

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

Conoco Inc.

10 Desta Dr. Ste 100W, Midland, Tx. 79705-4500

Operator

Address

Jicarilla 22

7

Section 21, T-25-N, R-4-W, A

Rio Arriba

Lease

Well No

Unit Ltr Sec Twp Rge

County

OORID NO 005073

Property Code

003203

API NO.

30-039-20447

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		Lindrith Gallup-Dakota, West 39189
2. TOP and Bottom of Pay Section (Perforations)	5697-6000'		6831-7967'
3. Type of production (Oil or Gas)	Gas		Oil
4. Method of Production (Flowing or Artificial Lift)	To Flow		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) 583 b. (Original) 1314	<div>RECEIVED APR - 7 1998 OIL CON. DIV. DIST. 3</div> a. b.	a. 860 b. 497
6. Oil Gravity (*API) or Gas BT Content	1269		1269
7. Producing or Shut-In?	To be completed		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 shall 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 Production to be allocated by subtraction - See attached table	Date Rates Date Rates	Date Rates Est 7/98 30 MCFD, 1 BOPD, 0 BOPD
8. Fixed Percentage Allocation Formula - % or each zone	Oil % Gas %	Oil % Gas %	Oil % Gas %

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

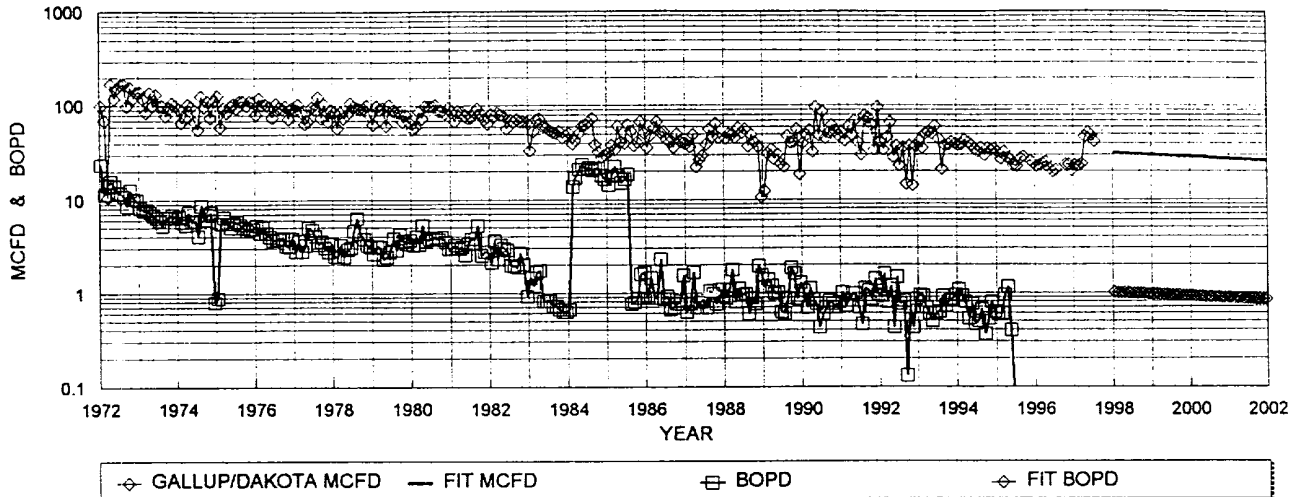
- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- * Production curve for each zone for at least one year. (If not available, attach explanation.)
- * For zones with no production history, estimated production rates and supporting data.
- * Data to support allocation 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 February 16, 1998

TYPE OR PRINT NAME Kay Maddox TELEPHONE NO. (915) 686-5798

JICARILLA 22 NO. 7 GALLUP/DAKOTA PRODUCTION
SECTION 21A-25N-04W



GALLUP DAKOTA HISTORICAL DATA: 1ST PROD: 01/72

OIL CUM: 33.67 MBO
GAS CUM: 589.7 MMCF
CUM OIL YIELD: 0.0571 BBL/MCF
OIL YIELD: 0.0076 BBL/MCF, LAST 3 YRS
AVG. USED: 0.0324 BBL/MCF

PROJECTED DATA

7/1/98 Qi: 30 MCFD
DECLINE RATE: 4.6% (EXPONENTIAL)

PRODUCTION FORECAST FOR SUBTRACTION METHOD COMMINGLE ALLOCATION

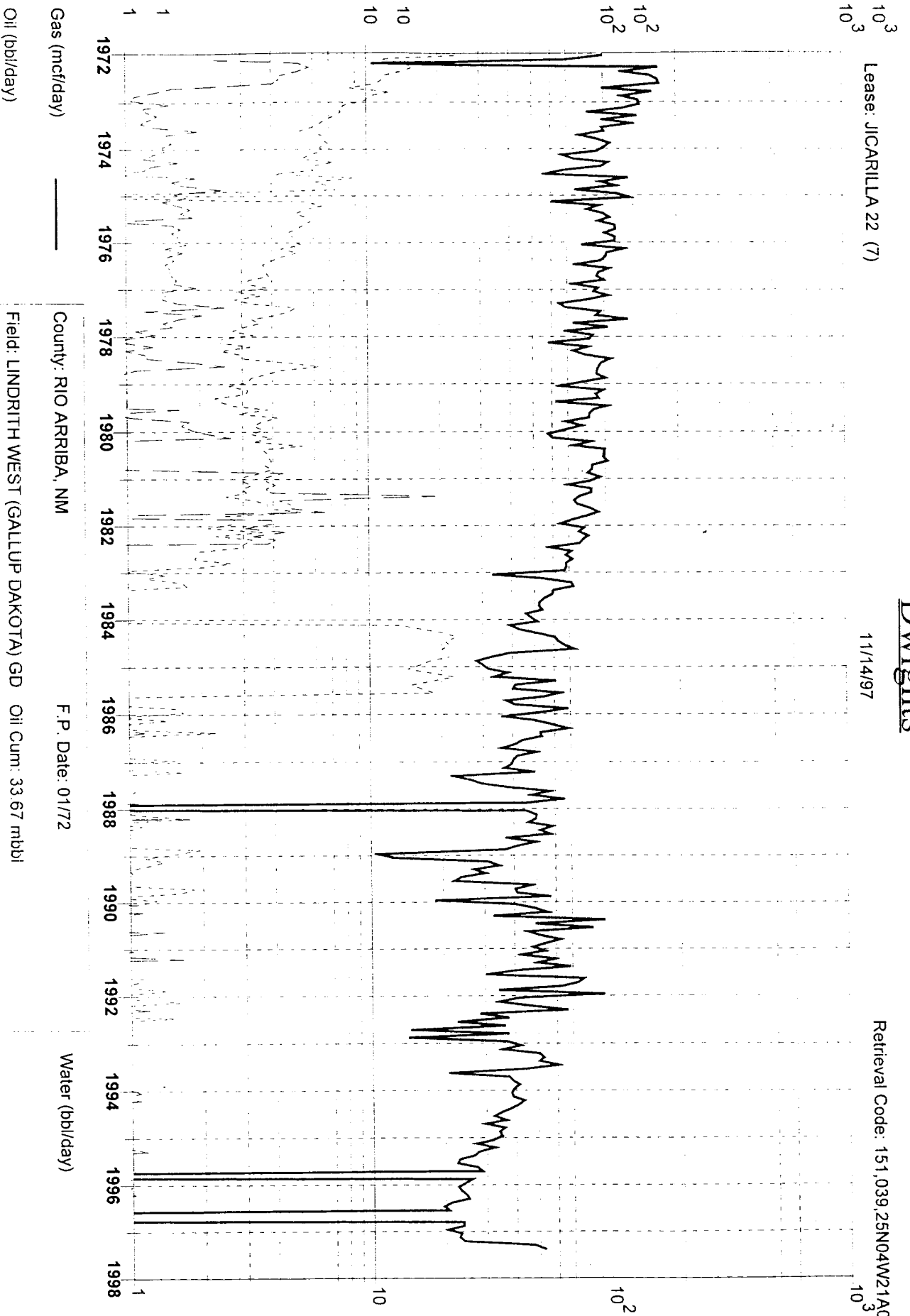
YEAR	MID-YEAR AVG. MCFD	MID-YEAR AVG. BOPD
1998	30	1.0
1997	29	0.9
1998	27	0.9
1999	26	0.8
2000	25	0.8
2001	24	0.8
2002	23	0.7
2003	22	0.7
2004	21	0.7
2005	20	0.6
2006	19	0.6
2007	18	0.6
2008	17	0.6
2009	16	0.5
2010	16	0.5
2011	15	0.5
2012	14	0.5
2013	14	0.4
2014	13	0.4
2015	12	0.4
2016	12	0.4
2017	11	0.4
2018	11	0.3
2019	10	0.3
2020	10	0.3
2021	9	0.3
2022	9	0.3
2023	8	0.3
2024	8	0.3
2025	8	0.2
2026	7	0.2
2027	7	0.2
2028	7	0.2
2029	6	0.2
2030	6	0.2

