

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

Form C-104  
Revised 10-01-78  
Format 06-01-83  
Page 1

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

REQUEST FOR ALLOWABLE  
AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

RECEIVED  
DEC 3 1986  
OIL CON. DIV.  
DIST. 3

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
TRANSPORTER	OIL
	GAS
OPERATION	
PRODUCTION OFFICE	

I. Operator  
Amoco Production Co.  
Address  
2325 E. 30 St., Farmington, NM 87401

Reason(s) for filing (Check proper box)  
☐ New Well  
☐ Recompletion  
☐ Change in Ownership  
 Change in Transporter of:  
☐ Oil  
☐ Casinghead Gas  
☐ Dry Gas  
☐ Condensate

Other (Please explain)  
Change in Pool Name per Order R-8273  
From: Otero Gallup

If change of ownership give name and address of previous owner

II. DESCRIPTION OF WELL AND LEASE

Lease Name Jicarilla Contract 148	Well No. 18	Pool Name, including Formation W. Lindrith Gallup-Dakota	Kind of Lease State, Federal or Fee Federal	Lease No. Jicarilla Contract 148
Location Unit Letter <u>F</u> ; <u>1850</u> Feet From The <u>North</u> Line and <u>1590</u> Feet From The <u>West</u> Line of Section <u>23</u> Township <u>25N</u> Range <u>5W</u> , NMPM, <u>Rio Arriba</u> County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input checked="" type="checkbox"/> or Condensate <input type="checkbox"/> Permian Corporation	Address (Give address to which approved copy of this form is to be sent) P. O. Box 1702, Farmington, NM 87499
Name of Authorized Transporter of Casinghead Gas <input checked="" type="checkbox"/> or Dry Gas <input type="checkbox"/> El Paso Natural Gas Company	Address (Give address to which approved copy of this form is to be sent) P. O. Box 990, Farmington, NM 87499
If well produces oil or liquids, give location of tanks. Unit <u>F</u> Sec. <u>23</u> Twp. <u>25N</u> Rge. <u>5W</u>	Is gas actually connected? <input type="checkbox"/> When

If this production is commingled with that from any other lease or pool, give commingling order number:

NOTE: Complete Parts IV and V on reverse side if necessary.

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given is true and complete to the best of my knowledge and belief.

BS Shaw  
(Signature)  
Adm. Supervisor  
(Title)  
12-1-86  
(Date)

OIL CONSERVATION DIVISION  
APPROVED DEC 3 1986  
BY Frank J. Shaw  
TITLE SUPERVISOR DISTRICT 3

This form is to be filed in compliance with RULE 1104.  
If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.  
All sections of this form must be filled out completely for allowable on new and recompleted wells.  
Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.  
Separate Forms C-104 must be filed for each pool in multiply completed wells.

#### IV. COMPLETION DATA

Designate Type of Completion - (X)		Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'ty.	Diff. Res'ty.
Date Spudded	Date Compl. Ready to Prod.		Total Depth			P.B.T.D.			
Elevations (DF, RKB, RT, CR, etc.)	Name of Producing Formation		Top Oil/Gas Pay			Tubing Depth			
Perforations						Depth Casing Shoe			

#### TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT

#### V. TEST DATA AND REQUEST FOR ALLOWABLE (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

#### GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Flowing Method (pilot back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

DECEMBER 2, 1994

NEW MEXICO OIL CONSERVATION DIVISION  
ATTENTION: ERNIE BUSH  
1000 RIO BRAZOS ROAD  
AZTEC, NEW MEXICO 87410

RECEIVED  
DEC - 5 1994  
OIL CON. DIV.  
DIST. 3

JICARILLA CONTRACT 148 #18 RECOMPLETION

(F-23-25N-5W)

THIS WELL HAS EXISTING GALLUP AND CHACRA COMPLETIONS AND THE RECOMPLETION TO THE MESAVERDE WAS APPROVED NOVEMBER 2, 1994. IN ORDER TO OBTAIN STABILIZED RATES FOR A COMMINGLING APPLICATION, AMOCO REQUESTED APPROVAL OF A TESTING PHASE OF UP TO NINETY DAYS IN THE NOTICE OF INTENT. OUR RECOMPLETION TO THE MESAVERDE WAS UNSUCCESSFUL AND WILL BE PLUGGED. A NOTICE OF INTENT DETAILING OUR PROCEDURE WAS SUBMITTED TO THE BLM ON NOVEMBER 30, 1994 ALTHOUGH THE GALLUP HAS BEEN SHUT IN AND ONLY THE CHARCA HAS BEEN PRODUCING, AMOCO PROPOSES TO TEST AND SELL THE GALLUP AND CHACRA DURING A NINETY DAY TEST IN ORDER TO OBTAIN STABILIZED RATES FOR A COMMINGLING APPLICATION.

THE FOLLOWING ARE THE TEMPORARY ALLOCATION PERCENTAGES ;

	OIL	GAS	WATER
CHACRA	0.00	.50	0.00
GALLUP	1.00	.50	1.00

IF THE DATA ACCUMULATED DURING THE TESTING PHASE INDICATES THAT THE PERCENTAGES SHOULD BE REVISED, THE NECESSARY ADJUSTMENTS WILL BE DONE.

THE REQUESTS FOR ALLOWABLE AND AUTHORIZATIONS TO TRANSPORT, FORM C-104, FOR THE CHACRA AND THE GALLUP ARE ATTACHED.

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT ME AT (303) 830-4912.



