

SPIRIT ENERGY 76

New Name. Same Spirit.
A Business Unit of Unocal

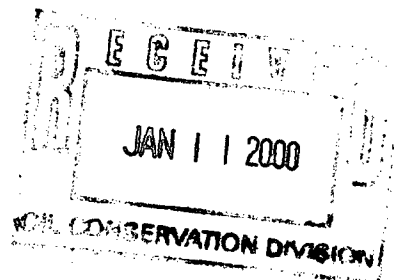
DHC 1/31/00

2586

January 6, 2000

New Mexico Oil Conservation Division
Attn.: David Catanach
2040 S. Pacheco Street
Santa Fe, NM 87505-6429

New Mexico Oil Conservation Division
Attn.: Frank T. Chavez
1000 Rio Brazos Road
Aztec, NM 87410



Gentlemen,

Union Oil Company of California (UNOCAL) requests approval to down hole commingle production from the Blanco Mesaverde and Basin Dakota formations in the following Rincon Unit well, Rio Arriba County, New Mexico.

Well	Lease	Legal Location
158R	Fee	2425' FSL, 2425' FWL, NW Sec 22, T27N, R6W

As provided by Order No. R-9893, administrative approval may be granted without notice and hearing.

Form C-107-A with supporting data is attached.

If you have any questions please contact Heather Dahlgren at (915) 685-7665.

Sincerely,

Spirit Energy 76
A Business Unit of UNOCAL


Heather Dahlgren
Senior Engineering Technician

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
811 South First St., Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410
DISTRICT IV
2040 S. Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION

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

Form C-107-A
Revised August 1999

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☐ YES ☒ NO

APPLICATION FOR DOWNHOLE COMMINGLING

UNION OIL COMPANY OF CALIFORNIA (UNOCAL)

1004 N. BIG SPRING, MIDLAND, TX 79702

Operator

Address

RINCON UNIT

158R

22-27N-6W

RIO ARRIBA

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 023708 Property Code 011510 API NO. 30-039-26207 Federal State (and/or) Fee X

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		BASIN DAKOTA 71599
2. Top and Bottom of Pay Section (Perforations)	4722-5318		7290-7486
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: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) 550 b. (Original) 1545	a. b.	a. 802 b. 2860
6. Oil Gravity (EAPI) or Gas BTU Content	1167		1112
7. Producing or Shut-In?	Shut in		Shut in
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	Date: Rates:	Date: Rates:	Date: Rates:
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates: to be provided pending test	Date: Rates:	Date: Rates: to be provided pending test
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	To be determined see attachments Oil: % Gas: %	Oil: % Gas: %	To be determined see attachments 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? R-9893 ☒ 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 other? ☒ 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). DHC-2557 & DHC-2556

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 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  TITLE Engineering Asst. DATE 1-7-2000

TYPE OR PRINT NAME Heather Dahlgren TELEPHONE NO. (915) 685-7665

January 6, 2000

Supplemental Data in Support of Downhole Commingling Application
Rincon Unit Well 158R

In 1992, Union Oil Company of California (UNOCAL) began developing Infill Dakota/Mesaverde locations on the Rincon Unit. Since that time, 40 Dakota/Mesaverde wells have been approved for Downhole Commingling. As spacing rules change, commingling continues to be the most economic method of developing reserves on the Rincon Unit.

The last seven years of new development have provided us with an ever increasing database of production histories, pressure data and geologic data. In support of this application, UNOCAL feels that this database provides an equitable and accurate means for allocating production between the commingled pools. Production allocation factors for the above well will use the following data:

- A) Initial production flow tests.
- B) Offset well production history.
- C) Production profile models.
- D) Net pay.

While differences of production allocation do occur on the Rincon Unit, the average allocation is 65% Dakota, 35% Mesaverde. Wide variances from these averages can be attributed to geology. Through out most of the unit, the Dakota formation provides less geologic and production variability than does the Mesaverde. To determine the contribution of the Mesaverde in a given area, flow tests, offset production, model decline comparisons and net pay must be considered. Examples of the above supporting data have been enclosed in previous submissions and can be readily supplied if so needed.

Unocal is in the process of completing pressure and production tests. We would request that the application be approved based on the above with allocation factors to be provided within the first 60 days of commingled production.

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Elio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102

Revised February 21, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-039-26207		2 Pool Code 71599		3 Pool Name Basin Dakota	
4 Property Code 011510		5 Property Name RINCON UNIT			6 Well Number 158R
7 OGRID No. 23708 023710		8 Operator Name UNION OIL COMPANY OF CALIFORNIA			9 Elevation 6395

10 Surface Location

UL or lot no. K	Section 22	Township 27 N	Range 6 W	Lot Idn	Feet from the 2425	North/South line South	Feet from the 2425	East/West line West	County Rio Arriba
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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 B. Dak 320 ac.		13 Joint or Infill		14 Consolidation Code		15 Order No.			

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

<p>16 BC 589'56"W</p> <p>79.70 CH.</p> <p>RECEIVED JUL 23 1999 OIL CON. DIV. DIST. 3</p>		<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Michael C. Phillips</i> Signature Michael C. Phillips Printed Name Rocky Mt. Drilling Foreman Title June 22, 1999 Date</p>	
<p>2425'</p> <p>22</p> <p>2425'</p> <p>589'15"W</p> <p>80.05 CH.</p>		<p>18 SURVEYOR CERTIFICATION</p> <p>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 belief.</p> <p>WILLIAM J. HANKE Date of Survey NEW MEXICO Signature 8466 WILLIAM J. HANKE Title William J. Hanke II Certificate Number 8466</p>	

District I
PO Box 1930, Hobbs, NM 88241-1930
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

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised February 21, 1994
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Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. ATI Number 30-039-26207		2. Pool Code 72319		3. Pool Name Blanco Mesa Verde		
4. Property Code 011510		5. Property Name RINCON UNIT			6. Well Number 158R	
7. OGRID No. 23708 023710		8. Operator Name UNION OIL COMPANY OF CALIFORNIA			9. Elevation 6395	

10. Surface Location

UL or lot no. K	Section 22	Township 27 N	Range 6 W	Lot Idn	Feet from the 2425	North/South line South	Feet from the 2425	East/West line West	County Rio Arriba
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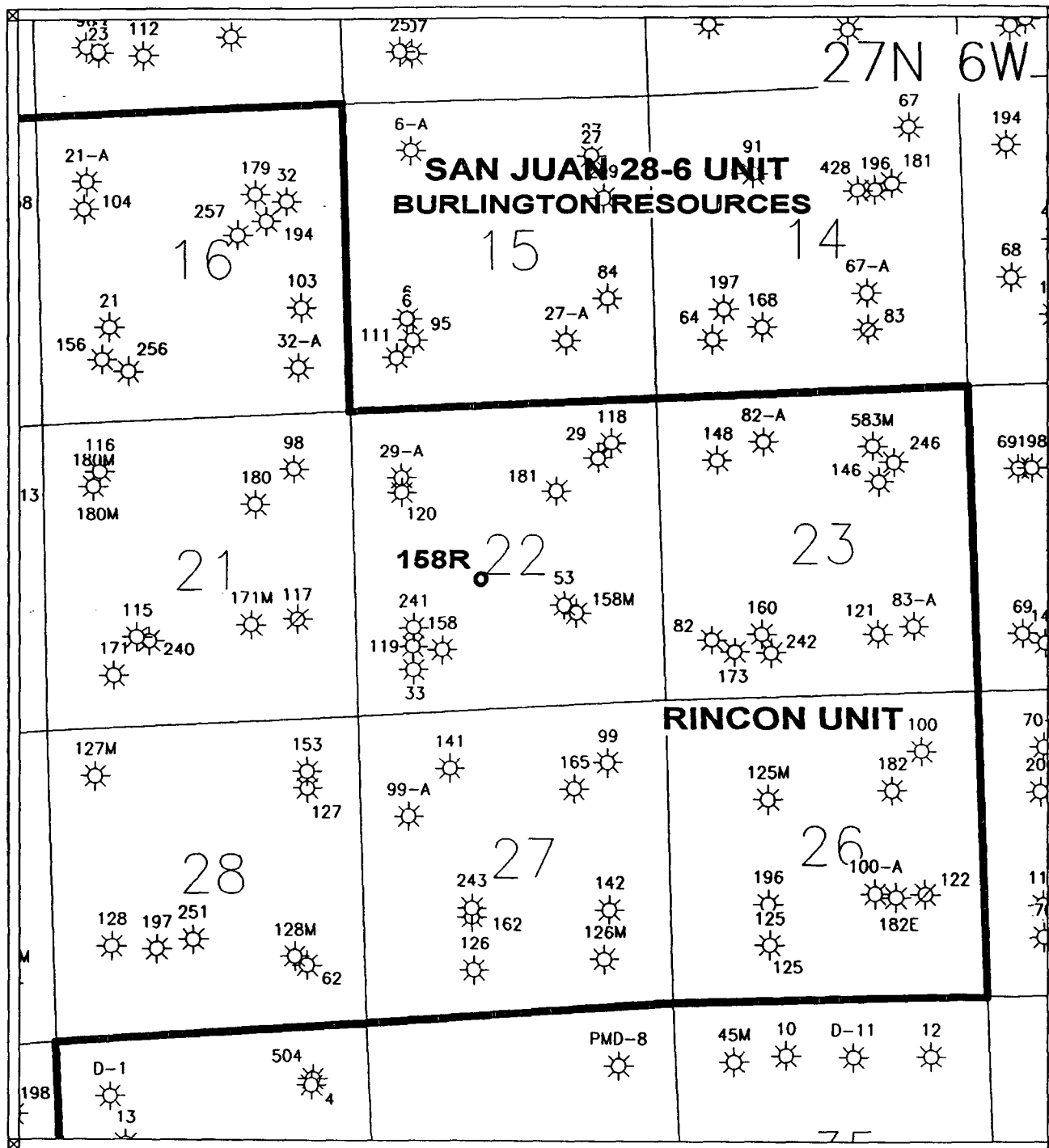
11. Bottom Hole Location If Different From Surface

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

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. BC 589' 56" W		BC 79.70 CH. BC		17. OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: <u>Michael C. Phillips</u> Printed Name: <u>Michael C. Phillips</u> Title: <u>Rocky Mt. Drilling Foreman</u> Date: <u>June 22, 1999</u>	
79.38 CH.		78.54 CH.			
2425'		22		18. SURVEYOR CERTIFICATION 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 belief. Date of Survey: <u>June 1999</u> Signature: <u>William C. Estess</u> Title: <u>Professional Surveyor II</u> Certificate Number: <u>8466</u>	
N 1° 08' E		2425'			
589' 25" W		80.05 CH.			

New Mexico Oil Conservation Division



Scale 1:31844.67

1000. 0. 1000. 2000. 3000. 4000. 5000. feet



0.1 0. 0.1 0.2 0.3 0.4 0.5 miles



LOCATOR MAP		
RINCON UNIT NO. 158R		
OPERATOR: UNION OIL CO. OF CALIFORNIA		
Scale 1:31844.67		
WOMHLDREN	1/7/19100	158R.DWG