NEW MEXICO ENERGY, MINERALS and
NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**
Governor
**Jennifer A. Salisbury**
Cabinet Secretary

**Lori Wrotenbery**
Director
**Oil Conservation Division**

*ADMINISTRATIVE ORDER NO. PMX-204*

***APPLICATION OF OCCIDENTAL PERMIAN LTD. TO EXPAND ITS PRESSURE MAINTENANCE PROJECT IN THE HOBBS GRAYBURG-SAN ANDRES POOL IN LEA COUNTY, NEW MEXICO***

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No. R-6199, Occidental Permian, Ltd. has made application to the Division on June 19, 2000 and June 26, 2000 for permission to expand its North Hobbs Grayburg-San Andres Unit Pressure Maintenance Project in the Hobbs Grayburg-San Andres Pool in Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

(1) The application has been filed in due form.

(2) Satisfactory information has been provided that all offset operators have been duly notified of the application.

(3) No objection has been received within the waiting period as prescribed by Rule 701(B).

(4) The proposed injection wells are eligible for conversion to injection under the terms of Rule 701.

(5) The proposed expansion of the above referenced pressure maintenance project will not cause waste nor impair correlative rights.

(6) The application should be approved.

IT IS THEREFORE ORDERED THAT:

The applicant, Occidental Permian, Ltd., be and the same is hereby authorized to inject water into the Grayburg and San Andres formations at approximately 4130 feet to approximately 4300 feet through 2 7/8-inch plastic or fiberglass lined tubing set in a packer located approximately 100 feet above the uppermost injection perforations in the following described wells for purposes of pressure maintenance to wit:

**North Hobbs (Grayburg/San Andres) Unit Well No.231**
**(API No. 30-025-07362)**
2310 FSL & 2251 FWL, Unit 'K', Section 19,
Township 18 South, Range 38 East, NMPM,
Injection Interval 4130 feet to 4254 feet
Maximum Injection Pressure - 826 psig

**North Hobbs (Grayburg/San Andres) Unit Well No.422**
**(API No. 30-025-05478)**
2310 FNL & 330 FWL, Unit 'H', Section 24,
Township 18 South, Range 37 East, NMPM,
Injection Interval 4130 feet to 4254 feet
Maximum Injection Pressure - 826 psig

**North Hobbs (Grayburg/San Andres) Unit Well No.211**
**(API No. 30-025-07503)**
428 FNL & 2248 FWL, Unit 'C', Section 31,
Township 18 South, Range 38 East, NMPM,
Injection Interval 4186 feet to 4260 feet
Maximum Injection Pressure - 837 psig

**North Hobbs (Grayburg/San Andres) Unit Well No.121**
**(API No. 30-025-07464)**
2310 FNL & 327 FWL, Lot 2, Section 30,
Township 18 South, Range 38 East, NMPM,
Injection Interval 4148 feet to 4297 feet
Maximum Injection Pressure - 830 psig

**North Hobbs (Grayburg/San Andres) Unit Well No.411**
**(API No. 30-025-07470)**
330 FNL & 330 FEL, Unit 'A', Section 30,
Township 18 South, Range 38 East, NMPM,
Injection Interval 4171 feet to 4300 feet
Maximum Injection Pressure - 834 psig

located in Lea County, New Mexico.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected fluid enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection wells or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection wells to no more than .2 psi per foot of depth to the uppermost injection perforation.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected fluid from the Grayburg or San Andres formations.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject wells shall be governed by all provisions of Division Order No. R-6199 and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

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

DONE at Santa Fe, New Mexico, on this 11th day of July, 2000.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY
DIRECTOR

S E A L

LW/MWA/kv

cc: Oil Conservation Division - Hobbs

PMX 7/5/00

204

**Occidental Permian Ltd.**

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

June 14, 2000

19

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. 231
Letter K, Section 19, 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. 231 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. 231). 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.

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

- 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 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: 6/14/00

* 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.

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NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Attachment To Form C-108
Miscellaneous Data

North Hobbs (Grayburg/San Andres) Unit
Well No. 231
Letter K, Section 19, 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 |

**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 19-231
**SAMPLED BY**

**DATE TAKEN** 5/10/00
**REMARKS** T18S-R38E Sec. 19, Qtr Sec 4,3,2

| | | |
|---|---|---|
| Barium as Ba | 0 | |
| Carbonate alkalinity PPM | 0 | |
| Bicarbonate alkalinity PPM | 180 | |
| pH at Lab | 7.58 | |
| Specific Gravity @ 60°F | 1.001 | |
| Magnesium as Mg | 158 | |
| Total Hardness as CaCO3 | 272 | |
| Chlorides as Cl | 60 | |
| Sulfate as SO4 | 80 | |
| Iron as Fe | 0.02 | |
| Potassium | 0.09 | |
| Hydrogen Sulfide | 0 | |
| Rw | 11.8 | 23.0 C |
| Total Dissolved Solids | 615 | |
| Calcium as Ca | 114 | |
| Nitrate | 11.9 | |

Results reported as Parts per Million unless stated

Langelier Saturation Index - 0.07

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 19-231
**SAMPLED BY**

**DATE TAKEN** 5/10/00
**REMARKS** T18S-R38E-Sec 19, Qtr Sec. 4,3,2

| | |
|---|---|
| Barium as Ba | 0 |
| Carbonate alkalinity PPM | 0 |
| Bicarbonate alkalinity PPM | 228 |
| pH at Lab | 7.3 |
| Specific Gravity @ 60°F | 1.001 |
| Magnesium as Mg | 169 |
| Total Hardness as CaCO3 | 292 |
| Chlorides as Cl | 64 |
| Sulfate as SO4 | 100 |
| Iron as Fe | 0 |
| Potassium | 0.09 |
| Hydrogen Sulfide | 0 |
| Rw | 11.8 |
| Total Dissolved Solids | 715 |
| Calcium as Ca | 123 |
| Nitrate | 12.8 |

Results reported as Parts per Million unless stated

Langelier Saturation Index - 0.25

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

DISTRICT I
P.O. 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 |
|---|---|---|
| 30-025-07362 | 31920 | HOBBS; GRAYBURG - SAN ANDRES |

| Property Code | Property Name | Well Number |
|---|---|---|
| 19520 | NORTH HOBBS G/SA UNIT | 231 |

| OGRID No. | Operator Name | Elevation |
|---|---|---|
| 157984 | Occidental Permian Limited Partnership | 3660 |

### Surface Location

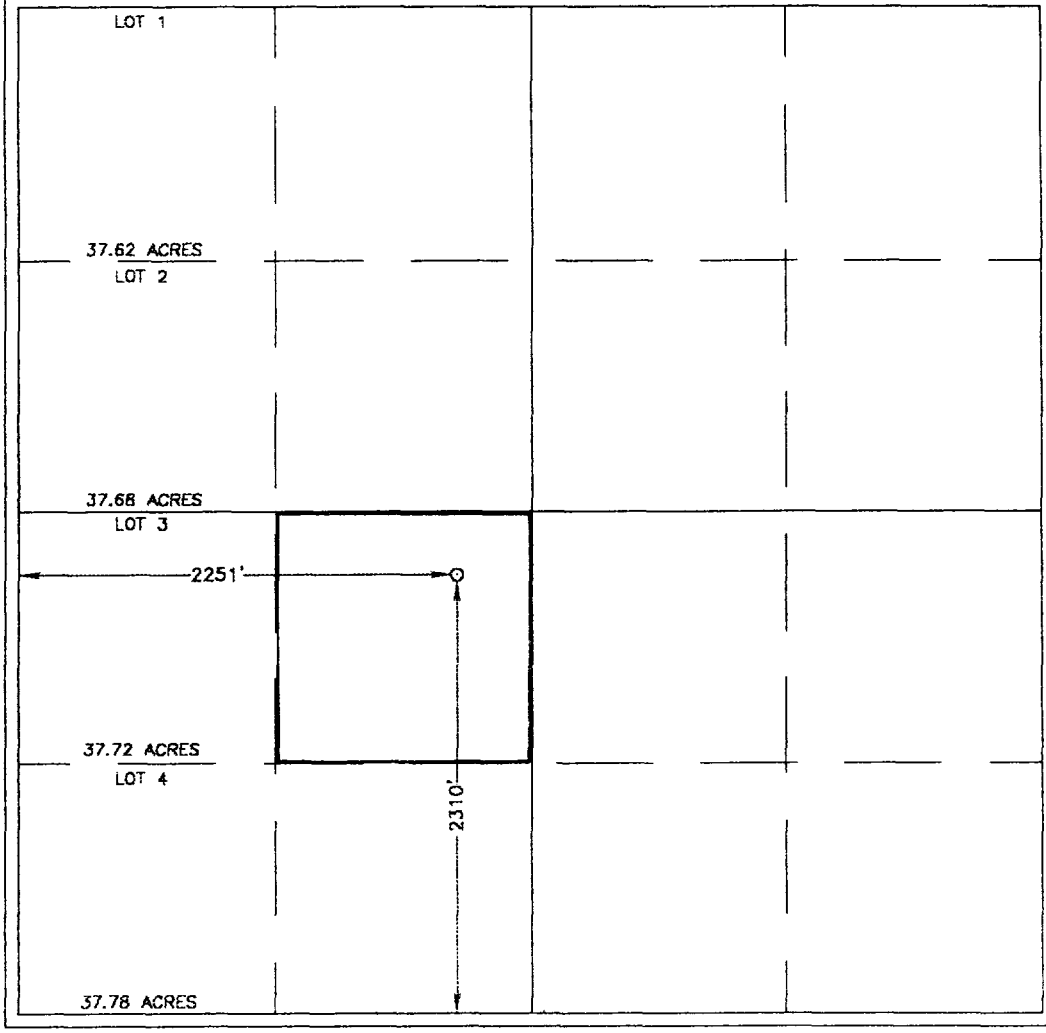
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| K | 19 | 18 S | 38 E | | 2310 | SOUTH | 2251 | WEST | LEA |

### 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 14, 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

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

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

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

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

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

| API Number | Pool Code | Pool Name |
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| 30-025-07362 | 31920 | HOBBS; GRAYBURG - SAN ANDRES |

| Property Code | Property Name | Well Number |
|---|---|---|
| 19520 | NORTH HOBBS G/SA UNIT | 231 |

| OGRID No. | Operator Name | Elevation |
|---|---|---|
| 157984 | Occidental Permian Limited Partnership | 3660 |

### Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| K | 19 | 18 S | 38 E | | 2310 | SOUTH | 2251 | 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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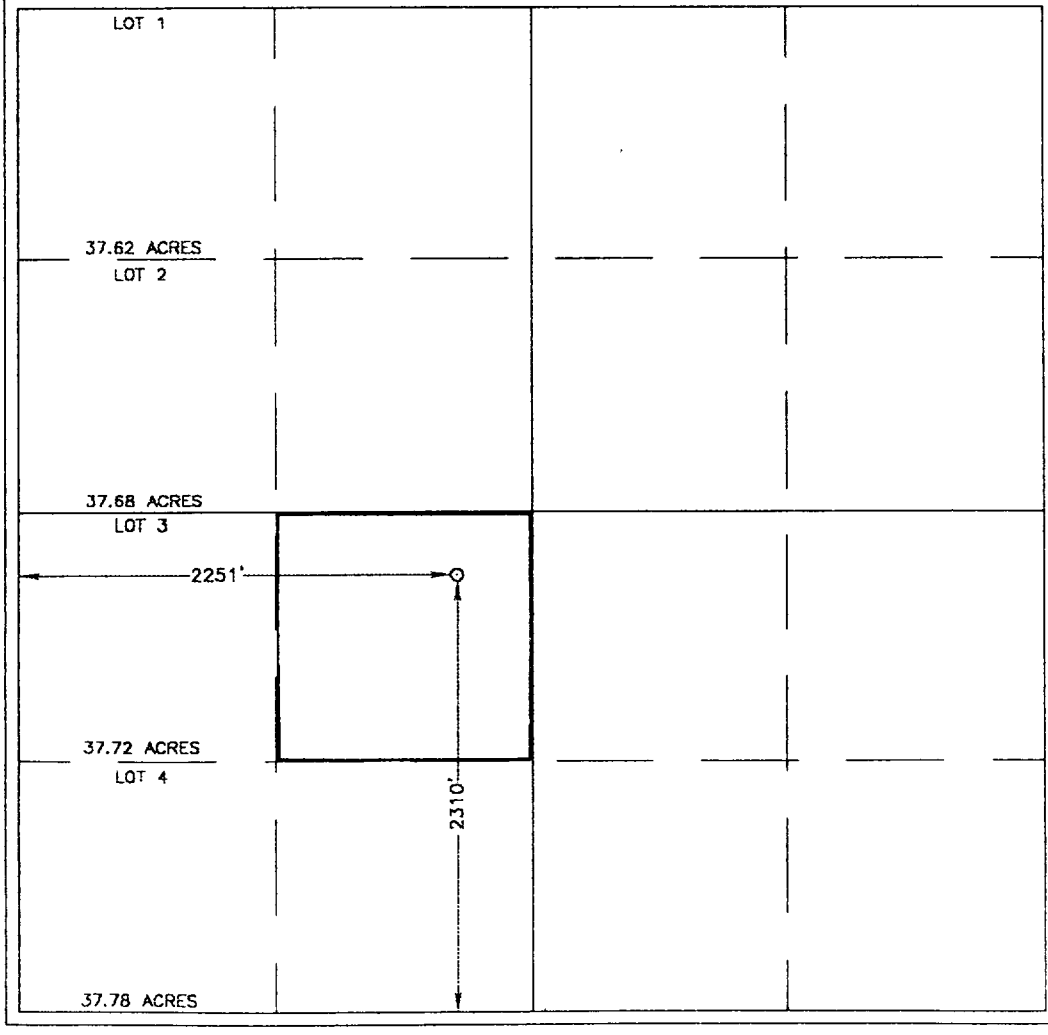



### OPERATOR CERTIFICATION

*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 14, 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

RONALD J. EIDSON
NEW MEXICO

Gary L. Jones 1/28/2000
08-13-0019

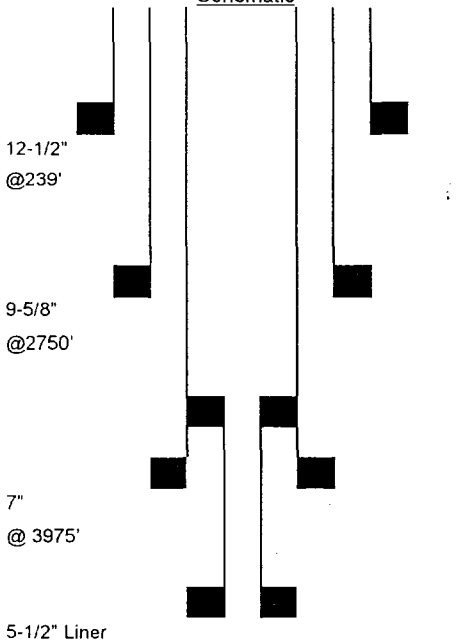
Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641
MACON McDONALD 12185

# 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 |
|---|---|---|---|---|---|
| 19-231 | 2310' FSL & 2251 FWL | 19 | 18-S | 38-E | K |

Schematic




Tubular Data

Surface Casing
Size 12-1/2" Cemented with 200 sxs.
TOC SURF Determined by CIRC.
Hole size

Intermediate Casing
Size 9-5/8" Cemented with 600 sxs.
TOC 609 Determined by Calc w/ 50% eff.
Hole size 11-1/4"

Long string Casing
Size 7" Cemented with 255 sxs.
TOC 3100' Determined by CBL
Hole size

Liner
Size 5-1/2" Cemented with 100 sxs.
TOC 3935 Determined by
Hole size

Total depth 4247'

Injection interval
4130 feet to 4254 feet

Completion type Perforated Casing

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

Guiberson – Uni VI packer at 4041' 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 [X]
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): Upper San Andres 4062-4120, Sqz'd with 300 sxs cmt.

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

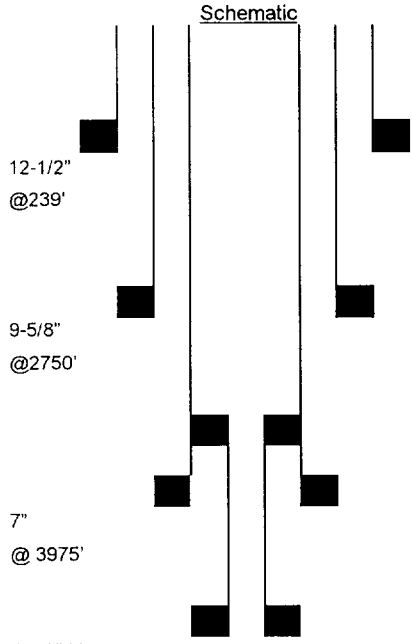
Grayburg – 3270, Glorieta - 5300

# 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 |
|---|---|---|---|---|---|
| 19-231 | 2310' FSL & 2251 FWL | 19 | 18-S | 38-E | K |

Schematic




Tubular Data

Surface Casing
Size 12-1/2" Cemented with 200 sxs.
TOC SURF Determined by CIRC.
Hole size

Intermediate Casing
Size 9-5/8" Cemented with 600 sxs.
TOC 609 Determined by Calc w/ 50% eff.
Hole size 11-1/4"

Long string Casing
Size 7" Cemented with 255 sxs.
TOC 3100' Determined by CBL
Hole size

Liner
Size 5-1/2" Cemented with 100 sxs.
TOC 3935 Determined by
Hole size

Total depth 4247'

Injection interval
4130 feet to 4254 feet

Completion type Perforated Casing

Tubing size 2-7/8" lined with Duoline (Fiberglass liner) set in a
Guiberson – Uni VI packer at 4041' 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): Upper San Andres 4062-4120, Sqz'd with 300 sxs cmt.

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

# OFFSET WELLS WITHIN A HALF MILE OF PROPOSED INJECTOR

| FOR WELL 19231 | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| Quarry #1 | 30-025- | 32297 | 19 | -18S | -38E | L | 11//93 | P | 3200 | 2666 | 3260 | | 8.625 | 12.25 | 318 | 200 | CIRC** |
| Erwin O&G | | | | | | | | | | | | | 5.5 | 7.875 | 3320 | 550 | CIRC** |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| 19112 | 30-025- | 07358 | 19 | -18S | 38E | D | 5//52 | I | 4270 | 4127 | 4285 | 460-530 | 8.625 | 11 | 251 | 200 | CIRC |
| Altura | | | | | | | | | | | | 4127-4149 | 5.5 | 6.125 | 4254 | 1500 | 1108 |
| | | | | | | | | | | | | | | | | | |
| 19121 | 30-025- | 07357 | 19 | -18S | -38E | E | 9//30 | SI | 4280 | 4050 | 4280 | NONE | 12.5 | 16 | 245 | 200 | 987** |
| Altura | | | | | | | | | | | | | 9 | 11.75 | 2752 | 500 | 945** |
| | | | | | | | | | | | | | 7 | 8.75 | 4020 | 200 | 3394** |
| | | | | | | | | | | | | | | | | | |
| 19131 | 30-025- | 07361 | 19 | -18S | -38E | L | 8//30 | P | 4278 | 4034 | 4282 | 4068-4158 | 12.5 | 18 | 240 | 200 | CIRC |
| Altura | | | | | | | | | PBTD | | | | 9.625 | 12 | 2774 | 600 | CIRC** |
| | | | | | | | | | | | | | 7 | 8.75 | 3980 | 225 | 3005** |
| | | | | | | | | | | | | | | | | | |
| 19141 | 30-025- | 07365 | 19 | -18S | -38E | M | 6//30 | P | 4275 | 4033 | 4079 | 4144-4146 | 9 | 11.75 | 2783 | 500 | 1800** |
| Altura | | | | | | | | | | | | 4161-4169 | 7 | 8.75 | 3880 | 500 | 2616-CBL |
| | | | | | | | | | | | | | 5.5 | 6.125 | 3810-4247 | 100 | 3810 |
| | | | | | | | | | | | | | | | | | |
| 19142 | 30-025- | 27138 | 19 | -18S | -38E | N | 7//81 | I | 4437 | 4170 | 4270 | 4110-4113 | 16 | 18 | 40 | 40 | CIRC |
| Altura | | | | | | | | | | | | 4118-4129 | 8.625 | 12.25 | 1600 | 875 | CIRC |
| | | | | | | | | | | | | 4134-4144 | 5.5 | 6.125 | 4510 | 900 | 3450 CBL |
| | | | | | | | | | | | | | | | | | |
| 19211 | 30-025- | 07359 | 19 | 18S | -38E | C | 11//30 | TA | 4100 | 3983 | 4261 | NONE | 12.5 | 16 | 241 | 200 | CIRC |
| Altura | | | | | | | | | CIBP | | | | 9 | 11.75 | 2750 | 500 | 915 |
| | | | | | | | | | | | | | 7 | 8.75 | 3983 | 200 | 3080 CBL |
| | | | | | | | | | | | | | 5.5 | 6.125 | 3925-4266 | 35 | 3925 |
| | | | | | | | | | | | | | | | | | |
| 19221 | 30-025- | 07355 | 19 | -18S | -38E | F | 9//30 | TA | 3965 | 4175 | 4265 | 4044-4062 | 12.5 | 16 | 241 | 200 | CIRC |

** - Denotes calculated TOC with 50% efficiency.

# OFFSET WELLS WITHIN A HALF MILE OF PROPOSED INJECTOR

| FOR WELL 19231 | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | | | | | | | | | | | | 9 | 11.75 | 2750 | 500 | 1289 |
| | | | | | | | | | | | | | 7 | 8.75 | 3991 | 200 | 2782 |
| | | | | | | | | | | | | | | | | | |
| 19232 | 30-025- | 29172 | 19 | -18S | -38E | K | 5//85 | P | 4270 | 4076 | 4337 | NONE | 13.375 | 17.5 | 40 | NA | CIRC |
| Altura | | | | | | | | | | | | | 9.625 | 12.25 | 1498 | 625 | CIRC |
| | | | | | | | | | | | | | 7 | 8.75 | 4419 | 900 | CIRC |
| | | | | | | | | | | | | | | | | | |
| 19241 | 30-025- | 07364 | 19 | -18S | -38E | N | 9//30 | SI | 4244 | 4144 | 4232 | NONE | 12.5 | 18 | 246 | 200 | CIRC |
| Altura | | | | | | | | | PBTD | | | | 9.625 | 12 | 2750 | 600 | CIRC |
| | | | | | | | | | | | | | 7 | 8.75 | 3975 | 225 | 3230 |
| | | | | | | | | | | | | | 5.5 | 7.875 | 3936-4246 | 100 | 3936 |
| | | | | | | | | | | | | | | | | | |
| 19242 | 30-025- | 23481 | 19 | -18S | -38E | N | 5//70 | P | 4186 | 4276 | 4179 | 4020-4058 | 13.375 | 17.5 | 360 | 360 | CIRC** |
| Altura | | | | | | | | | | | | 4192-4196 | 9.625 | 12.25 | 3794 | 500 | CIRC** |
| | | | | | | | | | | | | | 5.5 | 8.75 | 3537-7103 | 950 | CIRC** |
| | | | | | | | | | | | | | | | | | |
| 19311 | 30-025- | 07369 | 19 | -18S | -38E | B | 11//30 | TA | 4115 | 4210 | 4273 | 2710 | 12.5 | 16 | 217 | 200 | CIRC |
| Altura | | | | | | | | | CIBP | | | | 9.625 | 11.75 | 2750 | 600 | 548 |
| | | | | | | | | | | | | | 7 | 8.75 | 3952 | 300 | 3060 |
| | | | | | | | | | | | | | 5 | 6.25 | 3868 | NA | 4080 |
| | | | | | | | | | | | | | | | | | |
| 19321 | 30-025- | 07360 | 19 | -18S | -38E | G | 9//30 | TA | 3865 | 4180 | 4260 | 3953-4110 | 15.5 | 18 | 219 | 200 | CIRC |
| Altura | | | | | | | | | CIBP | | | | 9.625 | 12.25 | 2760 | 600 | 1018 |
| | | | | | | | | | | | | | 7 | 8.75 | 3952 | 300 | 2138 |
| | | | | | | | | | | | | | 5.5 | 6.25 | 3809-4244 | 100 | 3809 |
| | | | | | | | | | | | | | | | | | |
| 19331 | 30-025- | 07363 | 19 | -18S | -38E | J | 9//30 | TA | 3915 | 3975 | 4252 | 4108-4120 | 12.5 | 18 | 253 | 200 | CIRC |
| Altura | | | | | | | | | CIBP | | | 4148-4174 | 9.625 | 12 | 2750 | 600 | CIRC |
| | | | | | | | | | | | | 4201-4220 | 7 | 8.75 | 3975 | 225 | 3182 |
| | | | | | | | | | | | | | 5.5 | 7.875 | 3923-4255 | NA | 3934 |
| | | | | | | | | | | | | | | | | | |
| 19332 | 30-025- | 29195 | 19 | -18S | -38E | J | 6//85 | I | 4316 | 4184 | 4232 | 4064-65 | 13.375 | 17.5 | 40 | ?? | CIRC |
| Altura | | | | | | | | | | | | 4101-05 | 9.625 | 12.25 | 1510 | 625 | CIRC |
| | | | | | | | | | | | | | 7 | 8.75 | 4368 | 955 | CIRC |

** - Denotes calculated TOC with 50% efficiency.

# OFFSET WELLS WITHIN A HALF MILE OF PROPOSED INJECTOR

| FOR WELL 19231 | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| | | | | | | | | | | | | | | | | | |
| 19341 | 30-025- | 12491 | 19 | -18S | -38E | O | 9//30 | TA | 4005 | 4140 | 4272 | NONE | 9.625 | 12.25 | 2750 | 600 | 330** |
| Altura | | | | | | | | | (CIBP) | | | | 7 | 8:75 | 3975 | 225 | 3299 CBL |
| | | | | | | | | | | | | | 5.5 Lnr | 6.125 | 3937-4245 | 100 | 3937 |
| | | | | | | | | | | | | | | | | | |
| 19411 | 30-025- | 07370 | 19 | -18S | -38E | A | 2//33 | TA | 3875 | 3966 | 4231 | 927-940 | 12.5 | 18.25 | 226 | 200 | CIRC |
| Altura | | | | | | | | | CIBP | | | 2021-2036 | 7 | 8.75 | 3966 | 700 | 2524 |
| | | | | | | | | | | | | 3971-4132 | 4.5 | 6.25 | 3867-4342 | 100 | 3867 |
| | | | | | | | | | | | | 4208-4306 | | | | | |
| | | | | | | | | | | | | | | | | | |
| 19421 | 30-025- | 07368 | 19 | -18S | -38E | H | 11//30 | TA | 4115 | 3948 | 4135 | 2812-2816 | 12.5 | 16 | 217 | 200 | CIRC |
| Altura | | | | | | | | | CIBP | | | 3147 | 9.625 | 11.75 | 2743 | 600 | 541 |
| | | | | | | | | | | | | | 7 | 8.75 | 3948 | 300 | 2134 |
| | | | | | | | | | | | | | | | | | |
| 19431 | 30-025- | 22601 | 19 | -18S | -38E | I | 7//68 | I | 4281 | 4197 | 4266 | 4151-53 | 7.875 | 11 | 277 | 200 | CIRC |
| Altura | | | | | | | | | | | | 4176-85 | 4.5 | 6.25 | 4285 | 435 | 2537 CBL |
| | | | | | | | | | | | | | | | | | |
| 24431 | 30-025- | 05487 | 24 | -18S | -37E | I | 11//30 | P | 4218 | NA | NA | NONE | 12.5 | 16 | 221 | 180 | CIRC** |
| Altura | | | | | | | | | | | | | 9 | 12 | 2782 | 510 | 1233** |
| | | | | | | | | | | | | | 7 | 8.75 | 3951 | 250 | 2632** |
| | | | | | | | | | | | | | | | | | |
| 30211 | 30-025- | 07463 | 30 | -18S | -38E | C | 8//30 | P | 4254 | 4149 | 4250 | 4078 | 9.625 | 12.25 | 2647 | 400 | 2940** |
| Altura | | | | | | | | | | | | 4086 | 6.625 | 7.875 | 3972 | 250 | 3130 CBL |
| | | | | | | | | | | | | 4100 | 5 Lnr | 6.5 | 3867-4310 | 100 | CIRC** |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| HD McKinley A19 #1 | 30-025- | 07367 | 19 | -18S | -38E | J | 8//62 | PA | 3910 | 3260 | 3375 | NONE | 13.375 | 17 | 351 | 350 | CIRC |
| Shell | | | | | | | | | CIBP | | | | 8.625 | 12.25 | 4499 | 2500 | CIRC |
| | | | | | | | | | | | | | | | | | |
| HD McKinley A #8 | 30-025- | 12490 | 19 | -18S | -38E | N | 11//30 | PA | 4270 | 3740 | 3841 | NONE | 12.5 | 18 | 240 | NA | NA |
| Shell | | | | | | | | | | | | | 9.625 | 12 | 2800 | NA | NA |

** - Denotes calculated TOC with 50% efficiency.

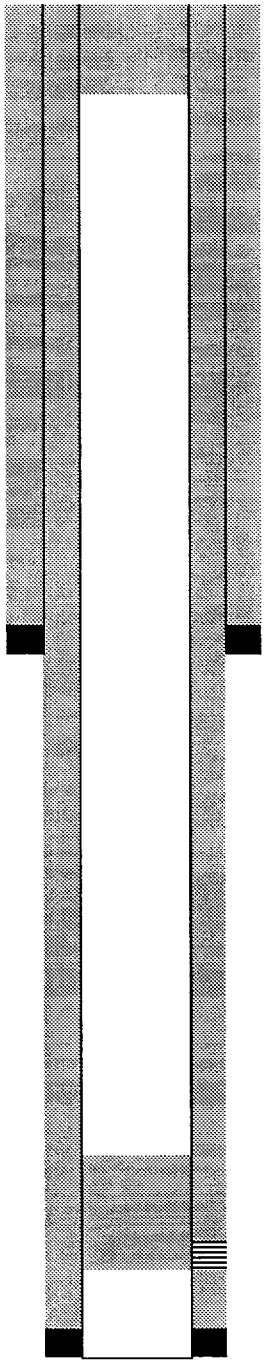
OFFSET WELLS WITHIN A HALF MILE OF PROPOSED INJECTOR

| FOR WELL 19231 | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 4000 | NA | NA |
| | | | | | | | | | | | | | 4.5 | 6.25 | 3850-4237 | 70 | CIRC** |
| | | | | | | | | | | | | | | | | | |
| McKinley A #9 | 30-025- | 12492 | 19 | -18S | -38E | N | 8//47 | PA | 3247 | 3205 | 3247 | | 8.625 | 11 | 407 | 200 | CIRC** |
| Shell | | | | | | | | | | | | | 4.5 | 7.875 | 3179 | 850 | 1530-TS |

** - Denotes calculated TOC with 50% efficiency.

McKinley A 19 #1
Shell Oil
Unit J, 2310 FSL & 1650 FEL
Sec 19, T-18-S, R-38-E

P&A'd: 2/19/63
DATUM:



10 sxs cement plug at surface

Size: 13-3/8"
Weight:
Depth: 351'
Hole Size: 17"
Cmt: 350 sxs
TOC: Circ.

Size: 8-5/8"
Weight:
Depth: 4499'
Hole Size: 12.25"
Cmt: 2500 sxs
TOC: Circ.

