

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 Street, Odessa, Texas 79762

Contact party: Larry Hollenbeck Phone: (915) 368-1410

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 R-6856  
If yes, give the Division order number authorizing the project R-6856

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: L. M. Sanders Title: Senior Regulation Analyst

Signature: *L. M. Sanders* Date: 3-19-96

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. October 25, 1978, Case 6367 (Order No. R-5897, Approved 1-16-79)

Amended 11-19-81, Case #7426 (Order No. R-6856, Approved 12-16-81) & Amended 1-11-90

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.

**EAST VACUUM GRAYBURG SAN ANDRES UNIT**

**ATTACHMENT III TO FORM C-108  
APPLICATION FOR AUTHORIZATION TO INJECT  
PROPOSED CONVERTED PRODUCERS TO INJECTION WELLS**

<u>Tract &amp; Well No.</u>	<u>API Number</u>	<u>Unit</u>	<u>Sec-Tn-Rg</u>			<u>Footage</u>	<u>Well Status</u>
2622-043	3002502884	D	26	17S	35E	990' FNL, 660' FWL	GBSA PROD
2720-002	3002502890	H	27	17S	35E	1980 FNL, 660 FEL	GBSA PROD
2721-007	3002502893	N	27	17S	35E	660 FSL, 1980 FWL	GBSA PROD
2739-003	3002502897	J	27	17S	35E	1980' FSL, 1980 FEL	GBSA PROD
3456-002	3002503017	D	34	17S	35E	660 FNL, 660 FWL	GBSA PROD

PHILLIPS PETROLEUM  
EVCSAU 2622-043  
API# 3002502884

0.0 - 1689.0' 8.625" OD SURF CSG  
0.0 - 1689.0' CEMENT 650 sx

0.0 - 1689.0' 11" OD HOLE

990 FNL & 660 FWL  
SEC 26 , TWN 17 S, RANGE 35 E  
SPUD DATE: 04-14-41  
COMPLETION DATE: 05-18-41

0.0 - 4161.0' 5.5" OD PROD CSG  
1875.0 - 4161.0' CEMENT 300 sx

0.0 - 4100.0' 2.875" OD TBC  
1689.0 - 4161.0' 7.875" OD HOLE  
4100.0 - 4100.0' PACKER 5.5" LOK-SET  
4161.0 - 4560.0' 6.25" OD HOLE

KB ELEV: 3931'

TD: 4560'

**INJECTION WELL DATA SHEET**

PHILLIPS PETROLEUM COMPANY  
OPERATOR

EAST VACUUM GRAYBURG SAN ANDRES UNIT  
LEASE

2622-043                      990' FN, 660' FW                      26                      17S                      35E  
WELL NO.                      FOOTAGE LOCATION                      SECTION                      TOWNSHIP                      RANGE

**Tabular Data**

Surface Casing @ 1689'

Long String @ 4161'

Size 8.625                      Cemented with 650 sx  
TOC surface                      feet determined by Circulation  
Hole size 11"

Size 5.5"                      Cemented with 300 sx  
TOC 1875                      feet determined by Calculation  
Hole size 7.875"                      using 1.32 yield  
Total Depth 4560                      assuming 100%

Intermediate Casing @

Size \_\_\_\_\_                      Cemented with \_\_\_\_\_  
TOC \_\_\_\_\_                      feet determined by \_\_\_\_\_  
Hole size \_\_\_\_\_

Injection Interval  
4161'                      to                      4560'  
Perforated \_\_\_\_\_  
or  
Open-Hole X

Tubing 2.875"                      lined with plastic coating set in a 5.5" ELDER LOK-SE                      packer at 4100'  
(brand & model)

**Other Data**

1. Name of the injection formation                      SAN ANDRES
2. Name of the Field or Pool                      VACUUM
3. Is this a new well drilled for injection?                      NO  
If no, for what purpose was the well originally drilled?                      OIL PRODUCER

4. 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

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.                      YATES @ 2700'  
GLORIETA @ 5800'

PHILLIPS PETROLEUM  
EVGSAU 2720-002  
API# 3002502890

0.0 - 1650.0' 8.625" OD SURF CSG  
0.0 - 1650.0' CEMENT 150 sx

0.0 - 1650.0' 12.25" OD HOLE

1980 FNL & 660 FEL  
SEC 27 , TWN 17 S, RANGE 35 E  
ELEVATION: 3945 KB  
SPUD DATE: 03-28-39  
COMPLETION DATE: 05-04-39

0.0 - 4200.0' 5.5" OD PROD CSG  
3057.0 - 4200.0' CEMENT 150 sx

0.0 - 4150.0' 2.875" OD TBC  
1650.0 - 4200.0' 7.875" OD HOLE  
4150.0 - 4150.0' PACKER 5.5" LOK-SET  
4200.0 - 4625.0' 4.75" OD HOLE

KB ELEV: 3937'  
PBTD: 4625'  
TD: 4625'

## INJECTION WELL DATA SHEET

PHILLIPS PETROLEUM COMPANY	EAST VACUUM GRAYBURG SAN ANDRES UNIT			
OPERATOR	LEASE			
2720-002	1980' FN, 660' FE	27	17S	35E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

**Tabular Data**

Surface Casing @ 1650'

Size 8.625 Cemented with 150 sx  
 TOC surface feet determined by Circulation  
 Hole size 12.25"

Long String @ 4200'

Size 5.5" Cemented with 150 sx  
 TOC 3057 feet determined by Calculation  
 Hole size 7.875" using 1.32 yield assuming 100%  
 Total Depth 4625

Intermediate Casing @

Size \_\_\_\_\_ Cemented with \_\_\_\_\_  
 TOC \_\_\_\_\_ feet determined by \_\_\_\_\_  
 Hole size \_\_\_\_\_

Injection Interval

4200' to 4625'  
 Perforated \_\_\_\_\_  
 or  
 Open-Hole X

Tubing 2.875" lined with plastic coating set in a 5.5" ELDER LOK-SET packer at 4150'  
 (brand & model)

**Other Data**

1. Name of the injection formation SAN ANDRES
2. Name of the Field or Pool VACUUM
3. Is this a new well drilled for injection? NO  
 If no, for what purpose was the well originally drilled? OIL PRODUCER

4. 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

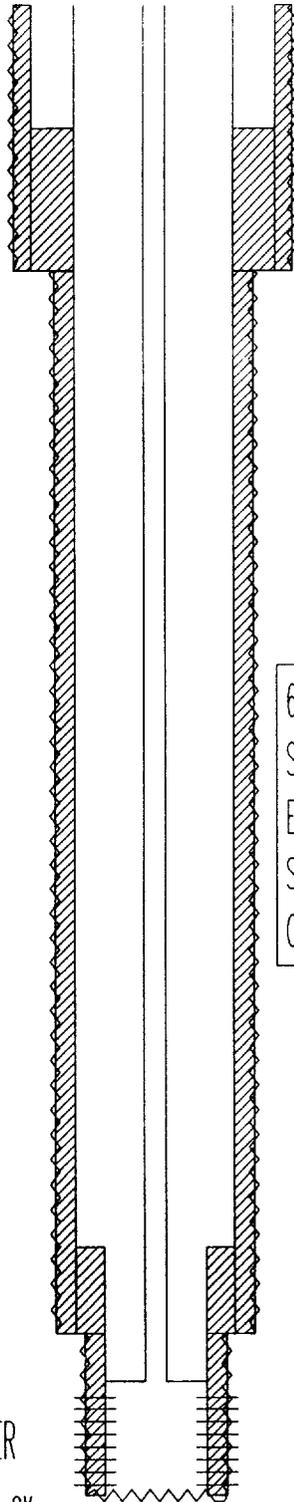
5. Give the depth to and name of any overlying and/or underlying oil or gas zones

(pools) in this area. YATES @ 2700'  
GLORIETA @ 5800'

PHILLIPS PETROLEUM  
EVCSAU 2721-007  
API# 3002502893

0.0 - 825.0' 10.75" OD SURF CSG  
0.0 - 825.0' CEMENT 430 sx

0.0 - 825.0' 12.25 " OD HOLE



660 FSL & 1980 FWL  
SEC 27 , TWN 17 S, RANGE 35 E  
ELEVATION: 3943 KB  
SPUD DATE: 06-10-38  
COMPLETION DATE: 08-26-38

0.0 - 4165.0' 7" OD PROD CSG  
387.0 - 4165.0' CEMENT 430 sx

0.0 - 4320.0' 2.875" OD TBG

825.0 - 4165.0' 8.75" OD HOLE  
4320.0 - 4320.0' PACKER 7" LOK-SET  
4372.0 - 4655.0' PERFS  
4165.0 - 4687.0' 6.25" OD HOLE

3894.0 - 4687.0' 4.5" OD LINER  
3894.0 - 4687.0' CEMENT 410 sx

KB ELEV: 3943'  
PBD: 4669'  
TD: 4610'

### INJECTION WELL DATA SHEET

PHILLIPS PETROLEUM COMPANY	EAST VACUUM GRAYBURG SAN ANDRES UNIT			
OPERATOR	LEASE			
2721-007	660' FS, 1980' FW	27	17S	35E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

**Tabular Data**

Surface Casing @ 825'

Size 10.75 Cemented with 430 sx  
 TOC surface feet determined by Circulation  
 Hole size 12.25"

Long String @ 4165'

Size 7" Cemented with 430 sx  
 TOC 1238 feet determined by Calculation  
 Hole size 8.75" using 1.32 yield assuming 100%  
 Total Depth 4687

Liner @ 3894' - 4687'

Size 4.5" Cemented with 410 sx  
 TOC 3894 feet determined by Calculation  
 Hole size 6.25" using 1.32 yield assuming 100%

Injection Interval

4165' to 4687'  
 Perforated X  
 or  
 Open-Hole \_\_\_\_\_

Tubing 2.875" lined with plastic coating set in a 7" ELDER LOK-SET packer at 4320'  
 (brand & model)

**Other Data**

1. Name of the injection formation SAN ANDRES
2. Name of the Field or Pool VACUUM
3. Is this a new well drilled for injection? NO  
 If no, for what purpose was the well originally drilled? OIL PRODUCER

4. 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

5. Give the depth to and name of any overlying and/or underlying oil or gas zones  
 (pools) in this area. YATES @ 2700'  
GLORIETA @ 5800'

PHILLIPS PETROLEUM  
EVGSAU 2739-003  
API# 3002502897

0.0 - 254.0' 13.375" OD SURF CSG  
0.0 - 254.0' CEMENT

0.0 - 254.0' 17.5" OD HOLE

0.0 - 1647.0' 9.625" OD INT CSG  
0.0 - 1647.0' CEMENT 615 sx

254.0 - 1647.0' 12.25 " OD HOLE

1980 FSL & 1980 FWL  
SEC 27 , TWN 17 S, RANGE 35 E  
ELEVATION: 3937 KB  
SPUD DATE: 11-27-38  
COMPLETION DATE: 12-30-38

