



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

BRUCE KING  
GOVERNOR

LARRY KEHOE  
SECRETARY

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

March 10, 1982

Depco, Inc.  
800 Central  
Odessa, Texas 79760

ATTENTION: Leon Standard

RE: Northwest Artesia Unit  
Waterflood Expansion

Dear Sir:

As of July 1st, 1981, the Oil Conservation Commission has some rule changes on injection of fluids into reservoirs. Enclosed you will find a copy of the new rules on this matter and also our new C-108 Form. The instructions for administrative approval are found on the application.

If I can be of further assistance, please feel free to call upon me.

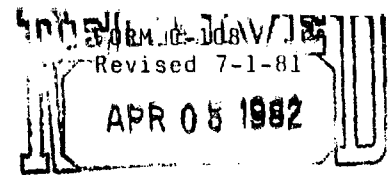
Sincerely,

Roy Johnson  
Petroleum Geologist

RJ/dp

Enc.

26N



APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose:  Secondary Recovery  Pressure Maintenance  Disposal  Other  
Application qualifies for administrative approval?  yes  no
- II. Operator: DEPCO, Inc.  
Address: 800 Central, Odessa, TX 79761  
Contact party: Leon Standard Phone: 915-337-1536
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project?  yes  no  
If yes, give the Division order number authorizing the project R-4727.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- \* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
- Proposed average and maximum daily rate and volume of fluids to be injected;
  - Whether the system is open or closed;
  - Proposed average and maximum injection pressure;
  - Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
  - If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- \* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Leon Standard Title Field Engineer

Signature: [Signature] Date: March 25, 1982

\* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

## III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

## XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

DEPCO, Inc.

NORTHWEST ARTESIA UNIT  
LLASC

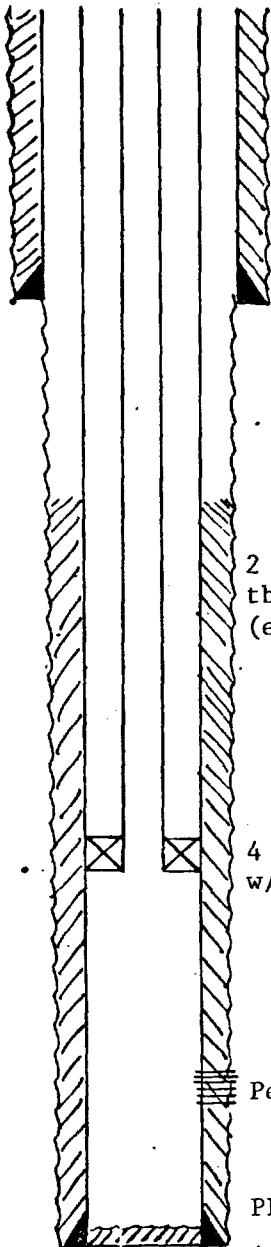
OPERATION

12 WELL NO. 990' FSL & 760' FWL FOOTAGE LOCATION 32 SECTION 17-S TOWNSHIP 28-E RANGE

EDDY COUNTY, NEW MEXICO

Schematic

Tabular Data



Surface Casing

Size 8 5/8" Cemented with 100 sx.  
 TOC CIRC feet determined by Calc.  
 Hole size 11"

Intermediate Casing

Size \_\_\_\_\_ Cemented with \_\_\_\_\_ sx.  
 TOC \_\_\_\_\_ feet determined by \_\_\_\_\_

Hole size \_\_\_\_\_

Long string

Size 4 1/2" Cemented with 150 sx.  
 TOC 1205 feet determined by Calc

Hole size 7 7/8"

Total depth 1997

Injection interval

1922 feet to 1949 feet  
 (perforated or open-hole, indicate which)

*\*No problems with wells in Empire Abo (i.e. Gas injectors) 4-8-82*

Tubing size 2 3/8" lined with Plastic coating set in a  
 (material)  
 retrievable (brand subject to availability) packer at 1875' (est) feet.  
 (brand and model)

(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation Grayburg (Premier)
- Name of field or Pool (if applicable) Artesia Q. Grb. S.A.
- Is this a new well drilled for injection?  Yes  No  
 If no, for what purpose was the well originally drilled? Producer
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) No
- Give the depth to and name of any overlying and/or underlying oil or gas zones in this area. Empire Abo approximate depth 6000'

*4-8-82 verbal comm. to M. Williams in Artesia*

APPLICATION FOR AUTHORIZATION TO INJECT

SECTION III

✓ Northwest Artesia Unit No. 12

✓ Location: 990' FSL & 760' FWL (Unit M) Sec. 32, T-17-S, R-28-E

✓ Date Drilled: 5-6-67

Depth: 1997' PBSD 1989'

Hole size: 11" to 495', 7 7/8 to 1997'

Casing size: 8 5/8", 24# @ 495' w/100 sx., TOC circ. (calc)

4 1/2" 11.6# @ 1997' w/150 sx., TOC 1205' (calc)

Tubing size: 2 3/8 internally plastic coated set at 1875' (est)

OK Packer: 4 1/2" retrievable (brand subject to availability)

OK Perforations: 1922 - 1949'

1922  
1875  
-----  
47' OK

LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE

APPLICATION FOR AUTHORIZATION TO INJECT

SECTION VI

A tabulation of data on all wells within the area of review which penetrate the proposed injection zone. DEPCO, Inc. is the operator of the Northwest Artesia Unit.

NORTHWEST ARTESIA UNIT NO. 4

Location: 2277' FNL & 330' FEL (Unit H) Sec. 31, T-17s, R-28e

Date Drilled: 3-11-66

Depth: 6200', PBTD 2003'

Casing: 8 5/8", 24# @ 808' w/350 sxs., 4 1/2", 11.6# @ 2018' w/150 sxs.

Perforation: 1898'-1906'

Current Status: Water Injector

NORTHWEST ARTESIA UNIT NO. 8

Location: 2310' FSL & 2105' FWL (Unit K) Sec. 32, T-17s, R-28e

Date Drilled: 5-30-66

Depth: 2003', PBTD 1996'

Casing: 8 5/8", 24# @ 462' w/125 sx., 4 1/2", 11.6# @ 2002' w/175 sxs.

Perforation: 1898'-1908', 1930'-34'

Current Status: Oil Producer

NORTHWEST ARTESIA UNIT No. 10

Location: 1980' FSL & 660' FEL (Unit I) Sec. 31, T-17s, R-28e

Date Drilled: 6-8-66

Depth: 2000', PBTD 1994'

Casing: 8 5/8", 24# @ 498' w/100 sx., 4 1/2" 11.6# @ 2000' w/175 sxs.

Perforation: 1913'-25', 1944'-45'

Current Status: Oil Producer

NORTHWEST ARTESIA UNIT NO. 11

Location: 990' FSL & 660' FEL (Unit P) Sec. 31, T-17s, R-28e

Date Drilled: 5-4-67

Depth: 2012', PBTD 2004'

Casing: 8 5/8", 24# @ 495' w/125 sxs, 5 1/2", 17 & 15# @ 2005' w/125 sxs.

Perforation: 1935'-45', 1965'-67'

Current Status: Water Injector

NORTHWEST ARTESIA UNIT NO. 13

Location: 990' FSL & 2030' FWL (Unit N) Sec. 32, T-17s, R-28e

Date Drilled: 6-17-66

Depth: 2006', PBTD 1996'

Casing: 8 5/8", 24 & 28# @ 493', w/125 sx., 4 1/2", 11.6# @ 2003' w/175 sxs.

Perforation: 1921'-26', 1952'-54'

Current Status; Water Injector

NORTHWEST ARTESIA UNIT NO. 16

Location: 330' FNL & 330' FEL (Unit A) Sec. 6, T-17s, R-28e

Date Drilled: 2-21-67

Depth: 3273', PBTD 2034'

Casing: 8 5/8", 24# @ 495' w/100 sx., 4 1/2" 11.6# @ 3273' w/285 sx.

Perforation: 1962'-94'

Current Status: Oil Producer

W. E. JEFFERS: STATE 32 NO. 1

Location: 1650' FEL & 1350' FSL (Unit J) Sec. 32, T-17s, R-28e

Date Drilled: 3-12-58

Depth: 2075'

Casing: 8 5/8", 24# @ 516' w/50 sx., 5 1/2", 15.5# @ 2074' w/150 sx.

Perforation: 1919'-29', 1930'-46', 1947'-57', 2029'-39'

Current Status: Oil Producer

W. E. JEFFERS: STATE 32 NO. 2

Location: 1980' FEL & 1980' FSL (Unit J) Sec. 32, T-17, R-28e

Date Drilled: 8-30-59

Depth: 2075', PBSD 1990'

Casing: 8 5/8", 24# @ 498' w/50 sx. (Pulled 350'), 7" @ 1680' w/200 sx.

Perforation: O.H. 1680'-1990'

Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. F-25

Location: 977' FWL & 2280' FNL (Unit E) Sec. 32, T-17s, R-28e

Date Drilled: 9-13-60

Depth: 6013', PBSD 5933'

Casing: 8 5/8", 22.7# @ 976' w/500 sx., 5 1/2" 14# @ 6042' w/850 sx. *ok*

Perforation: 5830'-60' (sqz) 5880'-5992' (sqz) 5830'-80' *2 TOE.*

Current Status: Gas Injector

ARCO: EMPIRE ABO UNIT NO. F-26

Location: 2280' FNL & 1980' FWL (Unit F) Sec. 32, T-17s, R-28e

Date Drilled: 8-24-60

Depth: 6171', PBSD 6134'

Casing: 8 5/8", 24# @ 1007' w/550 sx., 4 1/2" 9.5 & 11.6# @ 6171' w/1000 sx. *ok*

Perforation: 5844'-92'

Current Status: Shut-in producer

ARCO: EMPIRE ABO UNIT NO. G-24

Location: 1650' FSL & 330' FEL (Unit I) Sec. 31, T-17s, R-28e

Date Drilled: 4-30-60

Depth: 6106', PBSD 6068'

Casing: 8 5/8", 28# @ 738' w/250 sx., 5 1/2" 15.5# @ 6104' w/450 sx. (perf 2899'-2900' *ok*  
sqz w/450 sx.)

