



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 Sept 29, 1985

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

Gentlemen:

I have examined the application dated September 28, 1985
for the Union Drilling Corp. Paluifero #4E C-29-312-12w
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve

Yours truly,

Tracy



Union Texas Petroleum

375 U.S. Highway, 64
Farmington, New Mexico 87401
Telephone (505) 325-3587

September 23, 1987

Mr. William LeMay
N. M. Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501-2088

Re: Taliaferro #4E (SF-078244)
830' FNL; 1850' FWL
Section 29-T31N-R12W
San Juan County, New Mexico

RECEIVED
SEP 28 1987
OIL CON. DIV.
DIST. 3

Dear Mr. LeMay:

Union Texas Petroleum is applying for a downhole commingling order for the referenced well in the Basin Dakota and Blanco Mesaverde fields. The ownership of the two zones to be commingled is common. The Bureau of Land Management and the offset operators indicated in the attached plats will receive notification of this proposed downhole commingling.

The subject well was completed during March 1981 in both the Mesaverde and Dakota formations. The well has produced 291 MMCF and 0.8 MBO from the Mesaverde formation and 84 MMCF and .5 MBO from the Dakota formation. Production has averaged 110 MCFD from the Mesaverde and 12 MCFD from the Dakota during 1987.

Because of the low producing rate from the Dakota formation, the gas gatherer, Sunterra Gas Gathering Company, has informed Union Texas Petroleum that it intends to disconnect it. In order to continue producing the marginal Dakota zone in this well, and to recover additional reserves, it is recommended that both the Mesaverde and Dakota be downhole commingled. Commingling will prevent waste and will not violate correlative rights. Liquid production from each zone is negligible and no producing problems are anticipated. Total combined production from both zones has averaged .5 BOPD.

NMOCD
September 23, 1987
Page 2

Fluid samples which were taken from both zones indicate the presence of 100% condensate and no water. The attached fluid analysis indicates the total value of the condensate will not be reduced by commingling. The reservoir characteristics of each of the producing zones are such that underground waste would not be caused by the proposed downhole commingling. The calculated bottom hole pressure, based on shut in surface pressure measurements and negligible liquid production, is 697 psi in the Mesaverde and 644 psi in the Dakota, and within the limits of Rule 303-C, Section 1(b), Part (6). The fluids from each zone are compatible and no precipitates or emulsions will be formed as a result of commingling to damage either reservoir. Current flow tests of 0 water and ± 0.5 BOPD from both zones indicate daily liquid production will not exceed the limit of Rule 303-C, Section 1(a), Parts (1) and (3).

The Aztec District Office will be notified any time the commingled well is shut in for seven consecutive days. To allocate commingled production to each zone, previous production history will be utilized. It is recommended that the following percentages be used: In the Mesaverde 83% gas and 92% oil; and the Dakota 16% gas and 8% oil.

Included in this letter are two plats showing ownership of offsetting leases, a production curve of both zones from the subject well, Form C-116 (GOR test), Fluid Analysis Report, and a wellbore diagram showing the proposed downhole equipment of the subject well.

