

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

DISTRICT II

511 South First St. A tesca NM 88210 2835

DISTRICT III

1000 Rio Brazos Rd. Uteco, NM 87410 1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-8429

Form C-107-A
New 3-12-98

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

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

Lease Jicanilla D Well No #11 Section 29, T-26-N, R-3-W, A County Rio Arriba, NM

OGRID NO. 015073 Property Code 18021 API NO. 30-039-20566 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)	3820-3840'		5942-6024'
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: Gas & Oil - Flowing: Estimated Current All Gas Zones: Measured Current Estimate: Or Measured Original	a (Current) 330 b(Original) 1175		575 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.	Date Rates 4/99 54 MCFD, 0 BOPD, 31 BWPD		Date Rates 4/99 59 MCFD, 3 BOPD, 3 BWPD
8. Fixed Percentage Allocation Formula % for each zone	Oil 0 % Gas 46 %	Oil % Gas %	Oil 100 % Gas 54 %

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

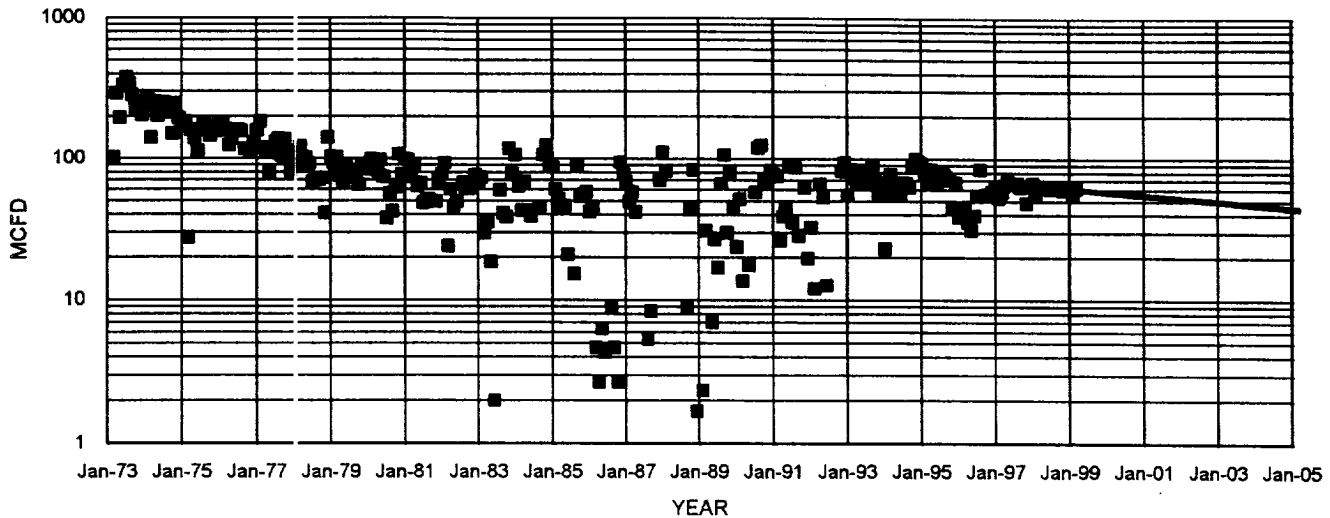
- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation 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-11 MESAVERDE PRODUCTION
SECTION 29A-26N-03W, RIO ARRIBA COUNTY, NEW MEXICO**



MESAVERDE HISTORICAL DATA:

OIL CUM: 3.85
GAS CUM: 724.6
OIL YIELD: 0.0053

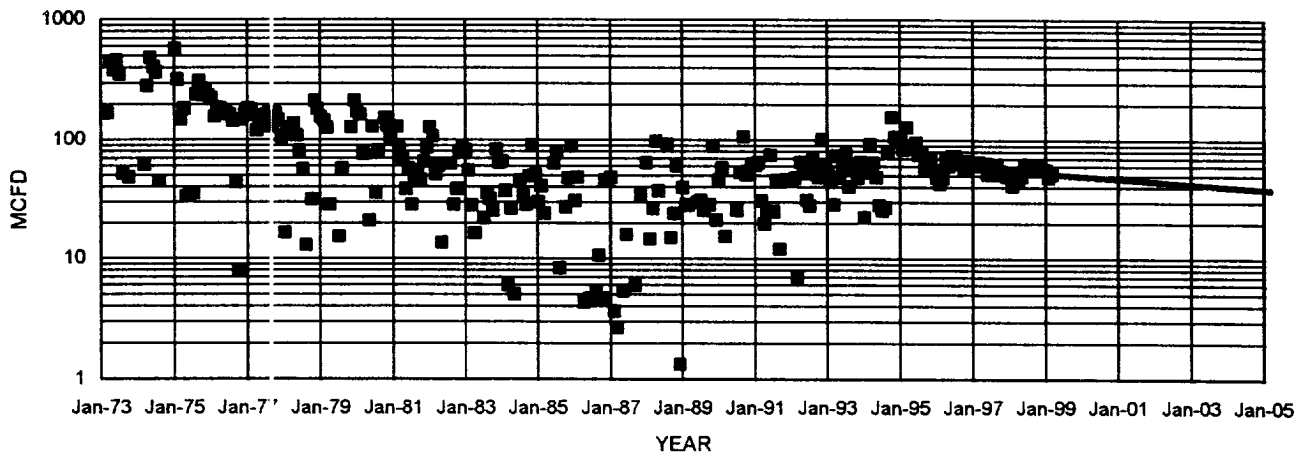
1ST PROD: 03/73

MBO
MMCF
BBL/MCF

MESAVERDE PROJECTED DATA

1/1/98 Qi: 64 MCFD
DECLINE RATE: 5.0% (EXPONENTIAL)

**JICARILLA D-11 PICTURED CLIFFS PRODUCTION
SECTION 29A-26N-03W, RIO ARRIBA COUNTY, NEW MEXICO**



PICT. CLIFFS HISTORICAL DATA:

OIL CUM: 0.0
GAS CUM: 684.5
OIL YIELD: 0.000

1ST PROD: 03/73

MBO
MMCF
BBL/MCF

PICTURED CLIFFS PROJECTED DATA

1/1/98 Qi: 55 MCFD
DECLINE RATE: 5.0% (EXPONENTIAL)

FIXED COMMINGLE ALLOCATION FACTORS:

	GAS	OIL
MESAVERDE	54%	100%
PICT. CLIFFS	46%	0%

NOTE: ALL PRODUCTION DATA FROM DWIGHTS ENERGY DATA

3
10
3
10

Dwights

Lease: JICARILLA D (11)

04/06/99

Retrieval Code: 251,039,26N03W29A00MV

5
10

2
10
2
10

10
10

1
1

4
10

3
10

2
10

1973 1975 1977 1979 1981 1983 1985 1987 1989 1991 1993 1995 1997 1999

Oil (bbl/mo)

County: RIO ARRIBA, NM

F.P. Date: 03/73

Gas (mcf/mo)

Water (bbl/mo)

Field: BLANCO (MESAVERDE) MV

Oil Cum: 3773 bbl

Reservoir: MESAVERDE

Gas Cum: 719.7 mmcf

Operator: CONOCO INC

Location: 29A 26N 3W

3
10
3
10

Dwights

Lease: JICARILLA D (11)

04/06/99

Retrieval Code: 251,039,26N03W29A00PC

5
10

2
10
2
10

10
10

1
1

4
10

3
10

2
10

1973 1975 1977 1979 1981 1983 1985 1987 1989 1991 1993 1995 1997 1999

Oil (bbl/mo)

County: RIO ARRIBA, NM

F.P. Date: 03/73

Gas (mcf/mo)

Water (bbl/mo)

Field: TAPACITO (PICTURED CLIFFS)

