to the proper parties - information Mobil requested. We call attention to the fact that gas injected in the A-14 is measured at high pressures and accurate measurement requires recognition of the relatively large super-compressibility that exists. Included in the material herein is a graph showing gas deviation as a function of temperature and pressure for the Canada Ojitos Unit gas, from which supercompressibility factors - needed for calculation of gas volumes - can be determined.

...

Index of materials enclosed along with remarks, is attached to this letter.

Yours truly,

BENSON-MONTIN-GREER DRILLING CORP.

BY: Albert R. Greer

Albert R. Greer, President

ARG/tlp

Enclosures

INDEX OF MATERIAL ENCLOSED
WITH LETTER TO WILLIAM F. CARR
DATED FEBRUARY 16, 1989

1. A-14 injection well pressures by months from 1984 to 1989.

   The approximate surface injection well pressures (including friction) are set out on Schedule A attached.

2. Raw pressure data for fall-off tests COU A-14.

   With respect to this request, we advise as follows: 1987 test information is set out on Schedule B. Information as to the 1989 test is set out on Schedule C. Raw data records for the other tests are not readily available. Perhaps the Mobil people will be satisfied with the above two sets of raw data.

3. A-14 injection volumes by months.

   Table of this information is set out in Schedule D.

4. Raw meter readings for gas volumes A-14 injection well from January 1986 to 1989.

   Typically volumes are determined from 7-day charts which are integrated for daily averages of static, differential and temperature. On Schedule E attached we show samplings of 2 or 3 weeks for 7 different months, including both high volume months and low volume months. I presume this will be sufficient information to satisfy the Mobil engineers that the volumes have been properly calculated.

5. Initial bottom hole pressure on the A-14 injection well.

   See Schedule F attached.

6. Initial bottom hole pressure for the L-3 well in Section 3, Township 24 North, Range 1 West.

   See Schedule G attached.

7. Gas and oil production L-3 well.

   See Schedule H attached.

8. Graph of Canada Ojitos Unit gas deviation as a function of temperature and pressure.

   (Supplied in event Mobil may not have the deviation factors for the Canada Ojitos Unit gas.)

SCHEDULE A
ATTACHED TO LETTER TO WILLIAM F. CARR
DATED FEBRUARY 16, 1989

CANADA OJITOS UNIT A-14
SURFACE INJECTION WELL PRESSURES (PSIA)
(INCLUDES FRICTION)

	1984	1985	1986	1987	1988
Jan.	1510	1490-1510	1430	1430-1610	1780-1600
Feb.	1510	1490	1430	1630-1640	SI
Mar.	1510	1510	1430-1470	1640	1690-1900
Apr.	1510	1510	1470	1640	1900
May	1510	1490	1490	1510 & SI	1900
June	1510	1490	1510	SI	1900-1840
July	1510	1490	1510	1730	1890
Aug.	1510	1490-1430	1510	1640-1670	1900-1710
Sept.	1510	1470-1430	1510	1640 & SI	1710
Oct.	1510	1430	1510	1710	1400-1730
Nov.	1510	1450	1510	SI & 1710	1730-1690
Dec.	1490	1450-1410	1510	1620 & SI	1730-1600

SCHEDULE B
ATTACHED TO LETTER TO WILLIAM F. CARR
DATED FEBRUARY 16, 1989

RAW PRESSURE DATA
PRESSURE FALL-OFF TESTS
1987 TEST

The raw pressure data for the 1987 test is shown in NMOCC Case No. 9525, February 1, 1989, B-M-G Exhibit 1, Section J, Page 3, the first two columns.

The only additional information that might be of interest is the flowing surface pressure immediately prior to shut in which was 1687 psia. Injection rate was 700 MCF/D. Estimated friction - absent liquids and miscellaneous losses - for the 1.7 miles of 2" surface line and 1.22 miles of downhole tubing would be approximately 10#. Friction by instantaneous fall-off on shut in was 17#. The resulting initial injection pressure absent friction then becomes 1670 psia.

SCHEDULE C
ATTACHED TO LETTER TO WILLIAM F. CARR
DATED FEBRUARY 16, 1989

RAW PRESSURE READINGS
JANUARY 1989
CANADA OJITOS UNIT A-14 PRESSURE FALL-OFF TEST
(SURFACE PRESSURES)

Date	Time	Days S.I.	DWT (Psig)	DWT + 11 (Psia)	Recording Meter Reading (Psia)	Recording Meter Adjustment for Meter Error	Recording Meter Final (Psia)
1-17-89	11:55 AM	0.00	1594	1605			
	12:10 PM	0.01			1555	-8	1547
	12:25 PM	0.021	1521	1532			
	12:55 PM	0.042	1493	1504			
	1:25 PM	0.063	1469	1480			
	1:55 PM	0.083	1450	1461			
	3:30 PM	0.15			1420	-8	1412
	6:00 PM	0.25			1367	-8	1359
	8:30 PM	0.35			1319	-8	1311
	11:00 PM	0.46			1295	-8	1287
1-18-89	1:30 PM	0.56			1268	-8	1260
	7:22 AM	0.81	1220	1231			
	5:00 PM	1.21			1229	-8	1220
1-19-89	7:30 AM	1.81	1188	1199			
1-20-89	7:30 AM	2.81	1179	1190			
1-22-89	9:40 AM	4.8	1171	1182			
1-23-89	8:05 AM	5.8	1167	1178			
1-24-89	7:20 AM	6.8	1164	1175			

SCHEDULE D
ATTACHED TO LETTER TO WILLIAM F. CARR
DATED FEBRUARY 16, 1989

CANADA OJITOS UNIT A-14 GAS INJECTION

(VOLUMES IN MCF AT 15.025)

Year	Month	MCF/Month
1974	January	0
	February	0
	March	0
	April	0
	May	0
	June	0
	July	0
	August	1686
	September	2955
	October	3062
	November	2652
	December	2098
	Total	12453
	Cumulative	12453
1975	January	3219
	February	2868
	March	3751
	April	3096
	May	3173
	June	2978
	July	3191
	August	3108
	September	3010
	October	3159
	November	2886
	December	2998
	Total	37437
	Cumulative	49890
1976	January	3149
	February	2930
	March	3131
	April	2841
	May	2674
	June	2698
	July	2925
	August	2872
	September	2834
	October	2869
	November	2687
	December	2832
	Total	34442
	Cumulative	84332
1977	January	2804
	February	2544
	March	2767
	April	2775
	May	2981
	June	2914
	July	3228
	August	3299
	September	3180
	October	3169
	November	2981
	December	3899
	Total	36541
	Cumulative	120873
1978	January	3892
	February	3578
	March	3179
	April	3116
	May	3234
	June	0
	July	1311
	August	3337
	September	3105
	October	3000
	November	2807
	December	2807
	Total	33366
	Cumulative	154239
1979	January	2756
	February	2570
	March	2959
	April	2952
	May	2492
	June	2889
	July	3033
	August	3128
	September	2943
	October	2987
	November	2669
	December	2749
	Total	34127
	Cumulative	188366
1980	January	2697
	February	2531
	March	2715
	April	2689
	May	2690
	June	2759
	July	2774
	August	2948
	September	2983
	October	3060
	November	490
	December	1650
	Total	29986
	Cumulative	218352
1981	January	2904
	February	2548
	March	3139
	April	2786
	May	3275
	June	3492
	July	4036
	August	3887
	September	3902
	October	4083
	November	4025
	December	4171
	Total	42248
	Cumulative	260600
1982	January	4205
	February	3864
	March	4257
	April	4320
	May	4623
	June	4505
	July	4867
	August	4607
	September	4495
	October	4641
	November	4601
	December	4763
	Total	53748
	Cumulative	314348

CANADA OJITOS UNIT A-14 GAS INJECTION

(VOLUMES IN MCF AT 15.025)

Year	Month	MCF/Month	Year	Month	MCF/Month
1983	January	4744	1986	January	4866
	February	4312		February	4503
	March	4921		March	5729
	April	4810		April	5816
	May	5205		May	6285
	June	5093		June	6615
	July	5343		July	6929
	August	5340		August	6762
	September	5190		September	6334
	October	5341		October	2970
	November	4974		November	0
	December	5115		December	0
	Total	60388		Total	56809
	Cumulative	374736		Cumulative	557226
1984	January	5159	1987	January	7962
	February	4715		February	10011
	March	4873		March	10934
	April	4833		April	11405
	May	5241		May	6518
	June	5134		June	12768
	July	5290		July	22867
	August	5313		August	18489
	September	5160		September	8020
	October	5245		October	21315
	November	5070		November	776
	December	5219		December	2272
	Total	61252		Total	133337
	Cumulative	435988		Cumulative	690563
1985	January	5401	1988	January	26837
	February	4846		February	3573
	March	5487		March	44435
	April	5115		April	46278
	May	5348		May	39372
	June	5424		June	49599
	July	5982		July	54305
	August	5713		August	44792
	September	5169		September	29229
	October	5145		October	19672
	November	5025		November	37551
	December	5774		December	30968
	Total	64429		Total	426611
	Cumulative	500417		Cumulative	1117174

SCHEDULE E
ATTACHED TO LETTER TO WILLIAM F. CARR
DATED FEBRUARY 16, 1989

CANADA OJITOS UNIT A-14
RAW METER READINGS
(3000# STATIC SPRING: SQUARE ROOT CHARTS)
(METER RUN 1.939" INSIDE DIAMETER)
(INTEGRATED AVERAGES ARE FOR 7-DAY CHART PERIODS)

Date	Orifice Plate	Int. Average Static	Int. Average Differential	Average Temperature (Degrees F)
1986				
Jan. 2- 8	.375	6.90	4.30	57
Jan. 9-15	.375	6.90	4.42	57
Jan. 16-22	.375	6.90	4.34	57
Mar. 2- 8	.375	6.90	4.64	58
Mar. 25-31	.375	7.00	5.08	58
1987				
Feb. 12-18	.625	7.37	3.74	48
Feb. 19-25	.625	7.40	3.74	44
Aug. 20-26	.625	7.46	6.35	55
Aug. 27-31	.625	7.40	5.95	55
Oct. 15-21	.625	7.57	6.68	52
Oct. 22-28	.625	7.52	6.35	47
1988				
July 14-20	1.000	7.92	5.74	77
July 21-27	1.000	7.94	5.88	79
Dec. 15-21	1.000	7.32	3.18	59
Dec. 22-28	1.000	7.31	3.08	56

SCHEDULE F
ATTACHED TO LETTER TO WILLIAM F. CARR
DATED FEBRUARY 16, 1989

CANADA OJITOS UNIT A-14
INITIAL BOTTOM HOLE PRESSURE

Because of the extremely tight character of the fracture block in which the A-14 is completed, we initially presumed (and, accurately, as it later turned out) that the well would have to be shut in for an impracticably long time to determine an accurate pressure for the area.

We recognized that only after a substantial volume of gas had been injected and communication established with the high capacity fracture system could reliable pressures be obtained with reasonable shut in times. Accordingly the first static pressure test was made in 1978 - 4 years after injection commenced - at which time the pressure stabilized in about 60 days at approximately 1175#. This was within 10# of the surface pressure of the gas cap observation well, the K-13.

It was not necessary to measure a bottom hole pressure at that time since we have found that bottom hole pressures in the gas injection wells can be determined within a few pounds by simply adding the weight of the column of gas to the surface pressure. In this instance the bottom hole pressure was approximately 1415# at the C zone datum of +678'. Virgin pressure would have been in the range of 1800# to 1850#; so the well's pressure was 400# less than virgin pressure, but within a few pounds of the gas cap pressure in the wells to the north: clear evidence of communication with the main producing and injection wells.

SCHEDULE G
ATTACHED TO LETTER TO WILLIAM F. CARR
DATED FEBRUARY 16, 1989

CANADA OJITOS UNIT L-3
INITIAL BOTTOM HOLE PRESSURE

No bottom hole pressures have been measured in the L-3. Communication of the L-3 with the main producing reservoir was established by two means:

1. Fluid level fall-off following frac treatment was still on a straight line relation with log time at the last measured point which was only 50# above virgin pressure; so the reservoir pressure in this area would necessarily have had to have been at least 150# less than virgin pressure. (Reference NMOCC Case No. 9113, March 30, 1987, B-M-G Exhibit 1, Section I, Pages 15 and 16 and testimony therein.)

2. From the flat production decline rate (1.7% per year for the first 18 years following commencement of gas injection. (Reference NMOCC Case No. 9113, March 30, 1987, B-M-G Exhibit 1, Section K, Pages 8 and 9 and testimony therein.)