A. WAYNE BRANAM  
BUSINESS ANALYST

ATTACHMENT

**DOCUMENT 148180CD**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT - " for such proposals

5. Lease Designation and Serial No.

JICARILLA CONTRACT 148

6. If Indian, Allottee or Tribe Name

JICARILLA APACHE

7. If Unit or CA, Agreement Designation

8. Well Name and No.

JICARILLA CONT 148 #18

9. API Well No.

3003922000

10. Field and Pool, or Exploratory Area

BLANCO MESAVERDE

11. County or Parish, State

RIO ARriba NM

1. Type of Well  
☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

AMOCO PRODUCTION COMPANY

Attention:

WAYNE BRANAM, RM 1220

3. Address and Telephone No.

P.O. Box 800, Denver, Colorado 80201

(303) 830-4912

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1850FNL 1590 FWL Sec. 23 T 25N R 5W UNIT F

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent  
☒ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☒ Other PXA  
☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

THE RECOMPLETE TO THE MESAVERDE WAS UNSUCCESSFUL AND WAS PXA'ED PER THE ATTACHED.

RECEIVED  
JAN 10 1995  
OIL & GAS  
DIST. 3

14. I hereby certify that the foregoing is true and correct

Signed

*Wayne Branam*

Title

BUSINESS ANALYST

Date

12-20-1994

(This space for Federal or State office use)

Approved by

*Robert A. Kent*

Conditions of approval, if any:

Title

for Chief, Lands and Mineral Resources

Date

JAN 17 1995

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

**JICARILLA CONTRACT 148 #18 RECOMPLETION ATTEMPT**

111494 MIRU RU BLOWLINES, CHACRA PRESS 330#, GALLUP PRESS 5# AFTER SI 72HRS, SWAB, TAGGED FLUID AT 4000', COULD NOT SWAB PAST 4150', NDWH, NUBOP, TOH W/PKR, SET RBP AT 4900', SET PKR BELOW CHACRA, PRESS TESTED CSG TO 3000#, CSG HELP PRESS FOR 15 MIN W/O BLEED OFF, RAN CMT BOND, GAMMA RAY AND COLLAR LOCATOR LOGS ACROSS MESAVERDE ZONE, SET RBP AT 3864, PRESS TESTED CSG TO 3000#, PRESS HELD, SET PKR AT 3830', CIRC, TOH W/ RBP X PKR, PERF 4680-94 AND 4660-70 W/ 4 JSPF, .37" HOLE AND 19 GRAM CHG, FRAC 4660-94 W/ 478 BBLS WATER, 86,008# 16/30SD, 1,039,312 SCF 70QUALIYT N2 FOAM, FLOW BACK FRAC, BLEW DN PRESS ON CSG, CIRC, PRESS CSG TO 460#, BLEW DOWN TBG, WELL WOULD NOT FLOW, BLEW WELL ALL DAY COULD NOT GET TO FLOW, CIRC, SWAB, SHUT WELL IN, GOT APPROVAL TO PXA, SET CMT RET AT 4525, HAVE RBP AT 4900, SQUEEZE PERFS AT 4660-46700 AND 4680-4694 W/ 100SX CL B, DO RET AND CMT, PRESS TESTED SQUEEZE TO 750, GOOD, CO SAND AND REMOVE RBP, SWABBED, 2 3/8 TBG LANDED AT 6726', GALLUP AND CHACRA ARE BOTH OPEN AND EXPOSED TO SINGLE STRING OF TBG, NO PKR IN HOLE, WELL SHUT IN WAITING ON DOWNHOLE COMMINGLE APPROVAL.



STATE OF NEW MEXICO  
ENERGY, MINERALS and NATURAL RESOURCES DIVISION  
OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE

FILED  
11/11/95  
AZTEC, N.M.

BRUCE KING  
GOVERNOR

ANITA LOCKWOOD  
CABINET SECRETARY

HARDY ROAD  
AZTEC, NEW MEXICO 87410  
(505) 334-6178

Date: 11/2/95

Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87504-2088

RE: Proposed MC	Proposed DHC <u>X</u>
Proposed NSL	Proposed SWD
Proposed WFX	Proposed PMX
Proposed NSP	Proposed DD

Gentlemen:

I have examined the application received on 9/27/95  
for the Amoco Jicamilla Contract 148 #18  
OPERATOR LEASE & WELL NO.

F-23-25N-SW and my recommendations are as follows:  
UL-S-T-R

Approve  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours truly,  
[Signature]



September 22, 1995

Mr. William J. LeMay, Director  
New Mexico Oil Conservation Division  
2040 S. Pacheco Street  
P. O. Box 6429  
Santa Fe, NM 87504

**Application for Exception to Rule 303-A - Downhole Commingling**  
**Jicarilla Contract 148 #18 Well**  
**1850' FNL, 1590' FWL, Section 23-T25N-R5W**  
**Otero Chacra and West Lindrith Gallup-Dakota Pool**  
**Rio Arriba County, New Mexico**

Southern

Rockies

Business

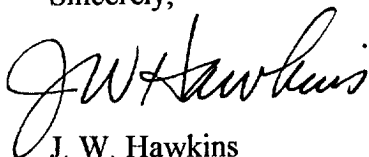
Unit

**RECEIVED**  
SEP 27 1995  
**OIL CON. DIV.**  
**DIST. 3**

Amoco Production Company hereby requests administrative approval to downhole commingle production from the Otero Chacra and West Lindrith Gallup-Dakota Pool in the Jicarilla Contract 148 #18 well referenced above. These two pools have been producing commingled in this well under temporary approval following an unsuccessful recompletion to the Mesaverde. The ownership of these two pools is identical in this wellbore. Downhole commingling will offer an economical method of production while protecting against reservoir damage, waste of reserve and violation of correlative rights.

