

|               |                   |              |               |           |                    |
|---------------|-------------------|--------------|---------------|-----------|--------------------|
| DATE: 4/13/01 | SUSPENSE: 4/30/01 | ENGINEER: DC | LOGGED IN: RV | TYPE: WFX | APP NO.: 110638432 |
|---------------|-------------------|--------------|---------------|-----------|--------------------|

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505

774

**ADMINISTRATIVE APPLICATION COVERSHEET**

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

- [NSP-Non-Standard Location] [NSL-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS-Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

- [A] Location - Spacing Unit - Simultaneous Dedication  
 NSL  NSP  SD

APR 13 2001

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or  Does Not Apply

- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application if One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

[3] **INFORMATION / DATA SUBMITTED IS COMPLETE** - Certification

I hereby certify that I, or personnel under my supervision, have reviewed the applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common.

*I understand that any omission of data (including API numbers, pool codes, etc.), pertinent information and any required notification is cause to have the application package returned with no action taken.*

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Lee R. White  
 Print or Type Name

*Lee R. White 4/12/01*  
 Signature

Engineering Manager  
 Title

4/12/01  
 Date

Lee.White@Apachecorp.com  
 e-mail Address

April 12, 2001

State of New Mexico  
Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Expansion of Waterflood Project  
Northeast Drinkard Unit  
Well No. 102, 103, 106, 112, 122, 123, 204, 207, 223  
304, 305, 306, 310, 311, 404, 410  
Eunice N., Blinebry-Tubb-Drinkard  
Lea County, New Mexico**

Apache Corporation is proposing an expansion of the previous authority, Division Order No. R-8541, to add additional water injection wells to the above referenced lease.

To support this request we have attached the following:

- 1) OCD Form C-108 with attachments
- 2) Maps with surveys which include:
  - A) Unit Map with location of all wells within one-half mile radius of proposed injection wells
  - B) Individual maps for each proposed injection well with location of all wells and leases within a two mile and one-half mile radius (note: wells in red are proposed infill producers not yet drilled)
- 3) Injection Well Data Sheet for each proposed injector
- 4) A Publishing Affidavit and copy of legal notice
- 5) List of Surface Owners and Offset Operators with Certified Mail Receipt numbers indicated and copy of letter sent

- 6) Tabulation of Data on wells located within the Area of Review
- 7) Wellbore Diagrams for all wells P&A'd in the Area of Review

Please contact me at 713-296-6338 if you need additional information or have any questions regarding this application. Thank you.

Sincerely,

**APACHE CORPORATION**



Debra J. Anderson  
Sr. Engineering Technician

Attachments

cc: Mr. Chris Williams  
Oil Conservation Division  
District I  
P O Box 1980  
Hobbs, New Mexico 88241

State of New Mexico  
Office of Land Commissioner  
P O Box 1148  
Santa Fe, New Mexico 87504

Bureau of Land Management  
2909 West 2<sup>nd</sup> Street  
Roswell, New Mexico 88201

**APPLICATION FOR AUTHORIZATION TO INJECT**

I. PURPOSE:  Secondary Recovery  Pressure Maintenance  Disposal  Storage  
Application qualifies for administrative approval?  Yes  No

II. OPERATOR: Apache Corporation

ADDRESS: 2000 Post Oak Blvd., Ste. 100, Houston, Texas 77056-4400

CONTACT PARTY: Debra Anderson PHONE: 713-296-6338

III. WELL DATA: Complete the data required on the reverse side of this form for each well processed for injection  
Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project:  Yes  No  
If yes, give the Division order number authorizing the project R-8541

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half radius circle drawn around each proposed injection well. This circle identifies the wells area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

\*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, 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) overlaying 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.)

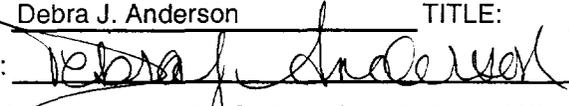
\* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

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: Debra J. Anderson TITLE: Sr. Engineering Technician

SIGNATURE:  DATE: 4/12/01

\* 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 circumstance of the earlier submittal:

Hearing 9/24/87, Case No. 9232, Order No. 8541 & Supplemental Application 06/26/95

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 when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 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 FOR FORM C-108  
NORTHEAST DRINKARD UNIT  
MISCELLANEOUS DATA**

III. WELL DATA

|        |                      |                     |
|--------|----------------------|---------------------|
| B. (5) | Next higher oil zone | Paddock @ +/- 5200' |
|        | Next lower oil zone  | Abo @ +/- 6750'     |

VII. PROPOSED OPERATION

|    |                            |   |
|----|----------------------------|---|
| 1. | Average Injection Rate     | 1000 BWPD   |
|    | Maximum Injection Rate     | 2000 BWPD   |
| 2. | Closed Injection System    |   |
| 3. | Average Injection Pressure | 1100 psi  |
|    | Maximum Injection Pressure | 1300 psi (approximate)<br>(will not exceed 0.2 psi/ft to top perforation)             |
| 4. | Source Water               | San Andres                      Analysis Attached<br>Blinberry-Tubb-Drinkard Produced |

IX. STIMULATION PROGRAM

Acid treatment schedule will be determined following evaluation of GR/CNL/CCL (to be run prior to perforating the unitized interval)

