



4-21-95

April 4, 1995

New Mexico Oil Conservation
P.O. Box 2088
Santa Fe, NM 87504

Gentlemen:

SUBJECT: APPLICATION FOR EXPANSION OF WATERFLOOD
WEST DOLLARHIDE DRINKARD UNIT
DOLLARHIDE TUBB DRINKARD
LEA COUNTY, NM

We request administrative approval to expand the waterflood on the West Dollarhide Drinkard Unit. Order No. R-3768 dated May 21, 1969, authorized Texaco to institute a waterflood project.

One well will be converted to injection and three wells will be drilled for injection on the West Dollarhide Drinkard Unit. Form C-108 and attachments are enclosed.

If any additional information is needed, you may contact me at (505) 397-0424.

Sincerely,

Darlene de Aragao
Production Engineer

Attachments

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no
- II. Operator: Texaco Exploration & Production, Inc.
Address: P.O. Box 730, Hobbs, New Mexico 88240
Contact party: Darlene de Aragao Phone: (505) 397-0424
- 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 see attachment.
- 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:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. 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: Darlene de Aragao Title Production Engineer
Signature: Darlene de Aragao Date: 4-4-95
- * 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. see attachment

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.

NEW MEXICO OIL CONSERVATION DIVISION - - FORM C-108, CONT'D

Application for Waterflood Expansion

West Dollarhide Drinkard Unit
Lea County, New Mexico

Conversion Well Numbers and Locations:

#80 330' FNL, 330' FEL, 6-25S-38E, Unit A

Injection Wells to be Drilled:

#150 650' FSL, 540' FEL, 31-24S-38E, Unit P

#151 640' FNL, 2000' FEL, 5-25S-38E, Unit B

#152 600' FSL, 760' FWL, 29-24S-38E, Unit M

III. See attached injection well data sheets.

IV. Expansion of existing project order No. R-3768, WFX-608, WFX-621, WFX-646, WFX-654

V. See attached map.

VI. See attached well information and schematics. Some of the data for Sections VI, VIII, X and XI was previously submitted.

- VII. 1). Average injection rate - 400 BWPD
Maximum injection rate - 600 BWPD
2). Closed injection system
3). Average injection pressure 1500 psi
Initial maximum pressure 1300 psi
Maximum injection pressure 2000 psi

IX. 15% HCL NEFE acid.

**SUMMARY OF ORDER NUMBERS FOR
WEST DOLLARHIDE DRINKARD UNIT**

| | |
|---------|-------------------------|
| R-3768 | INSTITUTE OF WATERFLOOD |
| WFX-608 | WATERFLOOD EXPANSION |
| WFX-621 | WATERFLOOD EXPANSION |
| WFX-630 | WATERFLOOD EXPANSION |
| WFX-646 | WATERFLOOD EXPANSION |
| WFX-654 | WATERFLOOD EXPANSION |

WDDU 80
TEXACO E&P
API # 3002512398

330' FNL, 330' FEL
6-25S-38E UNIT A
COMPLETED: 06-17-54
GL 3116' KB 12'

0 - 306' CEMENT 325 SX

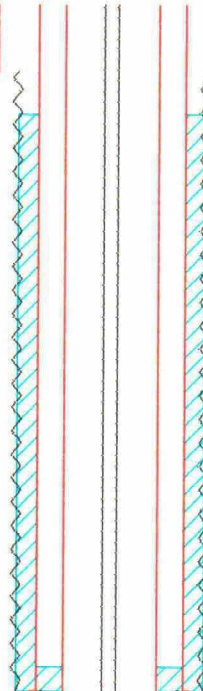
0 - 306' 13.375" OD 35.60#/ft SURF CSG



0 - 306' 17.25" OD HOLE

500 - 3149' CEMENT 1475 SX

0 - 3149' 8.625" OD 24.00#/ft INT CSG



0 - 6300' 2.375" OD TBG

306 - 3149' 11" OD HOLE

3040 - 6840' CEMENT 578 SX

0 - 6840' 5.50" OD PROD CSG 15.5# & 17#

6300 - 6300' PACKER

6382 - 6860' PERFS

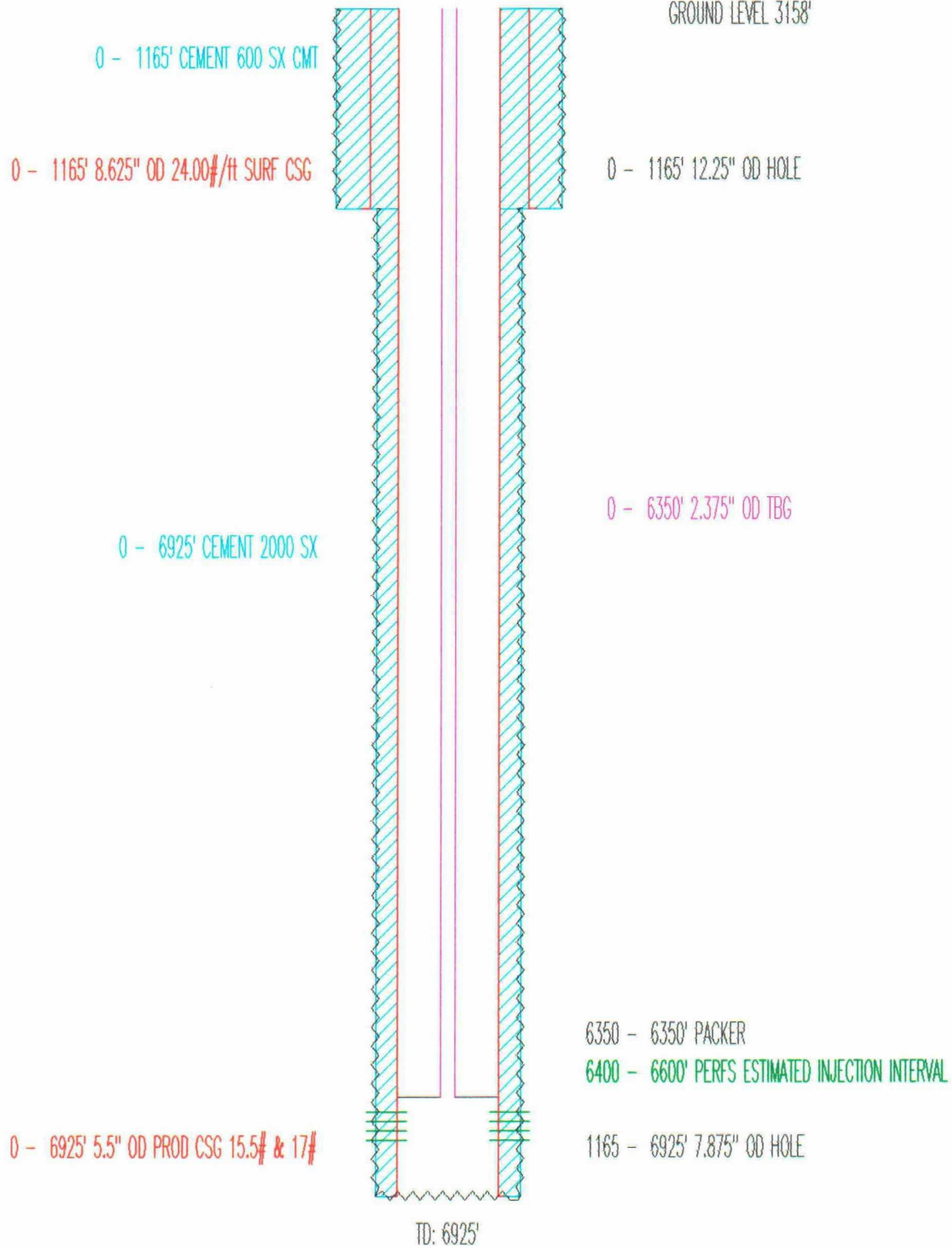
3149 - 6840' 7.875" OD HOLE

PBTD: 6747'

TD: 6840'

WDDU 151
TEXACO E&P
API # 3002532772

640' FNL 2000' FEL
5-25S-38E UNIT B
GROUND LEVEL 3158'



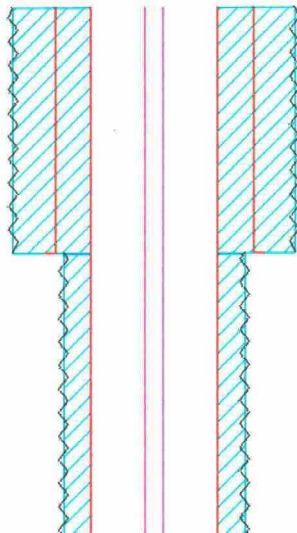
WDDU 150
TEXACO E&P
API # 3002532773

650' FSL 540' FEL
31-24S-38E UNIT P
GROUND LEVEL 3122'

0 - 1150' CEMENT 1150 SX CMT

0 - 1150' 8.625" OD 24.00#/ft SURF CSG

0 - 1150' 12.25" OD HOLE



WDDU 152
TEXACO E&P
API # 3002532771

600' FSL 760' FWL
29-24S-38E UNIT M
GROUND LEVEL 3173'

0 - 1235' CEMENT 600 SX CMT

0 - 1235' 8.625" OD 24.00#/ft SURF CSG

0 - 1235' 12.25" OD HOLE

0 - 7050' CEMENT 2000 SX

0 - 6350' 2.375" OD TBG

0 - 7050' 5.5" OD PROD CSG 15.5# & 17#

6400 - 6600' PERFS ESTIMATED INJECTION INTERVAL

6350 - 6350' PACKER

1235 - 7050' 7.875" OD HOLE

TD: 7050'

WELLS WITHIN AREA OF REVIEW NOT SUBMITTED IN PAST

| LEASE NAME | WELL TYPE | STATUS | OPERATOR |
|-------------------------------|------------------|---------------|-----------------|
| West Dollarhide Drinkard Unit | WIW | P&A | TEXACO E & P |
| West Dollarhide Drinkard Unit | WIW | P&A | TEXACO E & P |

WDDU 65
TEXACO E&P
API # 3002512291

2090' FSL, 1650' FEL
31-24S-38E
COMPLETED: 05-04-53

0 - 350' CEMENT PLUG 50 SXS
0 - 321' CEMENT 320 SX
0 - 321' 13.375" OD 48.00#/ft SURF CSG

P&A

0 - 321' 17.25" OD HOLE

1082 - 1350' CEMENT PLUG 25 SXS

0 - 3780' CEMENT 1900 SX

2728 - 2900' CEMENT PLUG 25 SXS

0 - 6642' CEMENT 500 SX
3559 - 3850' CEMENT PLUG 50 SXS
0 - 3780' 8.625" OD 36.00#/ft INT CSG

321 - 3780' 11" OD HOLE

5915 - 6390' CEMENT PLUG

6580 - 6642' CEMENT PLUG
0 - 6642' 5.50" OD 17.00#/ft PROD CSG
6580 - 6580' RETAINER
6642 - 6800' CEMENT

6122 - 6354' SQUEEZE PERFS
6443 - 6566' PERFS
3780 - 6642' 7.875" OD HOLE
6642 - 6800' 4.75" OD HOLE

TD: 6800'

WDDU 67
TEXACO E&P
API # 3002512292

660' FSL, 660' FEL
31-24S-38E UNIT P
COMPLETED: 09-26-53

0 - 350' CEMENT PLUG 50 SXS
0 - 333' CEMENT 300 SX
0 - 333' 13.375" OD 48.00#/ft SURF CSG

P&A

0 - 333' 17.25" OD HOLE

1200 - 1350' CEMENT PLUG 25 SXS

0 - 3250' CEMENT
0 - 3772' CEMENT 2200 SX

2450 - 2600' CEMENT PLUG 25 SXS

3500 - 3800' CEMENT PLUG 40 SX
0 - 3772' 8.625" OD 32.00#/ft INT CSG

333 - 3772' 11" OD HOLE

3276 - 6580' CEMENT 800 SX
5174 - 6360' CEMENT PLUG

6598 - 6800' CEMENT
0 - 6580' 5.50" OD 17.00#/ft PROD CSG
6560 - 6560' CIBP

6112 - 6329' SQUEEZE PERFS
6428 - 6511' PERFS
3772 - 6580' 7.875" OD HOLE
6580 - 6800' 4.75" OD HOLE

KB ELEV: 12'
TD: 6800'

P 691 990 259

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

| | | |
|--|----|-----------------------|
| Sent to | | Joyce + George Willis |
| Street and No. | | P.O. Box 307 |
| P.O. State and ZIP Code | | Tul, NM 88252 |
| Postage | \$ | L |
| Certified Fee | | L |
| Special Delivery Fee | | |
| Restricted Delivery Fee | | |
| Return Receipt showing to whom and Date Delivered | | C |
| Return Receipt showing to whom Date, and Address of Delivery | | |
| TOTAL Postage and Fees | | \$2.75 |
| Postmark or Date | | |

PS Form 3800, June 1985

Z 106 610 895



Receipt for
Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

| | | |
|--|----|----------------------|
| Sent to | | Ekra + William Grove |
| Street and No. | | P.O. Box Drawer 6 |
| P.O. State and ZIP Code | | Tul, NM 88252 |
| Postage | \$ | L |
| Certified Fee | | L |
| Special Delivery Fee | | |
| Restricted Delivery Fee | | |
| Return Receipt showing to whom and Date Delivered | | C |
| Return Receipt showing to whom Date, and Address of Delivery | | |
| TOTAL Postage and Fees | | \$2.75 |
| Postmark or Date | | |

PS Form 3800, March 1993

P 691 990 260

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

| | | |
|--|----|-------------------|
| Sent to | | D-M-I Productions |
| Street and No. | | P.O. Box 49 |
| P.O. State and ZIP Code | | Argyle, TX 76226 |
| Postage | \$ | L |
| Certified Fee | | L |
| Special Delivery Fee | | |
| Restricted Delivery Fee | | |
| Return Receipt showing to whom and Date Delivered | | C |
| Return Receipt showing to whom Date, and Address of Delivery | | |
| TOTAL Postage and Fees | | \$2.75 |
| Postmark or Date | | |

PS Form 3800, June 1985

Z 106 610 896



Receipt for
Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

| | | |
|--|----|------------------------|
| Sent to | | BLM |
| Street and No. | | P.O. Box 1397 |
| P.O. State and ZIP Code | | Roswell, NM 88202 1397 |
| Postage | \$ | L |
| Certified Fee | | L |
| Special Delivery Fee | | |
| Restricted Delivery Fee | | |
| Return Receipt showing to whom and Date Delivered | | C |
| Return Receipt showing to whom Date, and Address of Delivery | | |
| TOTAL Postage and Fees | | \$2.75 |
| Postmark or Date | | |

PS Form 3800, March 1993

P 691 990 262
RECEIPT FOR CERTIFIED MAIL
 NO INSURANCE COVERAGE PROVIDED
 NOT FOR INTERNATIONAL MAIL
 (See Reverse)

| | |
|---|-------------|
| Sent to UNOCAL | |
| Street and No. P.O. Box 671 | |
| P.O. State and ZIP Code Midland, Tx 79702 | |
| Postage | ✓ |
| Certified Fee | L |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt showing to whom and Date Delivered | ✓ |
| Return Receipt showing to whom Date and Address of Delivery | |
| TOTAL Postage and Fees | 2.75 |
| Postmark or Date | |

PS Form 3800, June 1985

P 691 990 263
RECEIPT FOR CERTIFIED MAIL
 NO INSURANCE COVERAGE PROVIDED
 NOT FOR INTERNATIONAL MAIL
 (See Reverse)

| | |
|---|-------------|
| Sent to Oxy USA Inc | |
| Street and No. P.O. Box 50250 | |
| P.O. State and ZIP Code Midland, Tx 79710 | |
| Postage | L |
| Certified Fee | L |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt showing to whom and Date Delivered | ✓ |
| Return Receipt showing to whom Date and Address of Delivery | |
| TOTAL Postage and Fees | 2.75 |
| Postmark or Date | |

PS Form 3800, June 1985

P 691 990 261
RECEIPT FOR CERTIFIED MAIL
 NO INSURANCE COVERAGE PROVIDED
 NOT FOR INTERNATIONAL MAIL
 (See Reverse)

| | |
|---|-------------|
| Sent to Earl Bruino, Inc. | |
| Street and No. P.O. Box 590 | |
| P.O. State and ZIP Code Midland, Tx 79702 | |
| Postage | ✓ |
| Certified Fee | L |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt showing to whom and Date Delivered | L |
| Return Receipt showing to whom Date and Address of Delivery | |
| TOTAL Postage and Fees | 2.75 |
| Postmark or Date | |

PS Form 3800, June 1985

P 691 990 264
RECEIPT FOR CERTIFIED MAIL
 NO INSURANCE COVERAGE PROVIDED
 NOT FOR INTERNATIONAL MAIL
 (See Reverse)

| | |
|---|-------------|
| Sent to Arch Petroleum | |
| Street and No. 777 Taylor St. | |
| P.O. State and ZIP Code Ft Worth, Tx 76102 | |
| Postage | ✓ |
| Certified Fee | L |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt showing to whom and Date Delivered | ✓ |
| Return Receipt showing to whom Date and Address of Delivery | |
| TOTAL Postage and Fees | 2.79 |
| Postmark or Date | |

PS Form 3800, June 1985

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

General Manager

of the Hobbs Daily News-Sun, a
daily newspaper published at
Hobbs, New Mexico, do solemnly
swear that the clipping attached
hereto was published once a
week in the regular and entire
issue of said paper, and not a
supplement thereof for a period.

of _____
1 weeks.
Beginning with the issue dated

April 3, 1995, 19____
and ending with the issue dated

April 3, 1995, 19____

Synda Keenig for Kathi Bearden
General Manager

Sword and subscribed to before

me this 5th day of

April 19 95
Paulson S. Ruffino
Notary Public.

My Commission expires
March 24, 1998
(Seal)

LEGAL NOTICE
April 3, 1995

NOTICE IS HEREBY GIVEN of the application of Texaco, Exploration and Production Inc., Attention: Terry L. Frazier, Area Manager, P.O. Box 730, Hobbs, New Mexico, 88240. Telephone (505) 393-7191, to the New Mexico Oil Conservation Commission Energy and Minerals Department, for approval to convert one producing well to injection and to drill three injection wells for the purpose of expanding waterflood. Injection wells to be drilled:

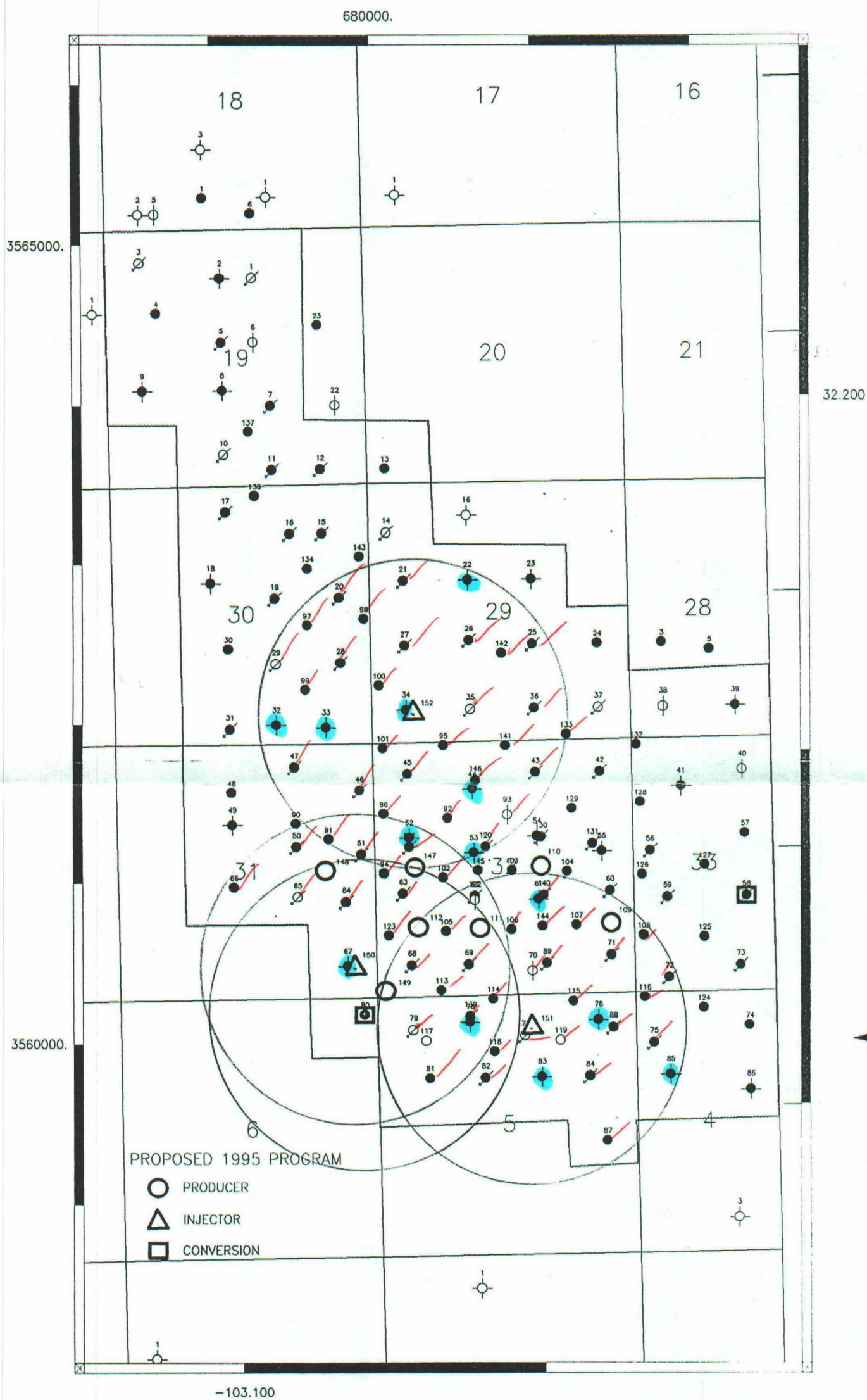
West Dollarhide Drinkard Unit, Lea Co., NM
#150 650' FSL, 540' FEL, 31-24S-38E, Unit P
#151 640' FNL, 2000' FEL, 5-25S-38E, Unit B
#152 600' FSL, 760' FWL, 29-24S-38E, Unit M

Conversion to injection:

#80 330' FNL, 330' FEL, 6-25S-38E, Unit A

The injection formation is the Dollarhide Tubb Drinkard at a depth of 6400' below the surface of the ground. Expected Maximum injection rate is 600 BWPD and expected maximum pressure is 1800 psi. Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, 37501, within fifteen days of this publication.

This Newspaper is duly qualified
to publish legal notices or advertisements within the meaning of
Section 3, Chapter 167, Laws of
1937, and payment of fees for
said publication has been made.



Scale 1:29713.32



LEGEND

- Oil Producer
- ⊗ Water Injector
- ⊙ Shut-in Producer
- ⊗ Shut-in Water Injector
- ⊗ Plugged and Abandoned
- ⊗ Drilled and Abandoned

TEXACO E & P, INC.

WEST DOLARHIDE DRINKARD UNIT

11/7/94

Scale 1:29713.32