AMEND DHC 9/21/98

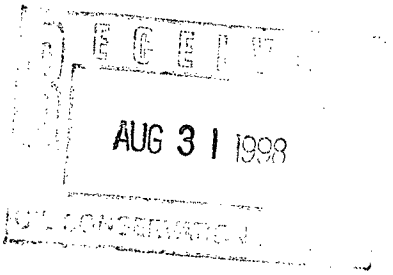
MERRION

OIL & GAS

August 27, 1998

Mr. David Catanach
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Fax (505) 827-1389



Re: Application for Administrative Approval
Downhole Commingling
Basin Dakota Pool, Crouch Mesa Mesaverde Pool,
And Otero Chacra Pool
Fifield Com 1E
Section 5, T29N, R11W
San Juan County, New Mexico

Dear Mr. Catanach:

Through administrative order DHC-2079, Merrion Oil & Gas received approval to commingle the Dakota and Mesaverde zones in the subject well. Merrion mistakenly assumed the Lewis shale was part of the Mesaverde, not knowing that south of "The Chacra Line", the Lewis is included in the Otero Chacra Pool. Since we plan to test the Lewis and Chacra in the subject well, Merrion requests administrative approval for downhole commingling of the Basin Dakota, the Crouch Mesa Mesaverde, and the Otero Chacra Pools in the subject wellbore. The following information is provided in support of this application:

I. Proposed Spacing Units

Exhibit 1 is the ownership plat showing the leases involved and showing the offset operators. Exhibit 2 shows the C-102 plat for the Basin Dakota with a 294 acre spacing unit in the N/2 of Section 5. Exhibit 3a. is the C-102 plat for the Crouch Mesa Mesaverde Pool with a ±148 acre spacing unit in the NW/4 of Section 5. Exhibit 3b., the C-102 plat for the Otero Chacra, shows the spacing to be identical to the Mesaverde spacing.

II. Justification

The Chacra, Mesaverde and the Dakota zone are depleted to between 488 and 800 psi in the offset wells (see Exhibits 4 and 5). Because the remaining recoverable reserves from each zone is expected to be marginal, the only way a well can be economically justified is to commingle the zones.

III. Allocation Methodology

Because all zones exhibit similar exponential decline characteristics (see Exhibit 4), initial flow tests will be used to proportionally split flow between the three zones. If future changes in the condensate API gravity or gas BTU content indicate a substantive change in the mix of production from the three zones, the allocation formula will be adjusted based on additional testing.

IV. Reservoir Fluid Compatibility

Water analyses are not available for wells in the immediate area. However, the waters of the Chacra, Mesaverde, and Dakota have been generally determined to be compatible across the basin based on other similar applications to the OCD.

V. Cross Flow Between Zones

The current reservoir pressure of the Dakota is at ± 820 psi while the Chacra is at ± 488 psi, with the Mesaverde in between. With a flowing line pressure at around 250 psi, crossflow is not anticipated to be a problem.

VI. Well Ownership Notification

The spacing unit and ownership of the three zones is not the same (see Exhibit 1). Exhibit 6 is a list of all working interest, override, and royalty interest owners in the well who received certified copies of this application. All of these individuals also received copies of the original application, and none objected.

VII. Offset Operator Notification

Exhibit 1 is a plat showing all offset operators. Exhibit 7 is a list of all the offset operators who received a certified copy of this application. All of these companies received copies of the original application.

VIII. Summary

None of the zones have the reserves to economically justify a well. Commingling the zones will maximize reserves and protect correlative rights. Therefore, we request your approval of this application.

Please call me with questions or if additional information is required.

Sincerely,

George Sharpe

George F. Sharpe
Manager - Oil & Gas Investments

xc: Offset Operators and Well Owners
Aztec OCD
BLM - Farmington

APPLICATION OF MERRION OIL & GAS CORP.
TO COMMINGLE THE CHACRA, MESAVERDE, AND DAKOTA
IN THE FIFIELD COM 1E

Objections to this application must be sent to the NMOCD within 20 days of receipt of this application. If you do not object, please sign and return this waiver sheet to George Sharpe.