0.0 - 4195.0' 7" OD PROD CSG  
1295.0 - 4195.0' CEMENT 330 sx

0.0 - 4150.0' 2.875" OD TBG

1647.0 - 4195.0' 8.75" OD HOLE

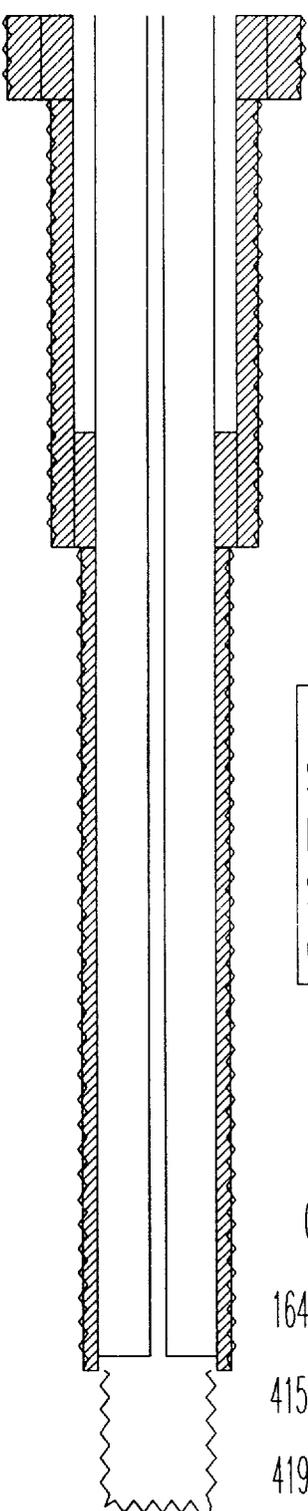
4150.0 - 4150.0' PACKER 7" LOK-SET

4195.0 - 4625.0' 6.25" OD HOLE

KB ELEV: 3937'

PBTD: 4625'

TD: 4625'



## INJECTION WELL DATA SHEET

PHILLIPS PETROLEUM COMPANY	EAST VACUUM GRAYBURG SAN ANDRES UNIT			
OPERATOR	LEASE			
2739-003	1980' FS, 1980' FW	27	17S	35E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

**Tabular Data**

Surface Casing @ 254'

Size 13.375 Cemented with 250 sx  
 TOC surface feet determined by Circulation  
 Hole size 17.5"

Long String @ 4195'

Size 7" Cemented with 330 sx  
 TOC 1295 feet determined by Calculation  
 Hole size 8.75" using 1.32 yield assuming 100%  
 Total Depth 4625

Intermediate Casing @ 1647'

Size 9.625 Cemented with 615 sx  
 TOC surface feet determined by Circulation  
 Hole size 12.25"

Injection Interval

4195' to 4625'  
 Perforated \_\_\_\_\_  
 or  
 Open-Hole X

Tubing 2.875" lined with plastic coating set in a 7" ELDER LOK-SET packer at 4150'  
 (brand & model)

**Other Data**

1. Name of the injection formation SAN ANDRES
2. Name of the Field or Pool VACUUM
3. Is this a new well drilled for injection? NO  
 If no, for what purpose was the well originally drilled? OIL PRODUCER

4. 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

5. Give the depth to and name of any overlying and/or underlying oil or gas zones  
 (pools) in this area. YATES @ 2700'  
GLORIETA @ 5800'

PHILLIPS PETROLEUM  
EVCSAU 3456-002  
API# 3002503017

0.0 - 1622.0' 9.625" OD SURF CSG  
0.0 - 1622.0' CEMENT

0.0 - 1622.0' 12.25 " OD HOLE

660 FNL & 660 FWL  
SEC 34 , TWN 17 S, RANGE 35 E  
ELEVATION: 3944 GL  
SPUD DATE: 11-04-38  
COMPLETION DATE: 12-01-38

0.0 - 4185.0' 7" OD PROD CSG  
2253.0 - 4185.0' CEMENT 220 sx

0.0 - 4360.0' 2.875 " OD TBG  
1622.0 - 4185.0' 8.75" OD HOLE  
4360.0 - 4363.0' PACKER 7" LOK-SET  
4410.0 - 4498.0' PERFS  
4185.0 - 4598.0' 6.25" OD HOLE

3988.0 - 4598.0' 5" OD LINER  
3988.0 - 4598.0' CEMENT 100 sx

KB ELEV: 3944'  
PBD: 4598'  
TD: 4610'

**INJECTION WELL DATA SHEET**

PHILLIPS PETROLEUM COMPANY  
OPERATOR

EAST VACUUM GRAYBURG SAN ANDRES UNIT  
LEASE

3456-002	660' FN, 660' FW	34	17S	35E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

**Tabular Data**

Surface Casing @ 1622'

Size 9.625 Cemented with 325 sx  
 TOC surface feet determined by Circulation  
 Hole size 12.25"

Long String @ 4185'

Size 7" Cemented with 220 sx  
 TOC 2253 feet determined by Calculation  
 Hole size 8.75" using 1.32 yield assuming 100%  
 Total Depth 4615

Liner @ 3988' - 4598'

Size 5" Cemented with 100 sx  
 TOC 3988 feet determined by Calculation  
 Hole size 6.25" using 1.32 yield assuming 100%