The BLM and offset operators to this well will receive a copy of this application by certified mail, return receipt requested. If there are any questions concerning this matter, please contact me at (303) 830-5072.

Sincerely,

  
J. W. Hawkins

Enclosures

cc: Steve Smethie

~~XXXXXXXXXXXXXXXXXXXX~~  
NMOCD District III  
1000 Rio Brazos Road  
Aztec, NM 87410

Amerada Hess Corp  
PO BOX 68  
Farmington NM 87499

Robert Kent  
Bureau of Land Management  
435 Montano NE  
Albuquerque, NM 87107



## Application for Exception to Rule 303: SEGREGATION OF PRODUCTION FROM POOLS

### Requirements

- (1) Name and address of the operator:

Amoco Production Company  
P.O. Box 800  
Denver, CO 80201

- (2) Lease name, well number, well location, name of the pools to be commingled:

Lease Name: Jicarilla Contract 148  
Well Number: #18  
Well Location: 1850' FNL & 1590' FWL  
Section 23, T25N-R5W  
Rio Arriba County, New Mexico  
Pools Commingled: Otero Chacra  
West Lindreth Gallup-Dakota

- (3) A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.

Attached

- (4) A current (within 30 days) 24-hour productivity test on Division Form C-116 showing the amount of oil, gas and water produced from each zone.

Prior to recompletion, the Otero Chacra produced an average stabilized rate of 15 mcf/d and no liquids. The West Lindreth Gallup-Dakota zone was loaded up and produced only intermittently. Since the two zones have been commingled they have been producing at an average stabilized rate of about 125 mcf/d with some condensate and water.

- (5) A production decline curve for both zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes. (This requirement may be dispensed within the case of a newly completed or recently completed well which has little or no production history. However, a complete resume of the well's completion history including description of treating, testing, etc., of each zone, and a prognostication of future production from each zone shall be permitted.)

Otero Chacra Completion:	Historical production curve attached.
West Lindreth Gallup-Dakota Completion:	Historical production curve attached.

- (6) Estimated bottomhole pressure for each artificially lifted zone. A current (within 30 days) measured bottom hole pressure for each zone capable of flowing.

	BH Pressure	SI Tubing Press.	Fluid Level
Otero Chacra Completion:	376 psia	330 psig	0'
West Lindreth Gallup-Dakota Completion	789 psia	5 psig	4000'

The Chacra BHP is calculated at the top of perfs @ 3885'. The Gallup-BHP is calculated at the top of the perf @ 6396'. When the Gallup pressure is calculated at a common datum as the Chacra (3885') using the gas gradient of 0.017 psi/ft at reservoir conditions, the pressure is 744 psia which is within the 50% tolerance of the pressure limitations.

- (7) A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the wellbore.

The fluids have no abnormal components that would prohibit commingling, or promote the creation of emulsions or scale (see attached produced gas analysis).

- (8) A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams:

Since the BTU content of the produced fluids are very similar, we would expect the commingled production to have the same value as the sum of the individual streams.

- (9) A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formula:

Based on the historical production for the Chacra making 15 mcf/d and no liquids and the Chacra and Gallup zones currently commingled producing an average of about 125 mcf/d, we recommend a gas allocation factor of 12% for the Chacra and 88% for the Gallup. We recommend to allocate 100% of the liquids to the Gallup zone.

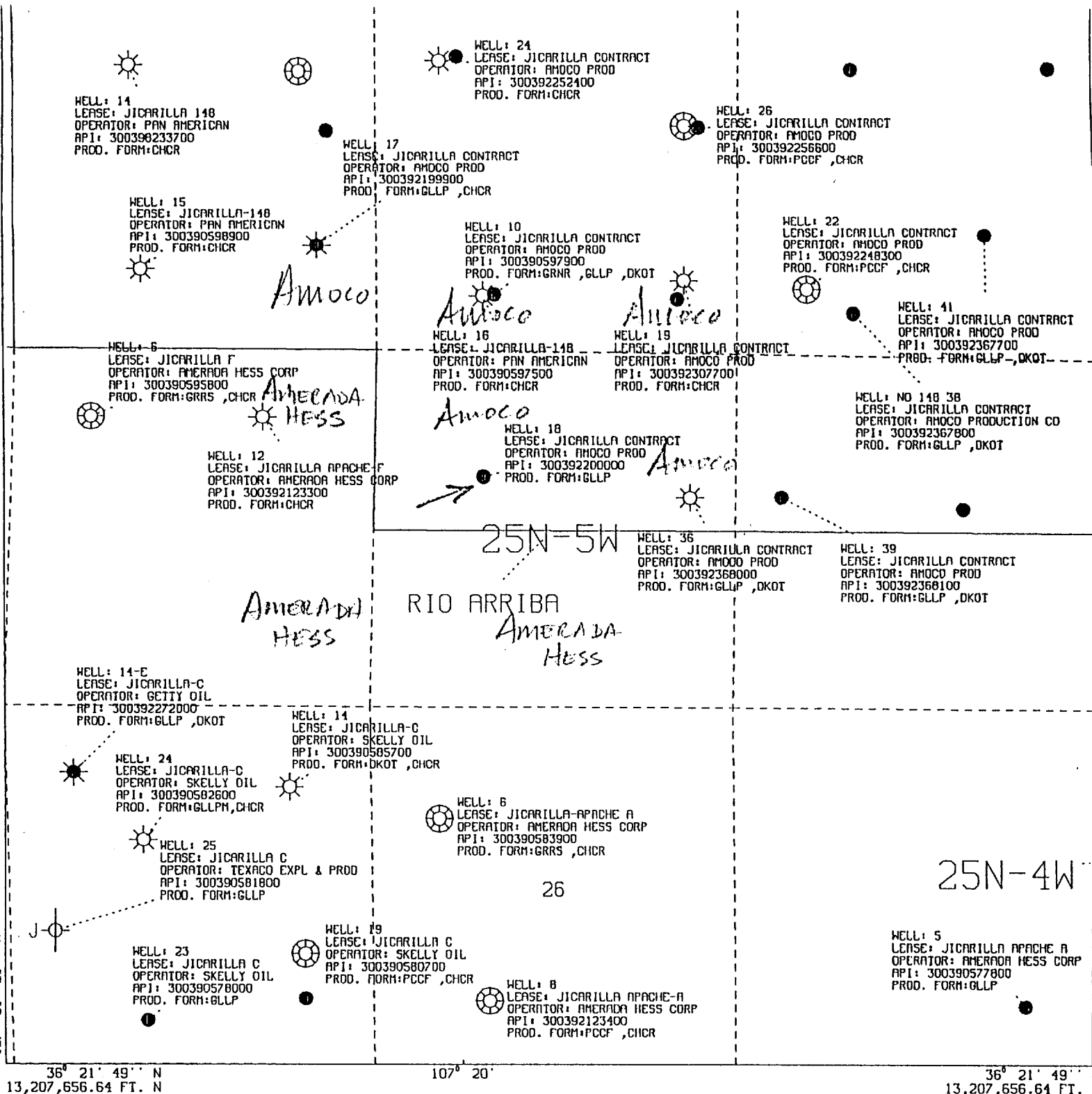
- (10) A statement that all offset operators and, in the case of a well on federal land, the United States Bureau of Land Management, have been notified in writing of the proposed commingling.

