

DISTRICT I
 P.O. Box 1980, Hobbs, NM 88241 1980

State of New Mexico
 Energy, Minerals and Natural Resources Department

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

DISTRICT II
 811 South First St. Artesia NM 88210 2835

OIL CONSERVATION DIVISION

2040 S. Pacheco
 Santa Fe, New Mexico 87505-6429

APPROVAL PROCESS:
 Administrative Hearing

DISTRICT III
 1000 Rio Brazos Rd. Aztec, NM 87410 1693

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE
 YES NO

Operator Conoco Inc. Address 10 Desta Dr. Ste 100W, Midland, Tx. 79705-4500

Lease Jicarilla A Well No #14 Unit Ltr Sec Twp Rge Section 24, T-26-N, R-4-W, A County Rio Arriba

OGRID NO. 005073 Property Code 18018 API NO. 30-039-20629 Spacing Unit Lease Types: (check 1 or more)
 Federal 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	Blanco Mesaverde 72319		Wild Horse Gallup 87360
2. TOP and Bottom of Pay Section (Perforations)	5584-6016'		7534-7550'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a (Current) 376	a.	a. 305
	b(Original) 1302 psi	b.	b. 696 psi
6. Oil Gravity (°API) or Gas BT Content	1304		1354
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		Yes
• If Shut-In give date and oil/gas/water rates of last production Note For new zones with no production history applicant should be required to attach production estimates and supporting data • If Producing, date and oil/gas/water rates of recent test (within 60 days)	Date Rates	Date Rates	Date Rates
	10/98 264. MCFD, 0 BOPD, 1.5 BWPD	10/98 83 MCFD, 0 BOPD, 1.6 BWPD	
8. Fixed Percentage Allocation Formula - % or each zone	oil: 14 % Gas 40 %	oil: % Gas %	oil: 86 % Gas 60 %

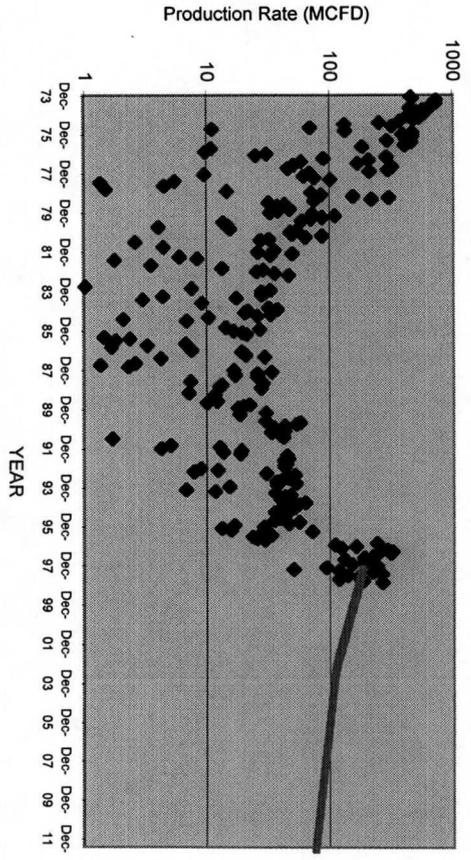
9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical in all commingled zones? Yes No
 If not, have all working, overriding, and royalty interests been notified by certified mail? Yes No
 Have all offset operators been given written notice of the proposed downhole commingling? Yes No
11. Will cross-flow occur? Yes 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 others Yes No
13. Will the value of production be decreased by commingling? Yes 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. 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.

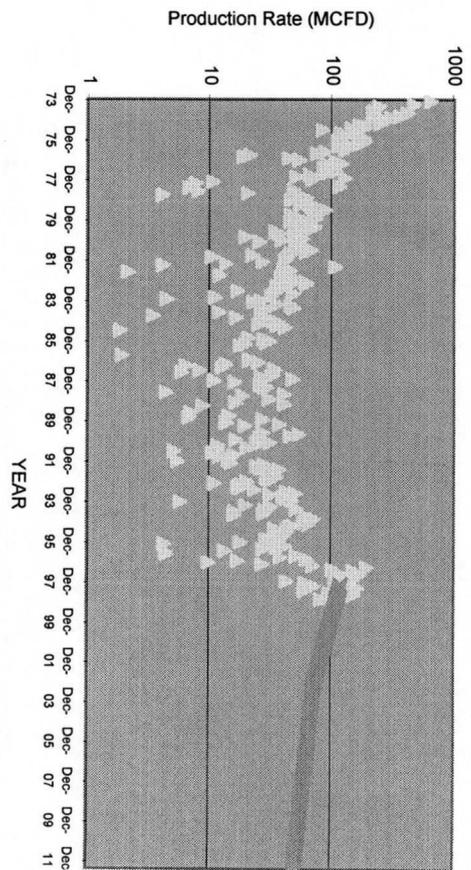
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Kay Maddox TITLE Regulatory Agent DATE December 7, 1998
 TYPE OR PRINT NAME Kay Maddox TELEPHONE NO. (915) 686-5798