Dwights

Lease: JICARILLA 22 (7)

11/14/97

Retrieval Code: 151.039.25N04W21A00GD



Gas (mcf/day)

County: RIO ARriba, NM

F.P. Date: 01/72

Water (bbl/day)

Oil (bbl/day)

Field: LINDRITH WEST (GALLUP DAKOTA) GD Oil Cum: 33.67 mbbl

Reservoir: GALLUP DAKOTA

Gas Cum: 587.0 mmcf

Operator: CONOCO INC

Location: 21A 25N 4W

District I
PO Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals & Natural Resources Department

Revised February 21, 1994
instructions on back

District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd. Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-20447		2 Pool Code 72319		3 Pool Name Blanco Mesaverde	
4 Property Code 003203		5 Property Name Jicarilla 22			6 Well Number #7
7 OGRID No. 005073		8 Operator Name Conoco Inc., 10 Desta Drive, Ste. 100W, Midland, TX 79705-4500			9 Elevation 7134 GL

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
A	21	25N	4W		990	North	990	East	Rio Arriba

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 320	13 Joint or Infill	14 Consolidation Code	15 Order No.
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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

16			17 OPERATOR CERTIFICATION	
			I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief	
			Signature Kay Maddox	
			Printed Name Regulatory Agent	
Title		Date		18 SURVEYOR CERTIFICATION
Date of Survey		Signature and Seal of Professional Surveyor:		
Certificate Number				

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

All distances must be from the outer boundaries of the Section

Operator CONTINENTAL OIL COMPANY			Lease JICARILLA 22		Well No. 7
Unit Letter A	Section 21	Township 25 NORTH	Range 4 West	County RIO ARriba	
Actual age Location of Well: 990 feet from the NORTH line and 990 feet from the EAST line					
Ground Level Elev. 7134.0	Producing Formation		Pool	Dedicated Acreage 40 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.

CERTIFICATION

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

Name **Original Signed By:**
J. A. UBBEN

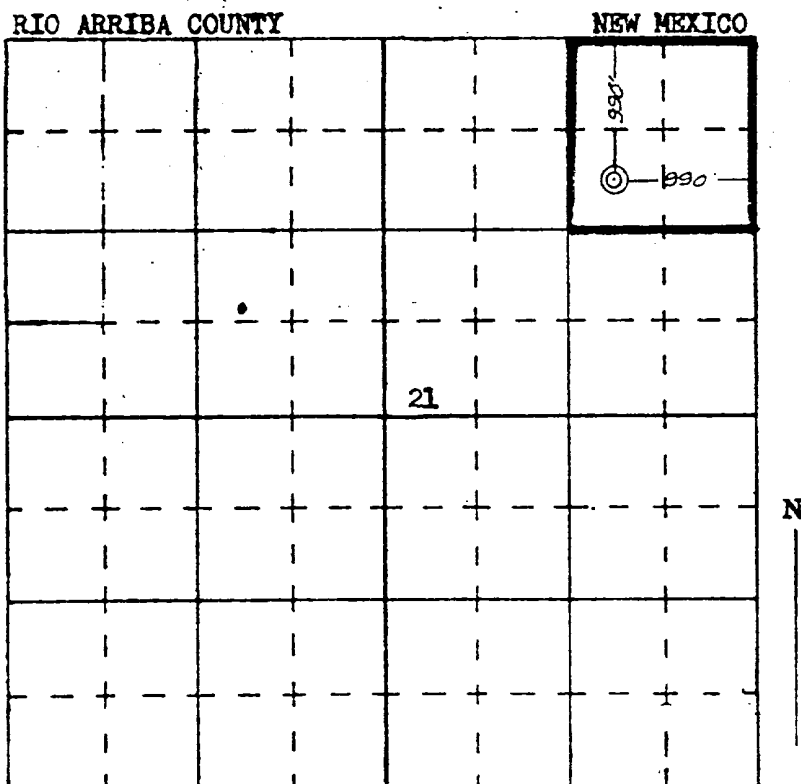
Position
Administrative Supervisor

Company
Continental Oil Company

Date
December 2, 1971

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.

20 November 1971
Date Surveyed
James P. Loese
Registered Professional Engineer
and/or Land Surveyor **James P. Loese**
N.M. Reg. #1463



SCALE—4 INCHES EQUALS 1 MILE

SAN JUAN ENGINEERING COMPANY, FARMINGTON, N. M.

Certificate No. _____

Conoco, Inc.
Jicarilla 22 #7
Section 21, T-25-N, R-4-W, A
Rio Arriba County, New Mexico

Re: Application for Downhole Commingling

Offset Operators:

Robert L. Bayless
PO Box 168
Farmington, New Mexico 87499

CONDITIONS OF APPROVAL FOR DOWNHOLE COMMINGLING

Operator Conoco Inc. Well Name Jicarilla 22 #7

1. The individual production zones will be tested every three years, or more often if production rates indicate a change to allocation factors, to verify that the allocation factors and methods remain proper.
2. Production from downhole commingled wells are to be reported with an alpha character, "C" (ie C1, C2, etc).
3. The following modifications to your downhole commingling program are to be made :

