# Case Mo. 5013

Application, Transcripts, Small Exhibits, Etc.

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION 2 OIL CONSERVATION COMMISSION CONFERENCE ROOM STATE LAND OFFICE BUILDING 3 SANTA FE, NEW MEXICO Wednesday, June 27, 1973 EXAMINER HEARING 5 6 IN THE MATTER OF: 7 Application of Phillips Petroleum Company Case No. 5013 for a waterflood project, Lea County, New 8 Mexico. BEFORE: Elvis A. Utz, 10 Examiner 11 12 13 14 15 16 17 18 19 TRANSCRIPT OF HEARING 20 21 22 23

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MR. UTZ: Call Case 5013.

MR. CARR: Case 5013, application of Phillips
Petroleum Company for a waterflood project, Lea County,
New Mexico.

MR. KELLAHIN: If the Examiner please, Jason Kellahin, Kellahin & Fox, Santa Fe, appearing for the applicant in association with Mr. Joe V. Peacock, a member of the Texas Bar. We have one witness we'd like to have sworn.

# DALE J. FISHER,

a witness, having been first-duly sworn according to law, upon his oath, testified as follows:

#### DIRECT EXAMINATION

#### 14 BY MR. KELLAHIN:

Q Would you state your name, please?

16 A Dale J. Fisher.

17 Q By whom are you employed and in what position?

18 A Phillips, Associate Reservoir Engineer.

19 Q Have you ever testified before the Oil Conservation

20 Commission or one of its Examiners?

21 A No, sir.

Q For the benefit of the Examiner, would you briefly outline your education and experience as a geologist and

engineer?

25 A Yes, sir, I have a BS Degree in geological engineering

		2.5	
	3		been as an Associate Reservoir Engineer.
	4	Ω	Where have you worked for Phillips?
	5	A	In the Odessa area for the last four years, and prior to
	6	-	that Boswell, Oklahoma; Buck-eye, New Mexico; and Borden,
	7		Texas.
	8	Q	Did you say Buck-eye, New Mexico?
	9	Α	Yes, sir.
	10	Ω	In connection with your work with Phillips, does the
	11		area involved in the application before the Examiner at
	12		this time come under your jurisdiction?
	13	<b>A</b> .	Yes, sir.
	14		MR. KELLAHIN: Are the witness qualifications
	15		acceptable?
	16		MR UTZ: Yes, they are.
	17	Q	(By Mr. Kellahin) Mr. Fisher, are you familiar with the
	18		application of Phillips Petroleum Company in Case 5013?
	19	A	Yes, sir.
	20	Q	Briefly, what does the applicant propose in this case?
	21	A	Phillips seeks permission to institute a waterflood
. Or	22	1	project in the Vacuum Grayburg-San Andres Pool by the
	23		injection of water into the Grayburg-San Andres Formation.
	24		Phillips proposes to convert to water injection its Lea
7	25		Wells Number 4 in Unit I and Number 6 in Unit O, both in

Phillips Petroleum Company, the last four of which have

from Texas A & M University.

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1216 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

Section 29, Township 17 South, Range 24 East, N.M.P.M., Lea County, New Mexico. And, also requests that administrative procedures be authorized whereby said project can be expanded to include lands and injection wells in the area of the said project as may be necessary in order to complete an efficient injection pattern; that said administrative procedure should provide for administrative approval for conversion to water injection in exception to the well response requirements of Rule 701 E-2 of the Commission Rules and Regulations. Now, referring to what has been marked as the Applicant's Exhibit Number 1, which is a multiple page exhibit with some attachments, would you discuss the information that is shown on this exhibit? Yes, sir, on Page 2, shown is our intention to inject in the Grayburg and San Andres interval between approximately 4,400 to 4,800 feet. We would like to inject fresh water in volumes of approximately 400

barrels of fresh water per day per well, and the source of the injected fluid is to be from Texaco Incorporated, and they obtained this water from the Ogallala Formation, and it is fresh water.

Do you know what pressures will be involved in injecting into this formation?

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K	The	pressures	are	not	to	exceed	2,500	pounds.

- Now, turning to Pages 3 and 4 of the exhibit, would you discuss the information shown on those?
  - Yes, sir. These two pages are diagramatic sketches of the proposed downhole well equipment. It represents a standard injection well completion. The injection water flow would be down the tubing under a Baker "AD" Tension Packer, which would be set at approximately 4,350 feet in the Phillips Lea Number 4. The sketches also show the perforation interval to be injected into; where the casing is set, which is 4 1/2-inch casing, set at 4,769 in Number 4, and the same size casing set at 4,797 in Number 6.

The two wells both have 8 5/8-inch casing set at 326 in Number 4 and 352 in Number 6, both being cemented back to the surface. Also not shown on here is how the annulus would be treated. In this case we would fill the casing tubing annulus with an inert fluid and have a pressure gauge set at the surface.

- Q And you will use plastic-lined tubing, is that correct?
- A Yes, sir.
- Q The top of the cement on the production string on both wells is also shown on the exhibit, is it not?
- 24 A Yes, sir.
- 5 Q Now, turning to the material in the package in the back of

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you will note that the formation tops have been marked for the entire interval; and then on the 5-inch scale, the bottom of the log, the Grayburg top has been marked at 4,246, as well as the San Andres top at 4,642; and the perforated intervals are marked on the log. same is true for the log of the Lea Number 6. It also is a Gamma ray Neutron Log and it, too, has the formation tops marked on the small scale, on the 2-inch scale, and on the 5-inch scale the Grayburg top is marked at 4,190, and the San Andres top at 4,575, with the perforated intervals being shown on the log. Now, turning to the plat that is also included in the exhibit, would you discuss the information shown on it? The Phillips Lea area takes in the wells in Section 29, 30, and one well that is shown as the Phillips Lea Number 3 in Section 31. The arrows mark the wells Number 4 and Number 6 that we propose to convert to injection. I might mention that of the wells in Number 29, all of them are producing at the present time with the exception of

the exhibit, would you discuss that information?

Yes, sir, if you would look at the well location further,

Lea Humber 4, it's a Nuclear Log, and the 2-inch scale,

Number 21, which is shut down In Section 30, Number 12,

Number 3 in Section 31 producing. Each one of these wells

19, 20, and 18 are all shut down, with the Phillips Lea

that are producing are producing at a rate by well test of less than 4 barrels or less per day of oil. 2 Would you consider this at an advanced stage of Q 3 depletion, then? 4 Yes, sir. 5 Α Now, is this a cooperating flood, Mr. Fisher? Q 6 Yes, sir, we have entered into an agreement with the 7 West Vacuum Units which Texaco operates in return for 8 purchasing water from them to use for injection, to 9 convert this Well Number 4; and they have agreed to 10 convert the well shown on the plat in Section 28 in the 11 southwest corner; that is, BTA Number 1. They have 12 agreed to convert this well to injection, and they have 13 also agreed to the provision for supplying us water for 14 one additional well which we have chosen to be the 15 Number 6. 16 Now, Texaco also operates the area to the south, does it Q 17 not? 18 Yes, sir, to the south. Ā 19 Immediately south of your injection well? 20 Of this Well Number 5 and 6. A 21 And they voiced no objection to injection of water into Q 22 that well, have they? 23

Do you have any cumulative production figures on the

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No, sir.

			1		wells in this unit?
-".			2	Λ	Yes, sir, starting with Well Number 3, its cumulative
			3		production as of 11/73 is 51,665 barrels; Well Number 4
			4		has a cumulative figure of 33,349 barrels; Number 5,
			5		34,755; Number 6, 22,303; Number 11, 16,949; Number 13,
	<u>-</u>		6	7787 Addison	12,694; Number 14 has 12,859; Number 21 has 36,661;
	mic.		7		Number 12 has 3,228; Number 18 has 56,856; Number 19,
	500		8		37,844; and Number 20, 41,583.
	ž mc		9	Q	All of these wells are past the period of primary
	dearnley, meier & mc cormick		10		production, are they not?
	, me		11	À	Of course, they are still in primary production at a
	nley	e e	12		very marginal rate.
	lear	XICO 87103 87108	13	Ω	Do you anticipate that by injecting water into the
		NEW MEXICO 87	14		formation, you will recover oil that would otherwise not
		ע עו	15		be recovered?
		ACEROC ROUE. N	16	A	Yes, sir.
		ALBUQ UQUER	17	Q	Is this application, in your opinion, in the interest of
ļ. 3		3-65910 TOALB	18		conservation and prevention of waste?
		HONE 243-6	19	A	Yes, sir.
		1092 • PH	20	Q	Will the correlative rights of any offset operator be
		× <sup>10</sup>	21	, ,	interfered with?
		7 A T O C B O C D C C C C C C C C C C C C C C C C C	22	A	No, sir.
		SIMMS BLDC.	23	Q	Was the material contained in Exhibit Number 1 prepared
		09 SIMMS 1216 F	24		by you or under your supervision?
. 41		N	25	Α	Yes, sir.
		-			

