

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

2377

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

- [NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
- [DD-Directional Drilling] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

- [A] Location - Spacing Unit - Directional Drilling
 NSL NSP DD SD

JUN - 4 1999

Check One Only for [B] and [C]

- [B] Commingling - Storage - Measurement
 DHC CTB PLC PC OLS OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
 WFX PMX SWD IPI EOR PPR



[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply

- [A] Working, Royalty or Overriding Royalty Interest Owners
- [B] Offset Operators, Leaseholders or Surface Owner
- [C] Application is One Which Requires Published Legal Notice
- [D] Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] Waivers are Attached

[3] **INFORMATION / DATA SUBMITTED IS COMPLETE** - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Kay Maddox *Kay Maddox* Regulatory Agent 6/2/99
 Print or Type Name Signature Title Date

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 D Well No #13 Unit Ltr Sec Twp Rge Section 32, T-26-N, R-3-W, A County Rio Arriba, NM

OGRID NO. 005073 Property Code 18021 API NO. 30-039-20627 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	Tapacito Pictured Cliffs 85920		Blanco Mesaverde 72319
2. TOP and Bottom of Pay Section (Perforations)	3844-3870'		5942-6012'
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) 330	a.	a. 575
	b(Original) 1175	b.	b. 1315
6. Oil Gravity (*API) or Gas BT Content	1278		1265
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
	Date Rates 4/99 31 MCFD, 0 BOPD, 0 BWPD	Date Rates	Date Rates 4/99 41 MCFD, 3 BOPD, 3 BWPD
8. Fixed Percentage Allocation Formula -% for each zone	oil: 0 % Gas 18 %	oil: % Gas %	oil: 100 % Gas 82 %

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

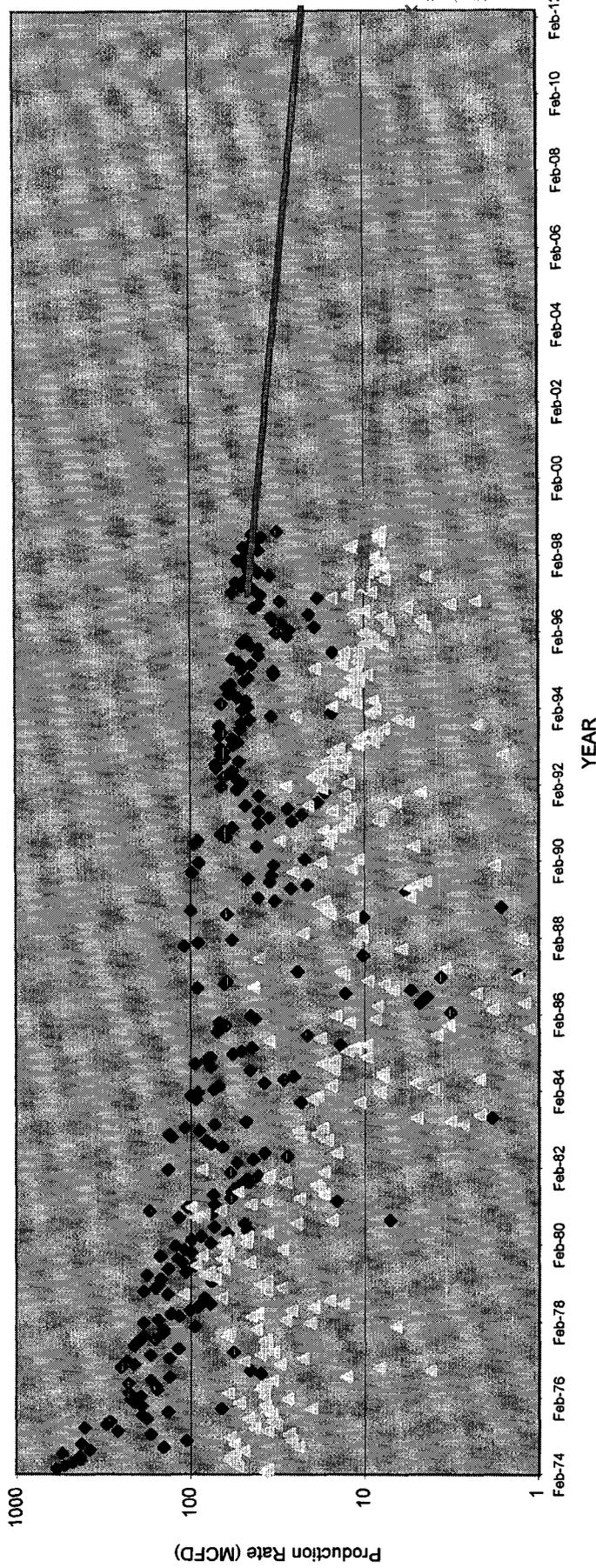
- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- * Production curve for each zone for at least one year. (If not available, attach explanation.)
- * For zones with no production history, estimated production rates and supporting data.
- * Data to support allocation 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 June 2, 1999