Perforation: 6024-44' (sqz) 5862-83'

Current Status: Gas injector

ARCO: EMPIRE ABO UNIT NO. G-25

Location: 990' FWL & 1650' FSL (Unit L) Sec. 32, T-17s, R-28e

Date Drilled: 4-13-60

Depth: 6123', PBSD 6095'

Casing: 8 5/8", 24# @ 728' w/225 sx., 5 1/2" 15.5# @ 6125' w/450 sx. (Perf 2450-51' *ok*  
sqz w/850 sx.)

Perforation: 5996'-6012'

Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. G-26

Location: 2310' FWL & 1650' FSL (Unit K) Sec. 32, T-17s, R-28e

Date Drilled: 3-27-60

Depth: 6083', PBSD 6048'

Casing: 8 5/8", 24# @ 748' w/225 sx., 5 1/2" 15.5# @ 6099' w/450 sx. (Perf. 2410-11' *ok*  
sqz. w/900 sx.)

Perforation: 5966'-5982'

Current Status: Oil Producer



ARCO: EMPIRE ABO UNIT NO. G-27

Location: 1650' FSL & 1961' FEL (Unit J) Sec. 32, T-17s, R-28e

Date Drilled: 6-18-60

Depth: 6165', PBSD 6130'

Casing: 8 5/8", 22.7# @ 848' w/450 sx., 4 1/2" 9.5# @ 6165' w/850 sx.

Perforation: 6036'-60', 6074'-84', 6092'-6112'

Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. H-24

Location: 660' FEL & 660' FSL (Unit P) Sec. 31, T-17s, R-28e

Date Drilled: 3-12-60

Depth: 6122', PBSD 6087'

Casing: 8 5/8", 24# @ 778' w/250 sx., 5 1/2" 14# @ 6122' w/450 sx. (Perf 2450'-51' sqz. w/750 sx.)

Perforation: 6026'-40'

Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. H-25

Location: 660' FSL & 660' FWL (Unit M) Sec. 32, T-17s, R-28e

Date Drilled: 3-5-60

Depth: 6187'

Casing: 8 5/8", 24# @ 770' w/750 sx., 5 1/2" 14# @ 6187' w/450 sx. (Perf 2575'-76' sqz. w/800 sx.)

Perforation: 6020'-30'

Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. H-26

Location: 1980' FWL & 660' FSL (Unit N) Sec. 32, T-17s, R-28e

Date Drilled: 2-14-60

Depth: 6172', PBSD 6134'

Casing: 8 5/8", 24# @ 779' w/280 sx., 5 1/2" 14# @ 6172' w/400 sx.

Perforation: 5972'-5998' (sqz) 6112'-6123'

Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. H-261

Location: 1400' FWL & 150' FSL (Unit N) Sec. 32, T-17s, R-28e

Date Drilled: 7-25-75

Depth: 6220' PBSD 6170'

Casing: 8 5/8", 24# @ 1000' w/400 sx., 5 1/2" 15.5# @ 6220' w/1133 sx.

Perforation: 6154'-64' (sqz.) 6112'-26'

Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. H-27

Location: 1950' FEL & 650' FSL (Unit O) Sec. 32, T-17s, R-28e

Date Drilled: 1-24-60

Depth: 6215', PBSD 6180'

Casing: 8 5/8", 24# @ 984' w/circ, 4 1/2", 9.5# @ 6215' w/850 sx.

Perforation: 6010'-30 (sqz) 6050'-70' (sqz) 6134'-56'

Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. H-271

Location: 1450' FEL & 330' FSL (Unit O) Sec. 32, T-17s, 28e

Date Drilled: 6-17-75

Depth: 6255', PBSD 6221'

Casing: 8 5/8", 24# @ 1007' w/550 sx., 5 1/2" 14# @ 6255' w/900 sx.

Perforation: 6025'-50' (sqz) 6140'-58'

Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. H-272

Location: 2481' FEL & 330' FSL (Unit O) Sec. 32, T-17s, R-28e

Date Drilled: 7-20-77

Depth: 6370', PBTB 6261'

Casing: 8 5/8", 24# @ 600' w/245 sx., 5 1/2" 14 & 15.5# @ 6370' w/1500 sx.

Perforation: 6139'-44', 6150-54', 6162'-66'

Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. H-28

Location: 660' FEL & 660' FSL (Unit P) Sec. 32, T-17s, R-28e

Date Drilled: 6-2-60

Depth: 6319', PBTB 6285'

Casing: 8 5/8", 22.7# @ 1229' w/550 sx., 4 1/2" 9.5# @ 6341' w/850 sx.

Perforation: 6234'-68'

Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. H-281

Location: 200' FSL & 660' FEL (Unit P) Sec. 32, T-17s, R-28e

Date Drilled: 9-20-78

Depth: 6330'

Casing: 8 5/8", 24# @ 600' w/330 sx., 5 1/2" 15.5# @ 6330' w/1215 sx.

perforation: 6169'-89' (sqz) 6252'-62'

Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. I-24

Location: 660' FNL & 660' FEL (Unit A) Sec. 6, T-18s, R-28e

Date Drilled: 2-29-60

Depth: 6241', PBTB 6221'

Casing: 8 5/8", 24# @ 638' w/250 sx., 5 1/2" 14# @ 6241' w/450 sx. (Perf 2520'-22' sqz. w/1030 sx.)

Perforation: 6103'-6118' (sqz) 6186'-96'

Current Status: Oil producer

ARCO: EMPIRE ABO UNIT NO. I-25

Location: 660' FNL & 660' FWL (Unit D) Sec. 5, T-18s, R-28e

Date Drilled: 3-27-60

Depth: 6273', PBTB 6238'

Casing: 8 5/8", 22.7# @ 1186' w/750 sx., 5 1/2" 14# @ 6309' w/850 sx.

Perforation: 6122'-68' (sqz) 6150'-58'

Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. I-251

Location: 660' FNL & 150' FWL (Unit D) Sec. 5, T-18s, R-28e

Date Drilled: 1-7-79

Depth: 6250', PBTB 6185'

Casing: 8 5/8", 24# @ 745' w/315 sx., 5 1/2" 15.5# @ 6245' w/1350 sx.

Perforation: 6012'-34'

Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. I-26

Location: 330' FNL & 1941' FWL (Unit C) Sec. 5, T-18s, R-28e

Date Drilled: 7-18-60

Depth: 6254', PBTB 6218'

Casing: 8 5/8", 22.7# @ 743' w/450 sx., 5 1/2" 14# @ 6287' w/850 sx.

Perforation: 6060'-96'

Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. I-261

Location: 1914' FWL & 1080' FNL (Unit C) Sec. 5, T-18s, R-28e  
Date Drilled: 1-6-79  
Depth: 6350', PBTB 6293'  
Casing: 8 5/8", 24# @ 550' w/290 sx., 5 1/2" 15.5# @ 6345' w/1325 sx.  
Perforation: 6174'-6204'  
Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. I-27

Location: 2271' FEL & 330' FNL (Unit B) Sec. 5, T-18s, R-28e  
Date Drilled: 3-30-60  
Depth: 6261', PBTB 6228'  
Casing: 8 5/8", 22.7# @ 1239' w/750 sx., 4 1/2", 9.5# @ 6282' w/900 sx.  
Perforation: 6140'-77', 6184'-97'  
Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. I-271

Location: 1700' FEL & 670' FNL (Unit B) Sec. 5, T-18s, R-28e  
Date Drilled: 4-12-76  
Depth: 6350', PBTB 6287'  
Casing: 8 5/8", 24# @ 535' w/200 sx., 5 1/2" 14 & 15.5# @ 6350' w/1080 sx.  
Perforation: 6174'-84' (sqz) 6250'-60'  
Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. I-272

Location: 1300' FNL & 2345' FEL (Unit B) Sec. 5, T-18s, R-28e  
Date Drilled: 7-25-78  
Depth: 6350', PBTB 6283'  
Casing: 8 5/8", 24# @ 550' w/332 sx., 5 1/2" 15.5# @ 6350' w/1655 sx.  
Perforation: 6190'-6210'  
Current Status: Oil Producer

ARCO: EMPIRE ABO UNIT NO. I-273

Location: 1300' FNL & 1595' FEL (Unit B) Sec. 5, T-18s, R-28e  
Date Drilled: 8-24-78  
Depth: 6357', PBTB 6304'  
Casing: 8 5/8", 24# @ 550' w/310 sx., 5 1/2" 15.5# @ 6351' w/1307 sx.  
Perforation: 6200'-10'  
Current Status: Oil Producer

