CASE 4/60: Appli. of ANADARKO PRODUCTION FOR A WATERFLOOD PROJECT, LEA COUNTY.

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Ease Number 4760 Application Trascripts Small Exhibits ETC



	MR. UTZ: Case 4760.
	MR. HATCH: Case 4760: Application of Anadarko
	Production Company for a waterflood project, Lea County,
	New Mexico. If the Examiner please, this case was heard
	on July 26th, I believe - rather, July 12th, and due to some
	of the evidence that appeared, it was felt that it needed
	to be readvertised. In the absence of objections, I would
	suggest that an order be issued on the testimony in evidence
	that was presented on that date.
1	MR. UTZ: Is there any objection to counsel's
1	statement on Case 4760?
1	(No response)
1	MR. UTZ: Does anyone have any additional evidence?
1	(No response)
, ¹ 1	MR. UTZ: Case 4760 will be taken under advisement
1	and an order will be issued based on the July 12th testimony.
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STATE OF NEW MEXICO) SS) COUNTY OF BERNALILLO

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I, RICHARD E. MCCORMICK, a Certified Shorthand 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 knowledge, skill and ability.

CERTIFIED SHORTHAND REPORTER

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Case No:

complete record of the proceedi

exico Oil Conservati

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PAGE 4

dearnley, meier & mc cormick 创 209 CIMMS BLDG. P.O. BOX 1092+PHONE 243-6601+ALBÚQUERQUE. NEW MEXICO 87103 1216 FIRST NATIONAL BANK BLDG. EAST +ALBUQUERQUE, NEW MEXICO 87106

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			PAGE 3
		1	MR. STAMETS: Case 4760.
	2 ¹⁰ 2	2	MR. HATCH: Case 4760: Application of Anadarko
		3	Production Company for a waterflood project, Lea County,
		4	New Mexico.
			MD WITT ANTAL TRADE TOLLAR, OF RELIAILIN AND
		6	Fox, Santa Fe, appearing for the Applicant. We have one
			witness I would like to have sworn,
-	s mc cormick	8	C. W. STUMHOFFER,
	& Ш	9	was called as a witness, and after being duly sworn,
		10	testified as follows:
	dearnley, meier	11	DIRECT EXAMINATION
	nley	12	BY MR. KELLAHIN:
		13	Q Would you state your name, please?
	NEW MEXICO 6	14	A C. W. Stumhoffer, S-t-u-m-h-o-f-f-e-r.
	8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	15	Q By whom are you employed and in what position?
		16	A Anadarko Production Company, as a petroleum engineer
	10 10 10 10 10	17	for secondary recovery in Houston, Texas.
		18	Q Have you testified before the Oil Conservation Commission
	2 U 2 U	19	and made your qualifications as an engineer a matter
	0 L L 2 4 2 4 2 4 2 4 5 4 5 4 5 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	20	of record?
	¢ z - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4		A Yes, I have.
	41 4 2 2 2 2 2 4	21	MR. KELLAHIN: Are the witness' qualifications
		22	acceptable?
	Si Mis Si Mis Si Si Si	23	MR. STAMETS: They are.
		24	
-		25	Q (By Mr. Kellahin) Are you familiar with the application

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		PAGE 4
	1	of Anadarko in Case 4760?
	2 A	Yes, I am.
	3 Q	Briefly tell us what is proposed by the Applicant
	4	in this case.
	K 7	~ Case 4700, Anadatho Froduction Company seeks to
	6	institute a waterflood project by the injection of
U	7	water into the Penrose-Skelley Pool by the injection
dearnley, meier & mc cormick	8	of water through the R.E. Cole Well Number Three
	9	located in the Southwest guarter of the Southwest
	10	quarter of Section 16 and the E. W. Walden Well Number
	11	Six located in the Southeast quarter of the Southwest
, set the set of the s	12	quarter of Section 16, Township 22 South, Range 37
	13	East, Lea County, New Mexico.
	14 Q	Now, referring you to what has been marked Applicant's
	- 15	Exhibit One, would you identify that exhibit, please?
	16 A	Exhibit One shows the reference leases that have just
0 # 2 0 2 0 2 0	17	previously been described and the offset water
• • • • • • • • • • • • • • • • • • •	18	development under the Penrose-Skelley Unit.
Σ Σ Σ	19 Q	Now, the Penrose Unit has been approved as a waterflood
00 11 9 8 8	20	project by the Commission, has it not?
ο μ ο μ ο μ ο μ ο μ ο μ ο μ ο μ	21 A	y Yes,
	0	Now, the wells circled in red in the northern portion
	22	are those injections wells which have been approved
9 S M S S S S S S S S S S S S S S S S S	23	as injection wells, are they not?
	A	The wells that are circled in red in the North end of
	25	