Very truly yours,

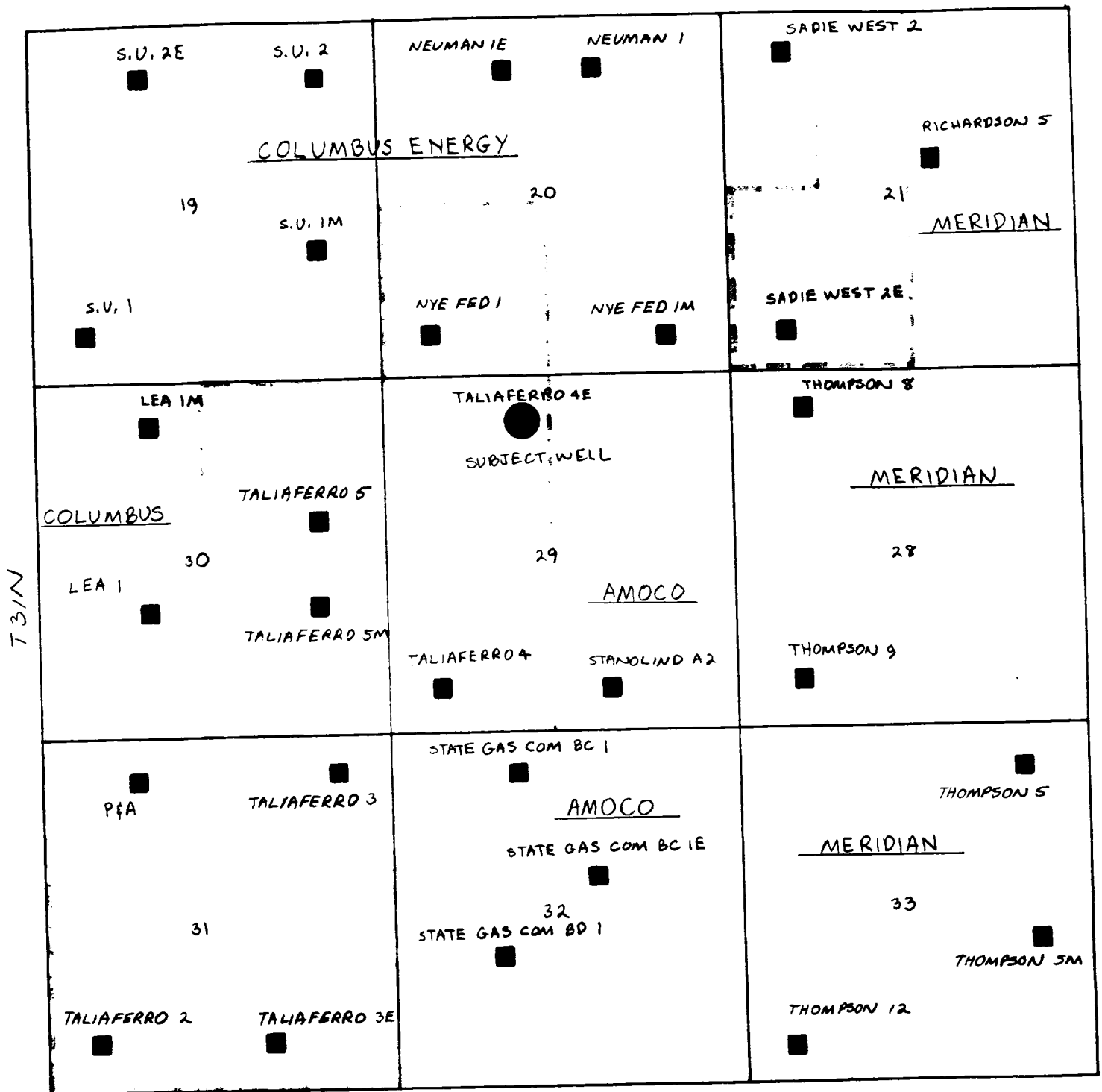
S. G. Katirgis

S. G. Katirgis
Production Engineer

SGK:lmg
attachments

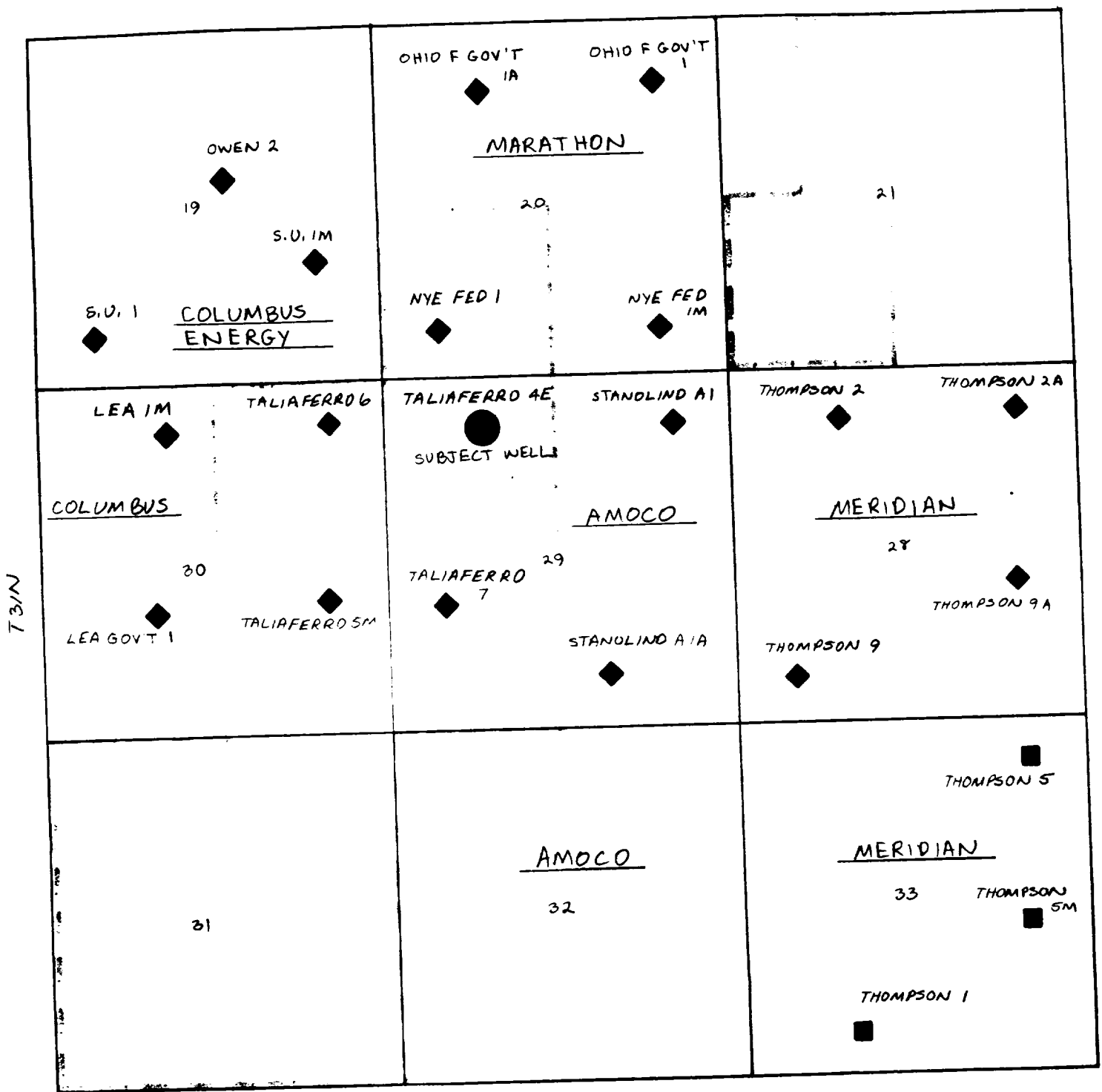
cc: Frank Chavez, Aztec NMOCD
W. K. Cooper
M. R. Herrington

OFFSET OPERATORS DAKOTA WELLS



R12W
UNION TEXAS PETROLEUM
OPERATED ACREAGE

OFFSET OPERATORS MESAVERDE WELLS



UNION TEXAS PETROLEUM
OPERATED ACREAGE

Taliaferro #4E

Proposed Wellbore Diagram

830' FNL; 1850' FNL

Section 29, T31N-R12W

San Juan County, NM

6030' GLE

6041' KBE

11' KB

8 5/8", 26" @ 336'

1 1/2", 8 rd, EVE @ 6333'

4717'

Mesa Verde

4930'

6870'

6972' Dakota

5 1/2", 20" @ 7040'

TD: 7071'

PBTD: 7010'

100

ID: 4676 (43-313705180)