XI. There are no Fresh Water Wells

**UNICHEM**

A Division of BJ Services Company

Lab Test No. 23748

Apache

Sample Date: 3/10/99

**Water Analysis**

Listed below please find water analysis report from: NEDU

#919-S

Specific Gravity: 1.009  
 Total Dissolved Solids: 13273  
 pH: 6.49  
 Conductivity ( $\mu\text{mhos}$ ):  
 Ionic Strength: 0.265

| Cations:         |                                   | mg/l   |                           |
|------------------|-----------------------------------|--------|---------------------------|
| Calcium          | (Ca <sup>++</sup> ):              | 608    |                           |
| Magnesium        | (Mg <sup>++</sup> ):              | 244    |                           |
| Sodium           | (Na <sup>+</sup> ):               | 3909   |                           |
| Iron             | (Fe <sup>++</sup> ):              | 0.00   |                           |
| Dissolved Iron   | (Fe <sup>++</sup> ):              |        |                           |
| Barium           | (Ba <sup>++</sup> ):              | 0.38   |                           |
| Strontium        | (Sr):                             | 19     |                           |
| Manganese        | (Mn <sup>++</sup> ):              | 0.01   |                           |
| Resistivity:     |                                   |        |                           |
| Anions:          |                                   |        |                           |
| Bicarbonate      | (HCO <sub>3</sub> <sup>-</sup> ): | 562    |                           |
| Carbonate        | (CO <sub>3</sub> <sup>-</sup> ):  |        |                           |
| Hydroxide        | (OH <sup>-</sup> ):               | 0      |                           |
| Sulfate          | (SO <sub>4</sub> <sup>-</sup> ):  | 1750   |                           |
| Chloride         | (Cl <sup>-</sup> ):               | 6200   |                           |
| Gases:           |                                   | ppm    |                           |
| Carbon Dioxide   | (CO <sub>2</sub> ):               | 80.00  | Oxygen (O <sub>2</sub> ): |
| Hydrogen Sulfide | (H <sub>2</sub> S):               | 408.00 |                           |

Scale Index (positive value indicates scale tendency) a blank indicates some tests were not run

| Temperature | CaCO <sub>3</sub> SI | CaSO <sub>4</sub> SI |
|-------------|----------------------|----------------------|
| 86F 30.0C   | -0.14                | -17.28               |
| 104F 40.0C  | 0.09                 | -17.28               |
| 122F 50.0C  | 0.35                 | -17.28               |
| 140F 60.0C  | 0.57                 | -16.80               |
| 168F 70.0C  | 0.87                 | -15.02               |
| 176F 80.0C  | 1.20                 | -15.51               |

Comments:

cc: Jorry White  
Jay BrownP.O. Box 61427 • Midland, TX 79711 • 4312 S. County Rd. 1208, Midland, TX 79765  
Office: (915) 563-0241 • Fax: (915) 563-0243

#0240 P.002/010

UNICHEM LAB

MAR.25.1999 15:26 915 563 0243

30-025-06400

|          |                           |                                 |  |          |            |            |
|----------|---------------------------|---------------------------------|--|----------|------------|------------|
| OPERATOR | <u>Apache Corporation</u> | LEASE                           | <u>Northeast Drinkard Unit (formerly Taylor Glenn # 7)</u> |          |            |            |
| WELL NO. | <u>102</u>                | <u>1582' FNL &amp; 990' FEL</u> | <u>H</u>   | <u>4</u> | <u>21S</u> | <u>37E</u> |
|          |                           | FOOTAGE LOCATION                | UNIT   | SECTION  | TOWNSHIP   | RANGE      |

Well Construction Data

Surface Casing

Size 13-3/8 Cemented with 350 sx

TOC Surface feet determined by Circulation

Hole Size 17

Intermediate Casing

Size 8-5/8 Cemented with 1400 sx

TOC Surface feet determined by Circulation

Hole Size 11

Long String

Size 5-1/2 Cemented with 700 sx

TOC 2270 feet determined by Calculated

Hole Size 7-7/8

Total Depth 5935

Injection Interval

5670 feet to 5935 feet **Perforated**  
 (perforated or open-hole; indicate which)

Tubing Size 2-3/8 lined with IPC set in a  
 (type of internal coating)  
5-1/2" Baker Lok-Set packer at 5570 feet

Other type of tubing / casing seal if applicable N/A

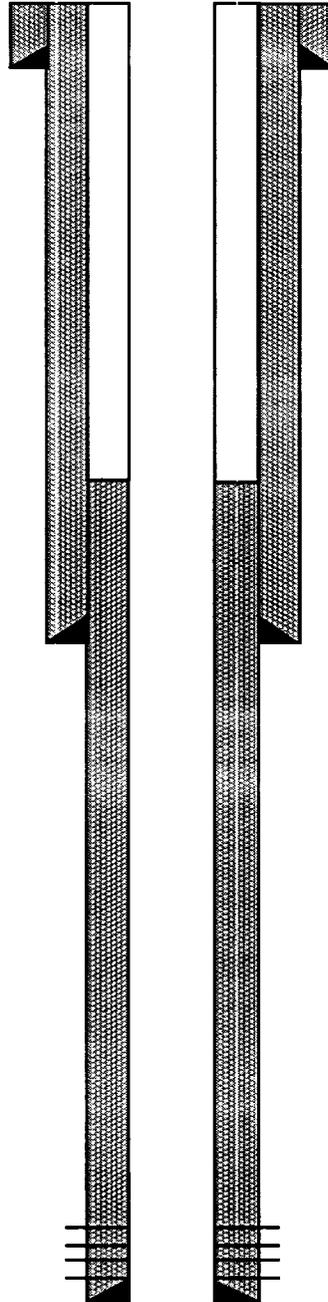
Other Data

- Is this a new well drilled for injection?  Yes  No  
 If no, for what purpose was the well originally drilled? Blinebry Producer
- Name of the Injection formation Blinebry-Tubb-Drinkard
- Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. Blinebry 5682 - 5862 / Cement squeezed w/ 200 sx
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.  
See C-108 Attachment

Well: Northeast Drinkard Unit # 102  
Field: Eunice N. Blinebry-Tubb-Drinkard  
Location: 1582' FNL & 990' FEL  
Unit H, Sec. 4, T21S, R37E  
Lea County, New Mexico  
API #: 30-025-06400

Current Status: Active Oil

Elevation: 3473' (GR)



17" Hole  
13-3/8" 48# H-40 CSA 306'  
Cement w / 350 sx  
Circulated to Surface

11" Hole  
8-5/8" 32# J-55 CSA 315C'  
Cement w / 1400 sx  
Circulated to Surface

**Blinebry Perfs:**  
5682 - 5862 (174 Holes)  
Cement squeezed w/ 200 sx  
5723 - 5931 ( 28 Holes)

TD @ 5935'

7-7/8" Hole  
5-1/2" 15.5# J-55 CSA 5935'  
Cement w / 150 sx  
5800' - Cement squeeze w/ 100 sx  
4800' - Cement squeeze w/ 450 sx  
TOC @ 2270' (Calculated)

