



PHILLIPS PETROLEUM COMPANY

OIL CONSERVATION DIVISION  
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September 30, 1991

Maljamar Philmex Pilot CO<sub>2</sub> Injection  
Project - Order Nos. R-3668-A and B

*Case No 9677  
R-3668-A*

David Catanach  
State of New Mexico  
Energy, Minerals and Natural Resources Dept.  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

Mr. Catanach:

Reference is made to the subject Maljamar(Grayburg/San Andres) carbon dioxide (CO<sub>2</sub>) injection project located in portions of Sections 26, 27, 34 and 35; T-17-S, R-33-E; Lea County, New Mexico. This project consists of four (4) producers, one (1) CO<sub>2</sub> injector and two (2) observation wells. The observation wells, fiberglass-cased through the Grayburg/San Andres interval, are to assist in determining the feasibility of a full scale CO<sub>2</sub> injection project which, if successful, may ultimately result in the recovery of a substantial amount of otherwise unrecoverable oil.

In order to further assist in Pilot evaluation, administrative approval is requested to change Philmex #39's (located 1478' FSL and 1175' FWL, Section 26-17S-33E) classification from observation to injection well. This well will be perforated in a zone which has been potentially flooded by CO<sub>2</sub> to determine if only CO<sub>2</sub> is present in this zone. Further well work to convert to injection in all Grayburg zones will commence pending this outcome. Philmex #38, the well currently authorized as a CO<sub>2</sub> injector, will remain an injector.

The required sections of Form C-108, Application for Authorization to Inject, are attached. It is requested to set the packer in the steel casing to maintain the fiberglass pipe integrity. Please note the area of review has only slightly changed and does not include any additional wells (which penetrate the injection interval) that were not presented on the original Form C-108.

If any further information is needed, please contact Susan Courtright at (915) 368-1418.

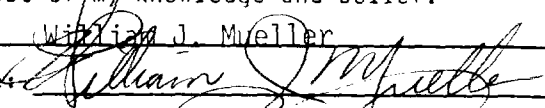
Sincerely,

Larry M. Sanders

SGC:

attachment

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage  
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: PHILLIPS PETROLEUM COMPANY  
Address: 4001 PENBROOK; ODESSA, TEXAS 79762  
Contact party: LARRY M. SANDERS Phone: (915)368-1488
- 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-3886-A and B.
- 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: William J. Mueller Title: Principle Reservoir Engineer  
Signature:  Date: 10/4/91
- \* 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. Case No. 9678 (Order No. R-3668-A); Hearing date 5/24/89  
Case No. 9737 (Order No. R-3668-B); Hearing date 8/31/89

