

ANADARKO PRODUCTION COMPANY

3109 WINTHROP AVENUE P. O. BOX 9317 FORT WORTH, TEXAS 76107

CABLE ADDRESS: ANADARK

October 22, 1968

*SWD-79
line 1128*

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

Attention: Mr. A.L. Porter, Jr.

RE: Application of Anadarko Production
Company for Salt Water Disposal
Well, Penrose-Skelly Field, Lea
County, New Mexico

Gentlemen:

As required by Commission Order R-3221 and under the provisions of Rule 701-C of the Rules and Regulations of the Commission, Anadarko Production Company respectfully requests administrative approval to dispose of produced salt water from its Penrose-Skelly Field leases into the San Andres formation as found in a shut-in producing well, Anadarko's E.W. Walden Well No. 4 located 1980 feet from South line and 1980 feet from West line of Section 15, T22S, R37E, Lea County, that is to be deepened to the proposed disposal zone.

To support this application, we are submitting in triplicate a completed Commission Form C-108, Application to Dispose of Salt Water by Injection into a Porous Formation, along with the following data as required under Rule 701-B.

- (1) A plat showing the location of the proposed salt water disposal well and the location of all other wells within a radius of two miles as required by Rule 701-B-1.
- (2) Driller's Log of the subject well as required by Rule 701-B-2. After deepening the proposed SWD well to the proposed disposal zone, an electric log will be run and furnished to you.

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- (3) A diagrammatic sketch of the proposed SWD well as required by Rule 701-B-3.

A copy of this application has been furnished to the surface owner of the land on which the proposed SWD well is located and offset operators to the subject well as listed on the Form C-108.

Respectfully submitted,

ANADARKO PRODUCTION COMPANY



C.W. Stumhoffer
Superintendent
Secondary Recovery Division

CWS/nl
Encl:

NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

| | | | |
|---|-------------------------|---|------------------|
| OPERATOR Anadarko Production Company | | ADDRESS P.O. Box 9317, Fort Worth, Texas 76107 | |
| LEASE NAME E.W. Walden | WELL NO. 4-SWD | FIELD Well is presently a S.I. Penrose-Skelly Field Well - | COUNTY Lea |
| LOCATION E.W. Walden Well No. 4 | | | |
| UNIT LETTER K | WELL IS LOCATED 1980 | FEET FROM THE South | LINE AND 1980 |
| West | LINE, SECTION 15 | TOWNSHIP 22S | RANGE 37E |

CASING AND TUBING DATA

| NAME OF STRING | SIZE | SETTING DEPTH | SACKS CEMENT | TOP OF CEMENT | TOP DETERMINED BY |
|----------------|------------|---------------|---|---------------|-------------------|
| SURFACE CASING | 12 5/8" OD | 235' | Well drilled by J.C. Clower during August, 1937- No cementing record available. | | |
| INTERMEDIATE | 8 5/8" OD | 1225' | " | " | " |
| LONG STRING | 7" OD | 3482' | " | " | " |
| Liner | 5 1/2" OD | 3300'-4200' | To be cemented from top to bottom after deepening | | |
| TUBING | 2 7/8" OD | | NAME, MODEL AND DEPTH OF TUBING PACKER Johnston 101-S @ approximately 3400'. to San Andres for SWD. | | |

| | | |
|--|---------------------------------------|--|
| NAME OF PROPOSED INJECTION FORMATION San Andres | TOP OF FORMATION 3900' (estimated) | BOTTOM OF FORMATION 4800' (estimated) |
|--|---------------------------------------|--|

| | | |
|--|---|--|
| IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing | PERFORATIONS OR OPEN HOLE? Open Hole | PROPOSED INTERVAL(S) OF INJECTION 4200'-4800' |
|--|---|--|

| | | |
|--|--|--|
| IS THIS A NEW WELL DRILLED FOR DISPOSAL? No-To be deepened for SWD. | IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil Production | HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? No perms - open |
|--|--|--|

LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH hole 3482'-3703'

This well is temporarily abandoned oil well that was completed for production during August, 1937 from open hole 3482'-3703'. This zone will be cemented behind line after deepening

| | | |
|--|---|---|
| DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 775' | DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA Approx. 3900' Grayburg | DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA Approx 5500' Blinberry |
|--|---|---|

| | | | | | |
|---|----------------|-----------------|--------------------------------------|---|-----------------------------|
| ANTICIPATED DAILY INJECTION VOLUME (BBLs.) 600 | MINIMUM 600 | MAXIMUM 2000 | OPEN OR CLOSED TYPE SYSTEM Closed | IS INJECTION TO BE BY GRAVITY OR PRESSURE? Gravity | APPROX. PRESSURE (PSI) 0 |
|---|----------------|-----------------|--------------------------------------|---|-----------------------------|

| | | | |
|--|--------------------------------|---------------------------------------|------------------------------------|
| ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - Yes | WATER TO BE DISPOSED OF Yes | NATURAL WATER IN DISPOSAL ZONE Yes | ARE WATER ANALYSES ATTACHED? No |
|--|--------------------------------|---------------------------------------|------------------------------------|

NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND)
W.P. Sims, P.O. Box 496, Eunice, New Mexico 88231

- LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL
- Gulf Oil Corporation, P.O. Drawer 1938, Roswell, New Mexico 88201
 - Amerada Petroleum Corporation, Box 312, Midland, Texas 79701
 - Continental Oil Company, Box 460, Hobbs, New Mexico 88240
 - Texas Pacific Oil Company, Box 4067, Midland, Texas 79701
 - Carter Foundation Production Company, Box 900, Kermit, Texas 79745
 - Marathon Oil Company, Box 220, Hobbs, New Mexico 88240
 - Two States Oil Company, Box 176, Eunice, New Mexico 88231

| | | | |
|--|----------------------|--|--------------------------------------|
| HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? Yes | SURFACE OWNER Yes | EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes | THE NEW MEXICO STATE ENGINEER Yes |
| ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) Yes | PLAT OF AREA Yes | ELECTRICAL LOG None available @ present time-will submit after deepening. | DIAGRAMMATIC SKETCH OF WELL Yes |

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

C.W. Stamboffer
(Signature)

Superintendent
Secondary Recovery Division
(Title)

October 22, 1968
(Date)

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

RECORD OF FORMATIONS

| FORMATION | TOP | BOTTOM | REMARKS |
|-----------------------|------|--------|--|
| | | | Indicate Casing Points, Describe Shows of Oil, Gas and Water, Etc. |
| Caliche | 0 | 10 | T D 3703. Well was plugged back from 3720. According to available records only 42' of the formation was shot as records show there is 179' between the bottom of the pipe and the top of the shot. |
| Sand | 10 | 95 | |
| Red rock | 95 | 145 | |
| Sand | 145 | 160 | |
| Shale & Red rock | 160 | 750 | |
| Water Sand | 750 | 775 | |
| Shale ^s | 775 | 1055 | |
| Anhydrite | 1055 | 1260 | |
| Salt Section | 1260 | 2395 | |
| Anhydrite & Lime | 2395 | 3355 | |
| Lime | 3355 | 3895 | |
| Grey Lime | 3395 | 3472 | |
| Gas Sand | 3472 | 3493 | |
| Sand & Lime (Gas) | 3493 | 3500 | |
| Lime | 3500 | 3520 | |
| Grey Lime | 3520 | 3525 | |
| Sandy Lime | 3525 | 3538 | |
| Oil & Gas | 3538 | 3540 | |
| Lime | 3540 | 3555 | |
| Blue Shale | 3555 | 3560 | |
| Grey Lime | 3560 | 3563 | |
| Lime | 3563 | 3580 | |
| Brown Lime | 3580 | 3586 | |
| Grey Lime | 3586 | 3638 | |
| Grey Sandy Lime (OIL) | 3638 | 3645 | |
| Grey Lime | 3645 | 3675 | |
| Brown Lime | 3675 | 3692 | |
| Grey Lime | 3692 | 3700 | |
| Brown Lime | 3700 | 3718 | |
| Water Sand | 3718 | 3720 | |

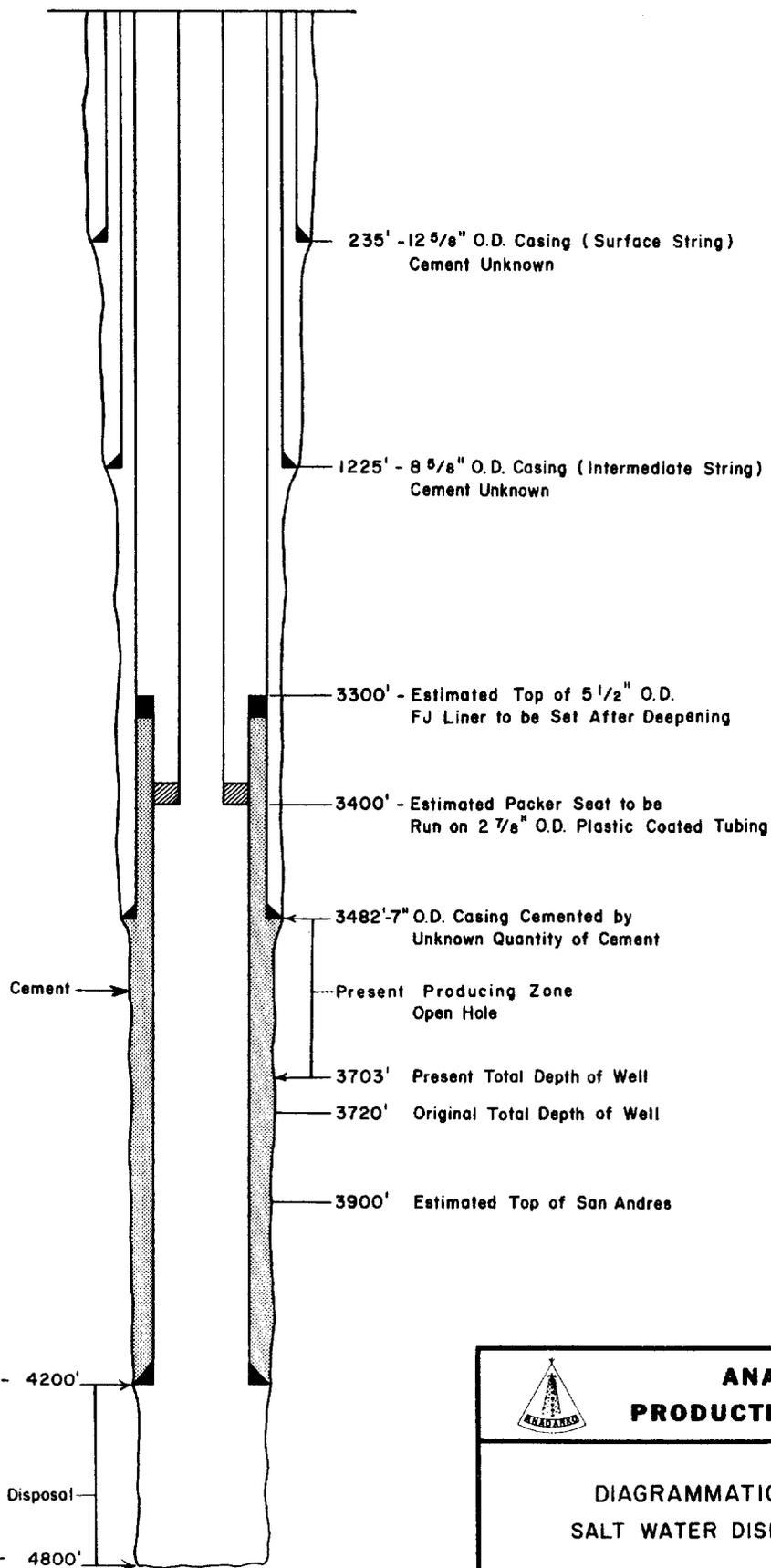
ANADARKO PRODUCTION COMPANY

DRILLER'S LOG

E.W. Walden Well No. 4

NE/4 SW/4 Section 15, T22S, R37E,

Lea County, New Mexico



**ANADARKO
PRODUCTION COMPANY**

**DIAGRAMMATIC SKETCH
SALT WATER DISPOSAL WELL**

E. W. WALDEN NO. 4 SWD
NE/4 SW/4 SECTION 15, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO