Imperial-American Management Company

70 SEP 21 8 10

September 17, 1970

DHC-72
Rec Oct 11

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. A. L. Porter, Jr.

Re: Request for Exception to Rule 303-A
Down-Hole Commingling - per Rule 303-C
Gulf Sarkeys Lease, Well No. 1
Blinebry and Wantz Abo Pools
Lea County, New Mexico

Gentlemen:

Imperial-American Management Company respectfully requests administrative approval under the Provisions of Order No. R-3845 to commingle, in the well bore, oil production from the Blinebry Pool and the Wantz Abo Pool which are dually completed in our Gulf Sarkeys No. 1 Well located in Unit C, Section 25, T-21-S, R-37-E, Lea County, New Mexico. This dual completion was permitted by Administrative Order No. MC-1854, dated April 4, 1969.

We believe that this well qualifies for administrative approval of down-hole commingling under the provisions of Rule 303-C. Both zones are classified as oil zones. The deepest perforation in the lower zone is at 7315' in this well. We attach Form C-116 which indicates that the production rates for both oil and water fall within the limits specified by Rule 303-C. We also attach a copy of our production decline curve for each zone. Both zones are presently artificially lifted by rod pumps, therefore, a rod pump will be utilized after commingling.

We have had water samples collected from each zone and have had these samples checked for compatability by Baroid. Copies of their reports are attached. The reports indicate there will not be an instability problem caused by mixing these waters.

79701

507 Midland Savings Building - Midland, Texas 79701 - 915-684-8241
Cable Address - IMPAM

New Mexico Oil Conservation Commission
Attention: Mr. H. L. Porter, Jr.
Re: Request for Exception to Rule 303-A
Gulf Sarkeys Lease, Well No. 1
Lea County, New Mexico

We also attach a data sheet on which we have indicated our estimates of the current bottom hole pressures of these zones and a calculation showing that the commingled production will not have less value than the individual streams sold separately.

Ownership of the production from both zones to be commingled is common as to royalty, overriding royalty, and working interest.

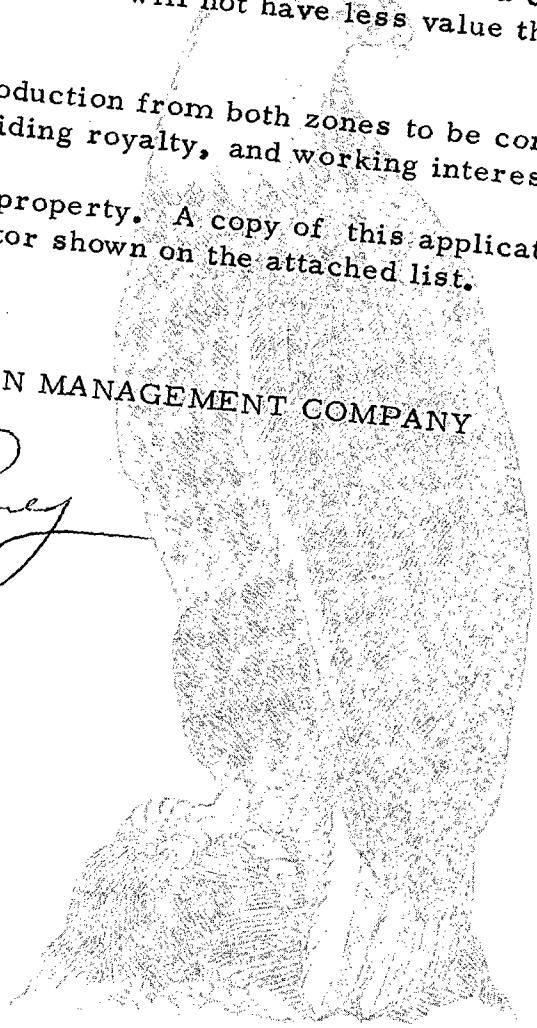
This lease is on fee property. A copy of this application is being submitted to each offset operator shown on the attached list.