SCHEDULE H
ATTACHED TO LETTER TO WILLIAM F. CARR
DATED FEBRUARY 16, 1989

WEST PUERTO CHIQUITO POOL, RIO ARRIBA CO., NM
BENSON-MONTIN-GREER DRILLING CORP., COU #16 (L-3). (SW 3-24N-1W)

			OIL				GAS			GOR	WATER		
YR	MO	DAYS PRODUCED	BOPM	BOPPD	BOPCD	CUM MBO	MCF/M	MCF/D	CUM MMCF	SCF/BBL	Month	BWPD	CUM MBW
1971	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1971	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1971	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1971	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1971	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1971	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1971	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1971	8	20.0	1082.0	54.1	34.9	1.1	325.0	16.3	0.3	300.4	0.0	0.0	0.0
1971	9	26.0	1063.0	40.9	35.4	2.1	319.0	12.3	0.6	300.1	0.0	0.0	0.0
1971	10	11.0	657.0	59.7	21.2	2.8	197.0	17.9	0.8	299.8	0.0	0.0	0.0
1971	11	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.8	0.0	0.0	0.0	0.0
1971	12	8.0	201.0	25.1	6.5	3.0	60.0	7.5	0.9	298.5	0.0	0.0	0.0
Subtotal		65.0	3003.0	46.2	19.6		901.0				0.0		
1972	1	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
1972	2	2.0	8.0	4.0	0.3	3.0	2.0	1.0	0.9	250.0	0.0	0.0	0.0
1972	3	29.0	1599.0	55.1	51.6	4.6	480.0	16.6	1.4	300.2	0.0	0.0	0.0
1972	4	30.0	1073.0	35.8	35.8	5.7	322.0	10.7	1.7	300.1	0.0	0.0	0.0
1972	5	27.0	958.0	35.5	30.9	6.6	287.0	10.6	2.0	299.6	0.0	0.0	0.0
1972	6	30.0	973.0	32.4	32.4	7.6	292.0	9.7	2.3	300.1	0.0	0.0	0.0
1972	7	30.0	1060.0	35.3	34.2	8.7	318.0	10.6	2.6	300.0	0.0	0.0	0.0
1972	8	30.0	1008.0	33.6	32.5	9.7	302.0	10.1	2.9	299.6	0.0	0.0	0.0
1972	9	30.0	1018.0	33.9	33.9	10.7	305.0	10.2	3.2	299.6	0.0	0.0	0.0
1972	10	11.0	533.0	48.5	17.2	11.2	160.0	14.5	3.4	300.2	0.0	0.0	0.0
1972	11	0.0	0.0	0.0	0.0	11.2	0.0	0.0	3.4	0.0	0.0	0.0	0.0
1972	12	25.0	1069.0	42.8	34.5	12.3	321.0	12.8	3.7	300.3	0.0	0.0	0.0
Subtotal		244.0	9299.0	38.1	25.4		2789.0				0.0		
1973	1	28.0	937.0	33.5	30.2	13.2	281.0	10.0	4.0	299.9	0.0	0.0	0.0
1973	2	14.0	421.0	30.1	15.0	13.7	126.0	9.0	4.1	299.3	0.0	0.0	0.0
1973	3	0.0	0.0	0.0	0.0	13.7	0.0	0.0	4.1	0.0	0.0	0.0	0.0
1973	4	0.0	0.0	0.0	0.0	13.7	0.0	0.0	4.1	0.0	0.0	0.0	0.0
1973	5	11.0	660.0	60.0	21.3	14.3	198.0	18.0	4.3	300.0	0.0	0.0	0.0
1973	6	29.0	911.0	31.4	30.4	15.2	273.0	9.4	4.6	299.7	0.0	0.0	0.0
1973	7	28.0	830.0	29.6	26.8	16.1	249.0	8.9	4.8	300.0	0.0	0.0	0.0
1973	8	27.0	689.0	25.5	22.2	16.8	207.0	7.7	5.0	300.4	0.0	0.0	0.0
1973	9	25.0	877.0	35.1	29.2	17.6	263.0	10.5	5.3	299.9	0.0	0.0	0.0
1973	10	31.0	1018.0	32.8	32.8	18.6	305.0	9.8	5.6	299.6	0.0	0.0	0.0
1973	11	28.0	946.0	33.8	31.5	19.6	284.0	10.1	5.9	300.2	0.0	0.0	0.0
1973	12	28.0	640.0	22.9	20.6	20.2	192.0	6.9	6.1	300.0	0.0	0.0	0.0
Subtotal		249.0	7929.0	31.8	21.7		2378.0				0.0		

* BOPPD: BARRELS PER PRODUCING DAY. * BOPCD: BARRELS PER CALENDAR DAY.

WEST PUERTO CHIQUITO POOL, RIO ARRIBA CO., NM
BENSON-MONTIN-GREER DRILLING CORP., COU #16 (L-3). (SW 3-24N-1W)

			OIL				GAS			GOR	WATER		
YR	MO	DAYS PRODUCED	BOPM	BOPPD	BOPCD	CUM MBO	MCF/M	MCF/D	CUM MMCF	SCF/BBL	Month	BWPD	CUM MBW
1974	1	23.0	706.0	30.7	22.8	20.9	212.0	9.2	6.3	300.3	0.0	0.0	0.0
1974	2	24.0	781.0	32.5	27.9	21.7	234.0	9.8	6.5	299.6	0.0	0.0	0.0
1974	3	14.0	678.0	48.4	21.9	22.4	203.0	14.5	6.7	299.4	0.0	0.0	0.0
1974	4	30.0	979.0	32.6	32.6	23.4	294.0	9.8	7.0	300.3	0.0	0.0	0.0
1974	5	31.0	922.0	29.7	29.7	24.3	277.0	8.9	7.3	300.4	0.0	0.0	0.0
1974	6	29.0	892.0	30.8	29.7	25.2	268.0	9.2	7.6	300.4	0.0	0.0	0.0
1974	7	31.0	948.0	30.6	30.6	26.1	569.0	18.4	8.1	600.2	0.0	0.0	0.0
1974	8	24.0	825.0	34.4	26.6	27.0	495.0	20.6	8.6	600.0	0.0	0.0	0.0
1974	9	30.0	932.0	31.1	31.1	27.9	280.0	9.3	8.9	300.4	0.0	0.0	0.0
1974	10	21.0	959.0	45.7	30.9	28.9	288.0	13.7	9.2	300.3	0.0	0.0	0.0
1974	11	21.0	756.0	36.0	25.2	29.6	227.0	10.8	9.4	300.3	0.0	0.0	0.0
1974	12	27.0	934.0	34.6	30.1	30.5	280.0	10.4	9.7	299.8	0.0	0.0	0.0
Subtotal		305.0	10312.0	33.8	28.3		3627.0				0.0		
1975	1	23.0	780.0	33.9	25.2	31.3	234.0	10.2	9.9	300.0	0.0	0.0	0.0
1975	2	28.0	560.0	20.0	20.0	31.9	168.0	6.0	10.1	300.0	0.0	0.0	0.0
1975	3	0.0	0.0	0.0	0.0	31.9	0.0	0.0	10.1	0.0	0.0	0.0	0.0
1975	4	10.0	802.0	80.2	26.7	32.7	241.0	24.1	10.3	300.5	0.0	0.0	0.0
1975	5	30.0	1019.0	34.0	32.9	33.7	306.0	10.2	10.6	300.3	0.0	0.0	0.0
1975	6	30.0	935.0	31.2	31.2	34.6	561.0	18.7	11.2	600.0	0.0	0.0	0.0
1975	7	31.0	935.0	30.2	30.2	35.6	281.0	9.1	11.5	300.5	0.0	0.0	0.0
1975	8	28.0	857.0	30.6	27.6	36.4	257.0	9.2	11.7	299.9	0.0	0.0	0.0
1975	9	0.0	0.0	0.0	0.0	36.4	0.0	0.0	11.7	0.0	0.0	0.0	0.0
1975	10	0.0	0.0	0.0	0.0	36.4	0.0	0.0	11.7	0.0	0.0	0.0	0.0
1975	11	0.0	0.0	0.0	0.0	36.4	0.0	0.0	11.7	0.0	0.0	0.0	0.0
1975	12	0.0	0.0	0.0	0.0	36.4	0.0	0.0	11.7	0.0	0.0	0.0	0.0
Subtotal		180.0	5888.0	32.7	16.1		2048.0				0.0		
1976	1	0.0	0.0	0.0	0.0	36.4	0.0	0.0	11.7	0.0	0.0	0.0	0.0
1976	2	0.0	0.0	0.0	0.0	36.4	0.0	0.0	11.7	0.0	0.0	0.0	0.0
1976	3	0.0	0.0	0.0	0.0	36.4	0.0	0.0	11.7	0.0	0.0	0.0	0.0
1976	4	0.0	0.0	0.0	0.0	36.4	0.0	0.0	11.7	0.0	0.0	0.0	0.0
1976	5	7.0	604.0	86.3	19.5	37.0	362.0	51.7	12.1	599.3	0.0	0.0	0.0
1976	6	30.0	1041.0	34.7	34.7	38.1	312.0	10.4	12.4	299.7	0.0	0.0	0.0
1976	7	27.0	955.0	35.4	30.8	39.0	573.0	21.2	13.0	600.0	0.0	0.0	0.0
1976	8	29.0	948.0	32.7	30.6	40.0	284.0	9.8	13.3	299.6	0.0	0.0	0.0
1976	9	24.0	843.0	35.1	28.1	40.8	506.0	21.1	13.8	600.2	0.0	0.0	0.0
1976	10	27.0	878.0	32.5	28.3	41.7	263.0	9.7	14.0	299.5	0.0	0.0	0.0
1976	11	30.0	937.0	31.2	31.2	42.6	562.0	18.7	14.6	599.8	0.0	0.0	0.0
1976	12	26.0	849.0	32.7	27.4	43.5	255.0	9.8	14.9	300.4	0.0	0.0	0.0
Subtotal		200.0	7055.0	35.3	19.3		3117.0				0.0		

