PMX 7/11/00

**Occidental Permian Ltd.**

580 WestLake Park Blvd.
Houston, TX 77079
PO Box 4294
Houston, TX 77210-4294
Phone: 281-552-1000

June 19, 2000

26

State of New Mexico
Energy, Minerals & Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, NM 87505

RE: Expansion of Pressure Maintenance Project
North Hobbs (Grayburg/San Andres) Unit
Hobbs; Grayburg – San Andres Pool
Well No. 211
Letter C, Section 31, T-18-S, R-38-E
Lea County, NM

Gentlemen:

Occidental Permian Limited Partnership respectfully requests administrative approval for expansion of the subject pressure maintenance project by converting North Hobbs (G/SA) Unit Well No. 211 from production to water injection. Administrative Order No. R-6199 granted November 30, 1979, authorized Shell Western E&P Inc. (Occidental Permian Limited Partnership's predecessor) to conduct the North Hobbs (G/SA) Unit pressure maintenance project within the Hobbs; Grayburg – San Andres Pool.

The following data is submitted in support of this request:

- Form C-108 with miscellaneous data attached
- Form C-102
- A map reflecting the location of the proposed injection well (No. 211). The map identifies all wells located within a two-mile radius of the proposed injector and has a one-half mile radius circle drawn around the proposed injection well which identifies the well's Area of Review.
- An injection well data sheet
- A tabulation of data on all wells of public record within the well's Area of Review

OXY Occidental Permian Ltd.

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- Schematics of plugged wells of public record within the well's Area of Review
- A list of Offset Operators and Surface Owners (these parties have been notified of this application by certified mail)
- An Affidavit of Publication and copy of the legal advertisement that was published in the county in which the well is located.

Your favorable consideration of our request will be appreciated. If you have any questions of a technical nature, please call David Nelson at (505) 397-8211. Otherwise, please call me at (281) 552-1158.

Very truly yours,

Mark Stephens

Mark Stephens
Business Analyst (SG)

CC: Oil Conservation Division
Hobbs District Office
1625 N. French Drive
Hobbs, NM 88240

State of New Mexico
Commissioner of Public Lands
P.O. Box 1148
Santa Fe, NM 87504-1148

Offset Operators (see attached list)

Surface Owners (see attached list)

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: Occidental Permian Limited Partnership

ADDRESS: P.O. Box 4294, Houston, TX 77210-4294

CONTACT PARTY: Mark Stephens, Rm. 338-B, WL2 PHONE: (281) 552-1158

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-6199 (11/30/79)

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: Mark Stephens TITLE: Business Analyst (SG)

SIGNATURE: Mark Stephens DATE: 6/19/00

* 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: Hearing October 3, 1979; Case No. 6653, Order No. R-6199

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.

Attachment To Form C-108
Miscellaneous Data

North Hobbs (Grayburg/San Andres) Unit
Well No. 211
Letter C, Section 31, T-18-S, R-38-E
Lea County, New Mexico

III. Well Data

B.(5) Next higher oil zone -- Grayburg @ +/- 3700'
Next lower oil zone -- Glorieta @ +/- 5300'

VII. Proposed Operation

1. Average Injection Rate 1500 BWPD
Maximum Injection Rate 4000 BWPD

2. Closed Injection System

3. Average Injection Pressure 500 PSIG
Maximum Injection Pressure 805 PSIG (approx.)
(will not exceed 0.2 psi/ft. to top perforation)

4. Source Water – San Andres Produced Water
(Mitchell Analytical Laboratory analysis attached)

IX. Stimulation Program

Acid treatment of unitized perforations will be performed during conversion work

XI. Fresh Water Sample Analysis
(Laboratory Services, Inc. analysis attached – 2 ea.)

XII. Occidental Permian Limited Partnership affirms that available geologic and engineering data has been examined resulting in the finding of no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

# MITCHELL ANALYTICAL LABORATORY

2638 Faudree
Odessa, Texas 79765-8538
561-5579

## Water Analysis

Company.... Nalco/Exxon Energy Chemicals
Well # .... WIS DISCHARGE PUMP
Lease..... ALTURA NHU
Location...
Date Run... 11/08/1999
Lab Ref #.. 99-NOV-N05126

Sample Temp... 70.0
Date Sampled.. 11/05/1999
Sampled by.... Mike Athey
Employee # ... 27-008
Analyzed by... DANIEL

### Dissolved Gasses

| | | | Mg/L | Eq. Wt. | MEq/L |
|---|---|---|---|---|---|
| Hydrogen Sulfide | (H2S) | | 486.00 | 16.00 | 30.38 |
| Carbon Dioxide | (CO2) | Not Analyzed | | | |
| Dissovled Oxygen | (O2) | Not Analyzed | | | |

### Cations

| | | | | | |
|---|---|---|---|---|---|
| Calcium | (Ca++) | | 804.00 | 20.10 | 40.00 |
| Magnesium | (Mg++) | | 195.20 | 12.20 | 16.00 |
| Sodium | (Na+) | | 3,459.66 | 23.00 | 150.42 |
| Barium | (Ba++) | Not Analyzed | | | |
| Manganese | (Mn++) | Not Analyzed | | | |

### Anions

| | | | | | |
|---|---|---|---|---|---|
| Hydroxyl | (OH-) | Not Analyzed | | | |
| Carbonate | (CO3=) | | 0.00 | 30.00 | 0.00 |
| Bicarbonate | (HCO3-) | | 1,869.66 | 61.10 | 30.60 |
| Sulfate | (SO4=) | | 1,700.00 | 48.80 | 34.84 |
| Chloride | (Cl-) | | 5,005.50 | 35.50 | 141.00 |

| | | | | | |
|---|---|---|---|---|---|
| Total Iron | (Fe) | | 0.30 | 18.60 | 0.02 |
| Total Dissolved Solids | | | 13,520.32 | | |
| Total Hardness As CaCO3 | | | 2,810.32 | | |
| Conductivity MICROMHOS/CM | | | 23,500 | | |

pH 6.500 Specific Gravity 60/60 F. 1.009

CaSO4 Solubility @ 80 F. 46.63 MEq/L, CaSO4 scale is unlikely

| *CaCO3* | *Scale Index* |
|---|---|
| 70.0 | 0.190 |
| 80.0 | 0.310 |
| 90.0 | 0.530 |
| 100.0 | 0.530 |
| 110.0 | 0.790 |
| 120.0 | 0.790 |
| 130.0 | 1.090 |
| 140.0 | 1.090 |
| 150.0 | 1.370 |

# Nalco/Exxon Energy Chemicals

**Laboratory Services, Inc.**
4016 Fiesta Drive
Hobbs, New Mexico 88240
Telephone: (505) 397-3713

# Water Analysis

**COMPANY** Altura Energy Ltd,

**SAMPLE** Fresh Water Well For Well 31-211
**SAMPLED BY**

**DATE TAKEN** 5/11/00
**REMARKS** T18S-R38E-Sec 31, Qtr Sec. 1,2.2

| | | |
|---|---|---|
| Barium as Ba | 0 | |
| Carbonate alkalinity PPM | 0 | |
| Bicarbonate alkalinity PPM | 200 | |
| pH at Lab | 7.13 | |
| Specific Gravity @ 60°F | 1 | |
| Magnesium as Mg | 139 | |
| Total Hardness as CaCO3 | 240 | |
| Chlorides as Cl | 56 | |
| Sulfate as SO4 | 400 | |
| Iron as Fe | 0 | |
| Potassium | 0.08 | |
| Hydrogen Sulfide | 0 | |
| Rw | 12 | 23.0 C |
| Total Dissolved Solids | 915 | |
| Calcium as Ca | 101 | |
| Nitrate | 11.9 | |

Results reported as Parts per Million unless stated

Langelier Saturation Index + 0.03

Analysis by: Rolland Perry
Date: 5/14/00

**Laboratory Services, Inc.**
4016 Fiesta Drive
Hobbs, New Mexico 88240
Telephone: (505) 397-3713

## Water Analysis

**COMPANY** Altura Energy Ltd,

**SAMPLE** Fresh Water Well For Well 31-211
**SAMPLED BY**

**DATE TAKEN** 5/11/00
**REMARKS** T31S-R38E-Sec 31, Qtr Sec 2,4,3

| | | |
|---|---|---|
| Barium as Ba | 0 | |
| Carbonate alkalinity PPM | 0 | |
| Bicarbonate alkalinity PPM | 200 | |
| pH at Lab | 7.1 | |
| Specific Gravity @ 60°F | 1 | |
| Magnesium as Mg | 186 | |
| Total Hardness as CaCO3 | 320 | |
| Chlorides as Cl | 424 | |
| Sulfate as SO4 | 125 | |
| Iron as Fe | 0.2 | |
| Potassium | 0.12 | |
| Hydrogen Sulfide | 0 | |
| Rw | 9 | 23.0 C |
| Total Dissolved Solids | 1,088 | |
| Calcium as Ca | 134 | |
| Nitrate | 6.2 | |

Results reported as Parts per Million unless stated

Langelier Saturation Index - 0.50

Analysis by: Rolland Perry
Date: 5/14/00

DISTRICT I
P. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

# OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

| API Number | Pool Code | Pool Name |
|---|---|---|
| 30-025-07503 | 31920 | HOBBS; GRAYBURG - SAN ANDRES |

| Property Code | Property Name | Well Number |
|---|---|---|
| 19520 | NORTH HOBBS G/SA UNIT | 211 |

| OGRID No. | Operator Name | Elevation |
|---|---|---|
| 157984 | Occidental Permian Limited Partnership | 3649 |

### Surface Location

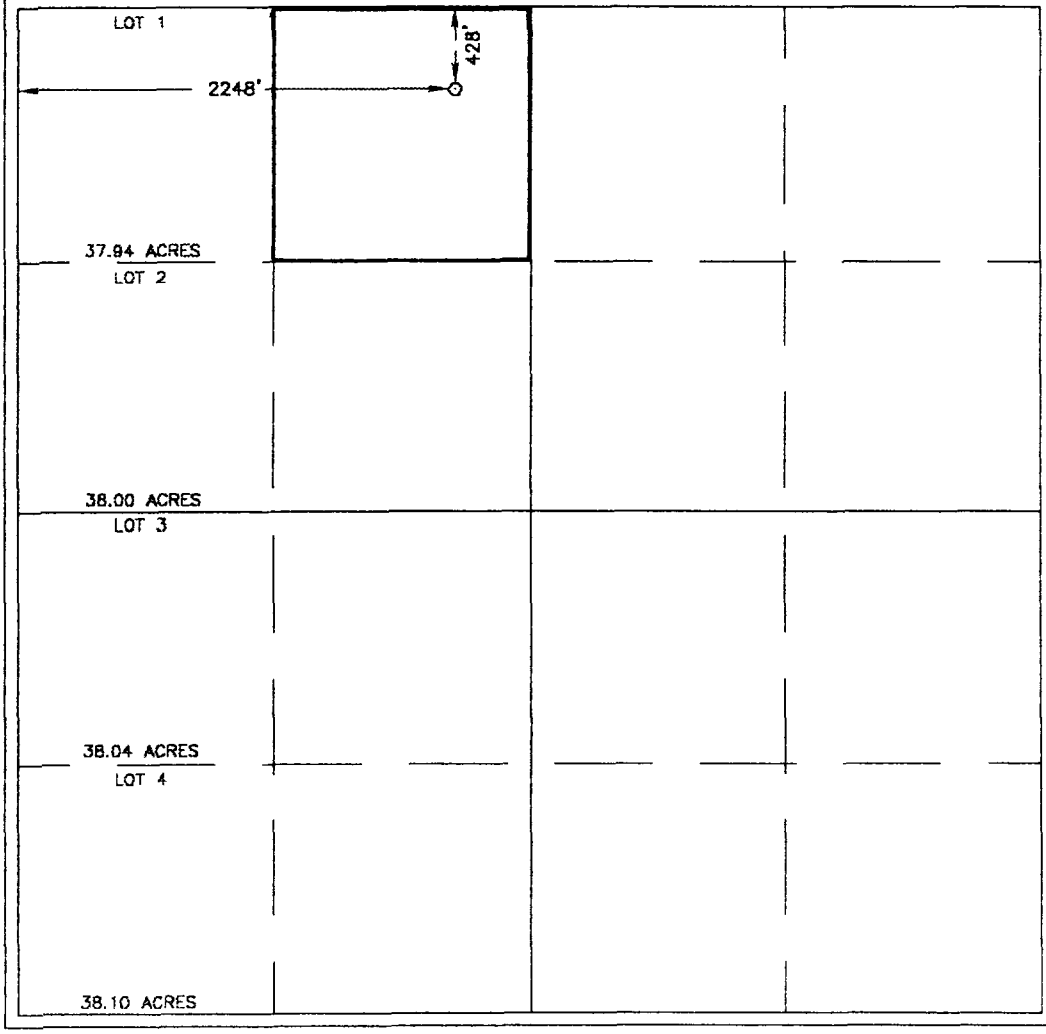
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| C | 31 | 18 S | 38 E | | 428 | NORTH | 2248 | WEST | LEA |

### Bottom Hole Location If Different From Surface

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
|---|---|---|---|
| | | | |

**NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION**




### OPERATOR CERTIFICATION

*I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.*

Mark Stephens
Signature

Mark Stephens
Printed Name

Business Analyst (SG)
Title

June 19, 2000
Date

### SURVEYOR CERTIFICATION

*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.*

JANUARY 6, 2000
Date Surveyed DC

Signature & Seal of Professional Surveyor

Gary L. Eidson 1/28/2000

00-13-0019

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641
MACON McDONALD 12185

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

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| Property Code | Property Name | Well Number |
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| 19520 | NORTH HOBBS G/SA UNIT | 211 |

| OGRID No. | Operator Name | Elevation |
|---|---|---|
| 157984 | Occidental Permian Limited Partnership | 3649 |

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| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| C | 31 | 18 S | 38 E | | 428 | NORTH | 2248 | WEST | LEA |

### Bottom Hole Location If Different From Surface

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
|---|---|---|---|
| | | | |

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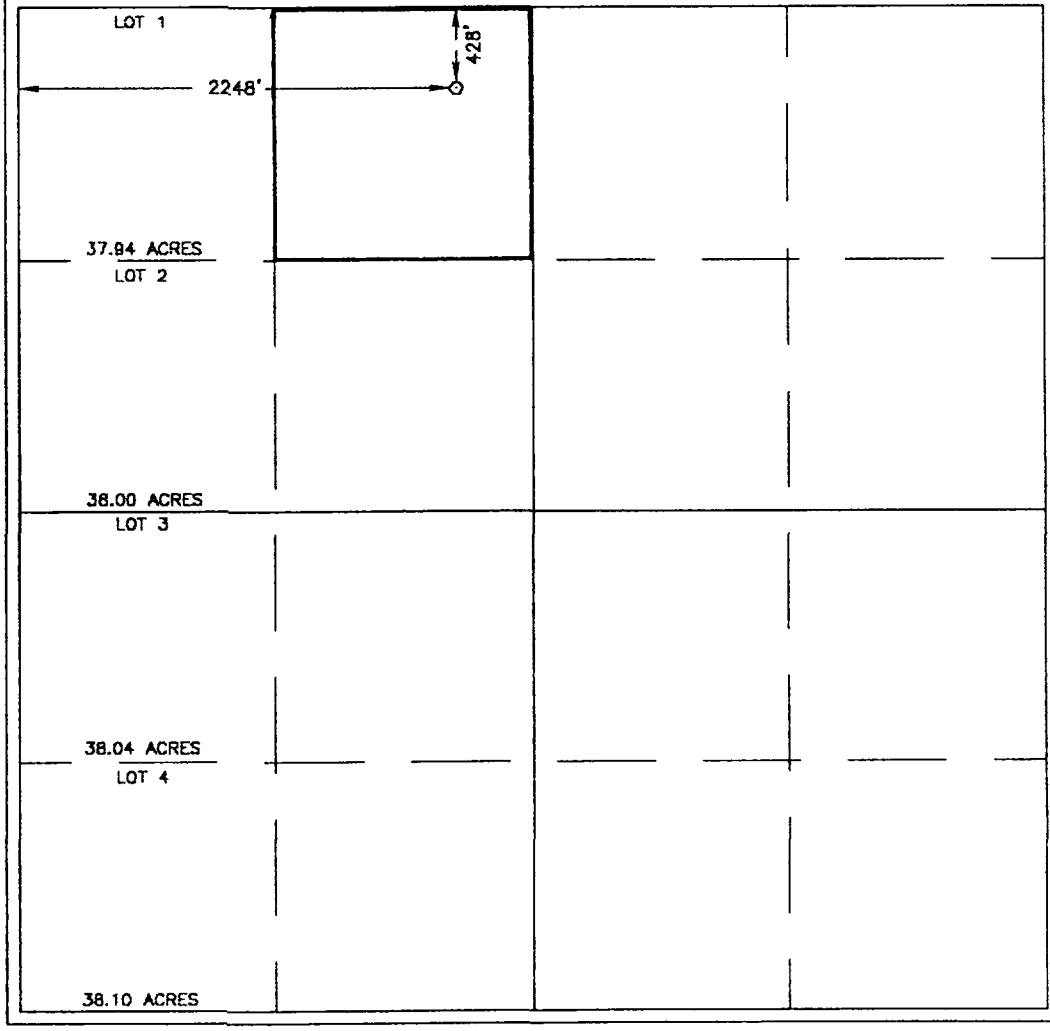


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Signature

Mark Stephens
Printed Name

Business Analyst (SG)
Title

June 19, 2000
Date

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*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.*

JANUARY 6, 2000
Date Surveyed DC

Signature & Seal of Professional Surveyor

GARY G. EIDSON
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR

Gary Eidson 1/28/2000

00-13-0019

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641
MACON McDONALD 12185

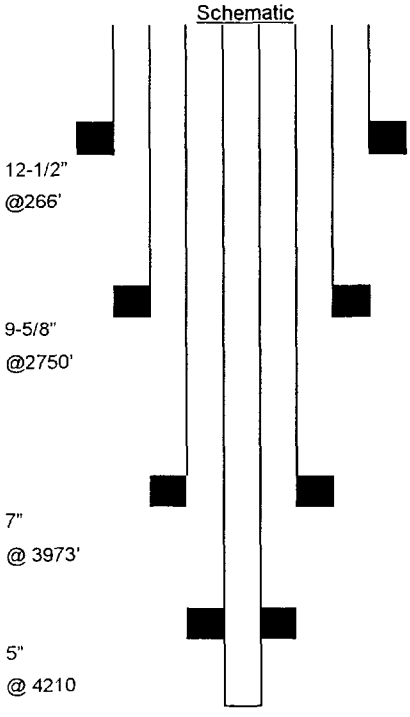
LARGE FORMAT EXHIBIT HAS BEEN REMOVED AND IS LOCATED IN THE NEXT FILE

# INJECTION WELL DATA SHEET

| Operator | Lease | County |
|---|---|---|
| Occidental Permian Limited Partnership | North Hobbs G/SA Unit | Lea |

| Well No. | Footage Location | Section | Township | Range | Unit Letter |
|---|---|---|---|---|---|
| 31-211 | 428' FNL x 2248' FWL | 31 | 18-S | 38-E | C |

Schematic




Tubular Data

Surface Casing
Size 12-1/2" Cemented with 185 sxs.
TOC Circ. Determined by Calc. w/ 50% eff.
Hole size 16"

Intermediate Casing
Size 9-5/8" Cemented with 400 sxs.
TOC 1282 Determined by Calc. w/ 50% eff.
Hole size 13-3/4"

Long string Casing
Size 7" Cemented with 450 sxs.
TOC 1252 Determined by CBL
Hole size 8-3/4"

Production Casing
Size 5" Cemented with 350 sxs.
TOC 3700 Determined by CBL
Hole size 6-1/4"

Total depth 4300'

Injection interval
4186 feet to 4260 feet

Completion type Perforated Casing & OH

Tubing size 2-7/8" lined with Duoline (Fiberglass liner) set in a

Guiberson – Uni VI packer at 4086' feet
(brand and model)

Other Data

1. Name of the injection formation: San Andres

2. Name of field or Pool: Hobbs (Grayburg/San Andres)

3. Is this a new well drilled for injection? Yes [No]
If no, for what purpose was the will originally drilled? 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)
4032-4177 squeezed w/ 50 sxs
4260-4300 plugged back w/ sand & Hydromite

5. Give the depth to and name of any overlying and/or underlying oil and gas zones (pools) in this area.

Grayburg – 3270, Glorieta - 5300

# INJECTION WELL DATA SHEET

| Operator | Lease | County |
|---|---|---|
| Occidental Permian Limited Partnership | North Hobbs G/SA Unit | Lea |

| Well No. | Footage Location | Section | Township | Range | Unit Letter |
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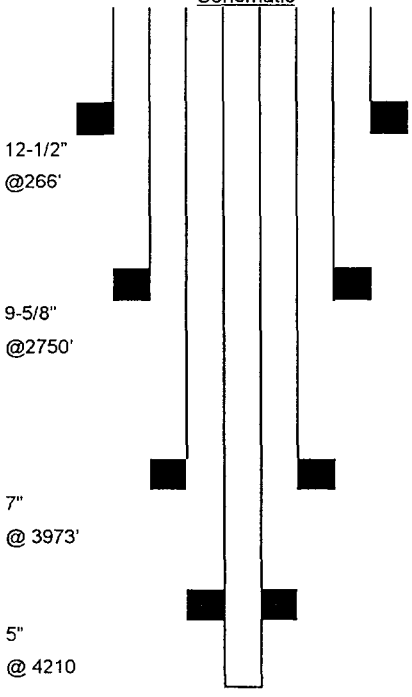


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(brand and model)

