

APPLICATION FOR AUTHORIZATION TO INJECT

APR 27 1991 9 00

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage  
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: Cross Timbers Production Company  
Address: P. O. Box 50847, Midland, Texas 79710  
Contact party: Gary L. Markestad Phone: (915)682-8873
- 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-3134.
- 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: Gary L. Markestad Title: Operations Engineer  
Signature: *Gary L. Markestad* Date: 4/26/91
- \* 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. Data submitted in original application. Division Order R-3134

dated 10/14/66 & Administrative Order WFX No. 361 dated 10/14/71.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

## 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.

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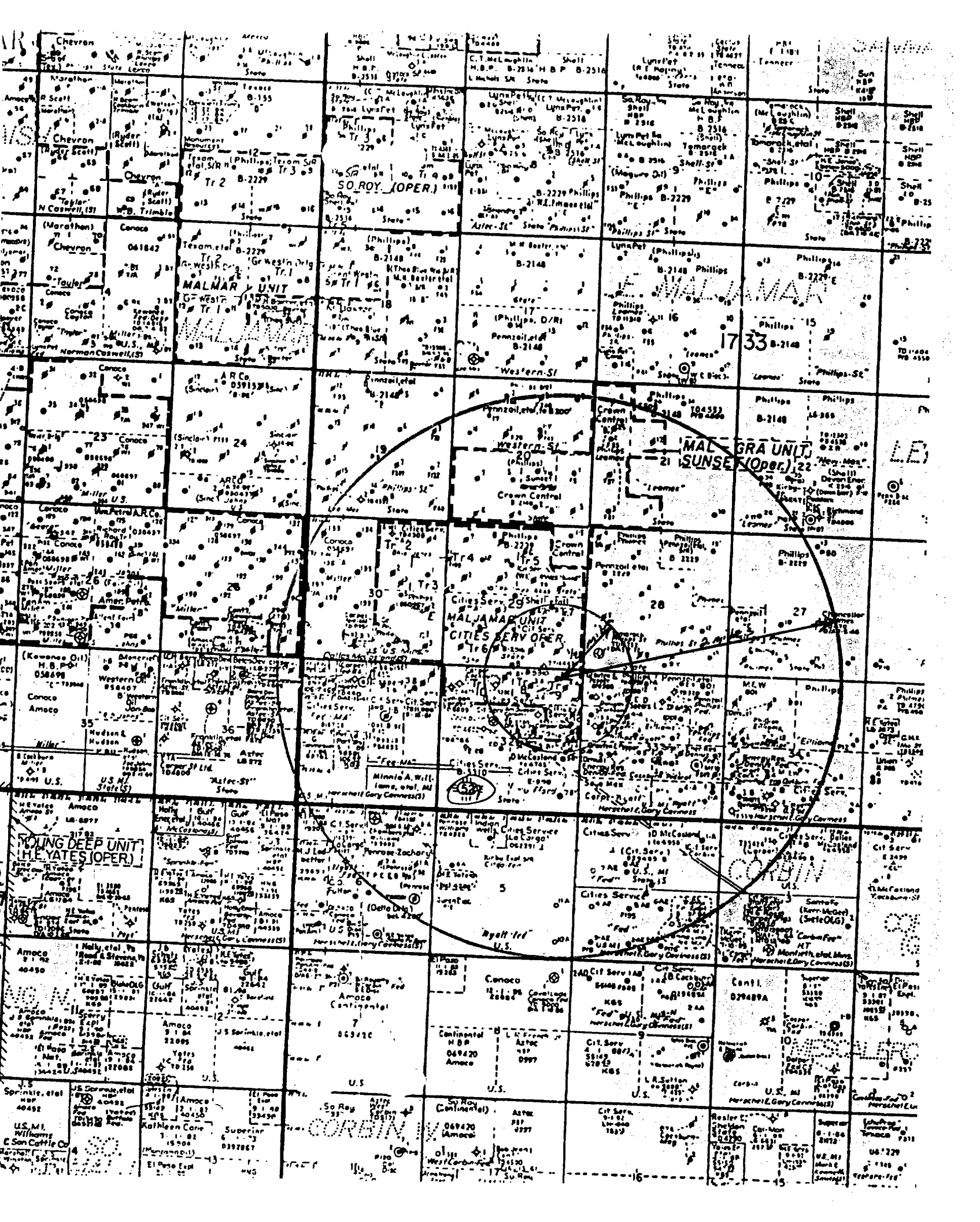
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

ITEM VII  
Operation Data

- 1) Proposed average daily rate - 200 BWPd.  
Proposed maximum daily rate - 400 BWPd @ 1400 psig.
- 2) Closed system.
- 3) Expected average injection pressure - 1000 psig.  
Maximum injection pressure - 1500 psig.
- 4) Injection water is primarily produced water with some fresh water to augment the injection volume. The fresh water is being supplied to the SEMGSAU by Conoco, Inc. and is used extensively in this area for secondary recovery purposes.
- 5) Injection is not for disposal purposes.