* BOPPD: BARRELS PER PRODUCING DAY. * BOPCD: BARRELS PER CALENDAR DAY.

WEST PUERTO CHIQUITO POOL. RIO ARRIBA CO.. NM
BENSON-MONTIN-GREER DRILLING CORP.. COU #16 (L-3). (SW 3-24N-1W)

			OIL				GAS			GOR	WATER		
YR	MO	DAYS PRODUCED	BOPM	BOPPD	BOPCD	CUM MBO	MCF/M	MCF/D	CUM MMCF	SCF/BBL	Month	BWPD	CUM MBW
1977	1	27.0	609.0	22.6	19.6	44.1	365.0	13.5	15.2	599.3	0.0	0.0	0.0
1977	2	27.0	697.0	25.8	24.9	44.8	418.0	15.5	15.6	599.7	0.0	0.0	0.0
1977	3	31.0	867.0	28.0	28.0	45.7	520.0	16.8	16.2	599.8	0.0	0.0	0.0
1977	4	27.0	799.0	29.6	26.6	46.5	479.0	17.7	16.6	599.5	0.0	0.0	0.0
1977	5	31.0	928.0	29.9	29.9	47.4	557.0	18.0	17.2	600.2	0.0	0.0	0.0
1977	6	29.0	767.0	26.4	25.6	48.2	460.0	15.9	17.7	599.7	0.0	0.0	0.0
1977	7	31.0	903.0	29.1	29.1	49.1	542.0	17.5	18.2	600.2	0.0	0.0	0.0
1977	8	31.0	891.0	28.7	28.7	49.9	535.0	17.3	18.7	600.4	0.0	0.0	0.0
1977	9	30.0	817.0	27.2	27.2	50.8	490.0	16.3	19.2	599.8	0.0	0.0	0.0
1977	10	30.0	857.0	28.6	27.6	51.6	514.0	17.1	19.7	599.8	0.0	0.0	0.0
1977	11	30.0	865.0	28.8	28.8	52.5	519.0	17.3	20.3	600.0	0.0	0.0	0.0
1977	12	31.0	878.0	28.3	28.3	53.4	527.0	17.0	20.8	600.2	0.0	0.0	0.0
Subtotal		355.0	9878.0	27.8	27.1		5926.0				0.0		
1978	1	28.0	749.0	26.8	24.2	54.1	449.0	16.0	21.2	599.5	0.0	0.0	0.0
1978	2	28.0	764.0	27.3	27.3	54.9	458.0	16.4	21.7	599.5	0.0	0.0	0.0
1978	3	5.0	376.0	75.2	12.1	55.3	226.0	45.2	21.9	601.1	0.0	0.0	0.0
1978	4	30.0	850.0	28.3	28.3	56.1	510.0	17.0	22.4	600.0	0.0	0.0	0.0
1978	5	26.0	788.0	30.3	25.4	56.9	473.0	18.2	22.9	600.3	0.0	0.0	0.0
1978	6	28.0	656.0	23.4	21.9	57.5	394.0	14.1	23.3	600.6	0.0	0.0	0.0
1978	7	5.0	208.0	41.6	6.7	57.8	125.0	25.0	23.4	601.0	0.0	0.0	0.0
1978	8	1.0	6.0	6.0	0.2	57.8	4.0	4.0	23.4	666.7	0.0	0.0	0.0
1978	9	0.0	0.0	0.0	0.0	57.8	0.0	0.0	23.4	0.0	0.0	0.0	0.0
1978	10	10.0	348.0	34.8	11.2	58.1	209.0	20.9	23.6	600.6	0.0	0.0	0.0
1978	11	25.0	1156.0	46.2	38.5	59.3	694.0	27.8	24.3	600.3	0.0	0.0	0.0
1978	12	30.0	870.0	29.0	28.1	60.1	522.0	17.4	24.8	600.0	0.0	0.0	0.0
Subtotal		216.0	6771.0	31.3	18.6		4064.0				0.0		
1979	1	24.0	642.0	26.8	20.7	60.8	385.0	16.0	25.2	599.7	0.0	0.0	0.0
1979	2	20.0	513.0	25.7	18.3	61.3	308.0	15.4	25.5	600.4	0.0	0.0	0.0
1979	3	0.0	0.0	0.0	0.0	61.3	0.0	0.0	25.5	0.0	0.0	0.0	0.0
1979	4	0.0	0.0	0.0	0.0	61.3	0.0	0.0	25.5	0.0	0.0	0.0	0.0
1979	5	6.0	292.0	48.7	9.4	61.6	175.0	29.2	25.7	599.3	0.0	0.0	0.0
1979	6	11.0	411.0	37.4	13.7	62.0	247.0	22.5	26.0	601.0	0.0	0.0	0.0
1979	7	28.0	832.0	29.7	26.8	62.8	499.0	17.8	26.5	599.8	0.0	0.0	0.0
1979	8	29.0	834.0	28.8	26.9	63.7	500.0	17.2	27.0	599.5	0.0	0.0	0.0
1979	9	26.0	821.0	31.6	27.4	64.5	493.0	19.0	27.5	600.5	0.0	0.0	0.0
1979	10	26.0	817.0	31.4	26.4	65.3	490.0	18.8	27.9	599.8	0.0	0.0	0.0
1979	11	30.0	782.0	26.1	26.1	66.1	469.0	15.6	28.4	599.7	0.0	0.0	0.0
1979	12	30.0	800.0	26.7	25.8	66.9	280.0	9.3	28.7	350.0	0.0	0.0	0.0
Subtotal		230.0	6744.0	29.3	18.5		3846.0				0.0		

