



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONY ANAYA
GOVERNOR

RECEIVED
NOV 21 1984
OIL CON. DIV.
DIST. 3

November 16, 1984

POST OFFICE BOX 2038
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

Administrative Order No. DHC-534

Consolidated Oil & Gas, Inc.
P.O. Box 2038
Farmington, NM 87499

Attention: Mr. Dale Richardson

Re: Northwest No. 4, Unit B,
Sec. 8, T-26N, R-4W, Basin
Dakota and BS Mesa Gallup
Pools, Rio Arriba County,
NM

Gentlemen:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations for the subject dually completed well to permit the removal of the down-hole separation equipment and to commingle the production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which

authorized the dual completion and required separation of the two zones, is hereby placed in abeyance.

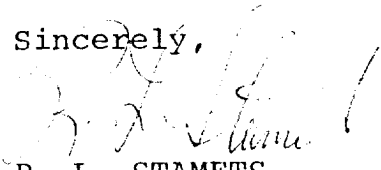
In accordance with the provisions of Rule 303.C.4., total commingled oil production from the subject well shall not exceed 60 barrels per day, and total water production from the well shall not exceed 120 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by Division Rules and Regulations or by the gas allocation for each respective prorated gas pool as printed in the Oil Conservation Division's San Juan Basin Gas Proration Schedule.

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

BS Mesa Gallup Pool: Condensate 10 %, Gas 30 %
Basin Dakota Pool: Condensate 90 %, Gas 70 %

Pursuant to Rule 303-C 5, the commingled authority granted by this order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Sincerely,


R. L. STAMETS,
Division Director



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

OIL CONSERVATION DIVISION
BOX 2088
SANTA FE, NEW MEXICO 87501

DATE Oct. 22, 1984

RE: Proposed MC _____
Proposed DHC ☒ _____
Proposed NSL _____
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

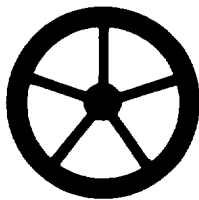
I have examined the application dated Oct. 22, 1984
for the Consolidated Oil & Gas Inc. Northwest # 4 B-8-26a-4W
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve

Yours truly,

Sam D. Ching



Consolidated Oil & Gas, Inc.

P. O. BOX 2038
FARMINGTON, NEW MEXICO 87499
(505) 632-8056

October 17, 1984

Mr. Frank Chavez
New Mexico Oil Conservation Division
1000 Rio Brazos Rd.
Aztec, New Mexico 87410

RECEIVED
OCT 19 1984
OIL CON. DIV.
DIST. 3

Re: Northwest 4
890' FNL & 1840' FNL
Sec 8B, T26N, R4W
Rio Arriba Co., New Mexico

Dear Mr. Chavez;

Consolidated Oil & Gas, Inc. hereby requests authorization to down-hole commingle the Basin Dakota and B S Mesa Gallup formations within the above referenced well.

This well failed the 1984 New Mexico Packer Leakage Test from an apparent hole in the 1 1/2" Dakota production tubing. The Dakota averaged 128 MCFD and 1.3 BOPD from 1964 to present. The Gallup averaged 52 MCFD and 0.2 BOPD during the same period.

The ownership, working interest, royalty and overriding royalty is common for both zones.

Due to the economics involved in working over an old well, we would like to commingle the Dakota and Gallup by producing both zones through one string of 1 1/2" production tubing already set at the Dakota perforations.

Consolidated would like to allocate 70% gas and 90% oil to the Dakota and 30% gas and 10% oil to the Gallup formations, based on G O R tests and the well's production history.

Enclosed please find requested information.

Yours very truly,

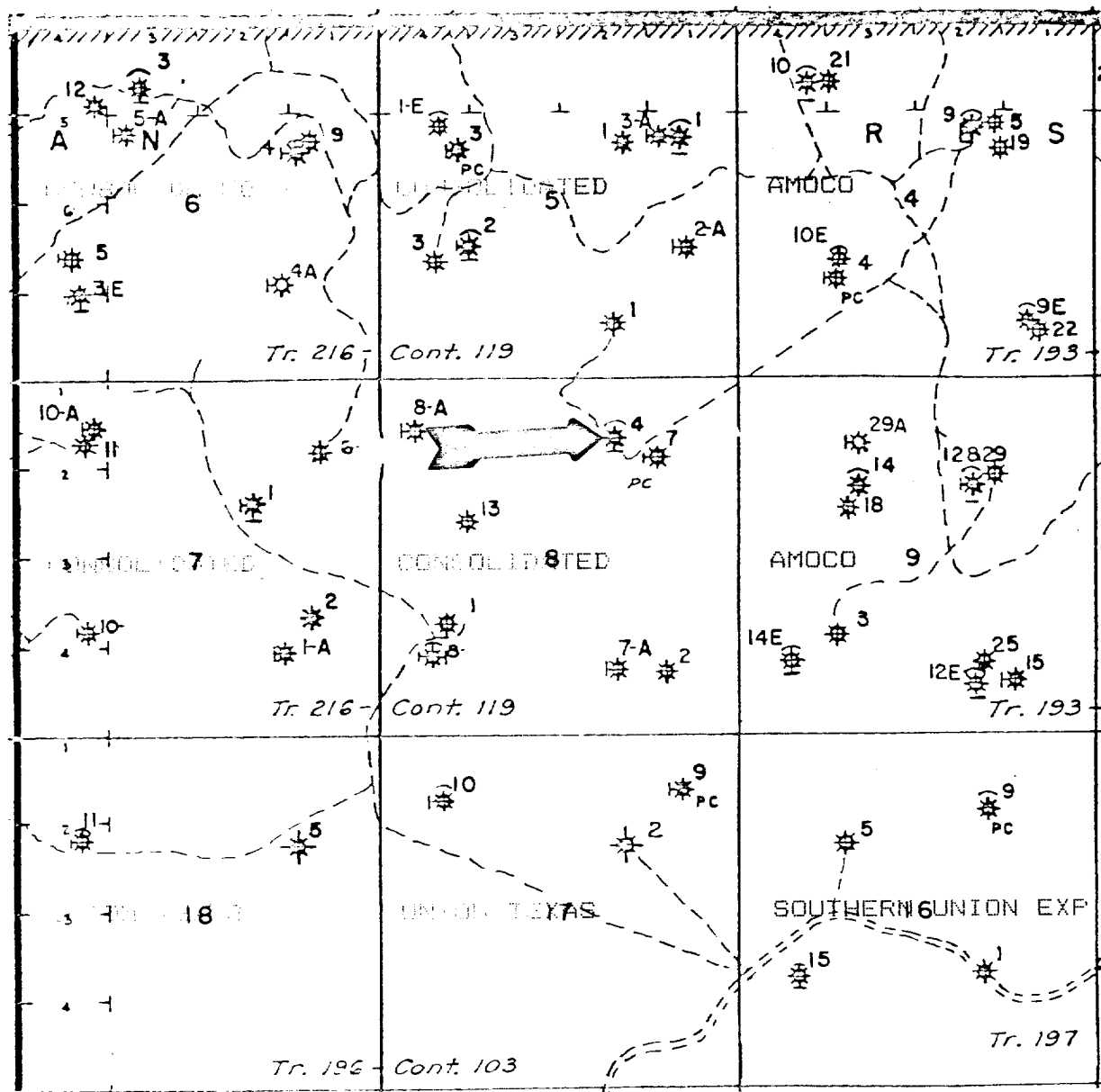
Dale Richardson
Production & Drilling Superintendent