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

JICARILLA D 13 - MV / PC DHC
 26N-3W-32A, Rio Arriba County, New Mexico



◆ MV - Actual ■ MV - Forecast ● PC - Actual × PC - Forecast

MESAVERDE		PICTURED CLIFFS	
Historical Data:	1st Prod - Feb-74	Historical Data:	1st Prod - Feb-74
Oil Cum:	3.184 Mbo	Oil Cum:	- Mbo
Gas Cum:	721.5 MMcf	Gas Cum:	182.92 MMcf
Oil Yield:	0.00441 Bbl/Mcf	Oil Yield:	- Bbl/Mcf
Projected Data:	1/99 Qi: 42.2 Mcfd	Projected Data:	1/99 Qi: 9.5 Mcfd
	Decline Rate: 4.8 %		Decline Rate: 4.8 %

Fixed Commingle Allocation Factors:

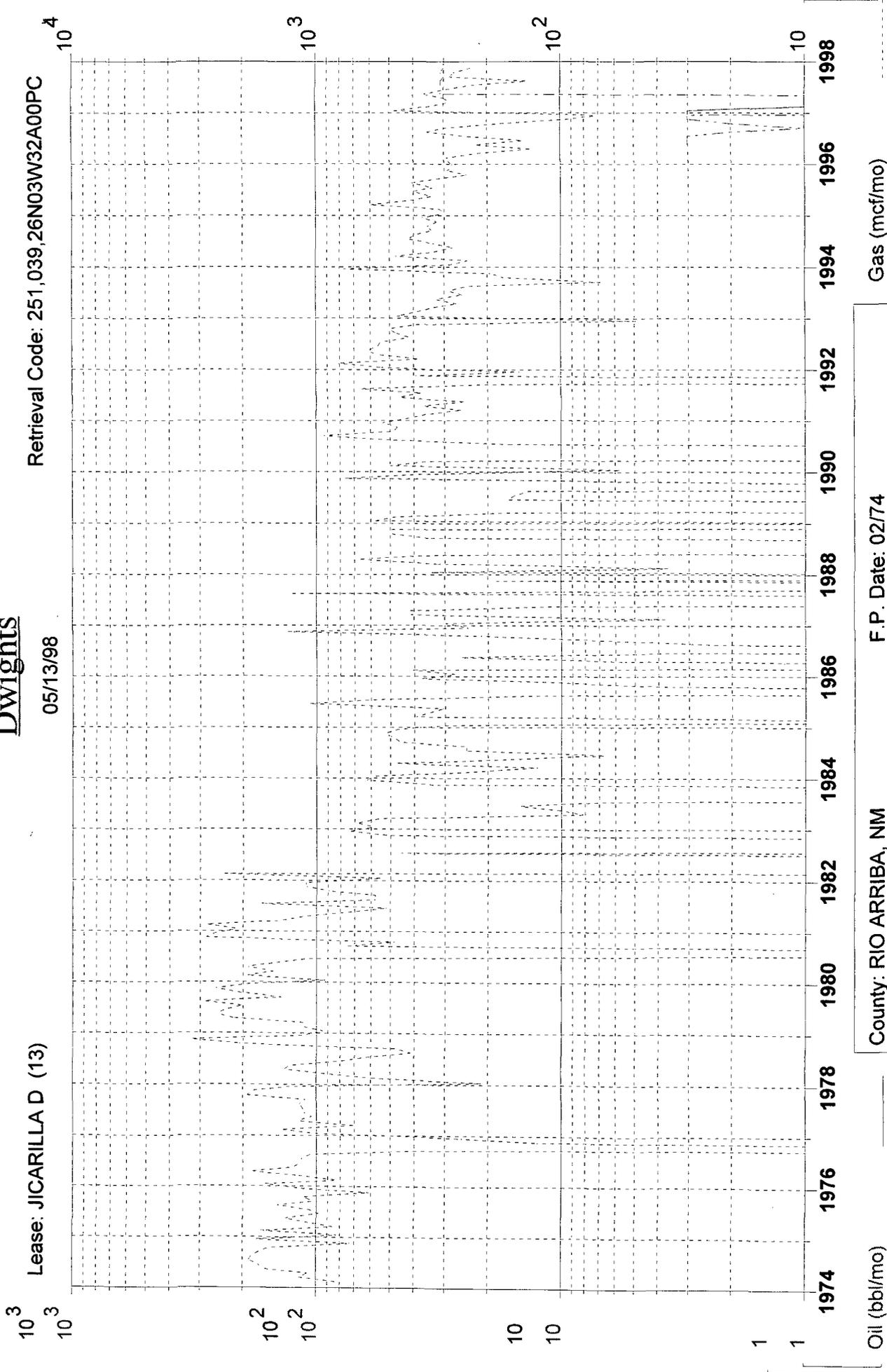
	GAS	OIL
Mesaverde	81.6%	100.0%
Pictured Cliffs	18.4%	0.0%

Dwights

Lease: JICARILLA D (13)

05/13/98

Retrieval Code: 251_039_26N03W32A00PC



County: RIO ARRIBA, NM	F.P. Date: 02/74
Field: TAPACITO (PICTURED CLIFFS)	Oil Cum: 13 bbl
Reservoir: PICTURED CLIFFS	Gas Cum: 179.8 mmcf
Operator: CONOCO INC	Location: 32A 26N 3W

Oil (bbl/mo) ———

Water (bbl/mo) - - - - -

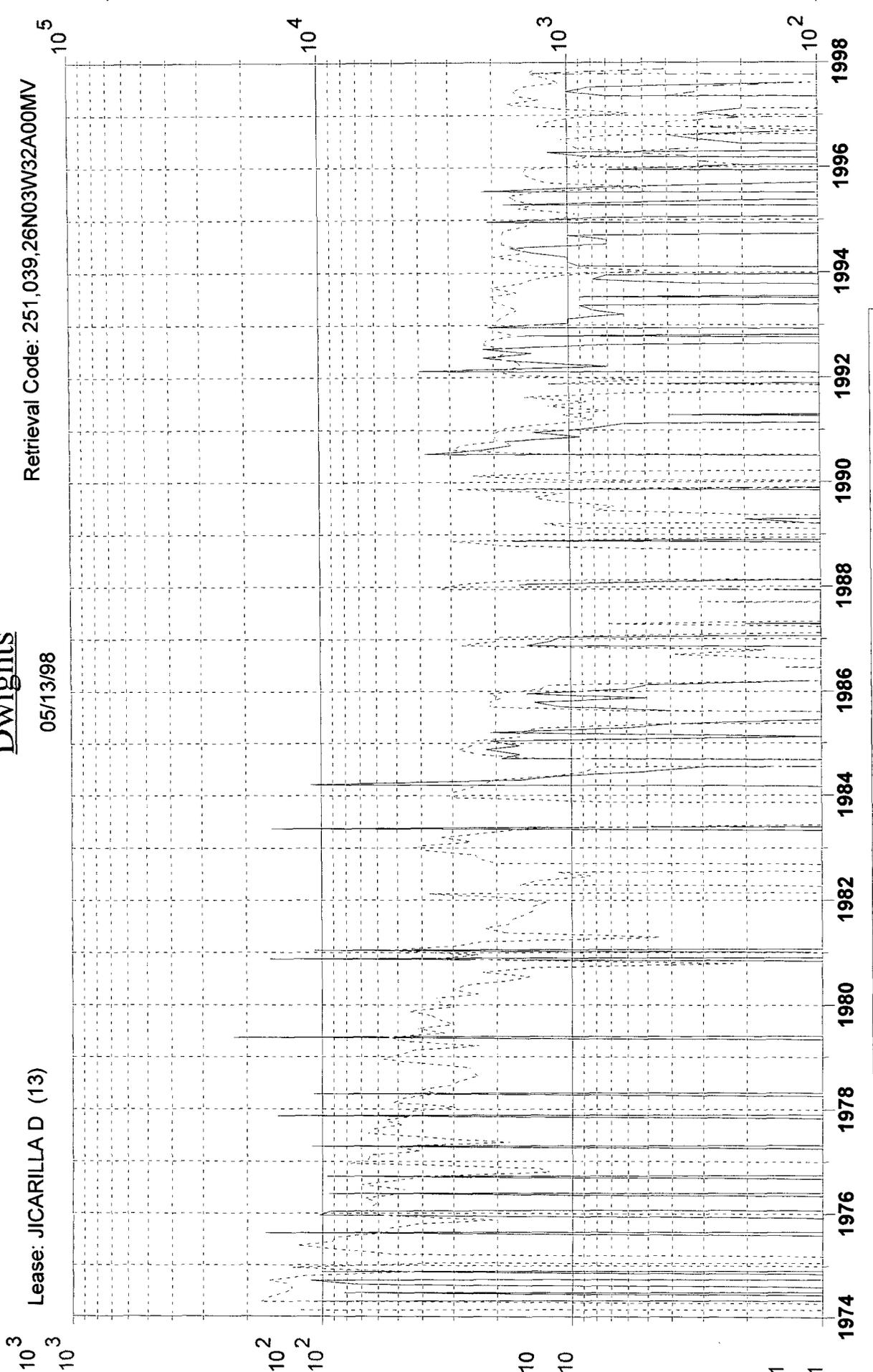
Gas (mcf/mo)

Dwights

05/13/98

Retrieval Code: 251,039,26N03W32A00MV

Lease: JICARILLA D (13)



Gas (mcf/mo)

County: RIO ARRIBA, NM	F.P. Date: 02/74
Field: BLANCO (MESAVERDE) MV	Oil Cum: 3170 bbl
Reservoir: MESAVERDE	Gas Cum: 706.9 mmcf
Operator: CONOCO INC	Location: 32A 26N 3W

Oil (bbl/mo)

Water (bbl/mo)

**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 JICARILLA D		Well No. 13
Unit Letter A	Section 32	Township 26 NORTH	Range 3 WEST	County RIO ARRIBA
Actual Footage Location of Well: 915 feet from the NORTH line and 860 feet from the EAST line				
Ground Level Elev. 7214.0	Producing Formation PICTURED CLIFFS MESAVERDE	Pool TAPACITO PICTURED CLIFFS BLANCO MESAVERDE	Dedicated Acreage P.C. 160 M.V. 320 Acres	

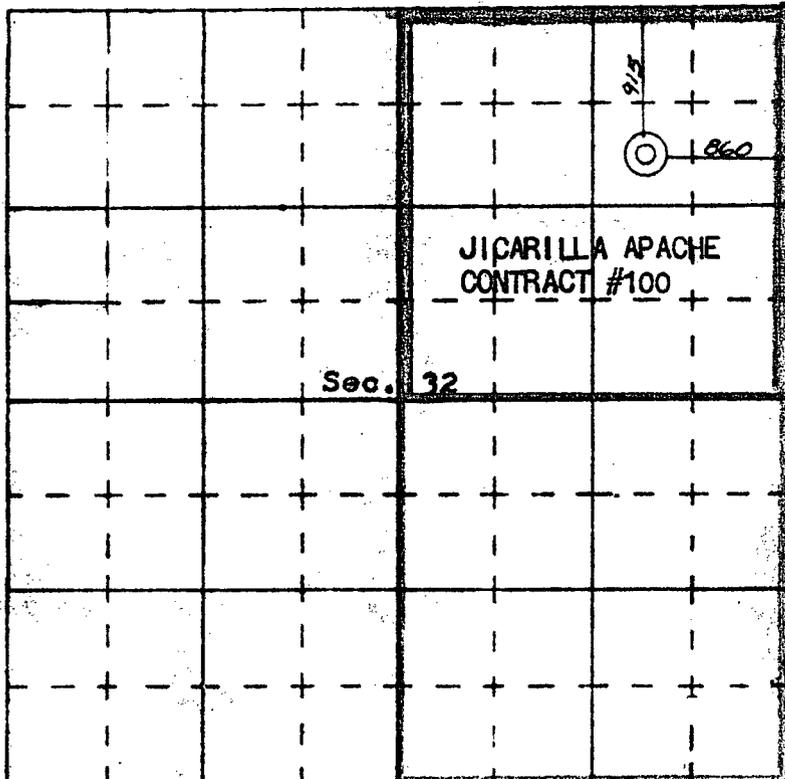
- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated 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 PICTURED CLIFFS ACERAGE
 ————— DEDICATED MESAVERDE ACERAGE



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
 Name GILBERT D. NOLAND, JR.
 Position GILBERT D. NOLAND, JR.
DRILLING SUPERINTENDENT
 Company SOUTHERN UNION PRODUCTION
 Date MAY 8, 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 4/25/73
 Registered Professional Engineer
 and/or Land Surveyor
JAMES P. LEESE
 186248
 Certificate No. _____

June 2, 1999

Jicarilla D #13
Section 32, T-26-N, R-3-W, A
API # 30-039-20627
Rio Arriba, NM

RE: Application to Downhole Commingle (C107A)

Notification of Offset Operators:

Burlington Resources
PO Box 4289
Farmington, NM 87499

Dugan Producing Corp.
PO Box 420
Farmington, NM 87499-0420

Beartooth Oil & Gas
PO Box 2564
Billings, MT 59103-2564

John E. Schalk
PO Box 25825
Albuquerque, NM 87125

Minel Inc.
309 Washington SE
Albuquerque, NM 87108

Taurus Exp.
2101 6th Ave N
Birmingham, AL 35203-2784

Standard Silver Corp.
12801 Stemmons Fwy STE 829
Farmers Branch, TX 75234

A copy of the C-107A Application has been sent to the above listed parties.