JICARILLA A 14 - GP / MV / DHC
 26N-4W-24A, Rio Arriba County, New Mexico



JICARILLA A 14 - GP / MV / DHC
 26N-4W-24A, Rio Arriba County, New Mexico

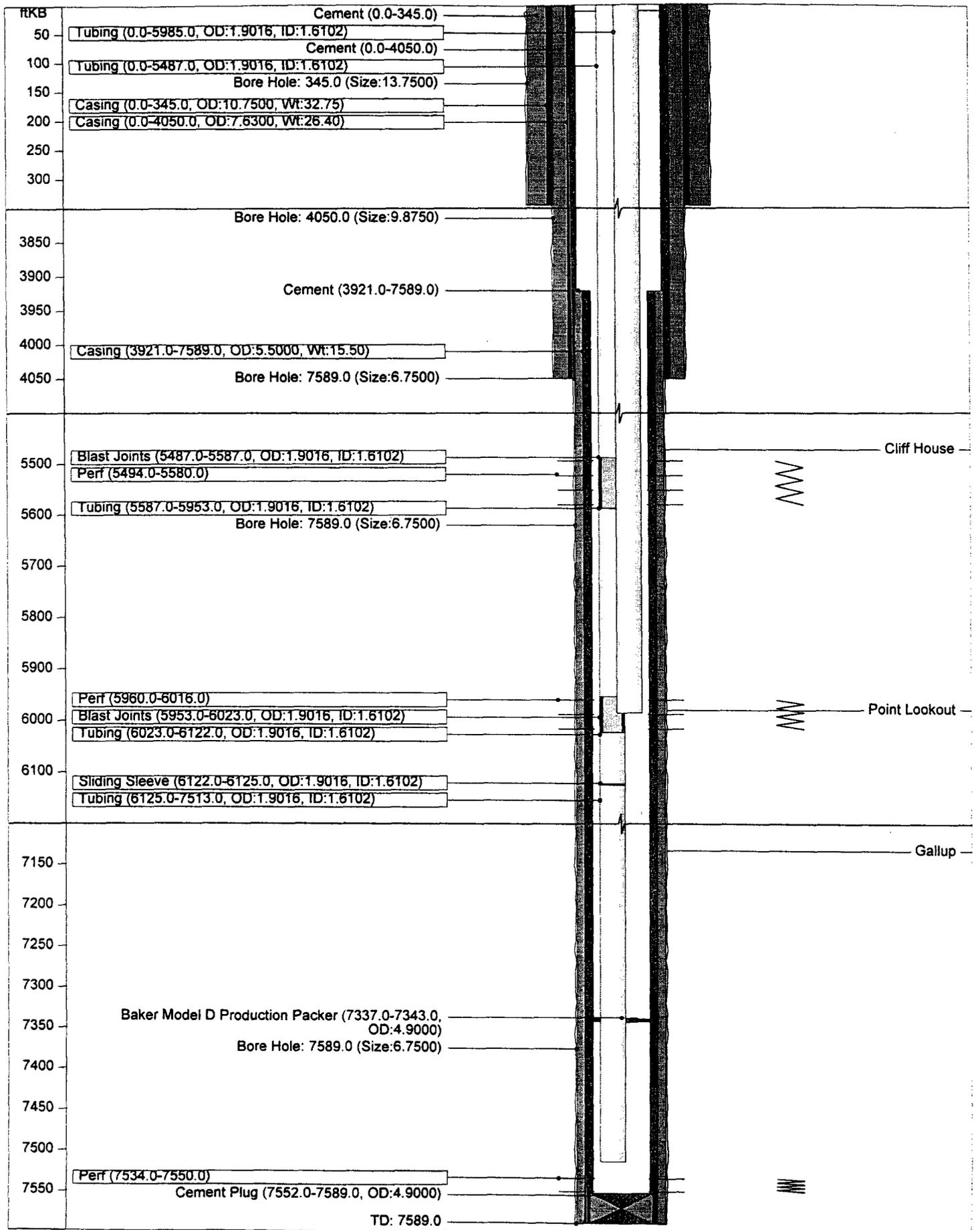


GALLUP	
Historical Data:	1st Prod - Dec-73
Oil Cum:	5.258 Mbo
Gas Cum:	776.5 MMcf
Oil Yield:	0.00677 Bbl/Mcf
Projected Data:	1/99 Qi:
	Decline Rate:
	166.4 Mcfd
	10.0 %