DER:WJC:wc
Enclosures

cc: N. M. Oil Conservation Division, Santa Fe

1984 PACKER LEAKAGE TEST

CONSOLIDATED OIL & GAS, INC.		WELL NAME AND NUMBER NORTHWEST 4		UNIT LETTER L	SEC.-TWP.-RGE. 8-26-4	COUNTY RA
UPPER COMPLETION GALLUP		PRODUCING THRU	LOWER COMPLETION DAKOTA			PRODUCING THRU
DATE	UPPER ZONE SHUT-IN—5 DAYS			LOWER ZONE SHUT-IN—3 DAYS		
9-10	SHUT BOTH ZONES IN			SHUT BOTH ZONES IN		
	CSG	TBG		TBG		
9-11	25	722	90	742		
9-12	26	750	110	762		
9-13	27	770	190	780		
TURN ON LOWER ZONE AFTER CARD SIGNED				LOWER ZONE FLOW		
28	UPPER ZONE REMAINS SHUT-IN		Failed	DIFFERENTIAL	6.5	FLOWING PRESSURE
9-14	CSG	TBG		STATIC	7.2	300 checked
29	UPPER ZONE REMAINS SHUT-IN			DIFFERENTIAL	4.3	FLOWING PRESSURE
9-15	CSG	TBG		STATIC	7.4	261
TEST COMPLETED WHEN INITIALED →				PLATE SIZE	1.625	STATIC SPRING STATIC 500
REMARKS well checked during 11/11						AVERAGE RATE 185



Map to Accompany Application
for the Exclusive Commingling of the

Oil and Gas of
050' PHL & 1840' FWL
Sec. 18, T26N, R4W
Cotton Co., New Mexico

Date April 2, 1964

Section A.

Operator CONSOLIDATED OIL & GAS, INC. Section NORTHWEST FEDERAL
 Well No. 4-8 Unit Letter B Section 8 Township 26 NORTH Range 4 WEST, NMPM
 Locates 890 Feet From NORTH Line 1840 Feet From EAST Line
 County RIO ARriba G. L. Elevation 7173.0 Dedicated Acreage 320 Acres
 Name of Producing Formation DAKOTA Pool BASIN

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", give the interests of all the owners then consolidated by communitization agreement or otherwise? Yes No 3. 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.

Note: All distances must be from outer boundaries of section.

This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

Consolidated Oil & Gas, Inc.

(Representative)

W. H. Williams

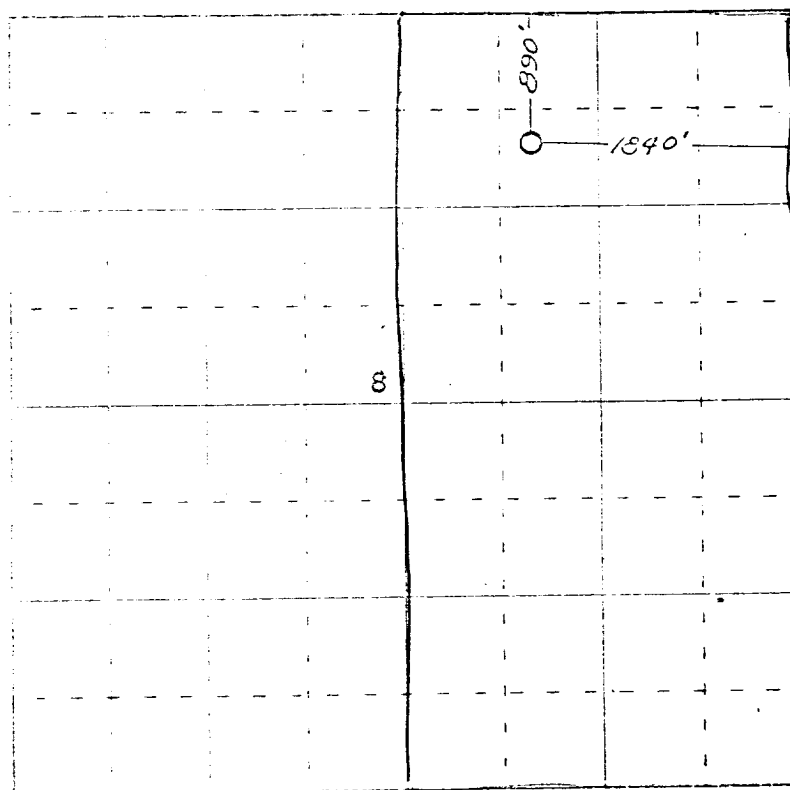
(Address)

Chief Engineer

4150 East Mexico Avenue

Denver 22, Colorado

Ref: GLO plated dated Nov. 4, 1882



0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000

Scale 4 inches equal 1 mile

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed 5 March 1964

James O. Love
 Licensed Professional Engineer and Professional Surveyor

Survey No. 1463

Section A.

Date April 2, 1964

Operator CONSOLIDATED OIL & GAS, INC. Name NORTHWEST FEDERAL
 Well No. 4-8 Unit Letter B Section 3 Township 26 NORTH Range 4 WEST, NMPM
 Located 890 Feet From NORTH Line, 1840 Feet From EAST Line
 County RIO ARriba G. L. Elevation 7173.0 Dedicated Acreage 160 Acres
 Name of Producing Formation GALLUP Pool UNDESIGNATED

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.

Consolidated Oil & Gas, Inc.