# NORTHEAST DRINKARD UNIT

31

32 20S

37E

33

34

RADIUS 10560'

RADIUS 2640'

21S 37E

5

4

3

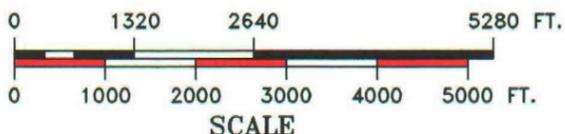
8

9

10

11

- OIL PRODUCER
- \* GAS PRODUCER
- WATER INJECTION
- ▲ SALT WATER SOURCE
- ◇ DRY HOLE



**NEDU AREA**  
LEA COUNTY, NEW MEXICO

**CONVERSIONS**  
**Injection Well Permitting**  
Well # 102

|                        |                   |                    |
|------------------------|-------------------|--------------------|
| DATE: 11/29/2000       | REVISED: 00\00\00 | GEOL : B. USZYNSKI |
| J:\PER\NEDU\INJ102.DWG | DRAFTED BY: HGS   | LANDMAN: M. MORENO |

30-025-09897

|          |                           |                                |  |          |            |            |
|----------|---------------------------|--------------------------------|--|----------|------------|------------|
| OPERATOR | <u>Apache Corporation</u> | LEASE                          | <u>Northeast Drinkard Unit (formerly Hawk B-3 #17)</u> |          |            |            |
| WELL NO. | <u>103</u>                | <u>660' FNL &amp; 660' FWL</u> | <u>D</u>   | <u>3</u> | <u>21S</u> | <u>37E</u> |
|          |                           | FOOTAGE LOCATION               | UNIT   | SECTION  | TOWNSHIP   | RANGE      |

Well Construction Data

Surface Casing

Size 10-3/4 Cemented with 250 sx

TOC Surface feet determined by Circulation

Hole Size 13-3/4

Intermediate Casing

Size 7-5/8 Cemented with 1500 sx

TOC 1525 feet determined by Temp Survey

Hole Size 9-7/8

Long String

Size 5-1/2 Cemented with 350 sx

TOC 3035 feet determined by Temp Survey

Hole Size 6-3/4

Total Depth 6010

Injection Interval

5700 feet to 6010 feet Perforated  
(perforated or open-hole; indicate which)

Tubing Size 2-3/8 lined with IPC set in a  
(type of internal coating)  
5-1/2" Baker Lok-Set packer at 5600 feet

Other type of tubing / casing seal if applicable N/A

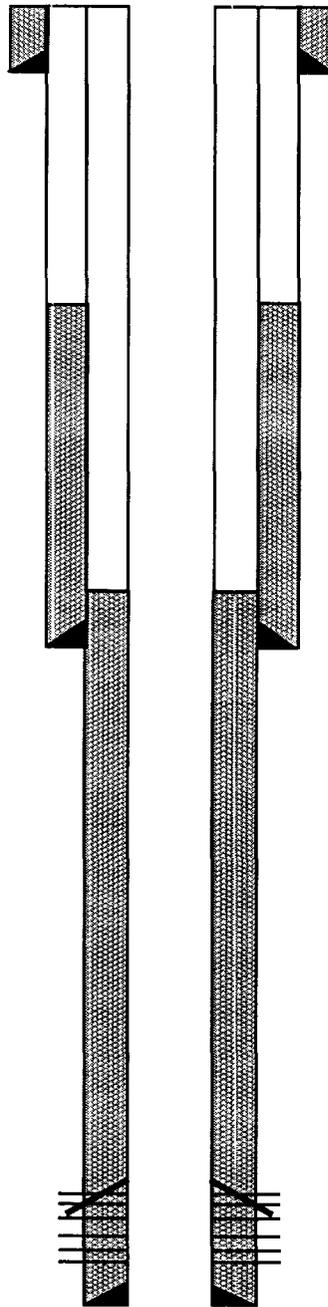
Other Data

- Is this a new well drilled for injection?  Yes  No  
If no, for what purpose was the well originally drilled? Blinebry Producer
- Name of the Injection formation Blinebry-Tubb-Drinkard
- Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. Blinebry 5750 - 5806 / Cement squeezed w/ 75 sx
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.  
See C-108 Attachment

Well: Northeast Drinkard Unit # 103  
Field: Eunice N. Blinebry-Tubb-Drinkard  
Location: 660' FNL & 660' FWL  
Unit D, Sec. 3, T21S, R37E  
Lea County, New Mexico  
API #: 30-025-09897

Current Status: Active Oil

Elevation: 3483' (GR)



13-3/4" Hole  
10-3/4" 33# H-40 CSA 260'  
Cement w / 250 sx  
Circulated to Surface

9-7/8" Hole  
7-5/8" 24# H-40 CSA 3154'  
Cement w / 1500 sx  
TOC @ 1525' (TS)

**Blinebry Perfs:**  
5750 - 5806 (288 Holes)  
Cement squeezed w/ 75 sx  
5854 - 5966 (312 Holes)

6-3/4" Hole  
5-1/2" 14/15.5# J-55 CSA 6010'  
Cement w / 350 sx  
TOC @ 3035' (TS)

TD @ 6010'

# NORTHEAST DRINKARD UNIT

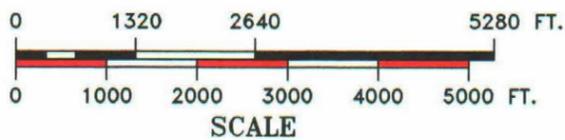
20S 37E

21S 37E

RADIUS 10560'

RADIUS 2640'

- OIL PRODUCER
- \* GAS PRODUCER
- WATER INJECTION
- ▲ SALT WATER SOURCE
- ◇ DRY HOLE



**NEDU AREA**  
LEA COUNTY, NEW MEXICO

## CONVERSIONS Injection Well Permitting

Well #: 103

|                        |                   |                        |
|------------------------|-------------------|------------------------|
| DATE: 11/29/2000       | REVISED: 00\00\00 | GEOLOGIST: B. USZYNSKI |
| J:\PER\NEDU\INJ103.DWG | DRAFTED BY: HGS   | LANDMAN: M. MORENO     |

