November 23, 1999

New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Attn: Mark Ashley

RE: C-108: Application for Authorization to Inject
Order R-5530- A/B/C/D/E, PMX-86, PMX-121, PMX-178, PMX-179
Central Vacuum Unit, Vacuum Grayburg San Andres
Well Nos. 242 and 345
Texaco Exploration and Production Inc.
T-17/18-S, R-34/35-E, Lea County, New Mexico

Dear Sir:

The C-108, submitted for the Central Vacuum Unit Nos. 242 and 345, has a project area that was previously covered by several other C108 applications. The only changes, since the last C108 was approved (4/30/97), was the drilling of four producers and the plugging of one well. Included in the C108 were wellbore drawings with the required information for these five wells.

Should any additional information be need you may contact me at (505)397-0420 or at the above address.

Yours truly,

James L. Anderson
Operations Engineer

jla

PMX 12/3/99

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 SOUTH PACHECO
SANTA FE, NEW MEXICO 87505

FORM C-108
Revised 4-1-98

200

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery ____X____Pressure Maintenance _____Disposal _____Storage
Application qualifies for administrative approval? ____X____Yes _____No

II. OPERATOR: __Texaco Exploration and Production Inc._____

ADDRESS: ____205 E. Bender, Hobbs, New Mexico 88240_____

NOV 18 1999

CONTACT PARTY: __James Anderson_____PHONE: _(505)397-0420__

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? ___X_____Yes _____No
If yes, give the Division order number authorizing the project: _R-5530 – A/B/C/D/E_____

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 geologic data on the injection zone including appropriate lithologic detail, geologic 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 sources 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 sources 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: ___James L. Anderson_____TITLE: _Operations Engineer_____

SIGNATURE: James Anderson _____DATE: 11/10/99

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: R5530, 8/17/77; R5530A, 6/21/78; R5530B, 8/30/78; R5530C, 9/23/81; R5530D, 3/16/83; R5530E 4/30/97; PMX86, 5/6/80; PMX121, 11/17/82; PMX178 1/31/95; PMX179, 4/4/95; Commission Hearings and Applications.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate 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 the 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, 2040 South Pacheco, Santa Fe, New Mexico 87505, 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.

October 14, 1999

New Mexico Oil Conservation Division – Form C-108
Application for Expansion

Unit Name: Central Vacuum Unit Lea County, New Mexico

Conversion Well Number and Location:

345 - Unit Letter N 1310' FSL 1850' FWL Section 31 T-17-S R-35-E 30-025-31294

242 - Unit Letter A 90' FNL 706' FEL Section 36 T-17-S R-34-E 30-025-30104

III. All pertinent well data is included on the schematic sheets.

IV. Data for sections VI, VIII, X and XI has been previously submitted under NMOCD Order R-5530 dated September 20, 1977.

V. A lease map of wells within a 2 mile radius is attached. A ½ mile radius circle is drawn around the subject wells, which constitutes the area of review. A second detail map shows all of the wells in the area of review.

VI. This part of the Vacuum Field was also covered by AOR's for several other projects. NMOCD Order R-4412, dated October 10, 1972, authorized the North Vacuum Abo Unit, which is operated by Mobil Oil Corp. NMOCD Order R-9714, dated September 3, 1992, authorized the Vacuum Glorieta West Unit which is operated by Texaco E & P Inc. NMOCD Order R-10307, dated February 3, 1995 authorized the cooperative injection in the Vacuum Drinkard operated by Texaco E & P Inc. and Marathon Inc..

An attached map shows the location of wells drilled or plugged after 1/1/97 that were not included in prior C-108 applications. Data for these well in included in the application.

VII. Proposed average daily injection rate per well is 1500 Bbls per day of produced water or 3000 MSCFPD of predominantly CO2 gas. Anticipated maximum rates of each are 2500 Bbls per day or 7000 MSCFPD. Maximum pressure on water not to exceed 1500 psig or 1850 psig while on CO2 injection. The initial injection will be water and the initial injection pressure will be limited to 860 psig (.2 psi/ft). Step rate tests will be run to establish higher limits with the authorization of the NMOCD. The system will be closed.

VIII. Previously supplied.

IX. The subject wells will be stimulated in stages with 10,000 gals 15% NEFE and surfactants as needed. Rock salt and ball sealers will be utilized for diversion.

X. Previously supplied.

XI. Previously supplied.

XII. Based on current geological and engineering data, there is no evidence of natural or artificially induced open faults within the area of review. There is no known communication between the injection zone and any subsurface source of drinking water.

XIII. A copy of the Legal Notice is attached.

Side 1

INJECTION WELL DATA SHEET

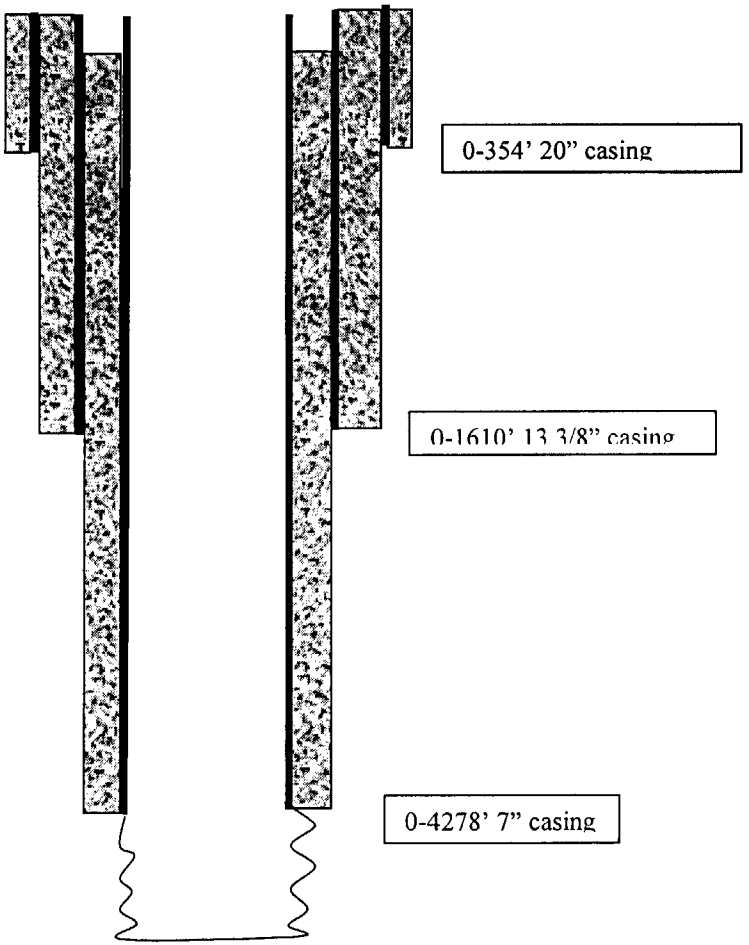
OPERATOR: Texaco E & P Inc.

WELL NAME & NUMBER: Central Vacuum Unit No. 242 API # 30-025-30104

WELL LOCATION: 90 FNL & ~~1850~~ 706 FWL A 36 17S 34E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 24" Casing Size: 20"

Cemented with: 850 sx. *or* ft³

Top of Cement: SURFACE Method Determined: Circulated

Intermediate Casing

Hole Size: 17 1/2" Casing Size: 13 3/8"

Cemented with: 1600 sx. *or* ft³

Top of Cement: SURFACE Method Determined: Circulated

Production Casing

Hole Size: 8 3/4" Casing Size: 7"

Cemented with: 900 sx. *or* ft³

Top of Cement: 120 Method Determined: Temp. Survey

Total Depth: 4720'

Injection Interval

Open Hole 4278 feet to 4720

(~~Perforated~~ or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8" Lining Material: Rice Duoline

Type **of Packer**: Guiberson G-6

Packer Setting Depth: 4220'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____Yes __x__No

   If no, for what purpose was the well originally drilled? ___Oil Producer _____

   _____

2. Name of the Injection Formation: Grayburg / San Andres

3. Name of Field or Pool (if applicable): Vacuum Grayburg San Andres

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. ____No_____

   _____

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Glorieta – 5800', Paddock – 6000', Blinebry 6300', Drinkard – 7450', Abo – 7900', Wolfcamp – 9250', Penn – 10000', Strawn – 11000', Atoka – 11100', Morrow – 11400', Devonian – 11900'

Side 1

INJECTION WELL DATA SHEET

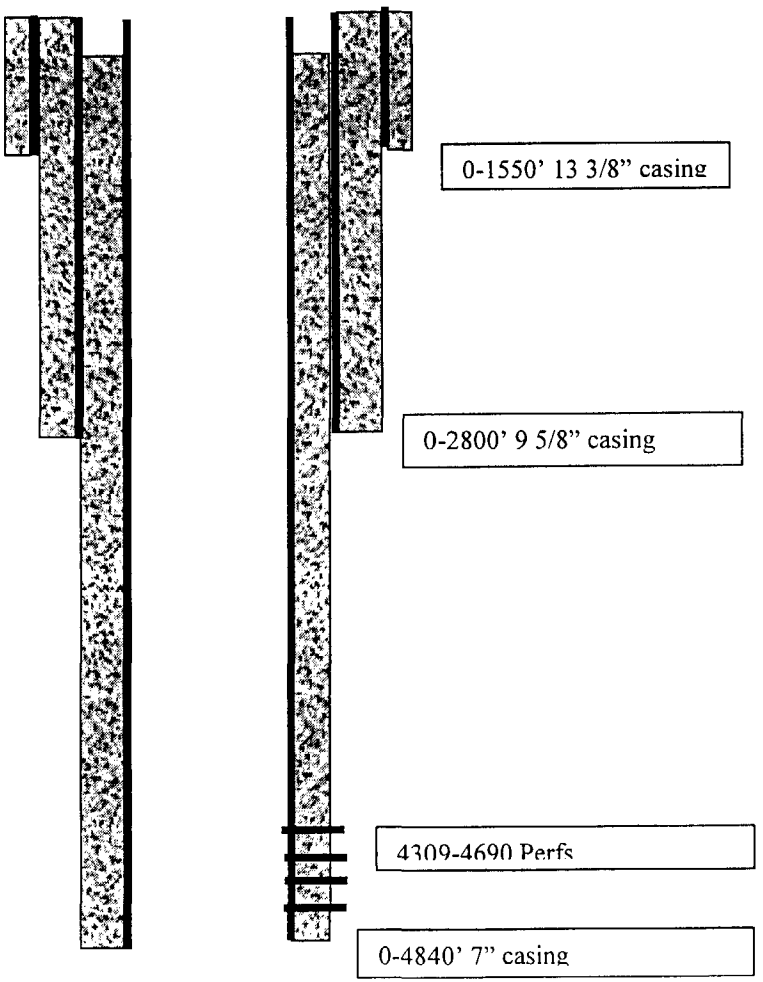
OPERATOR: Texaco E & P Inc.

WELL NAME & NUMBER: Central Vacuum Unit No. 345

WELL LOCATION: 1320 FSL & 1850 FWL | N | 31 | 17S | 35E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17 1/2" Casing Size: 13 3/8"

Cemented with: 1600 sx. *or* _____ ft^3

Top of Cement: SURFACE Method Determined: Circulated

Intermediate Casing

Hole Size: 12 1/4" Casing Size: 9 5/8"

Cemented with: 1550 sx. *or* _____ ft^3

Top of Cement: SURFACE Method Determined: Circulated

Production Casing

Hole Size: 8 3/4" Casing Size: 7"

Cemented with: 900 sx. *or* _____ ft^3

Top of Cement: 250 Method Determined: Temp. Survey

Total Depth: 4840'

Injection Interval

Perforated 4309 feet to 4690

(Perforated or ~~Open Hole~~; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8" Lining Material: Rice Duoline

Type of Packer: Guiberson G-6

Packer Setting Depth: 4250'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____Yes __x____No

   If no, for what purpose was the well originally drilled? ___Oil Producer _____

   _____

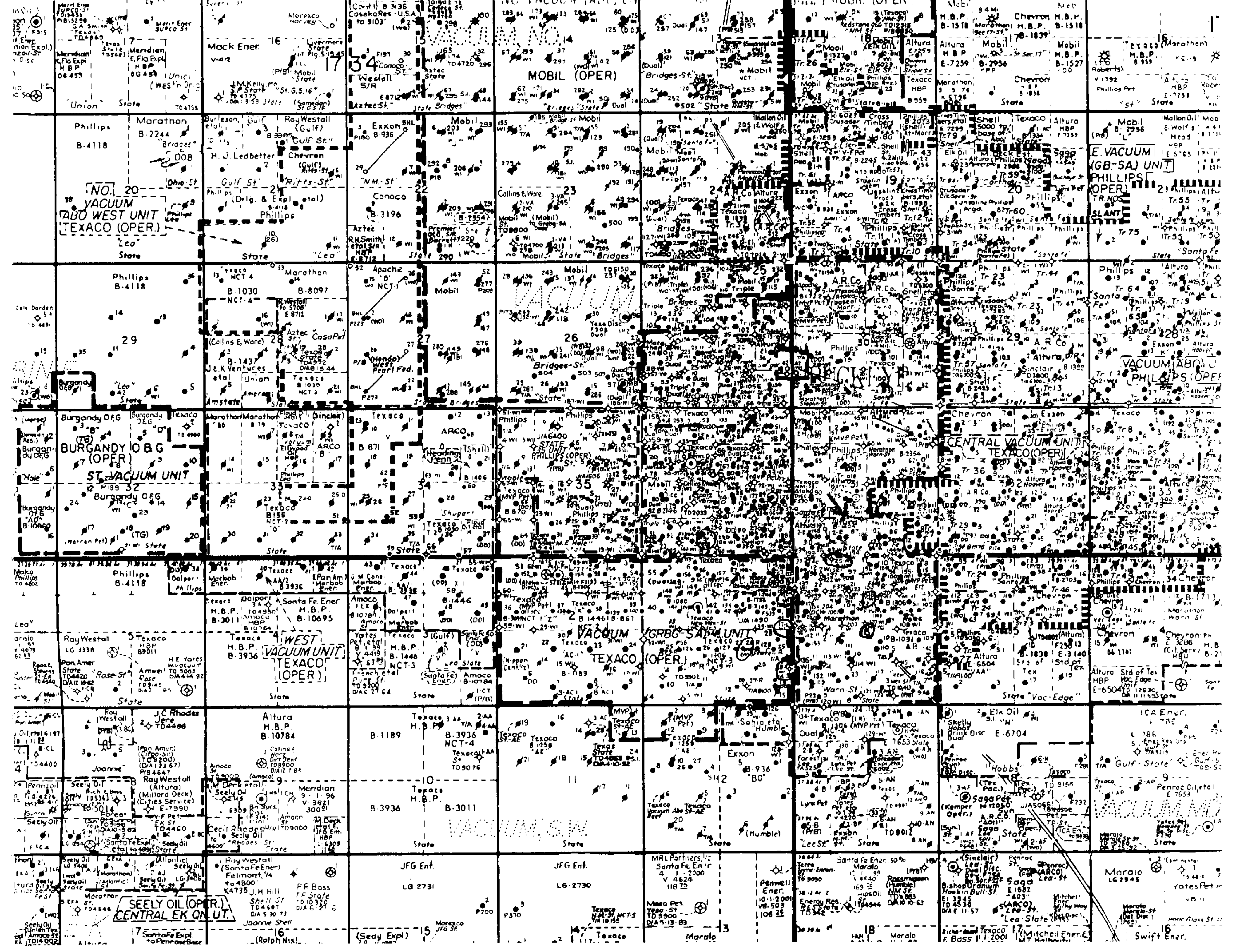
2. Name of the Injection Formation: Grayburg / San Andres

3. Name of Field or Pool (if applicable): Vacuum Grayburg San Andres

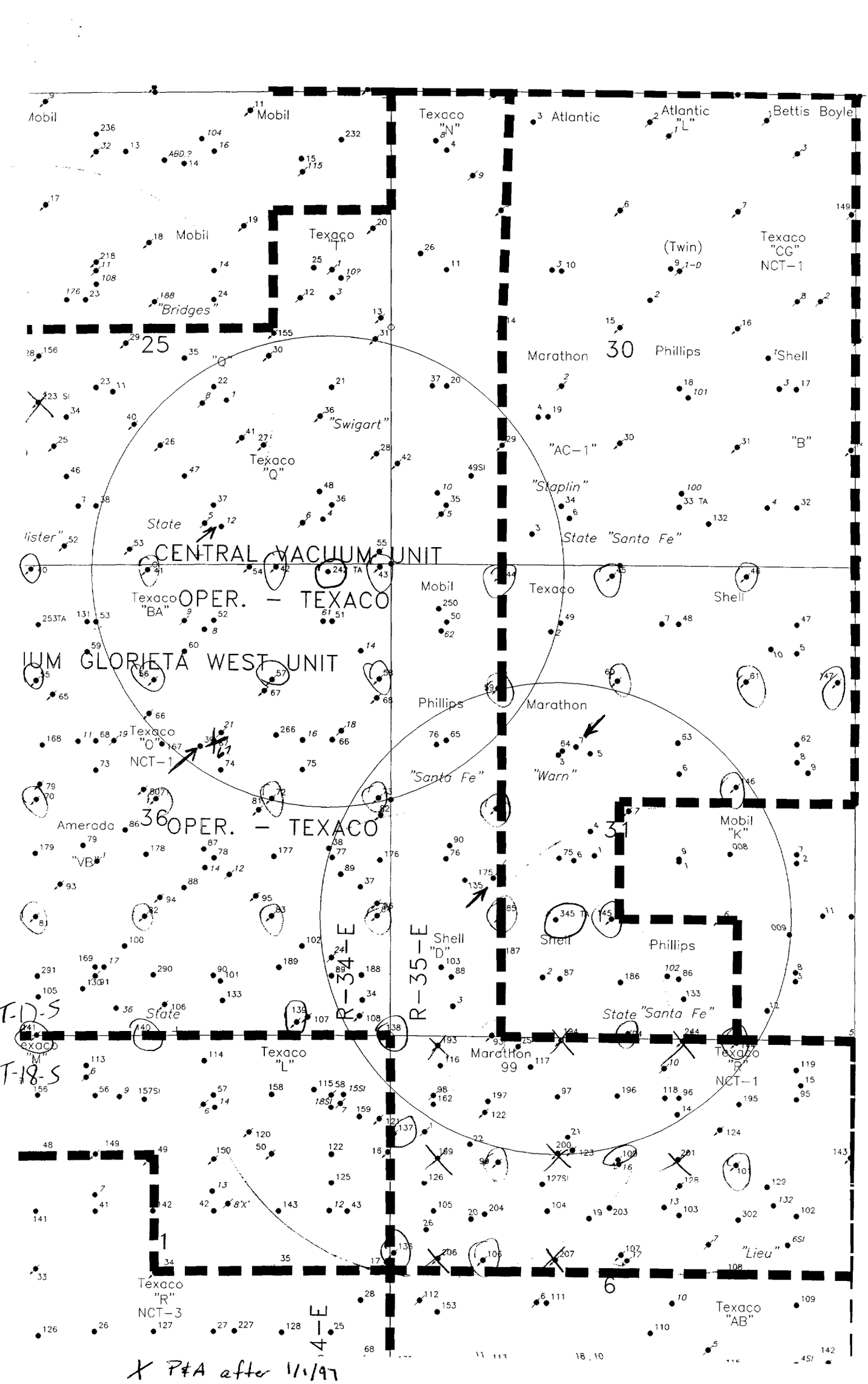
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. ____No_____

   _____

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Glorieta – 5800', Paddock – 6000', Blinebry 6300', Drinkard – 7450', Abo – 7900', Wolfcamp – 9250', Penn – 10000', Strawn – 11000', Atoka – 11100', Morrow – 11400', Devonian – 11900'



NO. 20 VACUUM ABO WEST UNIT TEXACO (OPER.)
MOBIL (OPER)
E. VACUUM (GB-SA) UNIT PHILLIPS (OPER)
VACUUM ABO U PHILLIPS (OPER)
CENTRAL VACUUM UNIT TEXACO (OPER)
BURGANDY O&G (OPER)
ST. VACUUM UNIT
WEST VACUUM UNIT TEXACO (OPER)
VACUUM (GRBG-SA) UNIT TEXACO (OPER.)
SEELY OIL (OPR.) CENTRAL EK ON UT.
VACUUM, S.W.


Mobil
Mobil
Texaco "N"
Atlantic
Atlantic "L"
Bettis Boyle
Mobil
Texaco "T"
(Twin)
Texaco "CG" NCT-1
"Bridges"
25
"Q"
Marathon
30
Phillips
Shell
"Swigart"
Texaco "Q"
"AC-1"
"B"
"Staplin"
State
"lister"
State "Santa Fe"
CENTRAL VACUUM UNIT
Texaco "BA"
OPER. - TEXACO
Mobil
Texaco
Shell
IUM GLORIETA WEST UNIT
Phillips
Marathon
Texaco "O" NCT-1
"Santa Fe"
"Warn"
Amerada
36
OPER. - TEXACO
31
Mobil "K"
"VB"
R-34-E
R-35-E
Shell "D"
Shell
Phillips
T-17-S
T-18-S
State
State "Santa Fe"
Texaco "M"
Texaco "L"
Marathon
99
Texaco "R" NCT-1
1
Texaco "R" NCT-3
4-E
6
"Lieu"
Texaco "AB"
X P&A after 1/1/97
→ New drill after 1/1/97

P&A 10/5/99

TEXACO E&P INC
CENTRAL VACUUM UNIT No. 67
API# 30 025 02237

0.0 - 308.0' CEMENT PLUG 150 sx, circ.

0.0 - 258.0' CEMENT 200 sx

0.0 - 258.0' 10.75" OD 33.00#/ft SURF CSG

0.0 - 258.0' 12.25" OD HOLE

308.0 - 308.0' SQUEEZE PERFS

0.0 - 1565.0' CEMENT 450 SX

800.0 - 1538.0' CEMENT 200 sx

1495.0 - 1500.0' RETAINER

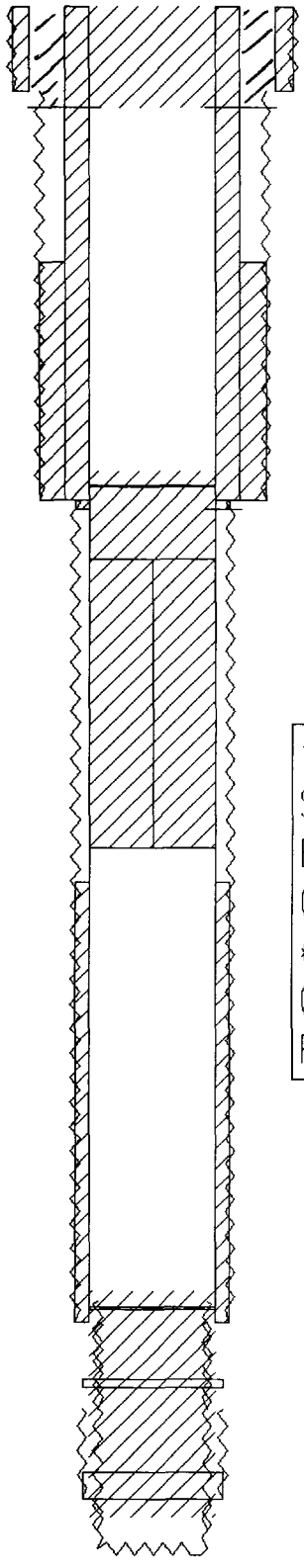
0.0 - 1538.0' 7.625" OD 26.40#/ft INT CSG

258.0 - 1538.0' 9.875" OD HOLE

1453.0 - 2621.0' CEMENT PLUG 175 sx

1565.0 - 1565.0' SQUEEZE PERFS

1719.0 - 2621.0' Casing Leak



1980 FNL & 1980 FEL
SEC 36 , TWN 17 S, RANGE 34 E
ELEVATION: 4007 ES
COMPLETION DATE: 05-30-38
****
COMPLETION INTERVAL: 4094 - 4742 (GBSA)
Former Texaco NM "O" State NCT-1 #3

2728.0 - 4094.0' CEMENT 250 sx, TOC by CBL

4050.0 - 4055.0' RETAINER

0.0 - 4094.0' 5.5" OD 17.00#/ft PROD CSG

1538.0 - 4094.0' 6.75" OD HOLE

4000.0 - 4700.0' CEMENT PLUG 300 sx

4273.0 - 4300.0' STUCK SUB2

4094.0 - 4368.0' 4.75 " OD HOLE

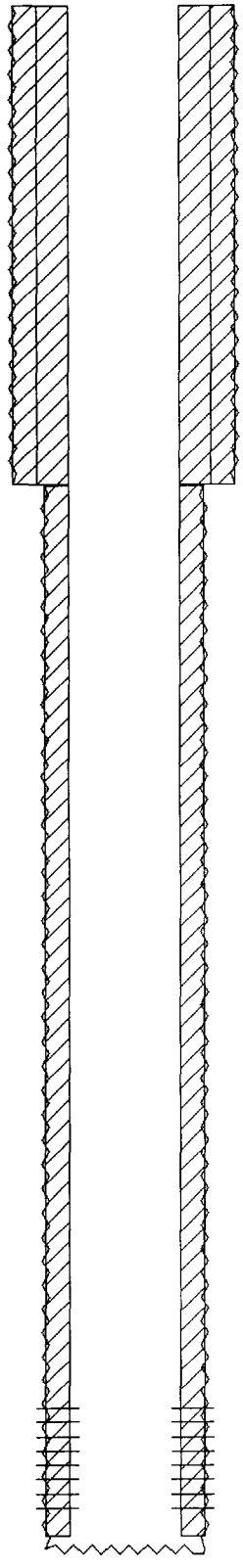
4647.0 - 4742.0' 4.75" OD HOLE

4368.0 - 4647.0' 6.125" OD HOLE

4032.0 - 4800.0' 4.75" OD HOLE SIDETRACK

4562.0 - 4647.0' STUCK SUB

TEXACO E&P INC.
CENTRAL VACUUM UNIT NO. 175
API# 30 025 33722



0.0 – 1520.0' CEMENT 550 sx, CIRC.

0.0 – 1520.0' 8 5/8" OD 24.00#/ft SURF CSG

0.0 – 1520.0' 11" OD HOLE

0.0 – 4850.0' CEMENT 900 SX, CIRC.

SUR 1617 FSL & 1107 FWL
BHL 1958 FSL & 1313 FWL
SEC 31 , TWN 17 S, RANGE 35 E
ELEVATION: 3983 GR
COMPLETION DATE: 01-25-97
####
COMPLETION INTERVAL: 4445 – 4760 (GBSA)

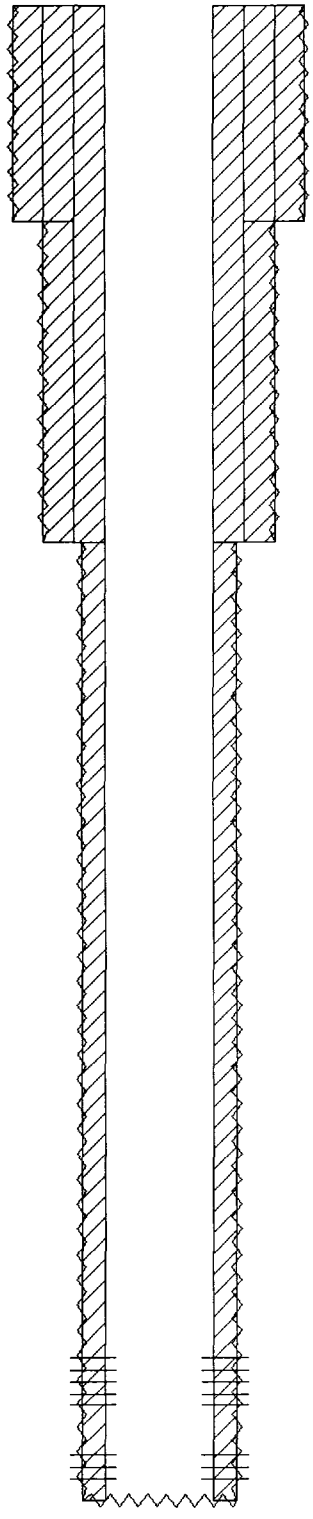
4445.0 – 4760.0' PERFS

0.0 – 4850.0' 5 1/2" OD 17.00#/ft PROD CSG

1520.0 – 4890.0' 7.875" OD HOLE

KB ELEV: 3999'
PBTD: 4842'
TD: 4890'

TEXACO E&P INC.
NM "Q" State No. 12
API# 30 025 33850



0.0 - 1504.0' CEMENT

0.0 - 1504.0' 11 3/4" OD 42.00#/ft SURF CSG

0.0 - 3718.0' CEMENT

0.0 - 3718.0' 8 5/8" OD 32.00#/ft INT CSG

0.0 - 10349.0' CEMENT

0.0 - 10349.0' 5 1/2" OD 17.00#/ft PROD CSG

0.0 - 1504.0' 14.75" OD HOLE

1504.0 - 3718.0' 11.75" OD HOLE

3718.0 - 10349.0' 7.875" OD HOLE

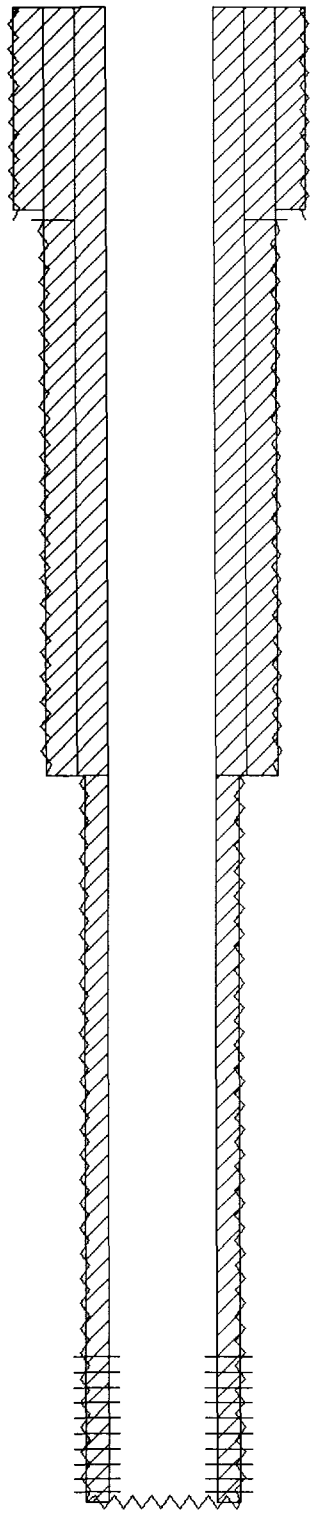
400 FSL & 1900 FEL
SEC 25, TWN 17S, RANGE 34E
ELEVATION: 3998' GR
COMPLETION DATE: 05-15-97
COMPLETION INTERVALS: 10,020' - 10,202' (Penn)
9,310' - 9,678' (Wolfcamp)

9310.0 - 9678.0' PERFS

10020.0 - 10202.0' PERFS

PBTD: 10300'
TD: 10350'

TEXACO E&P INC.
NM "O" NCT-1 No. 39
API# 30 025 33569



0.0 - 1408.0' CEMENT

0.0 - 1480.0' 11 3/4" OD 42.00#/ft SURF CSG

0.0 - 1480.0' 14.75" OD HOLE

0.0 - 5310.0' CEMENT

0.0 - 10300.0' CEMENT

0.0 - 5310.0' 8 5/8" OD 32.00#/ft INT CSG

1480.0 - 5310.0' 11.75" OD HOLE

2075 FNL & 2110 FEL
SEC 36, TWN 17S, RANGE 34E
ELEVATION: 3997' GR
COMPLETION DATE: 06-16-97
COMPLETION INTERVALS: 10,102' - 10,230' (Penn)
9,303' - 10,048' (Wolfcamp)

9303.0 - 10048.0' PERFS

10102.0 - 10230.0' PERFS

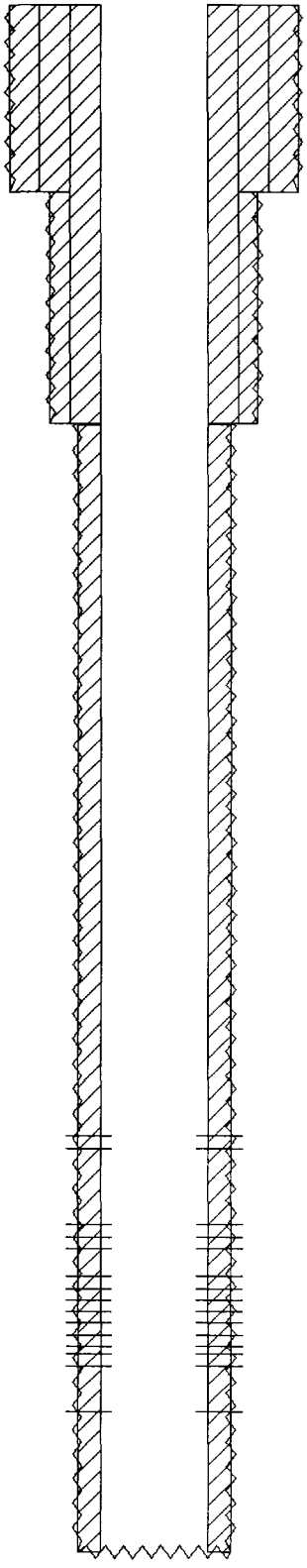
0.0 - 10300.0' 5 1/2" OD 17.00#/ft PROD CSG

5310.0 - 10300.0' 7.875" OD HOLE

PBTD: 10100'

TD: 10300'

Marathon
WARN STATE A/C-1 No. 7
API #: 30 - 025 - 33951



0.0 - 1385.0' CEMENT 815 sx, circulated

0.0 - 1385.0' 11 3/4" OD SURF CSG

0.0 - 3143.0' CEMENT 980 sx

0.0 - 3143.0' 8 5/8" OD INT CSG

0.0 - 11610.0' CEMENT 2440 SX

0.0 - 11610.0' 5 1/2" OD PROD CSG

0.0 - 1385.0' 14.75" OD HOLE

1385.0 - 3143.0' 10.625" OD HOLE

3143.0 - 11610.0' 7.875" OD HOLE

2036 FNL & 2089 FWL
SEC 31, TWN 17S , RANGE 35E
ELEVATION: 4001' KB
TD: 11610
COMPLETION DATE: 02-16-98
COMPLETION INTERVAL: 8438' - 9309' (ABO)
9466'-10055' WOLFCAMP, 10092'-10559' (PENN)

8438.0 - 8559.0' PERFS

9124.0 - 9309.0' PERFS
9466.0 - 9699.0' PERFS
9754.0 - 10055.0' PERFS
10092.0 - 10200.0' PERFS
10511.0 - 10559.0' PERFS

PBTD: 10990'

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs News-Sun, a 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

November 7 1999

and ending with the issue dated

November 7 1999

Kathi Bearden

Publisher

Sworn and subscribed to before me this 8th day of November 1999

Jodi Henson

Notary Public.

My Commission expires
October 18, 2000
(Seal)

LEGAL NOTICE
November 7, 1999

Notice is hereby given of Texaco E & P Inc., 205 E. Bender, Hobbs, NM 88240, Attn: James L. Anderson, engineer, telephone (505) 397-0420, to the New Mexico Oil Conservation Commission, Energy and Minerals Department, for approval to convert two producing wells to water and CO2 injection wells for the purpose of pressure maintenance.

Unit Name: Central Vacuum Unit, Lea County, New Mexico. Conversion Well Number and Location:

242-Unit Letter A, 90' FNL 706' FEL, Sec 36, T17S, R34E 345-Unit Letter N, 1310' FSL 1850' FWL, Sec 31, T17S, R35E

The injection formation is Vacuum Grayburg San Andres at a depth of 4300 feet below the surface of the ground. Expected maximum injection rate is 1500 bbls or 7000 mcf per day, and expected maximum initial injection pressure is 860 psi. Interested parties must file objections or requests for hearing with the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505 within 15 days of this publication.

#16977

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.

01101308000 02532694

Texaco E&P, Inc.
205 E. Bender
Hobbs, NM 88240

Company	Title	Address1	City	State	PostalCode
Phillips Petroleum Co.	Land Department	4001 Pembrook	Odessa	TX	79762
Collins & Ware Inc.		508 W Wall, Ste 1200	Midland	TX	79701-5076
Marathon Oil Company	Joint Interest Supv.	P.O. Box 552	Midland	TX	79702
Mobil E & P US, Inc.	OBO/CO2 Bus. Adv.	P.O. Box 663	Midland	TX	79702
Altura		P.O. Box 4294	Houston	TX	77001
Apache Corp.		2000 Post Oak Suite 100	Houston	TX	77056-4400
Roy Pearce, Jr Trust	Land Owner	1717 S. Jackson	Pecos	TX	79772
Giles M. Lee	Land Owner	West Star Route Box 478	Lovington	NM	88260
NM State Land Office	Land Owner	3830 N. Grimes Suite C	Hobbs	NM	88240

The above were supplied with the required information of offset operator and/or landowner by registered mail.

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 11650
ORDER NO. R-5530-E

APPLICATION OF TEXACO EXPLORATION AND PRODUCTION INC. FOR AMENDMENT OF DIVISION ORDER NO. R-5530, AS AMENDED, TO INCREASE INJECTION PRESSURES IN ITS CENTRAL VACUUM UNIT PRESSURE MAINTENANCE PROJECT AREA, AUTHORIZE A TERTIARY RECOVERY PROJECT BY THE INJECTION OF CARBON DIOXIDE AND TO QUALIFY THIS PROJECT FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE "ENHANCED OIL RECOVERY ACT", LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a. m. on December 19, 1996, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 30th day of April, 1997, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) By Division Order R-5496, entered in Case No. 5970 on August 9, 1977, the Division, upon application of Texaco Inc., approved the Central Vacuum Unit, said unit comprising some 3,046 acres, more or less, of State and fee lands described as follows:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
Section 25: S/2, SE/4 NE/4
Section 36: All

TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM
Section 30: All
Section 31: N/2, SW/4, SW/4 SE/4

TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM
Section 12: N/2 NE/4

TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM
Section 6: All
Section 7: NW/4, NW/4 NE/4

(3) By Order No. R-5530 entered in Case No. 6008 on September 20, 1977, the Division authorized Texaco Inc. to institute a pressure maintenance project within the aforesaid Central Vacuum Unit by the injection of water into the Grayburg and San Andres formations, Vacuum Grayburg-San Andres Pool, through fifty-five initial injection wells.

(4) The "Unitized Formation" for the Central Vacuum Unit includes the stratigraphic interval underlying the Unit Area in the Vacuum-Grayburg-San Andres Pool between the depths of 3,858 feet (plus 144 feet sub-sea) and 4,858 feet (minus 856 feet sub-sea) on the Welex Acoustic Velocity Log, run on November 15, 1963, in the Texaco Inc. State of New Mexico "O" (NCT-1) Well No. 23, located in Unit O of Section 36, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico (now Vacuum Glorieta West Unit Well No. 101).

(5) The applicant, Texaco Exploration and Production Inc. (Texaco) seeks:

a) to amend Division Order No. R-5530, as amended, to authorize the implementation of tertiary recovery operations within the Central Vacuum Unit Pressure Maintenance Project by the alternate injection of water and carbon dioxide and produced gases (WAG) into the Grayburg and San Andres formations;

b) authorization to increase the surface injection pressure for water in certain injection wells to 1500 psi, provided that step rate tests conducted on these wells do not indicate fracturing of the injection formation;

c) authorization to inject carbon dioxide gas at a maximum surface injection pressure of 350 psi above the maximum allowed surface water injection pressure, not to exceed 1850 psi; and,

d) to qualify the proposed tertiary recovery project for the recovered oil tax rate pursuant to the "New Mexico Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(6) The applicant proposed that the project area for the tertiary recovery project comprise some 1,550 acres, more or less, being a portion of the Central Vacuum Unit Area, described as follows:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
Section 25: S/2 S/2 SE/4, S/2 SE/4 SW/4, SE/4 SW/4 SW/4
Section 36: S/2, NE/4, E/2 NW/4, SW/4 NW/4, S/2 NW/4 NW/4, NE/4 NW/4 NW/4

TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM
Section 30: S/2 S/2 SW/4, S/2 SW/4 SE/4, SW/4 SE/4 SE/4
Section 31: W/2, SW/4 SE/4, W/2 NE/4, SE/4 NE/4, S/2 NE/4 NE/4, NW/4 NE/4 NE/4

TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM
Section 6: N/2 NW/4, NW/4 NE/4, SW/4 NW/4, N/2 NE/4 NE/4, SW/4 NE/4 NE/4, NW/4 SE/4 NE/4, N/2 SW/4 NE/4, N/2 SE/4 NW/4, SW/4 SE/4 NW/4, N/2 NW/4 SW/4, NW/4 NE/4 SW/4

(7) Current secondary recovery operations within the Central Vacuum Unit are summarized as follows:

Number of Producing Wells:	88
Number of Injection Wells:	86
Current Oil Production:	4,100 BOPD
Current Water Injection:	63,000 BWPD
Cumulative Oil Recovery:	72 MMSTBO
Cumulative Secondary Oil Recovery (1977-Date):	42 MMSTBO
Current Average Water Cut:	96%

(8) According to evidence and testimony presented by the applicant, its plan of operation within the proposed tertiary recovery project includes:

a) implementing a change in the process used for the displacement of crude oil by initiating water-alternating-gas (WAG) injection (injecting water and carbon dioxide (CO_2) in alternating slugs of produced gas and CO_2 with slugs of water);

b) injecting an estimated 259 BCF of CO_2 and other produced gases and 148 million barrels of water over the life of the proposed tertiary project, which is estimated to be approximately 25 years;

c) utilizing a total of fifty-one (51) injection wells (all as shown on Exhibit "A" attached hereto) and seventy-one (71) producing wells (sixty-eight (68) existing wells and three (3) new wells proposed to be drilled) within the proposed tertiary recovery project; and,

d) injecting at sufficient pressure so as to maintain reservoir pressure at high enough levels to meet miscible pressure requirements in the reservoir.

(9) The proposed tertiary recovery project area (described in Finding No. 6 above) represents approximately 50 percent of the area contained within the Central Vacuum Unit. According to applicant's testimony, the proposed tertiary recovery project is being limited to only a portion of the Central Vacuum Unit for the following reasons:

a) the targeted area represents that portion of the Central Vacuum Unit which contains the best hydrocarbon pore volume within the Grayburg-San Andres reservoir; and,

b) the current economics of the proposed tertiary recovery project dictate that CO_2 injection should be initially limited to that portion of the Central Vacuum Unit containing sufficient hydrocarbon pore volume.

(10) Applicant further testified that the proposed tertiary recovery project may be expanded in the future into other areas of the Central Vacuum Unit in the event economic considerations become more favorable.

(11) Further evidence and testimony presented by the applicant indicates that the amount of recoverable oil attributed to a positive production response from the expanded use of enhanced oil recovery technology for the proposed tertiary recovery project is an estimated 20.3 million stock tank barrels along with 23.2 BCF of hydrocarbon gas.

(12) Texaco testified that the initiation of tertiary recovery operations utilizing the methodology proposed should result in the additional recovery set forth in Finding Paragraph No. (11) above for a projected cost of approximately $345.7 million which includes field installations and upgrades, well remediation, separation and compression facilities, the purchase of CO_2 and the costs associated with the recycling of injectant.

(13) The proposed tertiary recovery project is offset by the following described tertiary CO_2 floods within the Vacuum Grayburg-San Andres Pool, approved respectively, by Division Order Nos. R-6856, as amended, and Order No. R-10599-B:

a) to the east is the Phillips Petroleum Company East Vacuum Grayburg-San Andres Unit Pressure Maintenance Project located in portions of Townships 17 and 18 South, Range 35 East, NMPM, East Vacuum Grayburg-San Andres Unit Area, Lea County, New Mexico. The current authorized bottomhole pressure in this project area equates to a surface injection pressure for CO_2 of approximately 1850 psig; and,

b) to the west is the Phillips Petroleum Company State "35" Unit Pressure Maintenance Project which is also a CO_2 tertiary recovery project underlying the N/2, E/2 SW/4, and SE/4 of Section 35, Township 17 South, Range 34 East, NMPM, State "35" Com Unit Area, Lea County, New Mexico. The authorized surface injection pressure for CO_2 in this project area is 1850 psig.

(14) The evidence and testimony presented in this case indicates that it is prudent to implement the proposed tertiary recovery project within the Central Vacuum Unit at this time, and that such implementation will result in the recovery of additional oil and gas from the project area which may otherwise not be recovered, thereby preventing waste.

(15) The evidence further indicates that the oil and gas recovered as a result of implementing the proposed tertiary recovery project will be allocated to each tract within the Central Vacuum Unit on a fair and reasonable basis, thereby protecting correlative rights.

(16) The proposed tertiary recovery project should be approved.

(17) The evidence presented by Texaco indicates that the proposed tertiary recovery project meets all the criteria for certification by the Division as a qualified "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(18) The certified "EOR Project Area" should initially comprise the area described in Finding Paragraph No. (6) above, provided however, the "EOR Project Area" eligible for the recovered oil tax rate may be contracted and reduced dependent upon the evidence presented by the applicant in its demonstration of the occurrence of a positive production response.

(19) To be eligible for the EOR tax credit, the applicant should advise the Division when CO_2 (WAG) injection commences within the "EOR Project Area" and request the Division certify the subject tertiary recovery project to the New Mexico Taxation and Revenue Department.

(20) At such time as a positive production response occurs from CO_2 (WAG) injection operations and within seven years from the date of the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefiting from tertiary recovery operations. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to the New Mexico Taxation and Revenue Department those lands and wells which are eligible for the tax credit.

(21) Division Order No. R-5530 established maximum surface injection pressures within the Central Vacuum Unit equal to 0.2 psi/ft. of depth to the uppermost injection perforation in each of the fifty-five initial injection wells, or approximately 800 psi.

(22) Throughout the course of secondary recovery operations, the maximum surface injection pressures for the injection wells within the Central Vacuum Unit have been increased upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata. Pressure increases such as described are usually based upon the results of step rate tests.

(23) The current maximum surface injection pressures within the proposed tertiary recovery project area range from approximately 872 psi to 2775 psi.

(24) With regards to the injection pressures within the proposed tertiary recovery project area, the applicant seeks:

a) authority to inject CO_2 at a surface injection pressure 350 psi above the current maximum surface injection pressure for water for a given well (all as shown on applicant's Exhibit No. 12), said CO_2 injection pressure not to exceed 1850 psi;

b) authority to continue to conduct step rate tests and receive pressure increase authority on injection wells within the tertiary recovery project area whose current maximum surface injection pressure for water is less than 1500 psi; and,

c) authority to increase the surface injection pressure for water to 1500 psi on eight wells located within the tertiary recovery project area which have shown no "break" or fracture on current step rate tests, (these wells having been identified on applicant's Exhibit No. 12).

(25) The evidence and testimony presented by Texaco indicates that the proposed maximum CO_2 surface injection pressure of 1850 psi, or 350 psi above the current maximum surface injection pressure for water, is reasonable, necessary and should not result in the migration of injected fluid from the proposed injection interval.

(26) Texaco should be authorized to conduct step rate tests and obtain surface injection pressure increases for water within those injection wells in the tertiary recovery project area whose current maximum surface injection pressure for water is less than 1500 psi.

(27) Texaco should be required to submit current step rate tests on those eight wells described in Finding No. (24)(c) above prior to obtaining Division approval to increase the surface injection pressure for water on these wells to 1500 psi.

(28) All injection wells or the pressurization system should be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than the individual well surface injection pressure authorized by this order.

(29) The applicant testified that there are no "problem wells" within the one-half mile "area of review" and further testified that all plugged and abandoned wells and all producing wells are cemented in a manner adequate to confine the injected fluid to the proposed injection interval.

(30) Texaco proposed that each of the injection wells shown on Exhibit "A" be equipped no different than previously equipped for waterflood operation.

(31) In support of this request, Texaco testified that it anticipates no additional corrosion problems within these wellbores as a result of CO_2 injection.

(32) Texaco's request should be granted, provided however, the Division may require the installation of additional or upgraded wellbore tubulars and packers should it become apparent that the injection of CO_2 is causing beyond normal corrosion problems.

(33) If not previously equipped, each of the injection wells shown on Exhibit "A" should be equipped with internally coated tubing installed in a packer set within 100 feet of the uppermost injection perforation or casing shoe; the casing-tubing annulus should be filled with an inert fluid; and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(34) The operator should give advance notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of any new injection equipment and of the mechanical integrity pressure tests in order that the same may be witnessed.

(35) The application should be approved and the project should be governed by the provisions of Rule Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Texaco Exploration and Production Inc., is hereby authorized to institute an EOR tertiary recovery project by means of combined water, carbon dioxide (CO_2), and produced gas injection (WAG) in its Central Vacuum Unit Area located in portions of Townships 17 and 18 South, Ranges 34 and 35 East, NMPM, Lea County, New Mexico, by the injection of water, CO_2, and produced gases into the Grayburg and San Andres formations, Vacuum-Grayburg-San Andres Pool, through the correlative gross perforated and/or open hole interval between the depths of 3,858 feet (plus 144 feet sub-sea) and 4,858 feet (minus 856 feet sub-sea) on the Welex Acoustic Velocity Log, run on November 15, 1963, in the Texaco Inc. State of New Mexico "O" (NCT-1) Well No. 23, located in Unit O of Section 36, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico (now Vacuum Glorieta West Unit Well No. 101), within each of the fifty-one injection wells shown on Exhibit "A" attached hereto.

IT IS FURTHER ORDERED THAT:

(2) Any previous injection authority not in conflict with the provisions set forth in this order shall remain in full force and effect.

(3) WAG injection operations shall be accomplished through internally coated tubing installed in a packer set within approximately 100 feet of the uppermost injection perforations or casing shoe; the casing-tubing annulus shall be filled with an inert fluid and a gauge or approved leak-detection device shall be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(4) For those injection wells within the "EOR Project Area" whose current maximum surface injection pressure for water is less than 1500 psi (as shown on applicant's Exhibit No. 12), the applicant is hereby authorized to inject water into each of these wells at the current maximum surface injection pressure, provided however, such pressure may be administratively increased by the Division upon a showing that such increase will not result in the fracturing of the injection formation or confining strata, and shall be further authorized to inject CO_2 and produced gases at a maximum surface injection pressure of 350 psi above the current maximum surface injection pressure for water, provided however, such CO_2 injection shall not occur at a surface injection pressure in excess of 1850 psi.

(5) For those injection wells within the "EOR Project Area" whose current maximum surface injection pressure for water exceeds 1500 psi (as shown on applicant's Exhibit No. 12), the applicant is hereby authorized to inject water into each of these wells at the current maximum surface injection pressure, and shall be further authorized to inject CO_2 and produced gases at a maximum surface injection pressure of 1850 psi.

(6) Texaco shall be required to submit current step rate tests on those eight wells described in Finding No. (24)(c) above prior to obtaining Division approval to increase the surface injection pressure for water on these wells to 1500 psi.

(7) The Division Director shall retain the authority to administratively authorize a pressure limitation in excess of the above pressure limits upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(8) The operator shall immediately notify the Supervisor of the Hobbs District Office of the Division of the failure of the casing in any of the injection wells, the leakage of water, natural gas, CO_2, or oil from or around any producing well, or the leakage of water, natural gas, CO_2, or oil from any plugged and abandoned well within the "EOR Project Area", and shall take such steps as may be necessary to correct such failure or leakage.

(9) The subject tertiary recovery project is hereby certified as a qualified "Enhanced Oil Recovery Project" pursuant to the"Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(10) The certified and approved "EOR Project Area" shall include those lands described as follows, provided however, the "EOR Project Area" eligible for the recovered oil tax rate may be reduced dependent upon the evidence presented by the applicant in its demonstration of the occurrence of a positive production response.

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
Section 25: S/2 S/2 SE/4, S/2 SE/4 SW/4, SE/4 SW/4 SW/4
Section 36: S/2, NE/4, E/2 NW/4, SW/4 NW/4, S/2 NW/4 NW/4, NE/4 NW/4 NW/4

TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM
Section 30: S/2 S/2 SW/4, S/2 SW/4 SE/4, SW/4 SE/4 SE/4
Section 31: W/2, SW/4 SE/4, W/2 NE/4, SE/4 NE/4, S/2 NE/4 NE/4, NW/4 NE/4 NE/4

TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM
Section 6: N/2 NW/4, NW/4 NE/4, SW/4 NW/4, N/2 NE/4 N/4, SW/4 NE/4 NE/4, NW/4 SE/4 NE/4, N/2 SW/4 NE/4, N/2 SE/4 NW/4, SW/4 SE/4 NW/4, N/2 NW/4 SW/4, NW/4 NE/4 SW/4

(11) To be eligible for the EOR credit, prior to commencing WAG injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

(12) At such time as a positive production response occurs and within seven years from the date of the Certificate of Qualification, the operator must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to the New Mexico Taxation and Revenue Department those lands and wells which are eligible for the credit.

(13) The injection authority granted herein for the fifty-one WAG injection wells shall terminate one year after the effective date of this order if the operator has not commenced WAG injection operations into these wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

(14) The subject tertiary recovery project is hereby designated the Central Vacuum Unit Tertiary Recovery Project and shall be governed by the provisions of Rules Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.

(15) Monthly progress reports of the tertiary recovery project herein authorized shall be submitted to the Division in accordance with Rules 706 and 1115 of the Division Rules and Regulations.

(16) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LeMAY
Director

S E A L

EXHIBIT "A"
CASE NO. 11650
ORDER NO. R-5530-E
TEXACO EXPLORATION AND PRODUCTION INC.
CENTRAL VACUUM UNIT
TERTIARY PROJECT INJECTION WELLS

WELL NO	FOOTAGE	U	SECTION	TWNSHP	RANGE	API NUMBERS
CVU #40	42' FNL, 1247' FWL	D	36	17S	34E	30-025-25703
(U #41	60' FNL, 2552' FWL	C	36	17S	34E	30-025-25704
(U #42	32' FNL, 1286' FEL	A	36	17S	34E	30-025-25705
C vU #43	35' FNL, 127' FEL	A	36	17S	34E	30-025-25706
CVU #44	134' FNL, 1219' FWL	D	31	17S	35E	30-025-25719
CVU #45	121' FNL, 2475' FWL	C	31	17S	35E	30-025-25720
CVU #46	119' FNL, 1224' FEL	A	31	17S	35E	30-025-25818
CVU #55	1310' FNL, 1310' FWL	D	36	17S	34E	30-025-25721
CVU #56	1310' FNL, 2630' FWL	C	36	17S	34E	30-025-25722
CVU #57	1310' FNL, 1330' FEL	B	36	17S	34E	30-025-25723
CVU #58	1310' FNL, 132' FEL	A	36	17S	34E	30-025-25724
CVU #59	1403' FNL, 1200' FWL	E	31	17S	35E	30-025-25725
CVU #60	1310' FNL, 2535' FWL	C	31	17S	35E	30-025-25707
CVU #61	1310' FNL, 1230' FEL	A	31	17S	35E	30-025-25819
CVU #70	2630' FNL, 1310' FWL	E	36	17S	34E	30-025-25726
CVU #71	2630' FNL, 2623' FEL	G	36	17S	34E	30-025-25727
CVU #72	2630' FNL, 1330' FEL	G	36	17S	34E	30-025-25697
CVU #73	2630' FNL, 142' FEL	H	36	17S	34E	30-025-25728
CVU #74	2561' FSL, 1180' FWL	L	31	17S	35E	30-025-25729
CVU #81	1332' FSL, 1310' FWL	L	36	17S	34E	30-025-25708
CVU #82	1333' FSL, 2528' FWL	K	36	17S	34E	30-025-25730
(U #83	1330' FSL, 1330' FEL	J	36	17S	34E	30-025-25731
(U #84	1333' FSL, 151' FEL	I	36	17S	34E	30-025-25732

CVU #85	1336' FSL, 1201' FWL	L	31	17S	35E	30-025-25709
CVU #93	10' FSL, 1136 FWL	M	31	17S	35E	30-025-25733
CVU #94	50' FSL, 2549' FEL	O	31	17S	35E	30-025-25734
CVU #99	1408' FNL, 1211' FWL	E	6	18S	35E	30-025-25710
CVU #100	1372' FNL, 2544' FWL	F	6	18S	35E	30-025-25711
CVU #101	1410' FNL, 1336' FEL	G	6	18S	35E	30-025-25712
CVU #106	2520' FNL, 1040' FWL	E	6	18S	35E	30-025-25796
CVU #136	2450' FNL, 40' FWL	E	6	18S	35E	30-025-25997
CVU #137	1100' FNL, 40' FWL	D	6	18S	35E	30-025-25998
CVU #138	10' FSL, 70' FEL	P	36	17S	34E	30-025-25999
CVU #139	85' FSL, 958' FEL	P	36	17S	34E	30-025-26078
CVU #140	10' FSL, 2571' FWL	N	36	17S	34E	30-025-26000
CVU #141	10' FSL, 1310' FWL	M	36	17S	34E	30-025-26001
CVU #144	35' FNL, 1330' FEL	B	6	18S	35E	30-025-26788
CVU #145	1310' FSL, 2475' FWL	N	31	17S	35E	30-025-26789
CVU #146	2465' FNL, 1335' FEL	G	31	17S	35E	30-025-26790
CVU #147	1310' FNL, 200' FEL	A	31	17S	35E	30-025-26791
CVU #159	1310' FNL, 100' FWL	D	36	17S	34E	30-025-27969
CVU #160	2602' FNL, 35' FWL	E	36	17S	34E	30-025-27970
CVU #161	180' FSL 10' FWL	M	36	17S	34E	30-025-27971
CVU #193	101' FNL, 534' FWL	D	6	18S	35E	30-025-32800
CVU #194	14' FNL, 1917' FWL	C	6	18S	35E	30-025-38010
CVU #199	1372' FNL, 584' FWL	E	6	18S	35E	30-025-32804
CVU #200	1301' FNL, 1875' FWL	C	6	18S	35E	30-025-32805
CVU #201	1360' FNL, 1973' FEL	G	6	18S	35E	30-025-32806
CVU #206	2509' FNL, 536' FWL	E	6	18S	35E	30-025-32808
CVU #207	2500' FNL, 1825' FWL	F	6	18S	35E	30-025-32809
CVU #244	10' FNL, 1930' FEL	B	6	18S	35E	30-025-32810

PMX-200

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

11/19/99

GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:
MC
DHC
NSL
NSP
SWD
WFX
PMX

Gentlemen:

I have examined the application for the:

Texaco Exp Inc Central Vacuum Unit # 345-N-31-17s-35e # 242-A-36-17s-34e
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK.

Yours very truly,

Chris Williams

Chris Williams
Supervisor, District 1

/ed