ITEM IX

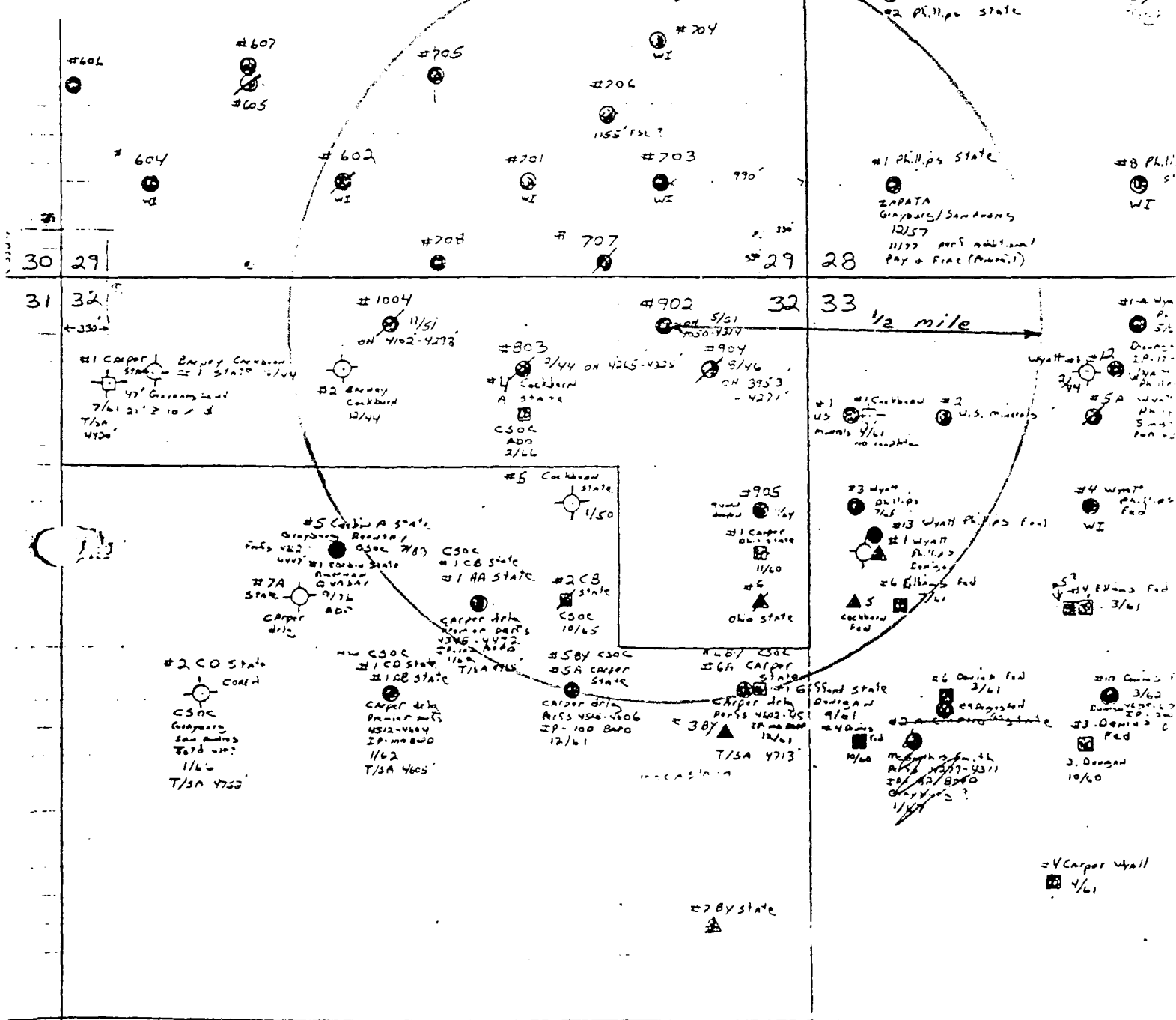
- 1) Stimulation is not planned at this time.



SEMG5AU

T 17 S R - 33 E

LEA County N.M.



● Ginyburg / San Andres

■ A&G

▲ Quarry

K<sup>3</sup> 9/21/90

WI - WATER injection well

1" = 1000'

**AFFIDAVIT OF PUBLICATION**

State of New Mexico,  
County of Lea.

I, Kathi Bearden

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 \_\_\_\_\_

One weeks.  
Beginning with the issue dated

April 17, 1991  
and ending with the issue dated

April 17, 1991

Kathi Bearden  
General Manager

Sworn and subscribed to before

me this 24 day of

April, 1991

Rhonda Copeland  
Notary Public.

