CASE 5040: Application of WALLEN PRODUCTION CO. FOR A PRESSURE MAINTENANCE PROJECT, LEA COUNTY.

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Application, Transcripts,

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ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

September 8, 1982

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 (505) 827-2434

Walter W. Krug Box 1960 Midland, Texas 79702

Attention: Helen R. Krug

Re: Request for Reclassification of Federal Well No. 2, Unit C, 990' FNL, 1650' FWL, Section 20, Township 20 South, Range 34 East, NMPM, Lea County, New Mexico

Gentlemen:

Pursuant to your request to have Federal Well No. 2, Unit C, 990 feet from the North line and 1650 feet from the West line, Section 20, Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, administratively reclassified under Rule 707 from a waterflood to a salt water disposal well, by the authority vested in me by the Oil Conservation Division the subject well is hereby reclassified as a salt water disposal well (SWD).

The subject well shall receive administrative Order No. SWD-249 and Division Order No. R-4621 is hereby suspended $C_{CL,18}$ as to such well; however, said well shall be bound by the following requirements:

- 1. That the operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.
- 2. That the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.
- 3. That the injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 640 psi.

- 4. That the Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Yates-Seven Rivers formation.
- 5. That the operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.
- 6. That the operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.
- 7. That injection shall be into the open hole interval from 3202 feet to 3847 feet through plastic coated tubing set in a packer located at the depth of 3199 feet.
- 8. That jurisdiction of this cause is hereby retained by the Division for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of applicant to comply with any requirement of this order after notice and hearing, the Division may terminate the authority hereby granted in the interest of conservation. That applicant shall submit monthly reports of the disposal operations in accordance with Rule 706 and 1120 of the Division Rules and Regulations.

Approved at Santa Fe, New Mexico, on this 15th day of September, 1982.

JOE D. RAMEY Director

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NEW MEXICO OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO August 9,1973

EXAMINER HEARING

IN THE MATTER OF:

Application of Wallen Production Company for a pressure maintenance project, Lea County, New Mexico. Case No. 5040

BEFORE: ELVIS A. UTZ, Examiner.

TRANSCRIPT OF HEARING

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Case 5040. MR. UTZ:

MR. CARR: 5040. Application of Wallen Production Company for a pressure maintenance project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project by the injection of water into the Yates Seven-Rivers formation in its Federal Well No. 2 located in Unit C of Section 20, Township 20 South, Range 34 East, North Lynch Yates-Seven Rivers Pool, Lea County, New Mexico.

> MR. UTZ: Will you stand and be sworn, please? (Whereupon, the witness was sworn by Mr. Carr.)

WALTER W. KRUG,

was called as a witness, and after having been duly sworn, testified as follows:

> MR. UTZ: Are there other appearances in this case? (No response.)

MR. UTZ: You may proceed.

DIRECT EXAMINATION

BY MR. UTZ:

As shown on these small plats, I need to verify that I'm the only one on the anomaly and that the water that I'm trying to put away is coming from the same formation that I'm putting it into. The reason I picked Well No. 2 is because it's as close to the oil-water contact as any

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well that I have. And it's produced water, being salt water, with some amount of hydrogen sulfide, minor amounts, and I'd like to put it back into the formation to keep the pressure up the best way I can. That would save me trouble and sweating later on. What water I put in now, I won't have to put in later and it's water that I need to dispose of anyhow. So common sense tells me this is the proper place to put it. Those show the anomaly through that cross section as that red line.

MR. UTZ: Traces on your exhibit, which exhibit is this?

MR. KRUG: That's the anomaly plat.

MR. UTZ: You want to mark them as an exhibit, rignt? Exhibit Number One be okay?

MR. KRUG: Yes, sir, that would be fine. I only have two.

MR. UTZ: We will label the cross section Exhibit Number Two.

The amount of water involved at the present time is 29 barrels.

(By Mr. Utz) A day? Q

Α Sir?