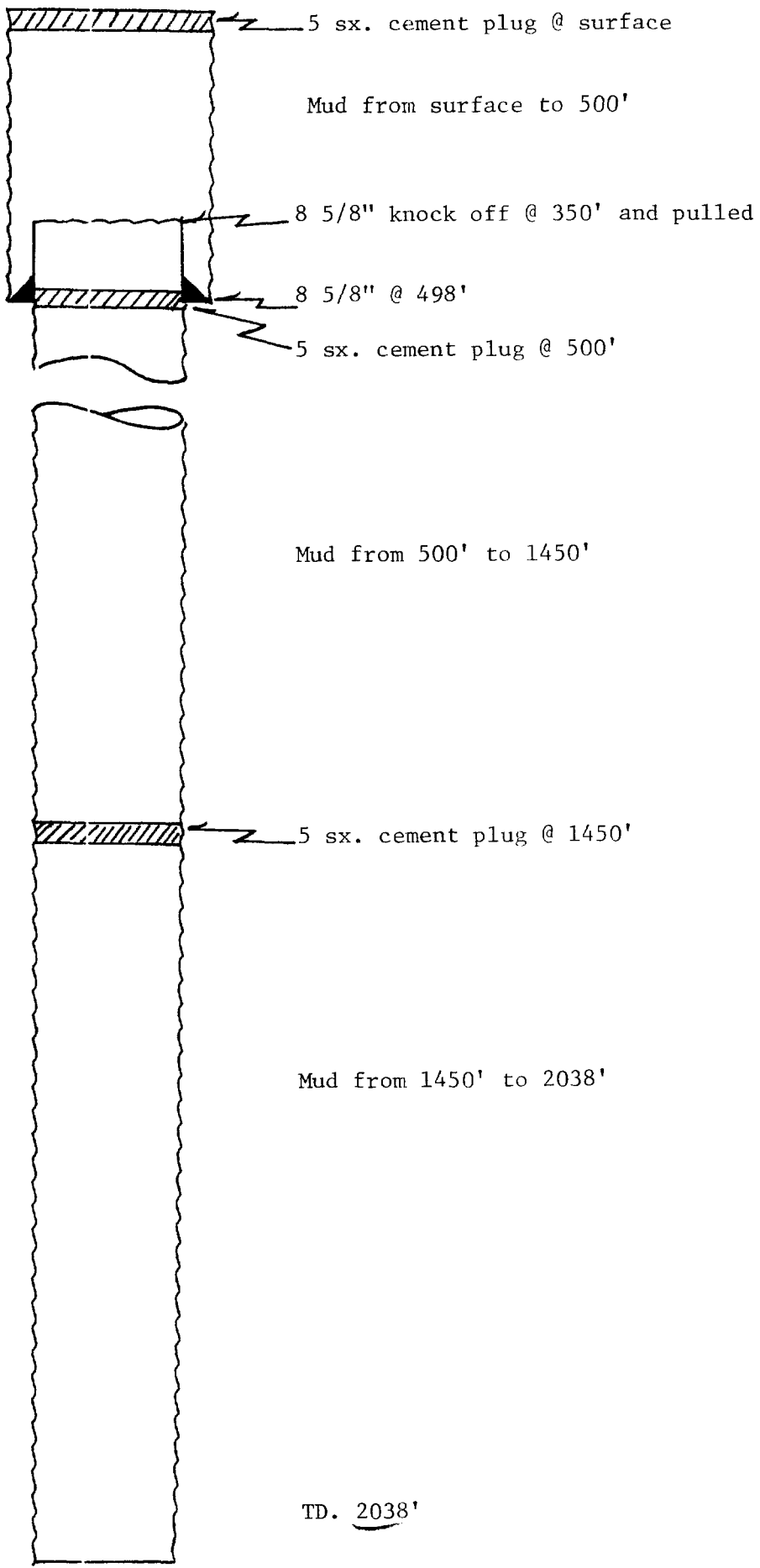
ARCO: EMPIRE ABO UNIT NO. I-28

Location: 330' FNL & 970' FEL (Unit A) Sec. 5, T-18s, R-28e  
Date Drilled: 2-16-60  
Depth: 6290', PBTB 6285'  
Casing: 8 5/8" 22.7# @ 1177' w/500 sx., 4 1/2" 9.5# @ 6315' w/750 sx.  
Perforation: 6230'-35', 6256'-85'  
Current Status: Oil Producer

AMINOIL: STATE E No. 1

Location: 1659.9' FNL & 330' FWL (Unit E) Sec. 5, T-18s, R-28e  
Date Drilled: 5-10-60  
Depth: 6265', PBTB 6228'  
Casing: 9 5/8", 36# @ 1149' w/550 sx., 5 1/2" 7, 20 & 23# @ 6265' w/250 sx.  
Perforation: 6165'-6195'  
Current Status: Oil Producer

Kersey and Co.  
State 32 No. 20  
Unit J Sec. 32, T-17s,  
R-28e  
P & A 3-2-54



## SECTION VII

1. DEPCO, Inc. proposes to inject approximately 200 barrels of water per day.
2. The injection system is closed.
3. Average expected wellhead injection pressure is 1150 psig with a maximum of 1250 psig.
4. The injection fluid will consist of fresh water, obtained from a system owned by the City of Carlsbad and produced water from the lease.
5. Injection will be into the Premier section of the Grayburg.

## SECTION VIII

The Northwest Artesia Unit is located approximately 12 miles east of the town of Artesia, in Eddy County, New Mexico. The unit is producing from the Grayburg (Premier) of the Artesia Queen, Grayburg, San Andres Field. The Premier section of the Grayburg Sand is approximately 40' to 45' thick and is located at an approximate depth of 1975'.

No major fresh water aquifers exist in this area. However, shallow fresh water zones (Santa Rosa) are found to a depth of approximately 300'.

## SECTION IX

The stimulation program will consist of a 500 gallon clean up treatment using A-Sol, Xylene and acid.

## SECTION X

Attached please find the log on this well and the completion reports. The latest test on this well shows 2 BO and 65 BWPD.

## SECTION XI

A one mile radius around the well has been examined for producing fresh water wells. The only fresh water wells in this area are located approximately one (1) mile from the proposed injection well. These wells are shut-in at this time.

## SECTION XII

The proposed injector will become a part of an existing waterflood project.

## SECTION XIII

A copy of the previous application was sent to all offset operators along with a waiver of objection to the conversion of this well. Attached are signed copies of these waivers. Also attached are photocopies of certified mail receipts from this application.

The surface rights in this area of review are state and a copy of this application has been sent to the State Land Office.

Since this application is subject to administrative approval, proper notice will be published in the Artesia Daily Press. (See attached letter). Copies of this notice will be forwarded by the paper to Santa Fe and the Artesia District Office at the time of publication.

Leasehold operators within the area of review are listed below:

ARCO Oil and Gas Company

W. E. Jeffers

Kersey and Company

Aminoil USA

A T T A C H M E N T

S E C T I O N   V I I

UNICHEM INTERNATIONAL

601 NORTH BEECH

P.O. BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : DEPCO  
 DATE : 3-24-82  
 FIELD, LEASESWELL : N.W.A.U. FRESH  
 SAMPLING POINT :  
 DATE SAMPLED : 3-19-82

*Handwritten notes:*  
 100  
 100  
 100

SPECIFIC GRAVITY = 1.001  
 TOTAL DISSOLVED SOLIDS = 1902  
 PH = 7.3

		ME/L	MG/L
<b>CATIONS</b>			
CALCIUM	(CA)+2	3.5	76.1
MAGNESIUM	(MG)+2	5.5	66.8
SODIUM	(NA), CALC.	23.2	533.
<b>ANIONS</b>			
BICARBONATE	(HCO3)-1	3	183.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	1.0	49
CHLORIDES	(CL)-1	28.2	999.
<b>DISSOLVED GASES</b>			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		1.3
BARIUM	(BA)+2		.3
MANGANESE	(MN)	NOT RUN	

SCALING INDEX

TEMP

CARBONATE INDEX  
 CALCIUM CARBONATE SCALING  
 LIKELY

SULFATE INDEX  
 CALCIUM SULFATE SCALING  
 UNLIKELY

30C  
 86F  
 .460  
 -17.  
 UNLIKELY



UNICHEM INTERNATIONAL

601 NORTH LEECH

P.O. BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : DEPCO  
 DATE : 3-24-82  
 FIELD, LEASE & WELL : N.W. A. U. PRODUCED  
 SAMPLING POINT :  
 DATE SAMPLED : 3-19-82

SPECIFIC GRAVITY = 1.027  
 TOTAL DISSOLVED SOLIDS = 41252  
 PH = 6.75

		ME/L	MG/L
<b>CATIONS</b>			
CALCIUM	(CA)+2	133.	2672
MAGNESIUM	(MG)+2	126.	1539.
SODIUM	(NA).CALC.	458.	16543.
<b>ANIONS</b>			
BICARBONATE	(HCO3)-1	10.8	658.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	59.2	2843.
CHLORIDES	(CL)-1	648.	22994.
<b>DISSOLVED GASES</b>			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		3.2
BARIUM	(BA)+2	NOT RUN	
MANGANESE	(MN)	NOT RUN	

SCALING INDEX	TEMP
	30C
	86F
CARBONATE INDEX	.356
CALCIUM CARBONATE SCALING	LIKELY
SULFATE INDEX	.124
CALCIUM SULFATE SCALING	LIKELY

UNICHEM INTERNATIONAL

601 NORTH LEECH

P.O. BOX 1499

HOBSB. NEW MEXICO 88240

COMPANY : DEPCO  
 DATE : 3-20-82  
 FIELD, LEASE, WELL : N.W.A.U. 25% FRESH/75% PRODUCED  
 SAMPLING POINT:  
 DATE SAMPLED : 3-19-82