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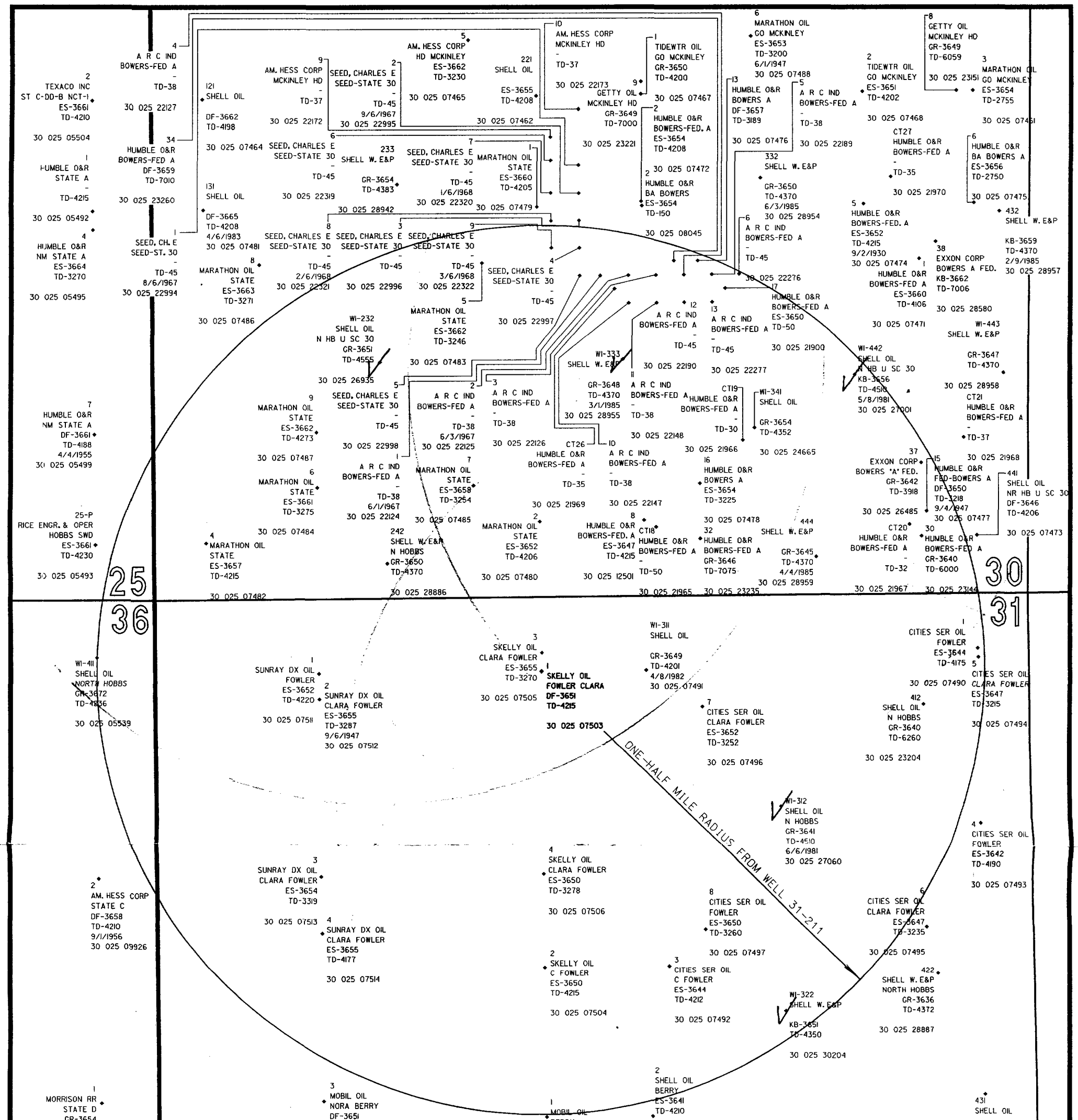
Grayburg – 3270, Glorieta - 5300




NOTE:
WELL DATA DERIVED FROM THE PETROLEUM INFORMATION - DATA MANAGEMENT SYSTEM, WELL DATA SYSTEM PREPARED FOR AMOCO.

**Altura Energy Ltd.**

Area of Review Plat

# NORTH HOBBS (GRAYBURG SAN ANDRES) UNIT

WELL NO. 31-211

T-18-S, R-38-E

Lea County, New Mexico

*Scale: 1"= 600' 01-05-00 nm438a00.dgn - 12*
*Plat prepared by PJE Drafting, Inc.*
*For Horizon Survey, Inc.*

# OFFSET WELLS WITHIN A HALF MILE OF PROPOSED INJECTOR

| FOR WELL 31211 | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well Name | API No. | | Sec. | T | R | Un | Drill | Well | TD or | Top | Bot. | Sqz. | Csg. | Hole | | No. of | |
| Operator | | | | | | Ltr | Date | Type | PBTD | Perf | Perf | Perfs | Size | Size | Depth | Sxs. | TOC |
| Bowers A Fed. #37 | 30-025- | 26485 | 30 | -18S | -38E | P | 10//79 | P | 3918 | 2637 | 3556 | | 8.625 | 12.25 | 501 | 400 | CIRC** |
| Exxon | | | | | | | | | | | | | 5.5 | 7.625 | 3910 | 850 | CIRC** |
| St #5 | 30-025- | 07483 | 30 | -18S | -38E | K | 2//48 | P | 3246 | 3194 | 3244 | | 8.625 | 11 | 300 | 125 | CIRC** |
| Marathon | | | | | | | | | | | | | 5.5 | 7 | 3160 | 1350 | CIRC** |
| St #6 | 30-025- | 07484 | 30 | -18S | -38E | M | 3//48 | P | 3210 | 3154 | 3200 | | 8.625 | 11 | 295 | 125 | CIRC** |
| Marathon | | | | | | | | | | | | | 5.5 | 7 | 3197 | 900 | CIRC** |
| St #7 | 30-025- | 07485 | 30 | -18S | -38E | N | 4//48 | P | 3175 | 3171 | 3254 | | 8.625 | 11 | 285 | 125 | CIRC** |
| Marathon | | | | | | | | | | OH | | | 5.5 | 7 | 3164 | 900 | CIRC** |
| Fowler #3 | 30-025- | 07505 | 31 | -18S | -38E | C | 1//48 | P | 3253 | 3170 | 3270 | NONE | 10.75 | 13 | 669 | 300 | CIRC** |
| ~~Skelly~~ Lewis B. Burleson, Inc. | | | | | | | | | PBTD | | | | 7 | 8.25 | 3170 | 320 | CIRC** |
| Fowler #4 | 30-025- | 07506 | 31 | -18S | -38E | F | 9//48 | P | 3269 | 3170 | 3278 | NONE | 10.75 | 13 | 788 | 320 | CIRC |
| ~~Skelly~~ Lewis B. Burleson, Inc. | | | | | | | | | | | | | 7 | 8.25 | 3170 | 320 | CIRC |
| Seed St 30 #4 | 30-025- | 22997 | 30 | -18S | -38E | K | 2//69 | P | 45 | 10-45 OH | | | 7 | 8.5 | 10 | 2 | CIRC** |
| C.E. Seed | | | | | | | | | | | | | | | | | |
| Seed St 30 #5 | 30-025- | 22998 | 30 | -18S | -38E | K | 2//69 | P | 45 | 10-45 OH | | | 7 | 8.5 | 10 | 2 | CIRC** |
| C.E. Seed | | | | | | | | | | | | | | | | | |
| Seed St 30 #9 | 30-025- | 22322 | 30 | -18S | -38E | K | 2//69 | P | 45 | 10-45 OH | | | 7 | 8.5 | 10 | 2 | CIRC** |
| C.E. Seed | | | | | | | | | | | | | | | | | |
| 30141 | 30-025- | 07487 | 30 | -18S | -37E | M | 10//55 | TA | 3956 | 4099 | 4114 | 4007-4074 | 10.75 | 13.75 | 354 | 200 | CIRC |
| Altura | | | | | | | | | CIBP | | | 4084-4090 | 5.5 | 8.75 | 4247 | 1400 | CIRC |
| 30232 | 30-025- | 26935 | 30 | -18S | -38E | K | 12//80 | I | 4519 | 4138 | 4310 | 4170-78 | 16 | 18 | 40 | 40 | CIRC |

** - Denotes calculated TOC with 50% efficiency.

# OFFSET WELLS WITHIN A HALF MILE OF PROPOSED INJECTOR

| FOR WELL 31211 | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well Name | API No. | | Sec. | T | R | Un | Drill | Well | TD or | Top | Bot. | Sqz. | Csg. | Hole | | No. of | |
| Operator | | | | | | Ltr | Date | Type | PBTD | Perf | Perf | Perfs | Size | Size | Depth | Sxs. | TOC |
| Altura | | | | | | | | | | | | 4186-94 | 8.625 | 11 | 1600 | 875 | CIRC |
| | | | | | | | | | | | | | 5.5 | 7.875 | 4555 | 1155 | 2614 CBL |
| | | | | | | | | | | | | | | | | | |
| 30241 | 30-025- | 07480 | 30 | -18S | -38E | N | 9//30 | TA | 3900 | 4076 | 4250 | 4118-4138 | 12.5 | 18 | 294 | 275 | CIRC |
| Altura | | | | | | | | | CIBP | | | | 9.625 | 12 | 2750 | 550 | 1154 |
| | | | | | | | | | | | | | 7 | 8.75 | 3900 | 275 | 2237 |
| | | | | | | | | | | | | | 5 | 6.25 | 4167 | 60 | 3368 |
| | | | | | | | | | | | | | | | | | |
| 30242 | 30-025- | 28886 | 30 | -18S | -38E | N | 3//85 | TA | 3975 | 4024 | 4240 | NONE | 13.375 | 17.5 | 40 | NA | NA |
| Altura | | | | | | | | | | | | | 8.625 | 11 | 1514 | 425 | CIRC |
| | | | | | | | | | | | | | 5.5 | 7.875 | 4368 | 525 | CIRC |
| | | | | | | | | | | | | | | | | | |
| 30333 | 30-025- | 28955 | 30 | -18S | -38E | J | 2//85 | I | 4328 | 4137 | 4290 | NONE | 13.375 | 17.5 | 40 | NA | NA |
| Altura | | | | | | | | | | | | | 8.625 | 12.25 | 1579 | 425 | CIRC |
| | | | | | | | | | | | | | 5.5 | 7.875 | 4370 | 500 | CIRC |
| | | | | | | | | | | | | | | | | | |
| 30341 | 30-025- | 24665 | 30 | -18S | -38E | O | 3//74 | P | 4202 | 4042 | 4276 | 4104-26 | 9.625 | 12.25 | 1463 | 500 | CIRC |
| Altura | | | | | | | | | | | | 4164-70 | 5.5 | 7.875 | 3956 | 625 | 1910 CBL |
| | | | | | | | | | | | | 4180-96 | 3.5 Lnr | 4.75 | 3715-4350 | 125 | 3715 |
| | | | | | | | | | | | | 4056-69 | | | | | |
| | | | | | | | | | | | | | | | | | |
| 30442 | 30-025- | 27001 | 30 | -18S | -38E | P | 5//81 | I | 4420 | 4162 | 4257 | 4110-16 | 16 | 18 | 40 | 40 | CIRC |
| Altura | | | | | | | | | | | | 4128-34 | 8.625 | 12.25 | 1606 | 850 | CIRC |
| | | | | | | | | | | | | | 5.5 | 7.875 | 4510 | 1075 | CIRC |
| | | | | | | | | | | | | | | | | | |
| 30444 | 30-025- | 28959 | 30 | -18S | -38E | P | 4//85 | P | 4145 | 4106 | 4270 | NONE | 13.375 | 17.5 | 40 | NA | NA |
| Altura | | | | | | | | | CIBP | | | | 9.625 | 12.25 | 1519 | 500 | CIRC |
| | | | | | | | | | | | | | 7 | 8.75 | 4369 | 1035 | 3900 |
| | | | | | | | | | | | | | | | | | |
| 31111 | 30-025- | 07511 | 31 | -18S | -38E | D | 11//30 | P | 4222 | 2860 | 2860 | NONE | 13.375 | 17.5 | 211 | NA | NA |
| Altura | | | | | | | | | PBTD | | | | 9.625 | 12.5 | 2750 | 600 | 700** |
| | | | | | | | | | | | | | 6.625 | 8.75 | 3966 | 425 | 1224** |
| | | | | | | | | | | | | | | | | | |
| 31121 | 30-025- | 07514 | 31 | -18S | -38E | E | 4//49 | TA | 3955 | 4056 | 4189 | NONE | 9.625 | 12.25 | 1620 | 800 | CIRC |
| Altura | | | | | | | | | | | | | 7 | 8.75 | 4075 | 400 | 2608 |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

** - Denotes calculated TOC with 50% efficiency.

# OFFSET WELLS WITHIN A HALF MILE OF PROPOSED INJECTOR

| FOR WELL 31211 | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well Name | API No. | | Sec. | T | R | Un | Drill | Well | TD or | Top | Bot. | Sqz. | Csg. | Hole | | No. of | |
| Operator | | | | | | Ltr | Date | Type | PBTD | Perf | Perf | Perfs | Size | Size | Depth | Sxs. | TOC |
| 31211 | 30-025- | 07503 | 31 | -18S | -38E | C | 9//30 | P | 4203 | 4073 | 4270 | 4032-4196 | 12.5 | 18 | 266 | 186 | CIRC** |
| Altura | | | | | | | | | CIBP | | | | 9.625 | 12 | 2750 | 400 | 1296** |
| | | | | | | | | | | | | | 7 | 8.75 | 3973 | 450 | 30** |
| | | | | | | | | | | | | | | | | | |
| 31221 | 30-025- | 07504 | 31 | -18S | -38E | F | 11//30 | TA | 3950 | 3964 | 4198 | 4199-4205 | 12.52 | 16 | 208 | 300 | CIRC |
| Altura | | | | | | | | | CIBP | | | | 9.625 | 11.75 | 2796 | 400 | 1328 |
| | | | | | | | | | | | | | 7 | 8.75 | 3964 | 450 | 1243 |
| | | | | | | | | | | | | | 5 | 6.25 | 4215 | 325 | 2944 |
| | | | | | | | | | | | | | | | | | |
| 31311 | 30-025- | 07491 | 31 | -18S | -38E | B | 9//30 | TA | 3933 | 3976 | 4042 | 4064 | 12.5 | 16 | 230 | 200 | CIRC |
| Altura | | | | | | | | | CIBP | | | 4067 | 9 | 11.75 | 2735 | 500 | 1275 |
| | | | | | | | | | | | | | 6.625 | 8.25 | 3951 | 250 | 3070-CBL |
| | | | | | | | | | | | | | 5 | 6.25 | 3882-4194 | 35 | 3882 |
| | | | | | | | | | | | | | | | | | |
| 31312 | 30-025- | 27060 | 31 | -18S | -38E | B | 6//81 | I | 4370 | 4134 | 4281 | 4150-56 | 16 | 18 | 40 | 40 | CIRC** |
| Altura | | | | | | | | | CIBP | | | 4188-90 | 8.625 | 12.25 | 1598 | 950 | CIRC** |
| | | | | | | | | | | | | | 5.5 | 7.875 | 4510 | 1050 | 2500 CBL |
| | | | | | | | | | | | | | | | | | |
| 31321 | 30-025- | 07492 | 31 | -18S | -38E | G | 9//30 | P | 4135 | 4076 | 4243 | 4147-4162 | 12.5 | 16 | 227 | 150 | 181** |
| Altura | | | | | | | | | PBTD | | | | 9 | 11.75 | 2750 | 500 | 942** |
| | | | | | | | | | | | | | 7 | 8.75 | 3957 | 200 | 3300** |
| | | | | | | | | | | | | | 3 | 6.25 | 4191 | NA | NA |
| | | | | | | | | | | | | | | | | | |
| 31322 | 30-025- | 30204 | 31 | -18S | -38E | G | 3//88 | I | 4287 | 4149 | 4263 | NONE | 14 | 17.5 | 40 | NA | CIRC |
| Altura | | | | | | | | | | | | | 8.625 | 12.25 | 1510 | 850 | CIRC |
| | | | | | | | | | | | | | 5.5 | 7.875 | 4358 | 1100 | CIRC |
| | | | | | | | | | | | | | | | | | |
| 31411 | 30-025- | 07490 | 31 | -18S | -38E | G | 11//30 | P | 4159 | 3938 | 4252 | NONE | 12.5 | 16 | 242 | 50 | 197 |
| Altura | | | | | | | | | PBTD | | | | 9 | 11.75 | 2744 | 600 | 1868 |
| | | | | | | | | | | | | | 7 | 8.75 | 3938 | 200 | CIRC-CBL |
| | | | | | | | | | | | | | 5.5 | 6.25 | 3765-4298 | 75 | 3765-CBL |
| | | | | | | | | | | | | | | | | | |
| 31412 | 30-025- | 23204 | 31 | -18S | -38E | A | 8//69 | TA | 3818 | 4134 | 4306 | 3909-4135 | 13.375 | 17.5 | 343 | 350 | CIRC |
| Altura | | | | | | | | | CIBP | | | 4174-4216 | 8.625 | 12.25 | 3799 | 500 | 2372 |
| | | | | | | | | | | | | | 5.5 | 7.875 | 6255 | 400 | 3194 CBL |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

** - Denotes calculated TOC with 50% efficiency.

# OFFSET WELLS WITHIN A HALF MILE OF PROPOSED INJECTOR

| FOR WELL 31211 | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well Name | API No. | | Sec. | T | R | Un | Drill | Well | TD or | Top | Bot. | Sqz. | Csg. | Hole | | No. of | |
| Operator | | | | | | Ltr | Date | Type | PBTD | Perf | Perf | Perfs | Size | Size | Depth | Sxs. | TOC |
| Bowers Fed. A #1 | 30-025- | 22124 | 30 | -18S | -38E | J | 6//67 | PA | 42 | 10-38 OH | | | 6.625 | 6.75 | 10 | 3 | CIRC** |
| ARC Ind. | | | | | | | | | | | | | | | | | |
| Bowers Fed. A #3 | 30-025- | 22126 | 30 | -18S | -38E | J | 6//67 | PA | 38 | 10-38 OH | | | 7 | 7.875 | 10 | 3 | CIRC** |
| ARC Ind. | | | | | | | | | | | | | | | | | |
| Bowers Fed. A #4 | 30-025- | 22127 | 30 | -18S | -38E | J | 7//67 | PA | 38 | 10-38 OH | | | 6.625 | 6.75 | 10 | 3 | CIRC |
| ARC Ind. | | | | | | | | | | | | | | | | | |
| Bowers Fed. A #5 | 30-025- | 22189 | 30 | -18S | -38E | J | 7//67 | PA | 38 | 10-38 OH | | | 6.625 | 6.75 | 10 | 3 | CIRC |
| ARC Ind. | | | | | | | | | | | | | | | | | |
| Bowers Fed. A #6 | 30-025- | 22276 | 30 | -18S | -38E | J | 10//67 | PA | 45 | 10-45 OH | | | 5.5 | 6.75 | 10 | 3 | CIRC** |
| ARC Ind. | | | | | | | | | | | | | | | | | |
| Bowers Fed. A #10 | 30-025- | 22147 | 30 | -18S | -38E | J | 6//67 | PA | 38 | 10-38 OH | | | 7 | 7.875 | 10 | 3 | CIRC** |
| ARC Ind. | | | | | | | | | | | | | | | | | |
| Bowers Fed. A #11 | 30-025- | 22148 | 30 | -18S | -38E | J | 6//67 | PA | 38 | 10-38 OH | | | 6.625 | 6.75 | 10 | 3 | CIRC** |
| ARC Ind. | | | | | | | | | | | | | | | | | |
| Bowers Fed. A #12 | 30-025- | 22190 | 30 | -18S | -38E | J | 10//67 | PA | 45 | 10-45 OH | | | 6.625 | 6.75 | 10 | 3 | CIRC** |
| ARC Ind. | | | | | | | | | | | | | | | | | |
| F.A Bowers #13 | 30-025- | 22277 | 30 | -18S | -38E | J | 10//67 | PA | 45 | 10-45 OH | | | 5.5 | 6.75 | 10 | 3 | CIRC** |
| ARC Ind. | | | | | | | | | | | | | | | | | |
| Clara Fowler #5 | 30-025- | 07494 | 31 | -18S | -38E | A | 9//47 | PA | 3215 | No data | No data | | 8.625 | 11.25 | 312 | 175 | CIRC** |
| Cities Serv. | | | | | | | | | | | | | 5.5 | 7.75 | 3160 | 600 | CIRC** |
| Clara Fowler #7 | 30-025- | 07496 | 31 | -18S | -38E | B | 1//48 | PA | 3252 | No data | No data | | 8.625 | 11.5 | 290 | 175 | CIRC** |
| Cities Serv. | | | | | | | | | | | | | 5.5 | 7.75 | 3159 | 600 | CIRC** |

** - Denotes calculated TOC with 50% efficiency.

# OFFSET WELLS WITHIN A HALF MILE OF PROPOSED INJECTOR

| FOR WELL 31211 | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well Name | API No. | | Sec. | T | R | Un | Drill | Well | TD or | Top | Bot. | Sqz. | Csg. | Hole | | No. of | |
| Operator | | | | | | Ltr | Date | Type | PBTD | Perf | Perf | Perfs | Size | Size | Depth | Sxs. | TOC |
| Fowler #8 | 30-025- | 07497 | 31 | -18S | -38E | G | 2//48 | PA | 3260 | 3213 | 3260 | NONE | 8.625 | 11 | 300 | 175 | CIRC** |
| Cities Service | | | | | | | | | | | | | 5.5 | 6.25 | 3180 | 600 | CIRC** |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| Bowers Fed. A #13 | 30-025- | 07476 | 30 | -18S | -38E | J | 7//47 | PA | 3189 | 3148 | 3189 | | 8.625 | 11 | 283 | 200 | CIRC** |
| Exxon | | | | | | | | | | OH | | | 5.5 | 7.625 | 3150 | 1350 | CIRC** |
| | | | | | | | | | | | | | | | | | |
| Bowers A Fed. #15 | 30-025- | 07477 | 30 | -18S | -38E | P | 8//47 | PA | 3218 | No data | No data | | 8.625 | 11 | 249 | 150 | CIRC** |
| Exxon | | | | | | | | | | | | | 5.5 | 7.625 | 3158 | 1250 | CIRC** |
| | | | | | | | | | | | | | | | | | |
| Bowers A Fed. #16 | 30-025- | 07478 | 30 | -18S | -38E | O | 10//47 | PA | 3050 | No data | No data | | 8.625 | 11 | 262 | 150 | CIRC** |
| Exxon | | | | | | | | | | | | | 5.5 | 7.625 | 3151 | 1000 | CIRC** |
| | | | | | | | | | | | | | | | | | |
| Bowers A Fed. #17 | 30-025- | 21900 | 30 | -18S | -38E | J | 10//66 | PA | 50 | OH | | | 7 | 8 | 12 | 6 | CIRC** |
| Exxon | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| Bowers A Fed. #CT19 | 30-025- | 21966 | 30 | -18S | -38E | | 1//67 | PA | 30 | | | | | | | | |
| Exxon | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| Bowers A Fed. #CT20 | 30-025- | 21967 | 30 | -18S | -38E | | 1//67 | PA | 32 | | | | | | | | |
| Exxon | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| Bowers A Fed. #CT26 | 30-025- | 21969 | 30 | -18S | -38E | | 1//67 | PA | 35 | | | | | | | | |
| Exxon | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| Bowers A Fed. #30 | 30-025- | 23144 | 30 | -18S | -38E | P | 6//69 | PA | 6000 | 5356 | 5946 | | 8.625 | 11 | 3836 | 500 | 1858** |
| Exxon | | | | | | | | | | | | | 4.5 | 7.875 | 5988 | 550 | 4199** |
| | | | | | | | | | | | | | | | | | |
| Bowers A Fed. #32 | 30-025- | 23235 | 30 | -18S | -38E | O | 8//69 | PA | 7075 | 5825 | 5964 | 5887-01 | 13.375 | 17.5 | 385 | 400 | 2250 |
| Exxon | | | | | | | | | | | | 6974-82 | 9.625 | 11 | 3850 | 550 | 2900 |
| | | | | | | | | | | | | | 7 | 8.75 | 7053 | 895 | CIRC** |
| | | | | | | | | | | | | | | | | | |
| Bowers A Fed. #34 | 30-025- | 23260 | 30 | -18S | -38E | J | 8//69 | PA | 7010 | 5822 | 6979 | 5848-98 | 9.625 | 12.25 | 3850 | 550 | 2296** |
| Exxon | | | | | | | | | | | | 6932-75 | 3.5 B | 7.875 | 6088 | 895 | 2600** |
| | | | | | | | | | | | | | 3.5 D | 7.875 | 6098 | 895 | 2615** |
| | | | | | | | | | | | | | | | | | |
| St #4 | 30-025- | 07482 | 30 | -18S | -38E | M | 11//30 | PA | 4215 | 3758 | 3850 | | 16 | 18 | 260 | 225 | CIRC** |
| Marathon | | | | | | | | | | | | | 9.625 | 12 | 2750 | 500 | 589** |

** - Denotes calculated TOC with 50% efficiency.

# OFFSET WELLS WITHIN A HALF MILE OF PROPOSED INJECTOR

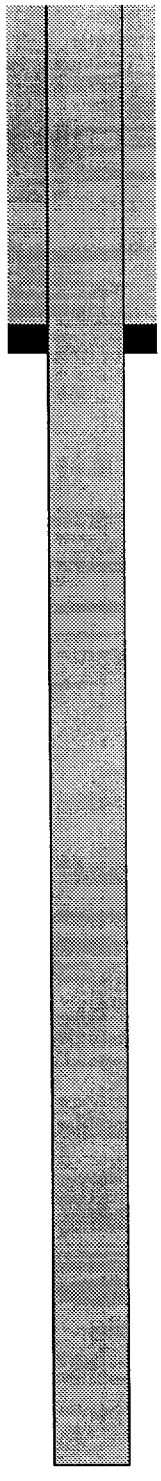
| **FOR WELL 31211** | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well Name | API No. | | Sec. | T | R | Un | Drill | Well | TD or | Top | Bot. | Sqz. | Csg. | Hole | | No. of | |
| *Operator* | | | | | | Ltr | Date | Type | PBTD | Perf | Perf | Perfs | Size | Size | Depth | Sxs. | TOC |
| | | | | | | | | | | | | | 7 | 8.75 | 3946 | 350 | 1307** |
| | | | | | | | | | | | | | | | | | |
| Fowler #2 | 30-025- | 07512 | 31 | -18S | -38E | D | 9//47 | PA | 3100 | NA | NA | NONE | 8.625 | 11 | 248 | 200 | CIRC** |
| Sunray | | | | | | | | | CIBP | | | | 5.5 | 7.875 | 3231 | 500 | CIRC** |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| Fowler #3 | 30-025- | 07513 | 31 | -18S | -38E | E | 10//47 | PA | 3100 | 3272 | 3282 | NONE | 9.625 | 12.5 | 260 | 300 | CIRC** |
| Sunray | | | | | | | | | | | | | 5.5 | 7.875 | 3250 | 500 | CIRC** |
| | | | | | | | | | | | | | | | | | |
| 30342 | 30-025- | 12501 | 30 | -18S | -38E | O | 10//30 | PA | 3825 | 3974 | 4268 | 2000 | 12.5 | 18 | 220 | 210 | CIRC |
| Altura | | | | | | | | | CIBP | | | | 9.625 | 12 | 2750 | 650 | CIRC |
| | | | | | | | | | | | | | 7 | 8.75 | 3974 | 300 | 1144-CBL |

** - Denotes calculated TOC with 50% efficiency.

**WELL SCHEMATIC:**
**ARC IND BOWERS A FED #1**

WELL PLUGGED:
8/19/98

6 5/8"
10'
3 SX
TOC: NA



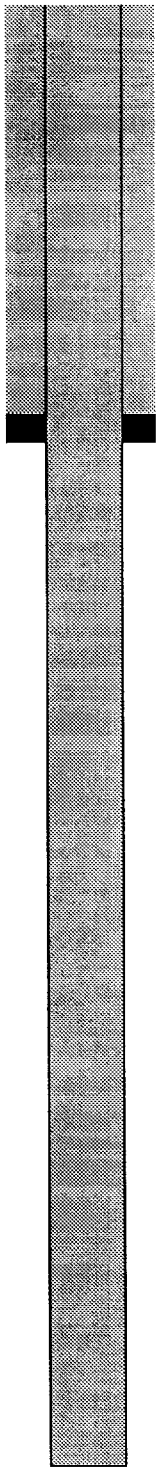
Csg was pulled out of hole.
Well was filled to the surface
With approximately .75 yards
Of 5 sx Redi-Mix.

TD: 42'

**WELL SCHEMATIC:**
**ARC IND BOWERS A FED #3**

WELL PLUGGED:
8/19/98

7"
10'
3 SX
TOC: NA



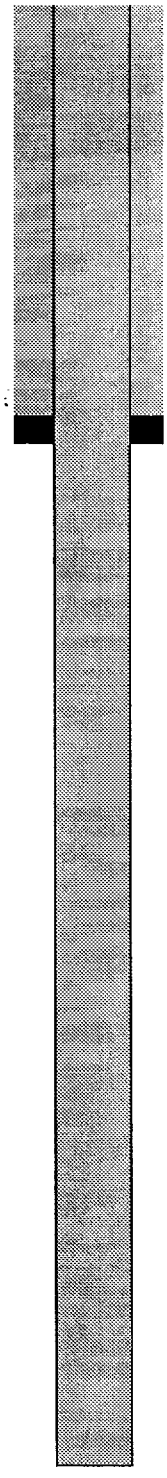
Csg was pulled out of hole.
Well bore was filled with
Approximately .75 yards of
5 sx Redi-Mix.

TD: 38'

**WELL SCHEMATIC:**
**ARC BOWERS A FED #4**

WELL PLUGGED:
8/19/98

6 5/8"
10'
3 SX
TOC: NA



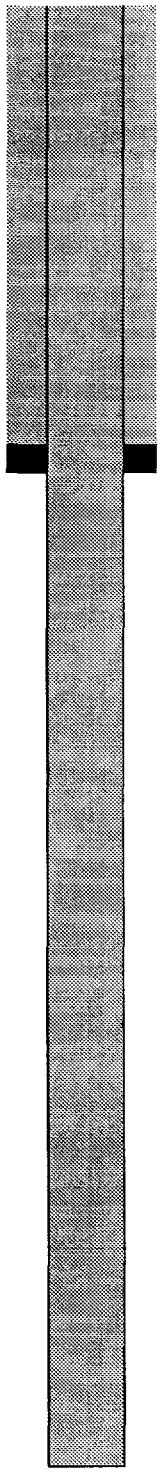
Csg was pulled out of hole.
Well was filled to the surface
With approximately .75 yards
Of 5 sx Redi-Mix.

TD: 38'

**WELL SCHEMATIC:**
**ARC BOWERS A FED #5**

WELL PLUGGED:
8/19/98

6 5/8"
10'
3 SX
TOC: NA



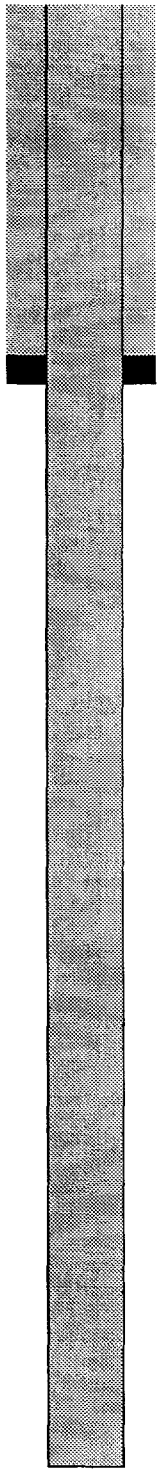
Csg was pulled out of hole.
Well was filled to the surface
With approximately .75 yards
Of 5 sx Redi-Mix.

TD: 38'

**WELL SCHEMATIC:**
**ARC IND BOWERS A FED #6**

WELL PLUGGED:
8/19/98

6 ¾"
10'
3 SX
TOC: NA



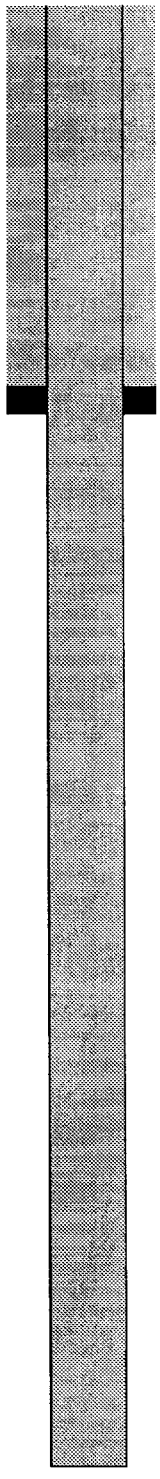
Csg was pulled and well was
Filled with approximately
.75 yards of 5 sx Redi-Mix.

TD: 45'

**WELL SCHEMATIC:**
**EXXON BOWERS A FED #10**

WELL PLUGGED:
8/19/98

7"
10'
3 SX
TOC: NA



Csg was pulled out of hole.
Well was filled to the surface
With approximately .75 cu.
Yds. of 5 sx Redi-Mix.

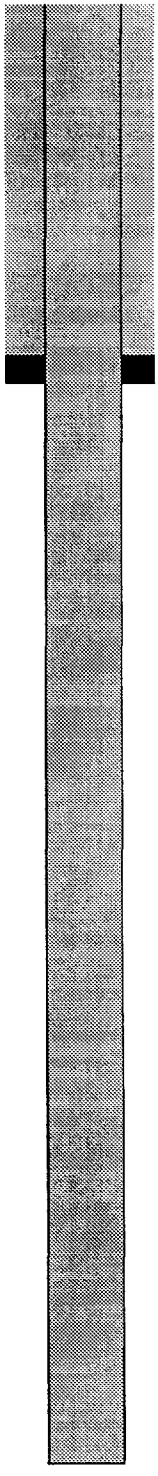
10' to 38' – open hole.

TD: 38'

**WELL SCHEMATIC:**
**EXXON BOWERS A FED #11**

WELL PLUGGED:
8/19/98

6 5/8"
10'
3 SX
TOC: NA



Csg was pulled out of hole.
Well was filled to the surface
With approximately .75 yards
Of 5 sx Redi-Mix.

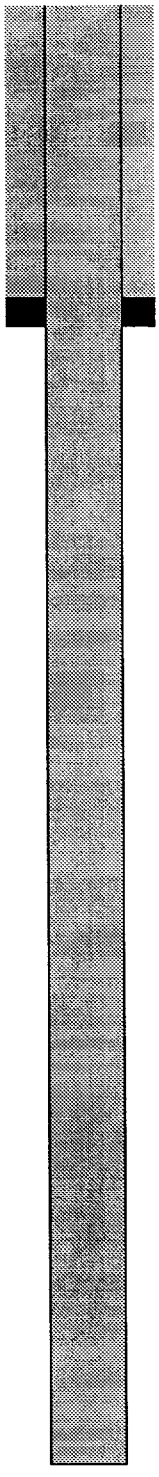
10' to 38' – open hole.

TD: 38'

**WELL SCHEMATIC:**
**EXXON BOWERS A FED #12**

WELL PLUGGED:
8/19/98

6 5/8"
10'
3 SX
TOC: NA



Csg was pulled out of hole.
Well was filled to the surface
With approximately .75 yards
Of 5 sx Redi-Mix.

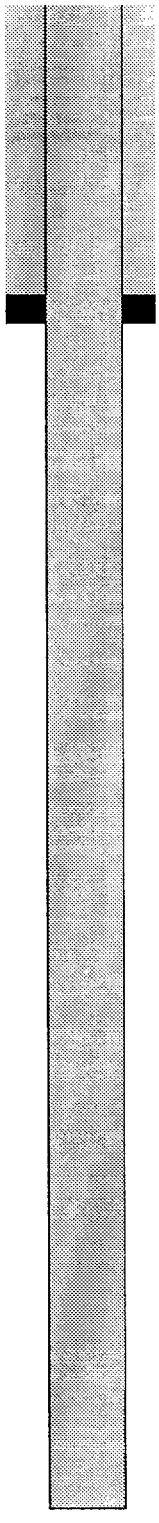
10' to 45' – open hole

TD: 45'

**WELL SCHEMATIC:**
**ARC IND. BOWERS A FED #13**

WELL PLUGGED:
8/19/98

5 ½"
10'
3 SX
TOC: NA



Csg was pulled out of hole.
Well was filled to the surface
With approximately .75 yards
Of 5 sx Redi-Mix.

TD: 45'

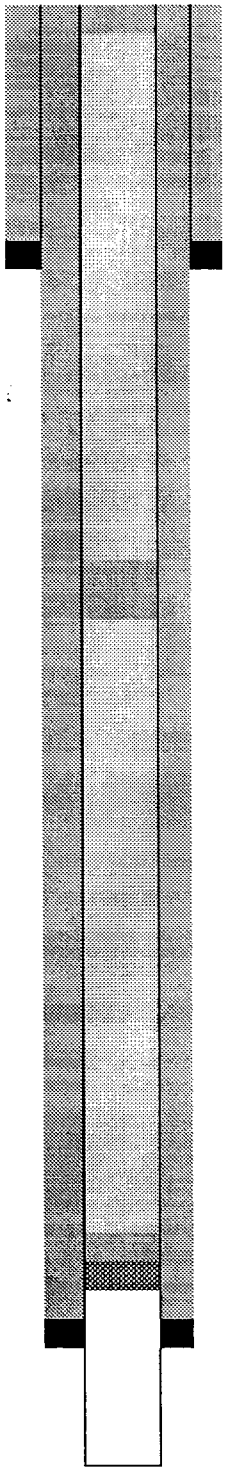
**WELL SCHEMATIC:**
**CITIES SERVICE FOWLER #5**

WELL PLUGGED:
3/1/72

8 5/8"
312'
175 SX
TOC: SURF (C)

5 ½"
3160'
600 SX
TOC: SURF (C)

TD: 3215'



Displaced 10 sx cmt plug
From 60' to 0'.

Loaded hole with mud laden
Fluid.

Displaced 25 sx cmt plug
From 1560' to 1360'.

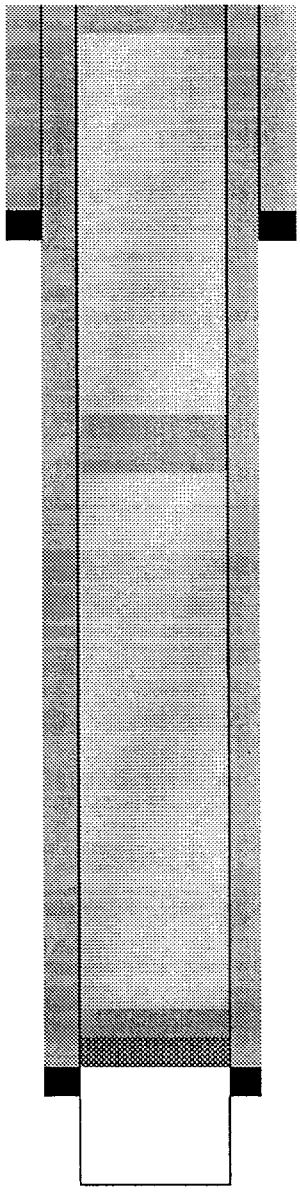
Set CIBP in 5 ½" csg at 3026'
And dumped 2 sx cmt plug
On top of CIBP from 3026' to
3010'.

**WELL SCHEMATIC:**
**CITIES SERVICE FOWLER #7**

WELL PLUGGED:
3/1/72

8 5/8"
290'
175 SX
TOC: SURF (C)

5 ½"
3159'
600 SX
TOC: SURF (C)



Spotted 10 sx cmt plug from 60' to 0'.

Loaded hole with mud.

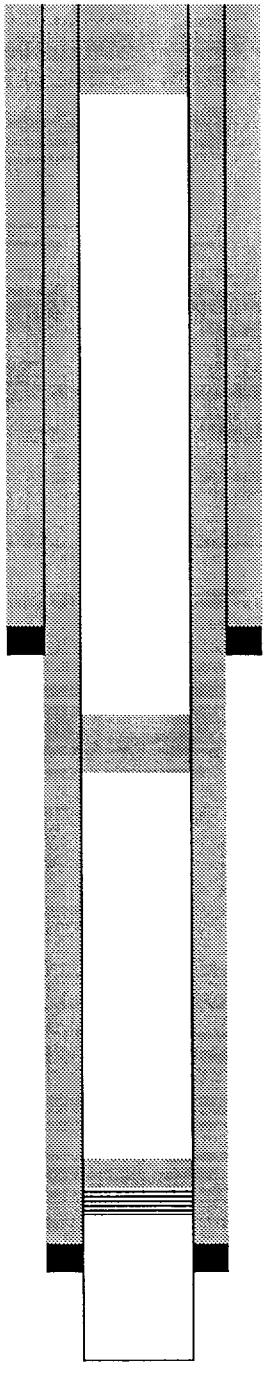
Spotted 25 sx cmt plug from 1610' to 1410'.

Dumped 2 sx cmt plug on top Of CIBP from 3101' to 3085'.
Set CIBP in 5 ½" csg at 3101'

TD: 3252'

Fowler #8
Cities Services
Unit G, 1980 FNL & 1980 FEL
Sec 31, T-18-S, R-38-E

P&A'd: 4/26/72
DATUM:3650 df



10 sxs cement plug, 0-60'

Size: 8-5/8"
Weight: 25.5#
Depth: 300'
Hole Size: 11-1/4"
Cmt: 175 sxs
TOC: Circ.

25 sxs cement plug, 1412-1612'

Size: 5-1/2"
Weight: 14#
Depth: 3180'
Hole Size: 7-3/4"
Cmt: 600 sxs
TOC:

CIBP w/ cmt @ 3080'

TD: 3260'

05/16/00

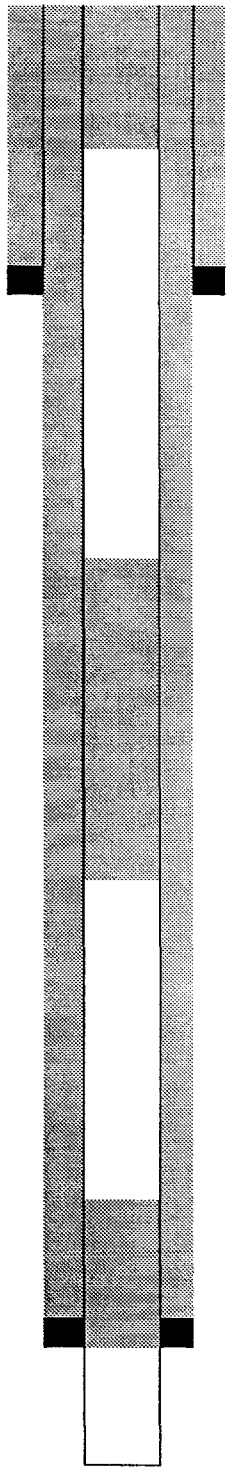
**WELL SCHEMATIC: EXXON BOWERS A FED. #13**

WELL PLUGGED:
5/10/71

8 5/8"
283'
125 sxs
TOC: SURF (C)

5 ½"
3150'
1350 sxs
TOC:SURF (C)

TD: 3189'



10 sxs cmt plug set from 50' to surf

20 sxs cmt plug set from 1500' to 1400'

50 sxs cmt plug set from 3189' to 2800'

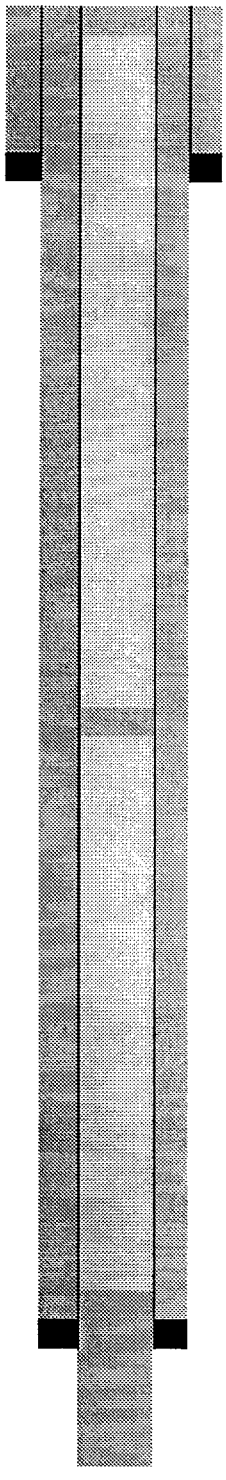
**WELL SCHEMATIC:**
**EXXON BOWERS A FED #15**

WELL PLUGGED:
11/27/70

8 5/8"
249'
150 SX
TOC: CIRC

5 ½"
3158'
1250 SX
TOC: CIRC

TD: 3218'



Spotted 10 sx cmt plug at Surface.

Hole was loaded with mud Laden fluid.

Spotted 20 sx cmt plug from 1400' to 1500'.

Spotted 25 sx cmt plug at 3218'.

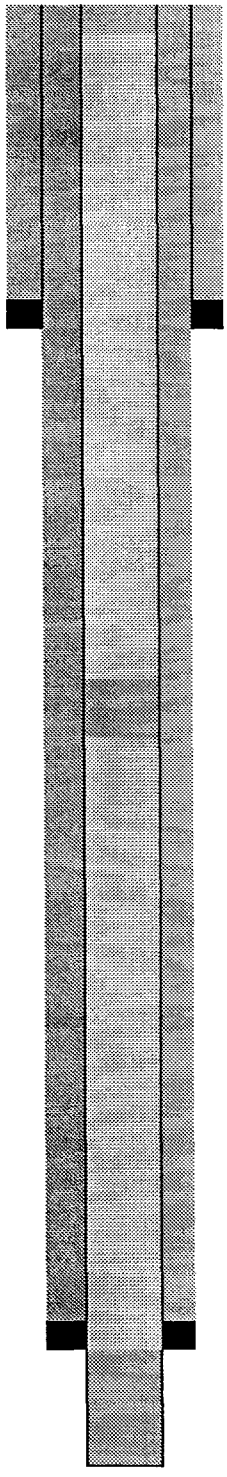
**WELL SCHEMATIC:**
**EXXON BOWERS A FED #16**

WELL PLUGGED:
11/27/70

8 5/8 "
262'
150 SXS
TOC: CIRC

5 ½"
3151'
1000 SXS
TOC: CIRC

TD: 3225'



Spotted a 10 sxs cmt plug at surface with marker.

Hole loaded with mud laden fluids.

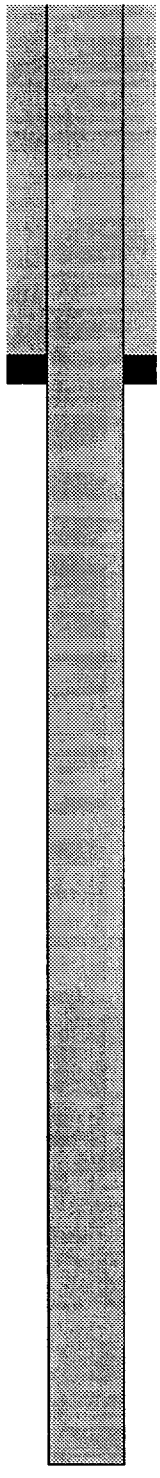
Spotted a 20 sxs cmt plug from 1400' to 1550'

Spotted a 30 sxs cmt plug from 3050' to 3225'

**WELL SCHEMATIC:**
**EXXON BOWERS A FED #17**

WELL PLUGGED:
11/30/66

7"
12'
6 SX
TOC: CIRC



12' of 7" csg left in hole.

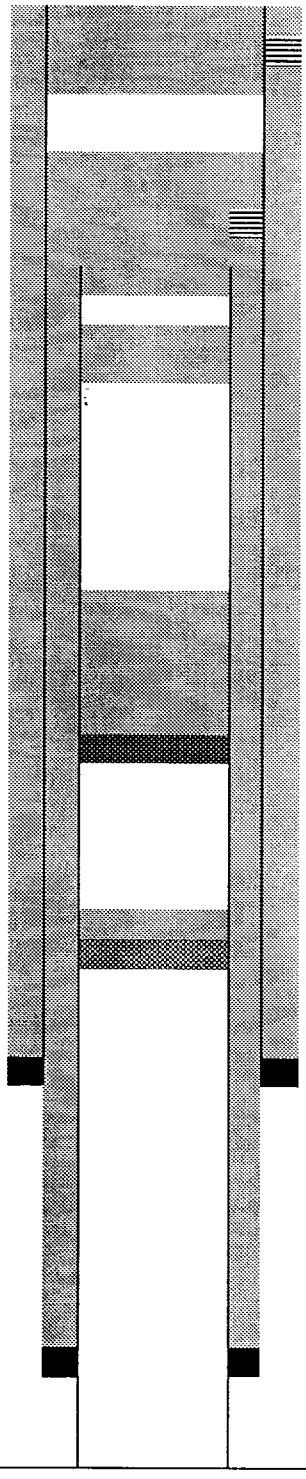
Filled hole with approximately
.75 yards of 5 sx Redi-Mix.

TD: 50'

**WELL SCHEMATIC:**
**EXXON BOWERS A FED #30**

WELL PLUGGED:
8/4/90

8 5/8"
3836'
500 SX
TOC: 2300' TS



Perf'd 8 5/8" at 450'. Pumped 211 sx down 8 5/8" thru perfs At 450' and circulate.

Perf'd 8 5/8" csg at 1485'. Cut off 4 ½ csg at 1500'. Spotted 77 sx cmt plug from 1500' to 1385'.

Spotted 15 sx cmt plug from 2711' to 2528'.

Spotted 70 sx cmt plug from 4632' to 3364'.

Cmt. ret. at 4632' – sqz with 25 sx.

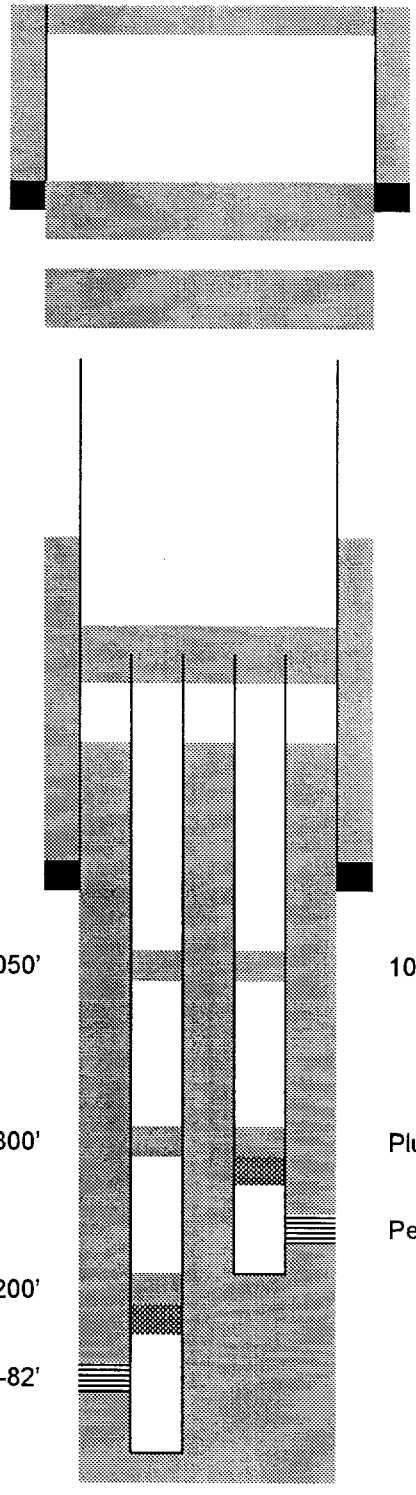
CIBP at 5300' w/ 35' cmt cap.

4 ½"
5988'
550 SX
TOC: 2800' TS

TD: 6000'

## WELL SCHEMATIC - Exxon Bowers A Federal #32

Well plugged 9/14/72



20' cmt. Plug at surface.

13-3/8"
401'
600 sxs
TOC: Circ.

100' cmt plug at 13-3/8 csg shoe

100 ' cmt plug at 1400'

9-5/8 casing cut off at 1800'

9-5/8" TOC: 2250'

Both 3-1/2" strings cut off at 2700' and capped with 100' of cmt.

Cmt top inside 9-5/8" at 2900'

9-5/8"
3850'
550 sxs

100' cmt plug at 4050'

100' cmt plug at 4050'

100' cmt plug at 5800'

Plug w/ 100' cmt at 5694'

Perfs: 5825-5964'

Plug w/ 100' cmt at 6200'

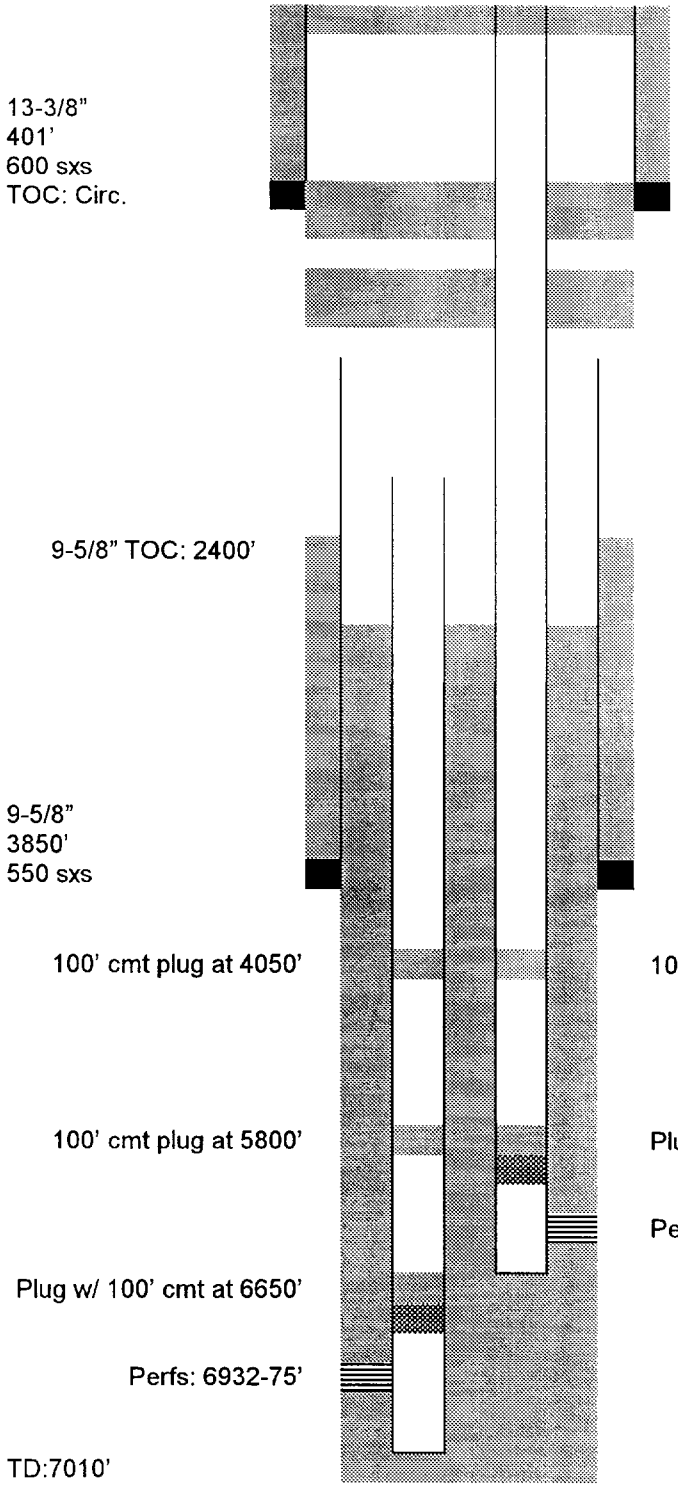
Perfs: 6974-82'

TD:7075'

05/16/00

## WELL SCHEMATIC - Exxon Bowers A Federal #34

Well plugged 9/26/72



20' cmt. Plug at surface.

13-3/8"
401'
600 sxs
TOC: Circ.

100' cmt plug at 13-3/8 csg shoe

100 ' cmt plug at 1400'

9-5/8 casing cut off at 1750'

Cut one 3-1/2" strings off at 2250'

9-5/8" TOC: 2400'

Cmt top inside 9-5/8" at 2600'

9-5/8"
3850'
550 sxs

100' cmt plug at 4050'

100' cmt plug at 4050'

100' cmt plug at 5800'

Plug w/ 100' cmt at 5694'

Perfs: 5848-98'

Plug w/ 100' cmt at 6650'

Perfs: 6932-75'

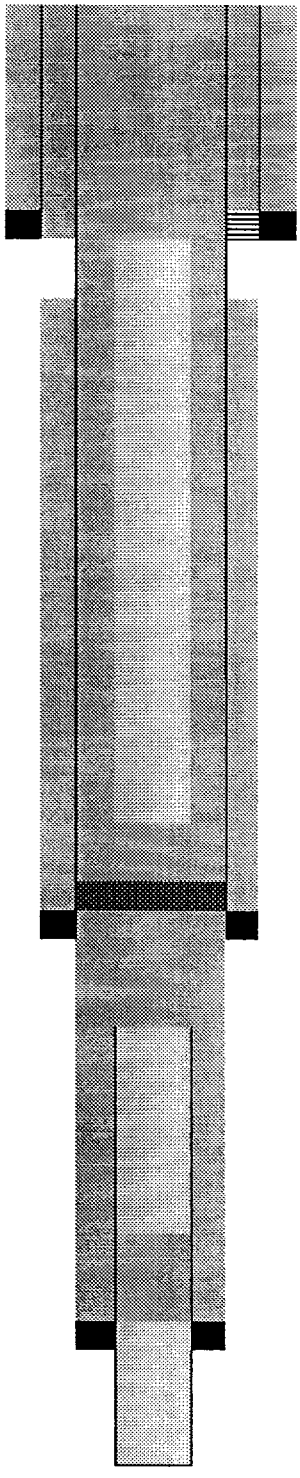
TD:7010'

05/16/00

**WELL SCHEMATIC:**
**MARATHON STATE #4**

WELL PLUGGED:
3/14/57

16"
260'
225 SX
TOC: SURF (C)



Perfd 9 5/8" csg at 255'. Circ 300 sx cmt to surf 9 5/8" x 16" csg annulus leaving 255' Cmt plug in top of 9 5/8" csg And 16" surf pipe.

Hole loaded with gel based Mud.

9 5/8"
2750'
500 SX
TOC: NA

Spotted 125' cmt plug from 2703' to 2578'.
Set cast iron cmt ret in 9 5/8" Csg at 2703' and sqzd 50 sx Cmt below cmt ret.

7"
3946'
350 SX
TOC: NA

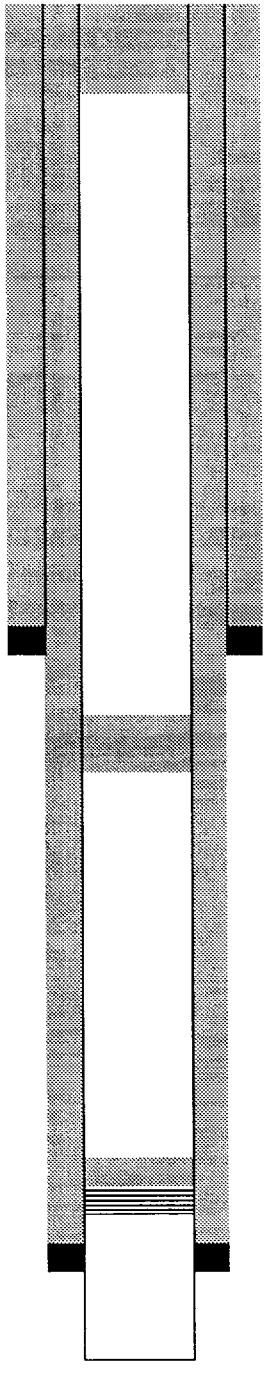
Cut 7" csg at 3060' and Pulled same.

TD: 4215'

Spotted 312' cmt plug from 3602' to 3914'.

Clara Fowler #2
Sun Oil
Unit D, 590 FNL & 990 FWL
Sec 31, T-18-S, R-38-E

P&A'd: 2/26/79
DATUM: 3254 df



75 sxs cement plug, 0-150'

Size: 9-5/8"
Weight:
Depth: 260'
Hole Size: 12.5"
Cmt: 300 sxs
TOC: Calc. Surf.

20 sxs cement plug, 1730-1600'

Size: 5-1/2"
Weight:
Depth: 3250'
Hole Size: 7-7/8"
Cmt: 500 sxs
TOC: Calc Surf.

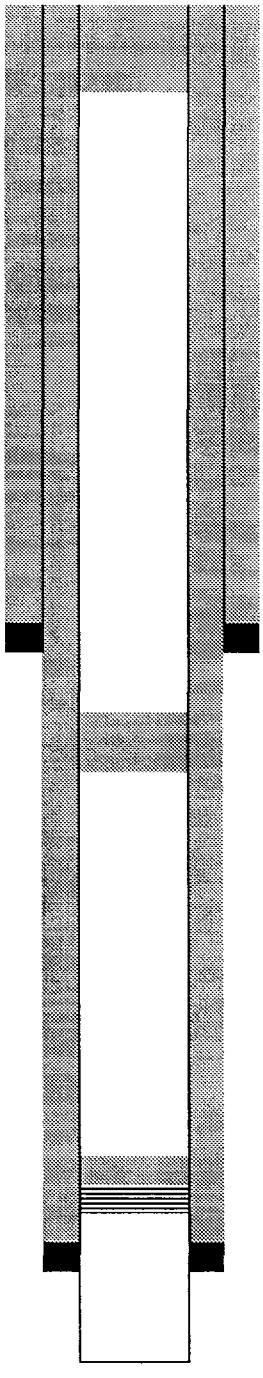
CIBP w/ cmt @ 3100'

TD: 3282'

05/16/00

Clara Fowler #3
Sun Oil
Unit E, 1650 FNL & 990 FWL
Sec 31, T-18-S, R-38-E

P&A'd: 2/26/79
DATUM: 3254 df



75 sxs cement plug, 0-150'

Size: 9-5/8"
Weight:
Depth: 260'
Hole Size: 12.5"
Cmt: 300 sxs
TOC: Calc. Surf.

20 sxs cement plug, 1730-1600'

Size: 5-1/2"
Weight:
Depth: 3250'
Hole Size: 7-7/8"
Cmt: 500 sxs
TOC: Calc Surf.

CIBP w/ cmt @ 3100'

TD: 3282'

05/17/00

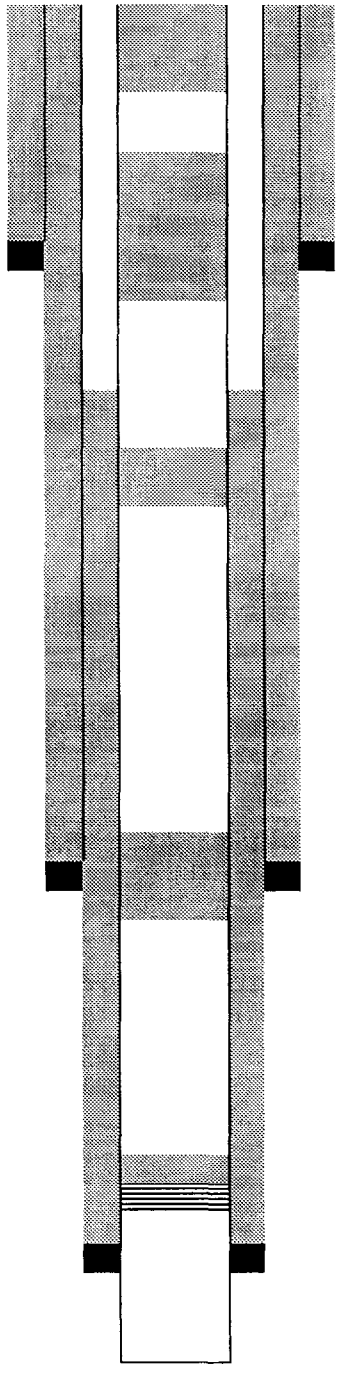
NHU 30-342
(Formally Bowers Fed. A #8)
Humble
Unit O, 440 FSL & 2320 FEL
Sec 30, T-18-S, R-38-E

P&A'd: 4/27/99
DATUM:3654 df

Size: 12-1/2"
Weight: 50#
Depth: 220'
Hole Size: 18"
Cmt: 210 sxs
TOC: Circ.

Size: 9-5/8"
Weight: 36#
Depth: 2750'
Hole Size: 12"
Cmt: 650 sxs
TOC: Circ.

Size: 7"
Weight: 26#
Depth: 3974'
Hole Size: 8-3/4"
Cmt: 300 sxs
TOC: 1144 CBL



10 sxs cmt plug 3-60'

35 sxs cmt plug 97-306'

25 sxs cmt plug, 1546-1713'

25 sxs cmt plug, 2696-2825'

25 sxs cmt plug 3676-3825'
CIBP w/ cmt @ 3825'

TD: 4268'

05/16/00

# LIST OF OFFSET OPERATORS & SURFACE OWNERS

North Hobbs (Grayburg/San Andres) Unit
Well No. 211
Letter C, Section 31, T-18-S, R-38-E
Lea County, New Mexico

## Offset Operators

Occidental Permian Limited Partnership
P.O. Box 4294
Houston, TX 77210-4294

Exxon Company, U.S.A.
Attn: Joint Interest Operations
P.O. Box 4707
Houston, TX 77210-4707

Marathon Oil Company
P.O. Box 552
Midland, TX 79702-0552

Charles E. Seed
Houston Ranch
Lovington Hwy.
Hobbs, NM 88240

Lewis B. Burleson, Inc.
P.O. Box 2479
Midland, TX 79702

## Surface Owners

V.R. Jones
Star Route A
Box 440
Hobbs, NM 88240

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Exxon Company, U.S.A.
Attn: Joint Interest Operations
P.O. Box 4707
Houston, TX 77210-4707

4a. Article Number
P 436 313 774

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☒ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X

PS Form **3811**, December 1994 102595-97-B-0179 Domestic Return Receipt

Thank you for using Return Receipt Service.

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I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Marathon Oil Company
P.O. Box 552
Midland, TX 79702-0552

4a. Article Number
P 436 313 775

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☒ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X

PS Form **3811**, December 1994 102595-97-B-0179 Domestic Return Receipt

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- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Charles E. Seed
Houston Ranch
Lovington Hwy.
Hobbs, NM 88240

4a. Article Number
P 436 313 776

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☒ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X

PS Form **3811**, December 1994 102595-97-B-0179 Domestic Return Receipt

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I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

V.R. Jones
Star Route A
Box 440
Hobbs, NM 88240

4a. Article Number
P 436 313 777

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☒ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X

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Thank you for using Return Receipt Service.

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- Complete items 1 and/or 2 for additional services.
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- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Lewis B. Burleson, Inc.
P.O. Box 2479
Midland, TX 79702

4a. Article Number
P 436 313 778

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☒ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X

PS Form **3811**, December 1994 102595-97-B-0179 Domestic Return Receipt

Thank you for using Return Receipt Service.

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

December 31 1999

and ending with the issue dated

December 31 1999

Kathi Bearden

Publisher

Sworn and subscribed to before

me this 3rd day of

January 2000

Jodi Henson

Notary Public.

My Commission expires
October 18, 2000
(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**
**December 31, 1999**

Notice is hereby given of the application of Altura Energy LTD, Attn: Mark Stephens, P.O. Box 4294, Rm. 338-B, Houston, TX 77210-4294 (281/552-1158), to the Oil Conservation Division, New Mexico Energy, Minerals and Natural Resources Department, for approval of the following injection wells for the purpose of secondary recovery:

Pool Name: Hobbs; Grayburg-San Andres
Lease/Unit Name: North Hobbs G/SA Unit
Well No. 231
Loc.; 2310' FSL & 2310' FWL, Unit Letter K, Sec. 19, T-18-S, R-38-E, Lea Co., NM
Well No. 422
Loc.: 2310' FNL & 330' FWL, Unit Letter H, Sec. 24, T-18-S, R-37-E, Lea Co., NM
Well No. 431
Loc.: 2310' FSL & 330' FEL, Unit Letter I, Sec. 25, T-18-S, R-37-E, Lea Co., NM
Well No. 131
Loc.: 2310' FSL & 330' FWL, Unit Letter L, Sec. 28, T-18-S, R-38-E, Lea Co., NM
Well No. 332
Loc.: 2470' FNL & 1800' FEL, Unit Letter G, Sec. 28, T-18-S, R-38-E, Lea Co., NM
Well No. 231
Loc.: 2310' FSL & 1650' FWL, Unit Letter K, Sec. 29, T-18-S, R-38-E, Lea Co., NM
Well No. 321
Loc.: 2310' FNL & 1650' FEL, Unit Letter G, Sec. 29, T-18-S, R-38-E, Lea Co., NM
Well No. 223
Loc.: 1770' FNL & 2405' FWL, Unit Letter F, Sec. 30, T-18-S, R-38-E, Lea Co., NM
Well No. 411
Loc.: 330' FNL & 3300' FEL, Unit Letter A, Sec. 30, T-18-S, R-38-E, Lea Co., NM
Well No. 211
Loc.: 440' FNL & 2310' FWL, Unit Letter C, Sec. 31, T-18-S, R-38-E, Lea Co., NM
Well No. 144
Loc.: 765' FSL & 1175' FWL, Unit Letter M, Sec. 32, T-18-S, R-38-E, Lea Co., NM
Well No. 312
Loc.: 210' FNL & 1400' FEL, Unit Letter B, Sec. 32, T-18-S, R-38-E, Lea Co., NM
Well No. 431
Loc.: 2310' FSL & 330' FEL, Unit Letter I, Sec. 32, T-18-S, R-38-E, Lea Co., NM
Well No. 111
Loc.: 330' FNL & 330' FWL, Unit Letter D, Sec. 33, T-18-S, R-38-E, Lea Co., NM
Well No. 211
Loc.: 330' FNL & 2310' FWL, Unit Letter C, Sec. 33, T-18-S, R-38-E, Lea Co., NM

The injection formation is the Hobbs; Grayburg - San Andres Pool between the intervals of +/- 3700' and +/- 5300' below the surface of the ground. Expected maximum injection rate is 4000 BWPD and the expected maximum injection pressure is approximately 805 psi. Interested parties must file objections or requests for hearing with the Oil Conservation Division, 2040 S. Pacheco, Santa Fe, NM 87505 within fifteen (15) days.
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altura
P. O. Box 4294
Houston, TX 77210-4294