30-025-06410

|          |                           |                                 |  |          |            |            |
|----------|---------------------------|---------------------------------|--|----------|------------|------------|
| OPERATOR | <u>Apache Corporation</u> | LEASE                           | <u>Northeast Drinkard Unit (formerly Hawk B-3 #16)</u> |          |            |            |
| WELL NO. | <u>106</u>                | <u>660' FNL &amp; 1980' FWL</u> | <u>C</u>   | <u>3</u> | <u>21S</u> | <u>37E</u> |
|          |                           | FOOTAGE LOCATION                | UNIT   | SECTION  | TOWNSHIP   | RANGE      |

Well Construction Data

Surface Casing

Size 10-3/4 Cemented with 250 sx

TOC Surface feet determined by Circulation

Hole Size 13-3/4

Intermediate Casing

Size 7-5/8 Cemented with 900 sx

TOC 1740 feet determined by Temp Survey

Hole Size 9-7/8

Long String

Size 5-1/2 Cemented with 500 sx

TOC 2903 feet determined by Temp Survey

Hole Size 6-3/4

Total Depth 6920

Injection Interval

5700 feet to 6920 feet **Perforated**  
(perforated or open-hole; indicate which)

Tubing Size 2-3/8 lined with IPC set in a  
(type of internal coating)  
5-1/2" Baker Lok-Set packer at 5600 feet

Other type of tubing / casing seal if applicable N/A

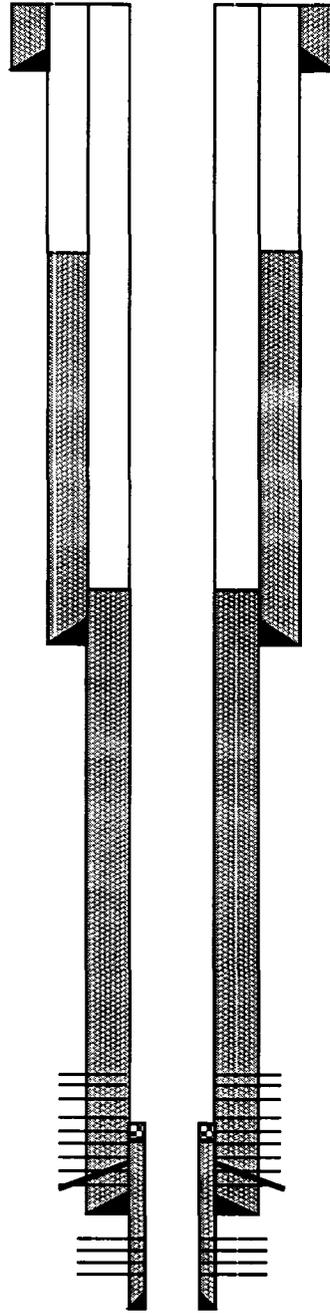
Other Data

- Is this a new well drilled for injection?  Yes  No  
If no, for what purpose was the well originally drilled? Tubb Producer
- Name of the Injection formation Blinebry-Tubb-Drinkard
- Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. Blinebry 5770 - 5956 / Cement squeezed w/ 150 sx / Tubb 6343 - 6406 / Cement squeezed w/ 200 sx
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.  
See C-108 Attachment

Well: Northeast Drinkard Unit # 106  
Field: Eunice N. Blinebry-Tubb-Drinkard  
Location: 660' FNL & 1980' FWL  
Unit C, Sec. 3, T21S, R37E  
Lea County, New Mexico  
API #: 30-025-06410

Current Status: Active Oil

Elevation: 3487' (GR)



13-3/4" Hole  
10-3/4" 33# H-40 CSA 260'  
Cement w / 250 sx  
Circulated to Surface

9-7/8" Hole  
7-5/8" 24# H-40 CSA 3049'  
Cement w / 900 sx  
TOC @ 1740' (TS)

6-3/4" Hole  
5-1/2" 14/15.5# J-55 CSA 6479'  
Cement w / 500 sx  
TOC @ 2903' (TS)

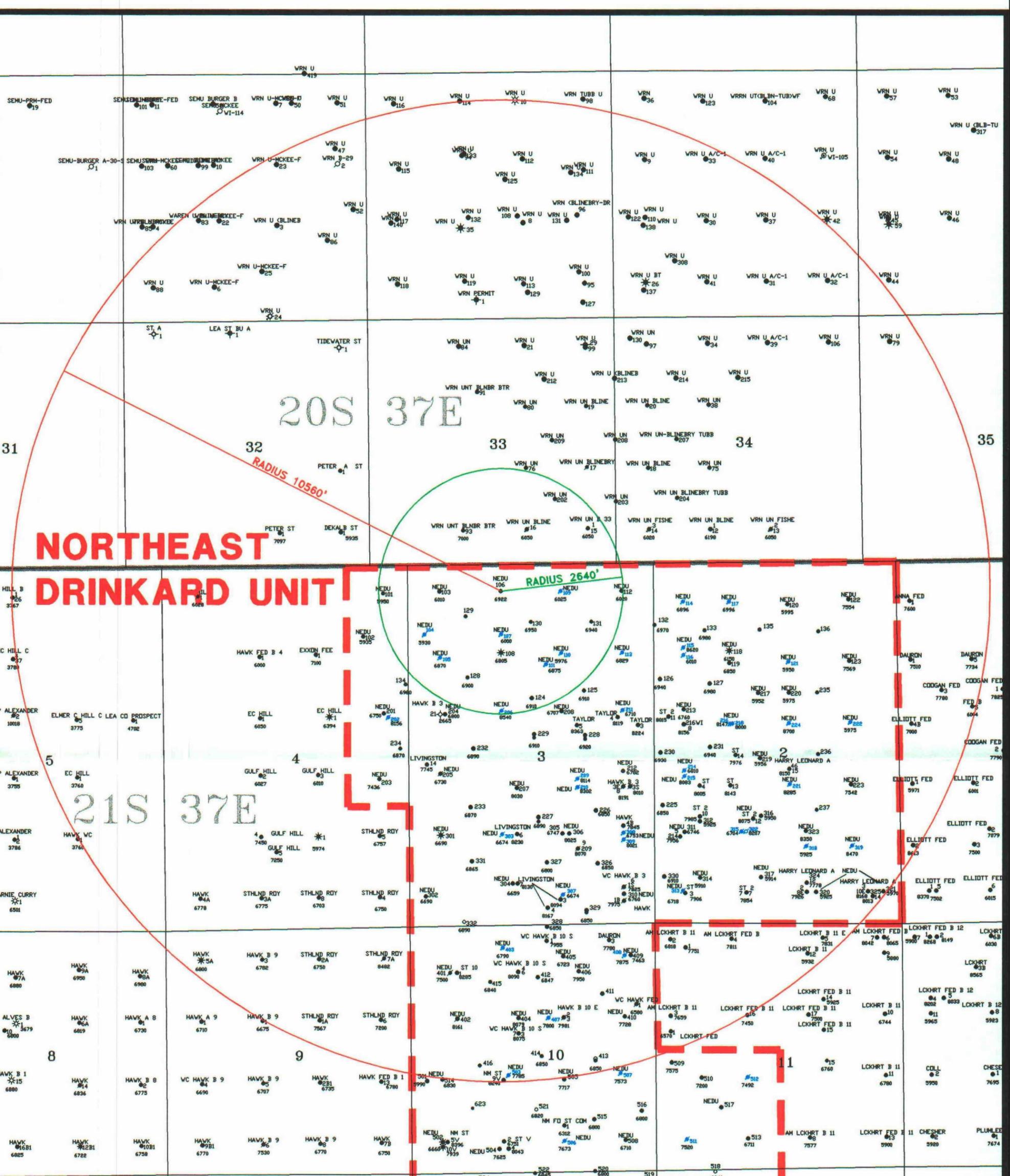
4-3/4" Hole  
4" 10.5# J-55 LSA 6920'  
Cement w / 35 sx  
TOC @ 6237' (Top of Liner)

