CASE 1118: Humble Oil & Refining Co. appli-cation for approval of Railroad Mountain Unit Agreement, Chaves Co., 4,217 acres.

*

Ţ

Case Mo Replication, Transcript, Small Exhibits, Etc.

DIRECTOR, UNITED STATES GEOLOGICAL SURVEY, WASHINGTON, D. C.

FRO :

TO:

1

HUBLE OIL & REFINING CO. PANY, EXPLORATION DEPARTENT, ROSWELL, NEW MEXICO

SUBJECT: REPORT ON THE GEOLOGY OF THE RAILROAD COUNTAIN AREA, CHAVES COUNTY, NEW DEXICO

PURPOSE: THIS REPORT IS SUBJITTED TO SHOW THE SUBSURFACE GEOLOGY OF THE RAILROAD HOUNTAIN AREA AND TO DE ONSTRATE THE MEED OF FORMING A FEDERAL EXPLORATION UNIT TO TEST THE AREA. IT IS BELIEVED THAT THE GEOLOGIC CONDITIONS ARE SUCH THAT THE MOST REASONABLE METHOD OF EXPLORATION AND DEVELOP ENT IS BY MEANS OF AN APPROVED FEDERAL UNIT.

DATE: NAY, 1956

BEFORE THE CIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO O m a all i.e.

Hamble Oil and Marining Company c/o Mr. Clarence E. Minkle Post Office Box 614 Hosvell, Hew Marico

1.1.2 . 84

: i +

and a state of the second

Gentlemes:

Reference is unde to your application filed May 28, 1956, with the Oil and Gas Supervisor, Bosvell, New Maxico, requesting designation of 4,217.48 acres in Chaves County, New Maxico, as an area logically subject to exploration and development under the unitization provisions of the Mineral Leasing Act, as emended.

Pursuant to the regulations of December 22, 1950, 30 C.F.R., section 226.3, the following land is designated as a logical unit to be known as the Bailroad Mountain unit area:

New Mexico Principal Meridian, New Mexico

T. 7	8., R. 31 H. sec. 31, lots 3, 4, Bigset, SB	Acres 320.64
T. 8	8., R. 31 E. sec. 5, lots 1,2,3,4, 5402, 84(all) sec. 6, lots 1 through 7, 58206, 84	641.68
•	Billi, SB: (e11) sec. 7, Lots 1,2,3,4, Bill, Bi(all) sec. 8, 17(all) sec. 15, lots 1,2,3,4, Bill, Bi(all)	657.60 655.74 1,230.00 653.82 4,217.48

The proporties test well to the Siluro-Devonian formation or to a depth of 10,000 feet is deemed acceptable.

The application states that you will use the same form of agreement as used in connection with the Chalk Sluff Brar unit area, Hew Maxico, No. 1A-08-001-2477, approved December 29, 1955, except

Experie A

BEFORE THE OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO 1AD _EXHIBIT NO. F Par S

that all formations will be unitized. Maid form substantially follows the standard form including medifications measure to meet the requirements of the State of New Mexico and to conform with Public Law 555 (68 Stat. 585) and Executive Order No. 10557 (19 F.R. 5655). Revertheless, except for unitization of all formations and use of the standard time intervals in sec. 2(e), it is believed the form approved June 5 for the Little Mady unit, New Mexico, should be used instead of the Chalk Eluff Brew unit.

In the absence of any objections not now apparent, a duly executed agreement in the form indicated above will be approved if somethod within a renormable period of time. However, notice is hereby given that the right is reserved to damy approval of any executed agreement committed, which, in my opinion, does not have the full commitment of sufficient lands to afferd effective control of unit operations. When the executed agreement is transmitted to the Supervisor for approval, include the latest status of all acronge, showing the current record ormer of all leases and the current status of all lease applications, if any.

2

EXHIBIT "A"

Very truly yours,

stem sorochen

Auting Director

REPORT ON THE RAILROAD MOUNTAIN AREA

CHAVES COUNTY, NEW EXICO



 $\mathcal{T}_{i, \mathcal{T}_{i}}$

REPORT ON THE RAILROAD HOUNTAIN AFEA

CHAVES COUNTY, NEW MEXICO

INTRODUCTION

Humble Oil & Refining Company proposes the formation of a Federal exploratory unit to be known as the Railroad Hountain Unit for the exploration and development of oil and gas and associated mineral deposits within a 4217.48-acre area located in Townships 7 and 8 South, Range 31 East, Chaves County, New Mexico. This unit area covers a low relief, north-south trending anticlinal feature delineated by reflection seismograph. The best possibilities for production are believed to be from Lower Permian, Pennsylvanian and Devonian sediments, with the reservoirs being both stratigraphie and structural traps. The proposed unit consists of a total of 3645.19 acres of Federal land and 572.29 acres of fee land.

Immediately north and northwest of the proposed unit is located a well known geologic and physiographic feature known as the Railroad Hountain. This igneous dike, which extends in an east-west direction for approximately 24 miles across northern Chaves County, forms a long, sharp ridge that rises from 10 to 40 feet above the surrounding rolling plains. The proposed unit derives its name from this feature.

SUBSURFACE STRATIGRAPHY

The general stratigraphy of the Bailroad Hountain Unit area can best be described from the section encountered by Forest Oil Corporation's No. 1 Federal-General American wildcat in Section 7, Township 7 South, Range 31 East, about six miles to the north of the proposed unit area.

The No. 1 Federal-General American from total depth at 9293 feet to surface at 4314 feet above sea level encountered the following section:

ORDOVICIAN:

ELLENBURGER: 70 feet thick. Brown, sugary dolomite. Crystallinity medium-to-coarse. Some coarse-grained glauconitic sands at the base. This zone has never proven productive on the Northwest Shelf, although it is a prolific producer on the Central Basin Platform to the southeast.

HONTOYA: 205 feet thick. White, tan, brown, sandy dolomite. Interval normally finely crystalline to dense and argillaceous, with scattered chert.

Page 2

SILUMO-DEVONIAN: 55 feet thick. White, cream, tan dolomite with scattered chert. Crystallinity, fine-to-medium. This interval is usually fractured and develops excellent reservoirs when related to closed structures.

ISSISSIPPIAN: 35 feet of Woodford gray-brown pyritic shale, and 470 feet of dense, white, tan and brown limestone; very silicious throughout.

PEMISYLVANIAN:

BEND (Derryan or Atokan): 125 feet thick. Gray soft silty shales and coarse quartz sands. This interval will be absent if the well is structurally high.

STRAWN (Desmoinesian): 70 feet thick. Light colored, dense to finely crystalline limestones. Zone may be missing.

CANYON (Missourian): 320 feet thick. White, tan, dense-to-finely crystalline shaly limestone. Lower portion contains arkosic, glauconitic sands.

CISCO (Virgilian): 200 feet thick. White, tan, brown limestone. Shaly in upper portion. This zone produces from stratigraphic traps in wells to the south and in this well.

PERHIAN:

HUECO: 540 feet thick. White, tan, brown finely crystalline limestone. Upper 60 feet often tan to brown finely crystalline dolomite. This stratigraphic interval has proven productive in wells to the south and east of the unit area and is a likely reservoir.

ABO: 770 feet thick. Consists of red and gray shales with thin beds of pink dolomite; lower 150 feet of the formation is composed primarily of gray to brown finely crystalline dolomite and would offer petroleum possibilities if porosity were developed.

YESO: 2250 feet thick. Upper 700 feet consists of red sands, finely crystalline oolitic dolomites and anhydrites; interbedded tan and brown limestones and dolomites occur along with anhydrite in the middle 700-foot interval; lower zone contains red sands, tan and brown dolomites and anhydrite. Although a prolific producer to the south in Lea County, this lower part of the formation is not expected to be productive in the area.

GLORIETA: 50 feet thick. White, medium-to-coarsely granular sandstone.

SAU ANDRES: 1230 feet thick. Predominantly a tan to brown finely crystalline dolomite section with the upper zone anhydritic and with several hundred feet of brown limestone near the base. This zone will offer petroleum accumulation possibilities where the porosity is found sufficiently developed on structure.

WHITEHORSE: 1110 feet thick. Consists of sandstones, dolomites and evaporites which have produced considerable amounts of oil in southeastern New Mexico.

The following are the expected stratigraphic markers and their estimated depths in the proposed Humble No. 1 Railroad Mountain Unit wildcat:

The well will be spudded near the top of the Whitehorse Group. Estimated elevation 4212 feet.

> Top of the San Andres at 2860 feet Top of the Yeso at 4150 feet Top of the Abo at 6400 feet Top of the Hueco at 7150 feet Top of the Pennsylvanian at 7650 feet Top of the Esilippian at 8350 feet Top of the Siluro-Devonian at 8830 feet

Present plans call for the drilling of a wildcat well, after unitization has been accomplished, to test formation fluid in the Siluro-Devonian. The presently recommended location for the test well is 990 feet from the north line and 660 feet from the west line of Section 8, Township 8 South, Euge 31 East.

STRUCTURE

The Railroad Hountain Unit is proposed to cover a low relief reflection seismograph anomaly as shown on the attached map. The deep-seated anticlinal fold mapped by reflection seismograph persists in several shallower reflecting horizons. Good to fair seismograph records were obtained in the area and the unit outline should cover adequately the prospect. The unit outline was made somewhat larger than the lowest closed Devonian contour since it is a well known fact that in nearby producing areas in Lea County, Permian and Pennsylvanian production often extend beyong the limits of the underlying Devonian structure.

Page 3

ECONOLIC CONSIDERATIONS

The possibilities of commercial oil and gas accumulations within the proposed unit area are numerous and varied.

Those zones with the best possibilities of production are as follows:

- (1) The San Andres dolomite section might produce if porosity and a proper trap were developed.
- (2) The dolomites of the Yeso interval produce to the south, and it will be a zone to consider for oil accumulation in this area.
- (3) The porous limestones occurring in the Lower Permian Hueco interval will be a definite zone to be thoroughly tested. This stratigraphic type accumulation produces large quantities of oil where porosity and permiability are developed.
- (4) The upper Pennsylvanian limestones are considered to have good chances of producing from either stratigraphic or structural traps.
- (5) The Pennsylvanian Bend offers production possibilities if present. If the test well should run quite high structurally, the lower Pennsylvanian Strawn and Bend may be absent.
- (6) The goal of an exploratory well drilled on the proposed unit outline will be the porous fractured dolomites of Siluro-Devonian age. This reservoir produces great quantities of oil in southeastern New Eexico, when found structurally high.

PROPOSED DEVELOPIENT

If the Railroad Mountain Unit is approved, and unitization can be accomplished, Humble Oil & Refining Company, as Unit Operator, will drill a wildcat well to thoroughly test for oil and gas all formations down to and including the Siluro-Devonian (but in no case to a depth greater than 10,000 feet.) Should a commercial discovery of oil or gas be made, Humble will further develop and produce the unit area consistent with proper modern techniques.

Page 4

Page 5

It is believed that the Federal unit plan of development would be in the best interest of conservation, orderly development, production and secondary recovery of the oil and gas that may be present in the area.

It is therefore recommended that the Railroad Mountain Unit be approved as requested.

Respectfully submitted,

HUMBLE OIL & REFINING COMPANY

Apphillips By

A. A. Phillips



.

. . . .

DIRECTOR, UNITED STATES GEOLOGICAL SURVEY, WASHINGTON, D. C.

- FROM: HUBLE OIL & REFINING COMPANY, EXPLORATION DEPARTMENT, ROSWELL, NEW MEXICO
- SUBJECT: REPORT ON THE GEOLOGY OF THE BAILROAD HOUNTAIN AREA, CHAVES COUNTY, NEW MEXICO

PURPOSE: THIS REPORT IS SUBJITTED TO SHOW THE SUBSURFACE GEOLOGY OF THE RAILROAD MOUNTAIN AREA AND TO DE ONSTRATE THE MEED OF FORMING A FEDERAL EXPLORATION UNIT TO TEST THE AREA. IT IS BELIEVED THAT THE GEOLOGIC CONDITIONS ARE SUCH THAT THE MOST REASONABLE METHOD OF EXPLORATION AND DEVELOPMENT IS BY MEANS OF AN APPROVED FEDERAL UNIT.

RX A

DATE: NAY, 1956

TO:

REPORT ON THE RAILROAD HOUNTAIN AREA

CHAVES COUNTY, NEW EXICO



REPORT ON THE RAILROAD CUNTAIN AFEA

CHAVES COUNTY, NEW EXICO

INTRODUCTION

Humble Oil & Refining Company proposes the formation of a Federal exploratory unit to be known as the Railread Countain Unit for the exploration and development of oil and gas and associated mineral deposits within a 4217.48-acre area located in Townships 7 and 8 South, Range 31 East, Chaves County, New Hexico. This unit area covers a low relief, north-south trending anticlinal feature delineated by reflection seismograph. The best possibilities for production are believed to be from Lower Permian, Pennsylvanian and Devonian sediments, with the reservoirs being both stratigraphic and structural traps. The proposed unit consists of a total of 3645.19 acres of Federal land and 572.29 acres of fee land.

Immediately north and northwest of the proposed unit is located a well known geologic and physiographic feature known as the Railroad Hountain. This igneous dike, which extends in an east-west direction for approximately 24 miles across northern Chaves County, forms a long, sharp ridge that rises from 10 to 40 feet above the surrounding rolling plains. The proposed unit derives its name from this feature.

SUBSURFACE STRATIGRAPHY

The general stratigraphy of the Railroad Countain Unit area can best be described from the section encountered by Forest Oil Corporation's No. 1 Federal-General American wildcat in Section 7, Township 7 South, Range 31 East, about six miles to the north of the proposed unit area.

The No. 1 Federal-General American from total depth at 9293 feet to surface at 4314 feet above sea level encountered the following section:

ORDOVICIAN:

ELLENBURGER: 70 feet thick. Brown, sugary dolomite. Crystallinity medium-to-coarse. Some coarse-grained glauconitic sands at the base. This zone has never proven productive on the Northwest Shelf, although it is a prolific producer on the Central Basin Platform to the southeast.

MONTOYA: 205 feet thick. White, tan, brown, sandy dolomite. Interval normally finely crystalline to dense and argillaceous, with scattered chert.

Page 2

SILUNO-DEVONIAN: 55 feet thick. White, cream, tan dolomite with scattered chert. Crystallinity, fine-to-medium. This interval is usually fractured and develops excellent reservoirs when related to closed structures.

ISSISSIPPIAN: 35 feet of Woodford gray-brown pyritic shale, and 470 feet of dense, white, tan and brown limestone; very silicious throughout.

PENNSYLVANIAN:

BEND (Derryan or Atokan): 125 feet thick. Gray soft silty shales and coarse quartz sands. This interval will be absent if the well is structurally high.

STRAWN (Desmoinesian): 70 feet thick. Light colored, dense to finely crystalline limestones. Zone may be missing.

CANYON (Hissourian): 320 feet thick. White, tan, dense-to-finely crystalline shaly limestone. Lower portion contains arkosic, glauconitic sands.

CISCO (Virgilian): 200 feet thick. White, tan, brown limestone. Shaly in upper portion. This zone produces from stratigraphic traps in wells to the south and in this well.

PERMIAN:

HUECO: 540 feet thick. White, tan, brown finely crystalline limestone. Upper 60 feet often tan to brown finely crystalline dolomite. This stratigraphic interval has proven productive in wells to the south and east of the unit area and is a likely reservoir.

ABO: 770 feet thick. Consists of red and gray shales with thin beds of pink dolomite; lower 150 feet of the formation is composed primarily of gray to brown finely crystalline dolomite and would offer petroleum possibilities if porosity were developed.

YESO: 2250 feet thick. Upper 700 feet consists of red sands, finely crystalline oolitic dolomites and anhydrites; interbedded tan and brown limestones and dolomites occur along with anhydrite in the middle 700-foot interval; lower zone contains red sands, tan and brown dolomites and anhydrite. Although a prolific producer to the south in Lea County, this lower part of the formation is not expected to be productive in the area.

GLORIETA: 50 feet thick. White, medium-to-coarsely granular sandstone.

SAM AMDRES: 1230 feet thick. Predominantly a tan to brown finely crystalline dolomite section with the upper zone anhydritic and with several hundred feet of brown limestone near the base. This zone will offer petroleum accumulation possibilities where the porosity is found sufficiently developed on structure.

WHITEHORSE: 1110 feet thick. Consists of sandstones, dolomites and evaporites which have produced considerable amounts of oil in southeastern New Mexico.

The following are the expected stratigraphic markers and their estimated depths in the proposed Humble No. 1 Railroad Hountain Unit wildcat:

The well will be spudded near the top of the Whitehorse Group. Estimated elevation 4212 feet.

Top of the San Andres at 2860 feet Top of the Yeso at 4150 feet Top of the Abo at 6400 feet Top of the Hueco at 7150 feet Top of the Pennsylvanian at 7650 feet Top of the Hississippian at 8350 feet Top of the Siluro-Devonian at 8830 feet

Present plans call for the drilling of a wildcat well, after unitization has been accomplished, to test formation fluid in the Siluro-Devonian. The presently recommended location for the test well is 990 feet from the north line and 660 feet from the west line of Section 8, Township 8 South, Range 31 East.

STRUCTURE

The Railroad Hountain Unit is proposed to cover a low relief reflection seismograph anomaly as shown on the attached map. The deep-seated anticlinal fold mapped by reflection seismograph persists in several shallower reflecting horizons. Good to fair seismograph records were obtained in the area and the unit outline should cover adequately the prospect. The unit outline was made somewhat larger than the lowest closed Devonian contour since it is a well known fact that in nearby producing areas in Lea County, Permian and Pennsylvanian production often extend beyong the limits of the underlying Devonian structure.

Page 3

ECONO IC CONSIDERATIONS

The possibilities of commercial oil and gas accumulations within the proposed unit area are numerous and varied.

Those zones with the best possibilities of production are as follows:

- (1) The San Andres dolomite section might produce if porosity and a proper trap were developed.
- (2) The dolomites of the Yeso interval produce to the south, and it will be a zone to consider for oil accumulation in this area.
- (3) The porous limestones occurring in the lower Permian Hueco interval will be a definite zone to be thoroughly tested. This stratigraphic type accumulation produces large quantities of oil where porosity and permiability are developed.
- (4) The upper Pennsylvanian limestones are considered to have good chances of producing from either stratigraphic or structural traps.
- (5) The Pennsylvanian Bend offers production possibilities if present. If the test well should run quite high structurally, the lower Pennsylvanian Strawn and Bend may be absent.
- (6) The goal of an exploratory well drilled on the proposed unit outline will be the porous fractured dolomites of Siluro-Devonian age. This reservoir produces great quantities of oil in southeastern New Mexico, when found structurally high.

PROPOSED DEVELOPIENT

If the Railroad Hountain Unit is approved, and unitization can be accomplished, Humble Oil & Refining Company, as Unit Operator, will drill a wildcat well to thoroughly test for oil and gas all formations down to and including the Siluro-Devonian (but in no case to a depth greater than 10,000 feet.) Should a commercial discovery of oil or gas be made, Humble will further develop and produce the unit area consistent with proper modern techniques.

Page 4

Page 5

It is believed that the Federal unit plan of development would be in the best interest of conservation, orderly development, production and secondary recovery of the oil and gas that may be present in the area.

It is therefore recommended that the Railroad Mountain Unit be approved as requested.

Respectfully submitted,

HUMBLE OIL & REFINING COMPANY

By A. A. Phillips



.

HUMBLE OIL, & REFINING COMPANY EXPLORATION DEFARIMENT P. 0. 60% 1287

Roswell, New Mexico August 13, 1958

In re: Railroad Mountain Unit Chaves County, New Mexico

1110

. . . .

State Oil Conservation Commission Mabry Hall Santa Fe, New Mexico

Gentlemen:

Enclosed is approved copy of instrument terminating the Railroad Mountain Unit, Chaves County, New Mexico.

This is for your files.

Thank you.

Yours very truly, alluz

R. M. Richardson

RMR/ch

Encl.

HUMBLE OIL & REFINING COMPANY CFTICE CCC 1000 AUD ::3 AT B: 30

ROSWELL, NEW MEXICO

August 13, 1958

Re: Railroad Mountain Unit Chaves County, New Mexico

TO: All Working Interest Owners Lessees of Record Lessors

Dear Sirs:

Several months ago your joinder in the above captioned Railroad Mountain Unit was solicited and obtained. The Unit was approved by the United States Geological Survey on February 25, 1957.

Subsequent to the U.S.G.S. approval Humble, as unit operator, drilled and completed 2 test wells within the Unit Area. Both these wells resulted in dry and abandoned holes.

> spudded 1-9-57, plugged 6-7-57 Total Depth 10,382 feet The #1 well:

spudded 12-6-57, plugged 12-27-57 Total Depth 1985 feet The #2 well:

On July 8, 1958 Humble and the other working interest owners made application to the State of New Mexico and U.S.G.S. for the termination of this Unit. The Unit was terminated by the U.S.G.S. effective August 1, 1958.

Pursuant to the terms of the Unit Agreement, each interested working interest owner, lessee and lessor are to be given notice of such termination. Please let this letter serve as notice that the Railroad Mountain Unit was terminated effective August 1, 1958.

We wish to again thank you and express our appreciation for your cooperation and joinder.

Page 2

If you should need additional information, please feel free to contact us here in Roswell, New Mexico, P. O. Box 1287.

Yours very truly,

HUMBLE OIL & REFINING COMPANY

RMR:ch

TERMINATION OF UNIT AGREEMENT FOR THE DEVELOPMENT AND OPERATION OF THE PATIROAD MOUNTAIN UNIT AREA AN 3:2 CHAVES COUNTY, NEW MEXICO

NO. 14-05-001-3507

WHEREAS, on July 1, 1956, an agreement was entered into for the development and operation of the Railroad Mountain Unit Area, Chaves County, New Mexico, by and between the undersigned parties and others and in which said agreement the Humble Oil & Refining Company is designated as the unit operator; and

WHEREAS, said unit agreement was duly approved by the New Mexico Oil Conservation Commission on August 30, 1956 and by the Acting Director of the United States Geological Survey on February 25, 1957; and

WHEREAS, the unit operator has caused two test wells to be drilled upon the unit area, none of which have been completed as wells capable of producing unitized substances in paying quantities; and

WHEREAS, Section 21 of said unit agreement provides in part as

follows:

"This Agreement may be terminated at any time by not less than seventy-five (75) per centum, on an acreage basis, of the owners of working interests signatory hereto, with the approval of the Director and Commission; notice of any such approval to be given by the Unit Operator to all parties hereto,"

and

WHEREAS, the undersigned parties are the owners of more than seventy-five per cent on an acreage basis of the working interests committed to said unit agreement and are desirous of terminating the same in accordance with the provision above set forth.

NOW THEREFORE, the undersigned parties, being the owners of more than seventy-five per cent on an acreage basis of the working interests committed to the unit agreement for the operation and development of the Railroad Mountain Unit Area, do hereby terminate said unit agreement subject to the approval of the New Mexico Oil Conservation Commission and the Director of the United States Geological Survey and respectfully

Date Approved AUG 1 1958 Effective as of August 1, 1958 Sogah

Acting Director, U. S. Geological Survey

Secretary-Director

NET MEXICO OIL CONSERVATION COMMISSION

request the approval of such termination by the said Commission and Director. The effective date of termination shall be upon such approval and thereafter the unit operator shall give notice thereof to all parties signatory to said unit agreement.

COUNTERPARTS. This agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties, and shall be binding upon all those parties who have executed such a counterpart with the same force and effect as if all such parties had signed the same document and regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands within the Railroad Mountain Unit Area.

IN WITNESS WHEREOF, this instrument is executed by the undersigned parties as of the dates set opposite their respective signatures. Form Approved

ATTEST: Assistant Secretary

Date

DIRECTOR UN CHARGE EXPLORATION DEPARTMENT Address P. 0. Box 2180 Houston, Texas

Sern

Dallas 21, Texas

UNIT OPERATOR AND WORKING INTEREST OWNER

wiw

TRADE O. K. W A. MALEY

APPROVED

6.

MAGNOLIA PETROLEUM COMPANY

HUMBLE OIL & REFINING COMPANY

By E ATTES Address P. O. Box 900 Η. Secretary

Date 111N 2

peac 6 1958 Date

By Mark F. Payton ATTORNEY-IN-FACT Address Cities Service Oil Company

Bartlesville, Oklahoma

MONSANTO CHEMICAL COMPANY

CITIES SERVICE OIL SOMPANY

ATTEST:

Secretary anell, 1958 Date

Attorney-in-Pact 0. Box 1742 1401 5. Coest Bldg. Address 🛌 Houston Midland, Texas

WORKING INTEREST OWNERS

STATE OF TEXAS

) ss COUNTY OF HARRIS

)

	of, 1958, CHARGE EXPLORATION DEPARTMENT	of Humble Oil &	Refining Compa	iny, a Texas	
	Corporation, on behalf o	of said Corporat	lon.		
	· · · · · ·				
				<u>ierices d'a stra</u>	
	My Commission Expires:		1	Votary Fublic	LAURA STATUD
Мy	Commission Expires June 1, 1959		NOTAR	PUBLIC IN AND FOR RIS COUNTY, TEXAS	
			1 50		
				1	
	STATE OF 18 King				
	OTATIN OF) ss			
	COUNTY OF)			
	The foregoing insti- of k-1958,	rument was ackno	wledged before	me this // d	ay
	of Attorney-in-Fact	by Frank Richardson		,	<u> </u>
	Attorney-in-Fact	oi Monsanto Unem	ncal Company,	a Delaware Corpor	ation,
	on behalf of said Corpor	ration.			
		1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	b]-	- A	*
-			12/20	Notary Public	combe
	My Commission Expires:			Notary Public	
	1 1050		· · ·		
	June 1, 1959				
				•	
	STATE OF Legal	Υ			
	STATE OF FREE	') ss			
	COUNTY OF Maclas)			
				- <i>L</i> i	
	The foregoing inst	rument was ackno	wledged before	me this $\underline{\checkmark}^{\alpha}$ d	ay
	of June, 1958	, by	No.D		
	Vice-President	of Magnolia Pet	roleum Company	, a Texas Corpora	tion,
	on behalf of said Corpo	ration.			
				and the second	
			1. S.	Spin hote	
	My Commission Expires:			Notary Public	
	1939 L 1939	84		ALICE FORDER	·
	· · ·	1.		la esté de Ces	사는 가슴이 가져야 있는다. 이번 사람은 아파리에 있는
					romana ang
				·	
C.C.A	TE OF OKLAHONA)				
VAS	EINGTON COUNTY)				
	On this 6th day of Jun	a. 1958. before	me nersonally	Anneared MARK T.	
me l	known to be the person w	ho executed the	foregoing inst	rument as Attorne	v-in-Fact
in	behalf of CITIES SERVICE	OIL COMPANY, as	d acknowledged	that he executed	the same
22	the free act and deed of	said Cities Ser	wice Oil Compa	by .	
	Commission Expires:				
		×		0.	
			\sim	T.all	2
Ny ($\sim \chi$	enx 1 all	einstre.
Ny (11 23, 1962			Charty Public	the cargo
Ny (11 23, 1962			Notary Public	<u>mung</u>
Ngr () **		otary Public	
Ny (<u>11 23. 1962</u> COUNTY OF)			dav
Ny (11 23. 1962 COUNTY OF The foregoing inst	and the second se	owledged before	e me this	
Ny (11 23. 1962 COUNTY OF The foregoing inst of . 1958.	by	owledged before	e me this	
Ny (11 23. 1962 COUNTY OF The foregoing inst of . 1958.	by	owledged before	e me this	
Ny (11 23. 1962 COUNTY OF The foregoing inst	by	owledged before	e me this	
Ny (11 23. 1962 COUNTY OF The foregoing inst of . 1958.	by	owledged before	e me this	



UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

P. O. Box 6721 (1) (1) Roswell, New Mexi o

File 1118

December 30, 1957

IN REPLY REFER TO:

33

New Mexico Oil Conservation Commission P. O. Box 871 Santa Fe, New Mexico

Attention: Mr. Richard Stamets

Gentlemen:

Reference is made to your letter of December 26, 1957, requesting that you be advised as to whether or not the Railroad Mountain unit agreement was approved.

On February 25, 1957, the Acting Director of the Geological Survey, Arthur A. Baker, approved the Railroad Mountain unit agreement effective as of the date of approval.

Very truly yours,

FAMES A. KNAUF

Acting Oil and Gas Supervisor

CIL CONSERVATION COMMISSIUN P. O. BOX 871 SANTA FE, NEW MEXICO

September 6, 1956

Mr. Glarence Hinkle Hervey, Dow & Hinkle Box 547 Roswell, New Mexico

Dear Sir:

In behalf of your client, Humble Cil & Refining Company, we enclose two copies of Orders R-863 and R-867 issued August 30, 1956, by the Oil Conservation Commission in Cases 1118 and 1096, respectively, which were heard on August 7th at Santa Fe.

Yours very truly,

A. L. Porter, Jr. Secretary - Director

brp Encls.

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF MEN MENICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 1118 Order No. R-863

THE APPLICATION OF HUMBLE CIL & REFINING COMPANY FOR APPROVAL DF THE RAILBOAD MOUNTAIN UNIT AGREEMENT EMBRACING 4,217 ACRES OF LAND, MORE OR LESS, IN "OWNSHIPS 7 AND 8 SOUTH, RANGE 31 EAST, NMPM, CHAVES COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE CURMISSION:

This cause came on for hearing at 10 o'clock a.m. on the 7th day of August, 1956, at Santa Fe, New Mexico, before Warren W. Mankin, Examiner duly appointed by the Gil Conservation Commission of New Mexico, hereinafter referred to as the Commission, in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this $\underline{30}^{\pm}$ day of August, 1956, the Commission, a quorum being present, having considered the application, the evidence and the recommendations of the Examiner Warren W. Mankin, and being fully advised in the premises,

FINDS:

(1) That due notice of the time and place of hearing and the purpose thereof having been given as required by law, the Commission has jurisdiction of this case and the subject matter thereof.

(2) That the proposed unit plan will in principle tend to promote the conservation of oil and gas and the prevention of wasto.

IT IS THEREFORE ORDERED:

SECTION 1. That this order shall be known as the

RAILBOAD MOUNTAIN UNIT AGREEMENT ORDER

SECTION 2. (a) That the project herein referred to shall be known as the Railroad Mountain Unit Agreement, and shall hereafter be referred to as the "Project".

(b) That the plan by which the Project shall be operated shall be embraced in the form of a unit agreement for the development and operation of the Railroad Mountain Unit Area referred to in the Petitioner's petition and filed with said petition, and such plan shall be known as the Railroad Mountain Unit Agreement Plan. -2-Order No. R-363

SECTION 3. That the Kailroad Mountain Unit Agreement Plan shall be, and hereby is, approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing in any manner any right, duties or obligation which are now, or may hereafter, be vested in the New Mexico Oil Conservation Commission by law relative to the supervision and control of operations for exploration and development of any lands committed to said Railroad Mountain Unit Agreement, or relative to the production of oil or gas therefrom.

SECTION 4. That the Unit Area will be;

NEW MEXICO PRINCIPAL MERIDIAN, NEW MEXICO

TOWNSHIP 7 SOUTH, RANGE 31 EAST 5/2 Section 31

TOWNSHIP 5 SOUTH, RANGE 31 EAST All Sections 5, 6, 7, 8, 17, 18

Situated in Chaves County, New Mexico and containing 4,217 acres, more or less.

SECTION 5. That the unit operator shall file with the Commission an executed original or executed counterpart of the Railroad Mountain Unit Agreement within 30 days after the effective date thereof.

SECTION 6. That any party owning rights in the unitized substances who does not commit such rights to said unit agreement before the effective date thereof may thereafter become a party thereto by subscribing to such agreement or counterpart thereof, or by ratifying the same. The unit operator shall file with the Commission within 30 days an original of any such counterpart of ratification.

SECTION 7. That this order shall become effective upon approval of said unit agreement by the Director of the United States Geological Survey and shall terminate ipso facto upon the termination of said unit agreement. The last unit operator shall immediately notify the Commission in writing of such termination.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

SIMMS, Chairman

A. L. PORTER, Jr., Member & Secretary



MAIN CETTER COD

1805 COL. FOR THE DEVELOPMENT AND OPERATION OF THE CHAVES COUNTY, NEW MEXICO

No.

THIS AGREEMENT, entered into as of the <u>lst</u> day of <u>July</u>, 1956, by and between the parties subscribing, ratifying or consenting hereto, and herein referred to as "parties hereto".

WITNESSETH:

WHEREAS, the parties hereto are the owners of working, royalty or other oil or gas interests in the unit area subject to this agreement; and

WHEREAS, the Mineral Leasing Act of February 25, 1920, 41 Stat. 437, as amended, 30 U.S.C. Secs. 181 et seq., authorizes Federal lessees and their representatives to unite with each other, or jointly or separately with others, in collectively adopting and operating under a cooperative or unit plan of development or operation of any cil or gas pool, field, or like area, or any part thereof, for the purpose of more properly conserving the natural resources thereof whenever determined and certified by the Secretary of the Interior to be necessary or advisable in the public interest; and

WHEREAS, the Oil Conservation Commission of the State of New Mexico is authorized by law (Chap. 72, Laws of 1935, as amended by Chap. 193, Laws of 1937, Chap. 166, Laws of 1941, and Chap. 168, Laws of 1949) to approve this agreement, and the conservation provisions hereof; and

WHEREAS, the parties hereto hold sufficient interests in the Railroad Mountain Unit Area covering the land hereir fter described to give reasonably effective control of operations therein, and

WHEREAS, it is the purpose of the parties hereto to conserve natural resources, prevent waste, and secure other benefits obtainable through development and operation of the area subject to this agreement under the terms, conditions and limitations herein set forth.

NOW THEREFORE, in consideration of the premises and the promises herein contained, the parties hereto commit to this agreement their respective interests in the below defined unit area, and agree severally among themselves as follows:

1. ENABLING ACT AND REGULATIONS: The Mineral Leasing Act of February 25, 1920, as amended, supra, and all valid pertinent regulations, including operating and unit plan regulations, heretofore issued thereunder or valid

pertinent and reasonable regulations hereafter issued thereunder are accepted and made a part of this agreement as to Federal lands, provided such regulations are not inconsistent with the terms of this agreement; and as to non-Federal lands, the oil and gas operating regulations in effect as of the effective date hereof governing drilling and producing operations, not inconsistent with the terms hereof or the laws of the State in which the non-Federal land is located, are hereby accepted and made a part of this agreement.

2. UNIT AREA: The following described land is hereby designated and recognized as constituting the unit area:

NEW MEXICO PRINCIPAL MERIDIAN, NEW MEXICO

T. 7 S., R. 31 E.	Acres
Sec. 31, Lots 3, 4, $E_2^{1}SW_{1}^{1}$, SE_{2}^{1}	328.64
T. 8 S., R. 31 E.	
Sec. 5, Lots 1,2,3,4, S2N2, S2 (All)	641.68
Sec. 6, Lots 1 through 7, SETNWL, SINEL,	
$E_{\overline{2}}SW_{\overline{4}}$, $SE_{\overline{4}}$ (All)	657.60
Sec. 7, Lots 1,2,3,4, $E_{2W_{2}}^{1}$, E_{2}^{1} (A11)	655.74
Sec. 8, 17 (All)	1280.00
Sec. 18, Lots 1,2,3,4, $E_{2}^{1}W_{2}^{1}$, E_{2}^{1} (All)	653.82
Total	4217.48

Situated in Chaves County, New Mexico, containing 4,217.48 acres, more or less. Exhibit "A" attached hereto is a map showing the unit area and the boundaries and identity of tracts and leases in said area to the extent known to the Unit Operator. Exhibit "B" attached hereto is a schedule showing to the extent known to the Unit Operator the acreage, percentage, and kind of ownership of oil and gas interests in all land in the unit area. However, nothing herein or in said schedule or map shall be construed as a representation by any party hereto as to the ownership of any interest other than such interest or interests as are shown in said map or schedule as owned by such party. Exhibits "A" and "B" shall be revised by the Unit Operator whenever changes in the unit area render such revision necessary, or when requested by the Oil and Gas Supervisor, hereinafter referred to as "Supervisor", and not less than six copies of the revised exhibits shall be filed with the Supervisor, and at least one copy shall be filed with the New Mexico Oil Conservation Commission, hereinafter referred to as "Commission".

Expansion or Contraction: The above described unit area shall when practicable be expanded to include therein any additional tract or tracts regarded as reasonably necessary or advisable for the purpose of this agreement, or shall be contracted to exclude lands not within any participating area whenever such expansion or contraction is necessary or advisable to conform with the purposes of this agreement. Such expansion or contraction shall be effected in the following manner:

(a) Unit Operator, on its own motion or on demand of the Director of the Geological Survey, hereinafter referred to as "Director", shall prepare, after prelimi-

-2-

nary concurrence by the Director, a notice of proposed expansion or contraction describing the contemplated changes in the boundaries of the unit area, the reasons therefor, and the proposed effective date thereof, preferably the first day of a month subsequent to the date of notice.

(b) Said notice shall be delivered to the Supervisor and copies thereof mailed to the last known address of each working interest owner, lessee, and lessor whose interests are affected, advising that 30 days will be allowed for submission to the Unit Operator of any objections.

(c) Upon expiration of the 30-day period provided in the preceding item(b) hereof, Unit Operator shall file with the Supervisor evidence of mailing of the notice of expansion or contraction and a copy of any objections thereto which have been filed with the Unit Operator, together with an application for approval of such expansion or contraction, and with appropriate joinders.

(d) After due consideration of all pertinent information, the expansion or contraction shall, upon approval by the Director, become effective as of the date prescribed in the notice thereof.

(e) Automatic Elimination - All legal subdivisions of unitized lands (i.e., 40 acres by Government survey or its nearest lot or tract equivalent in instances of irregular surveys, however, unusually large lots or tracts shall be considered in multiples of 40 acres, or the nearest aliquet equivalent thereof, for the purpose of elimination under this subsection), no parts of which are entitled to be in a participating area within five years after the first day of the month following the effective date of the first initial participating area established under this unit agreement, shall be eliminated automatically from this agreement, effective as of the first day thereafter, and such lands shall no longer be a part of the unit area and shall no longer be subject to this agreement, unless at the expiration of said five-year period diligent drilling operations are in progress on unitized lands not entitled to participation, in which event all such lands shall remain subject hereto for so long as such drilling operations are continued diligently, with not more than 90 days' time elapsing between the completion of one such well and the commencement of the next such well, However, if prior to each such drilling operation, the Director determines that a well on lands entitled to participation will expand the participating area, such well shall be an acceptable compliance with such drilling obligation), except that the time allowed between such wells shall not expire earlier than 30 days after the expiration of any period of time during which drilling operations are prevented by a matter beyond the reasonable control of Unit Operator as set forth in the section hereof entitled "Unavoidable

-3-

Delay";provided that all legal subdivisions of lands not in a participating area and not entitled to become participating under the applicable provisions of this agreement within 10 years after said first day of the month following the effective date of said first initial participating area shall be eliminated as above specified. Determination of creditable "Unavoidable Delay" time shall be made by Unit Operator and subject to approval of the Director. The Unit Operator shall, within 90 days after the effective date of any elimination hereunder, describe the area so eliminated to the satisfaction of the Director and promptly notify all parties in interest.

If conditions warrant extension of the 10-year period specified in this subsection (e), a single extension of not to exceed two years may be accomplished by consent of the owners of 90% of the current unitized working interests and 60% of the current unitized basic royalty interests (exclusive of the basic royalty interests of the United States), on a total-nonparticipating-acreage basis, respectively, with approval of the Director, provided such extension application is submitted to the Director nct later than 60 days prior to the expiration of said ten-year period.

Any expansion of the unit area pursuant to this section which embraces lands theretofore eliminated pursuant to this subsection (e) shall not be considered automatic commitment or recommitment of such lands.

3. UNITIZED LAND AND UNITIZED SUBSTANCES: All land committed to this agreement shall constitute land referred to herein as "unitized land" or "land subject to this agreement". All oil and gas in any and all formations of the unitized land are unitized under the terms of this agreement and herein are called "unitized substances".

4. <u>UNIT OPERATOR:</u> Humble Oil & Refining Company, a corporation, with offices at Houston, Texas, is hereby designated as Unit Operator and by signature hereto as Unit Operator agrees and consents to accept the duties and obligations of Unit Operator for the discovery, development and production of unitized substances as herein provided. Whenever reference is made herein to the Unit Operator, such reference means the Unit Operator acting in that capacity and not as an owner of interests in unitized substances, and the term "working interest owner" when used herein shall include or refer to Unit Operator as the owner of a working interest when such an interest is owned by it.

5. RESIGNATION OR REMOVAL OF UNIT OPERATOR: Unit Operator shall have

-4-
the right to resign at any time prior to the establishment of a participating area or areas hereunder, but such resignation shall not become effective so as to release Unit Operator from the duties and obligations of Unit Operator and terminate Unit Operator's rights as such for a period of six months after notice of intention to resign has been served by Unit Operator on all working interest owners and the Director, and until all wells then drilled hereunder are placed in a satisfactory condition for suspension or abandonment whichever is required by the Supervisor as to Federal lands and the Commission as to privately-owned lands, unless a new Unit Operator shall have been selected and approved and shall have taken over and assumed the duties and obligations of Unit Operator prior to the expiration of said period. Unit Operator shall have the right to resign in like manner and subject to like limitations as above provided at any time a participating area established hereunder is in existence, but in all such instances of resignation or removal until a successor Unit Operator is selected and approved as hereinafter provided, the working interest owners shall be jointly responsible for performance of the duties of Unit Operator, and shall not later than 30 days before such resignation or removal becomes effective appoint a common agent to represent them in any action to be taken hereunder.

The resignation of Unit Operator shall not release Unit Operator from any liability for any default by it hereunder occurring prior to the effective date of its resignation.

The Unit Operator may, upon default or failure in the performance of its duties or obligations hereunder, be subject to removal by the same percentage vote of the owners of working interests determined in like manner as herein provided for the selection of a new Unit Operator. Such removal shall be effective upon notice thereof to the Director.

The resignation or removal of Unit Operator under this agreement shall not terminate its right, title or interest as the owner of a working interest or other interest in unitized substances, but upon the resignation or removal of Unit Operator becoming effective, such Unit Operator shall deliver possession of all equipment, materials and appurtenances used in conducting the unit operations and owned by the working interest owners to the new duly qualified successor Unit Operator or to the owners thereof if no such new Unit Operator is elected, to be used for the purpose of conducting unit operations hereunder. Nothing herein shall be construed as authorizing removal of any material, equipment and appurtenances needed for the preservation of any wells.

-5-

SUCCESSOR UNIT OPERATOR: Whenever the Unit Operator shall tender his 6. or its resignation as Unit Operator or shall be removed as hereinabove provided, the owners of the working interests in the participating area or areas according to their respective acreage interests in such participating area or areas, or, until a participating area shall have been established, the owners of the working interests according to their respective acreage interests in all unitized land, shall by majority vote select a successor Unit Operator; provided, that if a majority but less than 75 percent of the working interests qualified to vote are owned by one party to this agreement, a concurring vote of one or more additional working interest owners shall be required to select a new operator. Such selection shall not become effective until (a) a Unit Operator so selected shall accept in writing the duties and responsibilities of Unit Operator, and (b) the selection shall have been approved by the Director. If no successor Unit Operator is selected and qualified as herein provided, the Director at his election may declare this unit agreement terminated.

7. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT: If the Unit Operator is not the sole owner of working interests, costs and expenses incurred by Unit Operator in conducting unit operations hereunder shall be paid and apportioned among and borne by the owners of working interests, all in accordance with the agreement or agreements entered into by and between the Unit Operator and the owners of working interests, whether one or more, separately or collectively. Any agreement or agreements entered into between the working interest owners and the Unit Operator as provided in this section, whether one or more, are herein referred to as the "Unit Operating Agreement". Such unit operating agreement shall also provide the manner in which the working interest owners shall be entitled to receive their respective proportionate and allocated share of the benefits accruing hereto in conformity with their underlying operating agreements, leases, or other independent contracts and such other rights and obligations as between Unit Operator and the working interest owners as may be agreed upon by Unit Operator and the working interest owners; however, no such unit operating agreement shall be deemed either to modify any of the terms and conditions of this unit agreement or to relieve the Unit Operator of any right or obligation established under this unit agreement, and in case of any inconsistency or conflict between the unit agreement and the unit operating agreement, this unit agreement shall prevail. Three true copies of any unit operating agreement executed pursuant to this section shall be filed

-6-

with the Supervisor prior to approval of this agreement.

8. RICHTS AND OBLIGATIONS OF UNIT OPERATOR: Except as otherwise specifically provided herein, the exclusive right, privilege and duty of exercising any and all rights of the parties hareto which are necessary or convenient for prospecting for, producing, storing, allocating and distributing the unitized substances are hereby delegated to and shall be exercised by the Unit Operator as herein provided. Acceptable evidence of title to said rights shall be deposited with said Unit Operator, and together with this agreement, shall constitute and define the rights, privileges and obligations of Unit Operator; nothing herein, however, shall be construed to transfer title to any land or to any lease or operating agreement, it being understood that under this agreement the Unit Operator, in its capacity as Unit Operator, shall exercise the rights of possession and use vested in the parties hereto only for the purposes herein specified.

9. DRILLING TO DISCOVERY: Within six months after the effective date hereof, the Unit Operator shall begin to drill an adequate test well at a location approved by the Supervisor, if such location is upon lands of the United States, and if upon privately owned lands, such location shall be approved by the Commission, unless on such effective date a well is being drilled conformably with the terms hereof, and thereafter continue such drilling diligently until all formations to the Siluro-Devonian have been tested or until at a lesser depth unitized substances shall be discovered which can be produced in paying quantities (to it: quantities sufficient to repay the costs of drilling and producing operations, with a reasonable profit) or the Unit Operator shall at any time establish to the satisfaction of the Supervisor that further drilling of said well would be unwarranted or impracticable; provided, however, that Unit Operator shall not in any event be required to drill said well to a depth in excess of 10,000 feet. Until the discovery of a deposit of unitized substances capable of being produced in paying quantities, the Unit Operator shall continue drilling diligently one well at a time, allowing not more than six months between the completion of one well and the beginning of the next well, until a well capable of producing unitized substances in paying quantities is completed to the satisfaction of said Supervisor if on Federal land or the Commission if on privately owned land, or until it is reasonably proved that the unitized land is incapable of producing unitized substances in paying quantities in the formation drilled hereunder. Nothing in

-7-

this section shall be deemed to limit the right of the Unit Operator to resign as provided in Section 5 hereof, or as requiring Unit Operator to commence or to continue any drilling during the period pending such resignation becoming effective in order to comply with the requirements of this section. The Director may modify the drilling requirements of this section by granting reasonable extensions of time, when, in his opinion, such action is warranted.

Upon failure to comply with the drilling provisions of this section, the Director may, after reasonable notice to the Unit Operator and each working interest owner, lessee and lessor at their last known addresses, declare this unit agreement terminated.

10. PLAN OF FURTHER DEVELOPMENT AND OPERATION: Within six months after completion of a well capable of producing unitized substances in paying quantities, the Unit Operator shall submit for the approval of the Supervisor and the Commission, an acceptable plan of development and operation for the unitized land which, when approved by the Supervisor and the Commission, shall constitute the further drilling and operating obligations of the Unit Operator under this agreement for the period specified therein. Thereafter, from time to time before the expiration of any existing plan, the Unit Operator shall submit for the approval of the Supervisor and the Commission, a plan for an additional specified period for the development and operation of the unitized land. Any plan submitted pursuant to this section shall provide for the exploration of the unitized area and for the diligent drilling necessary for determination of the area or areas thereof capable of producing unitized substances in paying quantities in each and every productive formation and shall be as complete and adequate as the Supervisor and the Commission may determine to be necessary for the timely development and proper conservation of the oil and gas resources of the unitized area and shall (a) specify the number and location of any wells to be drilled and the proposed order and time for such drilling; and (b) to the extent practicable specify the operating practices regarded as necessary and advisable for proper conservation of natural resources. Separate plans may be submitted for separate productive zones, subject to the approval of the Supervisor and the Commission. Such plan or plans shall be modified or supplemented when necessary to meet changed conditions or to protect the interests of all parties to this agreement. Reasonable diligence shall be exercised in complying with the obligations of this approved plan of development. The Supervisor is authorized to grant a reasonable ex-

-8-

tension of the six-month period herein prescribed for submission of an initial plan of development where such action is justified because of unuaual conditions or circumstances. After completion hereunder of a well capable of producing any unitized substances in paying quantities, no further wells, except such as may be necessary to afford protection against operations not under this agreement or such as may be specifically approved by the Supervisor and Commission, shall be drilled except in accordance with a plan of development approved as herein provided.

11. PARTICIPATION AFTER DISCOVERY: Upon completion of a well capable of producing unitized substances in paying quantities or as soon thereafter as required by the Supervisor, the Unit Operator shall, within the month of completion if practicable, submit for approval by the Director and the Commission, a schedule, based on subdivisions of the public land survey or aliquot parts thereof, of all unitized land then regarded as reasonably proved to be productive of unitized substances in paying quantities; all land in said schedule on approval of the Director and the Commission to constitute a participating area, effective as of the date of completion of such well or the effective date of this unit agreement, whichever is later. Said schedule also shall set forth the percentage of unitized substances to be allocated as herein provided to each unitized tract in the participating area so established, and shall govern the allocation of production from and after the date the participating area becomes effective. A separate participating area shall be established in like manner for each separate pool or deposit of unitized substances or for any group thereof produced as a single pool or zone, and any two or more participating areas so established may be combined into one with the consent of the owners of all working interests in the lands within the participating areas so to be combined, on approval of the Director and the Commission. The participating area or areas so established shall be revised from time to time, subject to like approval, whenever such action appears proper as a result of further drilling operations or otherwise, to include additional land then regarded as reasonably proved to be productive in paying quantities, or to exclude lands then regarded as reasonably proved not to be productive, and the percentage of allocation shall also be revised accordingly. The effective date of any revision shall be the first of the month in which is obtained the knowledge or information on which such revision is predicated; provided, however, that a more appropriate effective date may be used if justified by the Unit Operator

-9-

and approved by the Director. No land shall be excluded from a participating area on account of depletion of the unitized substances.

It is the intent of this section that a participating area shall represent the area known or reasonably estimated to be productive in paying quantities; but regardless of any revision of the participating area, nothing herein contained shall be construed as requiring any retroactive adjustment for production obtained prior to the effective date or revision of the participating area.

In the absence of agreement at any time between the Unit Operator and the Director and the Commission as to the proper definition or redefinition of a participating area, or until a participating area has, or areas have, been established as provided herein, the portion of all payments affected thereby may be impounded in a manner mutually acceptable to the owners of working interests, except royalties due the United States, which shall be determined by the Supervisor and the amount thereof deposited as directed by the Supervisor, to be held as unearned money until a participating area is finally approved and then applied as earned or returned in accordance with a determination of the sum due as Federal royalty on the basis of such approved participating area.

Whenever it is determined, subject to the approval of the Supervisor, as to wells on Federal land and the Commission as to wells on privately owned land, that a well drilled under this agreement is not capable of production in paying quantities and inclusion of the land on which it is situated in a participating area is unwarranted, production from such well shall, for the purposes of settlement among all parties other than working interest owners, be allocated to the land on which the well is located so long as such land is not within a participating area established for the pool or deposit from which such production is obtained. Settlement for working interest benefits from such a well shall be made as provided in the unit operating agreement.

12. ALLOCATION OF PRODUCTION: All unitized substances produced from each participating area established under this agreement, except any part thereof used in conformity with good operating practices within the unitized area for drilling, operating, camp and other production or development purposes, for repressuring or recycling in accordance with a plan of development approved by the Supervisor and the Commission, or unavoidably lost, shall be deemed to be produced equally on an acreage basis from the several tracts of unitized land of the participating area established for such production and, for the purpose of determining any benefits accruing under this agreement each such tract of

-10-

unitized land shall have allocated to it such percentage of said production as the number of acres of such tract included in said participating area bears to the total number of acres of unitized land in said participating area except that allocation of production hereunder for purposes other than for settlement of the royalty, overriding royalty, or payment out of production obligations of the respective working interest owners, shall be on the basis prescribed in the unit operating agreement whether in conformity with the basis of allocation herein set forth or otherwise. It is hereby agreed that production of unitized substances from a participating area shall be allocated as provided herein regardless of whether any wells are drilled on any particular part or tract of said participating area. If any gas produced from one participating area is used for repressuring or recycling purposes in another participating area, the first gas withdrawn from such last mentioned participating area for sale during the life of this agreement shall be considered to be the gas so transferred until an amount equal to that transferred shall be so produced for sale and such gas shall be allocated to the participating area from which initially produced as constituted at the time of such final production.

13. DEVELOPMENT OR OPERATION OF NON-PARTICIPATING LAND OR FORMATIONS: Any party hereto owning or controlling the working interest in any unitized land having thereon a regular well location may with the approval of the Supervisor as to Federal land, and the Commission as to privately owned land, at such party's sole risk, cost and expense, drill a well to test any formation for which a participating area has not been established if such location is not within said participating area, unless within 90 days of receipt of notice from said party of his intention to drill the well the Unit Operator elects and commences to drill such well in like manner as other wells are drilled by the Unit Operator under this agreement.

If any well drilled as aforesaid by a working interest owner results in production such that the land upon which it is situated may properly be included in a participating area, such participating area shall be established or enlarged as provided in this agreement and the well shall thereafter be operated by Unit Operator in accordance with the terms of this agreement and the unit operating agreement.

If any well drilled as aforesaid by a working interest owner obtains production in quantities insufficient to justify the inclusion in a participating

-11-

area of the land upon which such well is situated, such well may be operated and produced by the party drilling the same subject to the conservation requirements of this agreement. The royalties in amount or value of production from any such well shall be paid as specified in the underlying lease and agreements affected.

14. ROYALTY SETTLEMENT: The United States and all royalty owners who, under existing contract, are entitled to take in kind a share of the substances now unitized hereunder produced from any tract, shall hereafter be entitled to the right to take in kind their share of the unitized substances allocated to such tract, and Unit Operator, or in case of the operation of a well by a working interest owner as herein in special cases provided for, such working interest owner shall make deliveries of such royalty share taken in kind in conformity with the applicable contracts, law and regulation. Settlement for royalty interests not taken in kind shall be made by working interest owners responsible therefor under existing contracts, laws and regulations, on or before the last day of each month for unitized substances produced during the preceding calendar month; provided, however, that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any royalties due under their leases.

If gas obtained from lands not subject to this agreement is introduced into any participating area hereunder, for use in repressuring, stimulation or production, or increasing ultimate recovery, which shall be in conformity with a plan first approved by the Supervisor and the Commission, a like amount of gas, after settlement as herein provided for any gas transferred from any other participating area, and with due allowance for loss or depletion from any cause, may be withdrawn from the formation into which the gas was introduced, royalty free as to dry gas, but not as to the products extracted therefrom; provided, that such withdrawal shall be at such time as may be provided in the plan of operations or as may otherwise be consented to by the Supervisor and the Commission as conforming to good petroleum engineering practice, and provided further, that such right of withdrawal shall terminate on the termination of this unit agreement.

Royalty due the United States shall be computed as provided in the operating regulations and paid in value or delivered in kind as to all unitized substances on the basis of the amounts thereof allocated to unitized Federal land as provided herein at the rates specified in the respective Federal

-12-

leases, or at such lower rate or rates as may be authorized by law or regulation; provided, that for leases on which the royalty rate depends on the daily average production per well, said average production shall be determined in accordance with the operating regulations as though each participating area were a single consolidated lease.

It is expressly understood and agreed that beginning at the end of the respective 20-year terms, or any extension thereof, other than that provided by Sec. 19(e), of the Federal leases committed to this agreement which contain provisions for the payment of a 5% rate of royalty to the United States, if any, the royalty rate on said leases shall be the same rate as would be applicable to the renewal leases in the absence of unitization.

Royalty due on account of privately owned lands shall be computed and paid on the basis of all unitized substances allocated to such lands.

15. RENTAL SETTLEMENT: Rentals or minimum royalties due on leases committed hereto shall be paid by working interest owners responsible therefor under existing contracts, laws and regulations, provided that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any rental or minimum royalty in lieu thereof due under their leases. Rental or minimum royalty for lands of the United States subject to this agreement shall be paid at the rate specified in the respective leases from the United States, unless such rental or minimum royalty is waived, suspended or reduced by law or by approval of the Secretary or his duly authorized representative.

With respect to any lease on non-Federal land containing provisions which would terminate such lease unless drilling operations were within the time therein specified commenced upon the land covered thereby or rentals paid for the privilege of deferring such drilling operations, the rentals required thereby shall, notwithstanding any other provisions of this agreement, be deemed to accrue and become payable during the term thereof as extended by this agreement, and until the required drilling operations are commenced upon the land covered thereby or some portion of such land is included within a participating area.

16. RIGHTS OF WORKING INTEREST OWNERS IN UNITIZED SUBSTANCES: Notwithstanding any provision contained herein to the contrary, if any, each working interest owner shall have the right to take such owner's proportionate share of the unitized substances in kind or to personally sell or dispose of the same,

-13-

and nothing herein contained shall be construed as giving or granting to the Unit Operator the right to sell or otherwise dispose of the proportionate share of any working interest owner without specific authorization from time to time so to do.

Any working interest owner who takes its share of the unitized substances in kind shall pay or secure the payment of the royalty on its interest and furnish at its own expense all tankage and other equipment necessary for taking said unitized substances in kind and shall also pay any other additional expenses of Unit Operator occasioned thereby. Likewise, any royalty owners who under existing contracts are entitled to take their share of the unitized substances in kind shall furnish at their own expense all equipment necessary in connection therewith, and shall reimburse Unit Operator for all expenses incurred on account thereof; provided, that as to Federal lands such expense, equipment and storage of royalty oil taken in kind shall be assumed and furnished pursuant to the provisions of the Federal leases involved.

17. CONSERVATION: Operations hereunder and production of unitized substances shall be conducted to provide for the most economical and efficient recovery of said substances without waste, as defined by or pursuant to State of Federal law or regulations.

18. DRAINAGE: The Unit Operator shall take appropriate and adequate measures to prevent drainage of unitized substances from unitized land by wells on land not subject to this agreement or pursuant to applicable regulations pay a fair and reasonable compensatory royalty as determined by the Supervisor for Federal land or as determined by agreement between the Unit Operator and the royalty owner as to fee land.

19. LEASES AND CONTRACTS CONFORMED AND EXTENDED: The terms, conditions and provisions of all leases, subleases and other contracts relating to exploration, drilling, development or operation for oil or gas of lands committed to this agreement are hereby expressly modified and amended to the extent necessary to make the same conform to the provisions hereof, but otherwise to remain in full force and effect, and the parties hereto hereby consent that the Secretary shall and by his approval hereof, or by the approval hereof by his duly authorized representative, does hereby establish, alter, change or revoke the drilling, producing, rental, minimum royalty, and royalty requirements of Federal leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this agreement, and without limiting the

-14-

generality of the foregoing, all leases, subleases and contracts are particularly modified in accordance with the following:

(a) The development and operation of lands subject to this agreement under the terms hereof shall be deemed full performance of all obligations for development and operation with respect to each and every part or separately owned tract subject to this agreement, regardless of whether there is any development of any particular part or tract of the unit area, notwithstanding anything to the contrary in any lease, operating agreement or other contract by and between the parties hereto, or their respective predecessors in interest, or any of them.

(b) Drilling and producing operations performed hereunder upon any tract of unitized lands will be accepted and deemed to be performed upon and for the benefit of each and every tract of unitized land, and no Federal lease shall be deemed to expire by reason of failure to drill or produce wells situated on land therein embraced.

(c) Suspension of drilling or producing operations on all unitized lands pursuant to direction or consent of the Secretary or his duly authorized representative, shall be deemed to constitute such suspension pursuant to such direction or consent as to each and every tract of unitized lands.

(d) Each lease, sublease or contract relating to the exploration, drilling, development or operation for oll or gas of lands other than those of the United States committed to this agreement which by its terms might expire prior to the termination of this agreement, is hereby extended beyond any such term so provided therein, so that it shall be continued in full force and effect for and during the term of this agreement; provided, however, each such lease, sublease or contract, where not already extended by production, shall only be extended in the event unitized substances are capable of being produced from some part of the lands embraced in such lease committed to this agreement, or some part of said lands are committed to a participating area prior to the expiration of the primary term of such lease, sublease or contract. Termination of this agreement shall not affect any lease which pursuant to the terms thereof or applicable law shall continue in full force and effect thereafter.

(e) Any Federal lease for a fixed term of twenty (20) years or any renewal thereof or any part of such lease which is made subject to this agreement shall continue in force beyond the term provided therein until the termination hereof subject to the royalty provisions of Section 14. Any other Federal lease committed hereto shall continue in force beyond the term so provided therein or by

-15-

law as to the land committed as long as such lease remains subject hereto, provided that production is had in paying quantities under this unit agreement prior to the expiration date of the term of such lease.

(f) Each sublease or contract relating to the operation and development of unitized substances from lands of the United States committed to this agreement, which by its terms would expire prior to the time at which the underlying lease, as extended by the immediately preceding paragraph, will expire, is hereby extended beyond any such term so provided therein so that it shall be continued in full force and effect for and during the term of the underlying lease as such term is herein extended.

(g) The segregation of any Federal lease committed to this agreement is governed by the following provision in the fourth paragraph of Sec. 17(b) of the Mineral Leasing Act, as amended by the Act of July 29, 1954 (68 Stat. 583, 585): "Any (Federal) lease hereafter committed to any such (unit) plan embracing lands that are in part within and in part outside of the area covered by any such plan shall be segregated into separate leases as to the lands committed and the lands not committed as of the effective date of unitization: Provided, however, that any such lease as to the nonunitized portion shall continue in force and effect for the term thereof but for not less than two years from the date of such segregation and so long thereafter as oil or gas is produced in paying quantities."

20. COVENANTS RUN WITH LAND: The covenants herein shall be construed to be covenants running with the land with respect to the interest of the parties hereto and their successors in interest until this agreement terminates, and any grant, transfer or conveyance of interest in land or leases subject hereto shall be and hereby is conditioned upon the assumption of all privileges and obligations hereunder by the grantee, transferee or other successor in interest. No assignment or transfer of any working interest, royalty or other interest subject hereto shall be binding upon Unit Operator until the first day of the calendar month after Unit Operator is furnished with the original, photostatic or certified copy of the instrument of transfer.

21. EFFECTIVE DATE AND TERM: This agreement shall become effective upon approval by the Secretary or his duly authorized representative and the Commission, and shall terminate five years after such date unless (a) such date of expiration is extended by the Director, or (b) it is reasonably determined prior to the expiration of the fixed term or any extension thereof that the unitized land is incapable of production of unitized substances in paying quantities in

_16

the formation tested hereunder and after notice of intention to terminate the agreement on such ground is given by the Unit Operator to all parties in interest at their last known addresses, the agreement is terminated with the approval of the Director, or (c) a valuable discovery of unitized substances has been made on unitized land during said initial term or any extension thereof, in which event the agreement shall remain in effect for such term and so long as unitized substances can be produced in paying quantities, i.e., in this particular instance in quantities sufficient to pay for the cost of producing the same from wells on unitized land within any participating area established hereunder, and should production cease, so long thereafter as diligent operations are in progress for the restoration of production or discovery of new production and so long thereafter as the unitized substances so discovered can be produced as aforesaid, or (d) it is terminated as heretofore provided in this agreement.

This agreement may be terminated at any time by not less than 75 per centum, on an acreage basis, of the owners of working interests signatory hereto, with the approval of the Director and Commission; notice of any such approval to be given by the Unit Operator to all parties hereto.

22. RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION: The Director is hereby vested with authority to alter or modify from time to time, in his discretion, the quantity and rate of production under this agreement, when such quantity and rate is not fixed pursuant to Federal or State law or does not conform to any state-wide voluntary conservation of allocation program, which is established, recognized and generally adhered to by the majority of operators in such State, such authority being hereby limited to alteration or modification in the public interest, the purpose thereof and the public interest to be served thereby to be stated in the order of alteration or modification. Without regard to the foregoing, the Director is also hereby vested with authority to alter or modify from time to time in his discretion the rate of development and prospecting and the quantity and rate of production under this agreement when such alteration or modification is in the interest of attaining the conservation objectives stated in this agreement and is not in violation of any applicable Federal or State law; provided, however, that no such alteration or modification shall be effective as to any privately-owned lands subject to this agreement as to the quantity and rate of production in the absence of specific written approval by the Commission.

Powers in this section vested in the Director shall only be exercised after

-17-

notice to Unit Operator and opportunity for hearing to be held not less than 15 days from notice.

23. CONFLICT OF SUPERVISION: Neither Unit Operator nor the working interest owners nor any of them shall be subject to any forfeiture, termination or expiration of any rights hereunder or under any leases or contracts subject hereto, or to any penalty or liability on account of delay or failure in whole or in part to comply with any applicable provisions thereof to the extent that the said Unit Operator, working interest owners or any of them are hindered, delayed, or prevented from complying therewith by reason of failure of the Unit Operator to obtain, in the exercise of due diligence, the concurrence of proper representatives of the United States and proper representatives of the State of New Mexico in and about any matters or thing concerning which it is required herein that such concurrence be obtained.

24. APPEARANCES: Unit Operator shall, after notice to other parties affected, have the right to appear for or on behalf of any and all interests affected hereby before the Department of the Interior and the New Mexico Oil Conservation Commission and to appeal from orders issued under the regulations of said Department or Commission, or to apply for relief from any of said regulations or in any proceedings relative to operations before the Department of the Interior or Commission, or any other legally constituted authority; provided, however, that any other interested party shall also have the right at his own expense to be heard in any such proceeding.

25. NOTICES: All notices, demands or statements required hereunder to be given or rendered to the parties hereto shall be d med fully given in writing and personally delivered to the party or sent by postpaid registered mail, addressed to such party or parties at their respective addresses set forth in connection with the signatures hereto or to the ratification or consent hereof or to such other address as any such party may have furnished in writing to party sending the notice, demand or statement.

26. NO WAIVER OF CERTAIN RIGHTS: Nothing in this agreement contained shall be construed as a waiver by any party hereto of the right to assert any legal or constitutional rights or defense as to the validity or invalidity of any law of the State wherein said unitized lands are located, or of the United States, or regulations issued thereunder in any way affecting such party, or as a waiver by any such party of any right beyond his or its authority to waive.

27. UNAVOIDABLE DELAY: All obligations under this agreement requiring

-18-

the Unit Operator to commence or continue drilling or to operate on or produce unitized substances from any of the lands covered by this agreement shall be suspended while, but only so long as the Unit Operator despite the exercise of due care and diligence is prevented from complying with such obligations, in whole or in part, by strikes, acts of God, Federal, State or municipal law or agencies, unavoidable accident, uncontrollable delays in transportation, inability to obtain necessary materials in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to matters herein enumerated or not.

28. FAIR EMPLOYMENT: In connection with the performance of work under this agreement, the operator agrees not to discriminate against any employee or applicant for employment because of race, religion, color, or national origin. The aforesaid provision shall include, but not be limited to, the following; employment, upgrading, demotion, or transfer; recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The operator agrees to post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of the nondiscrimination clause.

The operator agrees to insert the foregoing provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.

29. LOSS OF TITLE: In the event title to any tract of unitized land shall fail and the true owner cannot be induced to join this unit agreement, such tract shall be automatically regarded as not committed hereto and there shall be such readjustment of future costs and benefits as may be required on account of the loss of such title. In the event of a dispute as to title as to any royalty, working interest or other interests subject thereto, payment or delivery on account thereof may be withheld without liability for interest until the dispute is finally settled; provided, that as to Federal land or leases, no payments of funds due the United States should be withheld, but such funds shall be deposited as directed by the Supervisor, to be held as uncarned money pending final settlement of the title dispute, and then applied as earned or returned in accordance with such final settlement.

Unit Operator as such is relieved from any responsibility for any defect or failure of any title hereunder.

30. NON-JOINDER AND SUBSEQUENT JOINDER: If the owner of any substantial

-19-

interest in a tract within the unit area fails or refuses to subscribe or consent to this agreement, the owner of the working interest in that tract may withdraw said tract from this agreement by written notice to the Director and the Unit Operator prior to the approval of this agreement by the Director. Any oil or gas interests in lands within the Unit Area not committed hereto prior to submission of this agreement for final approval may thereafter be committed hereto by the owner or owners thereof subscribing or consenting to this agreement, and if the interest is a working interest, by the owner of such interest also subscribing to the unit operating agreement. After operations are commenced hereunder, the right of subsequent joinder, as provided for in this section, by a working interest owner is subject to such requirements or approvals, if any, pertaining to such joinder, as may be provided for in the unit operating agreement. After final approval hereof joinder by a non-working interest owner must be consented to in writing by the working interest owner committed hereto and responsible for the payment of any benefits that may accrue hereunder the schalf of such non-working interest. Joinder by any owner of a nonworking interest at any time must be accompanied by appropriate joinder by the owner of the corresponding working interest in order for the interest to be regarded as effectively committed hereto. Joinder to the unit agreement by a working interest owner, at any time, must be accompanied by appropriate joinder to the unit operating agreement, if more than one committed working interest owner is involved, in order for the interest to be regarded as effectively committed to this unit agreement. Except as may otherwise herein be provided, subsequent joinders to this agreement shall be effective as of the first day of the month following the filing with the Supervisor and the Commission of duly executed counterparts of all or any papers necessary to establish effective commitment of any tract to this agreement unless objection to such joindar is duly made within 60 days by the Director or Commission.

31. STATE LANDS: In the event the unit area should be expanded in accordance with Section 2 hereof to include any oil and gas lease or leases embracing lands of the State of New Mexico and such lease or leases should be committed to this agreement with the approval of the Commissioner of Public Lands of the State of New Mexico, then in such event, from the time any such lands of the State of New Mexico are included in any participating area where, under the terms of this unit agreement, any action is required to be approved by the Supervisor and the Commission, such action shall also require the concurrent approval of the

-20-

Commissioner of Public Lands, hereinafter referred to as "Commissioner". Also, in such event, any lease embracing lands of the State of New Mexico which is made subject to this agreement shall continue in force beyond the term provided therein as to the lands committed hereto under the terms of this agreement, and if any such lease embracing lands of the State of New Mexico shall have only a portion of the lands embraced therein committed hereto, such lease shall be segregated as to the portion committed and the portion not committed and the terms of such lease shall apply separately to such segregated portions effective as of the date of the approval of the commitment of such lease or leases embracing lands of the State of New Mexico by the Commissioner; provided, however, any lease embracing lands of the State of New Mexico having only a portion of its lands committed hereto shall continue in full force and effect beyond the term provided therein as to all lands embraced in such lease if unitized substances are discovered and are capable of being produced in paying quantities from some part of the lands embraced in such lease committed to this agreement at the expiration of the secondary term of such lease or if, at the expiration of the secondary term, the lessee or the Unit Operator is then engaged in bona fide drilling or reworking operations on some part of the land embraced in such lease, the same as to all lands embraced therein shall remain in full force and effect so long as such operations are being diligently prosecuted and if they result in the production of unitized substances, said lease shall continue in full force and effect as to all of the lands embraced therein so long thereafter as unitized substances in paying quantities are being produced from any portion of said lands.

32. COUNTERPARTS: This agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties or may be ratified or consented to by separate instrument in writing specifically referring hereto and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all such parties had signed the same document, and regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands within the above described unit area.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed and have set opposite their respective names the date of execution.

-21-

	HUMBLE OIL & REFINING COLPANY
ATTEST:	By
	Address P. O. Box 2180
Secretary	Houston, Texas
Date	UNIT OPERATOR AND WORKING INTEREST OWNER
	MAGNOLIA PETROLEUM COMPANY
ATTEST:	Ву
	Address P. O. Box 900
Secretary	Dallas 21, Texas
Date	
	GULF OIL CORPORATION
ATTEST:	By
	Address P. O. Box 1290
Secretary	Fort Worth, Texas
Date	
	CITIES SERVICE OIL COMPANY
ATTEST:	By
Secretary	Address <u>Cities Service Oil Company</u>
Date	Bartlesville, Oklahoma
	MONSANTO CHEMICAL COMPANY
ATTEST:	By
·	Address P. O. Box 1742
Secretary	Midland, Texas
Date	

ROYALTY OWNERS



COUNTY OF)	
	nowledged before me this day o
of Humble Oil & Refining Company, a T	exas Corporation, on behalf of said
Corporation.	
My Commission Expires:	Notary Fublic
STATE OF)	
COUNTY OF) 33	
	nowledged before me this day of
, 1956, by of Monsanto Chemical Company, a Delaw	are Corporation, on behalf of said
Corporation.	
My Commission Expires:	Notary Public
STATE OF)	
) SS	· · · · · · · · · · · · · · · · · · ·
COUNTY OF	mowledged before me this day
COUNTY OF	mowledged before me this day of said
COUNTY OF	mowledged before me this day of the day
COUNTY OF	s Corporation, on behalf of said
COUNTY OF	s Corporation, on behalf of said
COUNTY OF	s Corporation, on behalf of said
COUNTY OF	s Corporation, on behalf of said
COUNTY OF	nowledged before me this day
COUNTY OF	ns Corporation, on behalf of said Notary Public
COUNTY OF	nowledged before me this day
COUNTY OF	nowledged before me this day
COUNTY OF	nowledged before me this day
COUNTY OF	nowledged before me this day
COUNTY OF	nowledged before me this day
COUNTY OF	notary Fublic nowledged before me this day <u>ware</u> Corporation, on behalf of said Notary Fublic
COUNTY OF	Notary Public mowledged before me this day of ware Corporation, on behalf of said

 $\lambda = -1$

STATE OF)					
COUNTY OF) ss)	\$				
The foregoing in, 1956, by						day of
y Commission Expires	:					
an a					Notary Public	
STATE OF)					
COUNTY OF) ss)	3				
The foregoing in, 1956, by						
My Commission Expires			•		Notary Public	
	-					
STATE OF)) ss	6				
The foregoing in					me this	day of
, 1956, by				·····		
My Commission Expires	:		• • • • • • • • •	••••••••••••••••••••••••••••••••••••	Notary Public	
STATE OF)					
COUNTY OF) ss)	6				
The foregoing in	strument	was	acknowledged	before	me this	day of
, 1956, by			·			
My Commission Expires	:		-		Notary Public	
	_ ·					
STATE OF		s				
COUNTY OF						
The foregoing in, 1956, by						day of
My Commission Expires	:	·				
	_				Notary Public	
STATE OF)					
COUNTY OF) s	35				
The foregoing in, 1956, by						day of
My Commission Expires						
			•	_ .	Notary Public	
STATE CF		35				
COUNTY OF	ز					
The foregoing in, 1956, by						day of
My Commission Expires	:				Notary Public	



EXHIBIT "B" RAILROAD MOUNTAIN UNIT AREA, CHAVES COUNTY, NEW MEXICO TOWNSHIPS 7 AND 8 SOUTH, RANGE 31 EAST

Tract Application pescription of Land No. of Acres No. and Lesse Date Basic Overriding Royalty Overriding Royalty Working Interest PEDEEAL LASE PEDEEAL LASE I.Acres Lesse Date Percentage Lesse of Record & Percentage Owner * Owner * 1. T-B-S, P.31-E Scc. 5: M/2 321.68 LLC-064420-B 7-1-48 U.S.A. W. H. McKinley Edith J. Hodges 47. Cities Service 2. T-B-S, P.31-E Scc. 5: M/2 321.68 LLC-064420-C 7-1-48 U.S.A. W. H. McKinley Edith J. Hodges 47. Cities Service 3. T-B-S, P.31-E Scc. 7: N/2 2274.87 2274.87 LC-064221 U.S.A. H. McKinley Edith J. Hodges 47. Humble 0il & Refining Company 5. Scc. 7: N/2 Scc. 8: SN/4, S/2 2274.87 LC-064221 U.S.A. Clare Phinizy Butcher, \$750 per Ind. and as executrix acree out Scc. 17: All Refining Company 4. T-7-5, E 1-E Scc. 17: All Scc. 17: All 1247. Butcher Pinice of Cary of 3X Pining Company 4. T-7-5, E 1-E Scc. 31: S/2 328.64 LC-065380 U.S.A. Humble C. Taylor	Humble Oil &	4%	Ralph Nix and Francis Nix	Ralph Nix	U.S.A. 12½%	LC-067468 5-1-51	320	<u>T-8-S, R-31-E</u> Sec. 8: E/2	ۍ ۲
Description of Land No. of No. and Royalty 6 Overriding Royalty 6 Overriding Royalty 6 FEDERAL LAND Acres Lease Date Percentage Lesse of Record & Percentage T-8-S. P-31-E 321.68 LC-064420-B U.S.A. W. H. McKinley Edith J. Hodges 4% T-8-S. P-31-E 321.68 LC-064420-C U.S.A. W. H. McKinley Edith J. Hodges 4% Sec. 5: S/2 S/2 Acres U.S.A. W. H. McKinley Edith J. Hodges 4% Sec. 6: N/2 N/2 Acres 12%% W. H. McKinley Edith J. Hodges 4% Sec. 7: Lots 2, 3, 4, E/2 2274.87 LC-064421 U.S.A. Clara Phinizy Clara Phinizy Butcher, \$750 per out of the estate of Cary of 3% E/2 SW/4, SE/4 2274.87 7-1-48 12%% Butcher p. Butcher p. Butcher 95 3% Sec. 18: W/4, S/2 NW/4 Sec. 17: A11 Acres 56 3% 57 3% 57 3% 57 3% Sec. 17: All H/4 Sec. 17: A11 Sec. 17: A11 Sec. 17: A11 Sec. 17: A11	Humble Oil & Refining Company	% +	William C. Taylor and Lela G. Toylor	لسم	U.S.A. 12½%	LC-065380 2-1-48	328.64	<u>T-7-S, E 1-E</u> Sec. 31: S/2	4.
Application Basic Overriding Royalty Pescription of Land Acres Lease Date Percentage Overriding Royalty FEDERAL LAND T-8-S, R-31-E 321.68 LC-064420-B U.S.A. W. H. McKinley Edith J. Hodges 4% T-8-S, R-31-E 321.68 LC-064420-B U.S.A. W. H. McKinley Edith J. Hodges 4% T-8-S, R-31-E 321.68 LC-064420-C U.S.A. W. H. McKinley Edith J. Hodges 4% Sec. 5: S/2 S/2 A00 LC-064420-C U.S.A. W. H. McKinley Edith J. Hodges 4% Sec. 6: N/2 N/2 274.87 1-48 12½% Butcher Glara Phinizy Edith J. Hodges 4% Sec. 7: Lots 2, 3, 4, E/2 2274.87 1-48 12½% Butcher 7-1-48 12½% Pinizy Clara Phinizy Butcher, \$750 per Sec. 7: Lots 2, 3, 4, E/2 2014, SE/4 WW/4, Pinizy Clara Phinizy Pinizy Pinizy Pinice Pinice Pinice Pinice Pinice Pinice Pinice Pinice Pinice		· ·						Sec. 8: SW/4, S/2 NW/4 Sec. 18: W/2, NE/4 Sec. 17: All	
Application Basic Overriding Royalty Description of Land Acres Lease Date Percentage Overriding Royalty FEDERAL LAND Acres Jease Date Percentage Lessee of Record Overriding Royalty T-8-S, R-31-E 321.68 LC-064420-B U.S.A. W. H. McKinley Edith J. Hodges 4% T-8-S, R-31-E 321.68 LC-064420-C U.S.A. W. H. McKinley Edith J. Hodges 4% Sec. 5: N/2 400 LC-064420-C U.S.A. W. H. McKinley Edith J. Hodges 4% Sec. 5: S/2 400 LC-064420-C U.S.A. W. H. McKinley Edith J. Hodges 4% Sec. 8: N/2 NX/4 7-1-48 12½% K. H. McKinley Edith J. Hodges 4%	Humble Oil & Refining Company	\$750 per acre out of 3%		Clara Phinizy Butcher	U.S.A. 12½%	LC-064421 7-1-48	2274.87	<u>T-8-S, R-31-E</u> Sec. 6: N/2 Sec. 7: Lots 2, 3, 4, E/2 SW/4, SE/4 NW/4,	ω ·
Application Basic Overriding Royalty Description of Land No. of No. and Royalty & Overriding Royalty FEDERAL LAND FEDERAL LAND IC-064420-B U.S.A. W. H. McKinley Edith J. Hodges 4% Sec. 5: N/2 321.68 LC-064420-B U.S.A. W. H. McKinley Edith J. Hodges 4%	Humble Oil & Refining Company	4%	Edith J. Hodges	Ħ.	U.S.A. 12%%	LC-064420-C 7-1-48	400	<u>T-8-S. R-31-E</u> Sec. 5: S/2 Sec. 8: N/2 NX/4	2.
Application Basic No. of No. and Royalty & Overriding Royalty Description of Land Acres Lease Date Percentage Lessee of Record & Percentage FEDERAL LAND	Cities Service Oil Company	4%	Edith J. Hodges		U.S.A. 12½%	LC-064420-B 7-1-48	321.68	<u>T-8-S, R-31-E</u> Sec. 5: N/2	1.
Application Basic No. of No. and Royalty & Overriding Royalty Description of Land Acres Lease Date Percentage Lessee of Record & Percentage								FEDERAL LAND	
	Working Interest Owner *		Overriding Royalty & Percentage	Lessee of Record	Basic Royalty & Percentage	Application No. and Lease Date	No. of Acres	Description of Land	Tract No.

5 FEDERAL TRACTS, CONTAINING 3645.19 ACRES OR 86.43% OF UNIT AREA

	80	•	7.	6.	
3ec. 18: 52/4	T-8-3 R-31-E	NE/4 NX/4	<u>T-8-S, R-31-E</u> Sec. 7: Let 1,	<u>T-8-S, R-31-E</u> Sec. 6: S/2	FEE LAND
	160		84.04	328.25	
9-1-60	Fee		Fee 5-24-48	Fee 9-23-47	
John Mack Kinmons Charlotte Baker Ed Fagg Trust Byrd K. Smith Anna L. Kimmons	Joanna Kinmons	Selma Andrews A. R. McQuiddy Magnolia Petroleum Company	Milton J. Graves Bonnie Matlock	Oscar Graves	
3/20 3/20 3/20 3/20 1/4	3/20	1/8 1/16 1/2	1/4	A11	
Company	Monsanto Chemical		Magnolia Petroleum Company	Gulf Oil Corporation	
	None		None	None	
Company	Monsanto Chemical	• • •	Magnolia Petroleum Company	Gulf Oil Corporation	

TOTAL - 8 TRACTS CONTAINING 4217.48 ACRES, RAILROAD MOUNTAIN UNIT AREA, CHAVES COUNTY, NEW MEXICO

3 FEE TRACTS, CONTAINING 572.29 ACRES, OR 13.57% OF UNIT AREA

*Some Leases are held under option agreement which will be promptly exercised upon approval of the Unit.

CERTIFICATION - DETERMINATION

Pursuant to the authority vested in the Secretary of the Interior, under the Act approved February 25, 1920, 41 Stat. 437, 30 U.S.C., Secs. 181, et seq., as amended by the Act of August 8, 1946, and delegated to the Director of the Geological Survey pursuant to Departmental Order 2365 of October 8, 1947, 43 C.F.R. Sec. 4.611, 12 F.R. 6784, I do hereby:

A. Approve the attached Agreement for the Development and Operation of the Railroad Mountain Unit Area, State of New Mexico.

B. Certify and determine that the unit plan of development and operation set forth in the attached Agreement is necessary and advisable in the public interest and is for the purpose of more properly conserving the natural resources.

C. Certify and determine that the drilling, producing, rental, minimum royalty, and royalty requirements of all Federal leases committed to said Agreement are hereby established, altered, changed, or revoked to conform with the terms and conditions of this Agreement.

Date

Director United States Geological Survey J M HERVEY 1874 1853 HIRAM M dOW CLARENCE E HINKLE W. E. BONDURANT, JR GLORGE H HUNKER, JR. HOWARD'C. BRATON S. B. CHRST IV J. FENROR TOLES LEWIS C. COX, JR.

e 14 111

LAW OFFICES HERVEY, DOW & HINKLE FIRST NATIONAL BANK BUILDING

TELEPHONE MAIN 2-6510

August 9, 1996

Mr. A. L. Porter, Jr. New Mexico Oil Conservation Commission Santa Fe, New Mexico

Dear Mr. Porter:

We enclose original and several copies of proposed order in Case No. 1118, being the application of Humble Oil & Refining Company for approval of the Railroad Mountain Unit Agreement.

Yours sincerely,

HERVEY, DOW & HINKLE

By Clarence E. Hinkle

CEH:mp Encl.

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 1118 Order No.

THE APPLICATION OF HUMBLE OIL & REFINING COMPANY FOR APPROVAL OF THE RAILROAD MOUNTAIN UNIT AGREEMENT EMERACING 4,217.43 ACRES OF LAND, MORE OR LESS, IN CHAVES COUNTY, NEW MEXICO, WITHIN TOWNSHIPS 7 AND 3 SOUTH, RANGE 31 EAST, NMPM

ORDER OF THE COMMISSION

BY THE COMPLISSION:

This cause came on for hearing at 10 o'clock s.m. on the 7th day of August, 1956, at Santa Fe, New Mexico, before Warren W. Mankin, Examiner duly appointed by the Oil Conservation Commission of New Mexico in accordance with Rule 1214 as set forth in Order R-681.

NOW, on this day of August, 1956, the Commission, a quorum being present, having considered the application, the evidence and the recommendations of the Examiner Warren W. Mankin, and being fully advised in the premises,

FINDS:

(1) That due notice of the time and place of hearing and the purpose thereof having been given as required by law, the Commission has jurisdiction of this case and the subject matter thereof.

(2) That the proposed unit plan will in principle tend to promote the conservation of oil and gas and the prevention of watte.

IT IS THEREFORE ORDERED:

SECTION 1. That this order shall be known as the

RAILROAD MOUNTAIN UNIT AORGEMENT ORDER

SECTION 2. (a) That the project herein referred to shall be known as the Railroad Mountain Unit Agreement, and shall mereafter be referred to as the "project".

(b) That the plan by which the Project shall be operated shall be embraced in the form of a unit agreement for the development and operation of the Railroad Mountain Unit Area referred to in the Petitioner's petition and filed with said petition, and such plan shall be known as the Railroad Mountain Unit Agreement Plan.

SECTION 3. (a) That the Railroad Mountain Unit agreement Plan shall be, and hereby is, approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing in any manner any right, duties or obligation which are now, or may hereafter, be vested in the New Mexico Oil Conservation Commission by law relative to the supervision and control of operations for exploration and development of any lands committed to said Railroad Mountain Unit Agreement, or relative to the production of oil or gas therefrom.

(b) That the Unit Operator periodically shall file with the Commission a Railroad Mountain Unit Statement of Progress summarizing operations for the exploration and development of any lands committed to said Railroad Mountain Unit Agreement. This statement of progress shall be filed within 30 days after the expiration of each six-months period during the term of the Unit Agreement, and shall contain such pertinent data as may be necessary for the Commission to determine the progress being made in the Railroad Mountain Unit Area.

SECTION 4. That the Unit Area will be:

NEW MEXICO PRINCIPAL MERIDIAN, NEW MEXICO

T. 7 S., R. 31 E.

Sec. 31: 5}

T. 8 S., R. 31 Z.

Secs. 5, 6, 7, 8, 17, 13: All

containing 4,217,48 acres, more or less.

SECTION 5. That the unit operator shall file with the Commission an executed original or executed counterpart of the Railroad Mountain Unit Agreement within 30 days after the effective date thereof.

SECTION 6. That any party owning rights in the unitized substances who does not counit such rights to said unit agreement before the effective date thereof may thereafter become a party thereto by subscribing to such agreement or counterpart thereof, or by ratifying the same. The unit operator shall file with the Commission within 30 days an original of any such counterpart of ratification.

<u>SECTION 7.</u> That this order shall become effective upon approval of said unit agreement by the Commissioner of Public Lands of the State of New Mexico and the Director of the United States Geological Survey and shall terminate ipso facto upon the termination of said unit agreement. The last unit operator shall immediately notify the Commission in writing of such termination.

DONE at Santa Fe, New Mexico, on the day and year nereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

Chairman

Member

Member and Secretary

SEAL

BEFORE THE OIL CONSERVATION COMMISSION

IN THE MATTER ON THE HEARING? CALLED BY THE OIL CONSERVATION COMMISSION OF NEW HEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 1113 Order No.

THE APPLICATION OF HUMBLE OIL & REFINING COMPANY FOR APPROVAL OF THE RATLROAD MOUNTAIN UNIT AGREEMENT EMBRACING 4,217.45 ACRES OF LAND, MORE OR LESS, IN CHAVES COUNTY, NEW MEXICO, WITHIN TOWNSHIPS 7 AND 0 SOUTH, RANGE 31 EAST, NMPH

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 10 o'clock a.m. on the 7th day of August, 1956, at Santa Fe, New Mexico, before Warren W. Mankin, Examiner duly appointed by the Oil Conservation Commission of New Mexico in accordance with Rule 1214 as set forth in Order R-681.

NOW, on this day of August, 1956, the Commission, a quorum being present, having considered the application, the evidence and the recommendations of the Examiner Warren W. Mankin, and being fully advised in the premises,

FINDS:

(1)

(1) That due notice of the time and place of hearing and the purpose thereof having been given as required by law, the Commission has jurisdiction of this case and the subject matter thereof.

(2) That the proposed unit plan will in principle tend to promote the conservation of oil and gas and the prevention of waste.

IT IS THEREFORE ORDERED:

SECTION 1. That this order shall be known as the

RAILROAD MOUNTAIN UNIT AGREEMENT ORDER

SECTION 2. (a) That the project herein referred to shall be known as the Railroad Mountain Unit Agreement, and shall hereafter be referred to as the "project".

(b) That the plan by which the Project shall be operated shall be embraced in the form of a unit agreement for the development and operation of the Railroad Mountain Unit Area referred to in the solutioner's petition and filed with said petition, and such plan shall be known as the Railroad Mountain Unit Agreement Plan.

SECTION 3. (a) That the Railroad Mountain Unit Agreement Plan shall be, and hereby is, approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing in any manner any right, duties or obligation which are now, or may hereafter, be vested in the New Mexico Oil Conservation Commission by law relative to the supervision and control of operations for exploration and development of any kinds committed to raid Raidrond Hountain Unit Agreement, Sr reliables, its the production of old or gas therefrom.

(b) That the Just Operator periodically shall Jlap with the Commission - Railroad Lountain this Star more of Proceeds summarizing operations for the apportion and development of any lands committed to sale Railroad Mountain Just Agreement. This scalement of progress shall be filed within 30 days after the expiration of each six-months period during the terms of the Unit Agreement, and shall contain such pertinent data as may be necessary for the Commission to determine the progress oring made in the Railroad Mountain Unit Area.

SECTION 4. That the Unit Area will be:

NEW MEXICO PRINCIPAL MENIDIAN, NEW MEXICO

T. 7 S., R. 31 E.

Sec. 31: S¹/₂,

T. 3 S., R. 31 E.

Secs. 5, 6, 7, 8, 17, 18: All

containing 4,217.48 acres, more or less.

SECTION 5. That the unit operator shall file with the Commission an executed original or executed counterpart of the Railroad Mountain. Unit Agreement within 30 days after the effective date thereof.

SECTION $\boldsymbol{\theta}$. That any party owning rights in the unitized substances who does not commit such rights to said unit agreement before the effective date thereof may thereafter become a party thereto by subscribing to such agreement or counterpart thereof, or by ratifying the same. The unit operator shall file with the Commission within 30 days an original of any such counterpart of ratification.

SECTION 7. That this order shall become effective upon approval of said unit agreement by the Commissioner of Public Lands of the State of New Mexico and the Director of the United States Geological Survey and shall terminate ipso facto upon the termination of said unit agreement. The last unit operator shall immediately notify the Commission in writing of such termination.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

Chairman

Member and Secretary

Member

SEAL

Memo From Do Legal From Re: Case 1118 OK to write High OK to write OR for write Same

DEFORE THE Mil Connervation Commission Santa Fe. New Mexico August 7, 1955 IN THE MATTER OF: Case No.1118(Examiner Hearings)

TRANSCRIPT OF PROCEEDINGS

DEARNLEY-MEIER AND ASSOCIATES COURT REPORTERS 605 SIMMS BUILDING TELEPHONE 3-6691 ALBUQUERQUE, NEW MEXICO

Page

NEW MEXICO OIL CONSERVATION COMMISSION MABRY HALL - STATE CAPITOL SANTA FE NEW MEXICO

REGISTER

HEARING DATE August 7, 1956

TIME: 10:00

NAME:	REPRESENTING:	LOCATION
M Jielachan	Handle Dox'C.	Rovert H.m. Halles M.M.
A Phillips	Humble out 5 Ag co	Rosevel, N. may.
y Abbott	Amerada Pet Corp	Monney, N: H.M.
1 andura	Smelain	Midland (
and fught	Richadon & Bons Xthurlde	Round,
C. Harton Jo	WARREN Pet Coop	Roswell
mil Roass	Pichardson y Bass	H Mostle, In.
in M. Campbel		Koswell, n. m.
KG11breths	Ent ail	Resare 11
notan Eddington		Hebbe
-1021Kar		Fort Worth Rowell, N.M.
TONT. LYON	CONTINENTAL OIL CO	ROSWELL, N.M.
son Kellahi	attorny DAA	de to Te, h. hige,
Joen Kellade	Notion Portal G	bothe M SM, Santa Ise

BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico August 7, 1956

IN THE MATTER OF:

Application of Humble Oil and Refining) Company for approval of its proposed) Railroad Mountain Unit Agreement in) Chaves County, New Mexico, in accor-) dance with Rule 507 of the New Mexico) Oil Conservation Commission Statewide) Rules and Regulations. Applicant, in) the above-styled cause, seeks an order) granting approval of its proposed Rail-) road Mountain Unit Agreement embracing) 4,217 acres, more or less, of fee and) federal lands comprising the S/2 of) Section 31, Township 7 South, Range 31) East, and All of Sections 5, 6, 7, 8,) 17 and 18, Township 8 South, Range 31) East, Chaves County, New Mexico.

Case No. 1118

BEFORE :

Warren W. Mankin, Examiner

TRANSCRIPT OF HEARING

MR. MANKIN: The next case is No. 1118.

(Mr. Jack Cooley, Attorney for the Oil Conservation Commission, read the title of the within case.)

MR. HINKLE: Clarence Hinkle of Roswell, New Mexico, appearing on behalf of the Humble Oil and Refining Company. We have one witness, Mr. Examiner.

(The witness, Mr. A. A. Phillips, was sworn by Mr. Mankin.)

DEARNLEY MEIER & ASSOCIATES INCORPORATED GENERAL LAW REPORTERS ALBUQUERQUE - SANTA FR 3 3691 2-1869

MR. A. A. PHILLIPS,

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. HINKLE:

State your name, please?

A A. A. Phillips.

Q Where do you live, Mr. Phillips?

A Roswell, New Mexico.

Q By whom are you employed?

A Humble Oil and Refining Company.

Q And in what capacity?

A As a survey geologist.

Q Are you familiar with the Humble operation in Southeastern New Mexico?

A Yes, I am.

Q Have you previously testified before the New Mexico Oil

Conservation Commission?

- A Yes, I have.
- Q As an expert?
- A Yes.

MR. HINKLE: Are the witness' qualifications acceptable?

MR. MANKIN: They are.

(Applicant's Exhibit "A" marked for identification.)

Q Are you familiar with the application of Humble Oil and Refining Company for approval of its proposed Railroad Mountain Unit Agreement?

> DEARNLEY MEIER & ASSOCIATES INCORPORATED GENERAL LAW REPORTERS ALBUQUERQUE - SANTA FE 3-6591 2-1869

A Yes, sir.

Q What area does the proposed mit eover?

A The S/2 of Section 31 Township 7 South, Range 31 East, and all of Sections 5, 6, 7, 8, 17 and 18 of Township 8 South, Range 31 East, Chaves County, New Mexico.

Q Is that 18 or 8?

A That is Township 8 South, Range 31 East.

Q I notice that there is that typographical error in the application where it is described as 18 South and I would like to amend that to show that the Township is 8 South.

MR. MANKIN: I believe the advertisement properly reflected it. We assumed it was an error and corrected it accordingly.

Q How many acres does the proposed area cover?

A A total of 4,217.48 acres.

Q Of this total area, how many acres are federal lands?

A 3,645.19 acres of federal land, 572.29 acres of fee land.

Q What percent of the total is federal land?

A The federal land is 86.43 percent and the fee would be 13.57.

Q Has this area heretofore been designated by the U.S.G.S. as area suitable and proper for unitization?

A Yes, it has.

Q Do you know the date that it was so designated by the

U.S.G.S.?

A No, I don't, Mr. Hinkle.

(Applicant's Exhibit "B" marked for identification.)

Q I hand you Humble's Exhibit "B", and ask you to state to

DEARNLEY-MEIER & ASSOCIATES INCORPORATED GENERAL LAW REPORTERS ALBUOUERQUE - SANTA FE 3-6691 2-1869 3
the Commission what it is?

A It is a request to outline a unit or permission to outline a unit known as the Railroad Mountain Unit in Chaves County, New Mexico.

Q That is, the designation of the area by the U.S.G.S., is it?

A Yes, it is.

Q As an area suitable and proper for unitization?

A That is correct.

Q In connection with that determination, did the Humble Oil & Refining Company file a geological report?

A Yes, we did.

Q I hand you Humble's Exhibit "A" and ask you to state whether or not that is a copy of the report which was filed with the U.S.G.S.?

A Yes, it is.

Q Will you state briefly to the Commission what this report shows?

A It is a brief geological study of the area described, the stratigraphy plus a Devonian seismic contour map showing the low relief closure within a unit.

Q was this report prepared by you or under your direction, are you familiar with it?

A Yes.

Q The plat which is attached, showing the result of the seismic survey, does that all lie within the proposed unit area?

A Yes, all the closures are within the proposed unit area.

Q Or substantially so?

DEARNLEY-MEIER & ASSOCIATES INCORPORATED GENERAL LAW REPORTERS ALBUQUERQUE - SANTA FE 3-6661 2-1869 4

A Yes.

Q In your opinion if this agreement is approved, will this proposed area give effective control of the entire structure and geological anomaly?

A Yes, I think it would.

Q What are the source beds which are expected to be encountered in this area?

A The San Andres at about 2,860, the Hueco at about 7,150, the Pennsylvania 7,650, and the Devonian at 8,830.

Q Are you familiar will the form of unit agreement which has been filed in connection with this application?

A Yes, sir.

Q Do you know whether or not this form has heretofore been approved by the U.S.G.S.

A Yes.

Q Is this substantially the same form as heretofore approved by similiar agreement in a case where state and fee and federal lands are involved?

A Yes, it is.

Q Who is designated as the unit operator?

A The Humble Oil and Refining Company.

Q Does the unit agreement provide for the drilling of a test well?

A Yes, within six months after the agreement is signed, we are to drill a well to not to exceed 10,000 feet or to test the Devonian.

Q In your opinion will a well 10,000 foot deep in that area

DEARNLEY-MEIER & ASSOCIATES INCORPORATED GENERAL LAW REPORTERS ALBUQUERQUE - SANTA FE 3-6691 2-1869 2.2

be adequate to test all probable productive formations?

A Yes, it should.

Q In the event this agreement is approved and the drilling of the well results in the discovery of oil or gas in paying quantities, will the agreement in your opinion be in the interests of conservation and prevention of waste in the unitized substances?

A Yes.

MR. HINKLE: That is all.

CROSS EXAMINATION

By MR. MANKIN:

Q Mr. Phillips, is there any development at all at the present time within the unitized area?

A No, there isn't.

Q It's wildcat territory?

A It's wildcat territory.

Q Within the unitized area is the unitized substance to and including be everything down to/the lower Devonian.

A That's right.

Q Your seismic map indicates essentially the right lower level structure has been covered by the proposed unit?

A Yes, it does.

By MR. NUTTER

Q Mr. Phillips, what plans does Humble have for for further development in the event this well is found to be a dry well?

A I believe we have six months to decide whether to let it terminate.

MR. MANKIN: Is the normal term of the unit two years?

DEARNLEY-MEIER & ASSOCIATES INCORPORATED GENERAL LAW REPORTERS ALBUQUERQUE - SANTA FE 3-3591 2-1869 6

MR. HINKLE: I believe it is five years but if the first well is a dry hole and we fail to commence operation or work it in six months it automatically terminates unless we get an extension of time.

MR. MANKIN: Are there any further questions of the witness in this case?

(No further questions were indicated.)

SS.

MR. HINKLE: I would like to offer in evidence Exhibits "A" and "B" of the Humble Oil Company.

MR. MANKIN: Any objections to Exhibits "A" and "B" in this case, if not they will be so entered. Is there anything further, if not the witness will be excused and the case will be taken under advisement.

STATE OF NEW MEXICO) COUNTY OF SANTA FE)

I, DOROTHY B. MYERS, a Court Reporter, do herby certify the foregoing and attached transcript of proceedings before the Oil Conservation Commission for the State of New Mexicc, was reported by me in shorthand and reduced to typewritten transcript by me or under my personal supervision, and that the same is a true and complete recrod to the best of my knowledge, skill and ability.

WITNESS my hand and seal this <u>5</u> day of <u>aptender</u>, 1956.

Court Beporter

DEAPNLEY MEIER & ASSOCIATES INCORPORATED GENERAL LAW REPORTERS ALBUQUERQUE - SANTA FE 3-6691 2-1869 7

No 25-56

DOCKET: EXAMINER HEARING AUGUST 7, 1956

Oil Conservation Commission 10:00 a.m. Mobry Hall, State Capitol, Santa Fe

The following cases will be heard before Warren W. Mankin, Examiner:

- CASE 1098: (Readvertisement: Application of Sun Oil Company for approval of an unorthodox location and a non-standard drilling unit for its B. T. Lanehart Well No. 3 in the Crosby-Devonian Pool in exception to Section 2 (a) and (b) of the Special Rules and Regulations for the Crosby-Devonian Pool as set forth in Order R-639. Applicant, in the above-styled cause seeks an order authorizing an unorthodox location for its B. T. Lanehart Well No. 3 at a point 330 feet from the South and East lines of Section 20, Township 25 South, Range 37 East in the Crosby-Devonian Pool, Lea County, New Mexico; and furthermore to authorize an 80 acre non-standard drilling unit for said well consisting of the E/2 of the SE/4 of said Section 20. The proposed well is projected as an oil well rather than a gas well.
- CASE 1117: Application of Richardson and Bass, a partnership, for approval of its proposed Little Eddy Unit Agreement located in Eddy and Lea Counties, New Mexico, in accordance with Rule 507 of the New Mexico Oil Conservation Commission Statewide Rules and Regulations. Applicant, in the above-styled cause, seeks an order granting approval of its proposed Little Eddy Unit Agreement embracing 54,044 acres, more or less, of federal, state and fee lands situated in Townships 21 and 22 South, Range 31. East; Townships 19, 20, 21 and 22 South, Range 32 East; Townships 19 and 20 South, Range 33 East, all in Lea and Eddy Counties, New Mearco.
- CASE 1118: Application of Humble Oil and Refining Company for approval of its proposed Railroad Mountain Unit Agreement in Chaves County, New Mexico, in accordance with Rule 507 of the New Mexico Oil Conservation Commission Statewide Rules and Regulations. Applicant, in the above-styled cause, seeks an order granting approval of its proposed Railroad Mountain Unit Agreement embracing 4,217 acres, more or less, of fee and federal lands comprising the S/2 of Section 31, Township 7 South, Range 31 East, and All of Sections 5, 6, 7, 8, 17 and 18, Township 8 South, Range 31 East, Chaves County, New Mexico.

CASE 1119: Application of V. F. Knickerbocker for approval of his proposed North Bagley Unit Agreement in Lea County, New Mexico, in accordance with Rule 507 of the New Mexico Oil Conservation Commission Statewide Rules and Regulations. Applicant, in the above-styled cause, seeks an order granting approval of his proposed North Bagley Unit Agreement embracing 1,440 acres, more or less, of fee and state lands, comprising All of Sections 9 and 10, and the NW/4 of Section 11, Township 11 South, Range 33 East, Lea County, New Mexico. -2-Docket No. 25-56

- CASE 1120: Application of Gunsite Butte Uranium Corporation for an unorthodox gas well location in the Tapacito-Pictured Cliffs Gas Pool in exception to Paragraph (4) of the Special Rules and Regulations for said pool as set forth in Order R-794. Applicant, in the above-styled cause, seeks an order authorizing an unorthodox location for a gas well to be drilled by applicant in the NW/4 of Section 3, Township 25 North, Range 3 West, Rio Arriba County, New Mexico.
- CASE 1121: Application of Gulf Oil Corporation for an order granting permission to convert its G. C. Matthews Well No. 6 into a salt water disposal well in the San Andres formation of the Monument Pool in accordance with New Mexico Oil Conservation Commission Statewide Rule 701. Applicant, in the above-styled cause, seeks an order granting permission to convert its G. C. Matthews Well No. 6 located 1650 feet from the South line and 990 feet from the East line of Section 6, Township 20 South Range 37 East, Lea County, New Mexico, into a salt water disposal well. Said well is presently completed in the Monument-Blinebry Pool, but it is proposed to plug back to the lower portion of the San Andres formation of the Monument Pool for water disposal. Applicant proposes to inject salt water through perforated 7 inch casing at intervals from 4300 to 4620 and 4670 to 4720 feet.
- CASE 1122: Application of Gulf Oil Corporation for approval of a nonstandard gas proration unit in the Blinebry Gas Pool in exception to Rule 5 (a) of the Special Rules and Regulations for the Blinebry Gas Pool as set forth in Order R-610. Applicant, in the above-styled cause, seeks an order authorizing a 160 acre non-standard gas proration unit in the Blinebry Gas Pool comprising the E/2 SW/4, SW/4 SW/4, and SW/4 SE/4 Section 23, Township 22 South, Range 37 East, Lea County, New Mexico; said unit to be dedicated to applicant's O. I. Boyd Well No. 3 located 1980 feet from the South and West lines of said Section 23.
- CASE 1123: Application of Gulf Oil Corporation for approval of a nonstandard gas proration unit in the Eumont Gas Pool in exception to Rule 5 (a) of the Special Rules and Regulations for the Eumont Gas Pool as set forth in Order R-520. Applicant, in the above-styled cause, seeks an order authorizing a 200 acre non-standard gas proration unit in the Eumont Gas Pool comprising the NE/4 and SE/4 NW/4 of Section 8, Township 20 South, Range 37 East, Lea County, New Mexico; said unit to be dedicated to applicant's Bertie Whitmire Well No. 2 located 660 feet from the North line and 1980 feet from the East line of said Section 8.

-3-Docket No. 25-56

CONTINUED CASE

CASE 1096: Application of Humble Oil & Refining Company for an order approving a dual completion in the Eumont Gas Pool in compliance with Rule 112 (a) of the New Mexico Oil Conservation Commission Statewide Rules and Regulations, and further seeks an order granting a 320 acre non-standard gas proration unit in the Eumont Gas Pool in exception to Rule 5 (a) of the Special Rules and Regulations of the Eumont Gas Pool as set forth in Order R-520. Applicant, in the above-styled cause, seeks an order granting them permission to dually complete its New Mexico State "G" Well No. 5 located 1980 feet from the North line and 660 feet from the West line of Section 23, Township 21 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico; said well to be completed in the upper Queen formation to produce gas and in the lower Queen formation to produce oil, both from the Eumont Gas Pool. Applicant further seeks an order establishing a 320 acre non-standard gas proration unit comprising the W/2 of said Section 23 and to be dedicated to said well.

EXAMINER HEARING AUGUST 7, 1956

Oil Conservation Commission 2 p.m., Mabry Hall, State Capitol, Santa Fe.

The following case will be heard before Warren W. Mankin, Examiner:

CASE 1131: Application of Ralph Lowe for an order granting approval of the proposed South Seaman Unit Agreement embracing 1600 acres, more or less, in Lea County, New Mexico, in compliance with Rule 507 of the New Mexico Oil Conservation Commission Statewide Rules and Regulations. Applicant, in the abovestyled cause, seeks an order granting approval of the proposed South Seaman Unit Agreement consisting wholly of State of New Mexico lands and embracing 1600 acres, more or less, located in:

> Township 16 South, Range 33 East Section 25: N/2

> Township 16 South, Range 34 East All of Sections 30 and 31

all in Lea County, New Mexico; applicant, Ralph Lowe, to be designated operator of said unit.

ESTERN UNION CLASS OF SERVICE SYMBOL. is is a tast thessage DL .= Day Letter indexs us deterred char-NL=Nght Lore mer is indicated by the ΓELEGRAM LT=International W. P. MARSHALL, PRESIDENT ns is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at 1

(39).22

1035 1035

J.

10

2

MAIN OFFICE OCC

EAT31 SSH122 L RWA046 LONG DE PD=ROSWEEL NMEX 19 1121AMM= NEW MEXTCO OTE CONSERVATION COMMISSION= CAPITOL BEDG SANTA FE NMEX=

ATTENTION WARREN MANKIN PLEASE PUBLISH NOTICE FOR HEARING FOR AUGUST 6 ON APPLICATION OF HUMBLE OIL & REFINING COMPANY FOR APPROVAL RAILROAD MOUNTAIN UNIT AGREEMENT EMBRACING 4217.48 ACRES, CHAVES COUNTY, N.M., WITHIN TOWNSHIPS 7 AND 8 SOUTH, RANGE 31 EAST, N.M.P.. THIS UNIT CONSISTS OF FEE AND FEDERAL LANDS AND DESIGNATION OF UNIT AND FORM OF AGREEMENT HERETOFORE APPROVED BY U.S.G.S. FCRMAL APPLICATION WILL BE FILED AS SOON AS POSSIBLE=

> HERVEY DOW AND HINKLE P G BOX 547 ROSWELL NEW MEXICO=

$S|_{2} = 75^{-3} |E|$ $S|_{2} = 31 = 75^{-3} |E|$ $S|_{2} = (53^{-3}) |E|$ $S|_{2} = (53^{-$

6 4217.48 7 8 31 547=

נר הבינו הלמו אין איני יו HIRAM M. COW HIRAM M. COW CLARENCE E HINKLE W.E.BONDURANT, JR GEORGE H. HUNMER, JR. HOWARD C.BBATION S.B.CHRISTY IV J. PENROD TOLES

LAW OFFICES HERVEY, DOW & HINKLE FIRST NATIONAL BANK BUILDING ROSWELL, NEW MEXICO

Care++ 1118

TELEPHONE MAIN 2-6510

New Mexico Oil Conservation Commission Capitol Building Santa Fe, New Mexico

Gentlemen:

Humble Oil & Refining Company for approval of the Railroad Mountain Unit Agreement embracing lands in Chaves County, New Mexico.

Conservation Commission ding New Mexico Hemen: We enclose herewith in triplicate application of e Oil & Refining Company for approval of the oad Mountain Unit Agreement embracing lands in toounty, New Mexico. telegraphed you yesterday requesting the set for August 6 before War r, and this application is the telegram. also enclose frights which is note frights y to be the formula formula for the formula f hearing be set for August 6 before Warren Mankin, examiner, and this application is filed as a followup of the telegram.

agreement which is proposed to be used in this case. You will note from the application that this area has heretofore been designated as an area suitable and proper for unitization by the United States Geological Survey.

Yours very truly,

HERVEY, DOW & HINKLE

CEH: jy Encls.

BEFORE THE OIL CONSERVATION COMMISSION STATE OF NEW MEXICO

APPLICATION OF HUMBLE OIL & REFINING COMPANY FOR APPROVAL OF THE RALLROAD MOUNTAIN UNIT AGREEMENT EMBRACING 4,217.48 ACRES, MORE OR LESS, CHAVES COUNTY, NEW MEXICO, CONSISTING OF THE S1 of Section 31, TOWNSHIP 7 SOUTH, RANGE 31 EAST, and Sections 5, 6, 7, 8, 17 and 18, TOWNSHIP 18 SOUTH, RANGE 31 EAST, N.M.P.M.

New Mexico Oil Conservation Commission Santa Fe, New Mexico

1- 1- 13

Comes the undersigned, Humble Oil & Refining Company, a corporation, with offices at Houston, Texas, and files herewith three copies of the proposed unit agreement for the development and operation of the Railroad Mountain Unit Area, Chaves County, New Mexico, and hereby makes application for the approval of said unit agreement as provided by law, and in support thereof, shows:

1. That the proposed unit area covered by said agreement embraces 4,217.48 acres, more or less, more particularly described as follows:

NEW MEXICO PRINCIPAL MERIDIAN, NEW MEXICO

<u>T. 7 S., R. 31 E.</u> Sec. 31: S3

T. 18 S., R. 31 E.,

Secs. 5, 6, 7, 8, 17, 18: all

2. That of the lands embraced within the proposed unit area, 3,645.19 acres or 86.5% are federal lands and 572.29 acres or 13.5% are fee or privately owned lands. That said area has heretofore, on the $\frac{144}{2}$ day of $\frac{1}{2042}$, 1956, been designated by the Acting Director of the United States Geological Survey as an area suitable and proper for unitization, a copy of said designation being attached hereto, made a part hereof, and for purposes of identification marked Exhibit A.

3. That applicant is informed and believes, and upon such information and belief, states: That the proposed unit area covers

CASE NO.

a substantial part of the geological feature involved, and in the event of the discovery of oil or gas thereon, that said unit agreement will parmit the producing area to be developed and operated in the interest of conservation and the prevention of waste of the unitized substances.

4. That Humble Oil & Refining Company is designated as the unit operator in said unit agreement, and as such is given authority under the terms thereof to carry on all operations necessary for the development and operation of the unit area for oil and gas, subject to all applicable laws and regulations. That said unit agreement provides for the commencement of a test well within six months from the effective date of the unit agreement, and for the drilling of the same to a depth sufficient to test the Siluro-Devonian formation or until, at a lesser depth, unitized substances have been discovered in paying quantities, however, the unit operator is not required in any event to drill a well to a depth in excess of 10,000 feet.

5. That said unit agreement is in substantially the same form as unit agreements heretofore approved by the Commissioner of Public Lands of the State of New Mexico and by the New Mexico Oil Conservation Commission, and it is believed that in the event oil or gas in paying quantities is discovered on the lands within the unit area, that the field or area can be developed more economically and efficiently under the terms of said agreement, to the end that the maximum recovery will be obtained, and that said unit agreement is in the interest of the conservation of oil and gas and the prevention of waste as contemplated by the New Mexico Oil Conservation Commission statutes.

5. That application is being made for the approval of said unit agreement by the Commissioner of Public Lands for the State of New Mexico.

7. That upon an order being entered by the New Mexico 011 Conservation Commission approving said unit agreement and after

-2-

approval thereof by the Commissioner of Public Lands of the State of New Mexico and the Director of the United States Geological Survey, an approved copy thereof will be filed with the New Mexico Oil Conservation Commission.

WHEREFORE, the undersigned applicant respectfully requests that a public hearing be held on the matter of the approval of said unit agreement and that upon said hearing, said unit agreement be approved by the New Mexico Oil Conservation Commission as being in the interest of conservation and prevention of waste.

DATED this 19th day of July, 1956.

Respectfully submitted, HUMBLE OIL & REFINING COMPANY

ada BY: //

R. M. Richardson



UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY WASHINGTON 25. D. C.

Humble Oil and Refining Company c/o Mr. Clarence E. Minkle Post Office Box 614 Hoswell, New Mexico

Gentlement

Reference is unde to your application filed May 28, 1956, with the Oil and One Supervisor, Mosvell, New Mexico, requesting designation of 4,217.48 acros in Chaves County, New Mexico, as an area logically subject to exploration and development under the unitization provisions of the Mineral Leasing Act, as seconded.

Pursuant to the regulations of December 22, 1950, 30 C.F.R., section 226.3, the following land is designated as a logical unit to be known as the Railread Neurania unit area:

New Maxieo Principal Meridian, New Maxieo

T. 7 S., R. 31 E.
Sec. 31, lots 3, 4, BjSN; SB; 320.64
T. 8 S., R. 31 E.
sec. 5, lots 1,2,3,4, SiR; S; (all) 641.68
sec. 6, lots 1 through 7, SB; ; SiR; , S; SF; , S; SF;

The proposed test well to the Siluro-Devonian formation or to a depth of 10,000 fest is deemed acceptable.

The appliention states that you will use the same form of agreement as used in connection with the Chalk Bluff Braw unit area, New Maxico, No. 14-08-001-2477, approved December 29, 1955, except

IN REPORTS

it is intervaled of the intervale intervale in the intervale intervale

In the absence of any objections not now apparent, a uly executed agreement in the form indicated above will be approved if submitted within a reasonable period of time. However, notice is hereby given that the right is reserved to deny approval of any executed agreement submitted which, in my opinion, does not have the full commitment of sufficient lands to afford effective control of unit operations. When the executed agreement is transmitted to the Supervisor for approval, include the latest status of all acreage, showing the current record owner of all leases and the current status of all lease applications, if any.

Very truly yours,

orthing soldand

Director

EXHIBIT "A"

2

TLEGIBLE