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			1		the unit are proposed water injection wells.
			2	Q	And they have been approved by the Commission?
			3	Δ	Yes.
			4	Q	Now, the application before the Commission today is
			5	، مو	just an extension of the Langli ϵ Mattix-Penrose Sand
	्र ४४		6		Unit, is it not?
	dearnley, meier & mc cormick		7	A	The application we are proposing, which is initial
	00 00 00		8	а малан төсө тайна тайн ай айн	waterflood development on the Langlie Mattix-Penrose
	S III		9		Unit, is proposed for waterflooding the Penrose Sand
	jer		10		Reservoir. In this application, we propose to convert
	, me		11	-	the water injection in the R. E. Cole Well Number
	nley	80 0	12	-	Three located in the Southwest quarter of Section 16
	lear	KICO 8710 87108	13		and the E. W. Walden Well Number Six located in the
	0	μo Συ	14		Southeast quarter of the Southwest quarter of Section 15
		п. 284 202	15		for water injection into the Penrose Sand Reservoir,
		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	16		and it will be in cooperation with the Langlie Mattix-
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	17		Penrose water flood project.
		: 243-6591 • A L 1 E A S T • A L E U Q'	18	0 Q	Your exhibit also shows a Continental Oil Well located
		101 E 243 DG. E A5	19		in the Southeast of the Southeast of Section 15, will
	5	1002 • PHONE Ank Bldg. E	20		that be an injection well too?
		×	21	A	Yes, it is proposed to be an injection well, and it
-		9. • P.O. BO NATIONAL	22		will be converted as part of the lease agreement between
·.		R L D	23		Langlie Mattix.
	× .	9 51MM5	23 24	Q	Would you explain Exhibit Two, please?
		202		A	Exhibit Two is a gamma ray neutron log of the R. E. Cole
			25	l	

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			PAGE 6
		1	Well Number Three showing the zone that is open for
	•	2	production with a perforation from 3,480 to 3,642.
	Ö2	3	The exhibit indicates the surface casing setting, the
		4	production casing setting, the cementing, and the
an the Anna	14. 	5	top of the cement at initial completion of the well,
	· · · · · · · · · · · · · · · · · · ·	.6	and what we propose to do with the well as a water
	& mc cormick	7	injection well. We propose to inject produced water
	200	8	from a salt water disposal system into these perforations
- 	& U	9	through plastic coated tubing set in a five and a half
	jer	10	inch casing at an approximate depth of thirty-four
	Ű,	11 · · · · · · · · · · · · · · · · · ·	hundred feet. The water will be injected at a rate of
	dearnley, meier	₈ 12	approximately 500 barrels per day at a maximum surface
	lear	0 13	pressure of 2,250 pounds. We propose that it be
			open to the surface and filled with injection water so
		ω ΣΣ ω ω 15	we can detect any leakage of the Packer.
	a de la companya de l	л z « w w w л д л т 16	Will the water be treated?
n an ann an Arland an Anna an Anna an Anna an			Yes.
			Is this the same water that is being used in the other
		• <u>18</u> ***	water floods to the South?
		z · 19 x · 1 • • A	Well, it is comparable water, it's not the same, but
		80 X ZO X Z ZO X Z ZO	it is comparable.
			Have you had any problems in using that water for
		SWWW 23	injection purposes?
		8 24 A	No, we have not.
		25	Will your other well be completed in the same manner

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		1		which you have discussed here?	
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2	A	Yes. I refer you to Exhibit Three which shows it will	1
		3		he completed in the same manner, except that it will	
		4	ŀ	be injection into an open hole instead of through	
		5		perroration.	
	· · · · · · · · · · · · · · · · · · ·	6	Q	But it will be under coated tubing?	
	imi	7	A	Yes, sir.	
	mc cormick	8	Q	And you will leave the annulus open to the surface?	
	2 1 2	9	A	That is correct.	. •.
		10	Q	Now, this application is for the injection of water	
÷	learnley, meier	11		into the Penrose-Skelley Pool, is that the same	
	rnley "	12		formation as the Langlie Mattix-Penrose?	
	dea 1	13	A	No, it is not.	
an a	× 00 ₪ ¥ ¥ ₩ ₩	14	Q	What is the difference?	a.
and a second second	2 2 . 3 . 4 . 4 . 2 . 2	15	A	The Langlie Mattix also includes the bottom one hundred	3
alleret. In sec.	с н с н с н с н с н с н с н с н с н с н	16		feet of the Seven-Rivers and Queen formations.	-
an posta ap	שיר כים מישיים מישיים	17	Q	Are your wells open in the Grayburg?	
	43-660 151 € A	18	A	Yes, they are.	• · · · ·
	2 U U U U U U U U U U U U U U U U U U U	19	Q	Do you want to inject into the Grayburg as well as	
na da da nu	2 5 6 2 5 6 2 5 0 2 4 7 2 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	20		into the Penrose?	
sa katar tan	۵ × ۱ ۵ ۲ ۵	21	A	Yes, we would like to.	• •
and a state of the second	- 00	22	Q	Insofar as injection into the Penrose is concerned, it	·
	200 SIMMS BLDG. 1210 FIRST N	23		will be offset to your Langlie Mattix-Penrose Sand Unit:	?
and the second	209 SIMI	24	А	Yes.	
and sugar the second		25	Q	Were Exhibits One through Three prepared by you?	
2.					

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	1	A Yes.
	2	MR. KELLAHIN: I would like to offer Exhibits
	3	One, Two, and Three.
	4	MR. STAMETS: Any objections?
	ţ	(No response)
	б	MR. STAMETS: They will be admitted in evidence.
	7	(Whereupon Applicant's Exhibits One through Three
	8	were admitted in evidence.)
	9	Q (By Mr. Kellahin) Will the approval of this application
	10	result in your recovery of oil that would not otherwise
	11	be recovered?
	12	A Yes.
	13	Q Would the correlative rights of the various operators
	14	offsetting your acreage be protected?
	15	A Yes, sir.
	16	I would like to add that we are operating under
:	17	a proration unit and under Rule 701, we would like
	18 .	to request administrative approval for additional
	19	conversion on this particular acreage so we could
- 2	2Ú	divert other wells on this acreage.
	21	MR. KELLAHIN: That's all I have.
2.) 2	22	CROSS EXAMINATION
2	23	BY MR. STAMETS:
1	24	Q Under 701, is it your understanding that basically
	25	there would be two separate floods here even though

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	PAGE 9
1	they might be called the same thing?
2	A Yes.
 3	Q And there would be no transfor of allowables?
4	A No, we can't physically do that.
5	o and would you have a cooperative water flood in the
б	Langlie Mattix-Penrose Sand Unit?
7	A Yes, sir.
 8	2 I wish you would run over the last of your testimony
 . <u>9</u> .	again concerning the difference between the Langlie
10	Mattix-Penrose Sand Unit flood and the surrounding
11	flooding and what you propose here.
12	In the Langlie Mattix, the Langlie Mattix Oil Pool is
13	producing horizontally and it is defined as having
14	the lower one hundred feet of the Seven-Rivers which
15	is not productive in this area. The Queen formation
16	which includes the Penrose Sand Unit, all the wells
17	are completed in the Penrose Sand and it does not
18	penetrate the Grayburg. The well we are proposing to
19	water inject is in the Penrose-Skelley Pool, and the
30	producing formation is designed as the Queen formation
21	which includes the Penrose and the Grayburg formations.
22	We would like to have permission to inject into the
23	Penrose Sand as well as into the Grayburg.
24	Are the completed wells both Penrose and Grayburg?
25	Yes, sir.

