

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

DISTRICT II
811 South First St. Artesia NM 88210 2835

DISTRICT III
1000 Rio Brazos Rd. Aztec, 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 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

Conoco Inc.

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

San Juan 28-7

229

O-32-T28N-R7W

Rio Arriba

Lease

Well No

Unit Ltr Sec Twp Rge

County

OGRID NO. 005073

Property Code 16608

API NO. 30-039-20994

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	Mesa Verde 72319		Dakota 71599
2. TOP and Bottom of Pay Section (Perforations)	4875' - 5603' OA		7478' - 7672'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Expected to be Flowing		Flowing
5. Bottomhole Pressure	a (Current)	a.	a.
Oil Zones - Artificial Lift: Estimated Current	800 psia		840 psia
Gas & Oil - Flowing: Measured Current	b(Original)	b.	b.
All Gas Zones: Estimated Or Measured Original	1192		2925
6. Oil Gravity (*API) or Gas BT Content	1205		1263
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	Date Rates	Date Rates	Date Rates
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
	Incremental Production by Subtraction		Mid-Year avg. rates - see table
8. Fixed Percentage Allocation Formula - % for 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 ☐
* Conoco is offset operator to all San Juan 28-7 Unit wells.

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. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S) _____

16. ATTACHMENTS

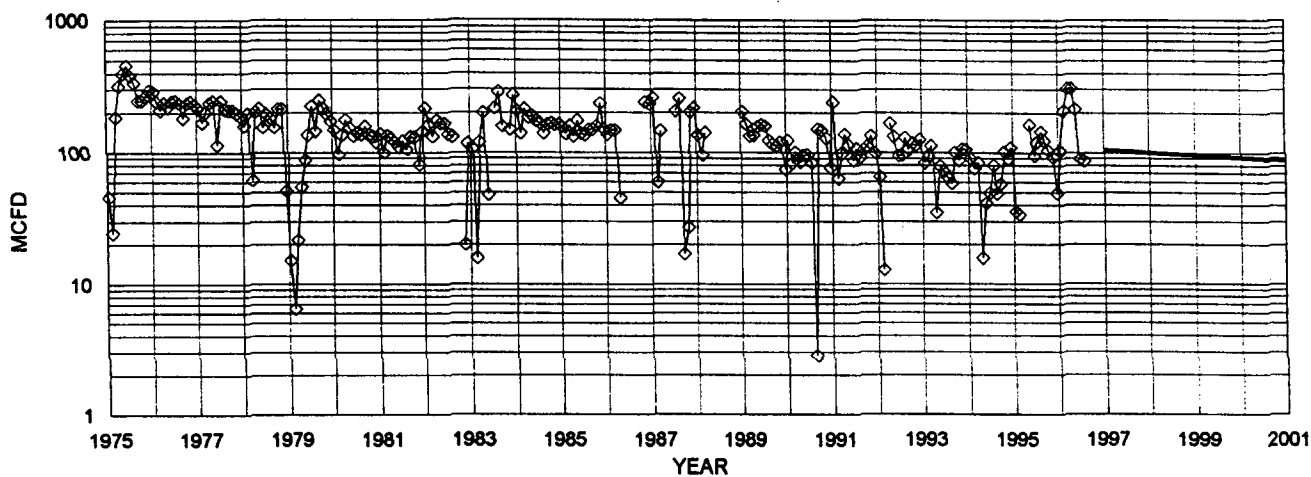
- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation 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 Jerry W. Hoover TITLE Sr. Conservation Coord DATE 1/27/97

TYPE OR PRINT NAME Jerry W. Hoover TELEPHONE NO. (915) 686-6548

**SAN JUAN 28-7 UNIT NO. 229 DAKOTA PRODUCTION
SECTION 320-28N-07W**



◇ DAKOTA MCFD — FIT MCFD

DAKOTA HISTORICAL DATA: 1ST PROD: 1/75

OIL CUM: 22.12 MBO
GAS CUM: 1039.2 MMCF
CUM OIL YIELD 0.0213 BBL/MCF
OIL YIELD: 0.0102 BBL/MCF, LAST 3 YRS

DAKOTA PROJECTED DATA
1/1/97 Q1: 105 MCFD
DECLINE RATE: 4.1% (EXPONENTIAL)