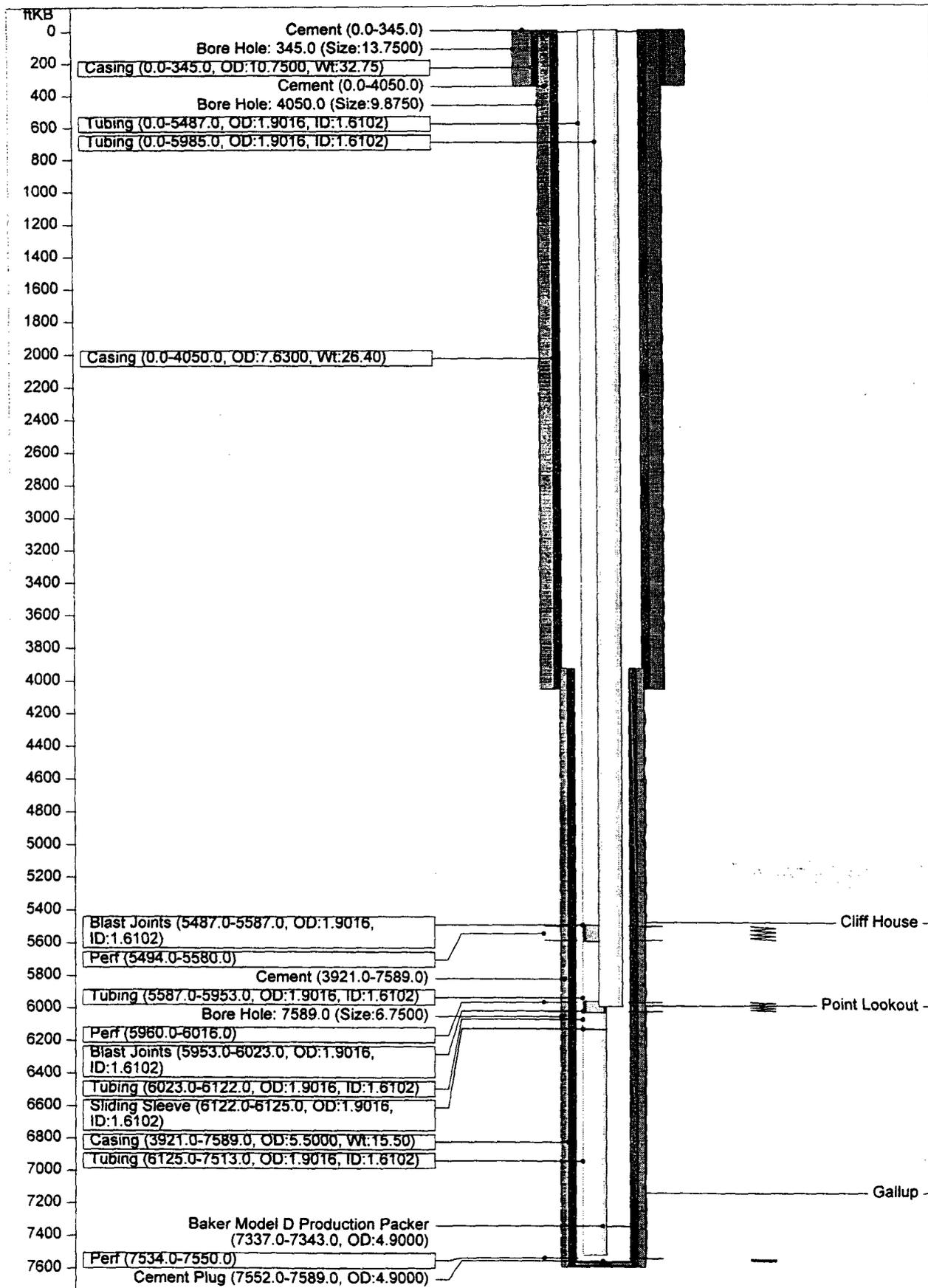
MESAVERDE	
Historical Data:	1st Prod - Dec-73
Oil Cum:	0.54 Mbo
Gas Cum:	500.2 MMcf
Oil Yield:	0.00108 Bbl/Mcf
Projected Data:	1/99 Qi:
	Decline Rate:
	109.4 Mcfd
	10.0 %