Very truly yours,

IMPERIAL-AMERICAN MANAGEMENT COMPANY

Darol K. Ramey

DKR:lb
Attachments



507 Midland Savings Building - Midland, Texas 79701 - 915-684-8241
Cable Address - IMPAM

LIST OF OFFSET OPERATORS

Imperial-American Management Company
Gulf Sarkeys Lease
Lea County, New Mexico

Acoma Oil Corporation
812 Continental Life Bldg.
Fort Worth, Texas

Atlantic Richfield Company
P. O. Box 1978
Roswell, New Mexico

Getty Oil Company
P. O. Box 249
Hobbs, New Mexico

Gulf Oil Co. - U.S.
P. O. Box 1938
Roswell, New Mexico

Harper Oil Co.
904 Hightower Bldg.
Oklahoma City, Oklahoma

Mobil Oil Corporation
P. O. Box 1810
Hobbs, New Mexico

Pan American Petroleum Corporation
P. O. Box 68
Hobbs, New Mexico

Texas Pacific Oil Co., Inc.
P. O. Box 1069
Hobbs, New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator	Pool	County
Imperial-American Management Co.	*See Below	Lea

Address	TYPE OF TEST – (X)	Scheduled	Completion	Special
507 Midland Savings Bldg., Midland, Texas 79701		☐	☐	☒

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS – OIL RATIO CU.FT./BBL.
Blinebry Oil Pool																
Gulf Sarkeys	1	C	25	21S	37E	9-5-70	P	Open	25	7	24	9	38.5	4	25.8	6450
Wantz Abo Pool																
Gulf Sarkeys	1	C	25	21S	37E	9-5-70	P	Open	40	56	24	7	40.5	40	115	2875

*SPECIAL TEST - REQUEST FOR DOWN-HOLE COMMINGLING

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.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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

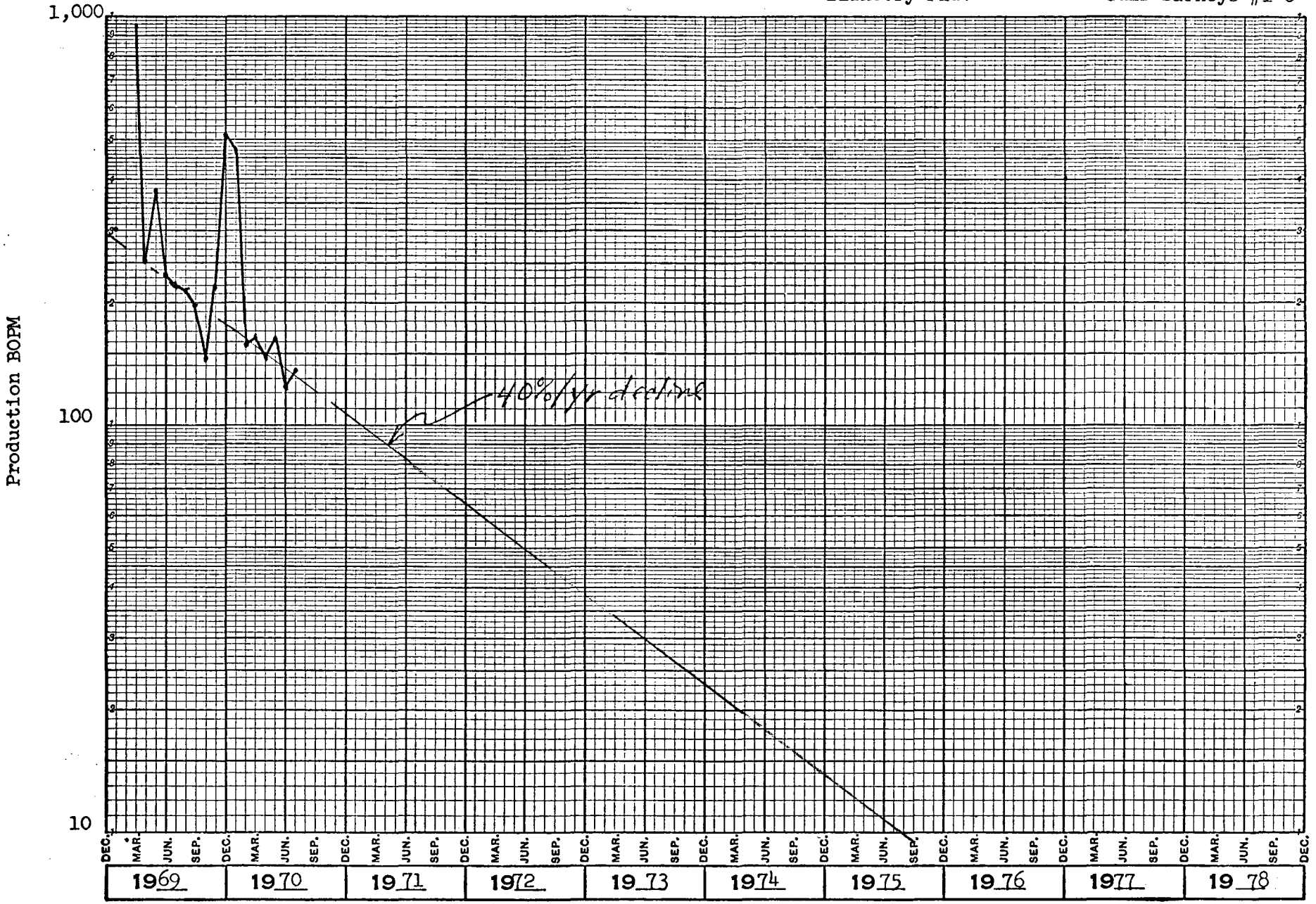
Harold K. Ramey
(Signature)