**Blinebry Perfs:**  
5770 - 5956 (529 Holes)  
Cement squeezed w/ 150 sx  
5732 - 6163 (272 Holes)

**Tubb Perfs:**  
6343 - 6406 (140 Holes)  
Cement squeezed w/ 200 sx  
6174 - 6269 (15 Holes)

**Drinkard Perfs:**  
6587 - 6846 (25 Holes)

TD @ 6920'



**NORTHEAST  
DRINKARD UNIT**

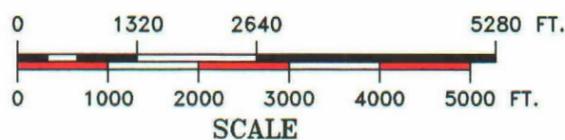
RADIUS 10560'

RADIUS 2640'

20S 37E

21S 37E

- OIL PRODUCER
- \* GAS PRODUCER
- WATER INJECTION
- ▲ SALT WATER SOURCE
- ◇ DRY HOLE



**NEDU AREA  
LEA COUNTY, NEW MEXICO**

**CONVERSIONS  
Injection Well Permitting  
Well # 106**

|                        |                   |                    |
|------------------------|-------------------|--------------------|
| DATE: 11/29/2000       | REVISED: 00\00\00 | GEOL : B. USZYNSKI |
| J:\PER\NEDU\INJ106.DWG | DRAFTED BY: HGS   | LANDMAN: M. MORENO |

Well: Northeast Drinkard Unit # 112

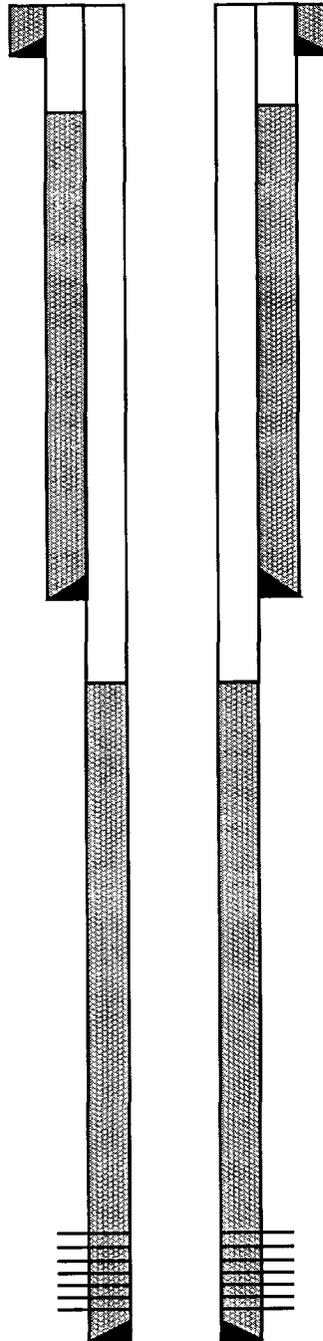
Field: Eunice N. Blinebry-Tubb-Drinkard

Current Status: Active Oil

Location: 660' FNL & 660' FEL  
Unit A, Sec. 3, T21S, R37E  
Lea County, New Mexico

API #: 30-025-06509

Elevation: 3503' (GR)



15" Hole  
10-3/4" 33# H-40 CSA 290'  
Cement w / 300 sx  
Circulated to Surface

9-7/8" Hole  
7-5/8" 24# H-40 CSA 3038'  
Cement w / 1150 sx  
TOC @ 650' (TS)

**Blinebry Perfs:**  
5726 - 5982 (564 Holes)

6-3/4" Hole  
5-1/2" 14/15.5# J-55 CSA 6019'  
Cement w / 310 sx  
TOC @ 3650' (TS)

TD @ 6020'

30-025-06509

|          |                           |                                |  |          |            |            |
|----------|---------------------------|--------------------------------|--|----------|------------|------------|
| OPERATOR | <u>Apache Corporation</u> | LEASE                          | <u>Northeast Drinkard Unit (formerly Hawk B-3 #14)</u> |          |            |            |
| WELL NO. | <u>112</u>                | <u>660' FNL &amp; 660' FEL</u> | <u>A</u>   | <u>3</u> | <u>21S</u> | <u>37E</u> |
|          |                           | FOOTAGE LOCATION               | UNIT   | SECTION  | TOWNSHIP   | RANGE      |