Fixed Commingle Allocation Factors:				
	GAS		OIL	
Gallup	60.3%		86.2%	
Mesaverde	39.7%		13.8%	

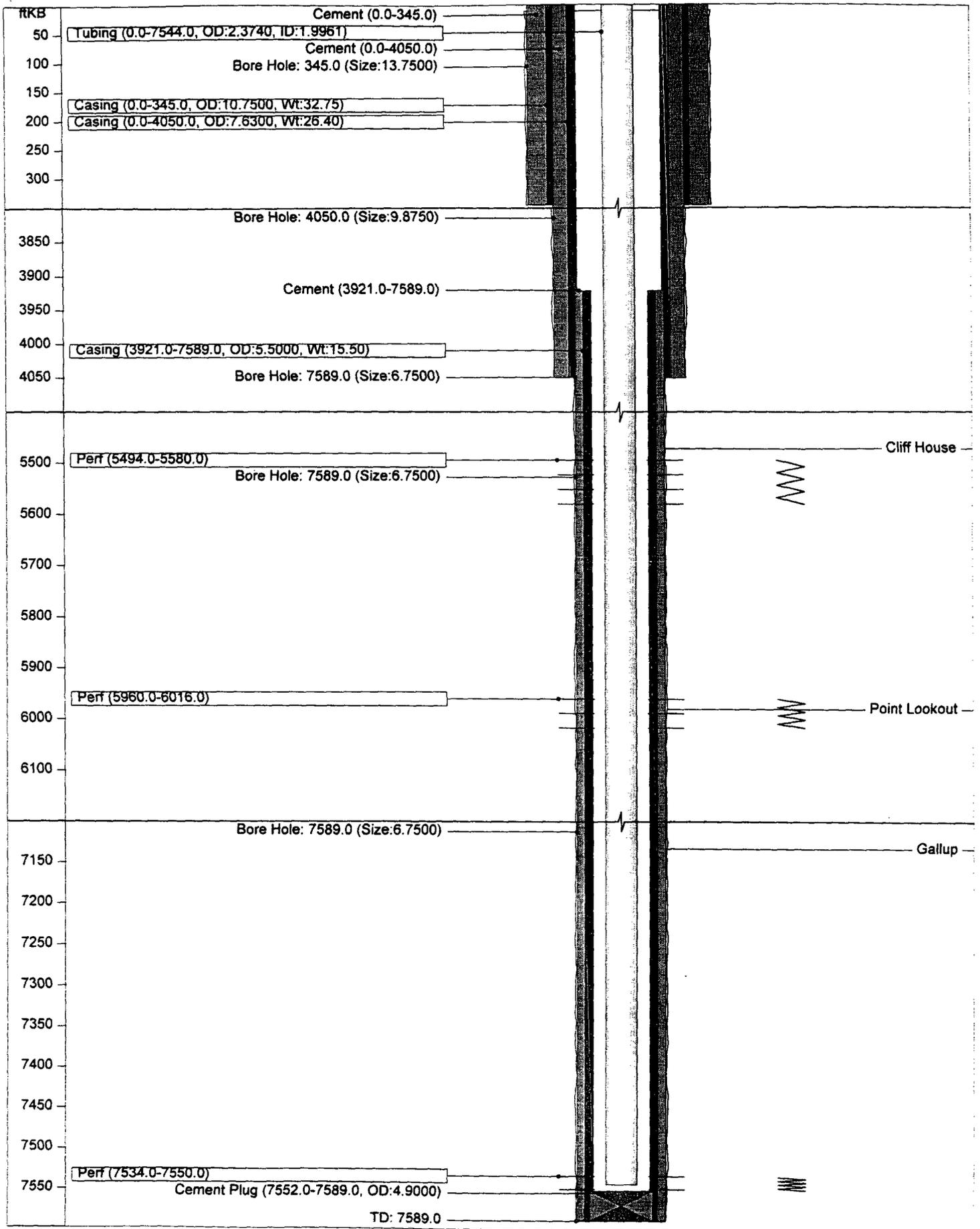
Jicarilla A #14 (Current Configuration)