50 sxs Plug 3225-3335'

Perfs 3260-3375'

TD: 4499'

05/18/00

McKinley "A" #8
Shell Oil
Unit I, 2310 FSL & 1320 FEL
Sec 19, T-18-S, R-38-E

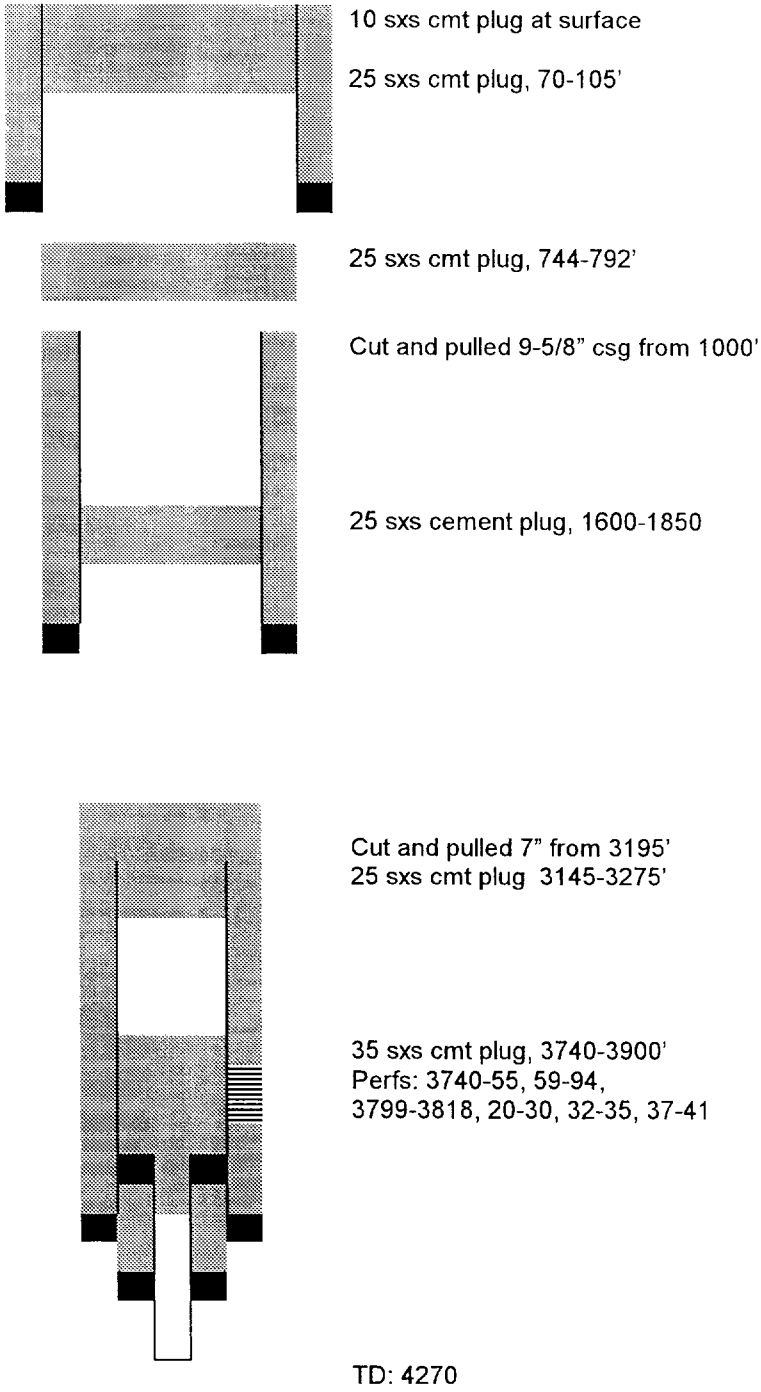
P&A'd: 4/17/63
DATUM:

Size: 12-1/2"
Weight: 50#
Depth: 240'
Hole Size:
Cmt:
TOC:

Size: 9-5/8"
Weight: 36#
Depth: 2800'
Hole Size:
Cmt:
TOC:

Size: 7"
Weight: 24#
Depth: 4000'
Hole Size:
Cmt:
TOC:

Size: 4-1/2" Liner
Weight:
Depth: 3850-4237'
Hole Size:
Cmt: 70 sxs
TOC:



10 sxs cmt plug at surface

25 sxs cmt plug, 70-105'

25 sxs cmt plug, 744-792'

Cut and pulled 9-5/8" csg from 1000'

25 sxs cement plug, 1600-1850

Cut and pulled 7" from 3195'
25 sxs cmt plug 3145-3275'

35 sxs cmt plug, 3740-3900'
Perfs: 3740-55, 59-94,
3799-3818, 20-30, 32-35, 37-41

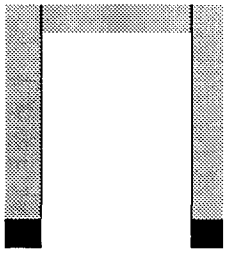
TD: 4270

05/16/00

**WELL SCHEMATIC:**
**SHELL MCKINLEY A #9**

WELL PLUGGED:
5/12/50

8 5/8"
407'
200 sx
TOC: CIRC

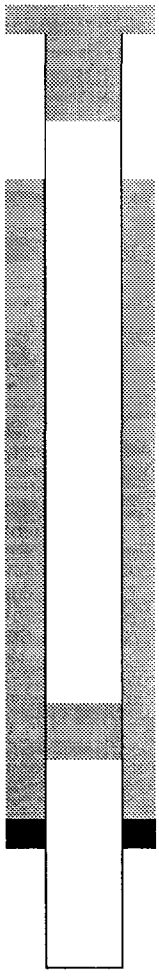


10 sx cmt at surface

Recovered 1147' of 4 ½"
Csg.