Injection Interval

4185' to 4598'  
 Perforated X  
 or  
 Open-Hole \_\_\_\_\_

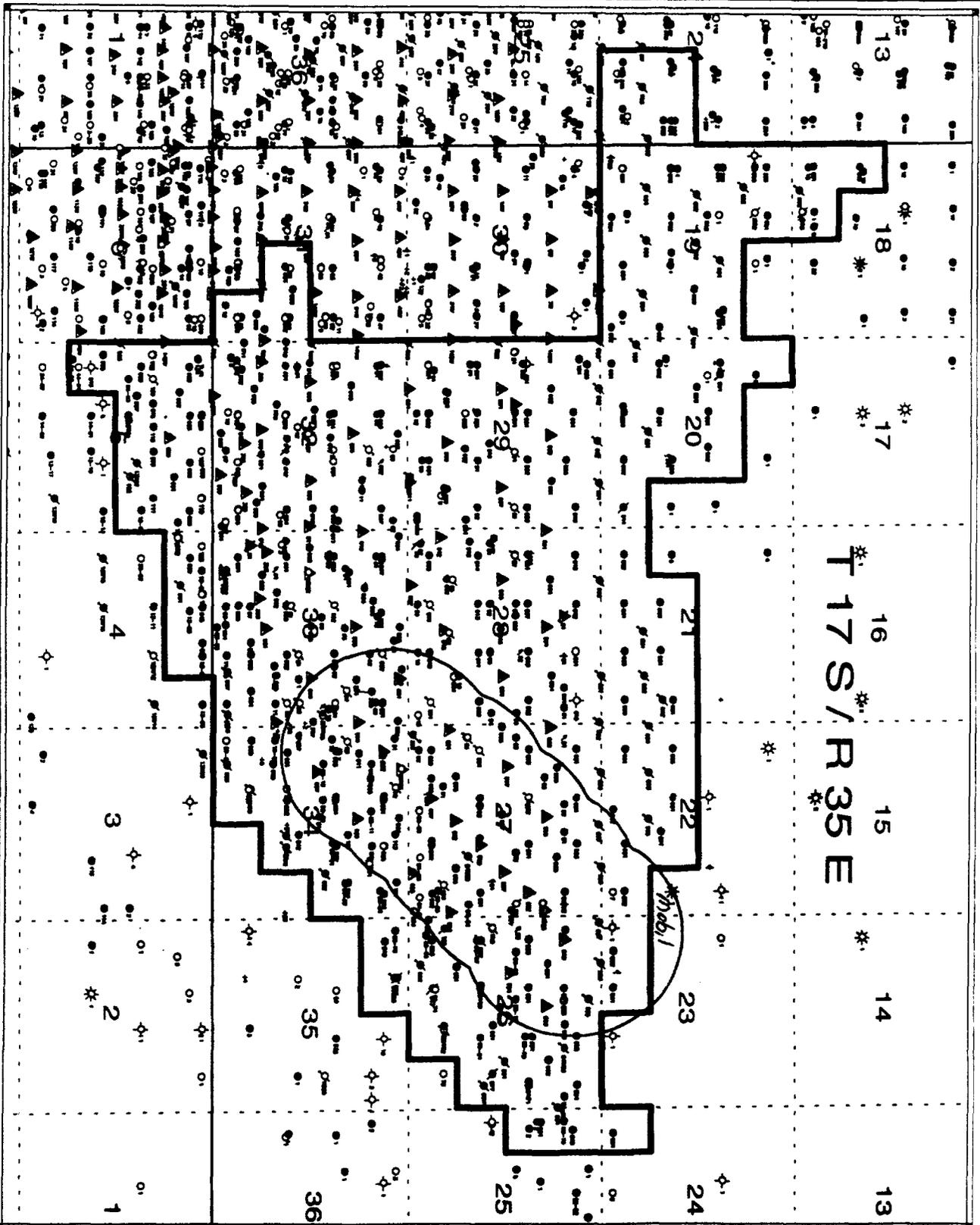
Tubing 2.875" lined with plastic coating set in a 7" ELDER LOK-SET packer at 4360'  
 (brand & model)

**Other Data**

1. Name of the injection formation SAN ANDRES
2. Name of the Field or Pool VACUUM
3. Is this a new well drilled for injection? NO  
 If no, for what purpose was the well originally drilled? OIL PRODUCER

4. 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

5. Give the depth to and name of any overlying and/or underlying oil or gas zones  
 (pools) in this area. YATES @ 2700'  
GLORIETA @ 5800'



0.2 0. 0.2 0.4 0.6 0.8 1. miles



Phillips Petroleum Co.			
East Vacuum Cracking San Andres Unit			
Area of Review			
Leo County, New Mexico			
No.	Date	Scale	Notes