SPECIFIC GRAVITY = 1.021  
 TOTAL DISSOLVED SOLIDS = 31419  
 PH = 6.8875

		ME/L	MG/L
<b>CATIONS</b>			
CALCIUM	(CA)+2	100.	2021.
MAGNESIUM	(MG)+2	96.3	1175.
SODIUM	(NA).CALC.	349.	3040.
<b>ANIONS</b>			
BICARBONATE	(HCO3)-1	8.8	539.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	44.6	2145.
CHLORIDES	(CL)-1	495.	17496.
<b>DISSOLVED GASES</b>			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		2.7
BARIUM	(BA)+2		.07
MANGANESE	(MN)	NOT RUN	

SCALING INDEX	TEMP
	30C
	86F
CARBONATE INDEX	.355
CALCIUM CARBONATE SCALING	LIKELY
SULFATE INDEX	-.10
CALCIUM SULFATE SCALING	UNLIKELY

UNICHEM INTERNATIONAL

601 NORTH LEECH

P.O. BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : DEPCO  
 DATE : 3-29-82  
 FIELD, LEASESWELL : N.W.A.U. 50% FRESH/50% PRODUCED  
 SAMPLING POINT:  
 DATE SAMPLED : 3-19-82

SPECIFIC GRAVITY = 1.014  
 TOTAL DISSOLVED SOLIDS = 21580  
 PH = 7.025

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	68.4	1371.
MAGNESIUM	(MG)+2	66.0	806.
SODIUM	(NA).CALC.	240.	5538.
ANIONS			
BICARBONATE	(HCO3)-1	6.9	421.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	30.1	1446.
CHLORIDES	(CL)-1	336.	11997.
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		2.2
BARIUM	(BA)+2		.15
MANGANESE	(MN)	NOT RUN	

SCALING INDEX

TEMP

30C  
 86F  
 .324  
 CARBONATE INDEX  
 CALCIUM CARBONATE SCALING  
 LIKELY  
 .50  
 SULFATE INDEX  
 CALCIUM SULFATE SCALING  
 UNLIKELY

UNICHEM INTERNATIONAL

601 NORTH LEECH

P.O. BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : DEPCO  
 DATE : 3-24-82  
 FIELD, LEASE & WELL : N.W.A.U. 75% FRESH/25% PRODUCED  
 SAMPLING POINT:  
 DATE SAMPLED : 3-19-82

SPECIFIC GRAVITY = 1.007  
 TOTAL DISSOLVED SOLIDS = 11741  
 PH = 7.1625

		MG/L	MG/L
<b>CATIONS</b>			
CALCIUM	(CA)+2	35.9	720.
MAGNESIUM	(MG)+2	35.7	436.
SODIUM	(NA), CALC.	132.	3036.
<b>ANIONS</b>			
BICARBONATE	(HCO3)-1	4.9	302.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	15.5	747.
CHLORIDES	(CL)-1	183.	6498.
<b>DISSOLVED GASES</b>			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		1.7
BARIUM	(BA)+2		.22
MANGANESE	(MN)	NOT RUN	

SCALING INDEX

TEMP

30C

86F

.253

LIKELY

CARBONATE INDEX  
 CALCIUM CARBONATE SCALING

SULFATE INDEX  
 CALCIUM SULFATE SCALING

-1.3  
 UNLIKELY

A T T A C H M E N T

S E C T I O N X

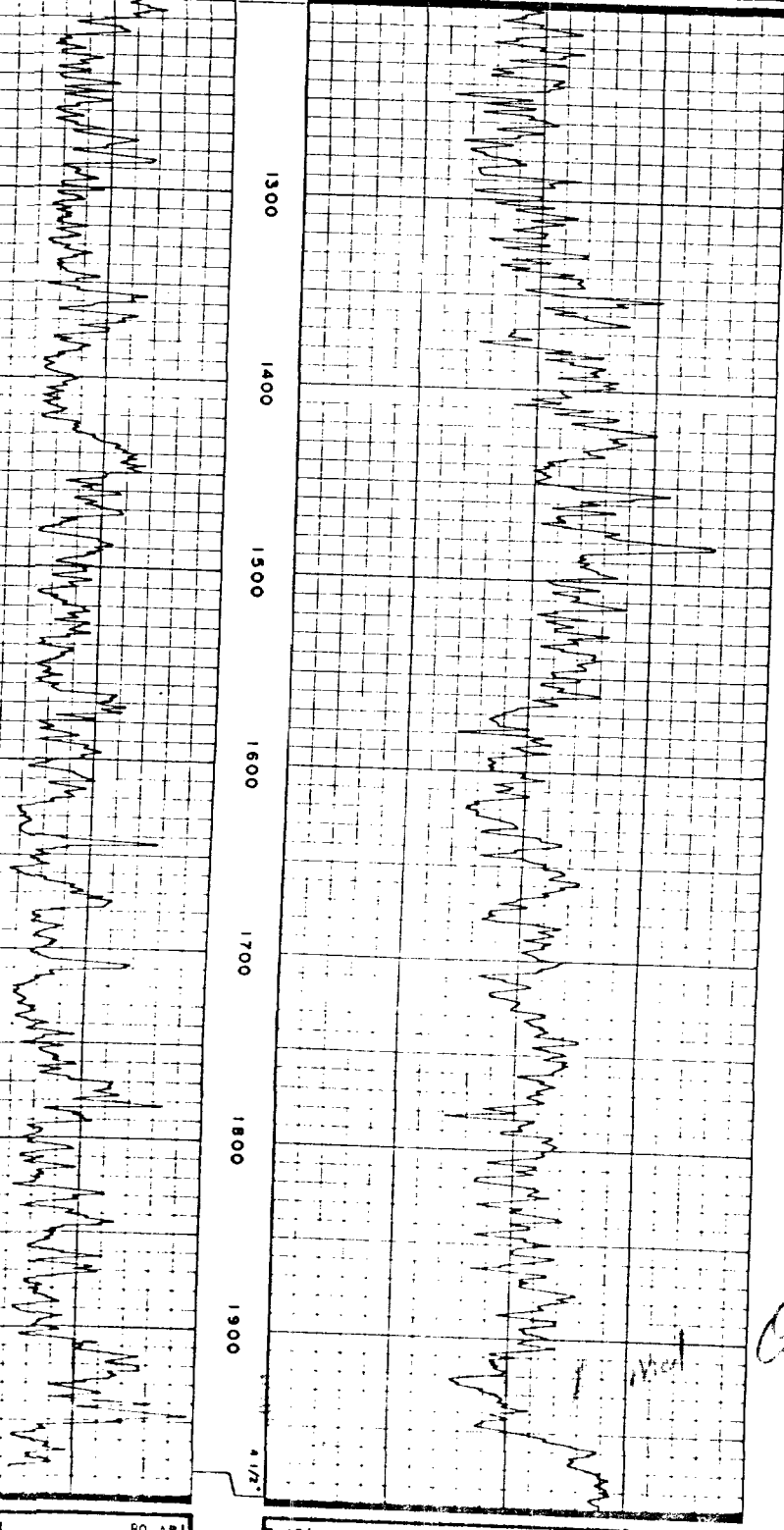
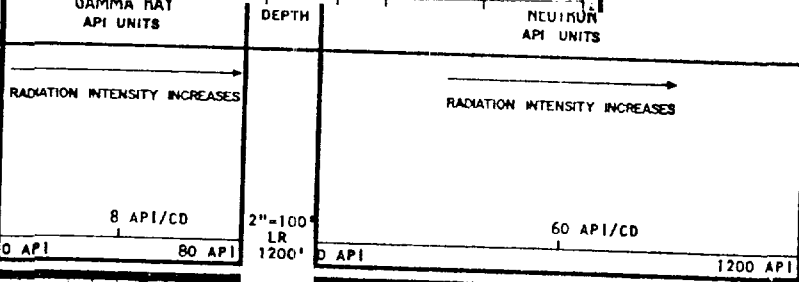
# LANE WELLS *Gamma Ray* *Section*

FILE NO.	COMPANY DEPCO, INC.		
	WELL N W A U No. 12		
	FIELD ARTESIA		
	COUNTY EDDY	STATE	NEW MEXICO
	LOCATION: 990' FSL & 760' FWL		Other Services
	SEC 32	TWP. 17-S	RGE 28-E

Permanent Datum	GROUND LEVEL	Flw. 3682	KB Elevations:
Log Measured from	G. L.	-0' Ft. Above Permanent Datum	DF
Drilling Measured from			GL 3682

Date	5/4/67	5/4/67
Run No.	ONE	ONE
Type Log	GAMMA RAY	N/TN
Depth-Driller	1995 PB	1995 PB
Depth-Logger	1989	1989
Bottom logged interval	1976	1988
Top logged interval	1200	1200
Type fluid in hole	WATER	WATER
Salinity Ppm Cl		
Density lb./Gal.		
Level		FULL
Max. Rec. Temp. Deg. F		
Op. Rig Time		
Recorded By	VAUGHN	VAUGHN
Witnessed By	MR. STANDARD	MR. STANDARD

Bore Hole Record				Casing Record			
Run No.	Bit	From	To	Size	Wgt.	From	To
1	5 3/4"			4 1/2"		SURFACE	1995



OK

0 API      80 API

0 API      1200 API

NO. OF COPIES RECEIVED	3
DISTRIBUTION	
SANTA FE	1
FILE	1
U.S.G.S.	
LAND OFFICE	
OPERATOR	1-

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5a. Indicate Type of Lease  
State  Fee

5. State Oil & Gas Lease No.  
**647**

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	7. Unit Agreement Name
2. Name of Operator <b>DEPCO, Inc.</b>	8. Farm or Lease Name <b>State 647</b>
3. Address of Operator <b>Suite 204, First National Bank Bldg., Artesia, New Mexico 88210</b>	9. Well No. <b>220</b>
4. Location of Well UNIT LETTER <b>N</b> , <b>990</b> FEET FROM THE <b>South</b> LINE AND <b>760</b> FEET FROM THE <b>West</b> LINE, SECTION <b>32</b> TOWNSHIP <b>17S</b> RANGE <b>28E</b> NMPM.	10. Field and Pool, or Wildcat <b>Artesia</b>
15. Elevation (Show whether DF, RT, GR, etc.) <b>3682 GL</b>	12. County <b>Eddy</b>

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input checked="" type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

- 4-30-67 - Set 8 5/8" 24 # casing at 495' and cemented with 100 sx. of 50-50 Incor-Pozmix with 2% gel. 2% CaCl<sub>2</sub> 6% salt per sx.
- 5-2-67 - T.D. 1997 GL. Set 4 1/2" J-55 11.6# casing, with 150 sx. Incor-Pozmix 4% gel. 8 1/2# salt per sx. 5% cacl<sub>2</sub>, Bumped plug with 75 gal acetic acid.
- 5-4-67 - Plug back T.D. 1989. Ran Gamma Ray Neutron log. Perf. at 1922-23-24-25-27-28, 1947-48 & 49.
- 5-5-67 - Sand water fraced with 40,000# sand 36,300 gal. gelled water.

It is intended to recover load water and potential test.

RECEIVED

MAY 9 1967

U.S. DEPT. OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

SIGNED Deon Standaert TITLE Engineering Assistant DATE May 8, 1967

APPROVED BY W. P. Gessert TITLE Assistant Secretary DATE MAY 10 1967

CONDITIONS OF APPROVAL, IF ANY:

NO. OF COPIES RECEIVED	7
DISTRIBUTION	
SANTA FE	1
FILE	1
U.S.G.S.	2
LAND OFFICE	7
OPERATOR	1

Form C-105  
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease  
State  Fee

5. State Oil & Gas Lease No.  
**647**

RECEIVED

*Bur. of Mines*

1a. TYPE OF WELL - OIL WELL  GAS WELL  DRY  OTHER **MAY 16 1967**

b. TYPE OF COMPLETION  
NEW WELL  WORK OVER  DEEPEN  PLUG BACK  DIFF. RESVR.  OTHER **RECOMPL.**

2. Name of Operator: **DEPCO, Inc.**

3. Address of Operator: **Suite 204, First National Bank, Artesia, New Mexico**

4. Location of Well

7. Unit Agreement Name

8. Farm or Lease Name: **State 647**

9. Well No.: **270**

10. Field and Pool, or Wildcat: **Artesia**

UNIT LETTER **M** LOCATED **550** FEET FROM THE **South** LINE AND **760** FEET FROM

12. County: **Eddy**

THE **West** LINE OF SEC. **32** TWP. **17** RGE. **23** NMPM

15. Date Spudded: **4-22-67** 16. Date T.D. Reached: **5-3-67** 17. Date Compl. (Ready to Prod.): **5-6-67** 18. Elevations (DF, RKB, RT, GR, etc.): **3682 GL** 19. Elev. Casinghead: **3679 GL**

20. Total Depth: **1998 GL** 21. Plug Back T.D.: **1983 GL** 22. If Multiple Compl., How Many: **Mary** 23. Intervals Drilled By: **Rotary Tools 1998 GL** Cable Tools

24. Producing Interval(s), of this completion - Top, Bottom, Name: **Grayburg** 25. Was Directional Survey Made: **No**

26. Type Electric and Other Logs Run: **Gamma Ray Neutron Logs** 27. Was Well Cored: **No**

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
<b>8 5/8</b>	<b>24</b>	<b>195</b>	<b>11</b>	<b>100 sk.</b>	<b>None</b>
<b>4 1/2</b>	<b>11.6</b>	<b>195</b>	<b>7 7/8</b>	<b>150 sk.</b>	<b>None</b>

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
<b>2 3/8</b>	<b>1912</b>	

31. Perforation Record (Interval, size and number): **Perf. at 1922, 23, 24, 25, 27, 28, 47, 48 & 49**

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
<b>1922-49</b>	<b>40,000# sand &amp; 36,300 gal. water</b>

33. PRODUCTION

Date First Production: **5-5-67** Production Method (Flowing, gas lift, pumping - Size and type pump): **Pump** Well Status (Prod. or Shut-in): **Prod.**

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas-Oil Ratio
<b>5-13-67</b>	<b>24</b>			<b>52</b>		<b>22 Load</b>	

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)
			<b>52</b>		<b>22 Load</b>	<b>35</b>

34. Disposition of Gas (Sold, used for fuel, vented, etc.): **Sold** Test Witnessed By: **Kenneth Rogsdale**

35. List of Attachments: **Deviation Test & Electric Logs**

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED: *Leon Standard* TITLE: **Engineering Assistant** DATE: **May 15, 1967**



### INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

#### INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

##### Southeastern New Mexico

##### Northwestern New Mexico

T. Anhy _____	T. Canyon _____	T. Ojo Alamo _____	T. Penn. "B" _____
T. Salt _____	T. Strawn _____	T. Kirtland-Fruitland _____	T. Penn. "C" _____
B. Salt _____	T. Atoka _____	T. Pictured Cliffs _____	T. Penn. "D" _____
T. Yates _____	T. Miss _____	T. Cliff House _____	T. Leadville _____
T. 7 Rivers _____	T. Devonian _____	T. Menefee _____	T. Madison _____
T. Queen <u>1184</u>	T. Silurian _____	T. Point Lookout _____	T. Elbert _____
T. Grayburg <u>1626</u>	T. Montoya _____	T. Mancos _____	T. McCracken _____
T. San Andres <u>1974</u>	T. Simpson _____	T. Gallup _____	T. Ignacio Qtzte _____
T. Glorieta _____	T. McKee _____	Base Greenhorn _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Blinebry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Granite _____	T. Todilto _____	T. _____
T. Drinkard _____	T. Delaware Sand _____	T. Entrada _____	T. _____
T. Abo _____	T. Bone Springs _____	T. Wingate _____	T. _____
T. Wolfcamp _____	T. _____	T. Chinle _____	T. _____
T. Penn. _____	T. _____	T. Permian _____	T. _____
T. Cisco (Bough C) _____	T. _____	T. Penn. "A" _____	T. _____

#### FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	250	250	Anhy. Sand				
250	496	246	Anhy. Sand				
496	733	237	Anhy.				
733	1220	487	Anhy.				
1220	1662	442	Anhy. A				
1662	1539	271	Lime & Solo.				
1539	1598	58	Lime				

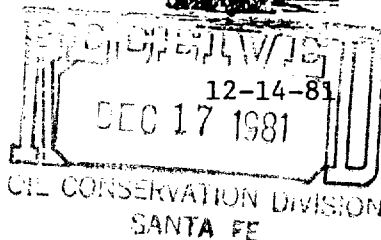
A T T A C H M E N T  
S E C T I O N   X I I I

A T T A C H M E N T  
S E C T I O N   X I I I

DEPCO, Inc.

Exploration & Production

800 Central  
ODESSA, TEXAS 79760



Energy and Minerals Department  
Oil Conservstion Division  
Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Oscar Simpson

Gentlemen:

As an offset operator, J.B. Adamson hereby waivers any objection to the conversion and injection of water into DEPCO, Inc. Northwest Artesia Unit No. 12 in the Grayburg formation as requested in their application for expansion of the Northwest Artesia Unit.

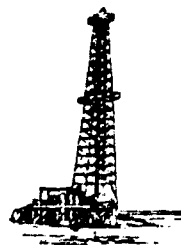
For \_\_\_\_\_

BY J.B. Adamson

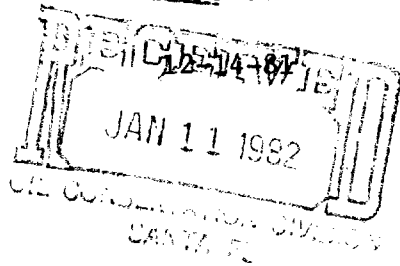
Date 12-15-81

# DEPCO, Inc.

Exploration & Production



800 Central  
ODESSA, TEXAS 79760



Energy and Minerals Department  
Oil Conservation Division  
Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Oscar Simpson

Gentlemen:

As an offset operator, ARCO Oil & Gas Company hereby waives any objection to the conversion and injection of water into DEPCO, Inc. Northwest Artesia Unit No. 12 in the Grayburg formation as requested in their application for expansion of the Northwest Artesia Unit.

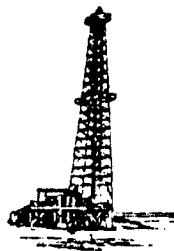
For \_\_\_\_\_

BY *J. T. Tweed*

Date January 7, 1982

# DEPCO, Inc.

Exploration & Production



800 Central  
ODESSA, TEXAS 79760

12-14-81

Energy and Minerals Department  
Oil Conservation Division  
Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Oscar Simpson

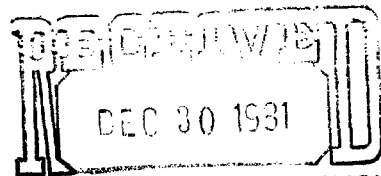
Gentlemen:

As an offset operator, WE Jeffer hereby waives any objection to the conversion and injection of water into DEPCO, Inc. Northwest Artesia Unit No. 12 in the Grayburg formation as requested in their application for expansion of the Northwest Artesia Unit.

For \_\_\_\_\_

BY WE Jeffer

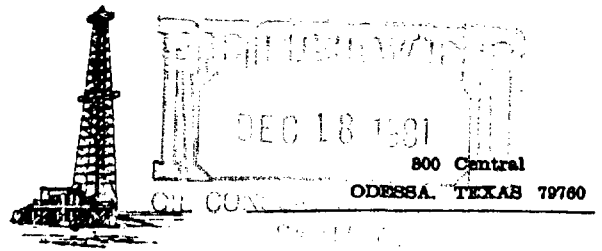
Date Dec 27-81



OIL CONSERVATION DIVISION  
SANTA FE

# DEPCO, Inc.

Exploration & Production



12-14-81

Energy and Minerals Department  
Oil Conservation Division  
Box 2088  
Santa Fe, New Mexico 87501

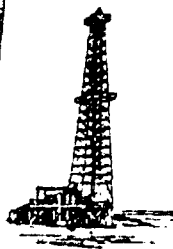
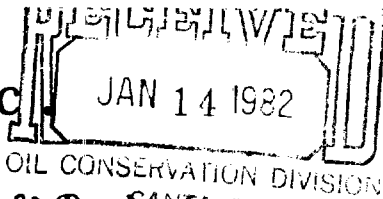
Attn: Mr. Oscar Simpson

Gentlemen:

As an offset operator, Palm Well Service Co. hereby waives any objection to the conversion and injection of water into DEPCO, Inc. Northwest Artesia Unit No. 12 in the Grayburg formation as requested in their application for expansion of the Northwest Artesia Unit.

For Palm Well Service Co.  
BY [Signature]  
Date 12-16-81

DEPCO, Inc



Exploration & Production

800 Central  
ODESSA, TEXAS 79700

12-14-81

Energy and Minerals Department  
Oil Conservstion Division  
Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Oscar Simpson

Gentlemen:

As an offset operator, B+W Production hereby waivers any objection to the conversion and injection of water into DEPCO, Inc. Northwest Artesia Unit No. 12 in the Grayburg formation as requested in their application for expansion of the Northwest Artesia Unit.

For B+W Production

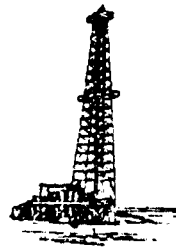
BY Dennis J. [Signature]

Date 1-4-82



# DEPCO, Inc.

Exploration & Production



800 Central  
ODESSA, TEXAS 79760

12-14-81

Energy and Minerals Department  
Oil Conservation Division  
Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Oscar Simpson

Gentlemen:

As an offset operator, American Petrofina hereby waives any objection to the conversion and injection of water into DEPCO, Inc. Northwest Artesia Unit No. 12 in the Grayburg formation as requested in their application for expansion of the Northwest Artesia Unit.

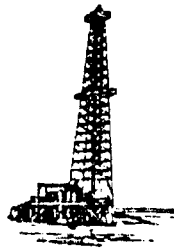
For American Petrofina

BY Ronald E. Smalley

Date 12-17-81

# DEPCO, Inc.

Exploration & Production



800 Central  
ODESSA, TEXAS 79760

12-14-81

Energy and Minerals Department  
Oil Conservation Division  
Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Oscar Simpson

Gentlemen:

As an offset operator, Kersey & Co. hereby waives any objection to the conversion and injection of water into DEPCO, Inc. Northwest Artesia Unit No. 12 in the Grayburg formation as requested in their application for expansion of the Northwest Artesia Unit.

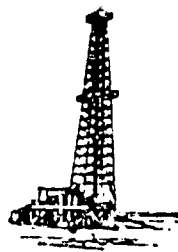
For Kersey & Co.

BY Harold Kersey

Date 12/16/81

# DEPCO, Inc.

Exploration & Production



800 Central  
ODESSA, TEXAS 79760

12-14-81

Energy and Minerals Department  
Oil Conservation Division  
Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Oscar Simpson

Gentlemen:

As an offset operator, MARBOB ENERGY CORP. hereby waives any objection to the conversion and injection of water into DEPCO, Inc. Northwest Artesia Unit No. 12 in the Grayburg formation as requested in their application for expansion of the Northwest Artesia Unit.

For MARBOB ENERGY CORP.

BY Carolyn Davis

Date 12-16-81

PS Form 3811, Dec. 1980

ADD YOUR ADDRESS IN THE "RETURN TO" SPACE ON REVERSE.

(CONSULT POSTMASTER FOR FEES)

1. The following service is requested (check one).  
 Show to whom and date delivered ..... \$  
 Show to whom, date, and address of delivery.. \$

2.  RESTRICTED DELIVERY  
 (The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL \$

3. ARTICLE ADDRESSED TO:  
 AMINOIL USA, INC.  
 601 N. LORAIN  
 MIDLAND, TX 79701

4. TYPE OF SERVICE: ARTICLE NUMBER  
 REGISTERED  INSURED  
 CERTIFIED  COD  
 EXPRESS MAIL

558 768

(Always obtain signature of addressee or agent)

I have received the article described above.  
 SIGNATURE  Addressee  Authorized agent

5. DATE OF DELIVERY: POSTMARK  
 3/26/82 MAR 26 1982

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE: 7a. EMPLOYEE'S INITIALS

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

PS Form 3811, Dec. 1980

ADD YOUR ADDRESS IN THE "RETURN TO" SPACE ON REVERSE.

(CONSULT POSTMASTER FOR FEES)

1. The following service is requested (check one).  
 Show to whom and date delivered ..... \$  
 Show to whom, date, and address of delivery.. \$

2.  RESTRICTED DELIVERY  
 (The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL \$

3. ARTICLE ADDRESSED TO:  
 W. E. JEFFERS  
 BOX 65  
 ARTESIA, NEW MEXICO 88210

4. TYPE OF SERVICE: ARTICLE NUMBER  
 REGISTERED  INSURED  
 CERTIFIED  COD  
 EXPRESS MAIL

558 766

(Always obtain signature of addressee or agent)

I have received the article described above.  
 SIGNATURE  Addressee  Authorized agent

5. DATE OF DELIVERY: POSTMARK  
 3/26/82 MAR 26 1982

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE: 7a. EMPLOYEE'S INITIALS

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

PS Form 3811, Dec. 1980

● SENDER: Complete items 1, 2, 3, and 4. Add your address in the "RETURN TO" space on reverse.

(CONSULT POSTMASTER FOR FEES)

1. The following service is requested (check one).  
 Show to whom and date delivered ..... \$  
 Show to whom, date, and address of delivery.. \$

2.  RESTRICTED DELIVERY  
 (The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL \$

3. ARTICLE ADDRESSED TO:  
 KERSEY AND COMPANY  
 808 W. GRAND AVENUE  
 ARTESIA, NEW MEXICO 88210

4. TYPE OF SERVICE: ARTICLE NUMBER  
 REGISTERED  INSURED  
 CERTIFIED  COD  
 EXPRESS MAIL

558 767

(Always obtain signature of addressee or agent)

I have received the article described above.  
 SIGNATURE  Addressee  Authorized agent

5. DATE OF DELIVERY: POSTMARK  
 3-26-82 MAR 26 1982

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE: 7a. EMPLOYEE'S INITIALS

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

PS Form 3811, Dec. 1980

● SENDER: Complete items 1, 2, 3, and 4. Add your address in the "RETURN TO" space on reverse.

(CONSULT POSTMASTER FOR FEES)

1. The following service is requested (check one).  
 Show to whom and date delivered ..... \$  
 Show to whom, date, and address of delivery.. \$

2.  RESTRICTED DELIVERY  
 (The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL \$

3. ARTICLE ADDRESSED TO:  
 ARCO OIL & GAS COMPANY  
 BOX 1710  
 HOBBS, NM 88240

4. TYPE OF SERVICE: ARTICLE NUMBER  
 REGISTERED  INSURED  
 CERTIFIED  COD  
 EXPRESS MAIL

558 765

(Always obtain signature of addressee or agent)

I have received the article described above.  
 SIGNATURE  Addressee  Authorized agent

5. DATE OF DELIVERY: POSTMARK  
 MAR 26 1982

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE: 7a. EMPLOYEE'S INITIALS

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

● SENDER: Complete items 1, 2, 3, and 4. Add your address in the "RETURN TO" space on reverse.

(CONSULT POSTMASTER FOR FEES)

1. The following service is requested (check one).  
 Show to whom and date delivered ..... \$  
 Show to whom, date, and address of delivery.. \$

2.  RESTRICTED DELIVERY  
 (The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL \$

3. ARTICLE ADDRESSED TO:  
 Comm. of Public Land  
 Oil & Gas Division  
 P. O. Box 1148  
 Santa Fe, NM 87501 Mr. Ray Graham

4. TYPE OF SERVICE: ARTICLE NUMBER  
 REGISTERED  INSURED  
 CERTIFIED  COD  
 EXPRESS MAIL

558 769

(Always obtain signature of addressee or agent)

I have received the article described above.  
 SIGNATURE  Addressee  Authorized agent

5. DATE OF DELIVERY: POSTMARK  
 MAR 29 1982

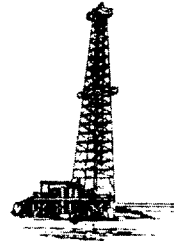
6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE: 7a. EMPLOYEE'S INITIALS

# DEPCO, Inc.

---

*Exploration & Production*



---

800 Central  
ODESSA, TEXAS 79760

## LEGAL NOTICE

By this notice, DEPCO, Inc., 800 Central, Odessa, Texas 79761, (915) 337-1536 (Leon Standard) announces its intent to convert Northwest Artesia Unit No. 12 (32-17s-28e) to water injection in the Grayburg formation within the interval 1922' to 1949'. Expected maximum injection rates and surface pressure are 200 BWPD and 1250 psig. Interested parties must file objections or request for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE

PS Form 3811, Dec. 1980

ADD YOUR ADDRESS IN THE "RETURN TO" SPACE ON REVERSE.