WAIVER

_____ hereby waives objection to this application.
Company or Individual Name

_____ _____
Signature Date

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

APPLICATION FOR DOWNHOLE COMMINGLING

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

APPROVAL PROCESS:
__ Administrative __ Hearing

EXISTING WELLBORE
__ YES __ NO

MERRION OIL & GAS CORPORATION (Operator) | 610 Reilly Avenue (Address) | Farmington, NM 87401-2634

FiField Com (Lease) | 1E (Well No.) | E - 05-29N-11W (Unit Ltr. - Sec - Twp - Rge) | San Juan (County)

OGRID NO. 014634 Property Code 22343 API NO. 30-045-29517 Spacing Unit Lease Types: (check 1 or more) Federal X, 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	Otero Chacra	Crouch Mesa Mesaverde	Basin Dakota
2. Top and Bottom of Pay Section (Perforations)	** Will be provided after well is drilled **		
3. Type of production (Oil or Gas)	Gas	Gas	Gas
4. Method of Production (Flowing or Artificial Lift)	Flow	Flow	Flow
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 488 psi	a. 730 psi	a. 820 psi
	b. (Original) 697 psi	b. 990 psi	b. 2525 psi
6. Oil Gravity (°API) or Gas BTU Content	BTU 1100	BTU 1100	BTU 1188
7. Producing or Shut-In?	SI-Not completed	SI - Not Completed	SI-Not completed
Production Marginal? (yes or no)	Yes	Yes	Yes
• If Shut-In, give date 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: Rates: NA	Date: Rates: NA	Date: Rates: NA
• If Producing, give date andoil/gas/ water rates of recent test (within 60 days)	Date: Rates: NA	Date: Rates: NA	Date: Rates: NA
8. Fixed Percentage Allocation Formula -% for each zone	Oil: % Gas: % ** Will be	Oil: % Gas: % provided after well is	Oil: % Gas: % drilled **

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 X No
If not, have all working, overriding, and royalty interests been notified by certified mail? X Yes ___ No
Have all offset operators been given written notice of the proposed downhole commingling? X Yes ___ No

11. Will cross-flow occur? ___ Yes X 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? X Yes ___ No

13. Will the value of production be decreased by commingling? ___ Yes X 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. X 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 George Sharpe TITLE Engineer DATE 8/28/98

TYPE OR PRINT NAME George F. Sharpe TELEPHONE NO. (505) 327-9801

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-10
Revised October 18, 199
Instructions on bac
Submit to Appropriate District Offic
State Lease - 4 Copie
Fee Lease - 3 Copie

☐ AMENDED REPOR

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-29517	75680	CROUCH MESA MESAVERDE

[4] Property Code	[5] Property Name	[6] Well Number
22343	FiField Com	1E

[7] OGRID No.	[8] Operator Name	[9] Elevation
014634	MERRION OIL & GAS CORPORATION	5849'

[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
E	05	29N	11W	SWNW	1562	NORTH	886	WEST	San Juan

[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	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
148			Will be communitized

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

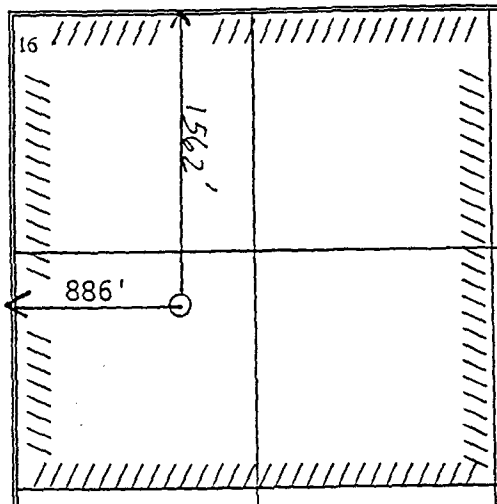


Exhibit 3A.