MR. KELLAHIN: At this time, I'd like to offer in evidence Exhibit Number 1 and its attachments. MR. UTZ: Without objection, Exhibit Number 1 will 3 be entered into the record of this case. 5 ME. KELLAHIN: That concludes the testimony, Mr. 6 Utz. MR. UTZ: Are there questions of the witness? 7 8 (No response.) 9 CROSS-EXAMINATION BY MR. UTZ: On the first page of Exhibit Number 1 is stated in 11 detail all of the provisions that you would like to have 12 13 in the order? Yes, sir. 14 MR. UTZ: The witness may be excused. Are there 15 statements in the case? 16 (No response.) 17 18 MR. UTZ: The case will be taken under advisement. 19 20 21 22

# REPORTER'S CERTIFICATE

that the foregoing and attached Transcript of Hearing before the New Mexico Cil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

COURT REPORTER

I do no oby centify that the Concertor a control or hearing of the important of the Men Men Mexico Oll Concertation Consission

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# EXHIBITS

	OFFERED	ADMITTED
Exhibit Number 1	10	10



# OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2008 - SANTA FE 87501 LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER
STATE GEOLOGIST

GOVERNOR BRUCE KING

CHAIRMAN

July 16, 1973

 A.	1	PΩ	27	F	R.	JŖ
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Α			
	Re:	Case No	5013
Mr. Jason Rellahin		Order No.	•
Kellahin & Fox Attorneys at Law Post Office Box 1769		Applicant:	
Santa Fe, New Mexico		Phillips	Petroleum Co
	· · · · · · · · · · · · · · · · · · ·	The second secon	
Dear Sir:		•	
Enclosed herewith are to Commission order recent	Very tr		ect. case.
ALP/ir			
Copy of order also sent	to:	\$ - <b>\$</b>	
Hobbs OCC X Artesia OCC			
Aztec OCC			

State Engineer Office

Other

# 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. 5013 Order No. R-4591

APPLICATION OF PHILLIPS PETROLEUM COMPANY FOR A WATERFLOOD PROJECT, LEA COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on June 27, 1973, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 13th day of July , 1973, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

#### FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Phillips Petroleum Company, seeks authority to institute a waterflood project on its Lea Lease, Vacuum Grayburg-San Andres Pool, by the injection of water into the Grayburg-San Andres formation through its Lea Wells Nos. 4 and 6 located in Units I and O, respectively, of Section 29, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico.
- (3) That applicant proposes the injection of water through internally plastic-coated tubing set in a packer with the annulus filled with an inert fluid and a pressure gauge at the surface.
- (4) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.
- (5) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

-2-Case No. 5013 Order No. R-4591

- (6) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.
- (7) That the applicant further seeks the establishment of an administrative procedure whereby additional producing and injection wells could be drilled at orthodox and unorthodox locations within the boundaries of the Lea Cooperative Waterflood Project in Section 29, Township 17 South, Range 34 East, NMPM, without notice and hearing.
- (8) That approval of such an administrative procedure will not cause waste nor impair correlative rights provided no unorthodox location nearer than 330 feet to the cuter boundary of the unit area is approved without notice and hearing.

