## Gulf Oil Exploration and Production Company

C. D. Borland PRODUCTION MANAGER, HOBBS AREA July 12, 1978

P. O. Box 670 Hobbs, NM 88240

Re: H. T. Mattern (NCT-D) No. 12, Section 6-22S-37E; H. T. Mattern (NCT-D) No. 14, Section 6-22S-37E; H. T. Mattern (NCT-D) No. 16, Section 7-22S-37E; H. T. Mattern (NCT-D) No. 17, Section 7-22S-37E, Lea County, New Mexico Request for Administrative Approval to Downhole Commingle the Blinebry and Drinkard Pools

Mr. Joe D. Ramey Energy and Minerals Department Oil Conservation Division P. O. Box 2088 Santa Fe, NM 87501

Dear Sir:

Your administrative approval is requested for an exception to Rule 303-A to permit downhole commingling of production in the subject wells from the Blinebry and Drinkard pools. Production from the same two pools is presently being commingled downhole in Gulf's H. T. Mattern (NCT-D) No. 8, per Order No. R-5114 dated November 17, 1975. There is no evidence of fluid incompatibility and we do not expect any reservoir damage due to downhole commingling in the well bore. Ownership of the two pools is common and correlative rights will not be violated.

Currently, Wells No. 12, 14, 16 and 17 each utilize a single pumping unit installation producing from the Drinkard pool. Upon approval to downhole commingle, we will isolate the Drinkard zone and perforate and stimulate the Blinebry zone. The Blinebry will then be tested separately. At that time Gulf will submit to the District Supervisor of the Energy and Minerals Department of the Oil Conservation Division, separate stabilized well tests from the Blinebry pool for computing an allocation formula as provided under the guidelines of Order No. R-5114.

We propose to tube the wells to the Drinkard zone and utilize the pumping equipment on the Drinkard in each of the wells to lift the fluids from the commingled zones. Based upon offsetting wells on the H. T. Mattern (NCT-D) lease, it is our expectation that the Blinebry zone in Wells No. 12, 14,16 and 17 will need to be artificially lifted.



A DIVISION OF GULF OIL CORPORATION

Mr. Joe D. Ramey

Page 2

July 12, 1978

Upon approval of this application and in the event that the Blinebry does not require artificial lift, Gulf will postpone downhole commingling until such time both zones require artificial lift and the total daily production from both zones, before commingling, does not exceed 40 barrels per day.

Additional information concerning this application as outlined in Rule 303-C is attached for your consideration.

Yours very truly,

Boland

C. D. BORLAND

Attachments LBI/dch



Energy and Minerals Department Oil Conservation Commission P. O. Box 1980 Hobbs, NM 88240

Continental Oil Company P. O. Box 460 Hobbs, NM 88240

Getty Oil Company P. O. Box 249 Hobbs, NM 88240

Larry L. Yarborough P. O. Box 1001 Eunice, NM 88231

Sohio Petroleum Company P. O. Box 3000 Midland, TX 79702

Petro-Lewis Corporation P. O. Box 509 Levelland, TX 79336

Atlantic Richfield Company P. O. Box 1610 Midland, TX 79701 Texas Pacific Oil Company, Inc. P. O. Box 4067 Midland, TX 79701

El Paso Natural Gas Company 600 Building of the Southwest Midland, TX 79701

Amerada Hess Corporation P. O. Box 840 Seminole, TX 79360

Shell Oil Company P. O. Box 1509 Midland, TX 79702

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H. T. MATTERN (NCT-D) NO. 12

