

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

October 5, 1972

Mr. J. L. Hamilton
Anadarko Production Company
Two Greenway Plaza East
Suite 410
Houston, Texas 77046

Dear Mr. Hamilton:

Enclosed herewith please find Administrative Order WFX-379 authorizing conversion of three wells to water injection wells in the Langlie-Mattix Penrose Sand Unit Water Flood Project in the Langlie-Mattix Pool in Lea County, New Mexico.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og

cc: Oil Conservation Commission
Hobbs, New Mexico

APPLICATION OF ANADARKO PRODUCTION
COMPANY TO EXPAND ITS LANGLIE-
MATTIX PENROSE SAND UNIT WATER
FLOOD PROJECT IN THE LANGLIE-MATTIX
POOL IN LEA COUNTY, NEW MEXICO.

ORDER WFX NO. 379

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION COMMISSION

Under the provisions of Order No. R-4284, Anadarko Production Company has made application to the Commission on September 20, 1972, for permission to expand its Langlie-Mattix Penrose Sand Unit Water Flood Project in the Langlie-Mattix Pool, Lea County, New Mexico.

NOW, on this 5th day of October, 1972, the Secretary-Director finds:

1. That application has been filed in due form.
2. That satisfactory information has been provided that all offset operators have been duly notified of the application.
3. That no objection has been received within the waiting period as prescribed by Order No. R-4284.
4. That the proposed injection wells are eligible for conversion to water injection under the terms of Order No. R-4284.
5. That the proposed expansion of the above-referenced water flood project will not cause waste nor impair correlative rights.
6. That the application should be approved.

IT IS THEREFORE ORDERED:

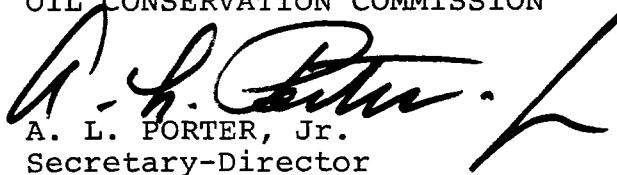
That the applicant, Anadarko Production Company, be and the same is hereby authorized to inject water into the Penrose formation through the following described wells for purposes of secondary recovery, to wit:

Tract 3 Well No. 3 located in Unit B of Section 22,
Tract 5-A Well No. 1 located in Unit D of Section 22,
and Tract 7 Well No. 3 located in Unit B of Section 21,
all in Township 22 South, Range 37 East, NMPM.

PROVIDED HOWEVER, that the applicant shall inject water through tubing and under a packer set as close to the injection zone as is practicable.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


A. L. PORTER, Jr.
Secretary-Director

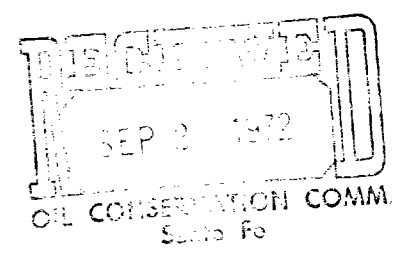
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GENERAL OFFICE
P. O. BOX 9317
FORT WORTH, TEXAS 76107

ANADARKO PRODUCTION COMPANY
TWO GREENWAY PLAZA EAST, SUITE 410, HOUSTON, TEXAS 77046, (713) 626-7610

September 18, 1972

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



RE: Langlie-Mattix Penrose Sand Unit
Langlie-Mattix Oil Pool
Lea County, New Mexico

Gentlemen:

Anadarko Production Company, as Unit Operator of the Langlie-Mattix Penrose Sand Unit, Langlie-Mattix Oil Pool, Lea County, New Mexico, hereby requests administrative approval, as previously authorized by OCC Order No. R-3247, to expand Unit waterflood development under the provisions of OCC Rule 701-E-5.

The proposed expansion of the waterflood development on the reference Unit includes the conversion of three (3) Unit wells to water injection. These three (3) wells are listed on the attached Table I with well location and pertinent well data.

The OCC Rule 701-E-5 requirement of the showing of oil production response to water injection operations prior to expansion of waterflood development was waived by OCC Order No. ~~R-3247~~ *R-7115*.

Expansion of waterflood development under OCC Rule 701-E-5 also requires that the application be made in accordance with OCC Rule 701-B. In accordance with OCC Rule 701-B, the following data and information is enclosed:

- (1) Plat of Unit Area showing location of proposed water injection wells.
- (2) Well bore diagram of Langlie-Mattix Penrose Sand Unit No. 7-3 showing well's total depth, open hole producing intervals, casing and cementing program, proposed tubing and packer setting, and type and quantity of water to be injected. This well has been selected as typical of the three (3) existing Unit producing wells proposed for conversion to water injection.

- (3) Driller's log of Langlie-Mattix Penrose Sand Unit
Well No. 7-3 (no electrical surveys available).

This proposed expansion will complete waterflood development on the Unit for the secondary recovery of oil from the Penrose Sand reservoir.

Your approval at your earliest convenience will be appreciated.

Very truly yours,

ANADARKO PRODUCTION COMPANY


J. L. Hamilton *by Cs*
Division Production Engineer

JLH/CWS/yim

Encl.

cc: USGS-Roswell
New Mexico Commission of Public Lands
Offset Operators - Gulf Oil Corp.
Continental Oil Co.

Table I
 Langlie-Mattix Penrose Sand Unit
 Langlie-Mattix Oil Pool
 Lea County, New Mexico
 Well Location and Data
Expansion Water Injection Wells

Well No.	Location T22S, R37E	Casing Record				Total Depth Feet	Open Hole Interval	Packer set @	
		SURFACE		LONG STRING					
		Size(in.)	Depth (ft.)	Cement(sx)	Size(in.)				Depth(ft.)
3-3	660' SNL, 1980' WEL Section 22	8-5/8" OD	1125'	150	7" OD	3383'	250	3383'-3688'	3335'
5A-1	660' SNL, 660' EWL Section 22	16" OD 8-5/8" OD	198' 1168'(top 200' pulled)	60 Unknown	7" OD	3400'	400	3400'-3712'	3337'
7-3	660' SNL, 1980' WEL Section 21	8-5/8" OD	1175'	100	7" OD	3354'	100	3354'-3615'	3302'

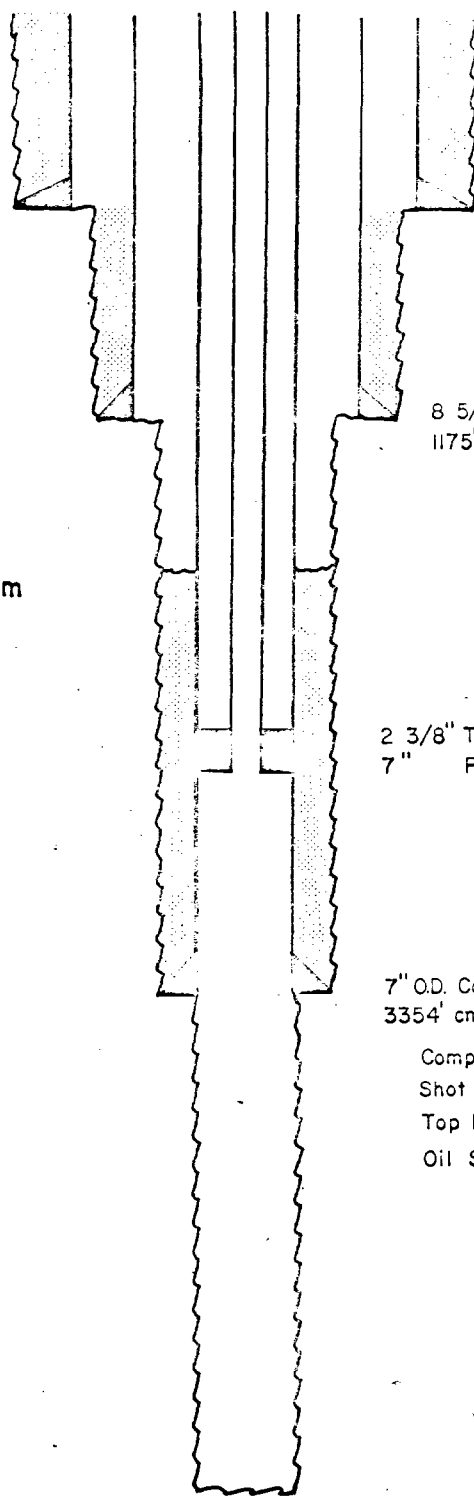
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Proposed Injection Rate:
500 B/D
Injection Water Source:
Nonpotable water purchased from
Skelly Oil Company's Jal Water
System

WELL LOCATION
L.M.P.S.U. 7-3
660' SNL & 1980' WEL
Sec. 21, T-22-S, R-37-E
Lea Co., New Mexico



13 3/8" O.D. Casing at
240' cmt. w/250 sks.

8 5/8" O.D. Casing at
1175' cmt. w/100 sks.

2 3/8" Tubing at 3300'
7" Packer at 3302'

7" O.D. Casing at
3354' cmt. w/100 sks.

Completed in open hole 3354'-3615'

Shot w/300 qts. Nitro 3530'-3615'

Top Pay 3500'

Oil Sand 3500'-3607' - PENROSE SAND

ANADARKO PRODUCTION COMPANY

WELL BORE DIAGRAM
LANGLIE MATTIX PENROSE SAND UNIT
WELL NO. 7-3
LEA COUNTY, NEW MEXICO

DRILLERS LOG

Langlie-Mattix Penrose Sand Unit Well No. 7-3
660' SNL, 1980' WEL
Section 21, T22S, R37E, Lea County, New Mexico

FROM	TO	THICKNESS IN FEET	FORMATION
10	40	30	Shale
40	75	35	Sand
75	107	32	Sand (contd)
107	124	17	Shale
124	143	19	Sandy Shale
143	143	0	Sand
143	153	10	Shale
153	163	10	Sandy Shale
163	173	10	Sand
173	183	10	Sandy Shale
183	193	10	Red Rock
193	203	10	Red Rock & Red Rock
203	213	10	Shale & Red Rock
213	223	10	Sandy Shale
223	233	10	Red Rock
233	243	10	Sand
243	253	10	Red Rock & Shale
253	263	10	Sandy Shale
263	273	10	Red Rock
273	283	10	Sandy Shale
283	293	10	Red Rock
293	303	10	Anhydrite
303	313	10	Salt
313	323	10	Anhydrite
323	333	10	Red Rock
333	343	10	Red Rock & Anhydrite
343	353	10	Salt & Red Rock
353	363	10	Salt & Anhydrite
363	373	10	Anhydrite
373	383	10	Salt
383	393	10	Salt & Anhydrite
393	403	10	Salt & Potash
403	413	10	Salt
413	423	10	Anhydrite & Potash
423	433	10	Salt & Anhydrite
433	443	10	Salt
443	453	10	Anhydrite & Potash
453	463	10	Salt
463	473	10	Anhydrite
473	483	10	Salt
483	493	10	Salt & Anhydrite
493	503	10	Salt, Potash & Anhydrite
503	513	10	Salt & Potash
513	523	10	Salt & Anhydrite
523	533	10	Salt
533	543	10	Salt & Anhydrite
543	553	10	Salt
553	563	10	Salt & Anhydrite
563	573	10	Salt
573	583	10	Salt & Anhydrite
583	593	10	Salt
593	603	10	Salt & Anhydrite
603	613	10	Salt
613	623	10	Anhydrite
623	633	10	Salt
633	643	10	Salt & Anhydrite
643	653	10	Salt, Potash & Anhydrite
653	663	10	Salt & Potash
663	673	10	Salt & Anhydrite
673	683	10	Salt
683	693	10	Salt & Anhydrite
693	703	10	Salt
703	713	10	Salt & Anhydrite
713	723	10	Salt
723	733	10	Salt & Anhydrite
733	743	10	Salt
743	753	10	Salt & Anhydrite
753	763	10	Salt
763	773	10	Salt & Anhydrite
773	783	10	Salt
783	793	10	Salt & Anhydrite
793	803	10	Salt
803	813	10	Salt & Anhydrite
813	823	10	Salt
823	833	10	Salt & Anhydrite
833	843	10	Salt
843	853	10	Salt & Anhydrite
853	863	10	Salt
863	873	10	Salt & Anhydrite
873	883	10	Salt
883	893	10	Salt & Anhydrite
893	903	10	Salt
903	913	10	Salt & Anhydrite
913	923	10	Salt
923	933	10	Salt & Anhydrite
933	943	10	Salt
943	953	10	Salt & Anhydrite
953	963	10	Salt
963	973	10	Salt & Anhydrite
973	983	10	Salt
983	993	10	Salt & Anhydrite
993	1003	10	Salt
1003	1013	10	Salt & Anhydrite
1013	1023	10	Salt, Potash & Anhydrite
1023	1033	10	Salt & Potash
1033	1043	10	Salt & Anhydrite
1043	1053	10	Salt
1053	1063	10	Salt & Anhydrite
1063	1073	10	Salt
1073	1083	10	Salt & Anhydrite
1083	1093	10	Salt
1093	1103	10	Salt & Anhydrite
1103	1113	10	Salt
1113	1123	10	Salt & Anhydrite
1123	1133	10	Salt
1133	1143	10	Salt & Anhydrite
1143	1153	10	Salt
1153	1163	10	Salt & Anhydrite
1163	1173	10	Salt
1173	1183	10	Salt & Anhydrite
1183	1193	10	Salt
1193	1203	10	Salt & Anhydrite
1203	1213	10	Salt
1213	1223	10	Salt & Anhydrite
1223	1233	10	Salt
1233	1243	10	Salt & Anhydrite
1243	1253	10	Salt
1253	1263	10	Salt & Anhydrite
1263	1273	10	Salt
1273	1283	10	Salt & Anhydrite
1283	1293	10	Salt
1293	1303	10	Salt & Anhydrite
1303	1313	10	Salt
1313	1323	10	Salt & Anhydrite
1323	1333	10	Salt
1333	1343	10	Salt & Anhydrite
1343	1353	10	Salt
1353	1363	10	Salt & Anhydrite
1363	1373	10	Salt
1373	1383	10	Salt & Anhydrite
1383	1393	10	Salt
1393	1403	10	Salt & Anhydrite
1403	1413	10	Salt
1413	1423	10	Salt & Anhydrite
1423	1433	10	Salt
1433	1443	10	Salt & Anhydrite
1443	1453	10	Salt
1453	1463	10	Salt & Anhydrite
1463	1473	10	Salt
1473	1483	10	Salt & Anhydrite
1483	1493	10	Salt
1493	1503	10	Salt & Anhydrite
1503	1513	10	Salt
1513	1523	10	Salt & Anhydrite
1523	1533	10	Salt
1533	1543	10	Salt & Anhydrite
1543	1553	10	Salt
1553	1563	10	Salt & Anhydrite
1563	1573	10	Salt
1573	1583	10	Salt & Anhydrite
1583	1593	10	Salt
1593	1603	10	Salt & Anhydrite
1603	1613	10	Salt
1613	1623	10	Salt & Anhydrite
1623	1633	10	Salt
1633	1643	10	Salt & Anhydrite
1643	1653	10	Salt
1653	1663	10	Salt & Anhydrite
1663	1673	10	Salt
1673	1683	10	Salt & Anhydrite
1683	1693	10	Salt
1693	1703	10	Salt & Anhydrite
1703	1713	10	Salt
1713	1723	10	Salt & Anhydrite
1723	1733	10	Salt
1733	1743	10	Salt & Anhydrite
1743	1753	10	Salt
1753	1763	10	Salt & Anhydrite
1763	1773	10	Salt
1773	1783	10	Salt & Anhydrite
1783	1793	10	Salt
1793	1803	10	Salt & Anhydrite
1803	1813	10	Salt
1813	1823	10	Salt & Anhydrite
1823	1833	10	Salt
1833	1843	10	Salt & Anhydrite
1843	1853	10	Salt
1853	1863	10	Salt & Anhydrite
1863	1873	10	Salt
1873	1883	10	Salt & Anhydrite
1883	1893	10	Salt
1893	1903	10	Salt & Anhydrite
1903	1913	10	Salt
1913	1923	10	Salt & Anhydrite
1923	1933	10	Salt
1933	1943	10	Salt & Anhydrite
1943	1953	10	Salt
1953	1963	10	Salt & Anhydrite
1963	1973	10	Salt
1973	1983	10	Salt & Anhydrite
1983	1993	10	Salt
1993	2003	10	Salt & Anhydrite
2003	2013	10	Salt
2013	2023	10	Salt & Anhydrite
2023	2033	10	Salt
2033	2043	10	Salt & Anhydrite
2043	2053	10	Salt
2053	2063	10	Salt & Anhydrite
2063	2073	10	Salt
2073	2083	10	Salt & Anhydrite
2083	2093	10	Salt
2093	2103	10	Salt & Anhydrite
2103	2113	10	Salt
2113	2123	10	Salt & Anhydrite
2123	2133	10	Salt
2133	2143	10	Salt & Anhydrite
2143	2153	10	Salt
2153	2163	10	Salt & Anhydrite
2163	2173	10	Salt
2173	2183	10	Salt & Anhydrite
2183	2193	10	Salt
2193	2203	10	Salt & Anhydrite
2203	2213	10	Salt
2213	2223	10	Salt & Anhydrite
2223	2233	10	Salt
2233	2243	10	Salt & Anhydrite
2243	2253	10	Salt
2253	2263	10	Salt & Anhydrite
2263	2273	10	Salt
2273	2283	10	Salt & Anhydrite
2283	2293	10	Salt
2293	2303	10	Salt & Anhydrite
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2353	2363	10	Salt & Anhydrite
2363	2373	10	Salt
2373	2383	10	Salt & Anhydrite
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2463	2473	10	Salt
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2483	2493	10	Salt
2493	2503	10	Salt & Anhydrite
2503	2513	10	Salt
2513	2523	10	Salt & Anhydrite
2523	2533	10	Salt
2533	2543	10	Salt & Anhydrite
2543	2553	10	Salt
2553	2563	10	Salt & Anhydrite
2563	2573	10	Salt
2573	2583	10	Salt & Anhydrite
2583	2593	10	Salt
2593	2603	10	Salt & Anhydrite
2603	2613	10	Salt
2613	2623	10	Salt & Anhydrite
2623	2633	10	Salt
2633	2643	10	Salt & Anhydrite
2643	2653	10	Salt
2653	2663	10	Salt & Anhydrite
2663	2673	10	Salt
2673	2683	10	Salt & Anhydrite
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2733	2743	10	Salt & Anhydrite
2743	2753	10	Salt
2753	2763	10	Salt & Anhydrite
2763	2773	10	Salt
2773	2783	10	Salt & Anhydrite
2783	2793	10	Salt
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2803	2813	10	Salt
2813	2823	10	Salt & Anhydrite
2823	2833	10	Salt
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2853	2863	10	Salt & Anhydrite
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2893	2903	10	Salt & Anhydrite
2903	2913	10	Salt
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2923	2933	10	Salt
2933	2943	10	Salt & Anhydrite
2943	2953	10	Salt
2953	2963	10	Salt & Anhydrite
2963	2973	10	Salt
2973	2983	10	Salt & Anhydrite
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3023	3033	10	Salt
3033	3043	10	Salt & Anhydrite
3043	3053	10	Salt
3053	3063	10	Salt & Anhydrite
3063	3073	10	Salt
3073	3083	10	Salt & Anhydrite
3083	3093	10	Salt
3093	3103	10	Salt & Anhydrite
3103	3113	10	Salt
3113	3123	10	Salt & Anhydrite
3123	3133	10	Salt
3133	3143	10	Salt & Anhydrite
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3153	3163	10	Salt & Anhydrite
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3173	3183	10	Salt & Anhydrite
3183	3193	10	Salt
3193	3203	10	Salt & Anhydrite
3203	3213	10	Salt
3213	3223	10	Salt & Anhydrite
3223	3233	10	Salt
3233	3243	10	Salt & Anhydrite
3243	3253	10	Salt
3			