## 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.

APPLICATION FOR AUTHORIZATION TO INJECT

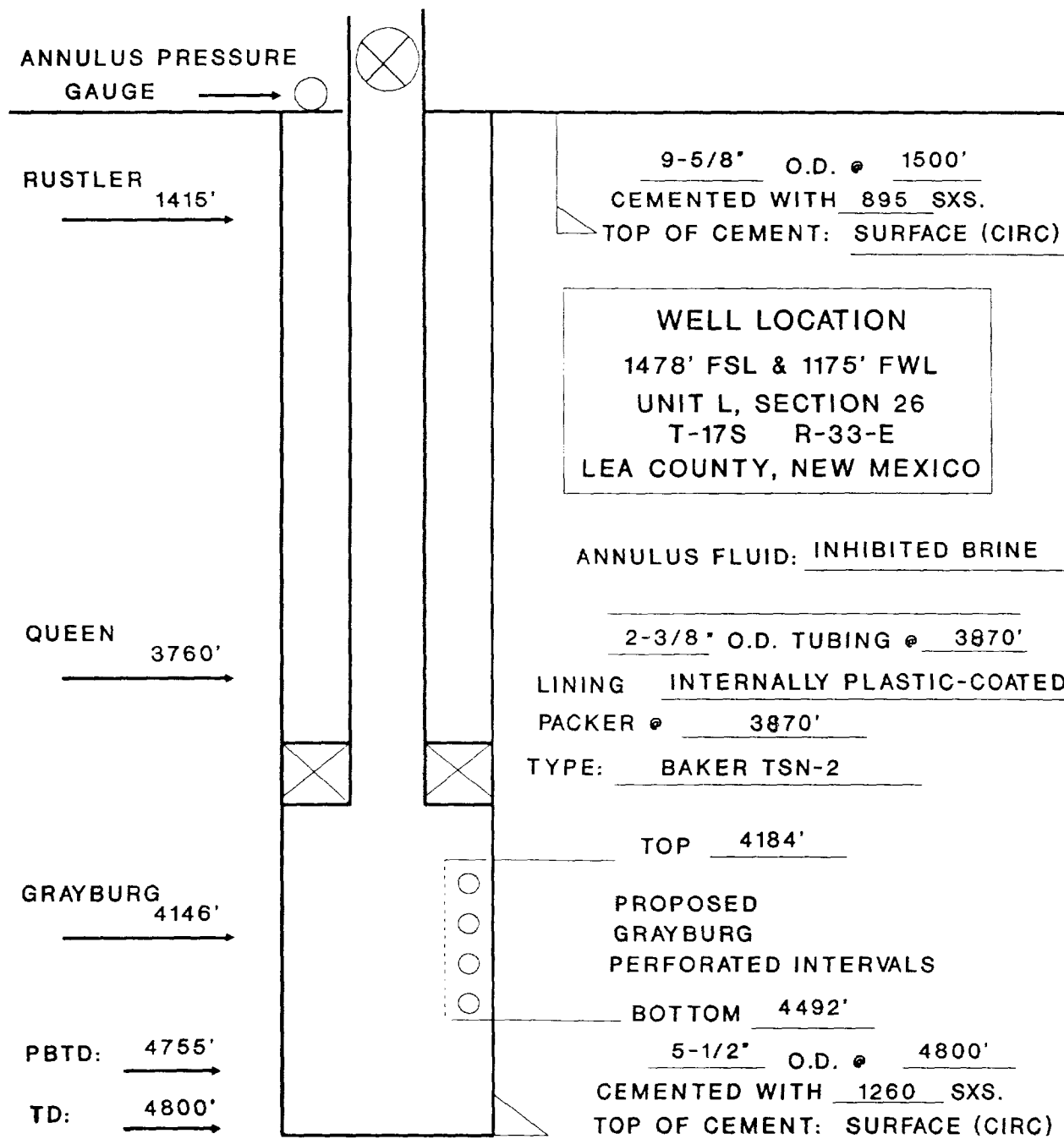
PHILLIPS PETROLEUM COMPANY  
PHILMEX WELL NO. 39

III. WELL DATA

(See Wellbore Schematic)

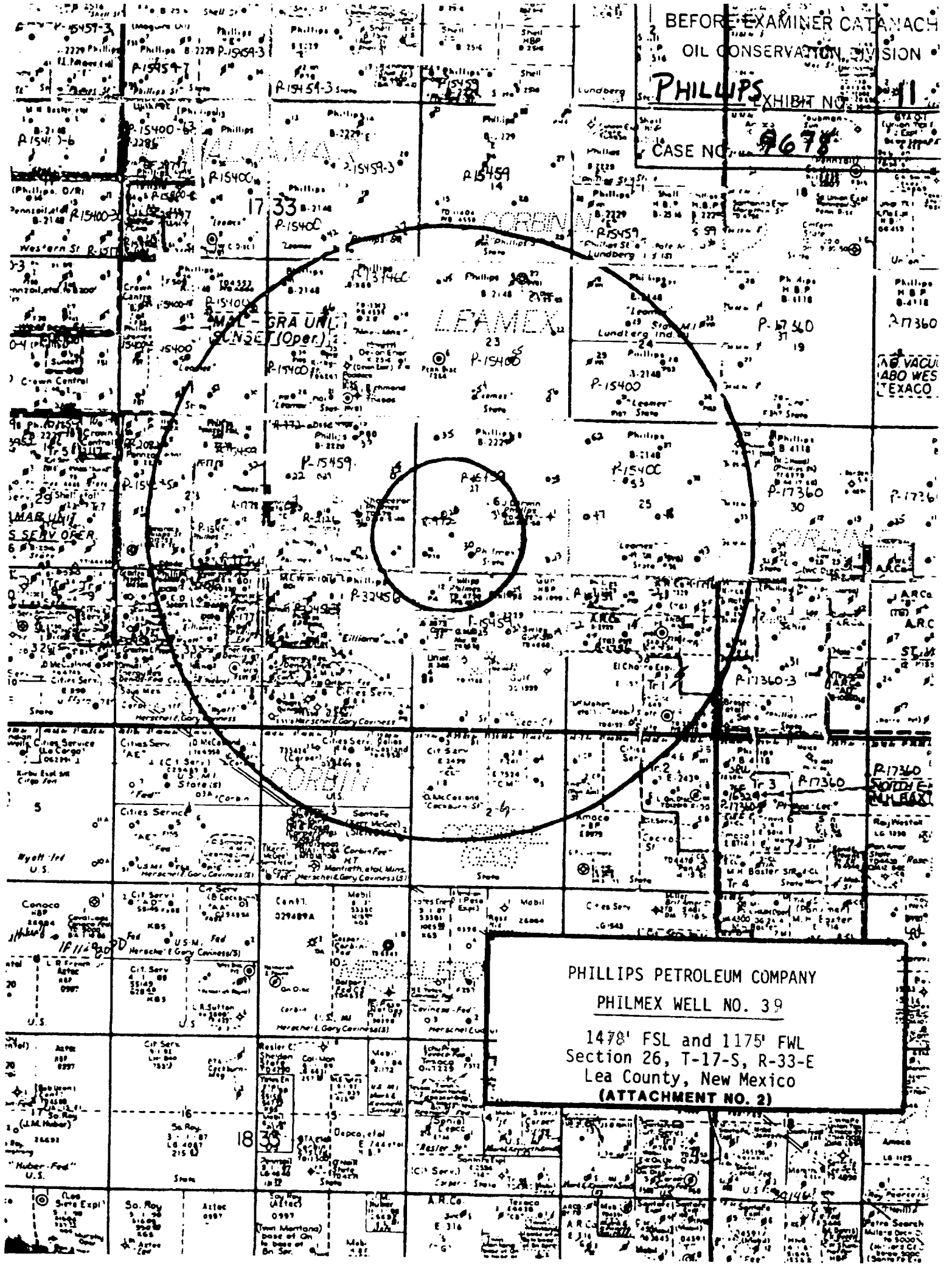
- A(1). Name and Location  
Philmex Well Number 39  
1478' FSL and 1175' FWL  
Section 26, T-17-S, R-33-E  
Lea County, New Mexico
- A(2). Casing  
Surface: 9-5/8" OD, 36# J-55 set at 1500'  
(12-1/4" hole). Cemented with 895  
sxs cmt; TOC at surface (circulated).  
  
Production: 5-1/2" OD 15.5# J-55 (0' to 3925') and  
5-1/2" fiberglass (3925' to 4800')  
(8-3/4" hole). Cemented with 1260 sxs  
cmt; TOC at surface (circulated).
- A(3). Tubing:  
2-3/8" OD, 8rd EUE, J-55 set at 3870' (internally  
plastic coated)
- A(4). Packer:  
Baker TSN-2 Packer set at 3870'
- B(1). Formation:  
Maljamar(Grayburg/San Andres)
- B(2). Interval:  
4280' - 4500' (cased-hole)
- B(3). Original Intent:  
Well was drilled as an observation well.
- B(4). Perforated Intervals:  
No other perforated intervals or bridgeplugs in  
wellbore
- B(5). Productive Zones:  
Higher - Queen at 3760' (1-1/2 mi SW)  
Lower - Corbin Abo Reef (1-1/4 mi S)

APPLICATION FOR AUTHORIZATION TO INJECT  
PHILLIPS PETROLEUM COMPANY  
MALJAMAR PHILMEX PILOT CO2 INJECTION PROJECT  
N.M.O.C.D. R-3668-A and B  
MALJAMAR GRAYBURG-SAN ANDRES POOL, LEA COUNTY, NEW MEXICO  
PHILMEX WELL NO. 39



BEFORE EXAMINER CATALANACH  
OIL CONSERVATION DIVISION

PHILIPS EXHIBIT NO. 11  
CASE NO. 9678

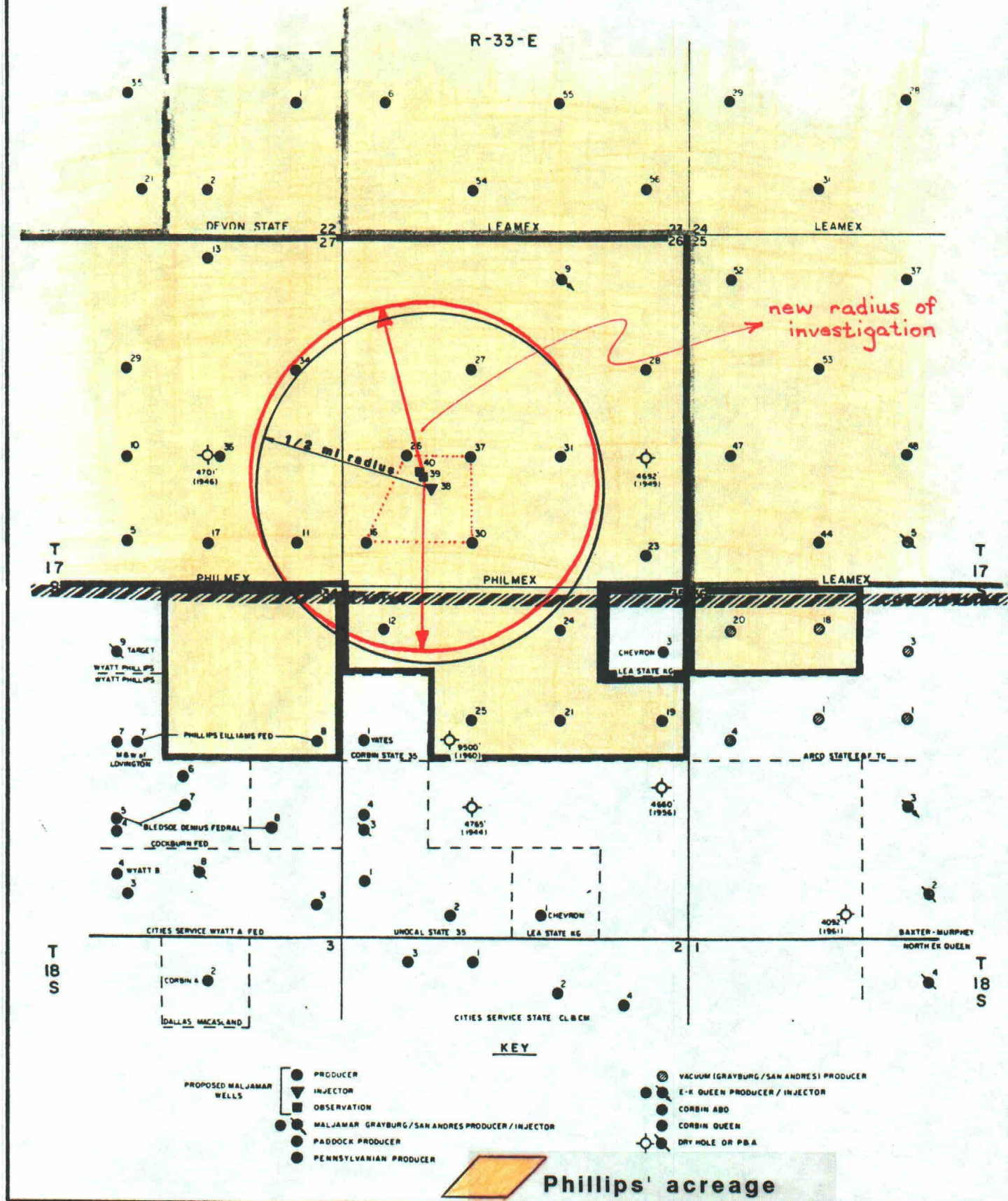


PHILLIPS PETROLEUM COMPANY  
PHILMEX WELL NO. 39  
1478' FSL and 1175' FWL  
Section 26, T-17-S, R-33-E  
Lea County, New Mexico  
(ATTACHMENT NO. 2)



# MALJAMAR CO<sub>2</sub> PILOT PROJECT

PHILLIPS PETROLEUM COMPANY



APPLICATION FOR AUTHORIZATION TO INJECT

PHILLIPS PETROLEUM COMPANY  
PHILMEX WELL NO. 39

**VII. PROPOSED OPERATION**

1. CO<sub>2</sub> Rates:  
estimated average - 350 mcfpd  
estimated maximum - 500 mcfpd
2. System:  
closed
3. Pressures:  
average - 1725 psi  
maximum - 1750 psi
4. Fluid:  
CO<sub>2</sub> source from McElmo Dome in Colorado;  
transported by Shell in the Cortez line and by Big  
Three in the Llano pipeline. Compatibility with  
receiving formation is evidenced by present CO<sub>2</sub>  
injection into Philmex Well No. 38.
5. Chemical Analysis  
not applicable

**IX. PROPOSED STIMULATION PROGRAM**

Pending conversion to injection, perforation zones will be individually broken down with 15% NEFE HCl acid. No fracture treatment is planned at this time.



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

Oct. 14, 19 91  
and ending with the issue dated

Oct. 14, 19 91

Kathi Bearden  
General Manager

Sworn and subscribed to before

me this 16 day of

Oct, 19 91

Paula Parrish  
Notary Public.

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

Aug. 5, 19 95  
(Seal)

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.

LEGAL NOTICE  
October 14, 1991

Notice is hereby given of the application of Phillips Petroleum Company, 4001 Penbrook Street, Odessa, Texas 79762. Attention L. M. Sanders, (915)368-1488, to the Oil Conservation Division, New Mexico Energy, Minerals, and Natural Resources Department, for approval of the following injection well authorization for the purpose of CO2 injection:

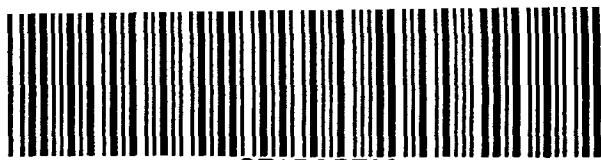
Name: Philmex Well No. 39

Location: 1478' FSL & 1175' FWL, Section 26, T-17-S, R-33-E, Lea Co., N.M.

The injection formation is Maljamar (Grayburg/San Andres) at a depth of 4280'-4500' below the surface of the ground.

Expected maximum injection rate is 500 million cubic feet per day and expected maximum injection pressure is 1750 pounds per square inch.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, 87501 within fifteen (15) days.



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**SEAPORT IMAGING**

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