[17] OPERATOR CERTIFICATION

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

George Sharpe

Signature

Printed Name George F. Sharpe

Title Engineer

Date 7/20/98

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by

Date of Survey

Signature and Seal of Professional Surveyer:

Certificate Number

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 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

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-29517	82329	OTERO CHACRA

[4] Property Code	[5] Property Name	[6] Well Number
22343	FiField Com	1E

[7] OGRID No.	[8] Operator Name	[9] Elevation
014634	MERRION OIL & GAS CORPORAITON	5849

[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
E	05	29N	11W	SWNW	1562	NORTH	886	WEST	SAN JUAN

[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	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
148			Will be communitized

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

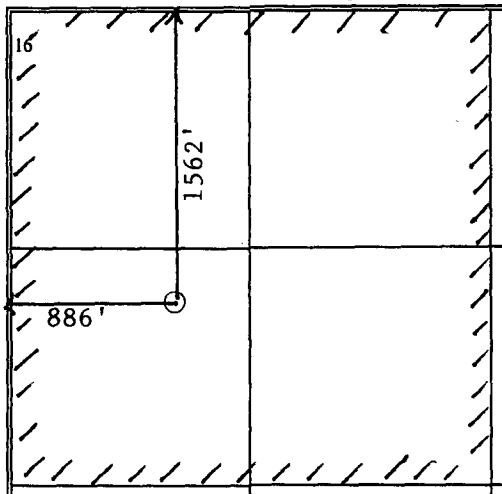


Exhibit 3B

[17] OPERATOR CERTIFICATION

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

Signature George Sharpe

Printed Name George F. Sharpe

Title Engineer

Date 8/28/98

[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

Date of Survey

Signature and Seal of Professional Surveyer:

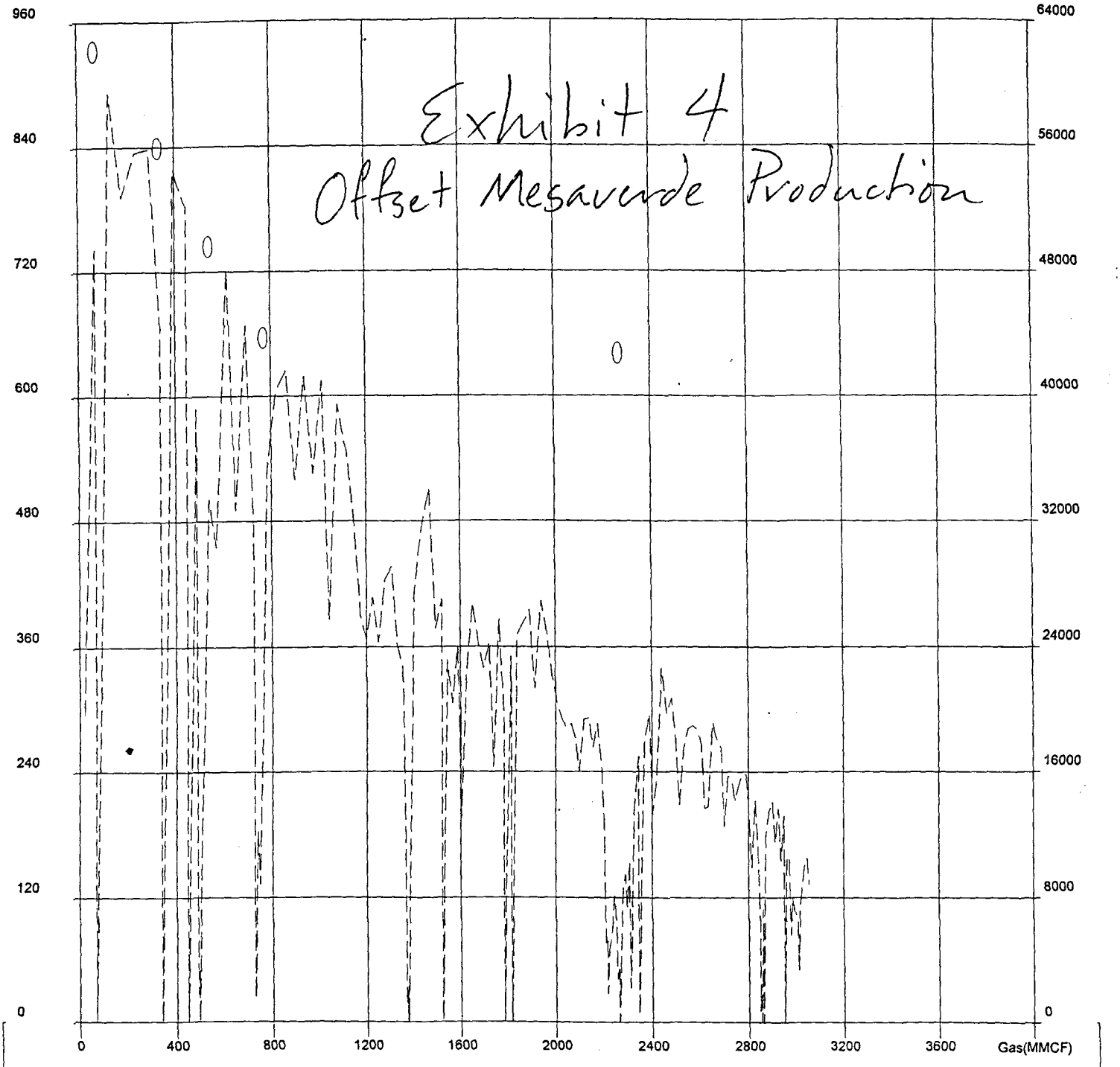
Certificate Number

Dwights

Lease: FEDERAL (6E)

07/20/98

Retrieval Code: 251,045,29N11W06E00MV



WHSIP 0

County: SAN JUAN, NM	F.P. Date: 09/81
Field: CROUCH MESA (MESAVERDE) MV	Oil Cum: 10.75 mbbl
Reservoir: MESAVERDE	Gas Cum: 3054 mmcf
Operator: CONOCO INC	Location: 6E 29N 11W

Gas (*mcf/mo*)

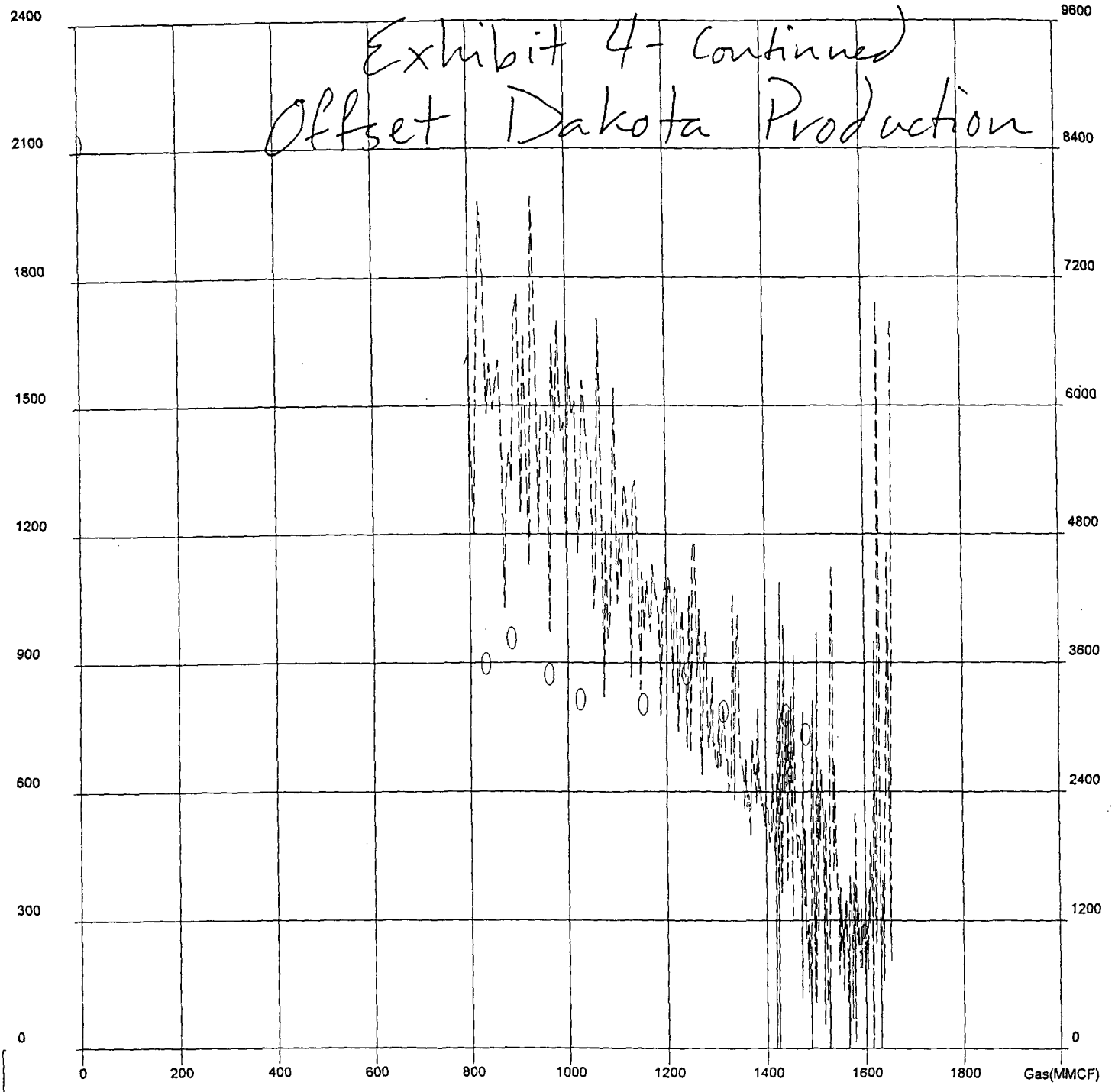
Dwights

Lease: FIFIELD 5 (1)

07/20/98

Retrieval Code: 251,045,29N11W05N00DK

Exhibit 4 - Continued
Offset Dakota Production



WHSIP 0

County: SAN JUAN, NM	F.P. Date: 01/67
Field: BASIN (DAKOTA) DK	Oil Cum: 9417 bbl
Reservoir: DAKOTA	Gas Cum: 1659 mmcf
Operator: CONOCO INC	Location: 5N 29N 11W

Gas (mcf/mo) ----

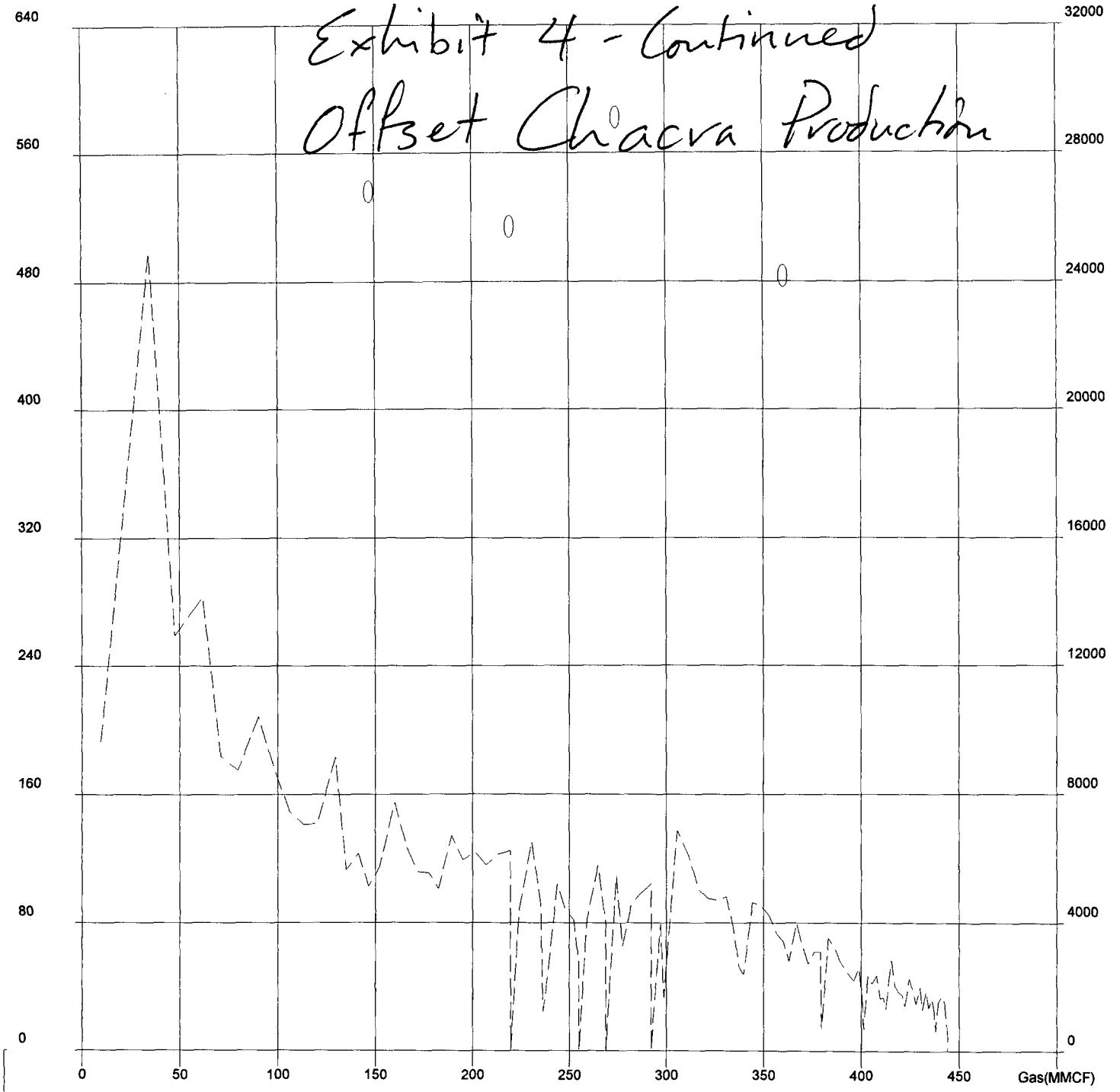
Dwights

Lease: DUFF (000007)

Retrieval Code: 251,045,29N11W08P00CK

08/27/98

Exhibit 4 - Continued
Offset Chacra Production



WHSIP

County: SAN JUAN, NM	F.P. Date: 02/80
Field: OTERO (CHACRA) CK	Oil Cum: 0 bbl
Reservoir: CHACRA	Gas Cum: 444.3 mmcf
Operator: BURLINGTON RES O&G CO	Location: 8P 29N 11W

Gas (mcf/mo)

-- BHP or Pwf Calculation --

Well Name:	**CROUCH MESA MESAVERDE - INITIAL**			
Gas Gravity:	**0.70**		% N2	**1.10**
Condensate (yes=1):	**1**		% CO2	**0.60** %
Reservoir Temp:	**110**	'F	% H2S	**0.00** %
Surface Temp:	**60**	'F	Pc =	665.45 %
Depth of Zone:	**3,300**	feet	Tc =	380.43
Tubing Diameter:	**1.995**	inches		

SITP	Rate	BHP	Z	BHP/Z
psia	Mcfd	psia		psia
900	**0**	989	0.860	1,151

Exhibit 5
Calculated Bottom Hole Pressure

-- BHP or Pwf Calculation --

Version 1.1
20-Jul-98

Well Name:	CROUCH MESA MESAVERDE - Current			
Gas Gravity:	**0.70**		% N2	**1.10**
Condensate (yes=1):	**1**		% CO2	**0.60** %
Reservoir Temp:	**110**	'F	% H2S	**0.00** %
Surface Temp:	**60**	'F	Pc =	665.45 %
Depth of Zone:	**3,300**	feet	Tc =	380.43
Tubing Diameter:	**1.995**	inches		

SITP	Rate	BHP	Z	BHP/Z
psia	Mcfd	psia		psia
600	**0**	656	0.904	726

Exhibit 5 - cont.

-- BHP or Pwf Calculation --

Well Name:	**BASIN DAKOTA - INITIAL**			
Gas Gravity:	**0.70**		% N2	**1.10**
Condensate (yes=1):	**1**		% CO2	**0.60** %
Reservoir Temp:	**150**	'F	% H2S	**0.00** %
Surface Temp:	**60**	'F	Pc =	665.45 %
Depth of Zone:	**6,000**	feet	Tc =	380.43
Tubing Diameter:	**1.995**	inches		

SITP	Rate	BHP	Z	BHP/Z
psia	Mcfd	psia		psia
2,100	**0**	2,525	0.828	3,051.

Exhibit 5 - cont.

-- BHP or Pwf Calculation --

Well Name:	**BASIN DAKOTA - CURRENT**			
Gas Gravity:	**0.70**		% N2	**1.10**
Condensate (yes=1):	**1**		% CO2	**0.60** %
Reservoir Temp:	**150**	'F	% H2S	**0.00** %
Surface Temp:	**60**	'F	Pc =	665.45 %
Depth of Zone:	**6,000**	feet	Tc =	380.43
Tubing Diameter:	**1.995**	inches		

SITP	Rate	BHP	Z	BHP/Z
psia	Mcfd	psia		psia
700	**0**	820	0.908	903

Exhibit 5 - cont.

-- BHP or Pwf Calculation --

Well Name:	**OTERO CHACRA - INITIAL**			
Gas Gravity:	**0.70**		% N2	**1.10**
Condensate (yes=1):	**1**		% CO2	**0.60** %
Reservoir Temp:	**120**	'F	% H2S	**0.00** %
Surface Temp:	**60**	'F	Pc =	665.45 %
Depth of Zone:	**3,160**	feet	Tc =	380.43
Tubing Diameter:	**1.995**	inches		

SITP	Rate	BHP	Z	BHP/Z
psia	Mcfd	psia		psia
640	**0**	697	0.905	770

Exhibit 5
cont.

-- BHP or Pwf Calculation --

Version 1.1
27-Aug-98

Well Name:	**OTERO CHACRA - CURRENT**			
Gas Gravity:	**0.70**		% N2	**1.10**
Condensate (yes=1):	**1**		% CO2	**0.60** %
Reservoir Temp:	**120**	'F	% H2S	**0.00** %
Surface Temp:	**60**	'F	Pc =	665.45 %
Depth of Zone:	**3,160**	feet	Tc =	380.43
Tubing Diameter:	**1.995**	inches		

SITP	Rate	BHP	Z	BHP/Z
psia	Mcfd	psia		psia
450	**0**	488	0.932	524

Exhibit 5
cont.