None

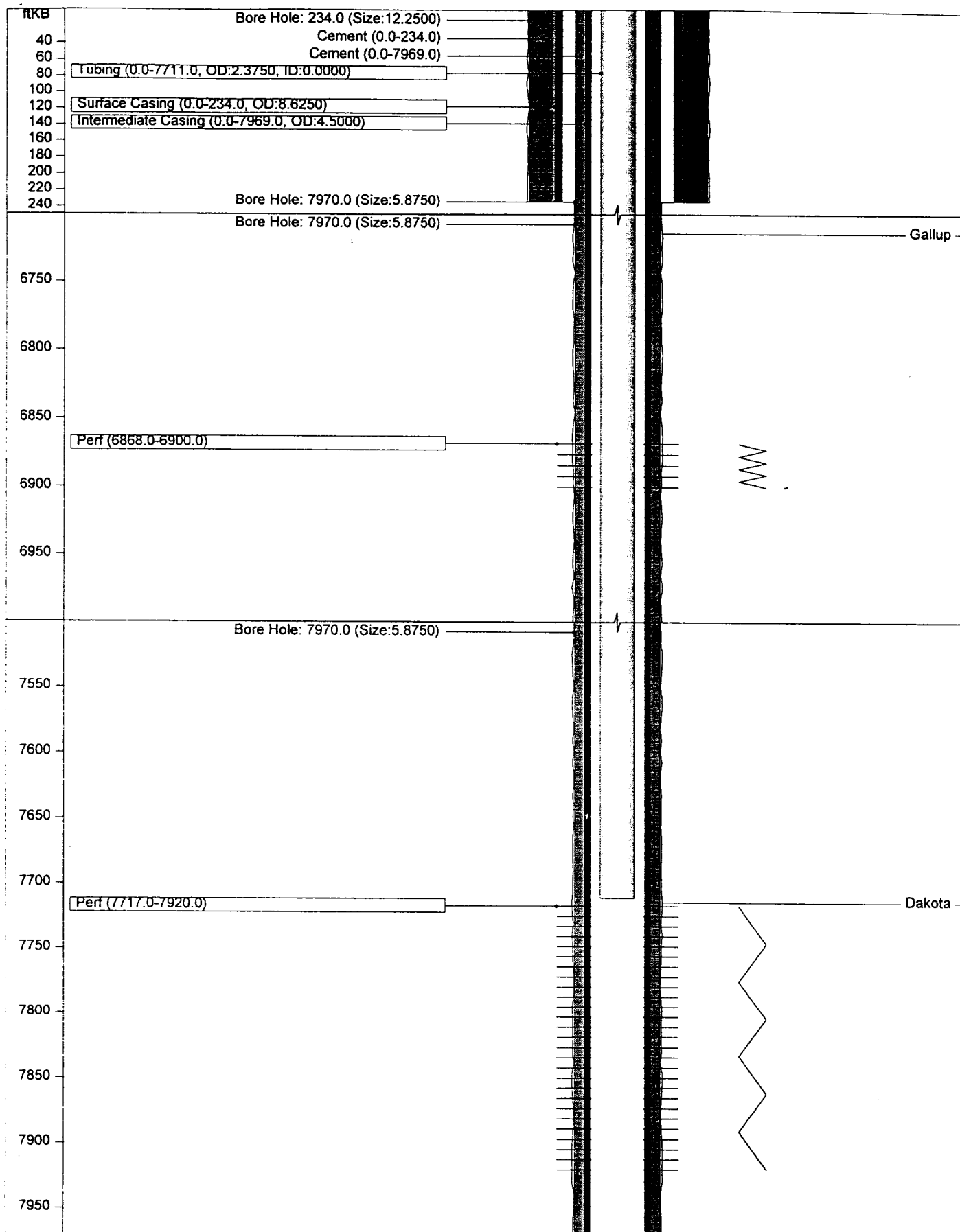
Jicarilla #22-7

Economic Evaluation

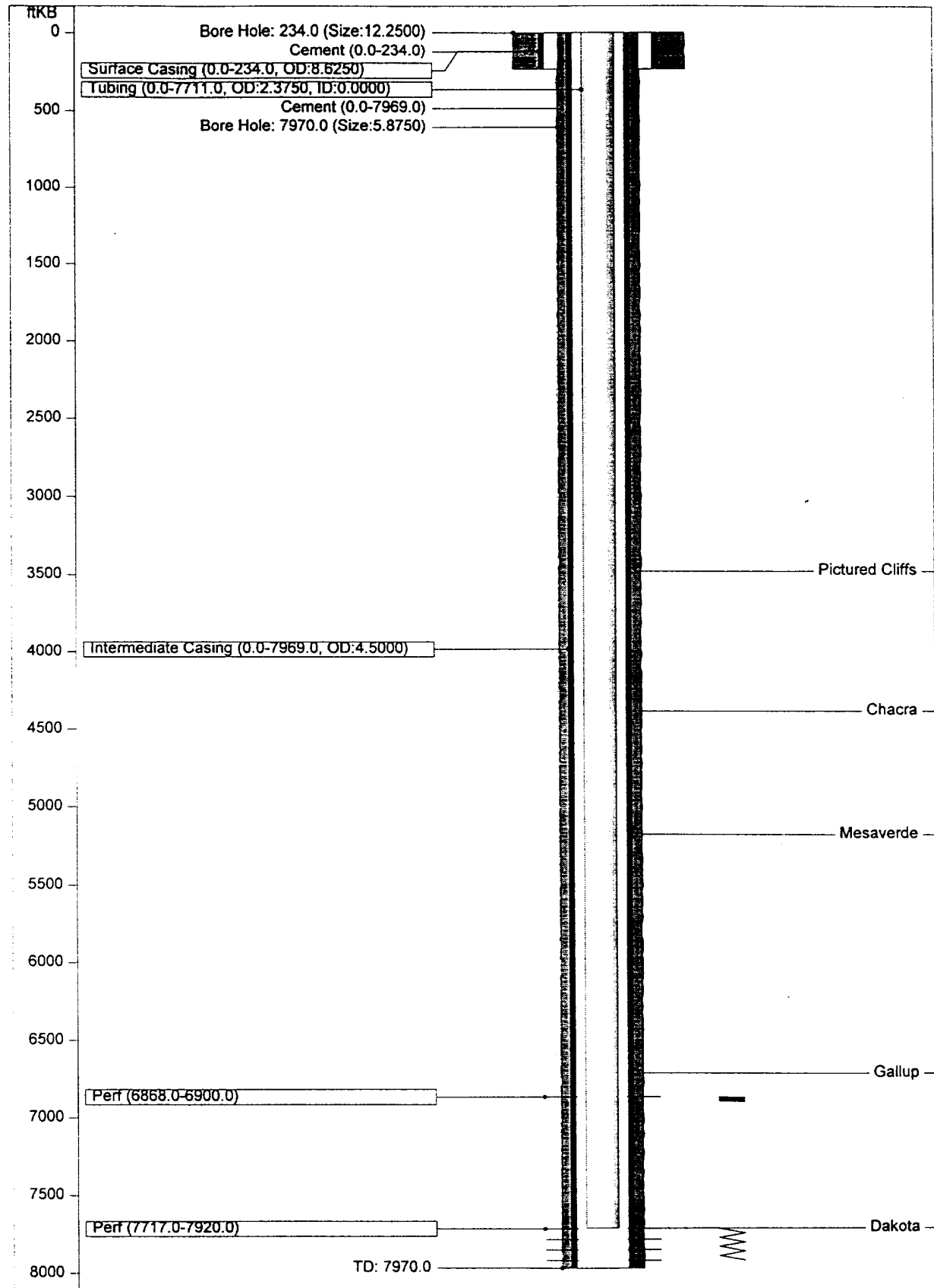
The subject wellbore has 4.5" casing (ID of 3.957"). It is physically impossible to install 2 strings of tubing in the wellbore to produce each zone separately.

Production from each of the two zones (Gallup/Dakota & Mesa Verde) is marginal and artificial lift equipment (plunger lift) will be required to remove fluids from the wellbore in order to produce the well at the most efficient rate. The use of 2.375" tubing is the preferred size of tubing to install and operate plunger lift systems in.

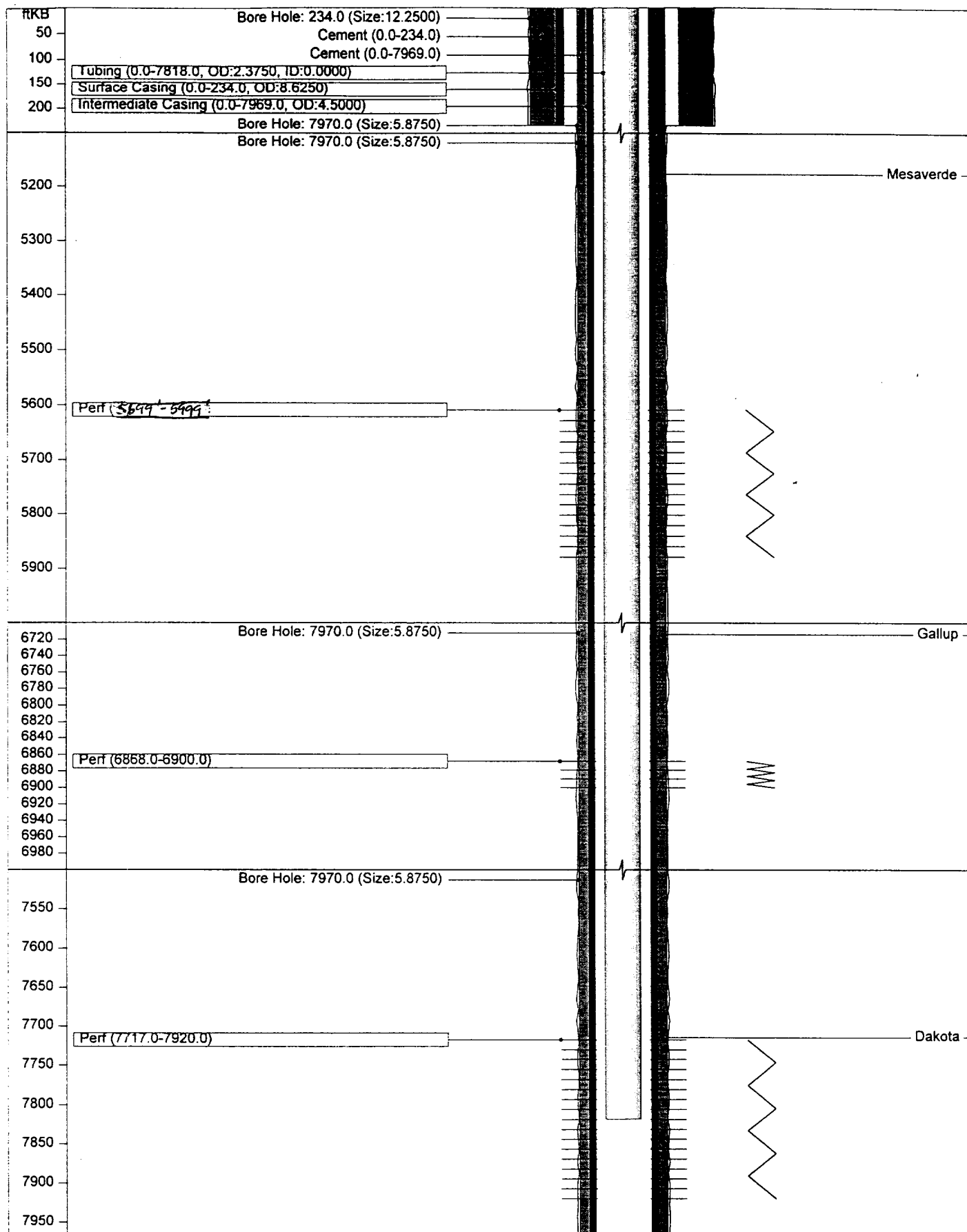
JICARILLA 22 7



JICARILLA 22 7



JICARILLA 22 7 - Proposed

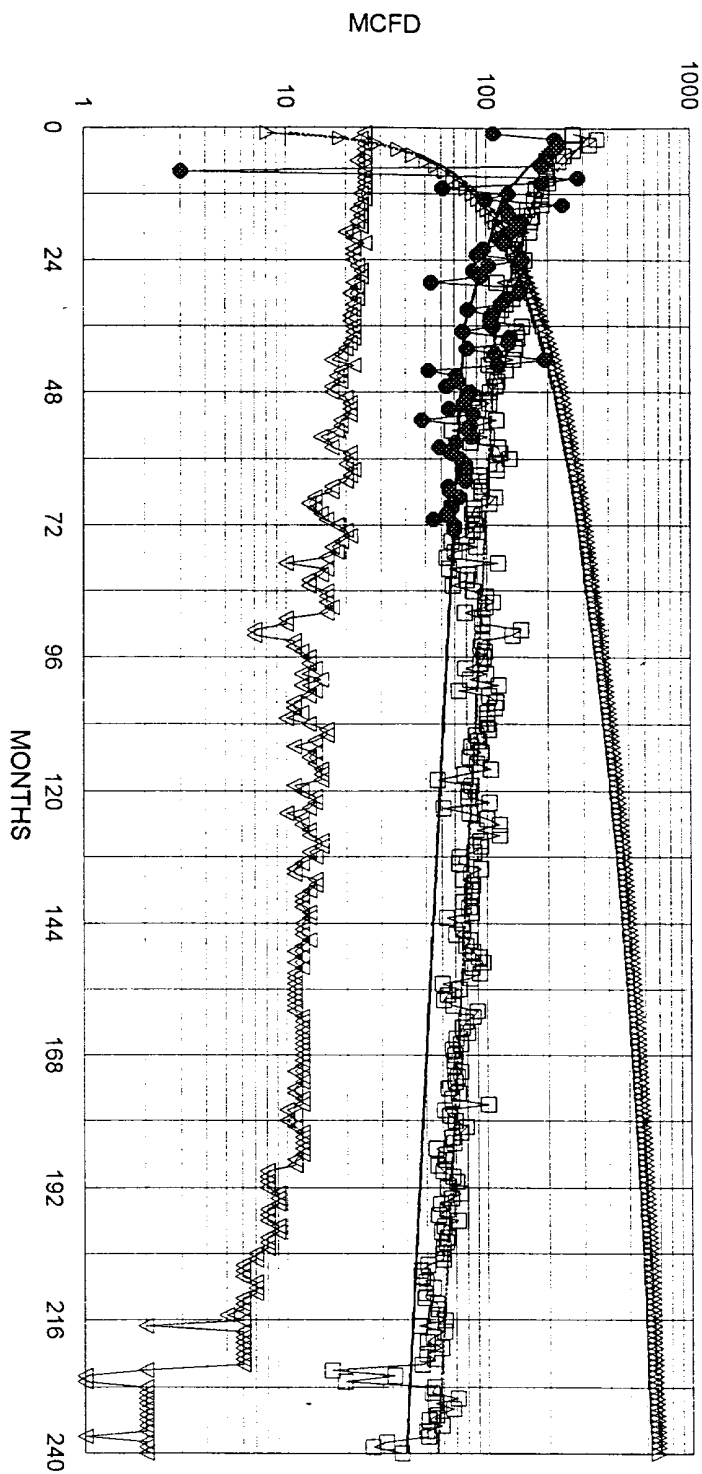


Economic/Rate Justification (Generic)

Approval is requested to recomplete the subject well to the Blanco Mesaverde and commingle with existing producing horizons. Expected rate and recovery from the Mesaverde is illustrated on the attached "Normalized Mesaverde Production" plot. This plot (attached to C107A form) is constructed from the more recent offset Mesaverde production data and provides a good estimate of the performance of the subject well. Clearly, the expected risked reserves are not sufficient to justify drilling a new, grass roots well. To prevent waste, these reserves must be accessed by the subject wellbore.

Production from the existing zones is established by ample production history. A production plot is attached that shows past and best-fit projections of future production for the existing zones. A table showing