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· · · · · · · · · · · · · · · · · · ·	PAGE 10
	1 Q So any oil which might be driven to the producing
	2 wells by the injection wells in the Langlie Mattix-
	3 Penrose Unit would be producible through the producing
	4 wells?
	³ A Yes.
	6 Q And I presume they are open to the Grayburg as well?
	7 A Yes, and under the Grayburg. If the Grayburg proves
	8 successful, we will expand the waterflood into the
······································	9 Grayburg on a cooperative basis.
dearnley, meier	MR. STAMETS: Are there any other questions of this witness?
ley,	,
	12 (No response)
	13 MR. STAMETS: If not, he may be excused.
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	14 (Witness excused.)
	15 MR. STAMETS: Is there any additional testimony
	16 in this case?
	MR. KELLAHIN: No, sir.
	18 MR. STAMETS: Any statements?
N Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	19 (No response)
	20 MR. STAMETS: Case 4760 will be taken under
	21 advisement.
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	22 23 23 24 24 24 24 24 24 24 24 24 24 24 24 24
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PAGE 11 STATE OF NEW MEXICO 1 SS COUNTY OF BERNALILLO) 2 ġ. 3 I RICHARD P. McCOMMICK, a Certified Shorthand Reporter, 4 in and for the County of Bernalillo, State of New Mexico 5 do hereby certify that the foregoing and attached Transcript б dearnley, meier & mc cormick of Hearing before the New Mexico Oil Conservation Commission 7 was reported by me; and that the same is a true and correct 8 record of the said proceedings to the best of my knowledge, 9 skill and ability. 10 11 SHORTHAND REPORTER 12 209 SIMMS BLDG.0 P.O. BOX 10920PHONE 243-66910ALBUQUERQUE. NEW MEXICO 87103 1216 First National Bank Blog. Eastoalbuquerque, New Mexico 57103 13 14 15 16 17 18 19 20 21 I do horoby cartify that the foregoing is a respector reacted of the pressed over in 22 a fili menting by Read Su. H.760. 1.600 23 ... 1972. 12active by go on . July 24 hepard d. Frame # R. wetring New Moxico 011 Conservation Commission 25





OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2068 - SANTA FE \$7501 GOVERNOR BRUCE KING CHAIRMAN

LAND COMMISSIONER ALEX J. ARMIJO MEMBER

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

August 29, 1972

Mr. Jason Kellahin Kellahin & Fox Attorneys at Law Post Office Box 1769 Santa Fe, New Mexico Re: Case No. 4760 Order No. R-4374 Applicant: Anadarko Production Company

Dear Sir:

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

Very truly yours, Fortune . art

A. L. PORTER, Jr. Secretary-Director

ALP/ir

Copy of order also sent to:

х Hobbs OCC Artesia OCC

Aztec OCC

Other

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State Engineer Office

DEFORE-THE OIL CONSERVATION CONSISCION OF THE STATE OF NEW MEXICO

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

> CASE NO. 4760 Order No. R-4374

APPLICATION OF ANADARKO PRODUCTION 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 August 9, 1972, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 28th day of August, 1972, 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, Anadarko Production Company, is the operator of the Langlie Mattix Penrose Sand Unit Waterflood Project, Langlie Mattix Pool, Lea County, New Mexico.

(3) That the applicant seeks authority to institute two cooperative waterflood projects adjacent to said waterflood project by injection of water into the Queen and Grayburg formations through two injection wells in Sections 15 and 16, Township 22 South, Range 37 East, NMPM, Penrose Skelly Pool, Lea County, New Mexico.

(4) That the wells in the project areas are in an advanced state of depletion and should properly be classified as "stripper' wells.

(5) That the proposed waterflood projects should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(6) That the subject application should be approved and the projects should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations. -2-CASE NO. 4760 Order No. R-4374

(7) That applicant further requests establishment of an administrative procedure whereby the conversion of additional wells to injection may be approved administratively without a showing of well response to water injection.

IT IS THEREFORE ORDERED:

(1) That the applicant, Anadarko Production Company, is hereby authorized to institute two waterflood projects in the Penrose=Skelly Pool, by the injection of water into the Queen and Grayburg formations through the following-described wells in-Township 22 South, Range 37 East, NMPM, Lea County, New Mexico:

ANADARKO COLE PENROSE SKELLY WATERFLOOD PROJECT

Well Name	Well No.	Unit Sec	Twn.	Rge.
R. E. Cole		M16	22 S	37 E
ANADARKO WALDEN	PENROSE SKELI	LY WATERFLOO	D PROJECT	

Well Name	Well No.	Unit	Sec.	Twn.	Rgę.
E. W. Walden	6	N	15	22 S	37 E

(2) That the subject waterflood projects shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood projects herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(4) That the Secretary-Director may approve expansion of the subject waterflood projects to include such additional lands and injection wells in the area of the projects as may be necessary to complete an efficient water injection pattern; that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for conversion of additional wells to water injection.

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

-3-CASE NO. 4760 Order No. R-4374

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



STATE OF NEW MEXICO OIL GONSERVATION COMMISSION דז BRUCE KING, Chairman J. ARMIJO, Member ALT

A. J. Better of

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

SEAL

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Examiner Hearing - Wednesday July 12, 1972

Docket No. 15-72

CASE 4759: Application of Atlantic Richfield Company for a special gas-oil ratio limitation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks as an exception to Rule 506 of the Commission Rules and Regulations, a limiting gas-oil ratio limitation of 6,000 cubic feet of gas per barrel of oil in the Justis Tubb-Drinkard Pool, Lea County, New Mexico.

CASE 4732:

-2-

2: (Continued from the June 7. 1972 Examiner Hearing) Application of Continental Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Skaggs-Glorieta, East Weir-Blinebry, and Skaggs-Drinkard Pools in the wellbore of its Skaggs "B" Well No. 5 located 990 feet from the North line and 1700 feet from the West line of Section 12, Township 20 South, Range 37 East, Lea County, New Mexico.

CASE 4760: Application of Anadarko Production Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to institute a waterflood project by the injection of water into the Penrose-Skelly Pool by the injection of water through its R. E. Cole Well No. 3 located in the SW/4 SW/4 of Section 16 and its E. W. Walden Well No. 6 located in the SE/4 SW/4 of Section 15, Township 22 South, Range 37 East, Lea County, New Mexico.

> Applicant further seeks establishment of a procedure whereby the conversion of additional wells to injection may be approved administratively.

CASE 4761: Application of Shell 011 Company for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a well at an unorthodox location 1980 feet from the South line and 660 feet from the East line of Section 33, Township 23 South, Range 34 East, Antelope Ridge-Devonian Gas Pool, Lea County, New Mexico.

CASE 4762: Application of Shell Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to deepen its Antelope Ridge Well No. 4 to the Antelope Ridge-Morrow Gas Pool at an unorthodox location 990 feet from the North line and 2310 feet from the East line of Section 4, Township 24 South, Range 34 East, Lea County, New Mexico, which location is approximately 800 feet from its Antelope Ridge Well No. 2 located 660 feet from the North line and 1650 feet from the East line, same pool, township and range. Applicant proposes to simultaneously dedicate the N/2 of said Section 4 to the two wells.

CASE 4763:

Application of Black River Corporation for compulsory pooling and nonstandard proration unit, Eddy County, New Mexico. Applicant, in the abovestyled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the E/2 of Section 3, Township 26 South, Range 24 East, adjacent to the Washington Ranch-Morrow Gas Pool, Eddy County, New Mexico, comprising, approximately, a 409.22-acre non-standard proration unit. Said acreage to be dedicated to its Cities "3" Federal Well No. 2 located 2212 feet from the North line and 1998 feet from the East line of said Section 3.



ANADARKO PRODUCTION COMPANY E. N. Walden Well No. 6 Penrose-Skelly Field Lea County, New Mexico

RECORD OF FORMATIONS

FORMATION	TOP	BOTTOM In	REMARKS dicate Gasing Points, Describe Shows of OB, Gas and Water, Etc.
Callioho	0	10	Woll was cleaned out in Sept. 1938.
Sand	10	95	This is the only remodial work of whic
Rod bod	.95		wo have any record.
Sand & Shale	110	145	Rocords show thore is 75' between the
Sand	145	160	
Rod Bod	160	665	shot, but as no casing records are
Shale	665	750	available, this information is vague.
Water Sand	750	775	
'Shale	775	1055	011 at 3645' and well was cleaned out
Anhydrite	1058	1260	to at least 3660'. Bailed 16 hrs.
Salt Section	1260	2395	before running tubing.
Anhydrite & Lime	2395	3355	
Lino	3355	3472	Water at 3719 but no record of how far
Gas Sand	3472	3493	hole was plugged back to shut off the
Sand & Lime	3493	3500	water.
Sandy Line	3500	3538	
SX Gas & Dil	3538	3540	Well made water while being cleaned ou
Line	3540	3555	on above date. Thought to be impractil
Blue shale	3555	3560	to olean out and plug with lead wool
Grey Lime	3560	3563	to shut of the small amount of water.
Lime_	3563	3580	
Brown Lime	3580	3586	
Grey Limo	3586	3638	
Grey Sandy Lime (011)	3638	3645	
Grey Line	3645	3675	
Brown Lime	3675	3692	
Grey Lime	3692	3700	· · · · ·
Brown, Iano	3700	3718	
Water Sand	3718	3720	

LOCATION 660' FSL and 1980' FWL Section 15-T22S-R37E, Lea County, New Mexico.

ELEVATION Unknown.

TOTAL DEPTH Drilled 3720'. Plug Back 3678'.

SURFACE CASING 8-5/8" OD 28# casing set at 1143' comented with 150 sacks.

PRODUCTON CASING 6-5/8" OD 24# casing set at 3450' cemented with 250 sacks.

COMPLETION Open Hole 3450'-3678'. Stimulation 430 qts nitro from 3535'-3678'. IP not available.

PROPOSED CONVERSION WATER INJECTION

Produced water from Anadarko's E. *N. Ha*ldon SWD System to be injected into above Penrose Skelly Field Oil Zone open hole interval thru plastic coated 2-3/8" OD tubing set on packer in 6-5/8" OD casing at approximate depth of 3400' at rate of 500 BPD with maximum surface pressure 2250 psi. Annulus between tubing and casing to be filled with injection water open to atmosphere for observation of leakage.

BEFORE EXAMINER STAMETS OIL CONSERVATION COMMISSION
andorko EXHIBIT NO. 3
CASE NO. 4766
Submitted by Clarence Stumpeffer
Hearing Date July 12, 1972

BEFORE THE

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OIL CONSERVATION COMMISSION OF NE

OIL CONSERVATION COMM Santa Fo

Case 4160

IN THE MATTER OF THE APPLICATION OF ANADARKO PRODUCTION COMPANY FOR AUTHORITY TO INJECT WATER INTO THE PENROSE SKELLY FIELD PRODUCING ZONES,) FOR THE DESIGNATION OF A WATER FLOOD PROJECT AREA, AND FOR AN ADMINISTRA-TIVE PROCEDURE FOR APPROVAL OF THE CONVERSION OF WELLS FROM PRODUCTION TO INJECTION