Well Construction Data

Surface Casing  
 Size 10-3/4 Cemented with 300 sx

TOC Surface feet determined by Circulation

Hole Size 15

Intermediate Casing  
 Size 7-5/8 Cemented with 1150 sx

TOC 650 feet determined by Temp Survey

Hole Size 9-7/8

Long String  
 Size 5-1/2 Cementec with 310 sx

TOC 3650 feet determined by Temp Survey

Hole Size 6-3/4

Total Depth 6020

Injection Interval  
5700 feet to 6020 feet **Perforated**  
 (perforated or open-hole; indicate which)

Tubing Size 2-3/8 lined with IPC set in a  
 (type of internal coating)  
5-1/2" Baker Lok-Set packer at 5600 feet

Other type of tubing / casing seal if applicable N/A

Other Data

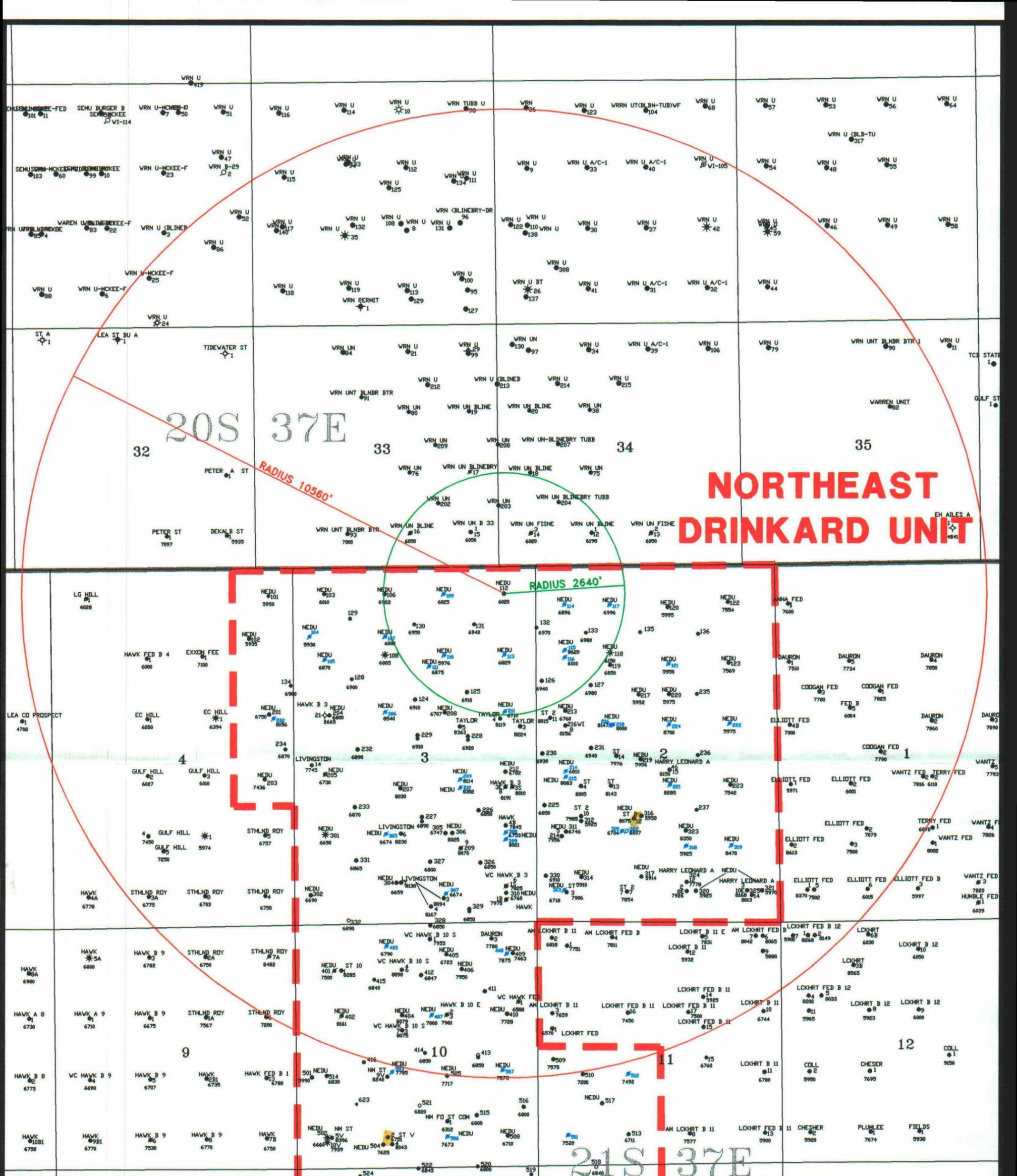
1. Is this a new well drilled for injection?  Yes  No  
 If no, for what purpose was the well originally drilled? Blinebry Producer

2. Name of the Injection formation Blinebry-Tubb-Drinkard

3. Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard

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

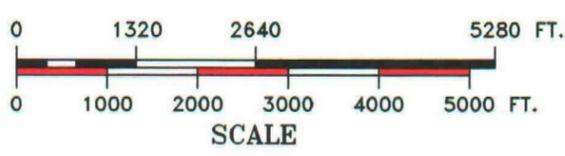
5. Give the names and depths of any over or underlying oil or gas zones (pools) in this area.  
See C-108 Attachment



# NORTHEAST DRINKARD UNIT

21S 37E

- OIL PRODUCER
- ★ GAS PRODUCER
- WATER INJECTION
- ▲ SALT WATER SOURCE
- ⚡ DRY HOLE



**NEDU AREA**  
LEA COUNTY, NEW MEXICO

## CONVERSIONS

### Injection Well Permitting

Well # 112

|                        |                   |                    |
|------------------------|-------------------|--------------------|
| DATE: 11/29/2000       | REVISED: 00\00\00 | GEOL : B. USZYNSKI |
| J: PER NEDU\INJ112.DWG | DRAFTED BY: HGS   | LANDMAN: M. MORENO |

30-025-06364

|          |                           |                                |  |          |            |            |
|----------|---------------------------|--------------------------------|--|----------|------------|------------|
| OPERATOR | <u>Apache Corporation</u> | LEASE                          | <u>Northeast Drinkard Unit (formerly Harry Leonard # 17)</u> |          |            |            |
| WELL NO. | <u>122</u>                | <u>897' FNL &amp; 990' FEL</u> | <u>A</u>   | <u>2</u> | <u>21S</u> | <u>37E</u> |
|          |                           | FOOTAGE LOCATION               | UNIT   | SECTION  | TOWNSHIP   | RANGE      |

Well Construction Data

Surface Casing

Size 13-3/8 Cemented with 375 sx

TOC Surface feet determined by Circulation

Hole Size 17-1/2

Intermediate Casing

Size 8-5/8 Cemented with 1700 sx

TOC Surface feet determined by Circulation

Hole Size 11

Long String

Size 5-1/2 Cemented with 750 sx

TOC 2156 feet determined by Temp Survey

Hole Size 7-7/8 Liner Size 4 Cemented with 135 sx

Total Depth 7554 TOC 5536 feet determined by Liner Top

Hole Size 4-3/4

Injection Interval

5850 feet to 7015 feet **Perforated**  
(perforated or open-hole; indicate which)

Tubing Size 2-3/8 lined with IPC set in a  
(type of internal coating)  
4" Baker Lok-Set packer at 5750 feet

Other type of tubing / casing seal if applicable N/A

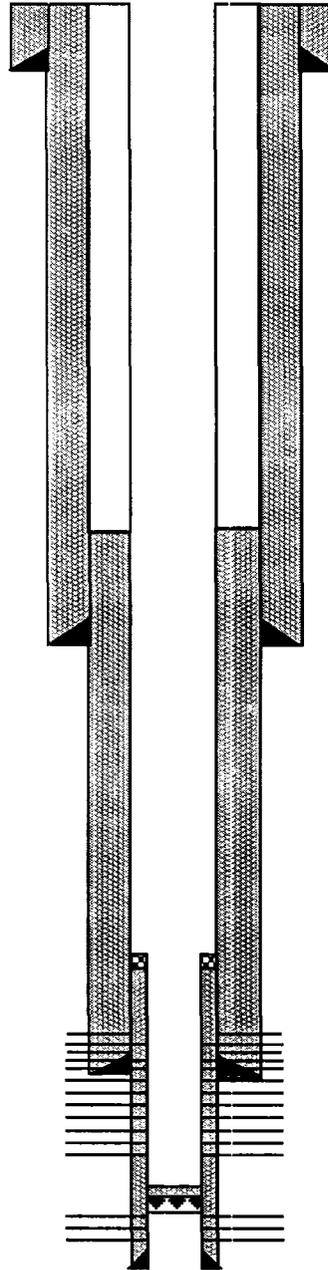
Other Data

- Is this a new well drilled for injection?  Yes  No  
If no, for what purpose was the well originally drilled? Blinebry Producer
- Name of the Injection formation Blinebry-Tubb-Drinkard
- Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. Blinebry 5924 - 5980 Open Hole / P&A'd behind 4" Liner from 5536 - 7554 / Abo 7062 - 7507 - CIBP @ 7050' w/ 35' cement
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.  
See C-108 Attachment

Well: Northeast Drinkard Unit # 122  
Field: Eunice N. Blinebry-Tubb-Drinkard  
Location: 897' FNL & 990' FEL  
Unit A, Sec. 2, T21S, R37E  
Lea County, New Mexico  
API #: 30-025-06364

Current Status: Active Oil

Elevation: 3521' (GR)



17-1/2" Hole  
13-3/8" 48# H-40 CSA 327'  
Cement w / 375 sx  
Circulated to Surface

11" Hole  
8-5/8" 24/32# H-40/J-55 CSA 3098'  
Cement w / 1700 sx  
Circulated to Surface

**Blinebry Perfs:**  
5856 - 5904 (4 Holes)  
**Open Hole:** 5924 - 5980  
**Cement squeezed behind 4" Liner**  
5878 - 6340 (52 Holes)