25 Per day?

1	A.	Yes, sir. Twenty nine barrels per day. There will be						
2		additional wells. I can't give an estimate on the						
3		amount of water involved there; I can only tell you what						
- 4		I nave now.						
5	<u>'</u>	The pressure that I'd be putting it away at is						
6	.~	1100 per square incn. That's untreated reservoir. It						
7	·	was 1100 pounds to start with; it's 1100 pounds now.						
8	Q	Would that be a water drive pool?						
9	A.	No, sir. It is true there is water there all right; but						
10		the very best I could call it is a minor water drive. It's						
11		mainly gas solution.						
12	ର	In your Federal Number Two now producing at all?						
13	A	No, sir. It is not.						
14	Q	Was it ever?						
15	Α	No, it has not. It had four feet oil slum and that's						
16		about as low oil water contact as you can get.						
17	Q.	Do you have any information available as to what casing						
18	· 	is in the well and what you plan to do as far as tubing						
19		or casing program?						
20	А	Only that I have seven inch casing cemented on the surface						
21	<u>.</u>	at 3204. The tubing is by Packer set three and a half						
22		foot off the bottom of the casing. That's my actual						
23		measurement.						
24	Q	Approximately 3202, then?						
25	A	Yes, sir.						

dearnley, meier & associates

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		PAGE Ó					
1	Q.	And tubing?					
2	A	Cement lined tubing and all my lining is plastic coated,					
. 3	-	including the nipple and all accessories.					
4	Q	You mean your service line?					
5	A	Yes, sir. I have a gas hole pump to put on it by Marine.					
6	Q	Do you intend to fill the annulus and insert fluid?					
7	A	Yes, sir, with Contol. Two barrels of Contol added, that					
8		a corrosion inhibitive.					
9	Q	And you'll put a gauge at the surface of the annulus to					
10	,	detect any leakage?					
11	A	Pressure gauge?					
12	Q	Yes.					
13	A	Yes, sir, both on the tubing and on the casing, so we					
14		know when there's a leak. I'm using lock-set, Baker					
15		lock-set. It'll be set with five points.					
16	Q	Okay. Now, you spoke of the other wells a moment ago.					
17		You mean water wells?					
18	A	No, sir. Oil wells, hopefully.					
19	ର	Well, how many do you have producing now?					
20	A	Four.					
21	Q	Do you know whether or not you're going to water flood					
22		this area?					
23	A	Yes, sir, I will. It's an anomaly now. I ought to add					
24		this again. I can't prove it; the only way I could					
25		present it was that thecall it the weakest way, in that					

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I'm calling two anomalies, two anomalies you see over there Number 7 is by my number 4 and as drilling a well anomaly if it turns out upon one anomaly, I estimate five more wells. All I could do, Mr. Chairman, was to make it the way it is showing that as it's water well there's not only two more wells, Number 7 and one south of the sixth, of the middle anomaly.

- To be certain we understand, are these pretty good wells?

 Are they producing at a fair rate?
- A They're very adequate wells.
- Q What did they produce?
- A They're averaging 25 barrels per day. At that depth, it's not bad, and mainly that's due to the fact that it's a gas solution drive. They're long life wells. The Number One there has vintage in 1928, on the lower anomaly.

MR. UTZ: Are there other questions of the witness? If there are no further questions, the witness may be excused. Statements in the case? There are no statements. We will take the case under advisement.

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REPORTER'S CERTIFICATE

I, CLAUDIA FAHRENTHOLD, a Court Reporter, in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil 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.

Claudia J. Fahren Mold

I do nereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No ... 19>5

New Mexico Oil Conservation Commission

209 SIMMS BLUG. # P.O. BOX 1092-PHONE 243-6601-#ALBUQUERQUE, NEW MEXICO 87103 1216 Pirst national bank blug. East-albuquerque, new mexico 87108

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WITNESS, WALTER W. KRUG Direct Examination by Mr. Carr

INDEX



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE 87501

August 27, 1973

I. R. TRUJILLO CHAIRMAN

LAND COMMISSIONER ALEX J. ARMIJO MEMBER

STATE GEOLOGIST A. L. PORTER, JR. SECRETARY – DIRECTOR

	Re:	CASE NO5040	
Mr. Walter W. Krug		ORDER NO. R-4621	
Wallen Production Company 308 N. Colorado		Applicant:	
Suite 4 Midland, Texas 79701	Wallen Production		

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

(A. L. PORTER, Jr.