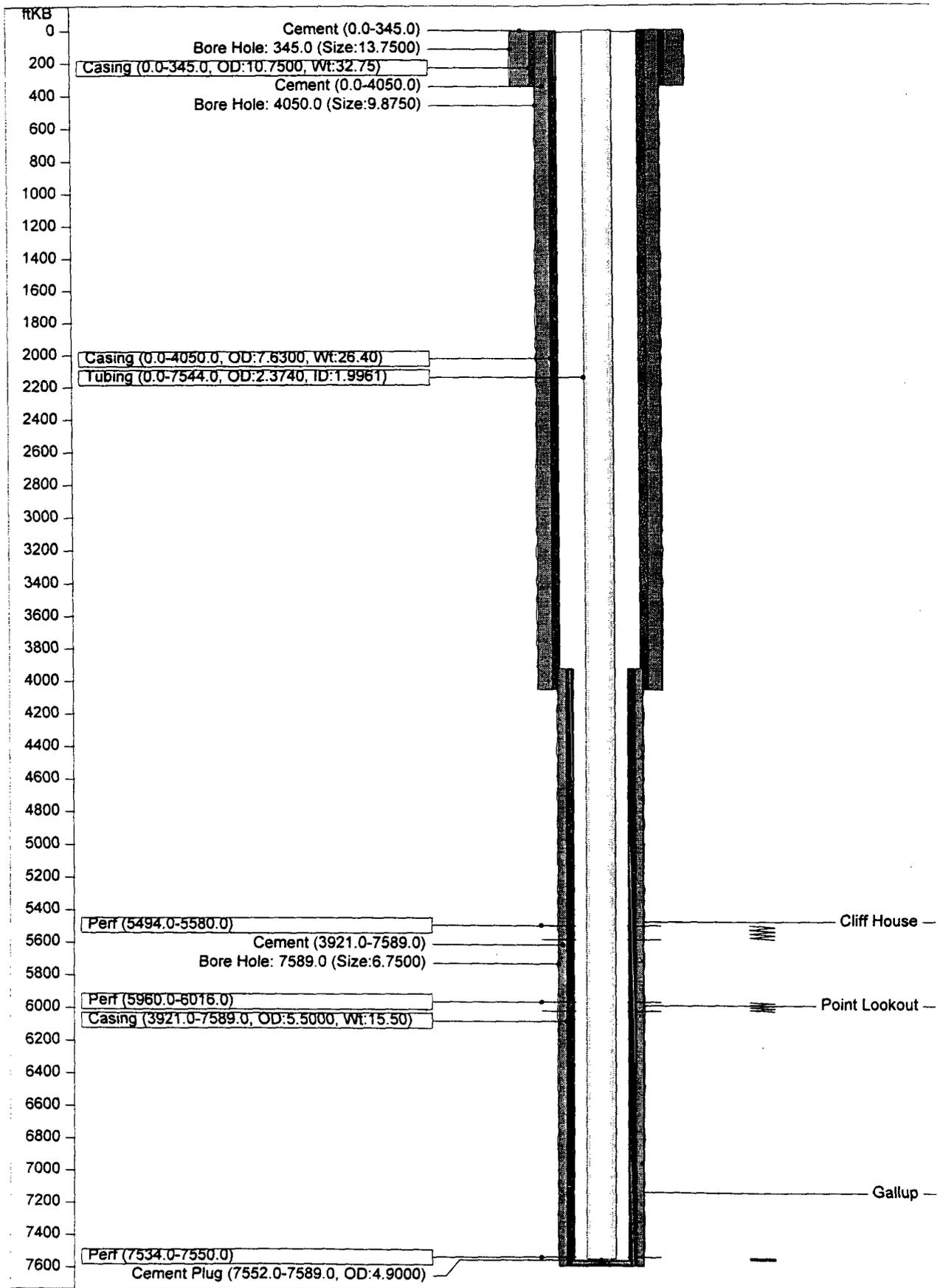
Jicarilla A #14 (Current Configuration)