PRODUCTION FORECAST FOR SUBTRACTION METHOD COMMINGLE ALLOCATION

YEAR	MID-YEAR AVG. MCFD	MID-YEAR AVG. BOPD
1996	103	1.0
1997	99	1.0
1998	95	1.0
1999	91	0.9
2000	87	0.9
2001	83	0.8
2002	80	0.8
2003	77	0.8
2004	74	0.7
2005	71	0.7
2006	68	0.7
2007	65	0.7
2008	62	0.6
2009	60	0.6
2010	57	0.6
2011	55	0.6
2012	53	0.5
2013	50	0.5
2014	48	0.5
2015	46	0.5
2016	45	0.5
2017	43	0.4
2018	41	0.4
2019	39	0.4
2020	38	0.4
2021	36	0.4
2022	35	0.4
2023	33	0.3
2024	32	0.3
2025	31	0.3
2026	29	0.3
2027	28	0.3
2028	27	0.3
2029	26	0.3
2030	25	0.3

NEW MEXICO OIL CONSERVATION COMMISSION
 WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
 Supersedes C-128
 Effective 1-1-65

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

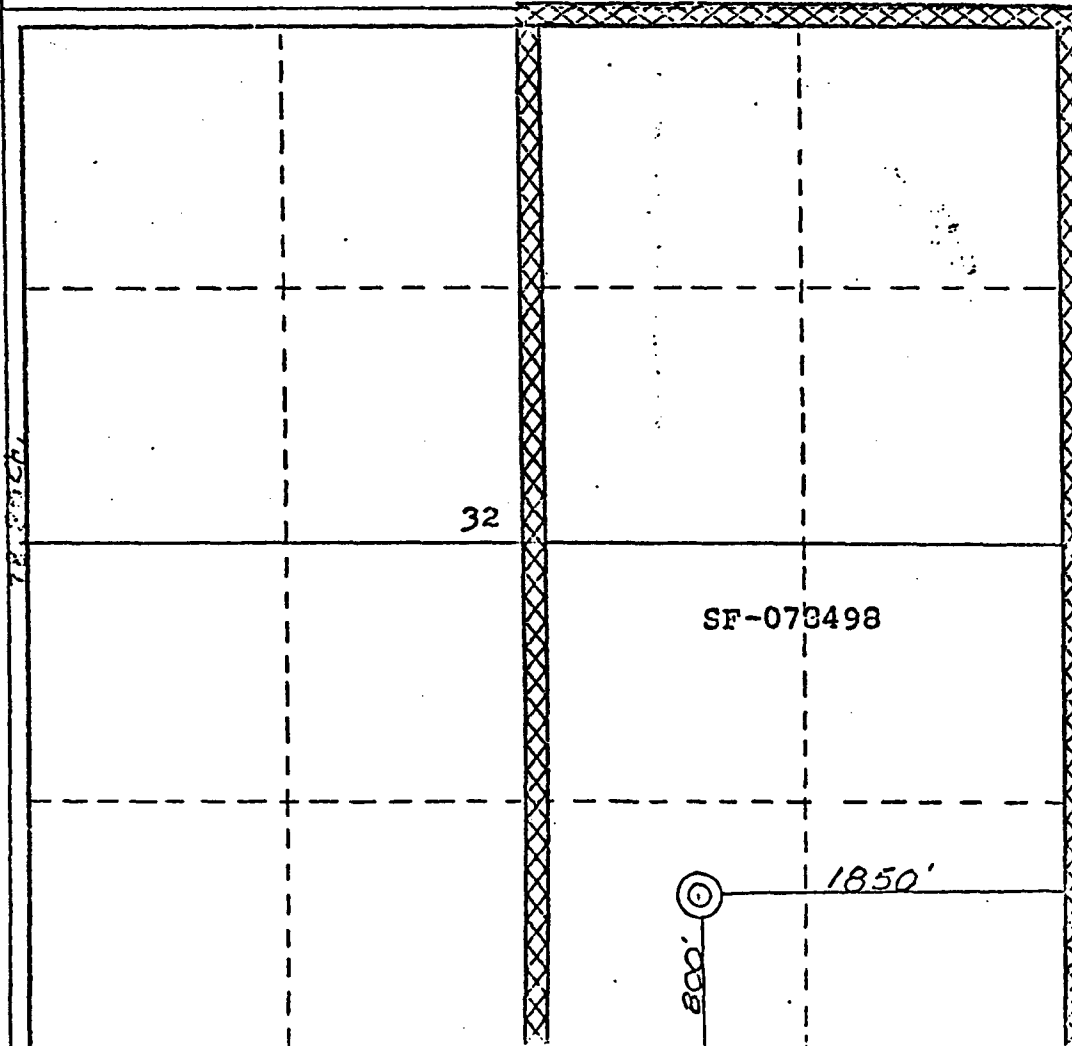
Operator EL PASO NATURAL GAS COMPANY		Lease SAN JUAN 28-7 UNIT(SF-078498)		Well No. 229
Unit Letter 0	Section 32	Township 28 NORTH	Range 7 WEST	County RIO ARriba
Actual Footage Location of Well: 800 feet from the SOUTH line and 1850 feet from the EAST line				
Ground Level Elev. 6661	Producing Formation DAKOTA		Pool BASIN DAKOTA	Dedicated Acreage: 315.68 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 Unitization

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 Commission.



CERTIFICATION

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

[Signature]
 Name
 Drilling Clerk

Position
 El Paso Natural Gas Co.

Company
 August 1, 1974

Date

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
 29 MAY 1974

Registered Professional Engineer and/or Land Surveyor
[Signature]
 James D. Leese

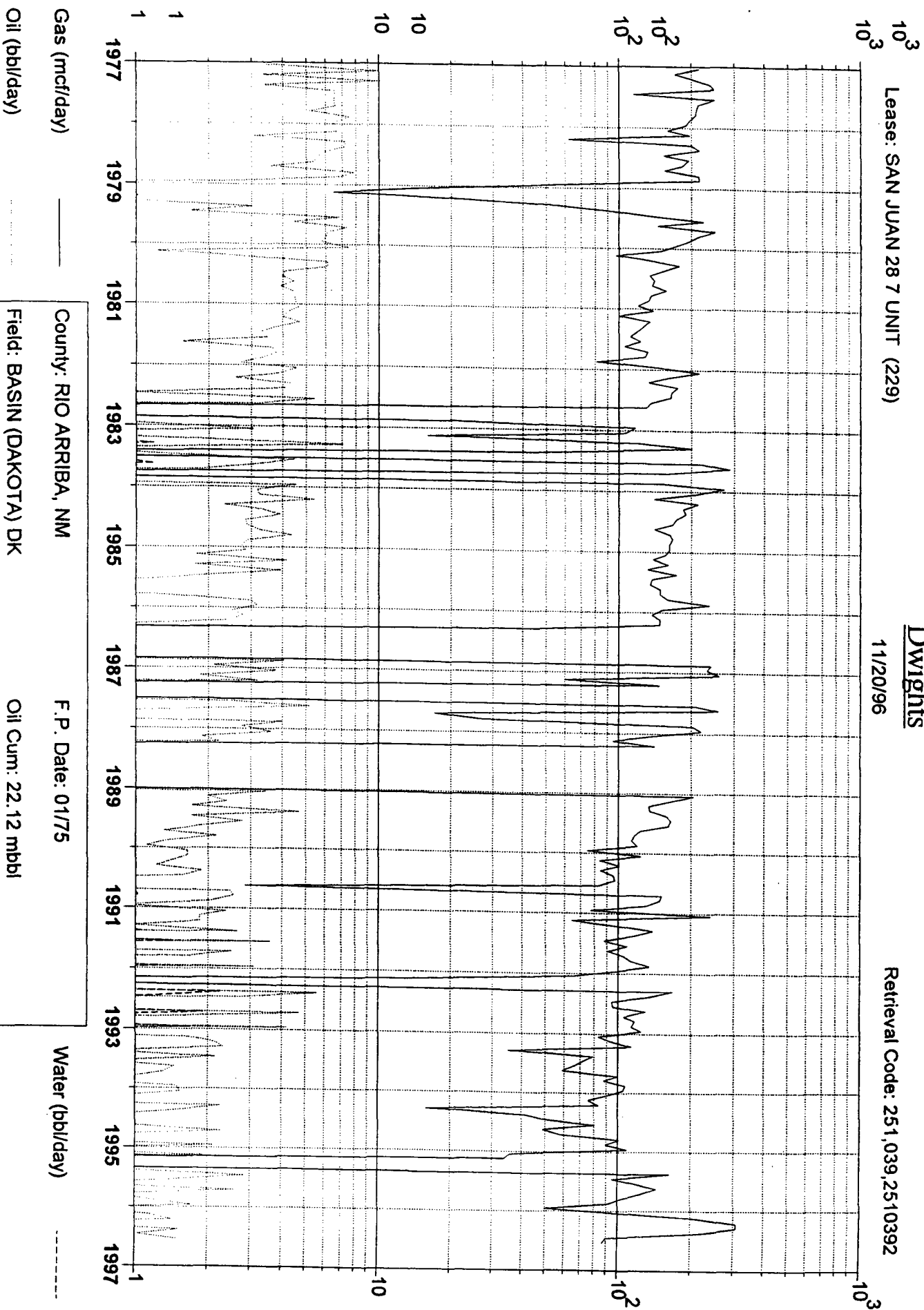
Certificate No.