**(CONSULT POSTMASTER FOR FEES)**

1. The following service is requested (check one).  
 Show to whom and date delivered ..... \$  
 Show to whom, date, and address of delivery.. \$

2.  **RESTRICTED DELIVERY**  
 (The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL \$

3. ARTICLE ADDRESSED TO:  
**AMINOIL USA, INC.**  
 601 N. LORAIN  
 MIDLAND, TX 79701

4. TYPE OF SERVICE: ARTICLE NUMBER  
 REGISTERED  INSURED  
 CERTIFIED  COD  
 EXPRESS MAIL

558 768

(Always obtain signature of addressee or agent)

I have received the article described above.  
 SIGNATURE  Addressee  Authorized agent

5. DATE OF DELIVERY: POSTMARK  
 3/26/82  
 MAR 26 1982

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE: 7a. EMPLOYEE'S INITIALS

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

PS Form 3811, Dec. 1980

ADD YOUR ADDRESS IN THE "RETURN TO" SPACE ON REVERSE.

**(CONSULT POSTMASTER FOR FEES)**

1. The following service is requested (check one).  
 Show to whom and date delivered ..... \$  
 Show to whom, date, and address of delivery.. \$

2.  **RESTRICTED DELIVERY**  
 (The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL \$

3. ARTICLE ADDRESSED TO:  
**W. E. JEFFERS**  
 BOX 65  
 ARTESIA, NEW MEXICO 88210

4. TYPE OF SERVICE: ARTICLE NUMBER  
 REGISTERED  INSURED  
 CERTIFIED  COD  
 EXPRESS MAIL

558 766

(Always obtain signature of addressee or agent)

I have received the article described above.  
 SIGNATURE  Addressee  Authorized agent

5. DATE OF DELIVERY: POSTMARK  
 3/26/82  
 MAR 26 1982

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE: 7a. EMPLOYEE'S INITIALS

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

PS Form 3811, Dec. 1980

● **SENDER:** Complete items 1, 2, 3, and 4. Add your address in the "RETURN TO" space on reverse.

**(CONSULT POSTMASTER FOR FEES)**

1. The following service is requested (check one).  
 Show to whom and date delivered ..... \$  
 Show to whom, date, and address of delivery.. \$

2.  **RESTRICTED DELIVERY**  
 (The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL \$

3. ARTICLE ADDRESSED TO:  
**KERSEY AND COMPANY**  
 808 W. GRAND AVENUE  
 ARTESIA, NEW MEXICO 88210

4. TYPE OF SERVICE: ARTICLE NUMBER  
 REGISTERED  INSURED  
 CERTIFIED  COD  
 EXPRESS MAIL

558 767

(Always obtain signature of addressee or agent)

I have received the article described above.  
 SIGNATURE  Addressee  Authorized agent

5. DATE OF DELIVERY: POSTMARK  
 3-26-82  
 MAR 26 1982

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE: 7a. EMPLOYEE'S INITIALS

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

PS Form 3811, Dec. 1980

● **SENDER:** Complete items 1, 2, 3, and 4. Add your address in the "RETURN TO" space on reverse.

**(CONSULT POSTMASTER FOR FEES)**

1. The following service is requested (check one).  
 Show to whom and date delivered ..... \$  
 Show to whom, date, and address of delivery.. \$

2.  **RESTRICTED DELIVERY**  
 (The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL \$

3. ARTICLE ADDRESSED TO:  
**ARCO OIL & GAS COMPANY**  
 BOX 1710  
 HOBBS, NM 88240

4. TYPE OF SERVICE: ARTICLE NUMBER  
 REGISTERED  INSURED  
 CERTIFIED  COD  
 EXPRESS MAIL

558 765

(Always obtain signature of addressee or agent)

I have received the article described above.  
 SIGNATURE  Addressee  Authorized agent

5. DATE OF DELIVERY: POSTMARK  
 3-26-82  
 MAR 26 1982

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE: 7a. EMPLOYEE'S INITIALS

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

● **SENDER:** Complete items 1, 2, 3, and 4. Add your address in the "RETURN TO" space on reverse.

**(CONSULT POSTMASTER FOR FEES)**

1. The following service is requested (check one).  
 Show to whom and date delivered ..... \$  
 Show to whom, date, and address of delivery.. \$

2.  **RESTRICTED DELIVERY**  
 (The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL \$

3. ARTICLE ADDRESSED TO:  
 Comm. of Public Lands  
 Oil & Gas Division  
 P. O. Box 1148  
 Santa Fe, NM 87501 Mr. Ray Graham

4. TYPE OF SERVICE: ARTICLE NUMBER  
 REGISTERED  INSURED  
 CERTIFIED  COD  
 EXPRESS MAIL

558 769

(Always obtain signature of addressee or agent)

I have received the article described above.  
 SIGNATURE  Addressee  Authorized agent

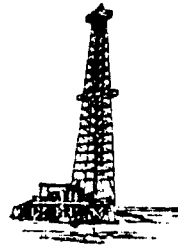
5. DATE OF DELIVERY: POSTMARK  
 3-29-82  
 MAR 29 1982

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE: 7a. EMPLOYEE'S INITIALS

# DEPCO, Inc.

Exploration & Production



800 Central  
ODESSA, TEXAS 79760

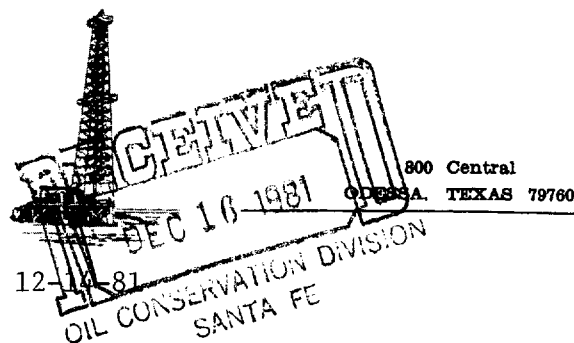
## LEGAL NOTICE

By this notice, DEPCO, Inc., 800 Central, Odessa, Texas 79761, (915) 337-1536 (Leon Standard) announces its intent to convert Northwest Artesia Unit No. 12 (32-17s-28e) to water injection in the Grayburg formation within the interval 1922' to 1949'. Expected maximum injection rates and surface pressure are 200 BWP and 1250 psig. Interested parties must file objections or request for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.



# DEPCO, Inc.

Exploration & Production



Energy and Minerals Department  
Oil Conservation Division  
Bcx 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Oscar Simpson

Re: DEPCO, Inc.  
Northwest Artesia Unit  
Waterflood Expansion

Gentleman:

DEPCO, Inc. is asking the Commission to approve administratively the application to convert one additional well (No. 12) to water injection in the Northwest Artesia Unit Flood. The conversion of this well is due to the high water cut, and to have a more efficient sweep in this area of the flood. Latest test show this well making a trace of oil and 40 to 50 BWPD. The Northwest Artesia Unit was approved by commission order No. R-4727 on February 21, 1974.

Injection will be into the Grayburg at approximate depth of 1900 feet. The water will be injected at approximately 200 barrels of water per day. The injection fluid will consist of fresh water, obtained from a system owned by the city of Carlsbad, and produced water from the lease.

The location of this well is marked in red on the attached plat. This plat shows the location of the present injection wells and offset operators. This well is located in Unit M of Section 32, Township 17 South, Range 28 East, Eddy County, New Mexico .

Attached please find copies of a log over the Grayburg, and a diagrammatic sketch of the proposed injection well, and a waiver sent to offset operators.

915-337-1536

Very truly yours,

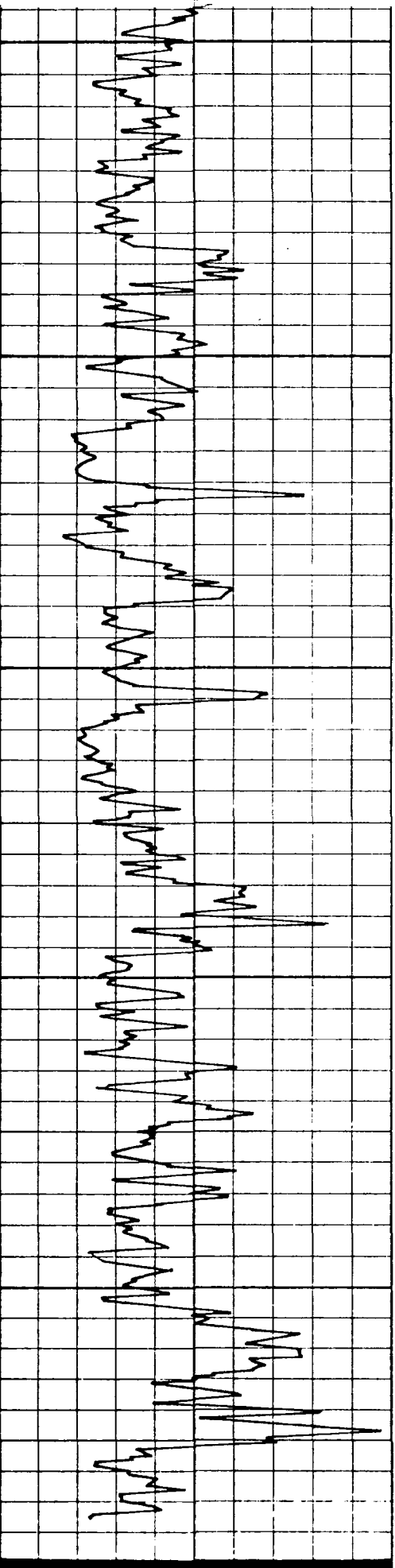
DEPCO, Inc.  
Leon Standard  
Field Engineer

LS/vp

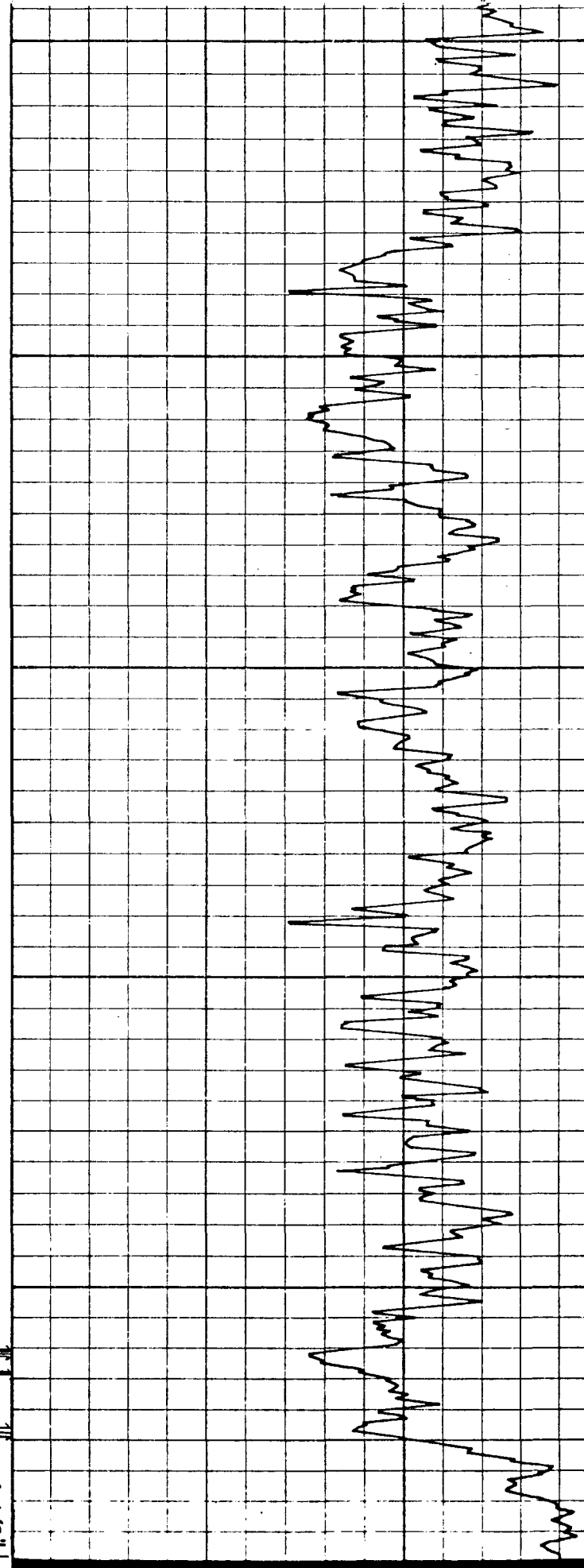
LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE

1500 1600 1700 1800 1900

1 1/2"

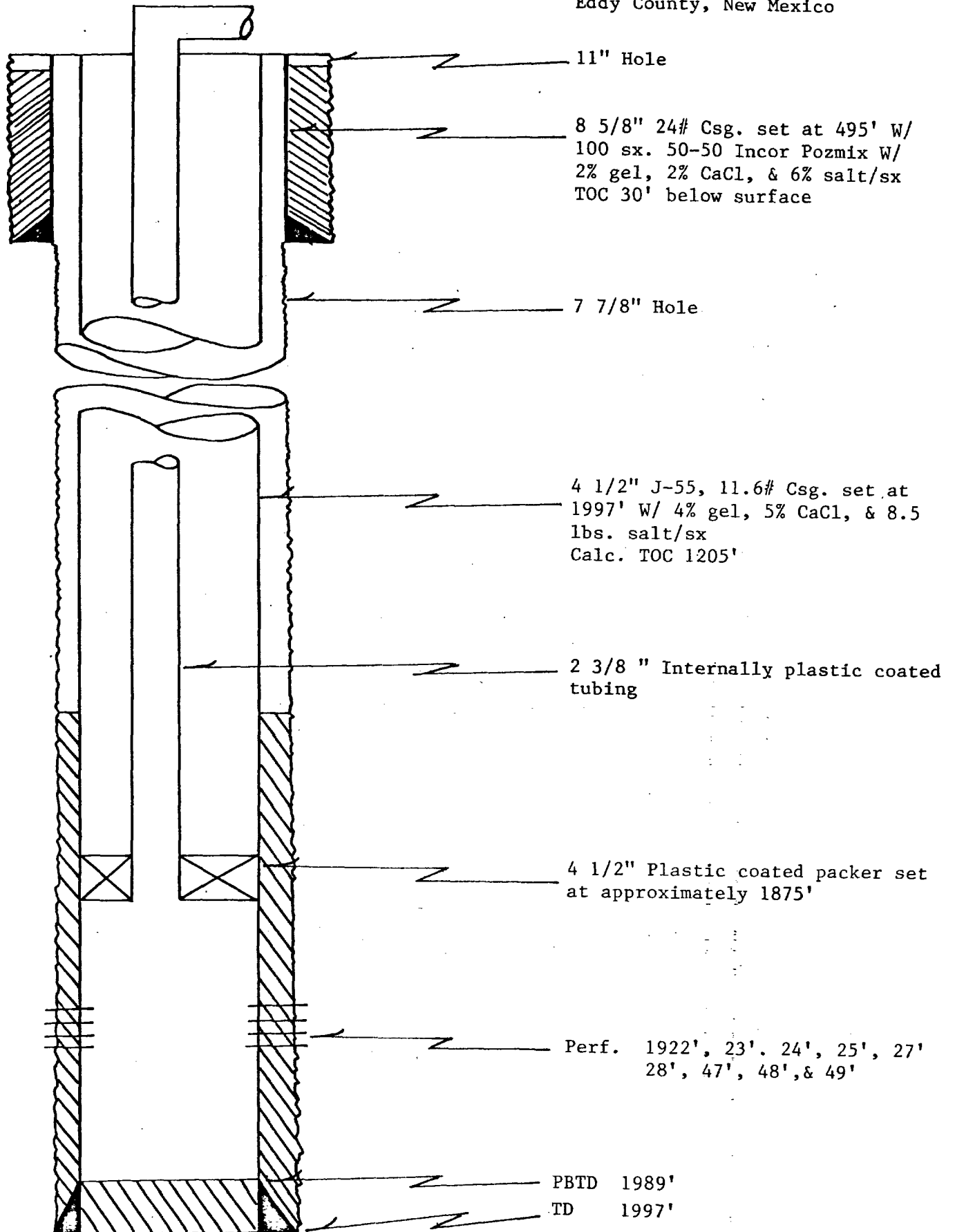


0 API 80 API



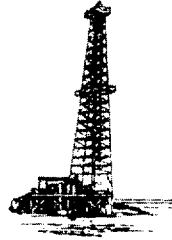
0 API 1200 API

Northwest Artesia Unit  
Well No. 12  
Unit M, Section 32, T-17s, R-28e  
Eddy County, New Mexico



# DEPCO, Inc.

Exploration & Production



800 Central  
ODESSA, TEXAS 79760

12-14-81

J. B. Adamson  
American Petrofina Co. of Texas  
ARCO  
B & J Production Co.  
Baber Well Servicing Co.  
W. E. Jeffers  
Kersey and Company  
Marbob Energy Corp.

Box 727, Artesia, New Mexico 88210  
Box 1311, Big Spring, Texas 79720  
Box 1710, Hobbs, New Mexico 88240  
512 W. Texas, Artesia, New Mexico 88210  
Box 1772, Hobbs, New Mexico 88240  
Box 65, Artesia, New Mexico 88210  
808 W. Grand Ave. Artesia, New Mexico 88210  
Box 304, Artesia, New Mexico 88210

RE: DEPCO, Inc.  
Northwest Artesia Unit  
Artesia Field  
Eddy County, New Mexico

Gentlemen:

DEPCO, Inc. is asking the Commission to approve administratively the application to convert one additional well to water injection in the Northwest Artesia Unit Flood. This well is Northwest Artesia Unit No. 12. Injection will be into the Grayburg formation at an approximate depth to 1900 feet.

A copy of the application is attached, DEPCO would appreciate your waiver of objection to this application. Three copies of a waiver letter are attached. Please sign, one to the commission and return one copy to DEPCO.

Very truly your,

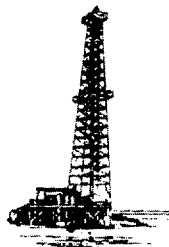
A handwritten signature in black ink, appearing to read "Leon Standard". The signature is fluid and cursive, with a prominent initial "L".

DEPCO, INC.  
Leon Standard  
Field Engineer

LS/vp

# DEPCO, Inc.

Exploration & Production



800 Central  
ODESSA, TEXAS 79760

12-14-81

Energy and Minerals Department  
Oil Conservstion Division  
Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Oscar Simpson

Gentlemen:

As an offset operator, \_\_\_\_\_ hereby waivers  
any objection to the conversion and injection of water into DEPCO, Inc.  
Northwest Artesia Unit No. 12 in the Grayburg formation as requested in  
their application for expansion of the Northwest Artesia Unit.

For \_\_\_\_\_

BY \_\_\_\_\_

Date \_\_\_\_\_

LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE