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

GOVERNOR

11/19/99

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

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

PMX-200

RE: Proposed:
MC
DHC
NSL
NSP
SWD
WFX X
PMX

Gentlemen:

I have examined the application for the:

345-N-31-17s-35e

Texaco E&P Inc Central Vacuum Unit #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

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

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_____

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: _____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
242 - Unit Letter A 90' FNL 706' FEL Section 36 T-17-S R-34-E

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

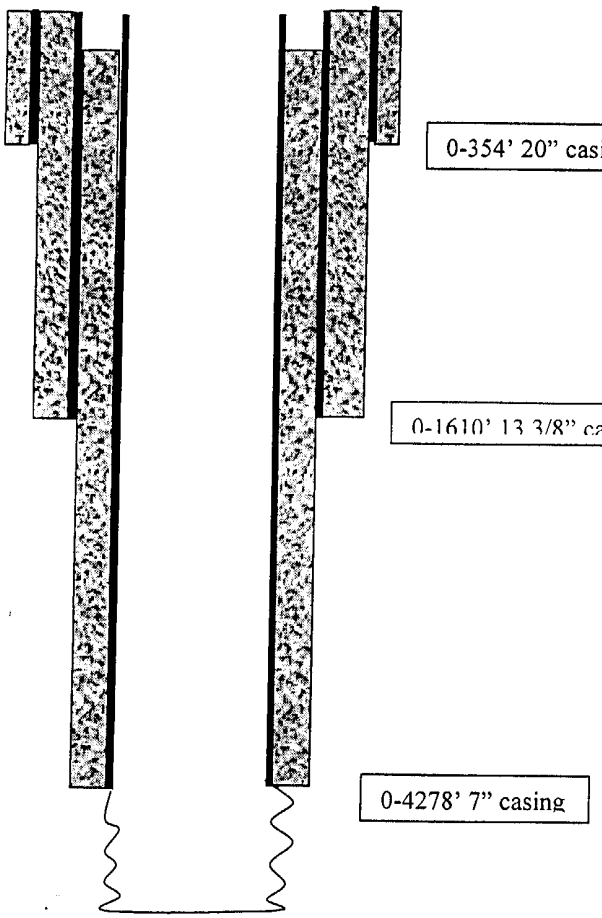
INJECTION WELL DATA SHEET

OPERATOR: Texaco E & P Inc.

WELL NAME & NUMBER: Central Vacuum Unit No. 242

WELL LOCATION: 90 FNL & 1850 FWL (FOOTAGE LOCATION) A (UNIT LETTER) 36 (SECTION) 17S (TOWNSHIP) 34E (RANGE)

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 24" Casing Size: 20"

Cemented with: 850 sx. *or* _____ ft

Top of Cement: SURFACE Method Determined: Circulated

Intermediate 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

Production Casing

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

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

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

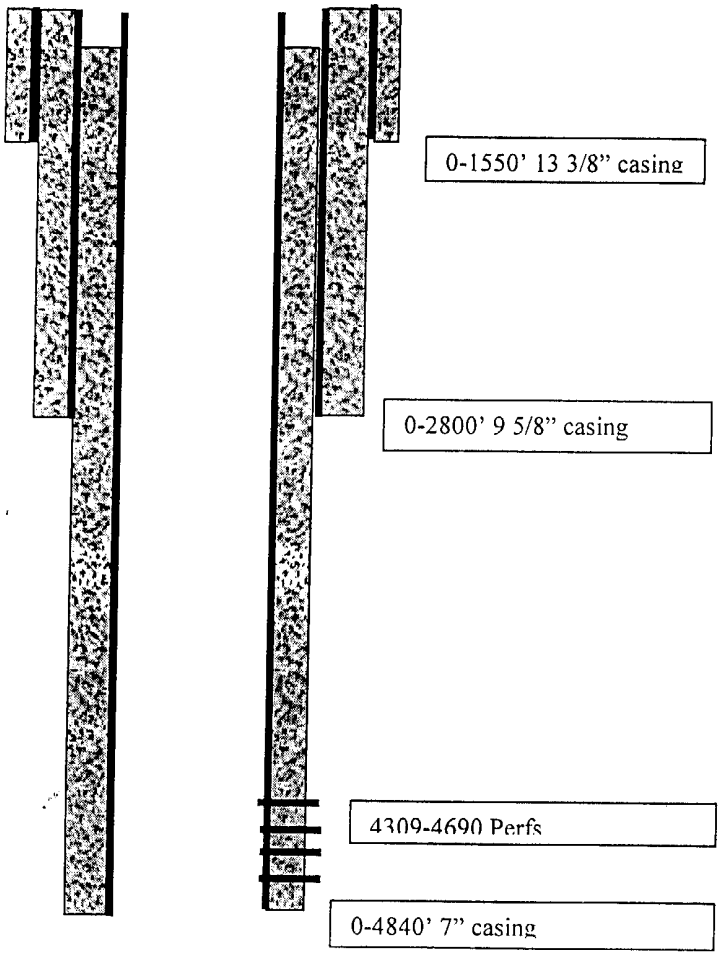
INJECTION WELL DATA SHEET

OPERATOR: Texaco E & P Inc.

WELL NAME & NUMBER: Central Vacuum Unit No. 345

WELL LOCATION: 1320 FSL & 1850 FWL (FOOTAGE LOCATION) N (UNIT LETTER) 31 (SECTION) 17S (TOWNSHIP) 35E (RANGE)

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

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

Cemented with: 1600 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: Circulated

Intermediate Casing

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

Cemented with: 1550 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: 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 _____

   _____

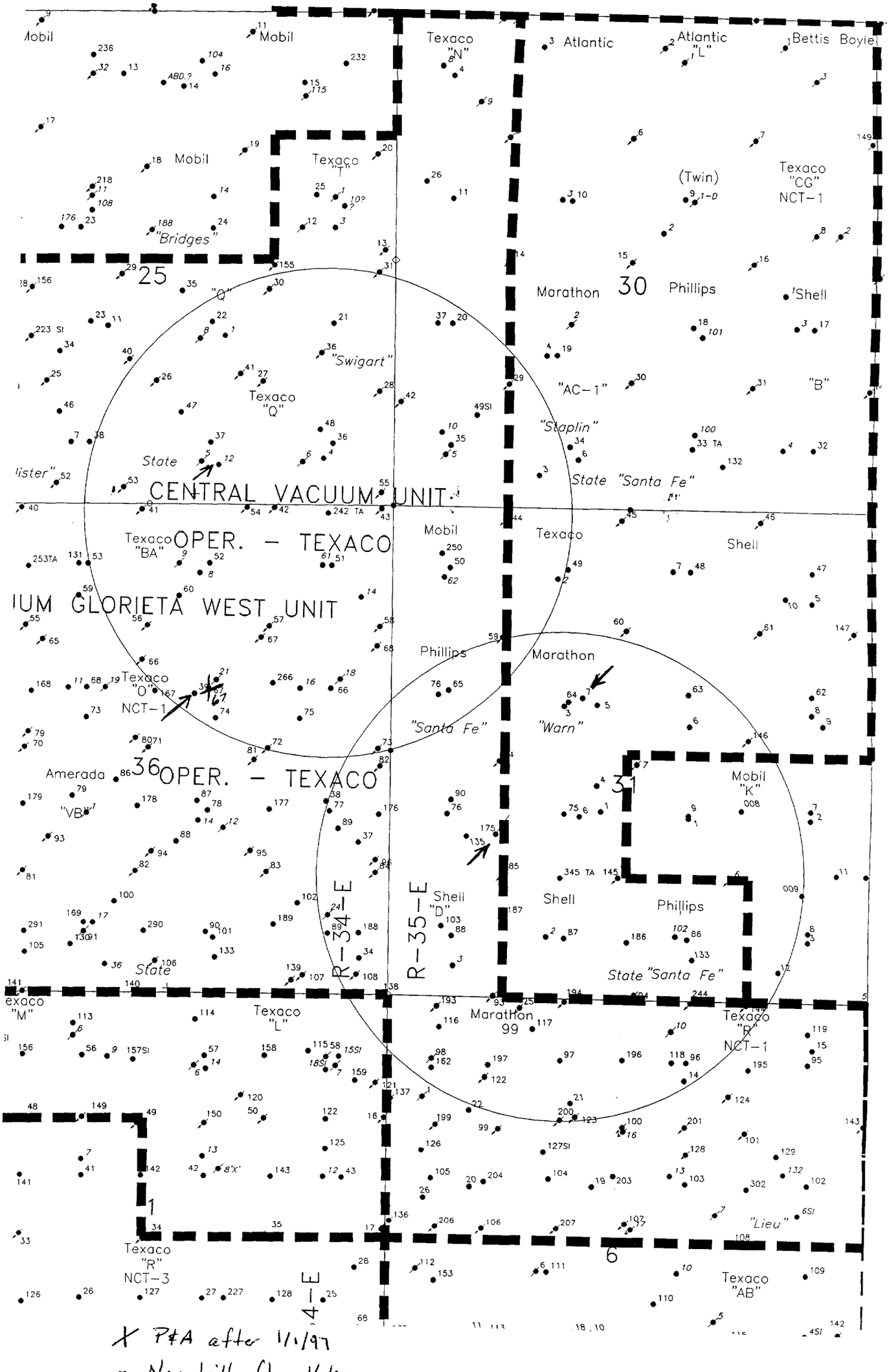
2. Name of the Injection Formation: __Grayburg / San Andres_____

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'



X P&A after 1/1/97

→ New drill after 1/1/97

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

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

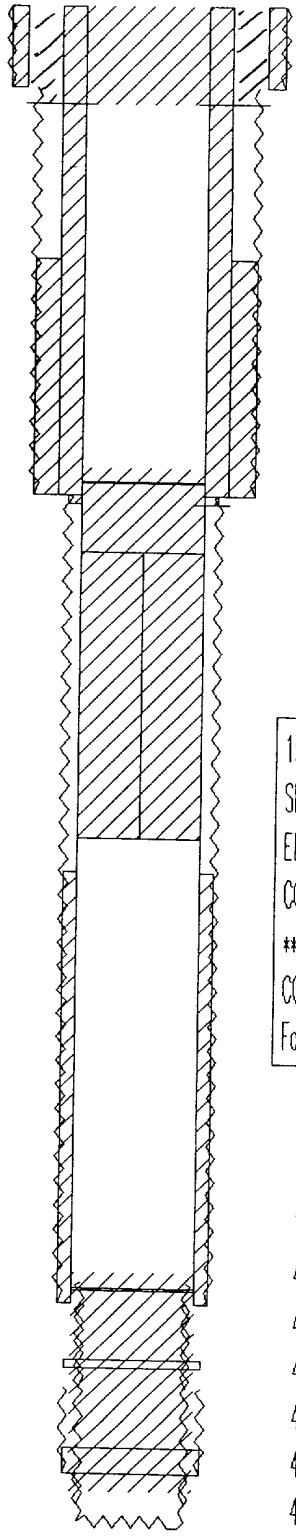
0.0 - 1538.0' 7.625" OD 26.40#/ft INT CSG

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

4000.0 - 4700.0' CEMENT PLUG 300 sx

1538.0 - 4094.0' 6.75" OD HOLE

4273.0 - 4300.0' STUCK SUB2

4094.0 - 4368.0' 4.75 " OD HOLE

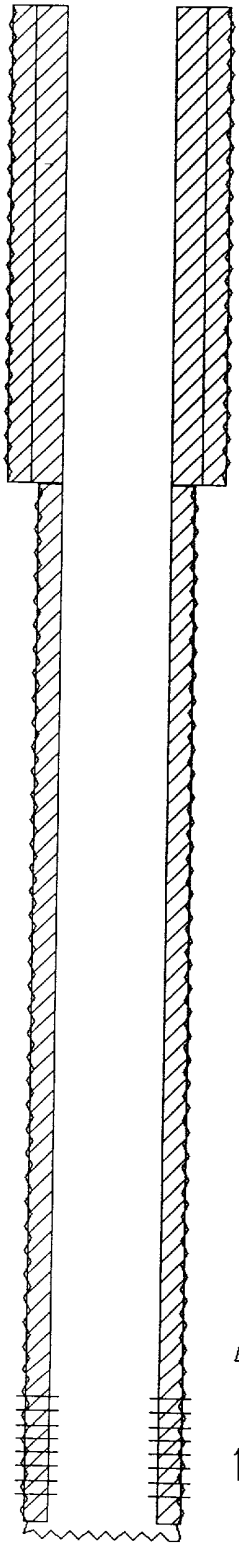
4647.0 - 4742.0' 4.75" OD HOLE

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)

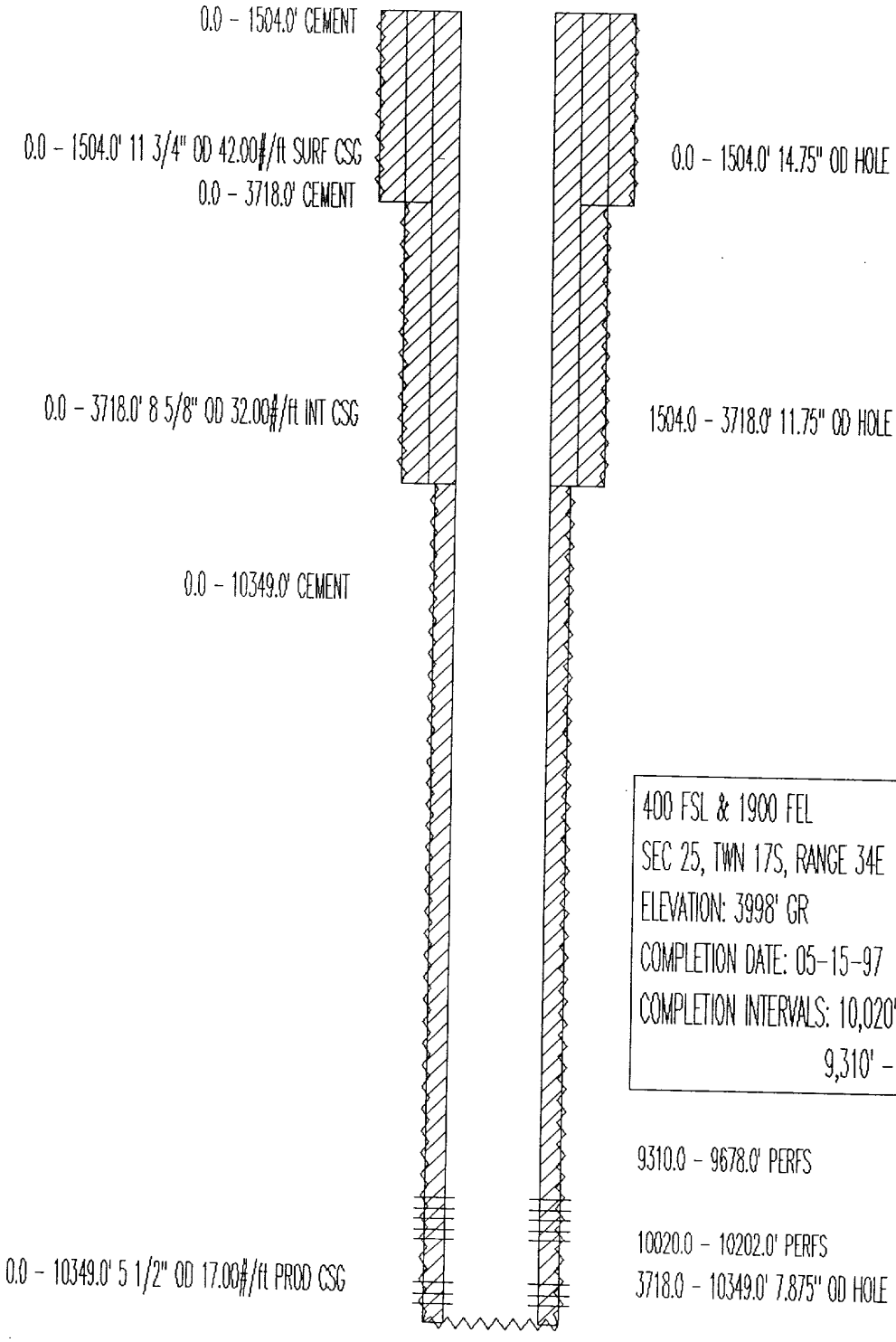
4445.0 - 4760.0' PERFS

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

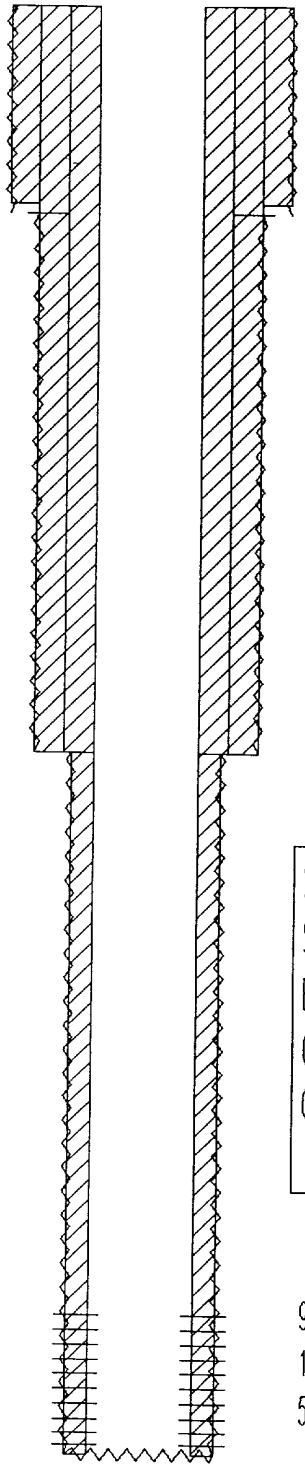
1520.0 - 4890.0' 7.875" OD HOLE

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

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



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)

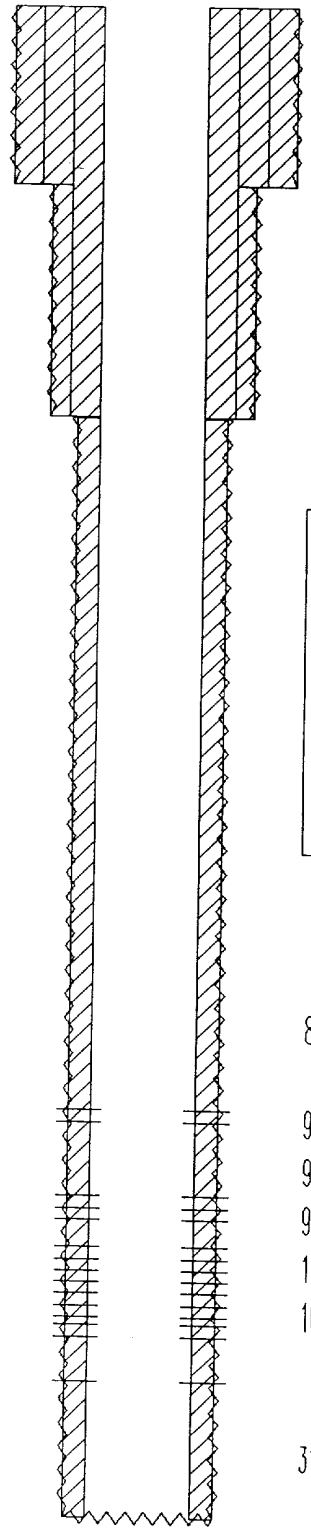
9303.0 - 10048.0' PERFS
10102.0 - 10230.0' PERFS

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

5310.0 - 10300.0' 7.875" OD HOLE

PBTD: 10160'
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

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

3143.0 - 11610.0' 7.875" OD HOLE

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