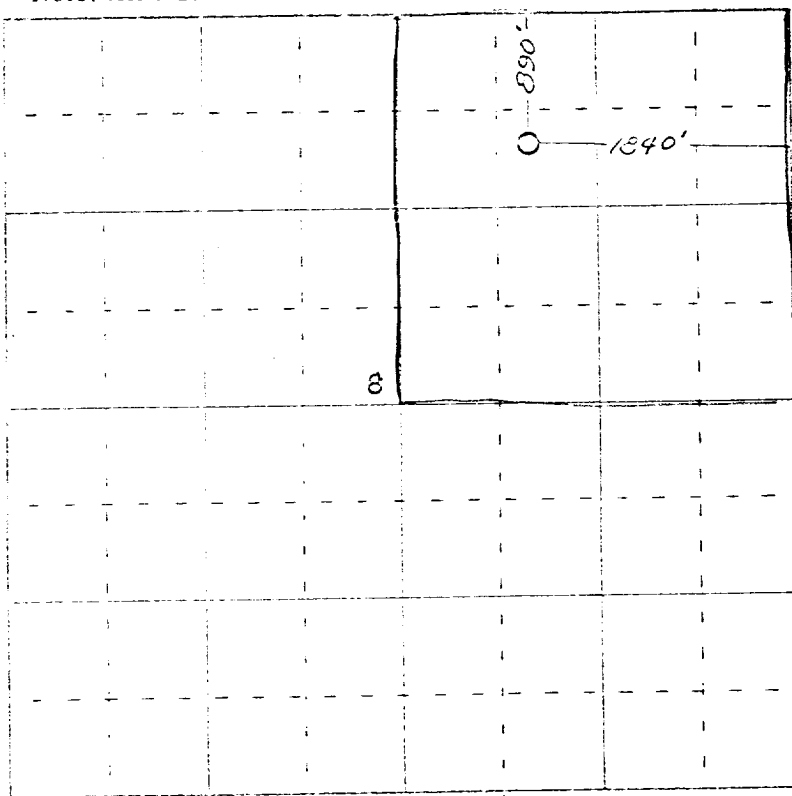
W. H. Williams
 (Signature)
 Chief Engineer

4150 East Mexico Avenue

Denver 22, Colorado

Ref: GLO plat dated Nov. 4, 1882

Note: All distances must be from outer boundaries of section.



0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000

Scale 4 inches equal 1 mile

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed 5 March 1964

James C. Lane
 State of New Mexico, Registered Professional Land Surveyor
 No. 10930
 Exp. 12-31-64

NORTHWEST 4
Sec 8B, T26N, R4W

RE: Rule 303C, Para. 2, Requirement (d)

We would like to request an exception to rule 303C, Para. 2, Requirement (d). A current (within 30 days) 24 hour productivity test of the Dakota and Gallup zones would not reflect accurate production potential due to the leak in the Dakota tubing string. We are submitting representative G O R tests of each zone over a 24 hour period in 1982 and 1983 based on production. These production tests were recorded when the other zone was shut in for lack of demand.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-116
Revised 10-1-78

GAS - OIL RATIO TESTS

Operator		Pool		County	
Consolidated Oil & Gas, Inc.		Basin Dakota		Rio Arriba	
Address		P.O. Box 2038, Farmington, NM 87499		TEST - (X)	
				Scheduled ☐ Special ☒	
LEASE NAME		WELL NO.	LOCATION		DATE OF TEST
		U	S	T	R
Northwest		4	B	8	26N 4W
					10-14-83 F
					None
					200
					24
					0
					62.1
					1.82
					135
					74,175:1

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 331 and appropriate pool rules.

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

(Signature)

(Title)

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. BOX 2086
SANTA FE, NEW MEXICO 87501

Form C-116
Revised 10-1-78

GAS-OIL RATIO TESTS

Operator Consolidated Oil & Gas, Inc.		Pool B S Mesa Gallup		County Rio Arriba										
Address PO Box 2038, Farmington, NM 87499				TYPE OF TEST - (X)	Scheduled ☐ Special ☒									
LEASE NAME Northwest	WELL NO. 4	LOCATION U S T R			DATE OF TEST 8-12-82	CHOKE SIZE None	TBG. PRESS. 175	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS 24	PRODUCTION DURING TEST				GAS - OIL RATIO CU.FT./BBL
		WATER BBLs.	GRAV. OIL BBLs.	OIL BBLs.						GAS M.C.F.				
										0	58.5	.83	70	84,337:1

No well will be assigned an allowable greater than the amount of oil produced on the official test.
During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.
Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 301 and appropriate pool rules.

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

(Signature)

(Title)

NORTHWEST 4
Sec 08, T26N, R4W

RE: Rule 303C, Para. 2, Requirement (e)

We are submitting production decline curves for the Basin Dakota
and E S Mesa Gallup.

Consolidated Oil & Gas, Inc.
Dual Completion Schematic for
Commingling Application

Elevation: 7185'KB
7173'GL

NORTHWEST 4
Sec 8B, T26N, R4W
Rio Arriba Co., NM
October 17, 1984

12-3/4", 40# csg @ 308'
Cmt w/ 275 sx Regular w/
2% CaCl2. Cmt top at
surface.

17-1/2" hole to 308'

7-5/8", 26.4# csg @ 4110'
Cmt w/ 195 sx 50/50 Pozmix
w/ 4% gel. Tail-in w/ 50 sx
Cl "C" w/ 2% CaCl2. Cmt top
calc at 3100'.

5-1/2" liner top @
4008'

10-5/8" hole to 4110'

Frac Gallup w/ 46,070 gal
oil & 25,000 lbs sand

Gallup perf interval:
7652-7614'
(72 holes)

NOTE: Approval to surface
commingle oil production
from the Dakota & Gallup
was made on 8-27-64.
(Admin. Order # MC-1528)

Baker Retrieval-a-D
pkr @ 7900'

Frac Dakota w/ 130,000 gal
water & 93,000 lbs sand

Dakota perf interval:
8315-8146' (144 holes)

PEFD @ 8349'
Clean out to 8335'

5-1/2", 17# & 15.5# csg
@ 8385'. Cmt w/ 320 sx
50/50 pozmix w/ 4% gel.
Cmt top calc at 4008'.

4-3/4" hole to 8385'
Drillers TD - 8385'
Loggers TD - 8400'

WELL DELIVERABILITY TEST REPORT FOR 19 81

POOL NAME Basin	POOL SLOPE n = .75	FORMATION Dakota	COUNTY Rio Arriba
--------------------	-----------------------	---------------------	----------------------

86525

COMPANY Consolidated Oil and Gas, Inc.			WELL NAME AND NUMBER Northwest #4 DK		
UNIT LETTER B	SECTION 8	TOWNSHIP 26	RANGE 4	PURCHASING PIPELINE Northwest Pipeline Corporation	
CASING O.D. - INCHES 5.500	CASING I.D. - INCHES 5.012	SET AT DEPTH - FEET 8385'	TUBING O.D. - INCHES 1.990	TUBING I.D. - INCHES 1.610	TOP - TUBING PERF. - FEET 8027'
GAS PAY ZONE FROM 8146' TO 8315'		WELL PRODUCING THRU CASING TUBING X		GAS GRAVITY .731	GRAVITY X LENGTH 5868'
DATE OF FLOW TEST FROM May 17 TO May 25			DATE SHUT-IN PRESSURE MEASURED June 1, 1981		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt)	(b) Flowing Tubing Pressure (DWt)	(c) Flowing Meter Pressure (DWt)	(d) Flow Chart Static Reading	(e) Meter Error (Item c - Item d)	(f) Friction Loss (a-c) or (b-c)	(g) Average Meter Pressure (Integr.)
	221	215	215	0	6	188
(h) Corrected Meter Pressure (g + e)	(i) Avg. Wellhead Press. $P_t = (h + f)$	(j) Shut-in Casing Pressure (DWt)	(k) Shut-in Tubing Pressure (DWt)	(l) P_c = higher value of (j) or (k)	(m) Del. Pressure $P_d = 50 \% P_c$	(n) Separator or Dehydrator Pr. (DWt) for critical flow only
188	194		694	694	347	