- (1) Gulf Oil Corporation
   P. O. Box 670
   Hobbs, NM 88240
- (2) Lease and Well No.: H. T. Mattern (NCT-D) No. 12 Unit K, 2130'FSL & 1860'FWL Section 6-22S-37E, Lea County, New Mexico
- (3) Decline Curve: Attached (Drinkard Oil)
- (4) Well History: Well No. 12 was drilled to a total depth of 6800', with 5-1/2" production casing set at 6800'. Current PBTD is 6759'. The 5-1/2" casing was perforated w/4 1/2"JHPF on 7-14-75 in the Drinkard Oil zone (6548-6657'). Stimulation at initial completion was with 2000 gal 15% NE HCL and 35,000 gal gelled water containing 1 2# 20-40 SPG. Pumping equipment was installed on 7-23-75. Well pumped 110 BOPD and 140 BWPD on 7-31-75 at initial completion. The Drinkard was treated with an additional 3,000 gal 15% HCl on 10-8-76.
- (5) Bottom Hole Pressure Data: (Midpoint casing perforations) Blinebry 550 psi at a subsea depth of -2132'\* Drinkard 670 psi at a subsea depth of -3138'\* \*Estimates based on most recent available average BHP data within vicinity of well and fluid level test.
- (6) Fluid Characteristics: Blinebry and Drinkard are presently being commingled downhole in Gulf's H. T. Mattern (NCT-D) No. 8, Order No. R-5114 dated 11-17-75. There has been no evidence of fluid incompatibility.
- (7) Value of commingled fluids: Blinebry and Drinkard production are presently being surface commingled on this lease. Since production is already being commingled on the surface, downhole commingling will not affect the price.
- (8) Current Production Test: See attached C-116.
- (9) All offset operators have been furnished a copy of this application.

Continental Oil Company, P. O. Box 460, Hobbs, NM 88240 Getty Oil Company, P. O. Box 249, Hobbs, NM 88240 Larry L. Yarborough, P. O. Box 1001, Eunice, NM 88231 Sohio Petroleum Company, P. O. Box 3000, Midland, TX 79702 Petro-Lewis Corporation, P. O. Box 509, Levelland, TX 79336 Atlantic Richfield Company, P. O. Box 1610, Midland, TX 79701 Texas Pacific Oil Company, Inc., P. O. Box 4067, Midland, TX 79701 El Paso Natural Gas Company, 600 Building of the Southwest, Midland, TX 79701 Amerada Hess Corporation, P. O. Box 840, Seminole, TX 79360 Shell Oil Company, P. O. Box 1509, Midland, TX 79702

Location 2130 FSL & 1860 Ful Secto-225-37E County County State NM CLE: 3454 KDB: 3465 Initial Comp. Date: 7-31-75 H = 1Producing Formation: Drinkard Zone Comp. Date Date Aba 6548-6457 7-31-75 S "OD 24 # Grade K-55 (2-14-75) Perfd Ork 6548-6657 Set @ 1188 VI 450 sxs Spot 120 and 15% MEHCL. aciding will Top of Cast @ GLE, Circ by= 255x 2, 500 yal 15%, HCL Fige w/ 35,000 gal cildutr + 1-2#20-905P6 IP 110 BD, 140BW The String 313"4.70" EVE ORD JEST, (10-8-76) Acidize 12548-6657. Stiaddle 2313 Cuchset w/ 500 gal 15% NEHEL -5 2 "x 2 3 8 "Anchor (Guib) Type T.A. Setwith 19000-T@ 6480, 2 3/9 "+bg, SN@ 6670, 5 Before 15 BO 21BW After 1760 83W 4 perfid nipple @ 6671, 1j+2318 BPOB, B+m+bg 6707 Equiped to Paria 7-23-25 Producing History: Formation: Month or Year 0il War Ga - 6980' Last Test Dated: BOPD \_\_\_\_\_BUPD 6548-50 Drinkard FL: \_\_\_\_\_ Calc. Ppg. Eff: \_\_\_\_ 656-62 4-1"JHPF 6585 87 Cum. Oil \_\_\_\_ Cum\_ Gas \_\_\_\_ 6617-19 6637-41 6655-57 5 2 "OD 15.50 # Grade + 55 Remarks and Recommendation: Set @ 6800 1 11 700 \$x5 POTO\_ 10759A TITTT Top of Cmt @ 2440 by: TS TD 6800 350 5× Ch C + 16% 64 Tailed in w/350 sx 222 usof . Prepared By: BA

19-22

Lease/well H.T. Mattern (NCT-D)=12 Port Drinkard

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July 12, 1978 (7:4.)