## EAST VACUUM GRAYBURG SAN ANDRES UNIT

ATTACHMENT III TO FORM C-108  
APPLICATION FOR AUTHORIZATION TO INJECT  
WELLS WITHIN 1/2 MILE RADIUS OF REVIEW

## WELL DATA TABLE

Operator/Lease Name	Well No.	API Number	Location	Surface Casing Size(in) Depth(ft) Cement(ft)	Intermediate Casing Size(in) Depth(ft) Cement(ft)	Production Casing Size(in) Depth(ft) Cement(ft)	Top of Cement	Date Drilled	Record of Completion	Current Status	Total Depth
Phillips	07-05	3002530759	850 FS, 850 FE 27-17S-35E	13 3/8 1640 1500	8 5/8 5100 2850	5 1/2 8900 1100	surface	02-02-80	8700 - 8740 ABO	PROD	8900'
Phillips	01-11	3002520710	330 FS, 330 FE 28-17S-35E	8 5/8 1587 825		4 1/2 6230 750	2850' M	03-25-84	6083 - 6120 GLOR	T & A	6230'
Phillips	01-13	3002532364	1455 FS, 1333 FE 28-17S-35E	8 5/8 1625 800		5 1/2 6350 1985	surface	03-07-84	6024 - 6186 PDCX	PROD	6350'
Phillips	06-02	3002520330	2310 FS, 860 FE 33-17S-35E	8 5/8 1618 575		5 1/2 6245 950	2850' M	11-08-83	6051 - 6079 PDCX 3043 - 3111 YATES	T & A	6245'
Phillips	11-02	3002520301	960 FN, 330 FE 27-17S-35E	13 3/8 358 360	8 5/8 2895 1480	5 1/2 6280 1001	2805' M	12-19-83	6114 - 6208 PDCX	SI PROD	6280'
Phillips	11-03	3002520253	2310 FN, 1750 FE 27-17S-35E	13 3/8 350 360	8 5/8 2998 1500	5 1/2 6269 330	2840' M	12-08-83	6178 - 6200 PDCX	SI PROD	6270'
Phillips	11-04	3002520201	2310 FN, 330 FE 27-17S-35E	13 3/8 351 350	8 5/8 3200 1800	5 1/2 8954 926	3675' M	07-17-83	6116 - 6190 PDCX 2880 - 3094 YATES	P & A **	9000'
Phillips	28-08	3002532367	1500 FN, 1410' FW 27-17S-35E	8 5/8 1650 850		5 1/2 6300 1600	2655' M	06-29-84	6126 - 6165 PDCX	PROD	6300'
Phillips	2738-008	3002528824	1400' FN, 50' FW 27-17S-35E	9 5/8 369 400		5 1/2 4777 1420	surface	02-15-82	4440 - 4668 SADR	WATER INJ.	4777'
Phillips	2720-008	3002527116	1550 FN, 150' FE 27-17S-35E	8 5/8 348 400		5 1/2 4750 1400	surface	08-23-84	4410 - 4550 SADR	WATER INJ.	4750'
Phillips	2230-005	3002527305	1300 FS, 2600 FW 22-17S-35E	8 5/8 375 400		4 1/2 4782 1400	surface	11-25-81	4530 - 4618 SADR	WATER INJ.	4800'
Phillips	2622-007	3002527344	50 FN, 200' FW 28-17S-35E	8 5/8 351 370		4 1/2 4800 912	surface	11-15-82	4536 - 4590 SADR	WATER INJ.	4800'
Phillips	2720-008	3002527345	50 FN, 2500 FE 27-17S-35E	8 5/8 354 311		4 1/2 4800 1140	surface	11-22-82	4430 - 4594 SADR	WATER INJ.	4800'

## EAST VACUUM GRAYBURG SAN ANDRES UNIT

ATTACHMENT III TO FORM C-108  
APPLICATION FOR AUTHORIZATION TO INJECT  
WELLS WITHIN 1/2 MILE RADIUS OF REVIEW

## WELL DATA TABLE

Operator	Lease Name	Well No.	API Number	Location	Surface Casing Size(in) Depth(ft) Cmnt(ft/s)	Intermediate Casing Size(in) Depth(ft) Cmnt(ft/s)	Production Casing Size(in) Depth(ft) Cmnt(ft/s)	Top of Cement*	Date Drilled	Record of Completion	Current Status	Total Depth
Phillips	EVGSAU	3333-001	3002502981	1990 FN, 690 FE 33-17S-35E	9 5/8 498	7 4096	4 1/2 4709	85	07-06-82	4494-4677 GBSA	PROD	4710'
Phillips	EVGSAU	3332-021	3002502985	660 FN, 690 FE 33-17S-35E	9 5/8 1591	7 4121	4 1/2 4697	180	09-17-82	4420 - 4558 GBSA	PROD	4698'
Phillips	EVGSAU	3440-004	3002503010	1976 FS, 1962 FE 34-17S-35E	9 5/8 1671		5 1/2 4896	1405	01-24-83	4600 - 4766 SADR	WATER INJ.	4900'
Phillips	EVGSAU	2801-004	3002526226	1310 FS, 1330 FE 28-17S-35E	13 3/8 375		7 4897	1185	08-18-79	4434 - 4634 SADR	PROD	4900'
Phillips	EVGSAU	3456-006	3002526390	166 FN, 1155 FW 34-17S-35E	13 3/8 354		5 1/2 4803	1336	09-21-79	4376 - 4661 GBSA	WATER INJ.	4803'
Phillips	EVGSAU	3467-001	3002526522	1050 FN, 1520 FE 34-17S-35E	8 5/8 370		5 1/2 4870	1150	12-23-82	4575 - 4606 SADR	PROD	4870'
Phillips	EVGSAU	2109-002	3002527425	1730 FS, 660 FE 21-17S-35E	8 5/8 350		5 1/2 4800	1200	09-08-82	4517 - 4620 SADR	PROD	4800'
Phillips	EVGSAU	2208-001	3002527426	1960 FS, 1960 FW 22-17S-35E	8 5/8 351		5 1/2 4802	1400	08-12-82	4579 - 4668 SADR	SI PROD	4800'
Phillips	EVGSAU	2648-004	3002532056	536 FS, 100 FW 26-17S-35E	8 5/8 1675	1000	5 1/2 4800	770	10-18-93	4407 - 4672 SADR	PROD	4800'
Phillips	EVGSAU	3440-007	3002532057	2285 FS, 227 FW 34-17S-35E	8 5/8 1620	800	5 1/2 4800	1100	11-27-93	4431 - 4609 SADR	PROD	4800'
Phillips	EVGSAU	2721-003	3002532058	600 FS, 1415 FW 27-17S-35E	8 5/8 1664	1000	5 1/2 4800	1150	09-24-93	4335 - 4627 GBSA	PROD	4800'
Phillips	EVGSAU	3456-011	3002532060	1340 FN, 712 FW 34-17S-35E	8 5/8 1612	1000	5 1/2 4800	1100	11-27-93	4400 - 4646 SADR	PROD	4800'
Phillips	EVGSAU	2721-388	3002532736	205 FS, 255 FW 27-17S-35E	8 5/8 1608	750	5 1/2 4727	950	01-16-95	4413 - 4647 SADR	PROD	4727'