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of $\frac{\text{Item c}}{\text{Item d}}$	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$	Corrected Volume
85	1.0000	1.0000	Q = 85 MCF/D

WORKING PRESSURE CALCULATION

$(1 - e^{-x})$	$(P_c Q_m)^2 (1000)$	$R^2 = (1 - e^{-x}) (P_c Q_m)^2 (1000)$	P_t^2	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$
.347	1958	679	37636	38315	196

DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 85 \left[\frac{361227}{443321} \right]^n \left(.8148 \right)^n = .8576 = 73 \text{ MCF/D}$$

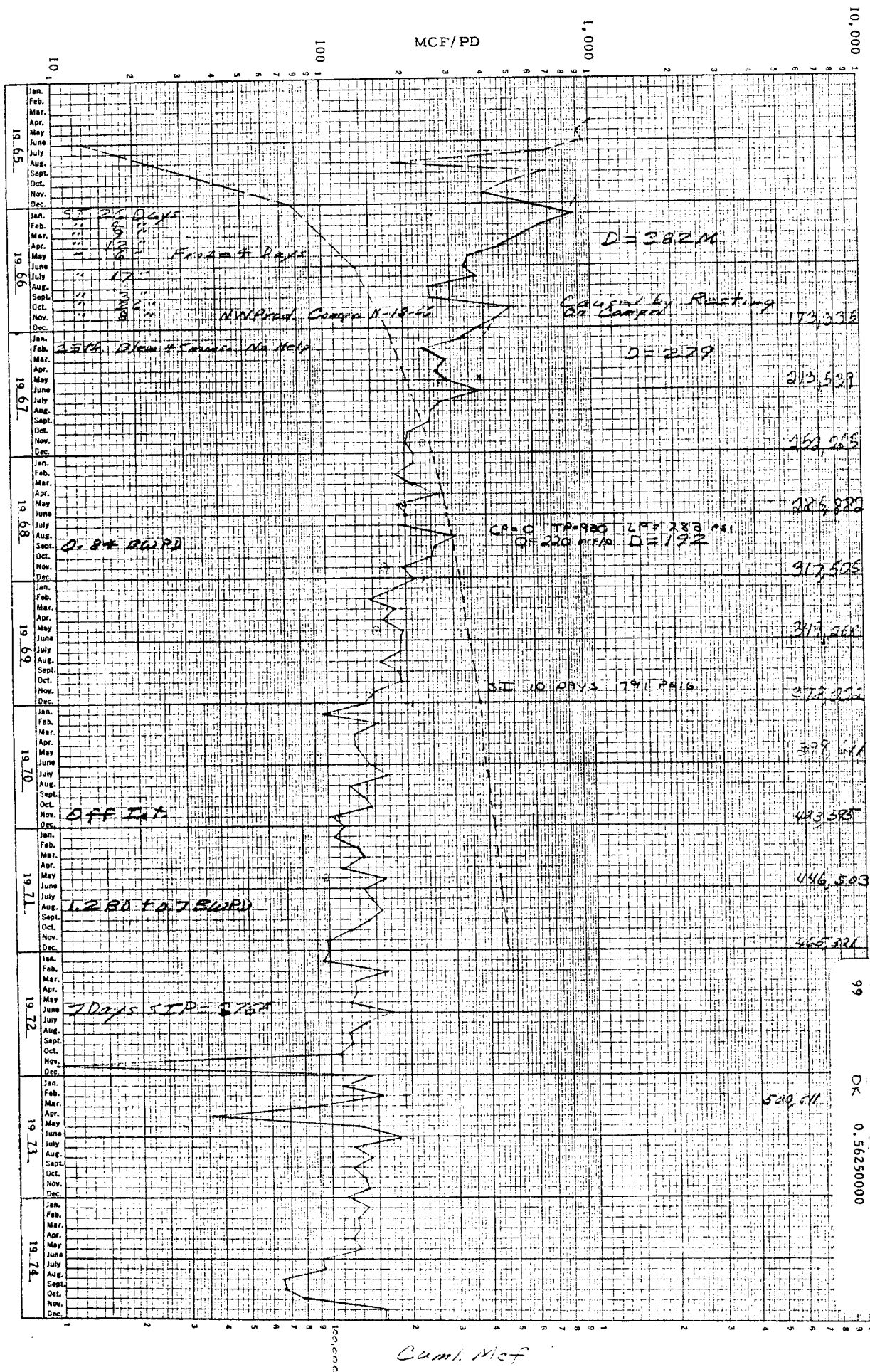
REMARKS:

SUMMARY

Item h	188	Psia
P_c	694	Psia
Q	85	MCF/D
P_w	196	Psia
P_d	347	Psia
D	73	MCF/D

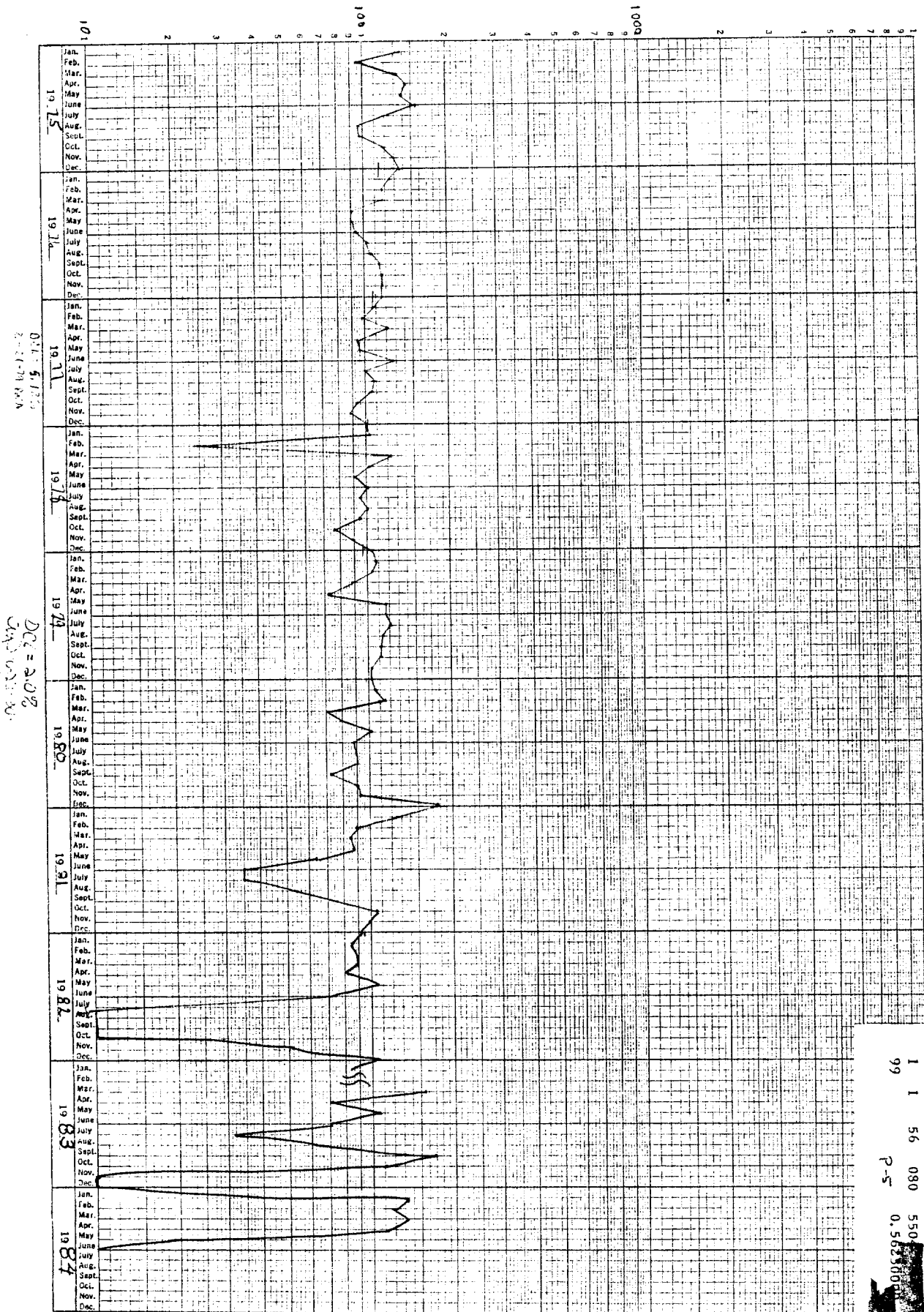
Company Consolidated Oil and Gas, Inc.
By *[Signature]*
Title
Witnessed By
Company

MCF/PD



CONSOLIDATED OIL & GAS, INC.

1	56	080	5504 NW Federal 4
1			
99		DK	0.56250000



CONSOLIDATED OIL & GAS, INC.

1 1 56 080 550
99 P-5 0.56250000

WELL NAME		WELL NO		WELL TYPE		WELL STATUS		WELL DEPTH		WELL PRESSURE		WELL TEMPERATURE		WELL FLOW		WELL PRODUCTION		WELL HISTORY		WELL ANALYSIS		WELL COMMENTS	
426N04M08B006P	08B 26N	04M08B006P	08B 26N	04M08B006P	08B 26N	04M08B006P	08B 26N	04M08B006P	08B 26N	04M08B006P	08B 26N	04M08B006P	08B 26N	04M08B006P	08B 26N	04M08B006P	08B 26N	04M08B006P	08B 26N	04M08B006P	08B 26N	04M08B006P	08B 26N
NEHEXICO	8009274BS	MESA GALLUP (GAS)	8009274BS	MESA GALLUP (GAS)	8009274BS	MESA GALLUP (GAS)	8009274BS	MESA GALLUP (GAS)	8009274BS	MESA GALLUP (GAS)	8009274BS	MESA GALLUP (GAS)	8009274BS	MESA GALLUP (GAS)	8009274BS	MESA GALLUP (GAS)	8009274BS	MESA GALLUP (GAS)	8009274BS	MESA GALLUP (GAS)	8009274BS	MESA GALLUP (GAS)	8009274BS
STATE	CO. 1	CO. 2	CO. 3	CO. 4	CO. 5	CO. 6	CO. 7	CO. 8	CO. 9	CO. 10	CO. 11	CO. 12	CO. 13	CO. 14	CO. 15	CO. 16	CO. 17	CO. 18	CO. 19	CO. 20	CO. 21	CO. 22	
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	
0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	
0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	
0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	
0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	
0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	
0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	
0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	
0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	
0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	
0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	
0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20			

WELL DELIVERABILITY TEST REPORT FOR 19 81

POOL NAME B. S. Mesa	POOL SLOPE n = .75	FORMATION Gallup	COUNTY Rio Arriba
-------------------------	-----------------------	---------------------	----------------------

86524

COMPANY Consolidated Oil and Gas, Inc.			WELL NAME AND NUMBER Northwest #4 GL		
UNIT LETTER B	SECTION 8	TOWNSHIP 26	RANGE 4	PURCHASING PIPELINE Northwest Pipeline Corporation	
CASING O.D. - INCHES 5.500	CASING I.D. - INCHES 5.012	SET AT DEPTH - FEET 8385'	TUBING O.D. - INCHES 1.315	TUBING I.D. - INCHES 1.049	TOP - TUBING PERF. - FEET 7619'
GAS PAY ZONE FROM 7614' TO 7652'		WELL PRODUCING THRU CASING TUBING X		GAS GRAVITY .735	GRAVITY X LENGTH 5600'
DATE OF FLOW TEST FROM May 17 TO May 25			DATE SHUT-IN PRESSURE MEASURED June 1, 1981		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt) 338	(b) Flowing Tubing Pressure (DWt) 224	(c) Flowing Meter Pressure (DWt) 215	(d) Flow Chart Static Reading 217	(e) Meter Error (Item c - Item d) -2	(f) Friction Loss (a - c) or (b - c) 9	(g) Average Meter Pressure (Integr.) 186
(h) Corrected Meter Pressure (g + e) 184	(i) Avg. Wellhead Press. $P_i = (h + f)$ 193	(j) Shut-in Casing Pressure (DWt) 686	(k) Shut-in Tubing Pressure (DWt) 686	(l) P_c = higher value of (j) or (k) 686	(m) Del. Pressure $P_d = \frac{80}{\%P_c}$ 549	(n) Separator or Dehydrator Pr. (DWt) for critical flow only

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D 37	Quotient of $\frac{\text{Item c}}{\text{Item d}}$.9908	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$.9954	Corrected Volume Q = 37 MCF/D
---------------------------------	--	---	----------------------------------

WORKING PRESSURE CALCULATION

$(1 - e^{-n})$.334	$(P_c Q_m)^2 (1000)$ 3477	$R^2 = (1 - e^{-n}) (P_c Q_m)^2 (1000)$ 1161	P_i^2 37249	$P_w^2 = P_i^2 + R^2$ 38410	$P_w = \sqrt{P_w^2}$ 196
------------------------	------------------------------	---	------------------	--------------------------------	-----------------------------