#### IT IS THEREFORE ORDERED:

(1) That the applicant, Phillips Petroleum Company, is hereby authorized to institute a waterflood project on its Lea Lease, Vacuum Grayburg-San Andres Pool, by the injection of water into the Grayburg-San Andres formation through the following-described wells in Section 29, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico:

Lea Well No. 4, Unit I Lea Well No. 6, Unit O

- (2) That in each well water shall be injected through internally plastic-coated tubing; the annulus shall be filled with inert fluid and a pressure gauge shall be installed at the surface.
- (3) That the subject waterflood project is hereby designated the Lea Cooperative Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.
- (4) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.
- (5) That the Secretary-Director of the Commission may approve such additional producing and injection wells at orthodox and unorthodox locations within the Lea Cooperative Waterflood Project in Section 29, Tewnship 17 South, Range 34 East, NMPM, as may be necessary to complete an efficient production and injection pattern, provided said wells are drilled no closer than 330 feet to the outer boundary of the Lea Lease nor closer than

-3-Case No. 5013 Order No. R-4591

ten feet to any quarter-quarter section or subdivision inner boundary, and provided that the application therefor has been filed in accordance with the provisions of Rule 701-B of the Commission Rules and Regulations.

(6) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

I. R. TRUJILLO, Chairman

ALBX J. ARMIJO, Member

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

SEAL

#### DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 27, 1973

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

#### CASE 4983: (Continued from the June 6, 1973, Examiner Hearing)

Application of Gulf Oil Corporation for simultaneous well dedication and non-standard locations, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the simultaneous dedication of two wells to a standard 640-acre gas proration unit comprising all of Section 35, Township 21 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, said wells being the W. A. Ramsay (NCT-A) Wells Nos. 20 and 7 at non-standard locations in the center of Units E and N, respectively, of said Section 35.

#### CASE 4966: (Continued from the June 6, 1973, Examiner Hearing)

Application of Read & Stevens, Inc. for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the N/2 of Section 36, Township 12 South, Range 30 East, Chaves County, New Mexico, to be dedicated to a well to be drilled to the Queen formation in Unit B of said Section 36, in the Southeast Chaves Queen Gas Area. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a 200 percent charge for risk involved in drilling said well.

CASE 5008: Application of Hondo Drilling Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation in the perforated interval from 5034 feet to 5038 feet, or in the alternative, from 5128 feet to 5134 feet in its Gulf "NW" State Well No. 2 located in Lot 6 of Section 6, Township 24 South, Range 33 East, Triple "X" Delaware Pool, Lea County, New Mexico.

CASE 5009: Application of Wendell C. Welch for an oil treating plant permit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority for the construction and operation of an oil treating plant for the purpose of treating and reclaiming sediment oil at a site in the SE/4 of Section 35, Township 17 South, Range 27 East, Eddy County, New Mexico.

- CASE 5010: Application of Yates Petroleum Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests down to and including the Pennsylvanian formation underlying the N/2 of Section 18, Township 18 South, Range 26 East adjacent to the West Atoka Morrow Gas Pool, Eddy County, New Mexico, to be dedicated to a well to be drilled 1650 feet from the North line and 660 feet from the West line of said Section 18, the unorthodox location of which was previously approved by Commission Order No. k-4508. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and up to 200 percent charge for risk involved in drilling said well.
- CASE 5011: Application of El Paso Natural Gas Company for extension of Order No. R-4342, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the extension of the provisions of Order No. R-4342, which order authorized the applicant to produce certain non-marginal wells in the San Juan 32-9 Unit Area, Blanco Mesaverde Pool, San Juan County, New Mexico, at full capacity while conducting tests, making up said overproduction by underproducing other non-marginal wells within the participating area.
- CASE 5012: Application of Gandy Construction for an oil treating plant permit,
  Lea County, New Mexico. Applicant, in the above-styled cause, seeks
  authority for the construction and operation of an oil treating
  plant for the purpose of treating and reclaiming sediment oil at
  a site in the SE/4 of Section 11, or the SW/4 of Section 12, Township 10 South, Range 35 East, Lea County, New Mexico.
- CASE 5013: Application of Phillips Petroleum Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formation through its Lea Wells Nos. 4 and 6 located in Units I and O, respectively, of Section 29, Township 17 South, Range 34 East, Vacuum Grayburg-San Andres Pool, Lea County, New Mexico.

Applicant further seeks an administrative procedure for the drilling of additional injection and producing wells at orthodox and unorthodox locations without further notice and hearing.