NEW MEXICO OIL CONSERVATION COMMISSION GAS-OIL RATIO TESTS

C-116 Provised 1-1

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H. T. MATTERN (NCT-D) NO. 14

- (1) Gulf Oil Corporation
   P. O. Box 670
   Hobbs, NM 88240
- (2) Lease and Well No.: H. T. Mattern (NCT-D) No. 14 Unit C, 400'FNL & 1650'FWL, Section 6-22S-37E, Lea County, New Mexico
- (3) Decline Curve: Attached (Drinkard 0i1)
- (4) Well History: The well was originally drilled to a total depth of 6700'. A 5-1/2" production string was set at 6700' w/current PBTD at 6682'. The 5-1/2" casing was perforated w/4 1/2"JHPF on 8-18-75 in the Drinkard Oil zone (6488-6644'). The Drinkard was stimulated with 3300 gal of 15% NE HCL and fraced with 49,000 gal gelled brine containing 1 2# 20-40 SPG. Well flowed 155 BOPD and 68 BWPD on 8-26-75. The Drinkard was additionally stimulated on 10-1-75 with 2000 gal 15% NE HCL. Pumping equipment was installed on 10-20-75 and on 8-19-76 the Drinkard was again stimulated with 3000 gal 15% NE HCL.
- (5) Bottom Hole Pressure Data:

   (Midpoint casing perforations)
   Blinebry
   550 psi at a subsea depth of -2146'\*
   Drinkard
   670 psi at a subsea depth of -3107'\*

   \*Estimates based on most recent available average BHP data within vicinity of well and fluid level test.
- (6) Fluid Characteristics: Blinebry and Drinkard are presently being commingled downhole in Gulf's H. T. Mattern (NCT-D) No. 8, Order No. R-5114 dated 11-17-75. There has been no evidence of fluid incompatibility.
- (7) Value of Commingled Fluids: Blinebry and Drinkard production are presently being surface commingled on this lease. Since production is already being commingled on the surface, downhole commingling will not affect the price.
- (8) Current Production Test: See attached C-116.
- (9) All offset operators have been furnished a copy of this application.

Continental Oil Company, P. O. Box 460, Hobbs, NM 88240 Getty Oil Company, P. O. Box 249, Hobbs, NM 88240 Larry L. Yarborough, P. O. Box 1001, Eunice, NM 88231 Sohio Petroleum Company, P. O. Box 3000, Midland, TX 79702 Petro-Lewis Corporation, P. O. Box 509, Levelland, TX 79336 Atlantic Richfield Company, P. O. Box 1610, Midland, TX 79701 Texas Pacific Oil Company, Inc., P. O. Box 4067, Midland, TX 79701 El Paso Natural Gas Company, 600 Building of the Southwest, Midland, TX 79701 Amerada Hess Corporation, P. O. Box 840, Seminole, TX 79360 Shell Oil Company, P. O. Box 1509, Midland, TX 79702