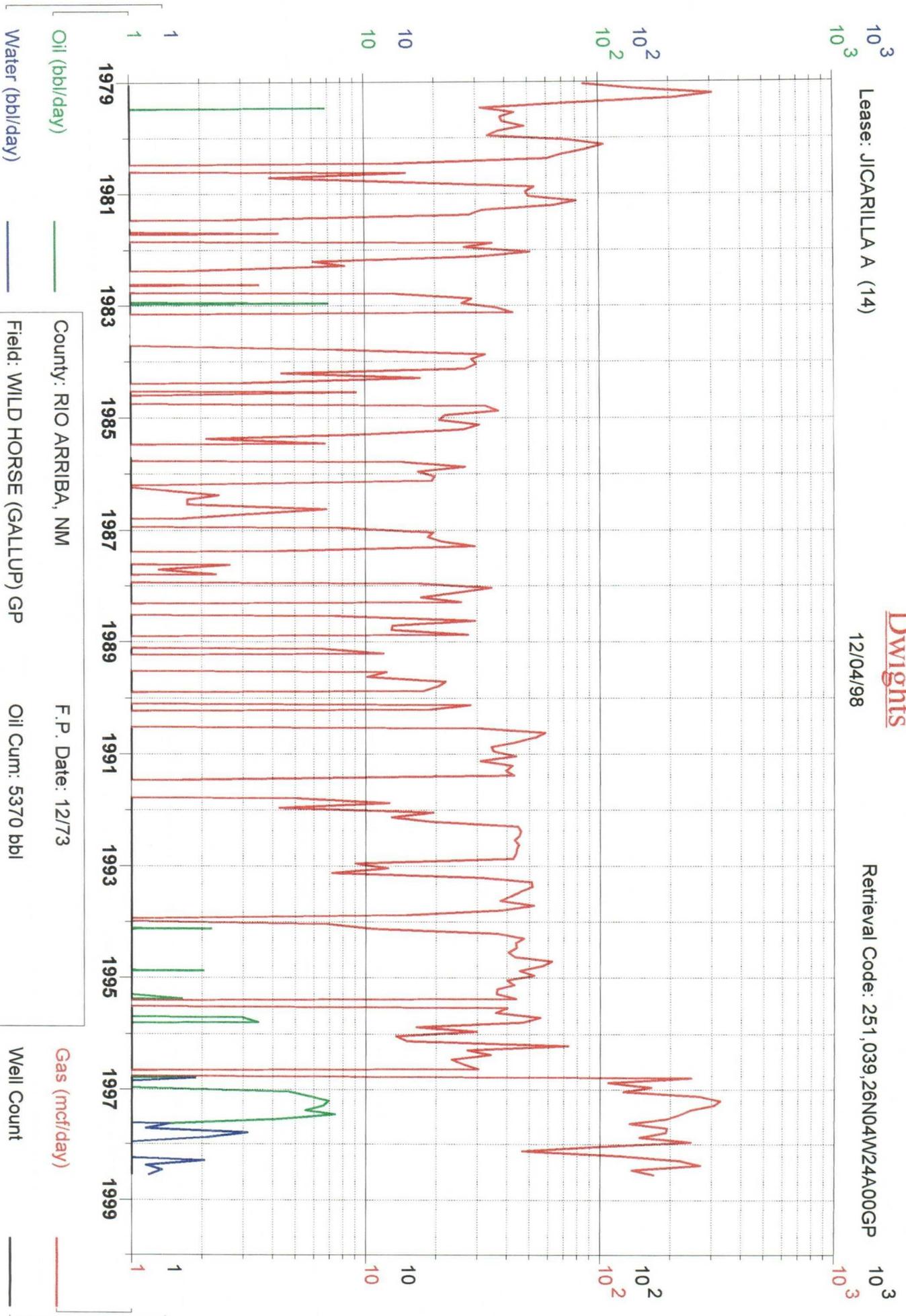


Jicarilla A #14 (Proposed Configuration)



Jicarilla A #14 (Proposed Configuration)