DELIVERABILITY CALCULATION

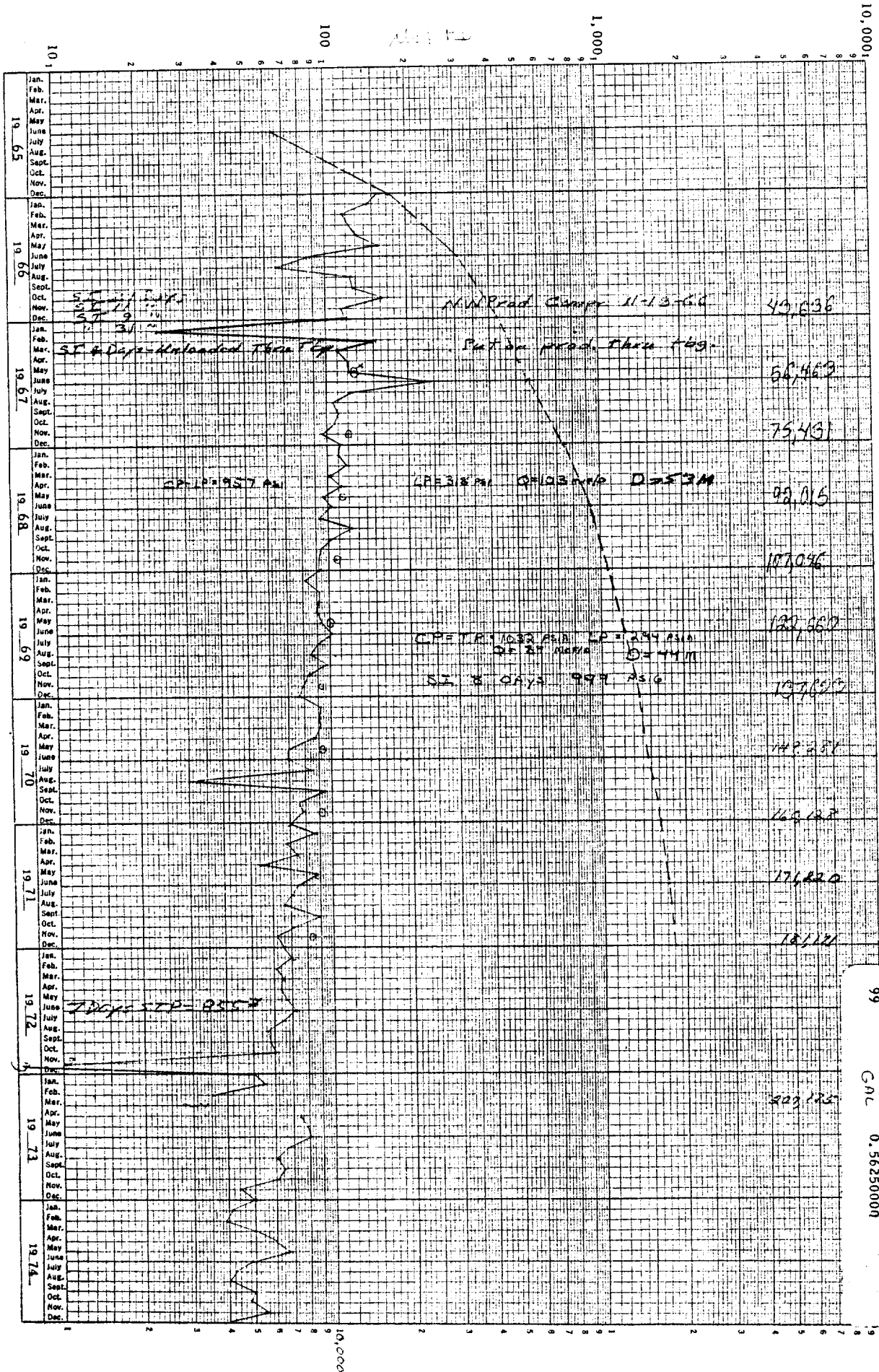
$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 37$	$\left[\frac{169195}{432186} \right]^n = .3915$	$\left[\frac{169195}{432186} \right]^n = .4949$	$= 18$ MCF/D
---	--	--	--------------

REMARKS:

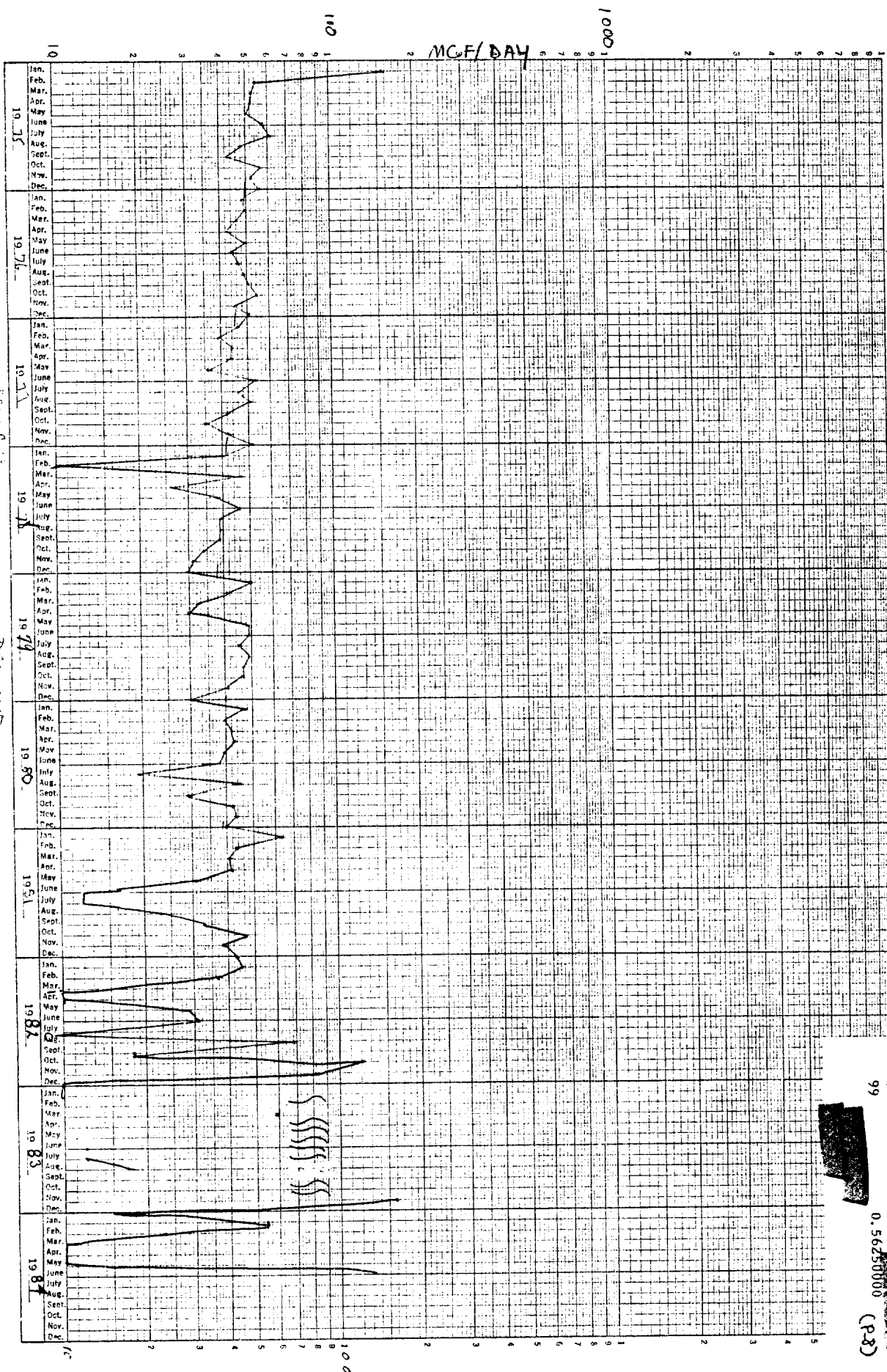
SUMMARY

Item h	184	Psia
P_c	686	Psia
Q	37	MCF/D
P_w	196	Psia
P_d	549	Psia
D	18	MCF/D

Company Consolidated Oil and Gas, Inc.
By [Signature]
Title _____
Witnessed By _____
Company _____



CONSOLIDATED OIL & GAS, INC.
I 1 56 090 5504 NW Federal 4
99 GUL 0.56250000



1000
100
10
1
2
3
4
5
6
7
8
9

CONSOLIDATED OIL & GAS, INC.
1 1 56 090 5504
99 0.56250000 (P&G)

NORTHWEST 4
Sec 8B, T26N, R4W

RE: Rule 303C, Para. 2, Requirement (f)

Due to the economics involved in acquiring measured bottom-hole pressures with a hole in the production tubing, we are submitting the latest Packer Leakage Test which did not fail in 1983.

sub 7-19-83

OPERATOR COG		WELL NAME AND NUMBER Northwest 4		UNIT LETTER B	SEC. - TWP. - RGE. 8 26 4	COUNTY RA
UPPER COMPLETION GL		PRODUCING THRU TPNG	LOWER COMPLETION DK		PRODUCING THRU TPNG	
DATE	UPPER ZONE SHUT-IN - 5 DAYS		INITIAL	LOWER ZONE SHUT-IN - 3 DAYS		
	SHUT BOTH ZONES IN			SHUT BOTH ZONES IN		
	CSG	TBG			TBG	
6-5-83	590	510		✓	490	
6-16-83	690	563		✓	690	
6-17-83	260	742		✓	742	
TURN ON LOWER ZONE AFTER CARD SIGNED				LOWER ZONE FLOW		
	UPPER ZONE REMAINS SHUT-IN			DIFFERENTIAL		FLOWING PRESSURE
6-18-83	CSG	TBG		6.5	CHOKED	
	763	745		6.1	329	
	UPPER ZONE REMAINS SHUT-IN			6.5	FLOWING PRESSURE	
6-19	765	747		6.3	CHOKED	
	TEST COMPLETED WHEN INITIALED		LN	PLATE SIZE 0.625	STATIC SPRING 500	295
REMARKS:						

170

NORTHWEST 4
Sec 8B, T26N, R4W

RE: Rule 303C, Para. 2, Requirement (g)

We would like to request an exception to Rule 303C, Para. 2, Requirement (g). Analysis of fluids taken from this well in both zones would not be representative of reservoir fluids in each zone due to the tubing leak. We have not observed any problems with emulsions or precipitates forming in the surface facilities. Offset wells commingled to these two zones have not experienced any apparent problems. The following data is representative of the produced fluids in this well:

	GAS (s.g.)	OIL (API)	B.S. & W. (%)
DAKOTA	.727	62.1	0.6
GALLUP	.694	58.5	0.7

NORTHWEST 4
Sec 8B, T26N, R4W

RE: Rule 303C, Para. 2, Requirement (h)

We believe production will not decrease by commingling the Dakota and Gallup formations. The well has continued to produce satisfactorily despite existing line pressures and periods of shut in due to no demand. We do anticipate that production will remain the same or increase with additional gas volumes helping to lift produced liquids in the wellbore. Oil production from both zones is already commingled at the surface (Admin. Order # MC-1528). Specific gravity of the Dakota gas is .727 with a heating value of 1020 BTU. Specific gravity of the Gallup gas is .694 with a heating value of 1187 BTU. The price of gas from both zones is currently \$1.15/MCF, so commingling will not reduce the sum of the values of the individual streams.

NORTHWEST 4
Sec 8B, T26N, R4W

RE: Rule 303C, Para. 2, Requirement (i)

We would like to allocate 70% gas and 90% oil to the Dakota and 30% gas and 10% oil to the Gallup formations, based on previous well production since 1964 and production decline curves. Percent of allocation was arrived from the total production from each zone from 1964 to June 1984. Oil production from the Gallup has dropped slightly in the recent production history of this well. This accounts for the difference in the calculated value of 14% vs 10% for the Gallup zone based on total production.

TOTAL PRODUCTION

	GAS (Mcf)	OIL (Bbls)
DAKOTA	903,528	9,327
GALLUP	370,672	1,576

PERCENT ALLOCATION

	GAS (%)	OIL (%)
DAKOTA	70	90
GALLUP	30	10 *

* Allocation for oil production was established in 1983 and is documented at the NMOCD.

NORTHWEST 4
Sec 8B, T26N, R4W

RE: Rule 303C, Para. 2, Requirement (j)

Certified letters of intent to commingle this well were sent to the attached list of offset operators, including the Bureau of Land Management. Sample copies of the letter and waiver are included.

Consolidated Oil & Gas, Inc.
List of Offset Operators

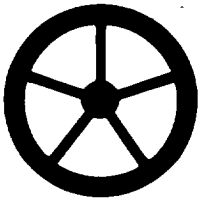
NORTHWEST 4

Amoco Production Company
501 Airport Drive
Farmington, New Mexico 87401

Union Texas Petroleum Company
P. O. Box 1270
Farmington, New Mexico 87499

Southern Union Exploration Company
P. O. Box 2179
Farmington, New Mexico 87499

Bureau of Land Management
Caller Service 4104
Farmington, New Mexico 87499



Consolidated Oil & Gas, Inc.

P. O. BOX 2038
FARMINGTON, NEW MEXICO 87499
(505) 632-8056

October 17, 1984

Amoco Production Company
Attn: Mr. Buddy Shaw
501 Airport Dr
Farmington, New Mexico 87401

Re: Waiver for Administrative Approval of Downhole Commingling
for Consolidated Oil & Gas, Inc. Northwest 4, Basin Dakota
& B S Mesa Gallup Dual, 890' FNL & 1840' FWL, Sec 8B, T26N,
R4W, Rio Arriba Co., New Mexico

Dear Mr. Shaw:

Consolidated Oil & Gas, Inc. has submitted an application to the New Mexico Oil Conservation Division, as outlined in NMOCDD Rule 303C, to apply for approval to administratively commingle the Dakota and Gallup zones in the subject well. We are notifying your office of our intent, and would like you to sign and return each copy of the Waiver of Objection in the self addressed envelopes.

Please mail the waivers to Frank Chavez, New Mexico Oil Conservation Division, 1000 Rio Brazos Rd., Aztec, New Mexico 87410 and Dale Richardson, Consolidated Oil & Gas, Inc., P. O. Box 2038, Farmington, New Mexico 87499.

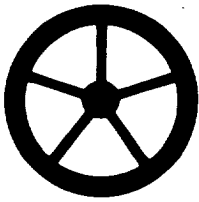
If you have any questions concerning this request please contact Wayne Converse at 632-8056.

Yours very truly,

Dale Richardson
Production & Drilling Superintendent

DER:WLC:wc
Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec



Consolidated Oil & Gas, Inc.

P. O. BOX 2038
FARMINGTON, NEW MEXICO 87499
(505) 632-8056

October 17, 1984

Union Texas Petroleum Company
Attn: Mr. Rudy Motto
P. O. Box 1290
Farmington, New Mexico 87499

Re: Waiver for Administrative Approval of Downhole Commingling
for Consolidated Oil & Gas, Inc. Northwest 4, Basin Dakota
& B S Mesa Gallup Dual, 890' FNL & 1840' FWL, Sec 8B, T26N,
R4W, Rio Arriba Co., New Mexico

Dear Mr. Motto;

Consolidated Oil & Gas, Inc. has submitted an application to the New Mexico Oil Conservation Division, as outlined in NMOCDD Rule 303C, to apply for approval to administratively commingle the Dakota and Gallup zones in the subject well. We are notifying your office of our intent, and would like you to sign and return each copy of the Waiver of Objection in the self addressed envelopes.

Please mail the waivers to Frank Chavez, New Mexico Oil Conservation Division, 1000 Rio Brazos Rd., Aztec, New Mexico 87410 and Dale Richardson, Consolidated Oil & Gas, Inc., P. O. Box 2038, Farmington, New Mexico 87499.

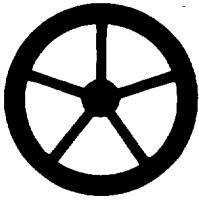
If you have any questions concerning this request please contact Wayne Converse at 632-8056.

Yours very truly,

Dale Richardson
Production & Drilling Superintendent

DER:WLC:wc
Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec



Consolidated Oil & Gas, Inc.

P. O. BOX 2038
FARMINGTON, NEW MEXICO 87499
(505) 632-8056

October 17, 1984

Southern Union Exploration Company
Attn: Mr. Michael Davies
P. O. Box 2179
Farmington, New Mexico 87499

Re: Waiver for Administrative Approval of Downhole Commingling
for Consolidated Oil & Gas, Inc. Northwest 4, Basin Dakota
& B S Mesa Gallup Dual, 890' FNL & 1840' FWL, Sec 8B, T26N,
R4W, Rio Arriba Co., New Mexico

Dear Mr. Davies:

Consolidated Oil & Gas, Inc. has submitted an application to the New Mexico Oil Conservation Division, as outlined in NMOCOD Rule 303C, to apply for approval to administratively commingle the Dakota and Gallup zones in the subject well. We are notifying your office of our intent, and would like you to sign and return each copy of the Waiver of Objection in the self addressed envelopes.

Please mail the waivers to Frank Chavez, New Mexico Oil Conservation Division, 1000 Rio Brazos Rd., Aztec, New Mexico 87410 and Dale Richardson, Consolidated Oil & Gas, Inc., P. O. Box 2038, Farmington, New Mexico 87499.

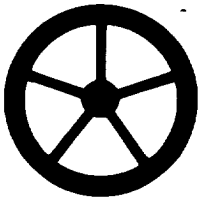
If you have any questions concerning this request please contact Wayne Converse at 632-8056.

Yours very truly,

Dale Richardson
Production & Drilling Superintendent

DER:WLC:wc
Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec



Consolidated Oil & Gas, Inc.

P. O. BOX 2038
FARMINGTON, NEW MEXICO 87499
(505) 632-8056

October 17, 1984

Bureau of Land Management
Attn: Area Manager
Caller Service 4104
Farmington, New Mexico 87499

Re: Waiver for Administrative Approval of Downhole Commingling
for Consolidated Oil & Gas, Inc. Northwest 4, Basin Dakota
& E S Mesa Gallup Dual, 890' FNL & 1840' FWL, Sec 8B, T26N,
R4W, Rio Arriba Co., New Mexico

Gentlemen:

Consolidated Oil & Gas, Inc. has submitted an application to the New Mexico Oil Conservation Division, as outlined in NMOCD Rule 303C, to apply for approval to administratively commingle the Dakota and Gallup zones in the subject well. We are notifying your office of our intent, and would like you to sign and return each copy of the Waiver of Objection in the self addressed envelopes.

Please mail the waivers to Frank Chavez, New Mexico Oil Conservation Division, 1000 Rio Brazos Rd., Aztec, New Mexico 87410 and Dale Richardson, Consolidated Oil & Gas, Inc., P. O. Box 2038, Farmington, New Mexico 87499.

If you have any questions concerning this request please contact Wayne Converse at 632-8056.

Yours very truly,

Dale Richardson
Production & Drilling Superintendent

DER:WLC:wc
Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec

WAIVER OF OBJECTION AND
CONSENT TO COMMINGLE THE
DUAL COMPLETION

FOR CONSOLIDATED OIL & GAS, INC.

THE UNDERSIGNED, as an offset operator/lease holder of a lease

offsetting NORTHWEST 4, DK/MV Dual
 890' FNL & 1840' FWL
 Sec 8B, T26N, R4W
 Rio Arriba Co., New Mexico

Does hereby acknowledge receipt of the letter requesting approval
of commingling of the above captioned well.

The undersigned hereby waives any objection to this application
and voluntarily consents to the commingling of the above captioned
well.

SIGNED: _____

NAME: _____

TITLE: _____

FIRM: _____

DATE: _____

Please find enclosed self addressed envelopes. Mail one copy to
Frank Chavez, New Mexico Oil Conservation Division, 1000 Rio Brazos
Rd., Aztec, New Mexico 87410 and Dale Richardson, Consolidated Oil
& Gas, Inc., P. O. Box 2038, Farmington, New Mexico 87499