CASE 5014: Application of Cities Service Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the W/2 of Section 26, Township 25 South, Range 24 East, adjacent to the Washington Ranch-Morrow Gas Pool, Eddy County, New Mexico, to be dedicated to a well to be drilled at an orthodox location for said unit.

#### (Case 5014 continued from page 2)

Also to be considered will be the cost of drilling and completing said well and the allocation of such costs as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and up to 200 percent charge for risk involved in drilling said well.

CASE 5015: Application of Michael P. Grace II and Corinne Grace for compulsory pooling, Eddy County, New Mexico. Applicants, in the above-styled cause, seek an order pooling all mineral interests down to and including the Morrow formation underlying the S/2 of Section 16, Township 24 South, Range 26 East, adjacent to the White City-Pennsylvanian Gas Pool, Eddy County, New Mexico, to be dedicated to a well to be drilled at an orthodox location for said unit. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and up to 200 percent charge for risk involved in drilling said well.

#### CASE 4988: (Continued and Readvertised)

Application of Texaco Inc. for down-hole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Blinebry, Tubb, and Drinkard 011 Pools in the wellbore of its A. H. Blinebry Well No. 28 located in Unit A of Section 29, Township 22 South, Range 38 East, Lea County, New Mexico.

- CASE 5016: Application of Atlantic Richfield Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Seven Rivers-Queen Unit Area comprising 2262 acres, more or less, of State and Fee lands in Townships 22 and 23 South, Range 36 East, Lea County, New Mexico.
- CASE 5017: Application of Atlantic Richfield Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Seven Rivers-Queen Unit Area by the injection of water into the Seven Rivers and Queen formations through 28 wells located in Sections 27, 34, and 35, Township 22 South, Range 36 East, and Sections 2 and 3, Township 23 South, Range 36 East, Lea County, New Mexico.
- CASE 5018: Southeastern nomenclature case calling for an order for the creation, extension and contraction of certain pools, and the assignment of an oil discovery allowable, Lea and Roosevelt Counties, New Mexico.
  - (a) Create a new pool in Lea County, New Mexico, classified as an oil pool for Wolfcamp production and designated as the Humble City-Wolfcamp Pool. The discovery well is the Pubco Petroleum Corporation

#### (Case 5018 continued from page 3)

Shipp No. 4 located in Unit L of Section 11, Township 17 South, Range 37 East, NPM. Said pool would comprise:

TOWNSHIP 17 SOUTH, PANGE 37 EAST, NMPM Section 11: SW/4

Also the assignment of an oil discovery allowable of approximately 47,970 barrels of oil to the aforesaid Shipp Well No. 4.

(b) Create a new pool in Lea County, New Mexico, classified as an oil pool for Queen production and designated as the Shinnery-Queen Pool. The discovery well is the Burleson & Huff Cinco de Mayo Federal No. 1 located in Unit C of Section 24, Township 18 South, Range 32 East, NMPM. Said pool would comprise:

TOWNSHIP 18 SOUTH, RANGE 32 EAST, NMPM Section 24: NW/4

(c) Contract the Bagley-Pennsylvanian Pool in Lea County, New Mexico, by the deletion of the following described area:

TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM Section 34: S/2 NE/4

(d) Extend the North Bagley-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM Section 34: S/2 NE/4

(e) Contract the South Prairie-Cisco Pool in Roosevelt County, New Mexico, by the deletion of the following described area:

TOWNSHIP 8 SOUTH, RANGE 36 EAST, NMPM Section 28: NW/4

(f) Extend the East Brunson-Granite Wash Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM Section 13: NW/4

(g) Extend the Drinkard Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 36 EAST, NMPM Section 1: NE/4

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM Section 6: N/2

(h) Extend the Flying "M"-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 33 EAST, NMPM Section 7: NE/4

(1) Extend the Justis Tubb-Drinkard Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM Section 12: NW/4

To converte their to a 14 4 6 - in seculta IV Q port offer of 29-12-Home aun And Alley SA. Poolti (Dut Built is conted) junder a packer on I into the Ligh. S.A. fluid and or properties 