Division Manager
(Title)

9-17-70
(Date)

NO. 3157. TEN YEARS BY MONTHS X 2 3-INCH CYCLES RATIO RULING.
CODEX BOOK COMPANY, INC. NORWOOD, MASSACHUSETTS.
PRINTED IN U. S. A.

Blinebry Fld. Gulf Sarkeys #1-C



BAROID DIVISION
NATIONAL LEAD COMPANY
PETROLEUM INDUSTRY CHEMICALS

WATER ANALYSIS TEST REPORT

SHEET NUMBER

COMPANY: Imperial American Management Co

DATE: 9-9-70

FIELD: Eunice

COUNTY OR PARISH: Lea

STATE: New Mexico

LEASE OR UNIT: Gulf's Sarkey

WELL(S) NAME OR NO.: 1

WATER-SOURCE (FORMATION): Blinebry

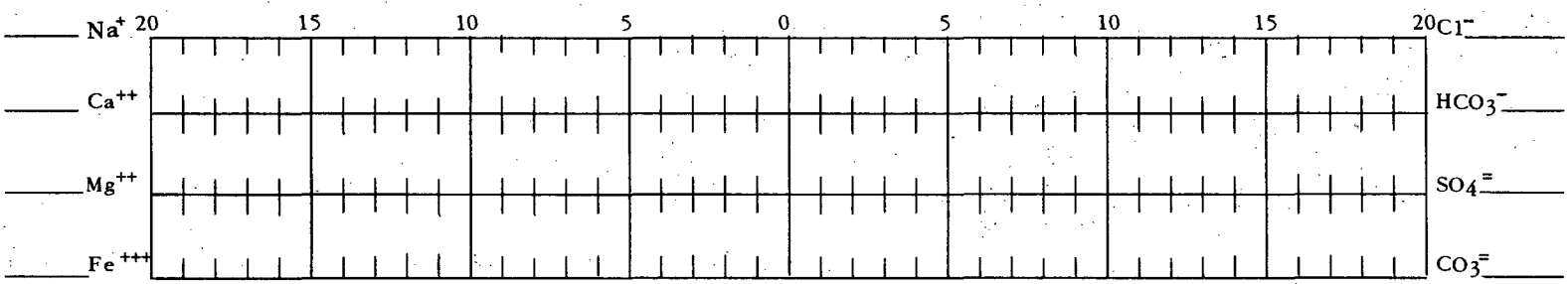
DEPTH, FT.	BHT, F	SAMPLE SOURCE	TEMP, F	WATER, BBL/DAY	OIL, BBL/DAY	GAS, MMCF/DAY
		well head				

TYPE OF OIL:

API GRAVITY: °

TYPE OF WATER: [X] PRODUCED WATER [ ] INJECTION WATER OTHER _____

WATER ANALYSIS PATTERN
(NUMBER BESIDE ION SYMBOL INDICATES me/l* SCALE UNIT)



DISSOLVED SOLIDS

CATIONS	me/l*	mg/l*
Total Hardness	688	
Sodium, Na^+ (calc.)	2445	56235
Calcium, Ca^{++}	510	10200
Magnesium, Mg^{++}	178	2172
Iron (Total), Fe^{+++}	2.6	56
ANIONS		
Chloride, Cl^-	3100	110,000
Sulfate, $SO_4^=$	26	1250
Carbonate, $CO_3^=$		
Bicarbonate, HCO_3^-	8.7	531
Hydroxyl, OH^-		
Sulfide, $S^=$		NT
Phosphate-Meta, PO_3^-		
Phosphate-Ortho, $PO_4^{\equiv}$		

DISSOLVED GASES

Hydrogen Sulfide, H_2S		mg/l*
Carbon Dioxide, CO_2		mg/l*
Oxygen, O_2		mg/l*

PHYSICAL PROPERTIES

pH	7.2	
Eh (Redox Potential)		MV
Specific Gravity		
Turbidity, JTU Units		
Total Dissolved Solids (Calc.)		mg/l*
Stability Index @ ____ F		
@ ____ F		
$CaSO_4$ Solubility @ ____ F		mg/l*
@ ____ F		mg/l*
Max. $CaSO_4$ Possible (Calc.)		mg/l*
Max. $BaSO_4$ Possible (Calc.)		mg/l*
Residual Hydrocarbons		ppm(Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide [ ] Iron Oxide [ ] Calcium Carbonate [ ] Acid Insoluble [ ]

REMARKS AND RECOMMENDATIONS:

The Blinebry water and the abo water in well #1 are quite compatable and should comingle without any problems.

* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

PIC ENGINEER	DIST. NO.	ADDRESS	OFFICE PHONE	HOME PHONE
Cliff G. Gardner	21	Eunice	393-8622	X 394.2421

TESTED BY	DATE	DISTRIBUTION
Cliff G. Gardner	9-9-70	[ ] CUSTOMER [ ] AREA OR [ ] DISTRICT OFFICE [ ] PIC ENGINEER OR [ ] PIC LAB [ ] PIC SALES SUPERVISOR

FORM #BR-2149A

BAROID DIVISION
NATIONAL LEAD COMPANY

PETROLEUM INDUSTRY CHEMICALS

WATER ANALYSIS TEST REPORT

SHEET NUMBER

COMPANY: Imperial American Management Co

DATE: 9-9-70

FIELD: Eunice

COUNTY OR PARISH: Lea

STATE: New Mexico

LEASE OR UNIT: Gulf's Sarkey

WELL(S) NAME OR NO.: 1

WATER SOURCE (FORMATION): Abo

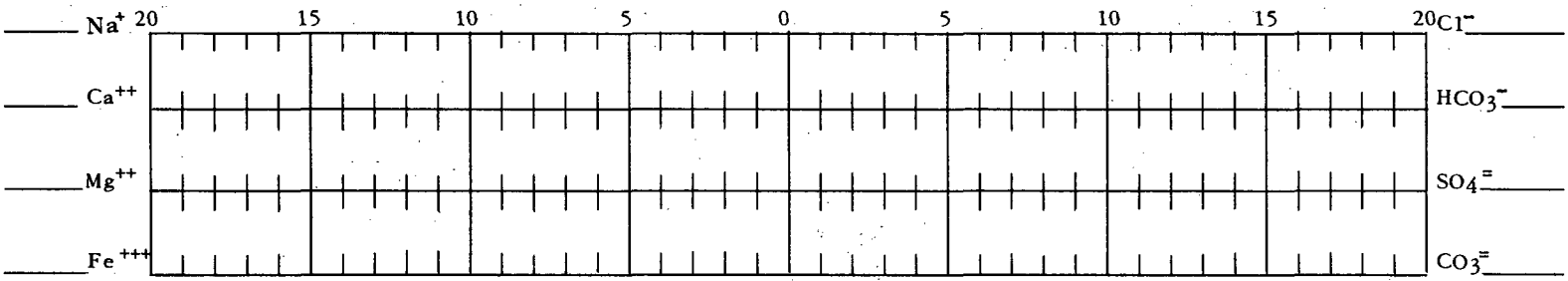
DEPTH, FT.	BHT, F	SAMPLE SOURCE	TEMP, F	WATER, BBL/DAY	OIL, BBL/DAY	GAS, MMCF/DAY
		Well Head				

TYPE OF OIL:

API GRAVITY: °

TYPE OF WATER: ☒ PRODUCED WATER ☐ INJECTION WATER OTHER _____

WATER ANALYSIS PATTERN
(NUMBER BESIDE ION SYMBOL INDICATES me/l * SCALE UNIT)



DISSOLVED SOLIDS

CATIONS	me/l *	mg/l *
Total Hardness	952	
Sodium, Na^+ (calc.)	2613	60129
Calcium, Ca^{++}	690	13800
Magnesium, Mg^{++}	262	3196
Iron (Total), Fe^{+++}	2.5	55
ANIONS		
Chloride, Cl^-	3540	126000
Sulfate, $SO_4^=$	20	950
Carbonate, $CO_3^=$	.5	15
Bicarbonate, HCO_3^-	6.8	415
Hydroxyl, OH^-		
Sulfide, $S^=$		NT
Phosphate-Meta, PO_3^-		
Phosphate-Ortho, $PO_4^{\equiv}$		

DISSOLVED GASES

Hydrogen Sulfide, H_2S		mg/l *
Carbon Dioxide, CO_2		mg/l *
Oxygen, O_2		mg/l *

PHYSICAL PROPERTIES

pH	7.4	
Eh (Redox Potential)		MV
Specific Gravity		
Turbidity, JTU Units		
Total Dissolved Solids (Calc.)		mg/l *
Stability Index @ ____ F		
@ ____ F		
$CaSO_4$ Solubility @ ____ F		mg/l *
@ ____ F		mg/l *
Max. $CaSO_4$ Possible (Calc.)		mg/l *
Max. $BaSO_4$ Possible (Calc.)		mg/l *
Residual Hydrocarbons		ppm(Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

REMARKS AND RECOMMENDATIONS:

* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

PIC ENGINEER	DIST. NO.	ADDRESS	OFFICE PHONE	HOME PHONE
Cliff G. Gardner	21	Eunice, New Mexico	393-8622	394-2421

TESTED BY	DATE	DISTRIBUTION
Cliff G. Gardner	9-9-70	☐ CUSTOMER ☐ AREA OR ☐ DISTRICT OFFICE ☐ PIC ENGINEER OR ☐ PIC LAB ☐ PIC SALES SUPERVISOR

FORM #BR-2149A

DATA SHEET

Request for Down-Hole Commingling
Imperial-American Management Company
Gulf Sarkeys, Well No. 1

I. Estimated Bottom Hole Pressure

A. Blinebry Pool Completion

Unable to obtain a satisfactory sonic fluid level.
Zone pumps off, permitting only 15% pump efficiency.
Estimated operating BHP - 200 psi
Estimated static BHP - 500 psi

B. Wantz Abo Pool Completion

Lower zone, cannot obtain sonic fluid level.
Pressure low enough to limit pump efficiency to 50%.
Estimated operating BHP - 300 psi
Estimated static BHP - 800 psi

II. Value of Commingled Production

Oil from both the Blinebry and Wantz Abo is being sold to The Permian Corporation by truck. The price is based on Atlantic Richfield's posting for West Texas-New Mexico intermediate grade crude, with a top price of $3.31 for 40° API and a 2¢/degree price differential for each degree below 40° API.

The Blinebry zone oil normally runs 37.5° API with a price of $3.25/bbl. The Wantz Abo oil normally runs 39.5° API with a price of $3.29/bbl. At the current rate of production, the gravity of the mixture should be at least 39° API and receive a price of $3.29/bbl.

Blinebry - Avg. Price $3.25/bbl. X 4 BOPD =	$ 13.00/day
Wantz Abo - Avg. Price $3.29/bbl. X 40 BOPD =	131.60/day
	$144.60/day
Mixture - Avg. Price $3.29/bbl. X 44 BOPD =	$144.76/day

No loss in value of product should result from commingling these zones in the well bore.

David K. Ramsey