## EAST VACUUM GRAYBURG SAN ANDRES UNIT

ATTACHMENT III TO FORM C-108  
APPLICATION FOR AUTHORIZATION TO INJECT  
WELLS WITHIN 1/2 MILE RADIUS OF REVIEW

## WELL DATA TABLE

Operator	Lease Name	Well No.	API Number	Location	Surface Casing Size(in) Depth(ft) Cmnt(ex)	Intermediate Casing Size(in) Depth(ft) Cmnt(ex)	Production Casing Size(in) Depth(ft) Cmnt(ex)	Top of Cement*	Date Drilled	Record of Completion	Current Status	Total Depth
Phillips	EVGSAU	3332-388	3002532762	1339' FN, 988' FE 33-17S-35E	8 5/8 1639	750	5 1/2 4783	900 surface	02-03-95	4411 - 4661 SADR	PROD	4783'
Mobil	St. Sec 22 COM	1	3002530509	1980' FS, 660' FE 22-17S-35E	13 3/8 432	425	5 1/2 12328	1525 surface	03-27-89	11870 - 11985 ATOK	GAS	12330'
Mobil	St. M	16	3002532598	2075' FN, 300' FW 34-17S-35E	8 5/8 1585	750			09-22-84	NONE	P&A **	8030'
Marathon	AC-3	10	3002532512	2150' FN, 500' FE 33-17S-35E	11 3/4 1452	900	8 5/8 3022	775 1480 surface	04-28-95	6684 - 7196 BLBR	PROD	8435'

\* Top of Cement  
M - Measured by Temp. Survey or Cement Bond Log  
E - Estimated  
C - Calculated using a cement yield of 1.32 cu. ft./sack  
and assuming 50 % excess

\*\* See Diagram for plugging detail

UXY  
 STATE K NO. 5  
 API# 3002520201  
 (VGEU 11-04)

0 - 351' CEMENT 350 sx

0 - 100' CEMENT PLUG  
 0 - 351' 17.5" OD HOLE

0 - 351' 13.375" OD SURF CSG

1200 - 1300' CEMENT PLUG

0 - 3200' CEMENT 1800 sx

0 - 3200' 8.625" OD INT CSG

351 - 3200' 12.25" OD HOLE

3125 - 3250' CEMENT PLUG

3435 - 3485' CEMENT PLUG

3485 - 3535' CEMENT PLUG

4055 - 4155' CEMENT PLUG

3675 - 8954' CEMENT 926 sx

5900 - 6000' CEMENT PLUG

6000 - 6003' CIBP

6145 - 6190' CEMENT PLUG

6210 - 6220' CEMENT PLUG

6220 - 6223' CIBP

2310 FNL & 330 FEL  
 SEC 27 , TWN 17 S, RANGE 35 E  
 ELEVATION: 3930 DF  
 SPUD DATE: 07-17-63  
 COMPLETION DATE: 09-09-63  
 COMPLETION INTERVAL: 6116 - 6190 (PDCK)  
 \*\*\*\*  
 COMPLETION DATE: 10-30-91  
 COMPLETION INTERVAL: 2990 - 3094 (YATES)

6166 - 6142' PERFS

8810 - 8912' PERFS

8638 - 8712' PERFS

3200 - 9000' 7.875" OD HOLE

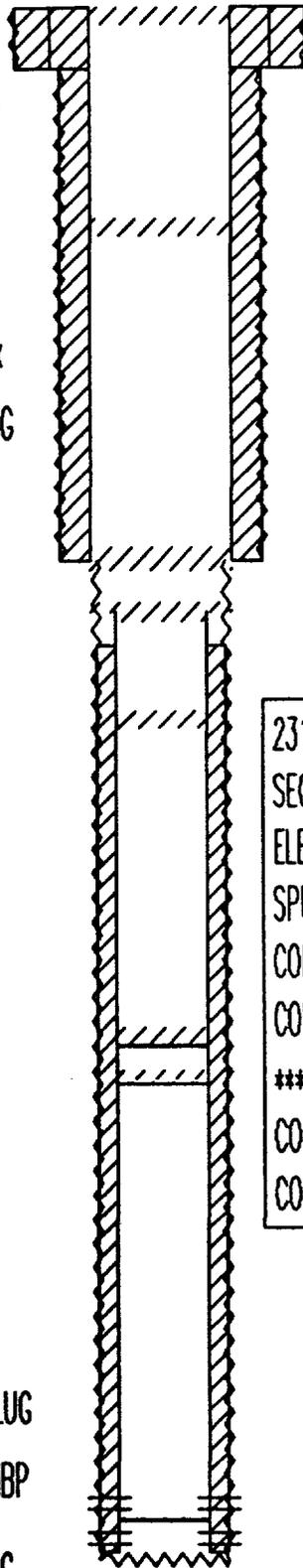
8760 - 8770' CEMENT PLUG

8770 - 8773' CIBP

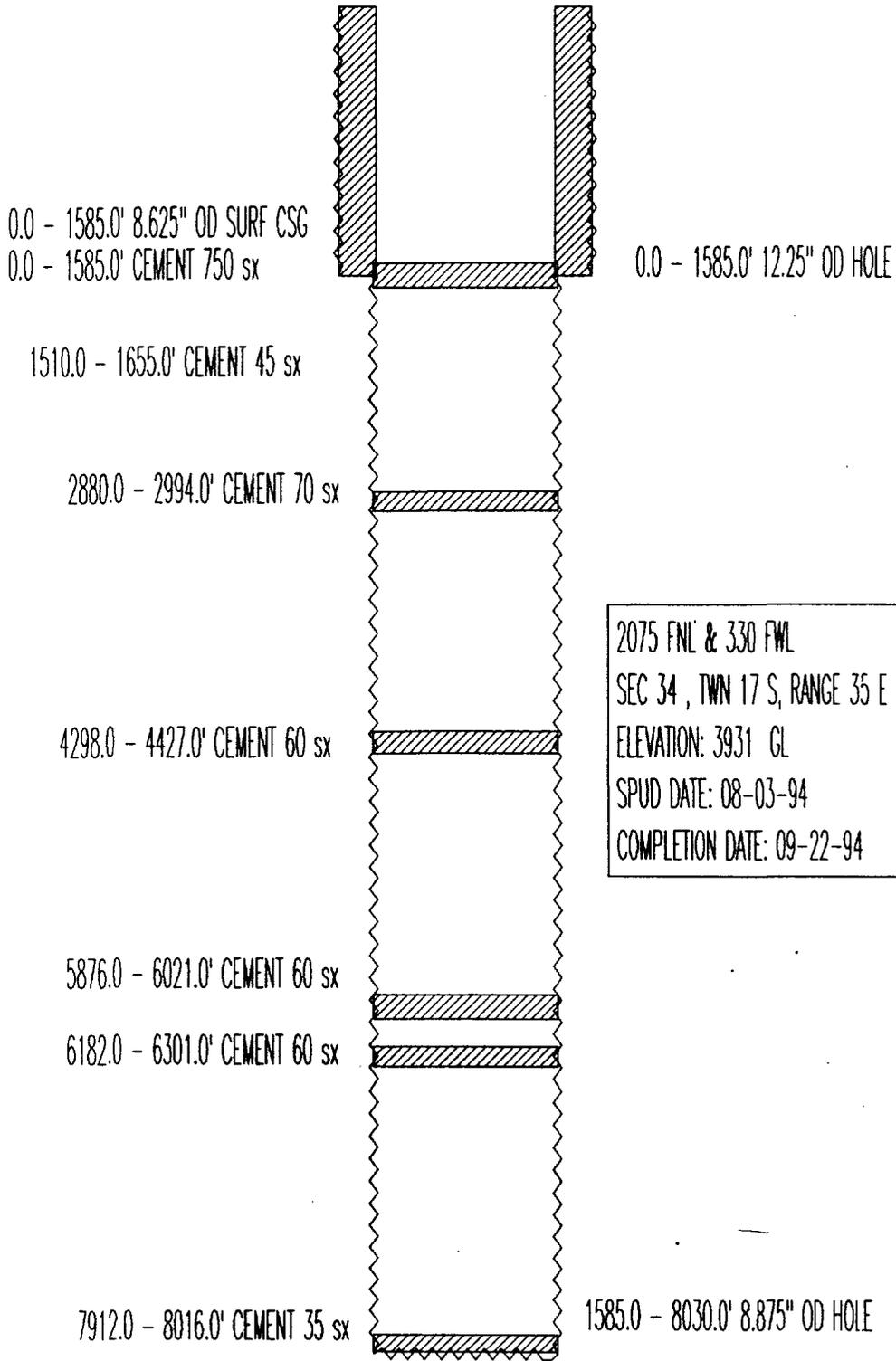
3485 - 8954' 5.5" OD PROD CSG

KB ELEV: 3930'

TD: 9000'



MODII  
State M #16  
3002532598



2075 FNL & 330 FWL  
SEC 34 , TWN 17 S, RANGE 35 E  
ELEVATION: 3931 GL  
SPUD DATE: 08-03-94  
COMPLETION DATE: 09-22-94

PBTD: 1510'  
TD: 8030'

**EAST VACUUM GRAYBURG SAN ANDRES UNIT  
ATTACHMENT VII TO FORM C-108  
APPLICATION FOR AUTHORIZATION TO INJECT WATER  
AND CARBON DIOXIDE**

**DATA ON THE PROPOSED OPERATION  
OF THE INJECTION WELLS UNDER APPLICATION**

The proposed average and maximum daily water injection rates per well is:

Average daily rate 1,200 BWPD, Maximum daily rate 2,200 BWPD

The proposed average and maximum daily carbon dioxide rate per well is:

Average daily rate 3,000 MMSCFD, Maximum daily rate 5,000 MMSCFD

Both the water and carbon dioxide systems are closed.