Jicarilla D 13

Economic/Rate Justification for Down Hole Commingling

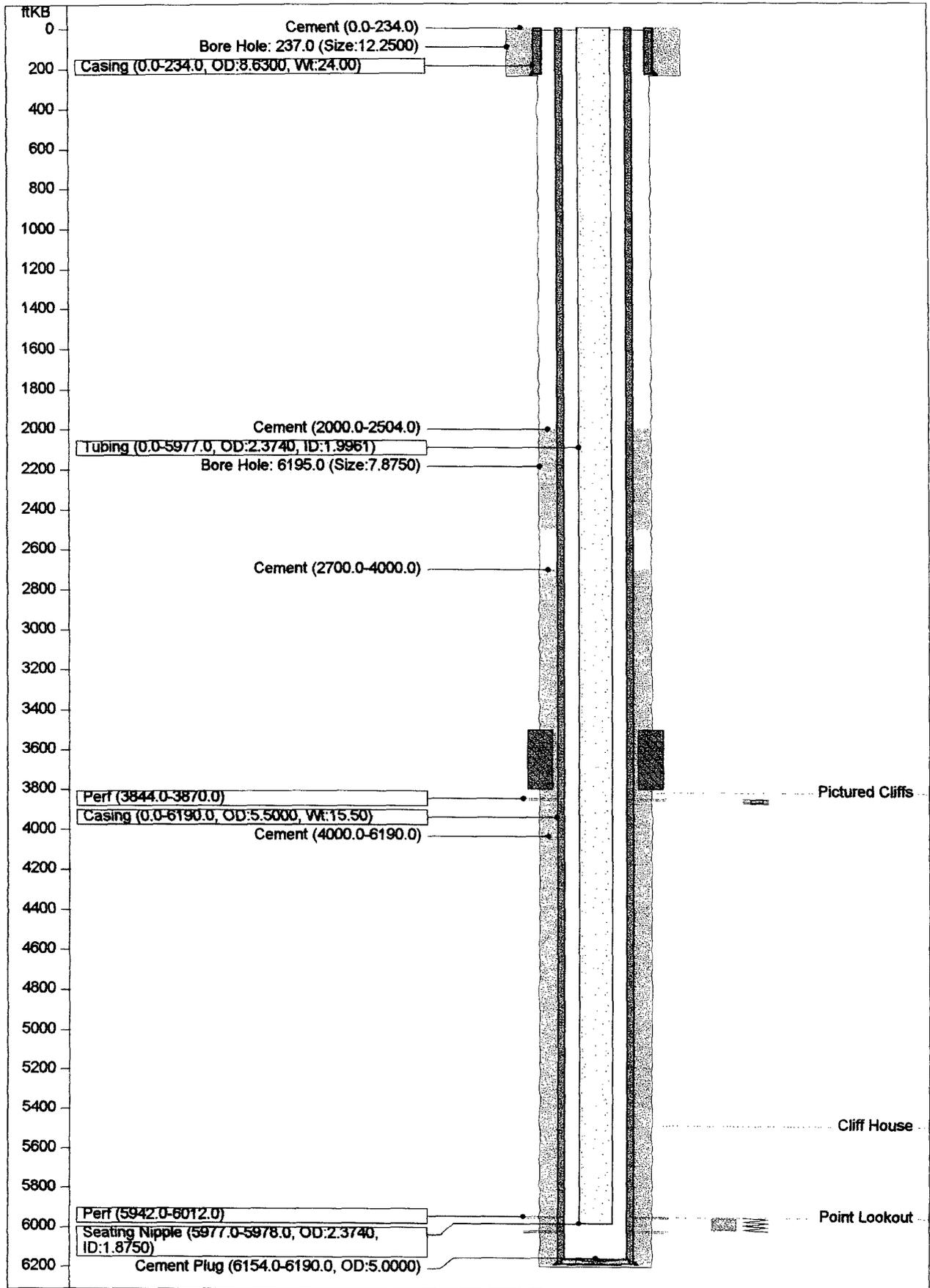
Approval is requested to down hole commingle the existing zones in the subject well. The Jicarilla D 13 has 5 1/2" production casing. It is dually completed using a 1.9" tubing string for the Picture Cliffs and a 1.9" tubing string for the Mesa Verde. Both zones produce some liquids and are producing well below the minimum critical rate required to unload liquids from the well bore. These low rates allow liquids to accumulate in the wellbore, thereby preventing maximum production from this well. To optimize production it is recommended to pull the existing equipment from the well, and produce it using plunger lift in a single 2 3/8" tubing string. The expected production increase is estimated at 30 MCFD.

The single larger tubing string will not only allow for more efficient plunger operation, but will eliminate the cost to install a second plunger lift system and save approximately \$2000 per year in plunger lift operating expenses.

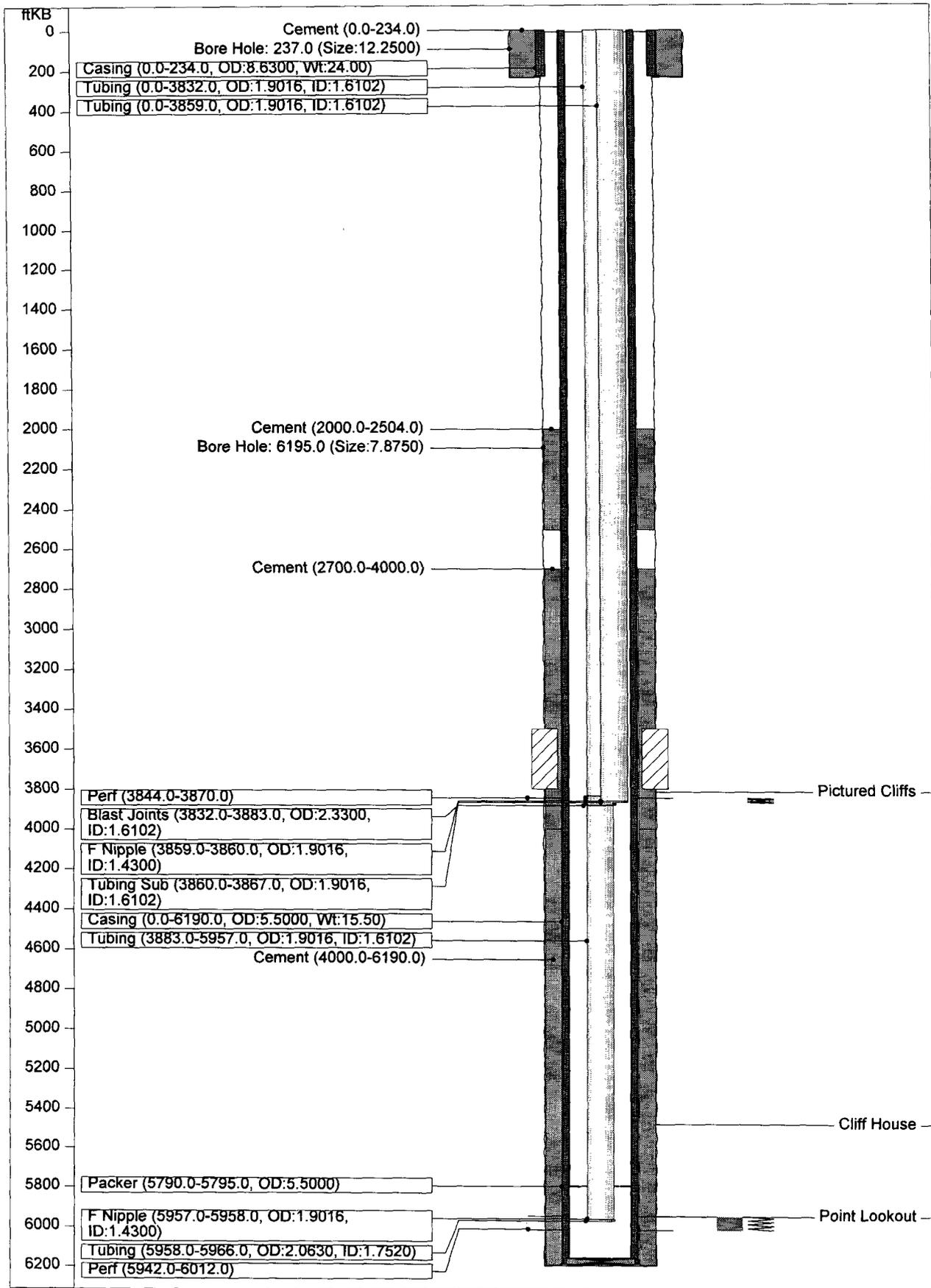
Production from these zones is established by ample production history. A production plot is attached showing best fit projections of future production for each zone. Form 107A shows the fixed percentage formula for allocation of production from each zone.

JICARILLA D 13 (Post DHC Work)