Oil Cum: 5 bbl

Reservoir: PICTURED CLIFFS

Gas Cum: 678.1 mmcf

Operator: CONOCO INC

Location: 29A 26N 3W

NEW MEXICO SOIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section

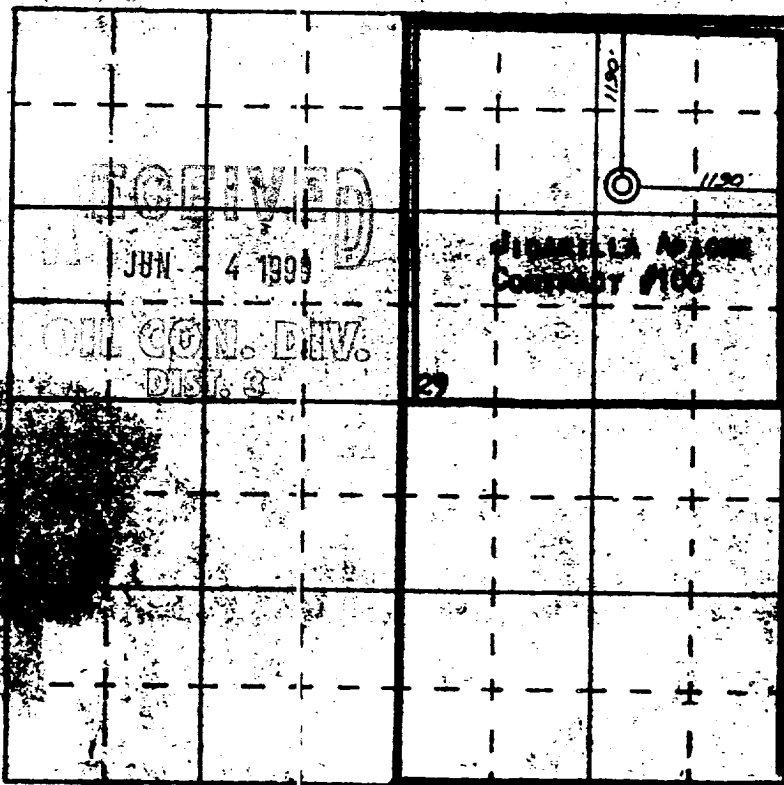
Operator SOUTHERN UNION PRODUCTION COMPANY		Lease JICARILLA		Well No. 11-D	
Unit Letter A	Section 29	Township 26 NORTH	Range 3 WEST	County RIO ARriba	
Actual Footage Location of Well: 1190 feet from the NORTH line and 1190 feet from the EAST line					
Ground Level Elev. 7145.0	Producing Formation RICHERD CLIFFS	Pool JICARILLA ALONE	Dedicated Acreage: P.V. 190		Acres 320

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 MESAYERDE AGERAGE
———DEDICATED PICTURED CLIFFS AGERAGE



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.**

GILBERT D. NOLAND, JR.

Position

DRILLING SUPERINTENDENT

Company

SOUTHERN UNION PRODUCTION CO.

Date

SEPTEMBER 21, 1972

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

Date **26 Sept. 1972**

San Juan Engineering Company, Farmington, N.M.

Certificate No. **11-D**

Jicarilla D # 11
Section 29, T-26-N, R-3-W, A
Rio Arriba, NM
API # 30-039-20566

RE: Downhole Commingle Application (C107A)

Notification of Offset Operators:

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

Dugan Production Corp,
PO Box 420
Farmington, NM 87499-0420

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

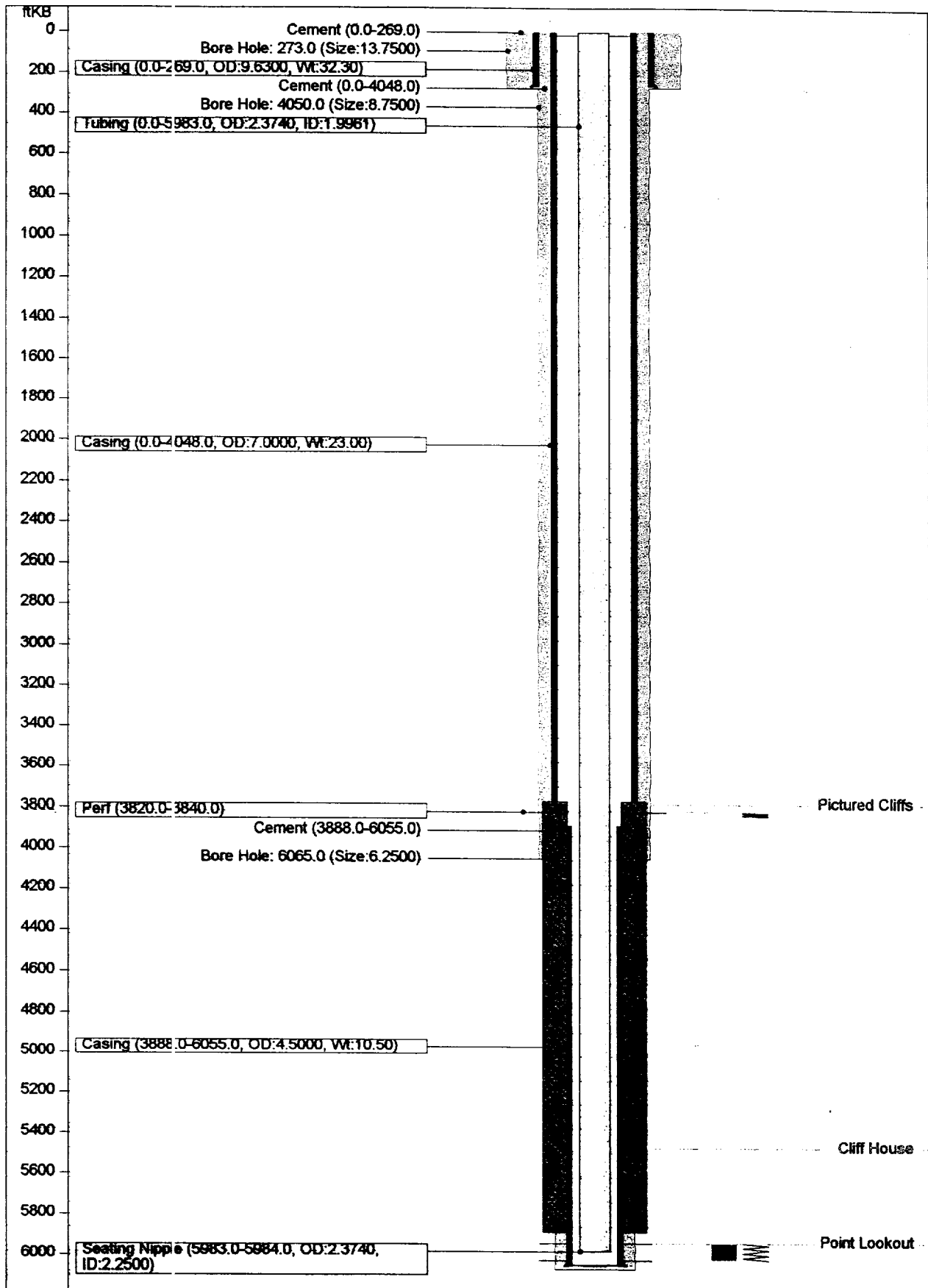
Jicarilla D 11

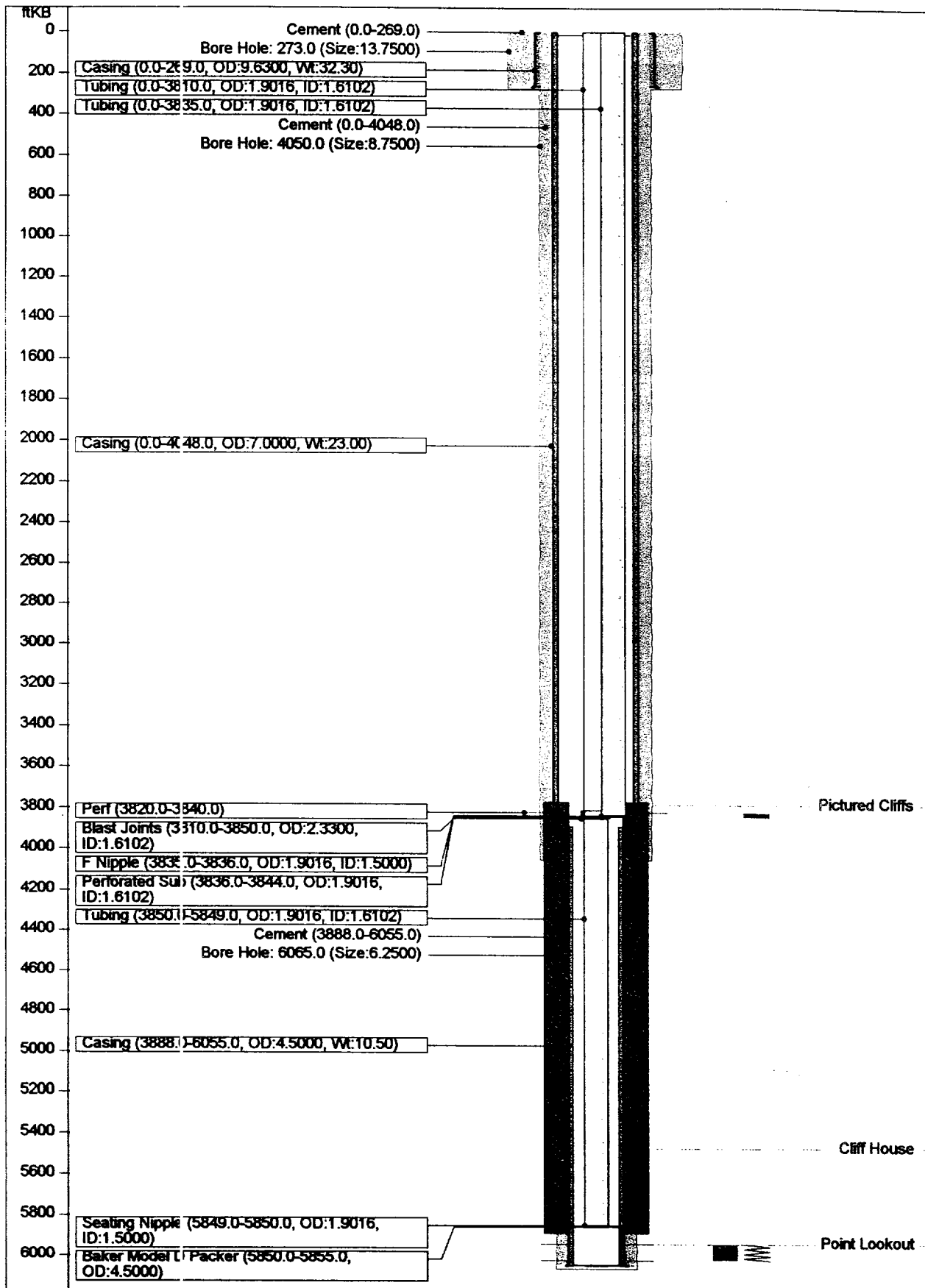
Economic/Rate Justification for Down Hole Commingling