The proposed average and maximum surface injection pressures for water are:

Average injection pressure 1,000 PSIG, Maximum\* injection pressure 1,350 PSIG

The proposed average and maximum surface injection pressures for carbon dioxide are:

Average injection pressure 1,500 PSIG, Maximum\* injection pressure 1,850 PSIG

\* Maximum injection pressures are based on pre-existing Unit injection pressure allowable which are based on actual San Andres fracture gradients.

There are two sources of injection water makeup, San Andres produced water from Phillips operated East Vacuum Grayburg San Andres Unit and Ogallala fresh water from the EVGSAU water supply wells. Both waters have been injected into the San Andres formation since 1979, and are compatible with each other and the San Andres formation. The two sources of carbon dioxide are from reinjected produced gas and purchased pipeline sales gas. The gas composition is approximately:

CARBON DIOXIDE	91%
HYDROGEN SULPHIDE	2%
NITROGEN	2%
HYDROCARBON	5%

Carbon dioxide has been injected into the San Andres Formation since 1985 under the authority on NMOCD Order No. R6856 dated 12/16/81.

**EAST VACUUM GRAYBURG SAN ANDRES UNIT  
ATTACHMENT IX TO FORM C-108  
APPLICATION FOR AUTHORIZATION TO INJECT WATER  
AND CARBON DIOXIDE**

**PROPOSED STIMULATION PROGRAM  
FOR A  
TYPICAL SAN ANDRES INJECTION WELL**

All injection wells will be cased hole completions selective perforated within the unitized interval. Initial stimulation will be small to medium sized matrix Hydrochloric acid treatments. Acid concentrations will typically range from 7 1/2% to 20 % depending on anticipated completion damage. As the waterflood matures additional matrix acid treatments may be preceded by an oil soluble surfactant, and the acid mixture may contain commercial mutual solvents.

**EAST VACUUM GRAYBURG SAN ANDRES UNIT  
ATTACHMENT XII TO FORM C-108  
APPLICATION FOR AUTHORIZATION TO INJECT WATER  
AND CARBON DIOXIDE**

**STATEMENT OF HYDRAULIC INTEGRITY**

Phillips Petroleum Company has examined available geological and engineering data and finds no evidence of open faults nor any other hydraulic connection between the injection zone and any underground source of drinking water.

**ATTACHMENT NO. XIV**

**NOTIFICATION**

**SURFACE LAND OWNER:**

**STATE OF NEW MEXICO  
COMMISSION OF PUBLIC LANDS  
P.O. BOX 1148  
SANTA FE, NEW MEXICO 87501-1148**

**OFFSET OPERATORS:**

**MOBIL PRODUCING TEXAS AND NEW MEXICO  
BOX 1800  
HOBBS, NM 88240**

**I hereby certify that a complete copy of this application has been furnished by certified mail to the above parties of interest.**

**Signed:**



**L. M. Sanders  
Senior Regulation Analyst**

**Date: March 20, 1996**

AFFIDAVIT OF PUBLICATION

State of New Mexico,  
County of Lea.

I, Kathi Bearden

-Publisher

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  
March 17, 1996

and ending with the issue dated  
March 17, 1996

Kathi Bearden  
Publisher

Sworn and subscribed to before

me this 20<sup>th</sup> day of

March, 1996

Emilio S. Guerrero  
Notary Public.

My Commission expires  
March 24, 1998  
(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**  
**March 17, 1996**

Notice is hereby given of the application of Phillips Petroleum Company, 4001 Penbrook Street, Odessa, Texas 79762, Attn: Mr. L. M. Sanders, (915) 368-1488, to the Oil Conservation Division, New Mexico Energy and Mineral Department, for approval of the following wells for water alternating carbon dioxide (CO2) injection authorization:

Well No.: East Vacuum Grayburg San Andres Unit Tract 2622 Well No. 043  
Field: Vacuum Gb/SA  
Location: 990 feet from the North line and 660 feet from the West line, Unit D, Section 26, T17S, R35E, Lea County, New Mexico

Well No.: East Vacuum Grayburg San Andres Unit Tract 2720 Well No. 002  
Field: Vacuum Gb/SA  
Location: 1980 feet from the North line and 660 feet from the East line, Unit H, Section 27, T17S, R35E, Lea County, New Mexico

Well No.: East Vacuum Grayburg San Andres Unit Tract 2721 Well No. 007  
Field: Vacuum Gb/SA  
Location: 660 feet from the South line and 1980 feet from the West line, Unit N, Section 27, T17S, R35E

Well No.: East Vacuum Grayburg San Andres Unit Tract 2739 Well No. 003  
Field: Vacuum Gb/SA  
Location: 1980 feet from the South line and 1980 feet from the East line, Unit J, Section 27, T17S, R35E

Well No.: East Vacuum Grayburg San Andres Unit Tract 3456 Well No. 002  
Field: Vacuum Gb/SA  
Location: 660 feet from the North line and 660 feet from the West line, Unit D, Section 34, T17S, R35E

The water/CO2 injection formation is Grayburg/San Andres at a depth of 4350' - 4650' below the surface of the ground.

Expected maximum water injection rate is 2200 BWPD at a maximum injection pressure of 1350 PSIG. Expected maximum CO2 injection is 5000 MMSCFD at a maximum injection pressure of 1850 PSIG.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, 2040 S. Pacheco, Santa Fe, NM 87504 within 15 days.

#14441