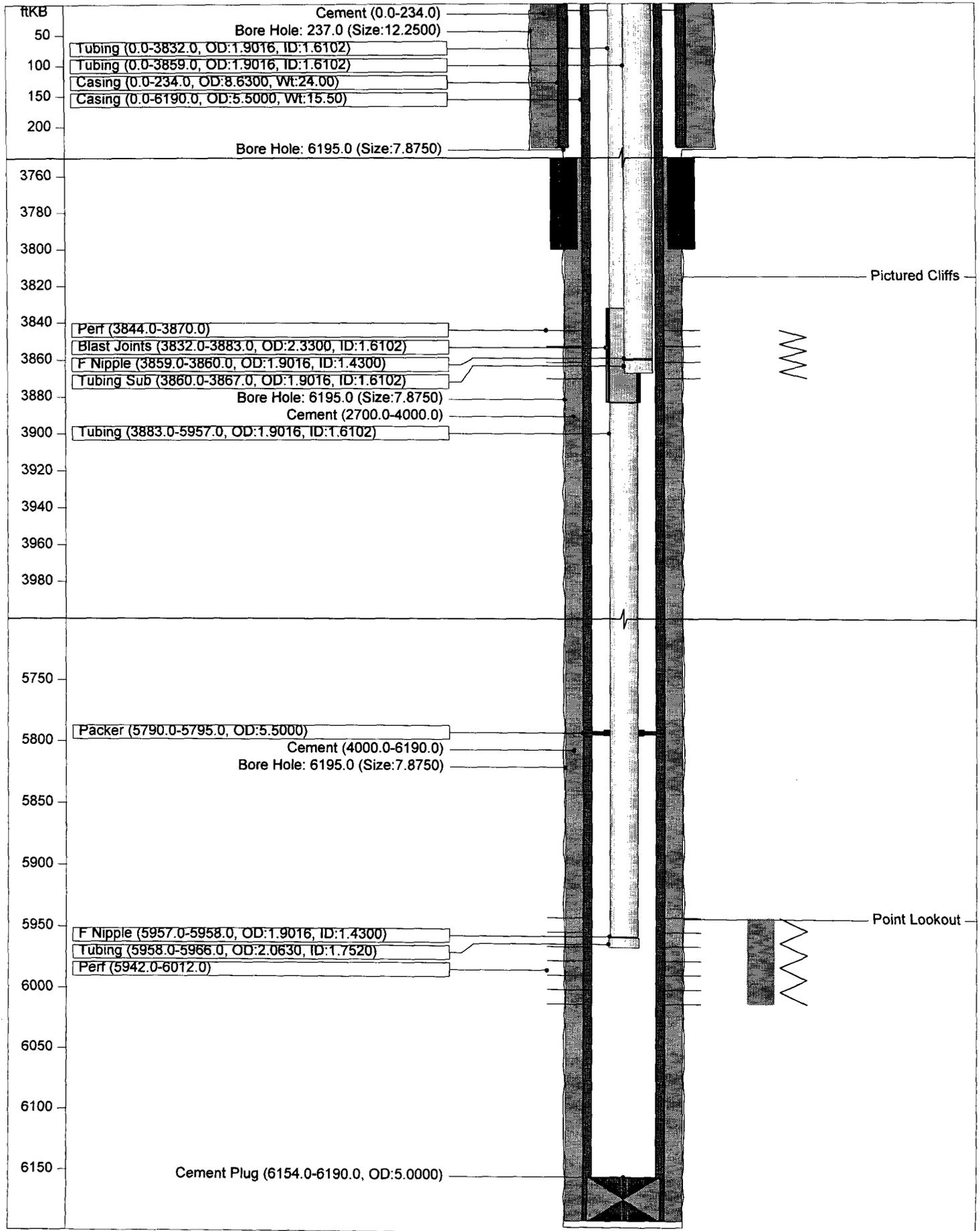
4/24/99



JICARILLA D 13 (GMH 8/13/97)



JICARILLA D 13 (GMH 8/13/97)



JICARILLA D 13 (GMH 8/13/97)

Tubing String - Tubing (PC)								
Item (in)	Top (ftKB)	Len (ft)	Jnts	ID (in)	Wt	Grd	Thd	Comments
1.9016 in Tubing	0.0	3859.0	151	1.6102	2.76	PCW-55	IJ	
1.9016 in F Nipple	3859.0	1.0		1.4300	0.00	PCW-55	IJ	
1.9016 in Tubing	3860.0	7.0		1.6102	2.76	PCW-55	IJ	
Sub								
Completions & Workovers								
Date	Reason for Workover	Reason for Failure	Summary					
13-Oct-73	Squeeze Casing	Cement Squeeze	Squeeze Casing - Shoot 1 sqz hole @ 3795'. Sqz w/ 100 sx below a pkr to 3000#. DO, run CBL.					
Formation/Horizon Tops								
Top (ftKB)	Formation							
3815.0	Pictured Cliffs							
5480.0	Cliff House							
5943.0	Point Lookout							
Logs Run								
Date	Type	Int	Company		Comments			
05-Sep-73	IND	233.0 - 6190.0	Atlas					
05-Sep-73	DEN	3650.0 - 6193.0	Atlas					
13-Oct-73	GR-CBL	0.0 - 0.0	Blue Jet					
General Notes								
Date	Note							
19-Oct-73	Initial Potential: Mesaverde; 1401 MCFGPD on 3/4 ck, TP 108; Pictured Cliffs; 1185 MCFGPD, 3/4 ck CP 97 TP 3							

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPL

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other _____
 b. TYPE OF COMPLETION: NEW WELL WORK OVER DEEP-EN PLUG BACK DIFF. RESVR. Other _____

2. NAME OF OPERATOR
SOUTHERN UNION PRODUCTION COMPANY

3. ADDRESS OF OPERATOR
P. O. Box 808, FARMINGTON, NEW MEXICO 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
 At surface **915 FT./NORTH LINE & 860 FT./EAST LINE.**
 At top prod. interval reported below **SAME AS ABOVE.**
 At total depth **SAME AS ABOVE.**

14. PERMIT NO. _____ DATE ISSUED _____

5. LEASE DESIGNATION AND SERIAL NO.
CONTRACT #100

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
JICARILLA APACHE

7. UNIT AGREEMENT NAME _____

8. FARM OR LEASE NAME
JICARILLA #10

9. WELL NO.
13

10. FIELD AND POOL, OR WILDCAT
TAPACITO PICTURED CLIFFS

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA
SEC. 32, T-26N, R-3W N.M.P.M.

12. COUNTY OR PARISH
RIO ARRIBA

13. STATE
NEW MEXICO

15. DATE SPUNDED **8-14-73** 16. DATE T.D. REACHED **9-4-73** 17. DATE COMPL. (Ready to prod.) **10-19-73** 18. ELEVATIONS (DF, REB, BT, GR, ETC.)* **7225 FT. R.K.B.** 19. ELEV. CASINGHEAD **7214 FT.**

20. TOTAL DEPTH, MD & TVD **6195 FT. R.K.B.** 21. PLUG, BACK T.D., MD & TVD **6154 FT. R.K.B.** 22. IF MULTIPLE COMPL., HOW MANY* **2** 23. INTERVALS DRILLED BY **→** ROTARY TOOLS **0-6195 FT.** CABLE TOOLS _____

24. PRODUCING INTERVAL(S) OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
3844-3870 FT. MD & TVD - TAPACITO PICTURED CLIFFS
5942-6012 FT. MD & TVD - BLANCO MESAVERDE 25. WAS DIRECTIONAL SURVEY MADE
No

26. TYPE ELECTRIC AND OTHER LOGS RUN
E.S. INDUCTION, GAMMA-RAY DENSITY, GAMMA-RAY CORRELATION & CEMENT BOND 27. WAS WELL CORED
No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24.0#	234 FT.	12-1/4"	150 SACKS	
5-1/2"	15.50#	6190 FT.	7-7/8"	STAGE COLLARS SET AT 2504 FT. & 4000 FT.	
1ST STAGE CEMENTED W/570 CU.FT. CMT.		2ND STAGE CEMENTED W/420 CU.FT. CEMENT.			
3RD STAGE CEMENTED W/700 CU.FT. CEMENT.					

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
1 1/2" I.J.	3887 FT. (PICTURED CLIFFS)	
1 1/2" EUE	5965 FT.	5790 FT. (M.V.)

31. PERFORATION RECORD (Interval, size and number)

PICTURED CLIFFS: 2 SHOTS/FT. 3844-3870 FT. TOTAL OF 52 HOLES. 0.48" HOLE SIZE.
MESAVERDE: 1 SHOT/FT. 5942-5984 FT. & 6000-6012 FT. TOTAL OF 56 HOLES. 0.48" HOLE SIZE.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3844-3870	60,000# SAND & 60,500 GALLONS OF WATER (PICTURED CLIFFS)
5942-6012	90,000# SAND & 96,600 GALLONS OF WATER (MESAVERDE)

33.* PRODUCTION

DATE FIRST PRODUCTION _____ PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) _____ WELL STATUS (Producing or shut-in)
SHUT-IN

DATE OF TEST	HOURS TESTED	CHOKER SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
12-4-73	3 HOURS	3/4"	→		175 - MESAVERDE		
12-11-73	2 HOURS	3/4"	→		23 PICTURED CLIFFS		

FLOW, TUBING PRESS. **108** CASING PRESSURE **PACKER** CALCULATED 24-HOUR RATE **→** OIL—BBL. **1401** GAS—MCF. **MESAVERDE** WATER—BBL. **185 - PICTURED CLIFFS** OIL GRAVITY-API (CORR.) _____

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)
VENTED TEST WITNESSED BY
KENNETH E. RODDY

35. LIST OF ATTACHMENTS _____

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records
 Original signed by
 SIGNED **Dan R. Collier** TITLE **OFFICE MANAGER** DATE **DECEMBER 13, 1973**
DAN R. COLLIER

*(See Instructions and Spaces for Additional Data on Reverse Side)