APPLICATION

Comes now Anadarko Production Company and applies to the Oil Conservation Commission of New Mexico for authority to inject water into the Penrose Skelly Field Producing Zones through its R. E. Cole well No. 3 located in the Southwest Quarter Southwest Quarter (SW/4 SW/4) of Section 16-22S-37E and through its E. W. Walden well No. 6 located in the Southeast Quarter Southwest Quarter (SE/4 SW/4) of Section 15-22S-37E, Lea County, New Mexico, and for designation of the South Half Southwest Quarter (S/2 SW/4) and Southwest Quarter Southeast Quarter (SW/4 SE/4) of Section 16-22S-37E and the Southwest Quarter (SW/4) of Section 15-22S-37E as a water flood project area, and for an administrative procedure for approval of conversion of wells from production to injection, and in support thereof would show the Commission:

1. Applicant has drilled its R. E. Cole well No. 3 and its E. W. Walden well No. 6 at the locations specified above, and has completed said wells in the Penrose Skelly Field Producing Zones.

2. The proposed water flood project area, being the South Half Southwest Quarter (S/2 SW/4) and Southwest Quarter Southeast

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Quarter (SW/4 SE/4) of Section 16-22S-37E and the Southwest Quarter (SW/4) of Section 15-22S-37E, Lea County, New Mexico consists of the proration units upon which the proposed injection wells are located plus proration units which directly or diagonally offset injection tracts and have producing wells completed on them in the same formation.

3. Approval of this application is in the interest of conservation and the prevention of waste, and the correlative rights of other operators will not be impaired.

WHEREFORE, Applicant prays that this application be set for hearing before the Commission or the Commission's duly appointed examiner, and that after notice and hearing as required by law, the Commission enter its order granting approval of this application.

> Respectfully submitted, ANADARKO PRODUCTION COMPANY

By

R. J/ Kepke V P. O. Box 9317 Fort Worth, Texas 76107 Phone: (817) 732-1411

and

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on W. Kellahi By_

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ATTORNEYS FOR APPLICANT

DRAFT

GMH/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 MENICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 4760 Order No. R-43

 APPLICATION OF ANADARKO PRODUCTION 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 August 9 , 19^{72} at Santa Fe, New Mexico, before Examiner Elvis A. Utz

NOW, on this day of August , 1972, 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, Anadarko Production Company, is

the operator of the Langlie Mattix Penrose Sand Unit Waterflood

Project, Langlie Mattix Pool, Lea County, New Mexico.

-2-Case No. 4760 Order No. R-

(3) That the applicant seeks authority to institute two cooperative waterflood projects adjacent to said waterflood project by injection of water into the Queen and Grayburg formations through two injection wells in Sections 15 and 16, Township 22 South, Range 37 East, NMPM, Penrose Skelly Pool, Lea County, New Mexico.

(4) That the wells in the project areas are in an advanced state of depletion and should properly be classified as "stripper" wells.

(5) That the proposed waterflood projects should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

 (6) That the subject application should be approved and the projects should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(7) That applicant further requests establishment of an administrative procedure whereby the conversion of additional wells to injection may be approved administratively without a showing of well response to water injection.

IT IS THEREFORE ORDERED:

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(1) That the applicant, Anadarko Production Company, is hereby authorized to institute two waterflood projects in the Penrose-Skelly Pool, by the injection of water into the Queen and Grayburg formations through the following-described wells in Township 22 South, Range 37 East, NMPM, Lea County, New Mexico:

ANADARKO COLE PENROSE SKELLY WATERFLOOD PROJECT

Well Name	Well No.	Unit	Sec.	Twn.	Rge.
. E. Cole	3	M	16	22 S	37 E

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ANADARKO WALDEN P	PENROSE SKEL	LY WAT	ERFLOO	D PROJE	<u>27</u>	
Well Name	Well No.	Unit	Sec.	Twn.	Rge.	
E. W. Walden	6	N	15	22 S	37 E	

(2) That the subject waterflood projects shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood projects herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(4) That the Secretary-Director may approve expansion of the subject waterflood projects to include such additional lands and injection wells in the area of the projects as may be necessary to complete an efficient water injection pattern; that the showing of well response as requied by Rule 701 E-5 shall not be necessary before obtaining administrative approval for conversion of additional wells to water injection.

(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.