* BOPPD: BARRELS PER PRODUCING DAY. * BOPCD: BARRELS PER CALENDAR DAY.

WEST PUERTO CHIQUITO POOL. RIO ARRIBA CO., NM
BENSON-MONTIN-GREER DRILLING CORP., COU #16 (L-3). (SW 3-24N-1W)

			OIL				GAS			GOR	WATER		
YR	MO	DAYS PRODUCED	BOPM	BOPPD	BOPCD	CUM MBO	MCF/M	MCF/D	CUM MMCF	SCF/BBL	Month	BWPD	CUM MBW
1980	1	10.0	442.0	44.2	14.3	67.3	265.0	26.5	29.0	599.5	0.0	0.0	0.0
1980	2	16.0	518.0	32.4	17.9	67.8	311.0	19.4	29.3	600.4	0.0	0.0	0.0
1980	3	0.0	0.0	0.0	0.0	67.8	0.0	0.0	29.3	0.0	0.0	0.0	0.0
1980	4	22.0	1072.0	48.7	35.7	68.9	643.0	29.2	29.9	599.8	0.0	0.0	0.0
1980	5	28.0	875.0	31.3	28.2	69.8	525.0	18.8	30.4	600.0	0.0	0.0	0.0
1980	6	30.0	800.0	26.7	26.7	70.6	480.0	16.0	30.9	600.0	0.0	0.0	0.0
1980	7	31.0	792.0	25.5	25.5	71.4	464.0	15.0	31.4	585.9	0.0	0.0	0.0
1980	8	31.0	836.0	27.0	27.0	72.2	502.0	16.2	31.9	600.5	0.0	0.0	0.0
1980	9	30.0	765.0	25.5	25.5	73.0	459.0	15.3	32.3	600.0	0.0	0.0	0.0
1980	10	31.0	815.0	26.3	26.3	73.8	0.0	0.0	32.3	0.0	0.0	0.0	0.0
1980	11	30.0	804.0	26.8	26.8	74.6	482.0	16.1	32.8	599.5	0.0	0.0	0.0
1980	12	15.0	387.0	25.8	12.5	75.0	232.0	15.5	33.1	599.5	0.0	0.0	0.0
Subtotal		274.0	8106.0	29.6	22.1		4363.0				0.0		
1981	1	9.0	375.0	41.7	12.1	75.4	225.0	25.0	33.3	600.0	0.0	0.0	0.0
1981	2	27.0	967.0	35.8	34.5	76.3	380.0	14.1	33.7	393.0	0.0	0.0	0.0
1981	3	12.0	323.0	26.9	10.4	76.6	189.0	15.8	33.9	585.1	0.0	0.0	0.0
1981	4	21.0	837.0	39.9	27.9	77.5	502.0	23.9	34.4	599.8	0.0	0.0	0.0
1981	5	11.0	312.0	28.4	10.1	77.8	187.0	17.0	34.5	599.4	0.0	0.0	0.0
1981	6	30.0	1078.0	35.9	35.9	78.9	657.0	21.9	35.2	609.5	0.0	0.0	0.0
1981	7	31.0	803.0	25.9	25.9	79.7	482.0	15.5	35.7	600.2	0.0	0.0	0.0
1981	8	19.0	520.0	27.4	16.8	80.2	312.0	16.4	36.0	600.0	0.0	0.0	0.0
1981	9	18.0	785.0	43.6	26.2	81.0	471.0	26.2	36.5	600.0	0.0	0.0	0.0
1981	10	31.0	845.0	27.3	27.3	81.8	507.0	16.4	37.0	600.0	0.0	0.0	0.0
1981	11	27.0	703.0	26.0	23.4	82.5	422.0	15.6	37.4	600.3	0.0	0.0	0.0
1981	12	18.0	514.0	28.6	16.6	83.0	308.0	17.1	37.7	599.2	0.0	0.0	0.0
Subtotal		254.0	8062.0	31.7	22.1		4642.0				0.0		
1982	1	14.0	658.0	47.0	21.2	83.7	395.0	28.2	38.1	600.3	0.0	0.0	0.0
1982	2	28.0	764.0	27.3	27.3	84.5	458.0	16.4	38.6	599.5	0.0	0.0	0.0
1982	3	12.0	514.0	42.8	16.6	85.0	308.0	25.7	38.9	599.2	0.0	0.0	0.0
1982	4	30.0	672.0	22.4	22.4	85.7	403.0	13.4	39.3	599.7	0.0	0.0	0.0
1982	5	23.0	445.0	19.3	14.4	86.1	267.0	11.6	39.5	600.0	0.0	0.0	0.0
1982	6	0.0	0.0	0.0	0.0	86.1	0.0	0.0	39.5	0.0	0.0	0.0	0.0
1982	7	0.0	0.0	0.0	0.0	86.1	0.0	0.0	39.5	0.0	0.0	0.0	0.0
1982	8	26.0	707.0	27.2	22.8	86.8	424.0	16.3	40.0	599.7	0.0	0.0	0.0
1982	9	23.0	332.0	14.4	11.1	87.1	199.0	8.7	40.2	599.4	0.0	0.0	0.0
1982	10	25.0	783.0	31.3	25.3	87.9	465.0	18.6	40.6	593.9	0.0	0.0	0.0
1982	11	16.0	637.0	39.8	21.2	88.6	382.0	23.9	41.0	599.7	0.0	0.0	0.0
1982	12	30.0	814.0	27.1	26.3	89.4	488.0	16.3	41.5	599.5	0.0	0.0	0.0
Subtotal		227.0	6326.0	27.9	17.3		3789.0				0.0		

* BOPPD: BARRELS PER PRODUCING DAY. * BOPCD: BARRELS PER CALENDAR DAY.