estimated future production for each existing zone is attached. This table (attached to C107A form) will be used to allocate commingled production to the new Mesaverde zone by the subtraction method (existing production shown on the table attached to the C107A will be subtracted from total metered production after adding the Mesaverde zone; the balance will be reported as Mesaverde production).

25N 4W NORMALIZED MESAVERDE PRODUCTION
25 WELLS SINCE 1975; AXI APACHE M.N.O AND OLD JICARILLA LEASES



— FIT MCFD □ NORMALIZED MCFD ▽ NORM CUM MMCF ▽ WELLS ON PRODUCTIO
--- FIT CUM MMCF — RISKED MCFD ◆ 4 JIC. 22 LEASE WELLS

NORMALIZED AVG:

1018 MMCF EUR
698 MMCF IN 20 YRS
20 MCFD E.L.
0.0084 bbl/mcf oil yield

350 MCFD IP

50% DECLINE, 1ST 12 MONTHS
20% DECLINE, NEXT 24 MONTHS
4.0% FINAL DECLINE

RISKED AVG:

30% RISK

659 MMCF EUR
489 MMCF IN 20 YR
20 MCFD E.L.
0.0084 bbl/mcf oil yield

245 MCFD IP

50.0% DECLINE, 1ST 12 MONTHS
20.0% DECLINE, NEXT 24 MONTHS
4.0% FINAL DECLINE