BLM will receive a copy of this application by certified mail.

The offsetting operator, Amerada Hess Corp., will receive a copy of this application by certified mail.

992,008.51 FT. E  
107° 21' 21" W

992,004.08 FT. E  
107° 21' 21" W



All geological and geophysical data, including the interpretation thereof, appearing on this map is the private and confidential property of Amoco Production Company. The publication or reproduction thereof without the written permission of said Company is strictly prohibited.

## AMOCO PRODUCTION COMPANY PLAT MAP

POLYCONIC CENTRAL MERIDIAN - 107° 19' 44" W LON  
SPHEROID - 6

JICARILLA CONTRACT 148 NO 18  
CHACRA AND GALLUP OFFSET WELLS  
SCALE 1 IN. = 2,000 FT DEC 16 1994

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

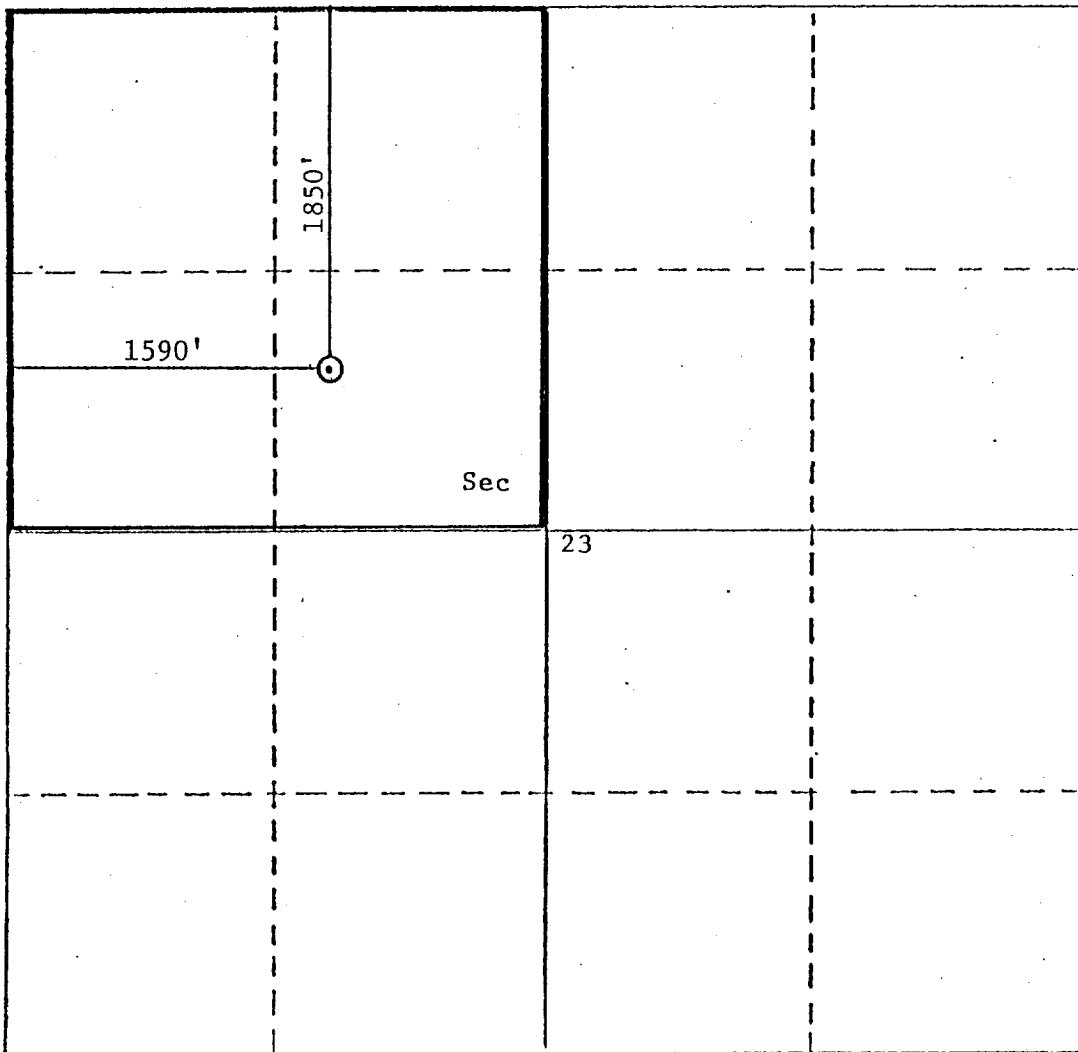
Operator <b>AMOCO PRODUCTION COMPANY</b>		Lease <b>Jicarilla Contract 148</b>		Well No. <b>18</b>
Unit Letter <b>F</b>	Section <b>23</b>	Township <b>25N</b>	Range <b>5W</b>	County <b>Rio Arriba</b>
Actual Footage Location of Well:				
1850 feet from the North line and		1590 feet from the West line		
Ground Level Elev. <b>6815</b>	Producing Formation <b>Chacra</b>	Pool <b>Otero Chacra</b>	Dedicated Acreage: <b>160 Acres</b>	