WEST PUERTO CHIQUITO POOL. RIO ARRIBA CO., NM
BENSON-MONTIN-GREER DRILLING CORP., COU #16 (L-3). (SW 3-24N-1W)

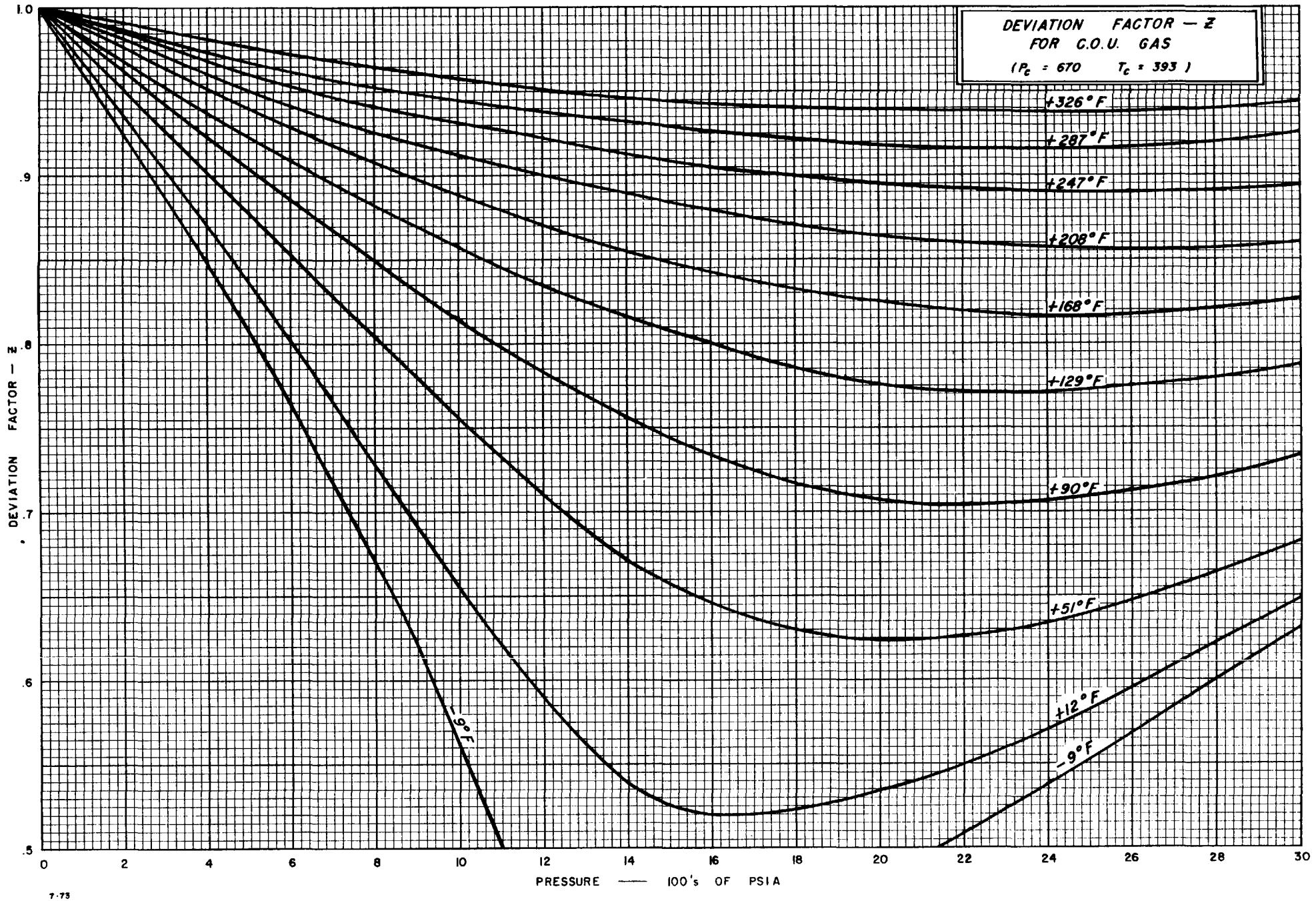
			OIL				GAS			GOR	WATER		
YR	MO	DAYS PRODUCED	BOPM	BOPPD	BOPCD	CUM MBO	MCF/M	MCF/D	CUM MMCF	SCF/BBL	Month	BWPD	CUM MBW
1983	1	30.0	773.0	25.8	24.9	90.1	464.0	15.5	42.0	600.3	0.0	0.0	0.0
1983	2	25.0	594.0	23.8	21.2	90.7	459.0	18.4	42.4	772.7	0.0	0.0	0.0
1983	3	1.0	28.0	28.0	0.9	90.8	22.0	22.0	42.4	785.7	0.0	0.0	0.0
1983	4	24.0	850.0	35.4	28.3	91.6	66.0	2.8	42.5	77.6	0.0	0.0	0.0
1983	5	30.0	732.0	24.4	23.6	92.3	566.0	18.9	43.1	773.2	0.0	0.0	0.0
1983	6	30.0	677.0	22.6	22.6	93.0	523.0	17.4	43.6	772.5	0.0	0.0	0.0
1983	7	30.0	689.0	23.0	22.2	93.7	532.0	17.7	44.1	772.1	0.0	0.0	0.0
1983	8	29.0	640.0	22.1	20.6	94.4	495.0	17.1	44.6	773.4	0.0	0.0	0.0
1983	9	30.0	812.0	27.1	27.1	95.2	628.0	20.9	45.2	773.4	0.0	0.0	0.0
1983	10	14.0	408.0	29.1	13.2	95.6	315.0	22.5	45.6	772.1	0.0	0.0	0.0
1983	11	20.0	531.0	26.6	17.7	96.1	410.0	20.5	46.0	772.1	0.0	0.0	0.0
1983	12	17.0	591.0	34.8	19.1	96.7	457.0	26.9	46.4	773.3	0.0	0.0	0.0
Subtotal		280.0	7325.0	26.2	20.1		4937.0				0.0		
1984	1	18.0	733.0	40.7	23.6	97.4	567.0	31.5	47.0	773.5	0.0	0.0	0.0
1984	2	21.0	533.0	25.4	18.4	98.0	412.0	19.6	47.4	773.0	0.0	0.0	0.0
1984	3	23.0	562.0	24.4	18.1	98.5	434.0	18.9	47.8	772.2	0.0	0.0	0.0
1984	4	25.0	734.0	29.4	24.5	99.3	567.0	22.7	48.4	772.5	0.0	0.0	0.0
1984	5	27.0	655.0	24.3	21.1	99.9	506.0	18.7	48.9	772.5	0.0	0.0	0.0
1984	6	30.0	659.0	22.0	22.0	100.6	509.0	17.0	49.4	772.4	0.0	0.0	0.0
1984	7	31.0	672.0	21.7	21.7	101.2	519.0	16.7	49.9	772.3	0.0	0.0	0.0
1984	8	26.0	566.0	21.8	18.3	101.8	438.0	16.8	50.4	773.9	0.0	0.0	0.0
1984	9	4.0	172.0	43.0	5.7	102.0	133.0	33.3	50.5	773.3	0.0	0.0	0.0
1984	10	0.0	0.0	0.0	0.0	102.0	0.0	0.0	50.5	0.0	0.0	ERR	0.0
1984	11	16.0	529.0	33.1	17.6	102.5	409.0	25.6	50.9	773.2	0.0	0.0	0.0
1984	12	17.0	381.0	22.4	12.3	102.9	295.0	17.4	51.2	774.3	0.0	0.0	0.0
Subtotal		238.0	6196.0	26.0	16.9		4789.0				0.0		
1985	1	0.0	0.0	0.0	0.0	102.9	0.0	0.0	51.2	0.0	0.0	0.0	0.0
1985	2	0.0	0.0	0.0	0.0	102.9	0.0	0.0	51.2	0.0	0.0	0.0	0.0
1985	3	16.0	528.0	33.0	17.0	103.4	408.0	25.5	51.6	772.7	0.0	0.0	0.0
1985	4	22.0	711.0	32.3	23.7	104.1	550.0	25.0	52.2	773.6	0.0	0.0	0.0
1985	5	31.0	828.0	26.7	26.7	105.0	640.0	20.6	52.8	772.9	0.0	0.0	0.0
1985	6	23.0	731.0	31.8	24.4	105.7	565.0	24.6	53.4	772.9	0.0	0.0	0.0
1985	7	31.0	600.0	19.4	19.4	106.3	464.0	15.0	53.8	773.3	0.0	0.0	0.0
1985	8	30.0	626.0	20.9	20.2	106.9	484.0	16.1	54.3	773.2	0.0	0.0	0.0
1985	9	5.0	181.0	36.2	6.0	107.1	140.0	28.0	54.5	773.5	0.0	0.0	0.0
1985	10	0.0	0.0	0.0	0.0	107.1	0.0	0.0	54.5	0.0	0.0	0.0	0.0
1985	11	0.0	0.0	0.0	0.0	107.1	0.0	0.0	54.5	0.0	0.0	0.0	0.0
1985	12	0.0	0.0	0.0	0.0	107.1	0.0	0.0	54.5	0.0	0.0	0.0	0.0
Subtotal		158.0	4205.0	26.6	11.5		3251.0				0.0		