My Commission expires \_\_\_\_\_

July 24, 1991  
(Seal)

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

**LEGAL NOTICE**

April 17, 1991

Cross Timbers Produc-  
tion Company, P.O. Box  
50847, Midland, Texas  
79710, (915)682-8873, is  
hereby giving notice of our  
intent to inject produced  
water and/or fresh water  
into the SEMGSAU Tract 9  
Well No. 2 located 330' FNL  
& 990' FEL of Section 32,

T-17-S, R-33-E for second-  
ary recovery purposes.  
Water is to be injected into  
the Grayburg and San  
Andres formations from  
4,050' to 4,500' at an  
expected rate of 200 BWPD  
and 1400 psig pressure. In-  
terested persons objecting  
to this application must file  
a request for hearing with  
the Oil Conservation  
Division, P.O. Box 2088,  
Santa Fe, New Mexico  
87501, within 15 days of this  
notice.

## INJECTION WELL DATA SHEET

Cross Timbers Production Company

SEMGS AU Tract 9

OPERATOR

LEASE

2

300' FNL, 990' FEL

Section 32, T-17-S, R-33-E

WELL NO.

FOOTAGE LOCATION

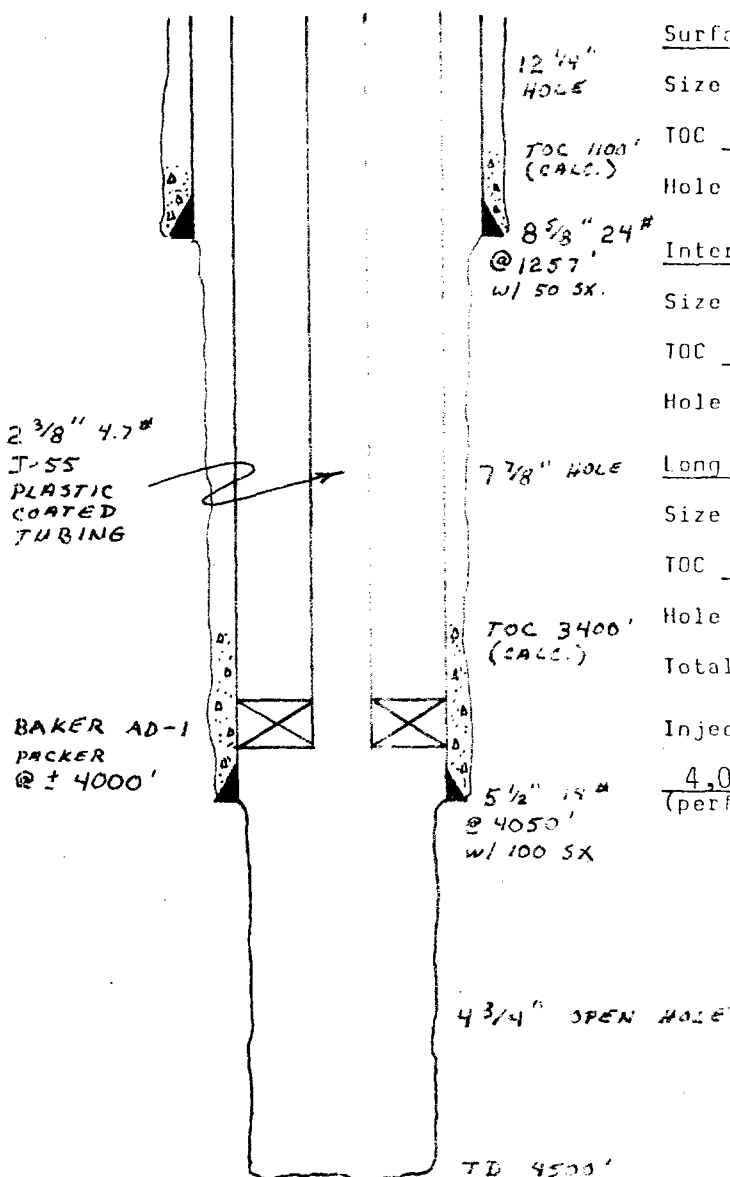
SECTION

TOWNSHIP

RANGE

## Schematic

## Tabular Data



## Surface Casing

Size 8-5/8" " Cemented with 50 sx.TOC 1,100' feet determined by calculatedHole size 12-1/4"

## Intermediate Casing

Size \_\_\_\_\_ " Cemented with \_\_\_\_\_ sx.

TOC \_\_\_\_\_ feet determined by \_\_\_\_\_

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

## Long string

Size 5-1/2" " Cemented with 100 sx.TOC 3,400' feet determined by calculatedHole size 7-7/8"Total depth 4,500'

## Injection interval

4,050 feet to 4,500 feet  
(perforated or open-hole indicate which)Tubing size 2-3/8" lined with plastic (material) set in aBaker AD-1 packer at 4,000 feet  
(brand and model)

(or describe any other casing-tubing seal).

## Other Data

- Name of the injection formation Grayburg/San Andres
- Name of Field or Pool (if applicable) Maljamar, SE
- Is this a new well drilled for injection? ☐ Yes ☒ No  
If no, for what purpose was the well originally drilled? oil production
- 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 (pools) in this area. Corbin (Abo) 8,580', Corbin (Queen) 3,700'