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

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

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

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



**CERTIFICATION**

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

*R.A. Downey*  
Name  
**R.A. DOWNEY**

Position  
**DISTRICT ENGINEER**

Company  
**AMOCO PRODUCTION COMPANY**

Date  
**AUGUST 5, 1980**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed  
**November 30, 1978**

Registered Professional Engineer  
and/or Land Surveyor

Original signed by  
**Fred B. Kerr, Jr.**

Certificate No.  
**3950**

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

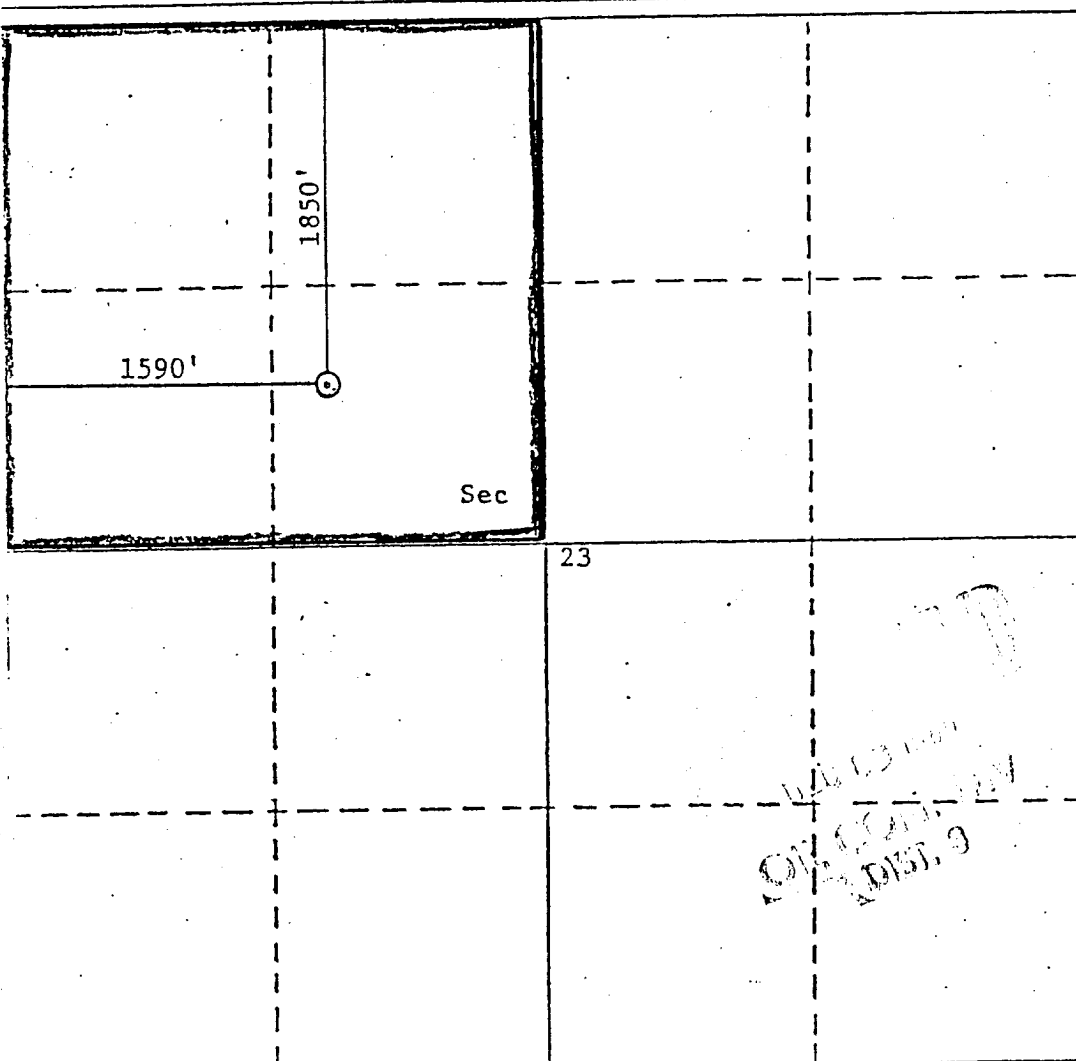
Operator <b>AMOCO PRODUCTION COMPANY</b>		Lease <b>Jicarilla Contract 148</b>		Well No. <b>18</b>
Oil Letter <b>F</b>	Section <b>23</b>	Township <b>25N</b>	Range <b>5W</b>	County <b>Rio Arriba</b>
Actual Footage Location of well: 1850 feet from the North line and 1590 feet from the West line Ground Level Elev. <b>6815</b> Producing Formation <b>Gallup-Dakota</b> Pool <b>West Lindrith Gallup-Dakota</b> Dedicated Acreage <b>160</b> Acres				

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

☐ Yes ☐ No. If answer is "yes," type of consolidation \_\_\_\_\_

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

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



CERTIFICATION

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

**B. D. Shaw**

B. D. Shaw

Adm. Supervisor

Amoco Production Co.

December 1, 1986

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

November 30, 1978

Registered Professional Engineer and/or Land Surveyor

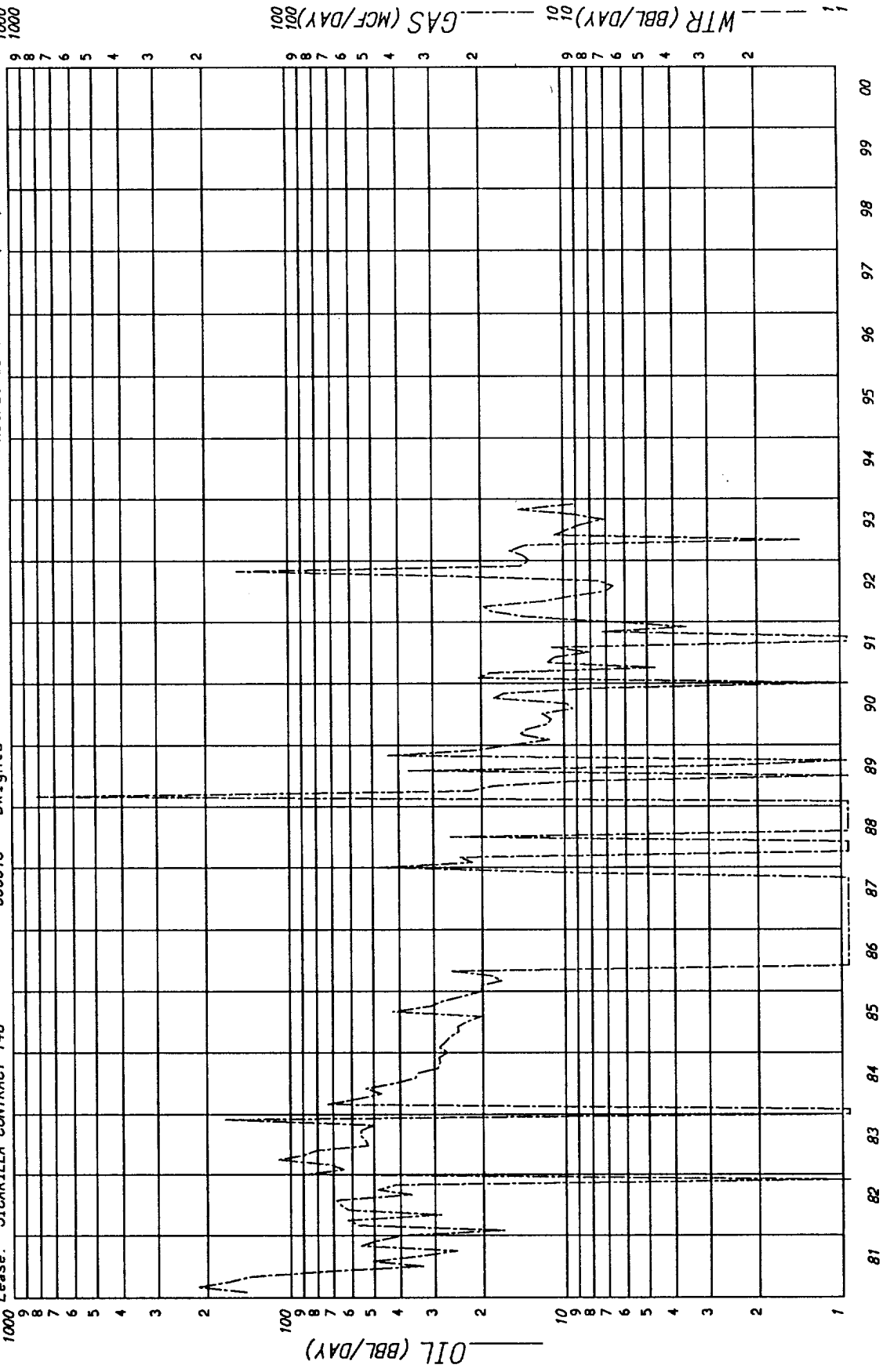
Original signed by  
**Fred B. Kerr, Jr.**

Certificate No.

3950

NOV 13 1978  
OIL & GAS DIV.  
DIST. 9

Lease: JICARILLA CONTRACT 148      000018      Dights      Retrieval Code: 251,039,25N05W23F00CK      1000      1000

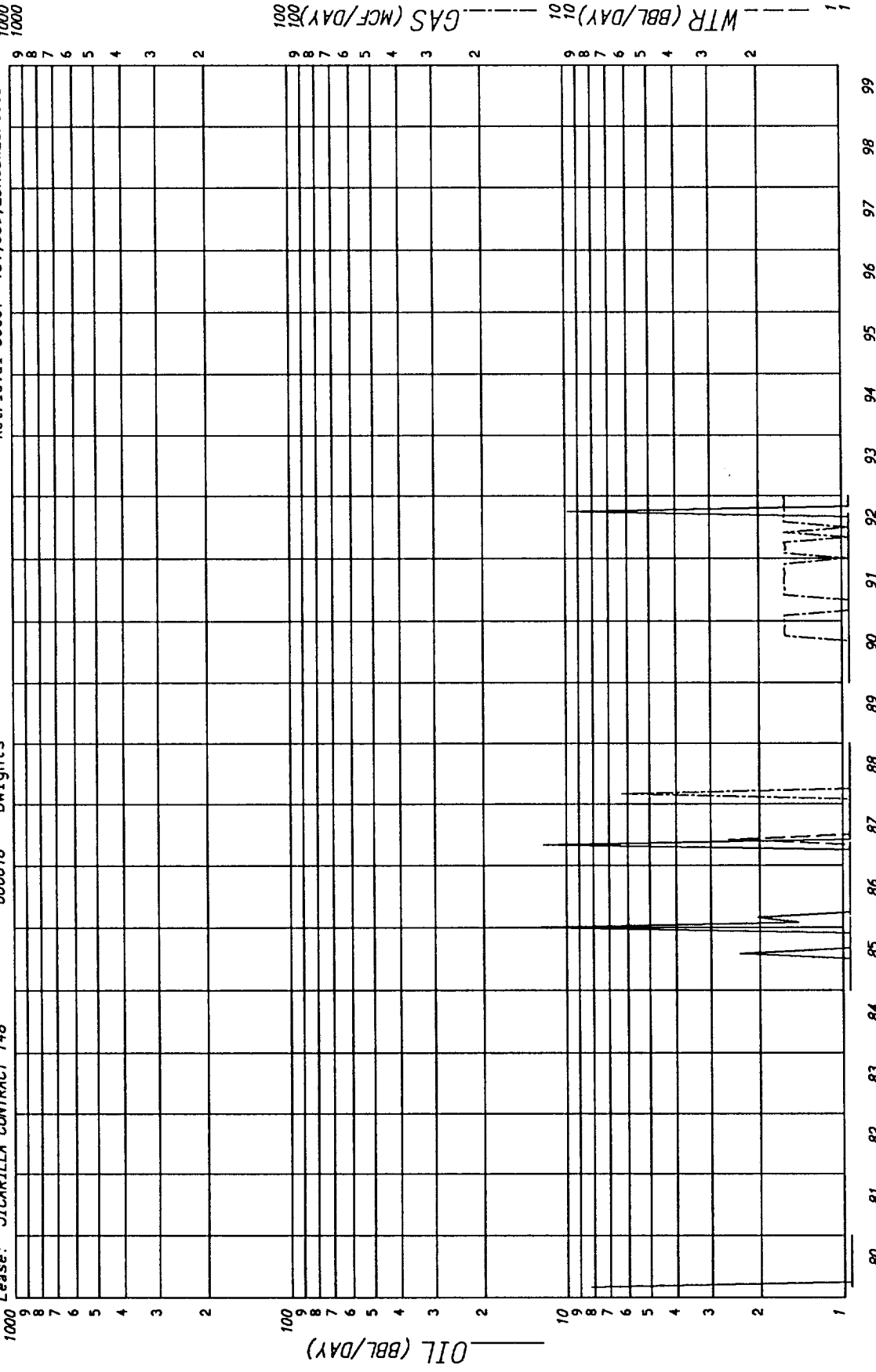


County: RIO ARriba      State: NM  
Field: OTERO (CHACRA) CK  
Reservoir: CHACRA  
Operator: AMOCO PRODUCTION CO  
Oil Cum: 0      Gas Cum: 106867  
Location: 23F 25N 5W

Date: 09-20-94

F.P. Date 01-81

Lease: JICARILLA CONTRACT 148      000018      Dwrights      Retrieval Code: 151.039,25N05W23F00G0



County: RIO ARriba      State: NM  
Field: LINDRITH WEST (GALLUP DAKOTA) GO  
Reservoir: GALLUP DAKOTA  
Operator: AMOCO PRODUCTION CO  
Oil Cum: 1231      Gas Cum: 1234  
Location: 23F 25N 5W

F.P. Date 02-80      Date: 09-20-94

AMOCO FARMINGTON NM 11-15-94 ; 9:36AM ; PHONE NO. : 505 326 2555  
 1115 Farmington Avenue  
 Farmington, N.M. 87401  
 (505) 325-6622  
 No. AMO41531  
 15400

SENT BY: AMOCO FARMINGTON NM 11-15-94 ; 9:37AM ; AMOCO SJOC-  
 PHONE NO. : 505 326 2555

3038304777;# 4/ 7  
 P03



1115 Farmington Avenue  
 Farmington, N.M. 87401  
 (505) 325-6622

Analysis No. AMO41531  
 Cust. No. 12300 15400

# WELL/LEASE INFORMATION

Company : AMOCO PRODUCTION COMPANY  
 Well Name : JICARILLA CONT. 148-18  
 County : RIO ARRIERA  
 State : NM  
 Location : 23-25N-5W  
 Fld/Formation : GALLUP  
 Cust.Stn.No. :  
 Source :  
 Pressure : 5 PSIG  
 Sample Temp. : N/A DEG.F  
 Well Flowing : NO  
 Date Sampled : 11/13/94  
 Sampled By : O.D.B.  
 Foreman/Engr : MIKE ROWLAND

Remarks: PRESSURED W/ HELIUM TO 15#,  
 UNNORMALIZED TOTAL = 70.76%

## ANALYSIS

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR.*
NITROGEN	1.419	0.0000	0.00	0.0137
CO2	1.155	0.0000	0.00	0.0176
METHANE	88.828	0.0000	868.84	0.4754
ETHANE	5.848	1.5643	102.73	0.0507
PROPANE	3.168	0.8731	79.89	0.0482
I-BUTANE	0.505	0.1652	16.46	0.0101
N-BUTANE	0.773	0.2437	25.28	0.0155
I-PENTANE	0.230	0.0842	9.22	0.0057
N-PENTANE	0.172	0.0623	5.91	0.0043
HEXANES	0.902	0.3935	46.37	0.0290
TOTAL	100.000	3.3863	1156.70	0.6802

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY  
 \*\* @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z) 1.0030  
 BTU/CU.FT. (DRY) CORRECTED FOR (1/Z) 1160.2  
 BTU/CU.FT. (WET) CORRECTED FOR (1/Z) 1140.0  
 REAL SPECIFIC GRAVITY 0.6820

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER # : AZT009  
 CYLINDER PRESSURE : 5 PSIG  
 DATE RUN : 11/14/94  
 ANALYSIS RUN BY : CHELLE DUBBIN



**JICARILLA CONTACT 148 #18**  
**PRODUCTION ALLOCATION PERCENTAGES**

PRODUCING WITH A PLUNGER APPROX 125 MCFD

THE CHACRA PRODUCED 15 MCFD, 0 BOD AND 0 BWD BEFORE PRODUCTION WAS COMMINGLED. THE WELL IS PRODUCING OIL AND WATER NOW, SO THE LIQUIDS SHOULD BE ALLOCATED TO THE GALLUP. THE RECOMMEDED PRODUCTION ALLOCATION FAFACTORS ARE:

<u>FORMATION</u>	<u>GAS</u>	<u>OIL</u>	<u>WATER</u>
CHACRA	.12	0	0
GALLUP	.88	1.00	1.00

IF THERE ARE ANY QUESTIONS OR CONCERNS REGARDING THESE RECOMMEDED PRODUCTION ALLOCATION FACTORS, PLEASE CONTACT STEVE SMETHIE (303) 830-5892.

14818DHC

# NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

## OIL CONSERVATION DIVISION

### CORRECTED ADMINISTRATIVE ORDER DHC-1165

Amoco Production Company  
P.O. Box 800  
Denver, Colorado 80201-0800

Attention: Ms. Pamela Staley

RECEIVED  
NOV - 2 1995

*Jicarilla Contract 148 Well No.18  
Unit F, Section 23, Township 25 North, Range 5 West, NMPM,  
Rio Arriba County, New Mexico.  
Otero Chacra (Gas) and West Lindrith Gallup- Dakota Pools*

OIL CON. DIV.  
DIST. 3

Dear Ms. Staley:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations to permit the subject well to commingle 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 30 barrels per day, and total water production shall not exceed 60 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 allowable for each respective prorated pool as printed in the 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:

Otero Chacra (Gas) Pool	Oil 0%	Gas 12%
West Lindrith Gallup-Dakota Pool	Oil 100%	Gas 88%

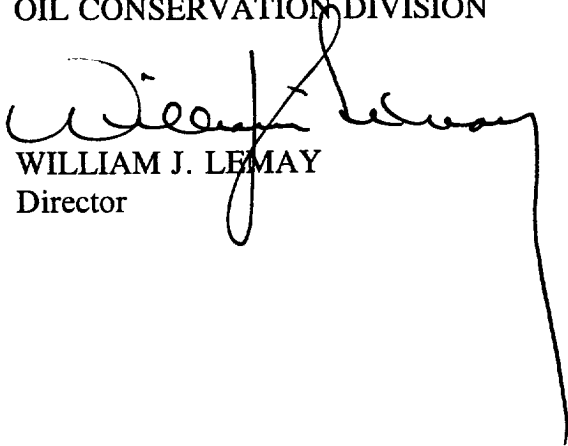
REMARKS: The operator shall notify the Aztec District Office of the Division upon implementation of the commingling process.

OFFICE OF THE SECRETARY - P. O. BOX 6429 - SANTA FE, NM 87505-6429 - (505) 827-5950  
ADMINISTRATIVE SERVICES DIVISION - P. O. BOX 6429 - SANTA FE, NM 87505-6429 - (505) 827-5925  
ENERGY CONSERVATION AND MANAGEMENT DIVISION - P. O. BOX 6429 - SANTA FE, NM 87505-6429 - (505) 827-5900  
FORESTRY AND RESOURCES CONSERVATION DIVISION - P. O. BOX 1948 - SANTA FE, NM 87504-1948 - (505) 827-5830  
MINING AND MINERALS DIVISION - P. O. BOX 6429 - SANTA FE, NM 87505-6429 - (505) 827-5970  
OIL CONSERVATION DIVISION - P. O. BOX 6429 - SANTA FE, NM 87505-6429 - (505) 827-7131  
PARK AND RECREATION DIVISION - P. O. BOX 1147 - SANTA FE, NM 87504-1147 - (505) 827-7465

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

Approved at Santa Fe, New Mexico on this 20th day of October, 1995.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
WILLIAM J. LEMAY  
Director

S E A L

WJL/BES

cc: Oil Conservation Division - Aztec ✓  
Bureau of Land Management - Farmington