Location 400 FNL \$ 1150 FWI- 6-225-37E County - Lea State IUM CLE: 3445 NDB: 3458.6 Initial Comp. Date: 8-26-75 H = 13.6Producing Formation: Drk Zone Comp. Date Date Aba 6488-644 8-26-75 83 "OD 24 # Grade K-55 (8-18-25) Perid Ork (1282-6649 Set @ 1120 ' W/ 500 sxs (8-19-75) Acidized Ork w/ 3300402 15% NE. Top of Cmt e<sup>(Cn+ circ)</sup> by: Evac up 49,000 gr aeld hine 1-2 # 20 40 SPG IP 155BO G8BW (10-1-75) Acidized w/2, cocgal 15% NEHCL The String After 116 BO, 26BLD 2 318" 4.70" EUE ERd J.55 + 69, Before 6CBD, 20BW 5 ± × 23'8 Guibewon Type T.M setul 8,000 + T @ 6458, 2318"+bg, Equip. to Pump 10-20-75 SNE 6651, 41 perf nipple @ 6652, (8-19-26) 3,000 gaf 15% NEHEC down 18'thy subs BPOB. Atm thy \$ 6674 ton After god 3500 100W. Refore pod 2380 10BW Producing History: Formation: Month or Year Oil WEr Ga -6758 -Last Test Dated: 6488-70 BOPD \_\_\_\_\_BWPD 6517-19 Drivitard 6533.35 FL: \_\_\_\_\_ Calc. Ppg. Eff: \_\_\_\_ 4- 2 151105 639759 6592.94 Cua\_ Gas Cum. Oil 6623-25 624. 44 Geli A Remarks and Recommendation: 5 1 "OD 15.50 # Grade K-55 Set @ 6700 11 700 sxs. PR (Free) Jop of Cmt @ 2220 by: TS 1/1 1/1 TO 10 10 0 1 350 SX CLC +16% Gebrz to NACL キション・シアマ・と Taked in with 350 5x CLC + subcreat • . Prepared By: Bd

1. ... 5-30-28

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- Leavelwell H.T. Mattan WCT-0) 74 Drinkard Poil



		Report casing pressure in lieu of tubing pressure for any well producing through casing. Kall criginal and one copy of this report to the district office of the New Mexico Oli Conservation Commission in accordance with Rule 301 and appropriate pool rules.	Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° will be 0.60.	No well will be assigned an allowable greater than the amount of oil produced on the official test. During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.		H. T. Mattern (NCT-D)		LEASE NAME	.daress P. O. Box 670, Hobbs, NM	Gulf Oil Corporation	
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NEW MEXICO OIL CONSERVATION COMMISSION GAS-OIL RATIO TESTS

C-118 Provided 1-1-65

- (1) Gulf Oil Corporation
   P. O. Box 670
   Hobbs, NM 88240
- (2) Lease and Well No.: H. T. Mattern (NCT-D) No. 16 Unit E, 1650'FNL & 610'FWL Section 7-22S-37E, Lea County, New Mexico
- (3) Decline Curve: Attached (Drinkard Oil)
- (4) Well History: The well was originally drilled to a total depth of 6760, with 5-1/2" production casing set at 6760'. Current PBTD is 6725'. On 9-16-75 the 5-1/2" casing was perforated w/4 - 1/2"JHPF in the Drinkard Oil zone (6510-6670'). Drinkard was acidized with 3200 gal 15% NE HCL and fraced with 49,000 gal gelled brine containing 1 - 2# 20-40 SPG. An additional acid stimulation of 2000 gal 15% NE HCL was performed on 9-30-75. Pumping equipment was installed on 10-20-75 and initial production from the Drinkard was 108 BOPD and 49 BWPD on 10-23-75. Drinkard was also acidized with 5000 gal 15% HCL on 2-13-76.
- (5) Bottom Hole Pressure Data:

   (Midpoint casing perforation)
   Blinebry
   550 psi at a subsea depth of -2154'\*
   Drinkard
   670 psi at a subsea depth of -3121'\*

   \*Estimates based on most recent available average BHP data within vicinity of well and fluid level test.
- (6) Fluid Characteristics: Blinebry and Drinkard are presently being commingled downhole in Gulf's H. T. Mattern (NCT-D) No. 8, Order No. R-5114 dated 11-17-75. There has been no evidence of fluid incompatibility.
- (7) Value of Commingled Fluids: Blinebry and Drinkard production are presently being surface commingled on this lease. Since production is already being commingled on the surface, downhole commingling will not affect the price.
- (8) Current Production Test: See attached C-116.
- (9) All offset operators have been furnished a copy of this application.