Secretary-Director

Other	State	Engineer	Office		
Aztec OCC					
Hobbs OCC Artesia OCC	<u> </u>			<i>*</i> .	
Copy of order	also sen	t to:			
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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. 5040 Order No. R-4621

APPLICATION OF WALLEN PRODUCTION COMPANY FOR A PRESSURE MAINTENANCE PROJECT, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

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

NOW, on this 24th day of August, 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, Wallen Production Company, seeks authority to institute a waterflood project in the North Lynch Yates-Seven Rivers Pool, by the injection of water into the Yates-Eeven Rivers formation through its Pederal Well No. 2, located in Unit C, 1650 feet from the West line and 990 feet from the North line of Section 20, Township 20 South, Range 34 East, NMPM, Lea County, New Mexico.
- (3) That the wells in the area of the project are classified as "marginal" wells.
- (4) That the subject waterflood project is in the interest of conservation and may result in the recovery of otherwise unrecoverable oil, thereby preventing waste.
- (5) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

-2-Case No. 5040 Order No. R-4621

(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.

IT IS THEREFORE ORDERED:

(1) That the applicant, Wallen Production Company, is hereby authorized to institute a waterflood project in the North Lynch Yates-Seven Rivers Pool, by the injection of water into the Yates-Seven Rivers formation through the Federal Well No. 2, located in Unit C, 1650 feet from the West line and 990 feet from the North line of Section 20, Township 20 South, Range 34 East, NMPM, Lea County, New Mexico.

PROVIDED HOWEVER, that injection shall be through internally cement-coated tubing set in a packer at approximately 3202 feet; that the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface to facilitate detection of leaks in the casing, tubing or packer.

- (2) That the subject project is hereby designated the Wallen North Lynch Waterflood Project and shall be governed by the provisions of Rules 701, 702 and 703 of the Commission Rules and Regulations.
- (3) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.
- (4) That monthly progress reports of the project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.
- (5) 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.

OIL CONSERVATION COMMISSION

I. R. TRUSILLO, Chairman

ALEX OF ALMIJO, Membe

L. PORTER, Jr., Member & Secretary

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(gae 50 40 Heard 8-9-73 Grant. Wallen Wist G. Conversión le Convert, their Ord # 2 C-20-20-34. La Co. to a present Maintenances injedione welle o Vooduce. I to from the W. Lynch yater Classert Coutof laking will Le read packer to be & approt \$202. Injection 12026 3450 Christer of energy at Sayling

DOCKET: EXAMINER HEARING - THURSDAY - AUGUST 9, 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:

- ALLOWABLE: (1) Consideration of the allowable production of gas for September, 1973, from seventeen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico;
 - (2) Consideration of the allowable production of gas from nine provated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for September, 1973.

CASE 4933: (Readvertised)

Application of Texaco Inc. for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 4280 feet to 4288 feet in its R. T. Wilson Federal Well No. 5 located in Unit J of Section 24, Township 26 South, Range 31 East, North Mason-Delaware Pool, Eddy County, New Mexico.

CASE 5040: Application of Wallen Production Company for a pressure maintenance project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project by the injection of water into the Yales Seven-Rivers formation in its Federal Well No. 2 located in Unit C of Section 20, Township 20 South, Range 34 East, North Lynch Yates-Seven Rivers Pool, Lea County, New Mexico.

CASE 5041: Application of W. T. Wyrn for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Kaiser Lake Unit Area comprising 960 acres, more or less, of federal and fee lands in Township 18 South, Ranges 26 and 27 East, Eddy County, New Mexico.

CASE 4789: (Reopened)

In the matter of Case No. 4789 being reopened pursuant to the provisions of Order No. R-4375, which order established special rules and regulations for the Many Gates-Abo Pool, Chaves County, New Mexico, including a provision for 80-acre proration units. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing.

CASE 4548: (Reopened)

In the matter of Case No. 4548 being reopened pursuant to the provisions of Order No. R-4157, which order established special rules and regulations for the Catclaw Draw-Morrow Gas Pool, Eddy County, New Mexico, including a provision for 640-acre proration units. All interested parties may appear and show cause why said pool should not be developed on 320-acre spacing.

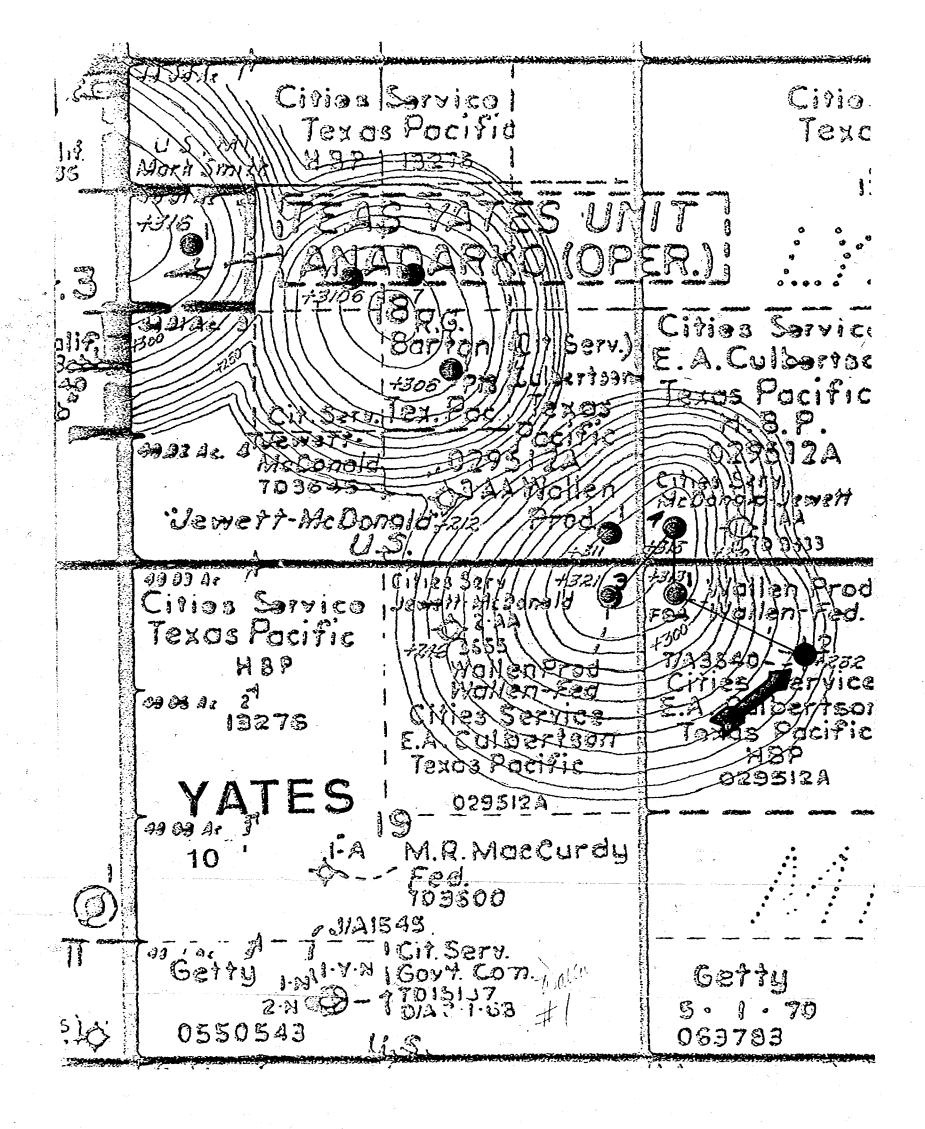
CASE 4745: (Reopened)

In the matter of Case No. 4745 being reopened pursuant to the provisions of Order No. R-4365, which order established special rules and regulations for the Penasco Draw San Andres-Yeso Pool, Eddy County, New Mexico, including a provision for classification of oil wells and gas wells, the spacing thereof, and a limiting gas-oil ratio of 3000 to 1. All interested parties may appear and show cause why said pool rules should remain in effect.