* BOPPD: BARRELS PER PRODUCING DAY. * BOPCD: BARRELS PER CALENDAR DAY.

WEST PUERTO CHIQUITO POOL, RIO ARRIBA CO., NM
BENSON-MONTIN-GREER DRILLING CORP., COU #16 (L-3). (SW 3-24N-1W)

			OIL				GAS			GOR	WATER		
YR	MO	DAYS PRODUCED	BOPM	BOPPD	BOPCD	CUM MBO	MCF/M	MCF/D	CUM MMCF	SCF/BBL	Month	BWPD	CUM MBW
1986	1	21.0	959.0	45.7	30.9	108.1	741.0	35.3	55.2	772.7	0.0	0.0	0.0
1986	2	28.0	850.0	30.4	30.4	108.9	657.0	23.5	55.9	772.9	0.0	0.0	0.0
1986	3	11.0	530.0	48.2	17.1	109.4	410.0	37.3	56.3	773.6	0.0	0.0	0.0
1986	4	23.0	758.0	33.0	25.3	110.2	586.0	25.5	56.9	773.1	0.0	0.0	0.0
1986	5	28.0	707.0	25.3	22.8	110.9	707.0	25.3	57.6	1000.0	0.0	0.0	0.0
1986	6	0.0	0.0	0.0	0.0	110.9	0.0	0.0	57.6	0.0	0.0	0.0	0.0
1986	7	13.0	681.0	52.4	22.0	111.6	526.0	40.5	58.1	772.4	0.0	0.0	0.0
1986	8	4.0	313.0	78.3	10.1	111.9	242.0	60.5	58.3	773.2	0.0	0.0	0.0
1986	9	12.0	693.0	57.8	23.1	112.6	536.0	44.7	58.9	773.4	0.0	0.0	0.0
1986	10	28.0	842.0	30.1	27.2	113.4	651.0	23.3	59.5	773.2	0.0	0.0	0.0
1986	11	19.0	757.0	39.8	25.2	114.2	585.0	30.8	60.1	772.8	0.0	0.0	0.0
1986	12	31.0	797.0	25.7	25.7	115.0	714.0	23.0	60.8	895.9	0.0	0.0	0.0
Subtotal		218.0	7887.0	36.2	21.6		6355.0				0.0		
1987	1	8.0	352.0	44.0	11.4	115.3	182.0	22.8	61.0	517.0	0.0	0.0	0.0
1987	2	15.0	354.0	23.6	12.6	115.7	156.0	10.4	61.2	440.7	0.0	0.0	0.0
1987	3	0.0	0.0	0.0	0.0	115.7	0.0	0.0	61.2	0.0	0.0	0.0	0.0
1987	4	0.0	0.0	0.0	0.0	115.7	0.0	0.0	61.2	0.0	0.0	0.0	0.0
1987	5	24.0	742.0	30.9	23.9	116.4	342.0	14.3	61.5	460.9	0.0	0.0	0.0
1987	6	17.0	345.0	20.3	11.5	116.8	197.0	11.6	61.7	571.0	0.0	0.0	0.0
1987	7	0.0	0.0	0.0	0.0	116.8	0.0	0.0	61.7	0.0	0.0	0.0	0.0
1987	8	0.0	0.0	0.0	0.0	116.8	0.0	0.0	61.7	0.0	0.0	0.0	0.0
1987	9	22.0	486.0	22.1	16.2	117.3	345.0	15.7	62.0	709.9	0.0	0.0	0.0
1987	10	31.0	383.0	12.4	12.4	117.6	302.0	9.7	62.3	788.5	0.0	0.0	0.0
1987	11	13.0	234.0	18.0	7.8	117.9	185.0	14.2	62.5	790.6	0.0	0.0	0.0
1987	12	9.0	323.0	35.9	10.4	118.2	223.0	24.8	62.8	690.4	0.0	0.0	0.0
Subtotal		139.0	3219.0	23.2	8.8		1932.0				0.0		
1988	1	20.0	278.0	13.9	9.0	118.5	250.0	12.5	63.0	899.3	0.0	0.0	0.0
1988	2	0.0	0.0	0.0	0.0	118.5	0.0	0.0	63.0	0.0	0.0	0.0	0.0
1988	3	3.0	186.0	62.0	6.0	118.7	142.0	47.3	63.1	763.4	0.0	0.0	0.0
1988	4	21.0	265.0	12.6	8.8	118.9	206.0	9.8	63.4	777.4	0.0	0.0	0.0
1988	5	27.0	293.0	10.9	9.5	119.2	224.0	8.3	63.6	764.5	0.0	0.0	0.0
1988	6	30.0	243.0	8.1	8.1	119.5	190.0	6.3	63.8	781.9	0.0	0.0	0.0
1988	7	22.0	133.0	6.0	4.3	119.6	112.0	5.1	63.9	842.1	0.0	0.0	0.0
1988	8	11.0	113.0	10.3	3.6	119.7	88.0	8.0	64.0	778.8	0.0	0.0	0.0
1988	9	0.0	0.0	0.0	0.0	119.7	0.0	0.0	64.0	0.0	0.0	0.0	0.0
1988	10	0.0	0.0	0.0	0.0	119.7	0.0	0.0	64.0	0.0	0.0	0.0	0.0
1988	11	0.0	0.0	0.0	0.0	119.7	0.0	0.0	64.0	0.0	0.0	0.0	0.0
1988	12	0.0	0.0	0.0	0.0	119.7	0.0	0.0	64.0	0.0	0.0	0.0	0.0
Subtotal		134.0	1511.0	11.3	4.1		1212.0				0.0		