Shot csg at 1148'
Spotted 5 sx cmt from 1150'
To 1228'

4 ½"
3179'
850 sx
TOC: 1530' TS



Spotted 10 sx cmt plug from
3023' to 3179'

TD: 3247'

441
SHELL OIL
ES-3668
TD-4175
30 025 12732

1
AM. HESS CORP
HARDIN B
ES-3671
TD-4158
30 025 07337

4
AM. HESS CORP
HARDIN B
ES-3673
TD-3270
30 025 07340

2
AM. HESS CORP
HARDIN B
ES-3670
TD-4152
30 025 07338

1
GULF OIL
HARDIN
ES-3668
TD-4221
30 025 07342

9
GULF OIL
HARDIN DAN W
DF-3672
TD-4340
8/1/1971
30 025 23765

2
GULF OIL
HARDIN
ES-3665
TD-4253
30 025 07343

# 24

2
GULF OIL
GRAHAM
ES-3670
TD-4217
30 025 05479

413
SHELL W. E&P
N HB U S 24
DF-3672
TD-4400
30 025 28414

421
SHELL OIL
GR-3668
TD-6107
3/3/1983
30 025 23081

1
GULF OIL
GRAHAM-STATE A
TD-4225
9/9/1930
30 025 05478

2
TX PACIFIC OIL
STATE G
ES-3669
TD-4218
30 025 05487

442
SHELL W. E&P
GR-3662
TD-4384
30 025 29098

1
TX PACIFIC OIL
STATE G
ES-3667
TD-4214
7/3/1930
30 025 05486

# 25

411
SHELL OIL
DF-3671
TD-4206
3/8/1983
30 025 05503

113
SHELL W. E&P
GR-3658
TD-4370
30 025 29064

222
SHELL OIL
N HOBBS U
DF-3664
TD-4349
30 025 26833

212
SHELL W. E&P
GR-3665
TD-4370
30 025 28880

4
CITIES SER OIL
HARDIN
-
TD-4204
30 025 07356

WI-112
SHELL OIL
DF-3670
TD-4255
30 025 07358

211
SHELL OIL
GR-3660
TD-4220
3/8/1983
30 025 07359

3
TIDEWTR OIL
BOON HARDIN
ES-3664
TD-4222
30 025 07369

WI-411
SHELL OIL
DF-3662
TD-4231
5/4/1982
30 025 07370

# 19

ONE-HALF MILE RADIUS FROM WELL 19-231

2
CITIES SER OIL
HARDIN
-
TD-4210
30 025 07357

1
CITIES SER OIL
HARDIN
-
TD-4209
30 025 07355

1
GETTY OIL
HARDIN BOON
GR-3662
TD-4205
9/7/1971
30 025 07360

2
TIDEWTR OIL
BOON HARDIN
ES-3662
TD-4240
30 025 07368

422
SHELL W. E&P
KB-3665
TD-4370
30 025 29196

232
SHELL W. E&P
NORTH HOBBS
KB-3675
TD-4420
30 025 29172

7
SHELL OIL
MCKINLEY A
DF-3667
TD-4210
30 025 07361

1
ERWIN O&G
QUARRY
KB-3676
TD-3320
30 025 32297

6
SHELL OIL
MCKINLEY HD A
DF-3663
TD-4200
30 025 07362

5
SHELL OIL
MCKINLEY HD A
DF-3661
TD-4200
30 025 07363

8
SHELL OIL
HD MCKINLEY
ES-3659
TD-4210
1/1/1901
30 025 12490

1
SHELL OIL
MCKINLEY A19
DF-3664
TD-9550
30 025 07367

WI-431
SHELL OIL
DF-3663
TD-4286
1/5/1982
30 025 22601

332
SHELL W. E&P
GR-3657
TD-4370
30 025 29195

WI-142
SHELL OIL
N HB U SC 19
GR-3650
TD-4510
30 025 27138

9
SHELL OIL
MCKINLEY A
ES-3665
TD-3247
30 025 12492

141
SHELL OIL
DF-3663
TD-4210
30 025 07365

11
SHELL OIL
MCKINLEY /A/
DF-3666
TD-7105
7/1/1976
30 025 23481

4
SHELL OIL
MCKINLEY A
ES-3660
TD-4200
30 025 07364

341
SHELL OIL
ES-3657
TD-4220
9/7/1982
30 025 12491

442
SHELL W. E&P
N HB U SC 19
GR-3653
TD-4370
30 025 28881

3
SHELL OIL
MCKINLEY A
ES-3656
TD-4206
30 025 07366

# 30

112
SHELL W. E&P
GR-3658
TD-4370
4/6/1985
30 025 29063

211
SHELL OIL
ES-3659
TD-4170
30 025 07463

4
TIDEWTR OIL
GO MCKINLEY
ES-3658
TD-4220
30 025 07469

313
SHELL W. E&P
GR-3657
TD-6050
30 025 23270

7
MARATHON OIL
GO MCKINLEY
ES-3656
TD-3224
30 025 07489

312
SHELL W. E&P
KB-3665
TD-4431
7/9/1985
30 025 29197

5
TIDEWTR OIL
GO MCKINLEY
ES-3657
TD-4223
30 025 07470

11
GETTY OIL
MCKINLEY HD
GR-3648
TD-7108
30 025 23384

1
AM. HESS CORP
HD MCKINLEY
ES-3662
TD-4230
7/8/1930
30 025 07077

6
AM. HESS CORP
MCKINLEY
ES-3664
TD-3229
30 025 07466

WI-422
SHELL OIL
N HB U SC 30
KB-3661
TD-4510
5/5/1981
30 025 27059

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

N

Altura ENERGY, LTD. **Altura Energy Ltd.**

Area of Review Plat

# NORTH HOBBS (GRAYBURG SAN ANDRES) UNIT

WELL NO. 19-231

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.*

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