#### APPLICATION OF PHILLIPS PETROLEUM COMPANY

- 1. Applicant seeks permission to institute a waterflood project in the Vacuum Grayburg San Andres Pool, by the injection of water into the Grayburg San Andres formation.
- 2. Applicant proposes to convert to water injection its Lea Wells No. 4 (Unit I) and No. 6 (Unit O), both in Section 29, Township 17 South, Range 34 East, N.M.P.M., Lea County, New Mexico.
- 3. Applicant represents that the wells in the project area are in an advanced stage of depletion.
- 4. Applicant represents that the proposed waterflood will result in the recovery of otherwise unrecoverable oil, thereby preventing waste and will not impair the correlative rights of others.
- 5. Applicant requests that administrative procedures be authorized whereby said project could be expanded to include additional lands and injection wells in the area of the said project as may be necessary in order to complete an efficient injection pattern; that said administrative procedure should provide for administrative approval for conversion to water injection in exception to the well response requirements of Rule 701 E-2 of the Commission Rules and Regulations.

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Phillips EXHIBIT NO. !
CASE NO. 5 0 13
Submitted by Dal Fisher
Hearing Date 1-27-73

### Phillips Petroleum Company

# Application for Authority to Conduct Waterflood Operations

#### Lea Lease

# Vacuum Grayburg-San Andres Pool

# Lea County, New Mexico

1. <u>Injection Zone</u>: Grayburg-San Andres interval between approximately 4400-4800'.

2. <u>Kind of Injection Fluid</u>: Fresh water.

3. Injection Volumes: 400 BFW/D/well.

4. Source of Injection Fluid: Purchased from Texaco Inc. -- water rights in the Ogallala formation.

85" CASING SET AT 326'
CINTO W/275 SX. TO SURFACE WATER INJECTION FLOW TOC 2975' 2 % OD. PLASTIC "LINED TUBING ZEBAKER "A D" TENSION PACKER AT 4350" 4435'-51' 4459-64' GRAYBURG-SAN ANDRES 4502'-08' PERFORATIONS 4561'-76' 4549'-52' 4588'-99" 4599'-05' 4689-97 4643'-53' 4706-10 4724-29 PBTD 4752 / CMTD. W/300 SK, TOC 2975'

> PHILLIPS LEANO. 4 SEC.29, T-17-S, R-34-E LEA COUNTY, NEW MEXICO

88"CASING SET AT 352' CMTD, W/325 SX. TO SURFACE WATER INJECTION FLOW TOC 2760' 28 OD. PLASTIC LINED TUBING BAKER "A D' TENSION PACKER AT 4350' 4442'-49' GRAYBURG-SAN ANDRES 4497'-06' PERFORATIONS 4516'-26' 4540'-43' 4599'-03' = 4610'-17' 4645'-66' 42" CASING SET AT 4797' CMTO. W/ 400 SX , TOC 2760' PBT 0 478 0/11111111

> PHILLIPS LEA NO. 6 SEC.29, T-17-S, R-34-E LEA COUNTY, NEW MEXICO

Form 205 5-57-104798-D

KELLAHIN AND TOX ATTORNEYS AT LAW BOO BON GASPAR AVENUE POST OFFICE BOX 1769

JASON W, KELLAHIN ROBERT E, FOX W.THOMAS KELLAHIN

SANTA FE, NEW MEXICO 87501

TELEPHONE 982-4315 AREA CODE 505



June 5013

011 Conservation Commission State of New Mexico P. O. Box 2088 Santa Fe, New Mexico 87501

ATTENTION: Mrs. Ida Rodriguez

Phillips Petroleum Comapny Waterflood Project Application Vacuum Grayburg-San Andres Pool Lea County, New Mexico

Dear Mrs. Rodriguez:

Please find enclosed an original and two copies of Phillips Petroleum Company's application in the above referenced matter.

I request that the application be published so that it may be heard before the examiner's hearing to be conducted on June 20, 1973.

Very truly yours,

W. Thomas Kellahin

WTK:ks Enclosure

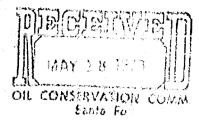
Mr. Joe Peacock

DOCKET MAILED

#### BEFORE THE

OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF PHILLIPS PETROLEUM COMPANY FOR AUTHORITY TO INSTALL AND OPERATE A WATERFLOOD PROJECT IN THE VACUUM GRAYBURG-ŞAN ANDRES POOL, LEA COUNTY, NEW MEXICO.