* BOPPD: BARRELS PER PRODUCING DAY. * BOPCD: BARRELS PER CALENDAR DAY.


DEVIATION FACTOR — Z
FOR C.O.U. GAS
(P_c = 670 T_c = 393)
+326°F
+287°F
+247°F
+208°F
+168°F
+129°F
+90°F
+51°F
+12°F
-9°F
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February 15, 1989

HAND-DELIVERED

Mr. David Catanach
Hearing Examiner
Oil Conservation Division
State Land Office Building
310 Old Santa Fe Trail, Room 206
Santa Fe, New Mexico 87503

Re: Oil Conservation Division Case No. 9525
In the Matter of the Application of Benson-Montin-Greer Drilling Corporation for the Amendment of Division Order No. R-6469, as Amended, Rio Arriba County, New Mexico

Dear Mr. Catanach:

The comments filed by Mobil Producing Texas and New Mexico Inc. on February 9, 1989 in the above-referenced case require a response from Benson-Montin-Greer Drilling Corp.

First, Benson-Montin-Greer Exhibit 1 (Sections E through T) presents evidence of drainage across the Southern boundary of the Canada Ojitos Unit in the West Puerto Chiquito Mancos Oil Pool. This evidence is relevant to the issues presented in this case, and had to be presented to refute assertions that such migration was not occurring made to the Division last August by Mobil and others in Case 9451.

Second, Mobil's written comments submitted after the February 1 hearing was concluded are just that -- comments. They are not evidence for they were not presented by witnesses under oath and subject to cross-examination. To suggest that you should contact Mr. Pearce or Mr. Craig at Mobil's Denver office to discuss this matter further is nothing more than an impermissible attempt to present additional evidence and continue the hearing on an ex parte basis. This should not be allowed nor should this evidence be considered by you in reaching a decision in this case.

The fact nevertheless remains that Mobil's "comments" and material will be a part of the papers filed in this case. Since Mobil has misinterpreted certain data which could mislead individuals researching these files at a future date, Benson-Montin-Greer requests that the attached response also be included in the Division's file in Case 9525.

From the record in this case it is clear that 640-acre proration units in Sections 23 and 24 of Township 24 North, Range 1 West are necessary because of migration across the Southern boundary of the Canada Ojitos Unit. No one, including Mobil, objects to the creation of these units. The case is under advisement and an Order granting the application of Benson-Montin-Greer Drilling Corp. should be entered containing all findings necessary to disclose the reasoning of the Division in granting this application -- including findings on migration across the Southern Boundary of the Canada Ojitos Unit.

Your attention to this matter is appreciated.

Very truly yours,

William F. Carr

WILLIAM F. CARR

WFC:mlh
cc: W. Perry Pearce, Esq.
Albert R. Greer

RESPONSE TO MOBIL'S STATEMENT OF ENGINEERING INTERPRETATIONS
DATED FEBRUARY 8, 1989
IN OIL CONSERVATION COMMISSION CASE NO. 9525

Reference is made to the four items identified in Mobil's statement commencing at the bottom of page 1.

Item No. 1: Here Mobil says that pressure support from the pressure maintenance project means wells nearest to the project would have the highest GOR's. The fact of the matter is that the history of the pressure maintenance project of the Canada Ojitos Unit is replete with examples of low GOR oil being pushed ahead of the gas flood front; and wells farther out with less communication showing higher GOR's.

Of particular concern here is the high degree of communication between the C.C. State and the Wishing Well and the fact that both wells initially had similar GOR's. The fact that the C.C. State now has a significantly lower GOR than the Wishing Well implies outside influence: the most logical source of the outside influence is the pressure maintenance project.

Item No. 2: The reference to the attic oil of the Schmitz Anticline well with respect to the A-14 injector was necessary to clarify the allegation made in the August hearing, Case No. 9451, in which Amoco stated that if communication existed, the Schmitz Anticline would necessarily have to have a higher GOR. That would be true if the permeability was such as to allow gravity segregation throughout the entire area. With a "normal" attic oil situation since that is not the case, it is possible to have communication without having forced a high GOR in the Schmitz Anticline well.

Item No. 3: There is a high degree of communication between the Amoco C.C. State and the Wishing Well. This communication was refereed to in Case No. 9451, reference page 152 of the transcript, cross-examination of Amoco's Richard Jones by Tom Kellahin. The pressure decline noted by Mobil in the C.C. State in the last 12 hours of its September 108 hour test is tangible evidence of this high degree of communication between the two wells. This pressure drop in the C.C. State was caused by start up of production of the Wishing Well approximately a mile south of it, interrupting its normal buildup and cancelling its ability to reflect static reservoir pressure.

This is a classic example of communication found in many instances throughout the West Puerto Chiquito Pool: it supports the interpretation set out in Item No. 1 above in that both wells in such close communication should have similar GOR's; and the fact that they do not implies external influence - i.e. the pressure maintenance project.

Item No. 4: Wells in communication with the pressure maintenance project will experience no pressure decline only if communication is equal to the amount of withdrawal. Pressure decline means not that there is no communication; rather that it is not complete at the pressure differential existing. When the pressure differential increases with depletion of the southeast part of the West Puerto Chiquito then the amount of drainage will increase; hence the urgency of this case.

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

March 20, 1989

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Mr. William F. Carr
Campbell & Black
Attorneys at Law
Post Office Box 2208
Santa Fe, New Mexico

Re: CASE NO. 9525
ORDER NO. R-6469-H

Applicant:

Benson-Montin-Greer Drilling Corporation

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Sincerely,

Florene Davidson

FLORENE DAVIDSON
OC Staff Specialist

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD x

Other Perry Pearce, Bill Hawkins