Field: BASIN

Oper: UNION TEXAS PET

Well: TALIAFERRO 4E

County: SAN JUAN, NM

100

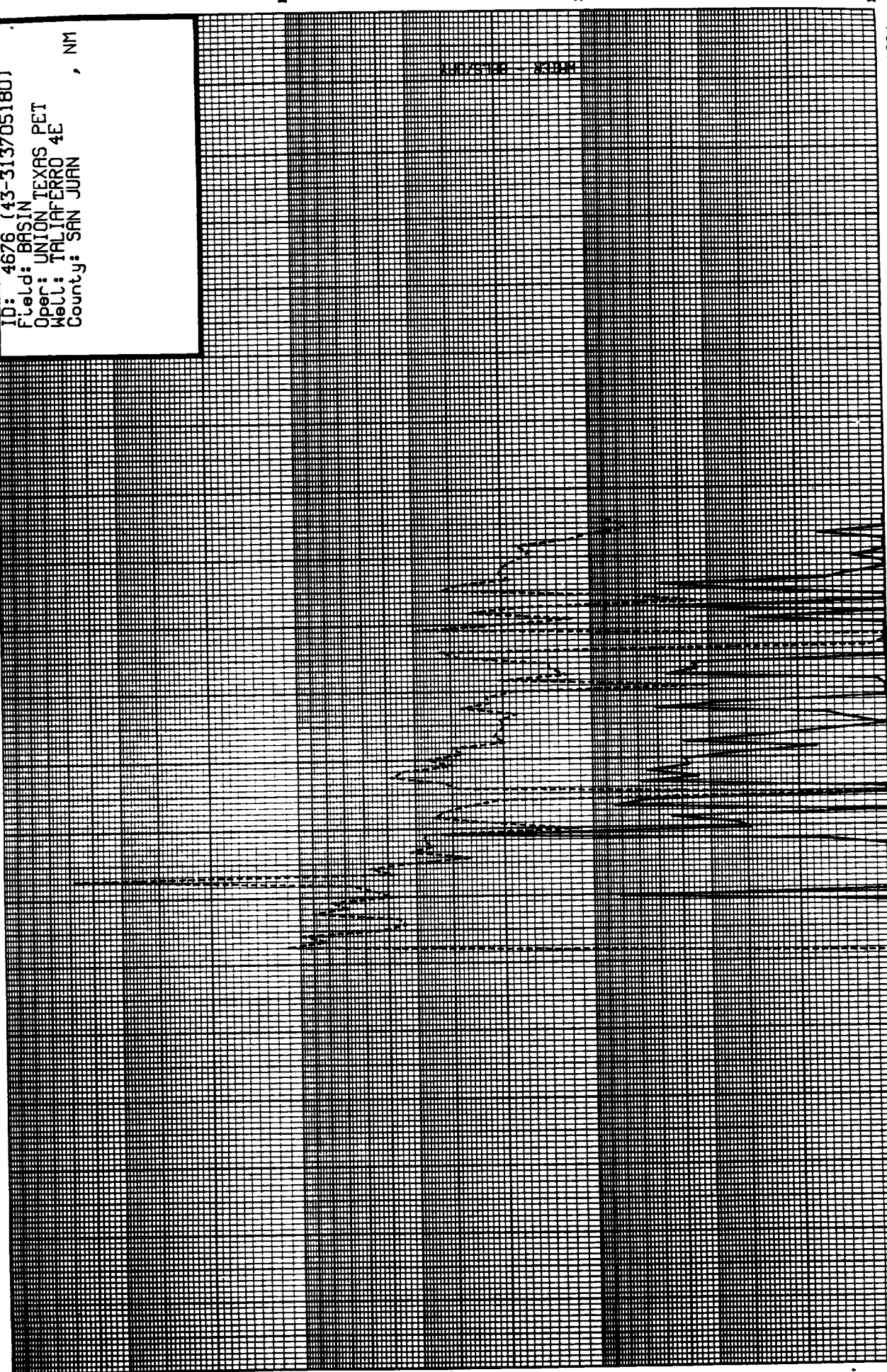
10

1

0.1

OIL - BBL/DAY

EGGS - MCF/DAY



100

1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994

ID: 4677 (43-313/05180)

Field: BLANCO

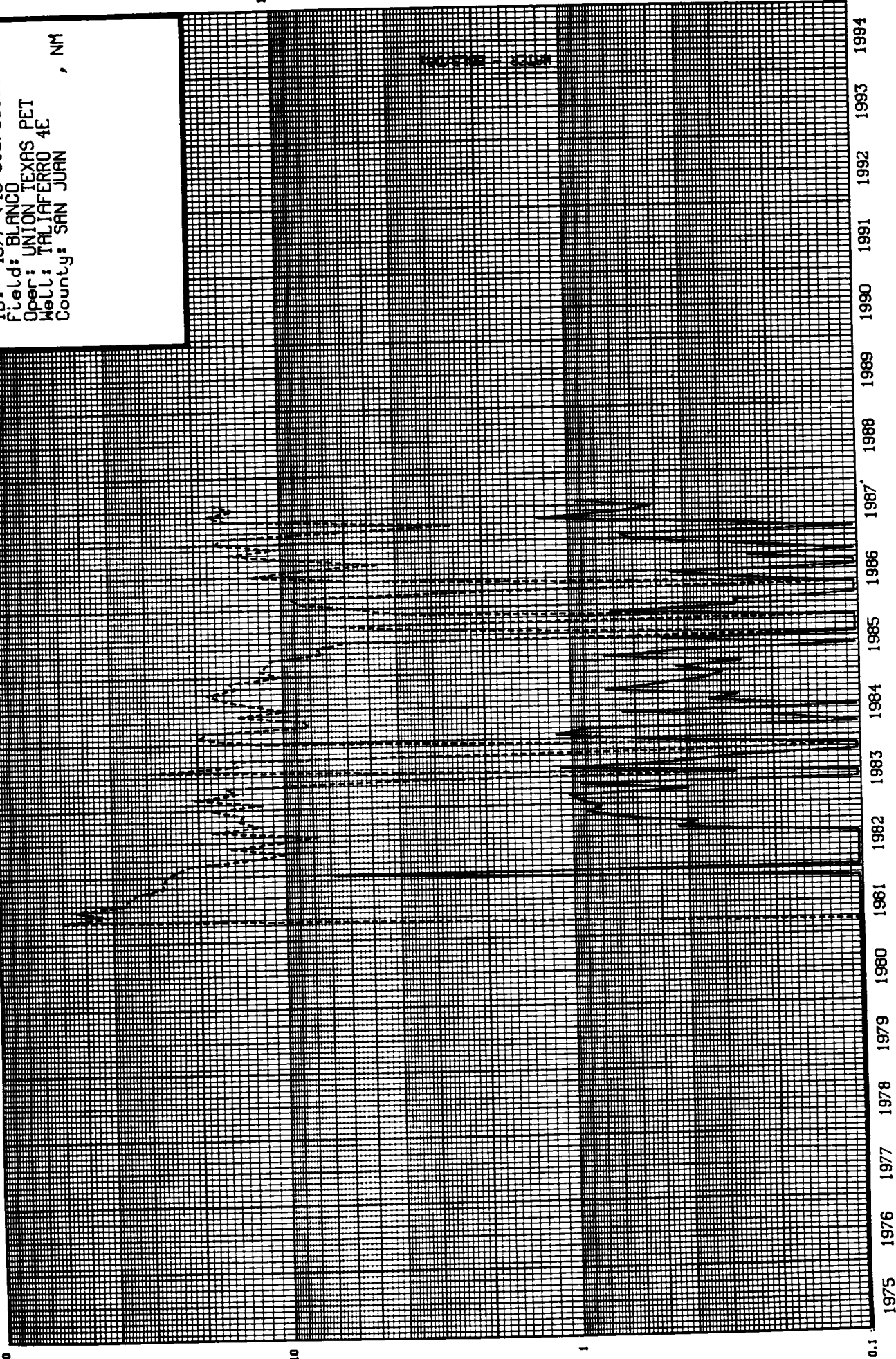
Oper: UNION TEXAS PET

Well: TALIAFERRO 4E

County: SAN JUAN, NM

8

GRS - MCF/DRY



0.1

10

1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994

OIL CONSERVATION DIVISION

P.O. BOX 2088

SANTA FE, NEW MEXICO 87501

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

Form C-116
Revised 10-1-78

GAS-OIL RATIO TESTS

Union Texas Petroleum		Basin Dakota - Blanco Mesaverde		San Juan									
375 US Highway 64 Farmington, NM 87401		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>									
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT/BE
		U	S	T						R	WATER BBLs.	GRAV. OIL	
Taliaferro (Mesaverde) (Dakota)	4E	C	29	31N	12W	7-18-87				24	0	0.5	124
	4E	C	29	31N	12W	7-18-87	350*			24	0	0	14

*estimate

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.

Stergie J. Katigis
(Signature)
Production Engineer



Rocky Mountain Region

COMPATABILITY STUDY OF MIXED
HYDROCARBON FLUIDS
FOR
UNION TEXAS PETROLEUM'S
TALIAFERRO 4-E MESA VERDE
AND DAKOTA INTERVALS

Prepared for:
Sterg Katirgis
Union Texas Petroleum

Prepared by:
Clay Terry
Western Company of North America

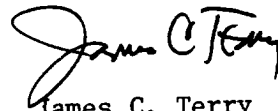
08/27/87

OBSERVATIONS:

Both Mesa Verde and Dakota produced hydrocarbons are clean and clear condensates. Comingling of these produced fluids involves no immiscible fluids such as may be the case in oil or gas producing zones with accompanying H₂O production. API gravity was determined on each sample and on a 50/50 mixture of samples. Emulsion tendencies, scaling and precipitations of solids were investigated.

CONCLUSIONS:

No apparent problems exist in comingling as observed for a 50/50 admixture of these 2 produced fluids. A linear relationship of mixture and resulting API gravity exists suggesting no incompatibility problems involving solids precipitation, emulsion creation or volumetric loss of one or both fluids. There should be no reason why comingling of these two fluids would produce a production problem for this well.



James C. Terry
The Western Company
of North America

Date August 27, 1987

The Western Company

Oil Analysis

Operator <u>Union Texas Petroleum</u>	Date Sampled _____
Well <u>50/50 Mixture</u>	Date Received <u>08/27/87</u>
Field _____	Submitted By <u>Sterg Katirgis</u>
Formation <u>Kd/MV</u>	Worked By <u>Clay Terry</u>
Depth _____	Sample Description <u>50/50 Mixture</u>
County _____	Laboratoru prepared _____
State _____	_____

API Gravity 65.4 ° at 60°F

*Paraffin Content _____ % by weight

*Asphaltene Content _____ % by weight

Pour Point _____ °F

Cloud Point _____ °F

Comments:

Analyst Clay Terry

Date August 27, 1987

The Western Company

Oil Analysis

Operator <u>Union Texas Petroleum</u>	Date Sampled _____
Well <u>Taliaferro 4E</u>	Date Received <u>08/27/87</u>
Field _____	Submitted By <u>Sterg Katirgis</u>
Formation <u>Mesa Verde</u>	Worked By <u>Clay Terry</u>
Depth _____	Sample Description <u>Clear, condensate</u>
County _____	<u>sample; no impurities</u>
State <u>NM</u>	_____

API Gravity 59.5 ° at 60°F

*Paraffin Content _____ % by weight

*Asphaltene Content _____ % by weight

Pour Point _____ °F

Cloud Point _____ °F

Comments:

Analyst Clay Terry

Date August 27, 1987

The Western Company

Oil Analysis

Operator <u>Union Texas Petroleum</u>	Date Sampled _____
Well <u>Taliaferro 4E</u>	Date Received <u>08/27/87</u>
Field _____	Submitted By <u>Sterg Katirgis</u>
Formation <u>Dakota</u>	Worked By <u>Clay Terry</u>
Depth _____	Sample Description <u>Clear condensate</u>
County _____	<u>sample; no impurities</u>
State _____	_____

API Gravity 69.6 ° at 60°F

*Paraffin Content _____ % by weight

*Asphaltene Content _____ % by weight

Pour Point _____ °F

Cloud Point _____ °F

Comments:

Analyst Clay Terry