Conc-5013

#### APPLICATION

comes now phillips petroleum company and applies to the Oil Conservation Commission of New Mexico for authority to install and operate a waterflood project in the Vacuum Grayburg-San Andres Pool, Lea County, New Mexico by the conversion of two wells to water injection, and for approval of administrative precedures for expansion of said waterflood project, and in support thereof would show:

- 1. Applicant seeks permission to institute a water-flood project in the Vacuum Grayburg-San Andres Pool, by the injection of water into the Grayburg-San Andres formation.
- 2. Applicant proposes to convert to water injection its Lea Wells No. 4 (Unit I) and No. 6 (Unit O) both in Section 29, Township 17 South, Range 34 East, N.M.P.M., Lea County, New Mexico.
- 3. That the wells in the project area are in an advanced stage of depletion.
- 4. That the proposed waterflood project will result in the recovery of otherwise unrecoverable oil, thereby preventing waste and will not impair the correlative rights of others.

Applicant further requests that administrative procedures be authorized whereby modification or expansion of the unit including the drilling of additional injection wells and/or producing wells, and the conversion of existing wells to injection at both orthodox and unorthodox locations may be approved without further notice and hearing.

WHEREFORE, Applicant respectfully requests this matter be set for hearing before the Commission's duly appointed examiner and that after notice and hearing as required by law, the Commission enter its order approving the application as prayed for.

12.

Respectfully submitted:

PHILLIPS PETROLEUM COMPANY

KELLAHIN

P. O. Box 1769
Santa Fe, New Mexico
ATTORNEYS FOR APPLICANT

A PRICE

DRAFT as/

# BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

CASE NO. 5013 Order No. R-45-4/

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

APPLICATION OF PHILLIPS PETROLEUM COMPANY FOR A WATERFLOOD PROJECT, LEA COUNTY, NEW MEXICO.

ally

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on June 27, 1973, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this \_\_\_\_\_\_ day of \_\_\_\_\_\_ 1973, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

#### FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- authority to institute a waterflood project in the Unit Area, Vacuum Grayburg-San Andres Pool, by the injection of water into the Grayburg-San Andres formation through its Lea Wells Nos. 4 and 6 located in Units I and O, respectively, of Section 29, Township 17 South, Range 34 East, NMPM, Lea County,

(3) I hat applicant sproposed the inject:
water through internally plactic - coated tubing set in a packer with the annulus field with an inert fluid and a pressure gauge at the surface

- That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.
  - That the proposed waterflood project should result in

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project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

- (8) That approval of such an administrative procedure will not cause waste nor impair correlative rights provided no unorthodox location nearer than 330 feet to the outer boundary of the unit area is approved without notice and hearing.

#### IT IS THEREFORE ORDERED:

(1) That the applicant, Phillips Petroleum Company, is hereby authomized to institute a waterflood project in the Loa Linit Area, Vacuum Grayburg-San Andres Pool, by the injection of water into the Grayburg-San Andres formation Section 27, through the following-described wells in Township 17 South, Range 34 East, NMPM, Lea County, New Mexico:

Lea Well No. 4, Unit I Lea Well No. 6, Unit O

(2) That water shall be injected of through internally plastic - content taking; the annulus shall be piled with inset fluid and a pressure gauge sheet be installed at the surface

the Waterflood project is hereby designated the Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

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with Rules 704 and 1120 of the Commission Rules and Regulations.

- approved such additional producing and injection wells at orthodox and unorthodox locations within the waterflood Project in Section 29, Township 17 South, Range 34 East, NMPM, as may be necessary to complete an efficient production and injection pattern, provided said wells are drilled no closer than 330 feet to the outer boundary of aid unit area nor closer than ten feet to any quarter-quarter section or subdivision inner boundary, and provided that the application therefor has been filed in accordance with the provisions of Rule 701-B of the Commission Rules and Regulations.
- (6) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

ac/

PETROLEUM FOR A WATERFLOOD PROJECT LEA COUNTY, NEW MEXICO.