- CASE 5042: In the matter of the hearing called by the 0il Conservation Commission on its own motion to permit Everett D. Burgett and Fireman's Fund American Insurance Companies and all other interested parties to appear and show cause why the Pure State Wells Nos. 1, 2, 3, and 7 located in Units J, J, O, and O, respectively, of Section 15, Township 21 South, Range 27 East, Eddy County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.
- CASE 5043: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Kent Shannon and American Employers' Insurance Company and all other interested parties to appear and show cause why the Chaparral Tejano Well No. 1 located in Unit D of Section 10, Township 7 South, Range 26 East, Chaves County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.
- CASE 5044: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Sycor Newton, Peru Milling Company, R. E. Deming and Aetna Life and Casualty Company and all other interested parties to appear and show cause why the State L 6350 Well No. 1 located in Unit M of Section 10, Township 23 South, Range 11 West, Luna County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.
- CASE 5045: Application of Southern Union Production Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter the Wilson Federal Well No. 1 at an unorthodox location 2310 feet from the North line and 990 feet from the East line of Section 13, Township 22 South, Range 24 East, Eddy County, New Mexico, and to deepen said well to the Morrow formation, the N/2 of said Section 13 to be dedicated to the well.

CASE 5036: (Continued from the July 25, 1973, Examiner Hearing)

Application of The Wil-Mc Oil Corporation for salt water disposal, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the San Andres formation in the perforated interval from 4208 feet to 4282 feet in its Champlin State Well No. 1 located in Unit M of Section 3, Township 8 South, Range 33 East, Chaveroo-San Andres Pool, Chaves County, New Mexico.



OFFICE PHONE A/C 915 683-2600

WALTER W. KRUG

Case 5040

308 N. COLORADO

SHITE 4

MIDLAND, TEXAS 79701

July 11, 1973

New Mexico Oil Conservation Commission
The State Land Office Building Attn: Mr. A. L. Porter A Re:

Approval for water flood (pressure maintenance) well, located 1650 ft.FWL and 990 ft. FNL of section 20, T 20 S-R 34 E, Lea County, New Mexico.

OIL CONSERVATION COMM Santa Fe

Dear Sir:

Would you please consider this letter as a request for approval to make the above subject Federal No. 2 well into a water flood to make the above subject Federal No. 2 well into a water flood well (at the present time it would be just a salt water disposal well, but gradually we would make it into a water flood well)? well is at the edge of our anomaly and being at the oil water contact, having only a 4 foot oil column--ideal for disposal or water flood purposes. I have other producing wells posal or water flood purposes. I have other producing wells within a half mile of this well but I am the only producer on within a half mile of this well but I can get the administrative the anomaly affected. I hope that I can get the administrative approval; however, if I cannot, would you please let me know when the hearing would come up.

Your favorable consideration and prompt reply will be appreciated.

Very truly yours,

Walter W. Krug-

Wallen Production Company

WWK/rkc

DOCKET MAILED

Date 1-27-73

TWD/dr

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. 5040

Order No. R-762/

APPLICATION OF WALLEN PRODUCTION COMPANY FOR A PRESSURY MAINTENANCE PROJECT, LEA COUNTY, YEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

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

NOW, on this day of August , 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:

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Case No. 5040 Order No. R-

- (3) That the wells in the area of the project are classified as "marginal" wells.
- (5) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

- That the applicant, Wallen Production Company, is hereby authorized to institute a waterflood project in the North Lynch Yates-Seven Rivers Pool, by the injection of water into the Yates-Seven Rivers formation through the Federal Well No. 2, located in Unit C, 1650 feet from the West line and 990 feet from the North line of Section 20, Township 20 South, Range 34 East, NMPM, Lea County, New Mexico.
 - That the subject project is hereby designated the Wallen Production Company Waterflood Project and shall be governed by the provisions of Rules 701, 702 and 703 of the Commission Rules and Regulations.
 - cares reports of the project herein (3) That the operator shall immediately notify the supervisor of the Commission's Artesia district office of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

entry of such fulcher DONE at Santa Fe, New Mexico, on the day and year hereinabove

PRINCIPED MOLDENCE, that hypertion shall be through internate, commit-coated lubring set in a pooker at approximately, 3202 set in a pooker at approximately, 3202 feet; that the casing tribing annulus and squitthe purpose to production, de too tien placker. In leaker in the carring, shall be loaded with an Elect I