Approval is requested to down hole commingle the existing zones in the subject well. The Jicarilla D11 has a 4.5" production liner installed in 7" production casing. It is cually completed in the Mesa Verde and Picture Cliffs using two 1.9" tubing strings. 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, along with the position of the tubing relative to the Mesa Verde perforations (87' above the perfs) allows 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 50 MCFD.

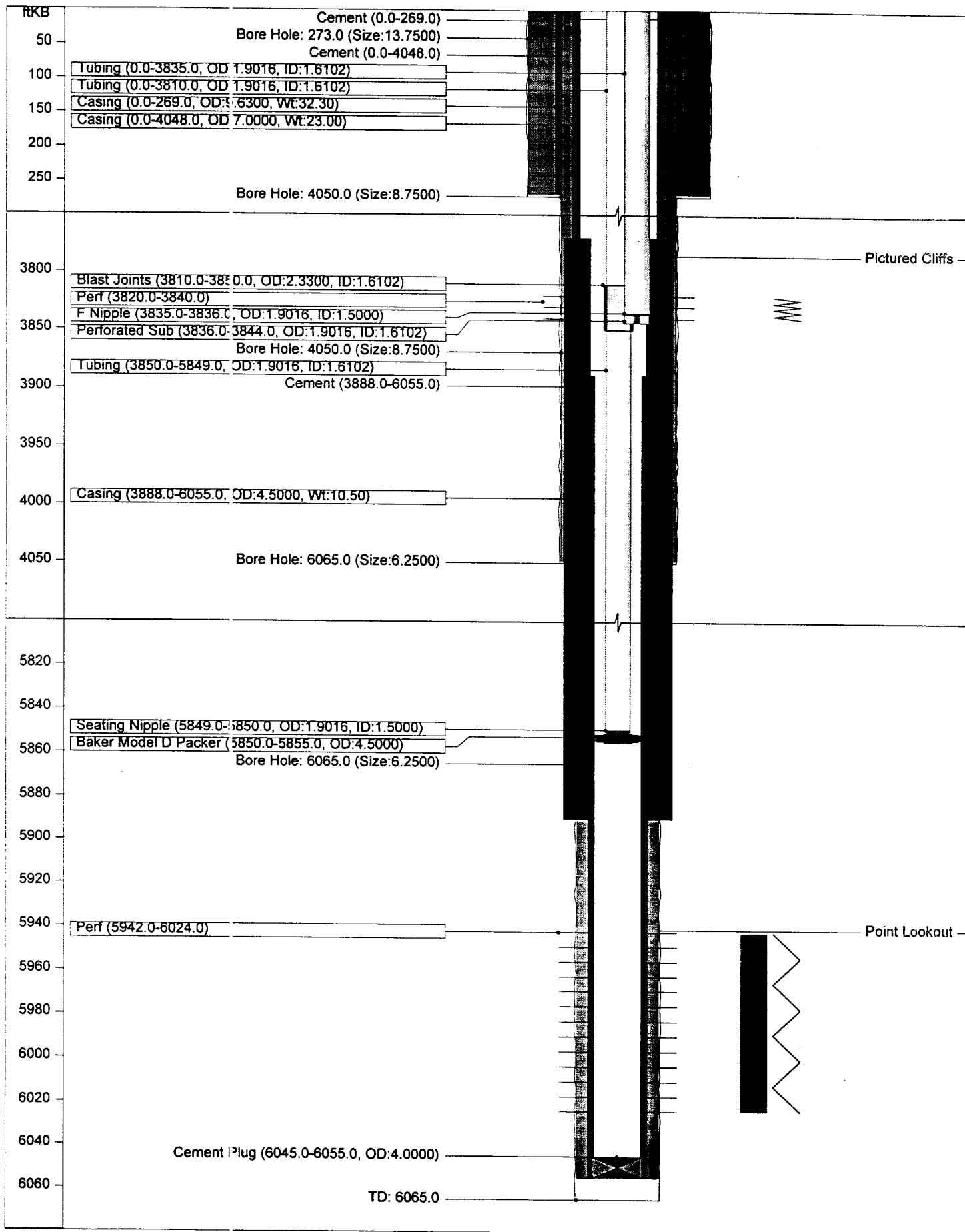
The single larger tubing string will not only allow for more efficient plunger operation, but will eliminate the cost to install a second plunger lift system and save approximately \$2000 per year in plunger lift operating expenses.

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 11 (GMH 6/24/97)



JICARILLA D 11 (GMH 6/24/97)

30039205660000

JICARILLA D 11 (GMH 6/24/97)

API Code		300392056600	Field Code		676380663	
TD		6065.0 ftKB	Basin		SAN JUAN BASIN	
PBTD		6045.0 ftKB	Basin Code		580	
State		New Mexico	Permit		02-Oct-72	
County		RIO ARRIBA	Spud		24-Oct-72	
District		San Juan O.U.	Finish Drl		13-Nov-72	
Permit No.			Completion		30-Nov-72	
TD Measured		6065 ftKB	Abandon			
Reservoir		Dakota/Pictured Cliffs				
Field		BLANCO MV/TAPACITO PC				
Location						
Meridian		NM	Top Latitude		36.46175	
Twship		26N	Top Longitude		107.1626	
Range		3W	Top NS Distance		1190.0 ft N	
Section		29	Top EW Distance		1190.0 ft E	
Quarter		SW NE NE	Bottom Latitude		0	
			Bottom Longitude		0	
			Btm NS Distance		0.0 ft	
			Btm EW Distance		0.0 ft	
Elevations						
KB		7155.0 ft	Cas Flng		0.0 ft	
Grd		7143.0 ft	Tub Head		0.0 ft	
KB-Grd		12.0 ft				
Bore Hole Data						
		Depth (ftKB)			Size (in)	
		273.0			13.7500	
		4050.0			8.7500	
		6065.0			6.2500	
Casing String - Surface Casing						
Item (in)	Btm (ftKB)	Jnts	ID	Wt	Grd	Thd Comments
9.6300 in Casing	269.0	7	9.0000	32.30	H-40	
Casing String - Intermediate Casing						
Item (in)	Btm (ftKB)	Jnts	ID	Wt	Grd	Thd Comments
7.0000 in Casing	4048.0	132	6.3700	23.00	K-55	
Casing String - Production Liner						
Item (in)	Btm (ftKB)	Jnts	ID	Wt	Grd	Thd Comments
4.5000 in Casing	6055.0	66	4.0500	10.50	K-55	
4.5000 in Baker Model L Packer	5855.0		2.6880	0.00		Assume ID, (either 2.688 or 1.968)
Casing Cement						
Casing String		Top (ftKB)	Amount (sx)	Comments		
Surface Casing		0.0	225	Cement circ		
Intermediate Casing		0.0	700	TOC unknown, cement did not circ. DV @ 1998'. 1st stg 500ft3 (315sx), 2nd stg 600ft3 (375sx)		
Production Liner		3888.0	315	TOC unknown, LR on disp, cement w/ 500ft3.		
Other (plugs, equip. etc.) - Plug Backs						
Date	Item		Int (ftKB)		Comments	
25-Nov-72	Cement Plug		6045.0 - 6055.0			
Perforations						
Date	Int	Shots (/ft)	Type	Comments		
26-Nov-72	5942.0 - 6024.0	1.0		70-40" EHD @ 5942-56, 5962-80, 5986-6010, 6014-24 in 250 G 7 1/2% HCl		
27-Nov-72	3820.0 - 3840.0	1.0		21 holes		
Stimulations & Treatments						
Date	Type	Zone	Int	Fluid	Comments	
23-Nov-72	Cement Squeeze	Production Liner	3770.0 - 5890.0	Cement	Shoot 2 sqz holes @ 5890', set Baker Model K Cem Ret @ 5740'. Sqz w/ 140 sx to 2000#. Sqz liner top below a pkr w/ 100 sx to 2000#. WOC 3 hrs, test 3000#, OK. Perf w/ thru tbg gun @ 3770', sqz w/ 200 sx to 3000#. CO to PBTD, test to 3000#. OK.	
26-Nov-72	Fracture	Mesaverde	5942.0 - 6024.0	Water	100,000 G w/ 50,000# 20/40 & 50,000# 10/20. ATP=1000# @ 56 bpm, ISIP=250#. Drop 8 stgs of 5 BS.	
26-Nov-72	Acid Squeeze	Mesaverde	5942.0 - 6024.0	15% HCl	BD @ 2600#. Acidize w/ 500 G @ 9 bpm @ 3500#.	
27-Nov-72	Fracture	Mesaverde	3820.0 - 3840.0	Water	60,000 G w/ 20,000# 20/40 & 40,000# 10/20. BD @ 1000#, ATP=1200# @ 57 bpm, ISIP=200#. Drop 2 stgs of 5 BS. Spearhead w/ 500 G 15% HCl.	

JICARILLA D 11 (GMH 6/24/97)

Tubing String - Tubing (MV)								
Item (in)	Top (ftKB)	Len (ft)	Jnts	ID (in)	Wt	Grd	Thd	Comments
1.9016 in Tubing	0.0	3810.0	116	1.6102	2.90	PCW-55	EUE	
2.3300 in Blast Joints	3810.0	40.0		1.6102	0.00	PCW-55	EUE	
1.9016 in Tubing	3810.0	1999.0	61	1.6102	2.90	PCW-55	EUE	
1.9016 in Seating Nipple	5819.0	1.0		1.5000	0.00	PCW-55	EUE	Assume ID

Tubing String - Tubing (PC)								
Item (in)	Top (ftKB)	Len (ft)	Jnts	ID (in)	Wt	Grd	Thd	Comments
1.9016 in Tubing	0.0	3835.0	115	1.6102	2.76	PCW-55	IJ	
1.9016 in F Nipple	3835.0	1.0		1.5000	0.00	PCW-55	IJ	Assume ID
1.9016 in Perforated Sub	3835.0	8.0		1.6102	0.00	PCW-55	IJ	

Formation/Horizon Tops	
Top (ftKB)	Formation
3785.0	Pictured Cliffs
5475.0	Cliff House
5941.0	Point Lookout

Logs Run				
Date	Type	Int	Company	Comments
30-Oct-72	IND	268.0 - 4033.0	Atlas	
30-Oct-72	DEN	3550.0 - 4033.0	Atlas	
13-Nov-72	IND	4000.0 - 6053.0	Atlas	
13-Nov-72	DEN	5400.0 - 6058.0	Atlas	

Drilling Notes	
Date	Note
31-Oct-72	Drill 1 1/4" hole w/ gas. Stuck drill pipe @ 5911', had to mud up.

General Notes	
Date	Note
30-Nov-72	Initial Potential: 756 AOF; 740 MCFPD After 3 Hrs SITP 1200 PSI After 7 Days
03-Apr-92	Drilling Journal: 4/3/92 (chngd well name from Jicarilla #D-11).

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other in-
structions on
reverse side)Form approved
Budget Bureau No. 42-2355.1

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DEEP ☐ Other _____				5. LEASE DESIGNATION AND SERIAL NO. Contract #100			
2. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ SHUT-IN ☐ Other _____				6. IF INDIAN, ALLOTTEE OR TRIBE NAME Jicarilla Apache			
3. NAME OF OPERATOR Southern Union Production Company				7. LEASE AGREEMENT NAME			
4. ADDRESS OF OPERATOR P.O. Box 808, Farmington, New Mexico 87401				8. FARM OR LEASE NAME Jicarilla "D"			
9. LOCATION OF WELL (Report location clearly and in accordance with any State requirements): At surface 1190 ft. from the North line & 1190 ft. from the East line At top prod. interval reported below Same as above At total depth Same as above				9. WELL NO. 11			
10. PERMIT NO. _____ DATE ISSUED _____				10. FIELD AND POOL, OR WILDCAT			
11. COUNTY OR PARISH Rio Arriba				11. SEC. T. R. M. OR BLOCK AND SUBWY OR AREA Sec. 29, T-26N, R-3W N.M.P.M.			
12. DATE SPUNDED 10-24-72				13. DATE R.D. REACHED 11-13-72			
14. DATE COMPL. (Ready to prod.) 11-30-72				15. ELEVATIONS OF LES. IT. 12, ETC. 7155 ft. R.K.B.			
16. TOTAL DEPTH, MD & TVD 6065 ft. R.K.B.				17. DEPTH, CASINGHEAD 7144 ft.			
18. PLUG BACK I.D. MD & TVD 6045 ft. R.K.B.				19. IF MULTIPLE COMPL. HOW MANY? 2			
20. INTERVALS DRILLED BY →				21. TOTAL TOOLS → 6065 ft.			
22. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD): 3820 - 3840 ft. MD. & TVD. - Tapacito Pictured Cliffs 5942 - 6024 ft. MD. & TVD. - Blanco Mesaverde				23. WAS DIRECTIONAL SURVEY MADE NO			
24. TYPE ELECTRIC AND OTHER LOGS RUN E.S. Induction, Gamma - Ray Density, & Cement Bond				25. WAS WELL CURED NO			
26. CASING RECORD (Report all strings set in well)							
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT FULLED		
9-5/8"	32.30#	269 ft.	13-3/4"	225 Sacks	None		
7"	23.0#	4048 ft.	8-3/4"	1st stage cemented w/500 cu. ft. cement.			
			Stage Collar set @ 1998 ft.	2nd stage cemented w/600 cu. ft.			
4-1/2"	10.50#	6050 ft.	6-1/4" (Liner)				
27. LINER RECORD			28. TUBING RECORD				
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
4-1/2"	3888 ft.	6050 ft.	500 cu. ft. cement.		1-1/2" ST	5850 ft.	5850 ft. (Mesav)
					1-1/2" IL	3844 ft.	Pictured Cliffs
29. PERFORATION RECORD (Interval, Hole and number)				30. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
Pictured Cliffs: 1 shot/ft. 3820 - 3840 ft. Total 21 Holes				DEPTH INTERVAL (MD)			
Mesaverde: 1 shot/ft. 5942 - 5956, 5962 - 5980, 5986 - 6010, 6014 - 6024 Total 70 Holes				AMOUNT AND KIND OF MATERIAL USED			
				3820 - 3840 ft. 60,000# sand & 60,000 gallons (Pictured Cliffs)			
				5942 - 6024 ft. 100,000# sand & 100,000 gal. (Mesaverde)			
31. PRODUCTION							
DATE FIRST PRODUCTION		PRODUCTION METHOD		WELL STATUS			
		Flowing, gas lift, pumping—size and type of pump.		Producing or shut-in			
DATE OF TEST	HOURS TESTED	CHOKER SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF	WATER—BBL.	GAS-OIL RATIO
12-19-72	3 Hours	3/4"	→		35 Mesaverde		
12-26-72	3 Hours	3/4"	→		314 Pictured Cliffs		
FLOW—GROSS PERIOD	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF	WATER—BBL.	OIL GRAVITY-API (TEMP.)	
52	674	→		740 (Mesaverde)			
189				2508 (Pictured Cliffs)			
32. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)						TEST WITNESSED BY	
Vented						Kenneth E. Roddy	
33. LIST OF ATTACHMENTS							
34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records							
SIGNED		TITLE		DATE			
Don R. Collins		Office Manager		January 4, 1973			
Don R. Collins							

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