Continental Oil Company, P. O. Box 460, Hobbs, NM 88240 Getty Oil Company, P. O. Box 249, Hobbs, NM 88240 Larry L. Yarborough, P. O. Box 1001, Eunice, NM 88231 Sohio Petroleum Company, P. O. Box 3000, Midland, TX 79702 Petro-Lewis Corporation, P. O. Box 509, Levelland, TX 79336 Atlantic Richfield Company, P. O. Box 1610, Midland, TX 79701 Texas Pacific Oil Company, Inc., P. O. Box 4067, Midland, TX 79701 El Paso Natural Gas Company, 600 Building of the Southwest, Midland, TX 79701 Amerada Hess Corporation, P. O. Box 840, Seminole, TX 79360 Shell Oil Company, P. O. Box 1509, Midland, TX 79702

Location 1650 FN: 5610 FWL 7-225-37E County Ca State NM GLE: 3455 NDB: 3462.6 Initial Comp. Date: 10-23-75 H= 13.6 Producing Formation: Drk Zone Comp. Date Date Aba 4510-670 10-23-75 85"00 24 # Grade # 55 (9-16-25) Perfid Urk 6510-6670 Acidized Set @ 1082 ' w/ 500 sxs W/ 3200gal 15% HCL. Fracul 89,000 gill gal brine + 1-2 #20.905PG Top of Cmt @ (Cnt Ciuc) by: (9-30-75) Quident w/ 2,000 galis 10 Equiptoporp 10-20-75 NEHICL. IP 108 BOPD, 49BW (2-13-76) Acidized w/ 5,000 gal 15 % HCL The string After 38BD 50BW 2-318"4.70# EUE ERd J.55, 2-310"4.70" 24 = craus, 5±x2"18 Guib Type TAI + bg onches Det@ 6383 W/ 8,000 +- +, 2"18"+bg SN@ 6 ##8, scallaped callan B+m +bg @ 6865 Befue 16BO. 22BW . Producing History: Formation: Month or Year Dil Wtr G -/383 6418 1 1 Last Test Dated: 6445 mm \$ 6510-12 BODD 6533-35 Drinkard 4-±"JHPF FL: \_\_\_\_\_ Calc. Ppg. Eff: \_\_\_\_ 6563-45 6546-98 Cum. Oil \_\_\_\_\_ Cum. Gas \_\_\_\_ 6623-25 1.646-48 6668-70 Remarks and Recommendation: 52 "00 15.50 # Grade 4.55 Set @ 6760 ' 11 650 SXS Process 6725 Set @ 6760 Milesum Tep of Cmt @ 2275 by: 75 +06060 35051 311 22 C +1-4 Gel+ 2 1/2 2004 + 21/2 291 2 3003× 02 H +. 5% CFR-2 .

Prepared By:

= <u>ABA</u> 10-30-28

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GAS-OIL RATIO TESTS	NEW MEXICO OIL CONSERVATION COMMISSION
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C-118 Prvind 1-1-85

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July 12, 1978 (7:24)

H. T. MATTERN (NCT-D) NO. 17

- (1) Gulf Oil Corporation
   P. O. Box 670
   Hobbs, NM 88240
- (2) Lease and Well No.: H. T. Mattern (NCT-D) No. 17 Unit F, 1650'FNL & 1720'FWL Section 7-22S-37E, Lea County, New Mexico
- (3) Decline Curve: Attached (Drinkard Oil)
- (4) Well History: Well No. 17 was drilled to a total depth of 6735', with 5-1/2" production casing set @ 6734'. Current PBTD is 6698'. The Drinkard zone was perforated with 4 1/2" JHPF (6488-6654') on 10-7-75. Stimulation was with 2800 gal 15% NE HCL and 30,000 gal gelled brine containing 1 2# 20-40 SPG. Well was equipped to pump on 10-21-75 and pumped 86 BOPD and 120 BWPD at completion on 10-23-75.
- (5) Bottom Hole Pressure Data: (Midpoint casing perforations) Blinebry 550 psi at a subsea depth of -2126'\* Drinkard 670 psi at a subsea depth of -3107'\* \*Estimates based on most recent available average BHP data within vicinity of well and fluid level test.
- (6) Fluid Characteristics: Blinebry and Drinkard are presently being commingled downhole in Gulf's H. T. Mattern (NCT-D) No. 8, Order No. R-5114 dated 11-17-75. There has been no evidence of fluid incompatibility.
- (7) Value of commingled Fluids: Blinebry and Drinkard production are presently being surface commingled on this lease. Since production is already being commingled on the surface, downhole commingling will not affect the price.
- (8) Current Production Test: See attached C-116.
- (9) All offset operators have been furnished a copy of this application.

Continental Oil Company, P. O. Box 460, Hobbs, NM 88240 Getty Oil Company, P. O. Box 249, Hobbs, NM 88240 Larry L. Yarborough, P. O. Box 1001, Eunice, NM 88231 Sohio Petroleum Company, P. O. Box 3000, Midland, TX 79702 Petro-Lewis Corporation, P. O. Box 509, Levelland, TX 79336 Atlantic Richfield Company, P. O. Box 1610, Midland, TX 79701 Texas Pacific Oil Company, Inc., P. O. Box 4067, Midland, TX 79701 El Paso Natural Gas Company, 600 Building of the Southwest, Midland, TX 79701 Amerada Hell Corporation, P. O. Box 840, Seminole, TX 79360 Shell Oil Company, P. O. Box 1509, Midland, TX 79701

Location 1650 FAL, 1720 FUL - 7-225-372 County "real State NM CLE: 3750 KDB: 3\$6\$ Initial Comp. Date: 10-23-75 H = 13.6Producing Formation: Drk Zone Comp. Date Date Ab: 698-6659 16-23-75 Treatment History: (Current Zone) 8 = "00 24 # Gradet-55 Set @ 1090' w/ 500 sxs 2800 gal 15% NEH, 30,000 gal 9.2 # nelbr ant 1-2 4SPG Top of Cmt @ (Cn.t cir) by: IP 86 80 124BW (10-21-75) Equip. to pump The String 23" 4.70" ELLE BRd 763 5± "x2" " Guib Type TM @6353 2"3"+63, SN@ 6949, 1j+ w/ scalloped collar on b+m. B+m+6g . 6482 Producing History: Formation: Month or Year Oil Mtr G: - 635 2 Last Test Dated: 6949 A BOPD BUPD 6422 Mi 6488-90 Drk FL: \_\_\_\_ Calc. Ppg. Eff; \_\_\_\_ 6510-12 4 - 12" JHPF 16554.56 -6564-86 Cum\_ Gas Cum. Oil 6628-30 6652-54 52 "00 15.50 # Grade + 55 Remarks and Recommendation: Set @ 6734 11 700 sxs P36111698 Mine Mark Top of Cmt @ 2230 by: TS 3015x 61 8 +1616 Gef+ 146 NA14 + 2 16 CmR-2 TO 6735 400:x 22 H + 5th CFR-2 • . .

Prepared By:	Prepared	By:
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GAS-OIL RATIO TESTS	NEW MEXICO OIL CONSERVATION COMMISSION

C-1:6 Povtrod 1-1-55

No well will be assigned an allowable greater then the amount of oil produced on the official test. During ges-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the located by more than 25 percent. Operator 14 encouraged to take advantage of this 25 percent tolerance in order that increased allowables when authorized by the Commission. Gas volumes must be reported in NCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Will be 0.60. Report casing pressure in lieu of tubing pressure for any well producing through casing. Kall criginal and one copy of this report to the district office of the New Maxico Oil Conservation Commission Ruis 301 and appropriate pool rules.	H. T. Mattern (NCT-D)	LEASE NAME	P. O. Box 670, Hobbs, NM	Gulf Oil Corporation
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