0 310 620 930 1240 1550 1860 2170 2480 2790 3100 3410 3720 4030 4340 4650 4960 5270 5580 5890 6200 6510 6820 7130 7440 7750 8060 8370 8680 8990 9300 9610 9920 10230 10540 10850 11160 11470 11780 12090 12400 12710 13020 13330 13640 13950 14260 14570 14880 15190 15500 15810 16120 16430 16740 17050 17360 17670 17980 18290 18600 18910 19220 19530 19840 20150 20460 20770 21080 21390 21700 22010 22320 22630 22940 23250 23560 23870 24180 24490 24800 25110 25420 25730 26040 26350 26660 26970 27280 27590 27900 28210 28520 28830 29140 29450 29760 30070 30380 30690 31000 31310 31620 31930 32240 32550 32860 33170 33480 33790 34100 34410 34720 35030 35340 35650 35960 36270 36580 36890 37200 37510 37820 38130 38440 38750 39060 39370 39680 39990 40300 40610 40920 41230 41540 41850 42160 42470 42780 43090 43400 43710 44020 44330 44640 44950 45260 45570 45880 46190 46500 46810 47120 47430 47740 48050 48360 48670 48980 49290 49600 49910 50220 50530 50840 51150 51460 51770 52080 52390 52700 53010 53320 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148800 149110 149420 149730 150040 150350 150660 150970 151280 151590 151900 152210 152520 152830 153140 153450 153760 154070 154380 154690 155000 155310 155620 155930 156240 156550 156860 157170 157480 157790 158100 158410 158720 159030 159340 159650 159960 160270 160580 160890 161200 161510 161820 162130 162440 162750 163060 163370 163680 163990 164300 164610 164920 165230 165540 165850 166160 166470 166780 167090 167400 167710 168020 168330 168640 168950 169260 169570 169880 170190 170500 170810 171120 171430 171740 172050 172360 172670 172980 173290 173600 173910 174220 174530 174840 175150 175460 175770 176080 176390 176700 177010 177320 177630 177940 178250 178560 178870 179180 179490 179800 180110 180420 180730 181040 181350 181660 181970 182280 182590 182900 183210 183520 183830 184140 184450 184760 185070 185380 185690 186000 186310 186620 186930 187240 187550 187860 188170 188480 188790 189100 189410 189720 190030 190340 190650 190960 191270 191580 191890 192200 192510 192820 193130 193440 193750 194060 194370 194680 194990 195300 195610 195920 196230 196540 196850 197160 197470 197780 198090 198400 198710 199020 199330 199640 199950 200260 200570 200880 201190 201500 201810 202120 202430 202740 203050 203360 203670 203980 204290 204600 204910 205220 205530 205840 206150 206460 206770 207080 207390 207700 208010 208320 208630 208940 209250 209560 209870 210180 210490 210800 211110 211420 211730 212040 212350 212660 212970 213280 213590 213900 214210 214520 214830 215140 215450 215760 216070 216380 216690 217000 217310 217620 217930 218240 218550 218860 219170 219480 219790 220100 220410 220720 221030 221340 221650 221960 222270 222580 222890 223200 223510 223820 224130 224440 224750 225060 225370 225680 225990 226300 226610 226920 227230 227540 227850 228160 228470 228780 229090 229400 229710 230020 230330 230640 230950 231260 231570 231880 232190 232500 232810 233120 233430 233740 234050 234360 234670 234980 235290 235600 235910 236220 236530 236840 237150 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Lease: SAN JUAN 28 7 UNIT (229)

Dwights
11/20/96

Retrieval Code: 251,039,2510392



County: RIO ARRIBA, NM

F.P. Date: 01/75

Field: BASIN (DAKOTA) DK

Oil Cum: 22.12 mbbl

Reservoir: DAKOTA

Gas Cum: 1039 mmcf

Operator: CONOCO INC

Location: 320 28N 7W

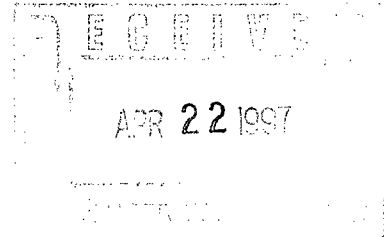


DHC 5-12-97

Mid-Continent Region
Exploration/Production

Conoco Inc.
10 Desta Drive, Suite 100W
Midland, TX 79705-4500
(915) 686-5400

April 21, 1997



Mr. Ben Stone
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87504

Re: SAN JUAN 28-7 UNIT DOWNHOLE COMMINGLES

Dear Ben:

On Feb. 3, 1997, these 22 downhole commingling applications for wells in Conoco's San Juan 28-7 Unit were mailed to Santa Fe. Five of the applications are for downhole commingling between the Pictured Cliffs and the Mesaverde formations and 17 between the Mesaverde and Dakota formations for which hundreds of previous applications have been received and approved by the OCD. The allocation formulas and procedures are simple and straightforward; no different than has readily been approved before. Two weeks ago an E-Mail message was sent to David Catanach simply requesting an update as to the status of these applications. To date we have received no reply.

The San Juan 28-7 Unit with nearly 400 wells is a significant portion of Conoco's business in the San Juan Basin. A major portion of our Spring work program has been planned around many recompletions to be immediately followed by these downhole comminglings. This work can be done at the same time because the downhole commingling applications use the very commonly approved "Subtraction" method of allocation where a stable production history (projected to abandonment in table form) is submitted for one zone (usually the Dakota) and any incremental production is allocated to the new completion (usually the Mesaverde). This avoids a lengthy testing period and a second rigup on the well to downhole commingle it.

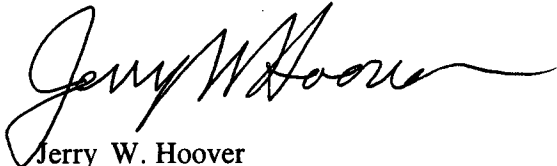
We felt that we had filed these applications in adequate time to be ready for our Spring work window which usually begins in early April when weather permits. We have rigs and crews on hold waiting to begin this very critical program of increasing our production base in this unit. If we can't start on this program very soon, it will result in significant economic loss through its delay.

<u>NAME</u>	<u>FORMATIONS</u>	<u>ALLOCATION METHOD</u>	<u>ALSO TO BE RECOMPLETED</u>
San Juan 28-7 No. 79	Pictured Cliffs / Mesaverde	Fixed Percentage	
San Juan 28-7 No. 81	Pictured Cliffs / Mesaverde	Fixed Percentage	
San Juan 28-7 No. 88	Pictured Cliffs / Mesaverde	Fixed Percentage	
San Juan 28-7 No. 95	Pictured Cliffs / Mesaverde	Fixed Percentage	
San Juan 28-7 No. 98	Mesaverde / Dakota	Fixed Percentage	
San Juan 18-7 No. 99	Mesaverde / Dakota	Subtraction	
San Juan 28-7 No. 104	Pictured Cliffs / Mesaverde	Fixed Percentage	
San Juan 18-7 No. 110	Mesaverde / Dakota	Subtraction	YES
San Juan 18-7 No. 111	Mesaverde / Dakota	Subtraction	YES
San Juan 18-7 No. 125	Mesaverde / Dakota	Subtraction	YES
San Juan 18-7 No. 126	Mesaverde / Dakota	Subtraction	YES
San Juan 18-7 No. 188	Mesaverde / Dakota	Subtraction	YES
San Juan 18-7 No. 189	Mesaverde / Dakota	Subtraction	YES
San Juan 18-7 No. 191E	Mesaverde / Dakota	Subtraction	YES
San Juan 18-7 No. 219	Mesaverde / Dakota	Subtraction	YES
San Juan 18-7 No. 221	Mesaverde / Dakota	Subtraction	YES
San Juan 18-7 No. 222	Mesaverde / Dakota	Subtraction	YES
San Juan 18-7 No. 223	Mesaverde / Dakota	Subtraction	YES
San Juan 18-7 No. 226	Mesaverde / Dakota	Subtraction	YES
San Juan 18-7 No. 227	Mesaverde / Dakota	Subtraction	YES
San Juan 18-7 No. 229	Mesaverde / Dakota	Subtraction	YES
San Juan 18-7 No. 256	Mesaverde / Dakota	Subtraction	YES

I can't imagine what happened to the original applications. They were sent together in one large package. We would appreciate any help you can give us in expediting this work. In the future, is it possible for us to check with someone who logs these applications in to see if you have received them and who will work them? We just assumed that you were overloaded (which you are) and couldn't get to them for 2-1/2 months. It never occurred to us that you hadn't received them.

Thanks for your help in this matter. If I can be of further help call me at (915) 686-6548.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Jerry W. Hoover". The signature is fluid and extends to the right with a long, sweeping tail.

Jerry W. Hoover
Sr. Conservation Coordinator

DHC-1556



COMMERCIAL RESOURCES
(505)-827-5724

SURFACE RESOURCES
(505)-827-5793

MINERAL RESOURCES
(505)-827-5744

ROYALTY
(505)-827-5772

State of New Mexico
Commissioner of Public Lands

Ray Powell, M.S., D.V.M.
310 Old Santa Fe Trail, P. O. Box 1148
Santa Fe, New Mexico 87504-1148
Phone (505)-827-5760, Fax (505)-827-5766

PUBLIC AFFAIRS
(505)-827-5765

ADMINISTRATIVE MGMT.
(505)-827-5700

LEGAL
(505)-827-5713

PLANNING
(505)-827-5752

February 25, 1997

Conoco Inc.

10 Desta Drive
Suite 100W
Midland, Texas 79705-4500

Attn: Mr. Jerry W. Hoover

Re: Application for ~~Downhole Commingling~~
~~San Juan 28-7 Unit Wells~~
Rio Arriba County, New Mexico

Dear Mr. Hoover:

We are in receipt of your application to downhole the following San Juan 28-7 unit wells:

Pictured Cliffs/Mesaverde

Well No. 78
Well No. 81
Well No. 88
Well No. 95
Well No. 104

Mesaverde/Dakota

Well No. 98
Well No. 99
Well No. 110
Well No. 111
Well No. 188
Well No. 189

Well No. 125
Well No. 126
Well No. 191E
Well No. 219
Well No. 221
Well No. 222

Well No. 223
Well No. 226
Well No. 227
Well No. 229
Well No. 256


Conoco Inc.
February 25, 1997
Page 2

This office has no objection to your proposed request. Since all of the above-described wells are located on federal minerals, this action is subject to like approval by the Bureau of Land Management and the New Mexico Oil Conservation Division.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M.
COMMISSIONER OF PUBLIC LANDS

BY: 
JAMI BAILEY, Director
Oil, Gas and Minerals Division
(505) 827-5744

RP/JB/cpm
cc: Reader File
OCD--David Catanach and Ben Stone