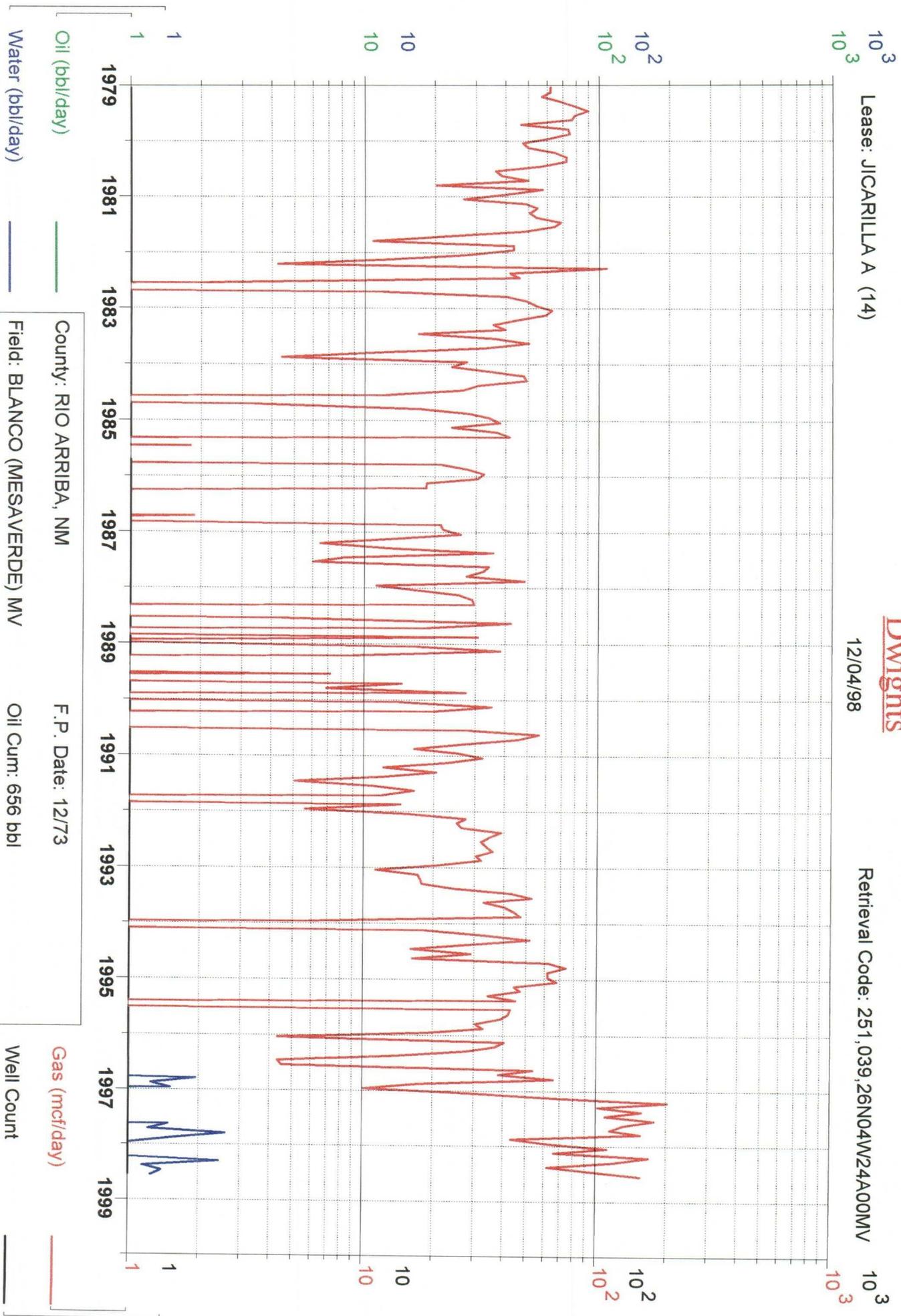
Oil (bbl/day)

Water (bbl/day)

Gas (mcf/day)

Well Count

County: RIO ARRIBA, NM
Field: WILD HORSE (GALLUP) GP
Reservoir: GALLUP
Operator: CONOCO INC
F.P. Date: 12/73
Oil Cum: 5370 bbl
Gas Cum: 759.0 mmcf
Location: 24A 26N 4W



County: RIO ARRIBA, NM	F.P. Date: 12/73
Field: BLANCO (MESAVERDE) MV	Oil Cum: 656 bbl
Reservoir: MESAVERDE	Gas Cum: 491.2 mmcf
Operator: CONOCO INC	Location: 24A 26N 4W

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACERAGE DEDICATION PLAT**

All distances must be from the outer boundaries of the Section

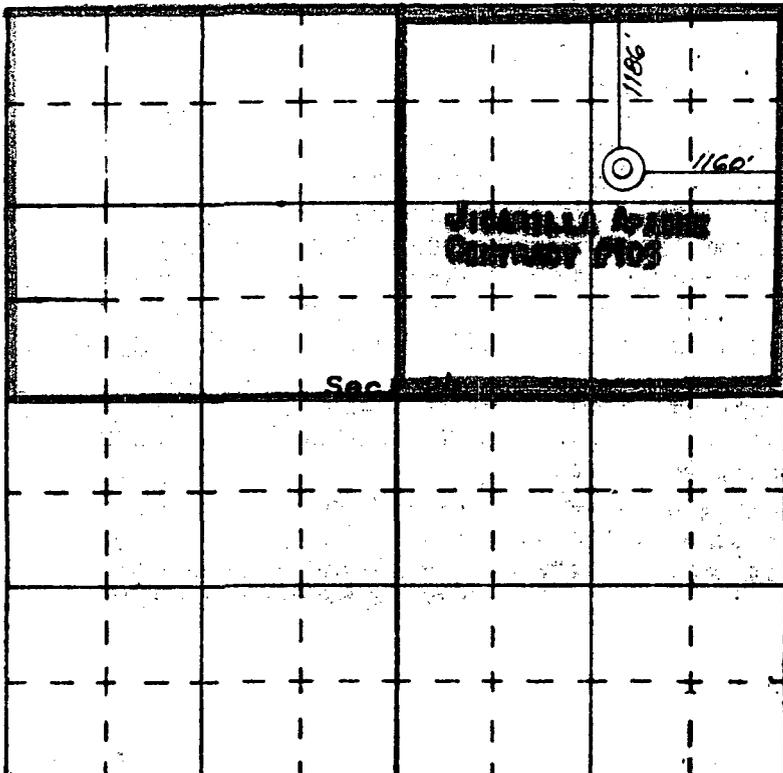
Operator SOUTHERN UNION PRODUCTION CO.		Lease JIOPILLA A		Well No. 14
Unit Letter A	Section 24	Township 26 NORTH	Range 4 WEST	County RIO ARriba
Actual Footage Location of Well: 1186 feet from the NORTH line and 1160 feet from the EAST line				
Ground Level Elev. 7128.0	Producing Formation UNCONSOLIDATED GALLUP	Pool UNCONSOLIDATED GALLUP	Dedicated Acreage: NE 1/4 160 1/2 Acres	

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 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 Commission.

DEDICATED GALLUP ACREAGE
DEDICATED RESERVE ACREAGE



SCALE—4 INCHES EQUALS 1 MILE

SAN JUAN ENGINEERING COMPANY, FARMINGTON, N. M.

CERTIFICATION

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

Original signed by
GILBERT D. NOLAND, JR.
Name
GILBERT D. NOLAND, JR.
Position
DAVID LIND SUPERVISOR
Company
SOUTHERN UNION PRODUCTION
Date
May 9, 1973

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
May 9, 1973
Registered Professional Engineer and/or Surveyor
JAMES E. LEBBS
1463
NEW MEXICO
1963
Certificate No.

Jicarilla A #14
Section 24, T-26-N, R-4-W, A
API # 30-039-20629
1186' FNL & 1160' FEL
Rio Arriba County, NM

RE: Application fo Downhole Commingle (C107A)

NOTIFICATION OF OFFSET OPERATORS:

Taurus Exploration, Inc
2101 6th Avenue N
Birmingham, AL 35203-2784

Chateau Oil & Gas
5802 US HWY 64
Farmington, NM 87401

The above listed parties have been sent a copy of the C107A application.

Jicarilla A #14

Economic Justification for Downhole Co-mingling

The subject well has a 5½" production liner (drift ID of 4.825") and 7⅝" intermediate casing.

Production from each of the two current production zones (Mesa Verde and Gallup) is produced up two separate 1.9" IJ tubing strings. The Gallup zone currently has sand fill that is limiting the production to less than 50 mcf/d (production from the Gallup has averaged approximately 250 mcf/d for the last year). The Mesa Verde zone is produced up the 1.9" tubing string and is plunger lifted. To clean out the wellbore, it will be necessary to drill up the Model "D" permanent production packer. Since the packer will be removed from the well, Conoco recommends that 2⅜" EUE tubing be installed in the well. The larger tubing will allow the Gallup formation to produce at higher flowrates (less friction pressure up the larger tubing ID) and the Gallup/Mesa Verde co-mingled production rates will be high enough that artificial lift will no longer be necessary at this time.

The installation of the larger 2⅜" tubing will increase production from the wellbore by approximately 50 mcf/d over the previously established rates. Co-mingling of the producing horizons will allow the removal and reuse of one of the surface production facilities while also saving approximately \$2,000 per year in plunger lift expenses (replacement plungers, maintenance, etc.).