**Tubb Perfs:**  
6343 - 6751 (37 Holes)

**Drinkard Perfs:**  
6809 - 7012 (29 Holes)

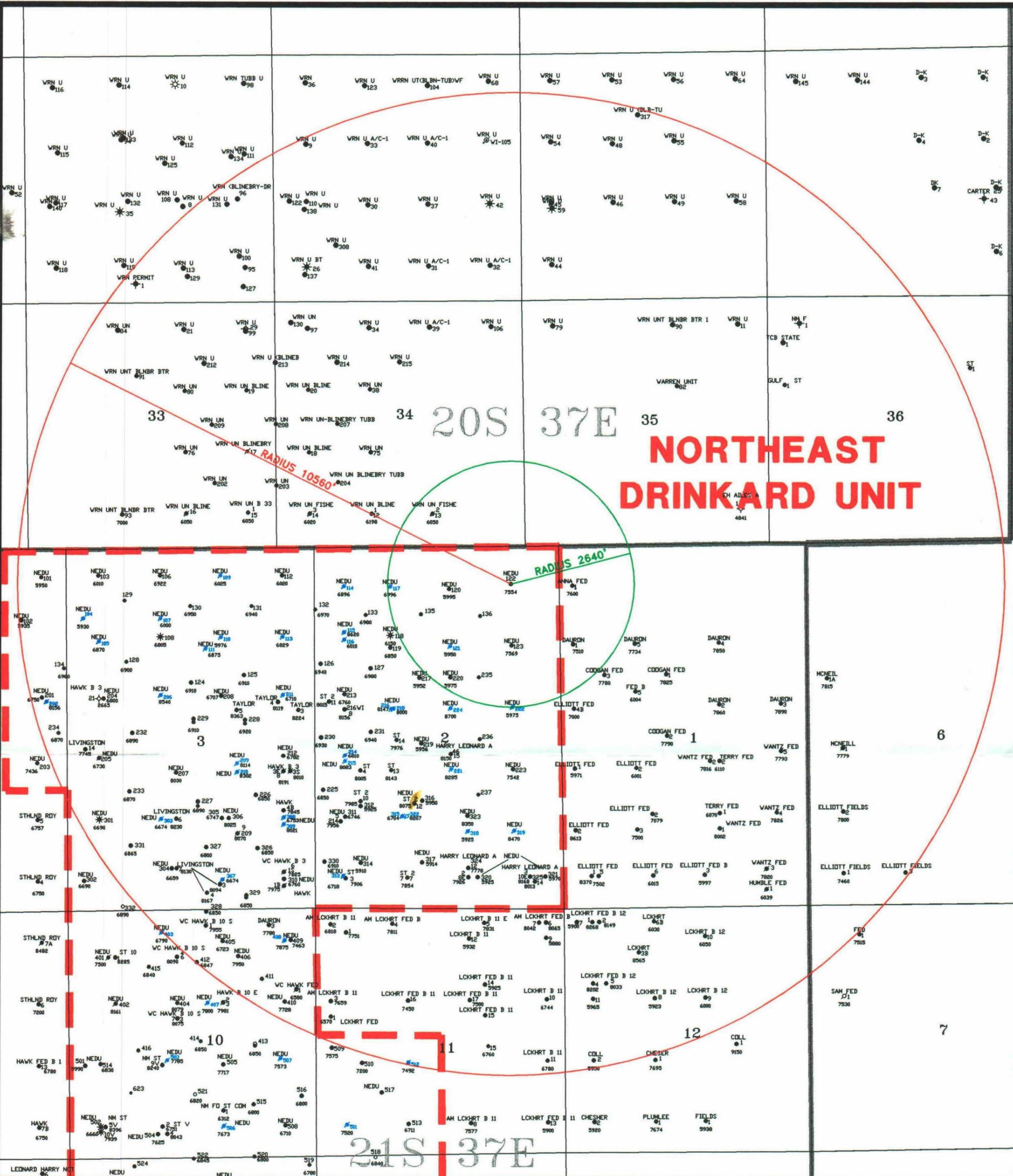
**CIBP @ 7050' w/ 35' cement**

**Abo Perfs:**  
7062 - 7507 (21 Holes)

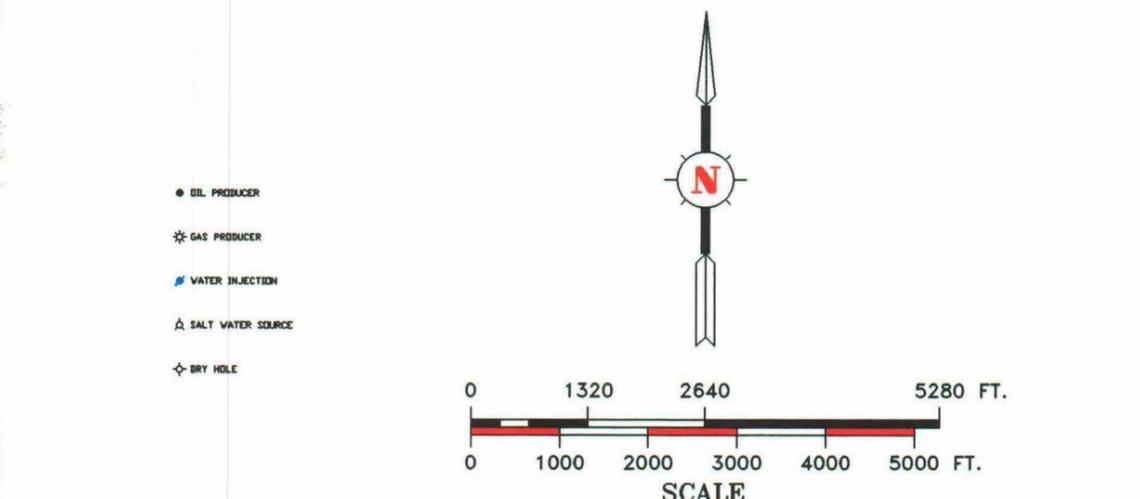
7-7/8" Hole  
5-1/2" 14/15.5# J-55 CSA 5924'  
Cement w / 750 sx  
TOC @ 2156' (TS)

4-3/4" Hole  
4" 13.4# K-55 LSA 7554'  
Cement w / 135 sx  
TOC @ 5536' (Top of Liner)

TD @ 7554'



**NORTHEAST  
DRINKARD UNIT**



**Apache**  
CORPORATION  
SOUTHERN REGION

**NEDU AREA**  
LEA COUNTY, NEW MEXICO

**CONVERSIONS**  
**Injection Well Permitting**  
Well # 122

|                        |                   |                    |
|------------------------|-------------------|--------------------|
| DATE: 11/29/2000       | REVISED: 00\00\00 | GEOL : B. USZYNSKI |
| J:\PER\NEDU\INJ122.DWG | DRAFTED BY: HGS   | LANDMAN: M. MORENO |

30-025-06360

|          |                           |                                 |   |          |            |            |
|----------|---------------------------|---------------------------------|---|----------|------------|------------|
| OPERATOR | <u>Apache Corporation</u> | LEASE                           | <u>Northeast Drinkard Unit (formerly Harry Leonard #16)</u> |          |            |            |
| WELL NO. | <u>123</u>                | <u>2217' FNL &amp; 989' FEL</u> | <u>H</u>  | <u>2</u> | <u>21S</u> | <u>37E</u> |
|          |                           | FOOTAGE LOCATION                | UNIT  | SECTION  | TOWNSHIP   | RANGE      |

Well Construction Data

Surface Casing

Size 13-3/8 Cemented with 375 sx

TOC Surface feet determined by Circulation

Hole Size 17-1/2

Intermediate Casing

Size 8-5/8 Cemented with 1800 sx

TOC 47 feet determined by Temp Survey

Hole Size 11

Long String

Size 5-1/2 Cemented with 775 sx

TOC 61 feet determined by Temp Survey

Hole Size 7-7/8 Liner Size 4 Cemented with 135 sx

Total Depth 7569 TOC 5552 feet determined by Liner Top

Hole Size 4-3/4

Injection Interval

5830 feet to 7065 feet **Perforated**  
(perforated or open-hole; indicate which)

Tubing Size 2-3/8 lined with IPC set in a  
(type of internal coating)  
4" Baker Lok-Set packer at 5730 feet

Other type of tubing / casing seal if applicable N/A

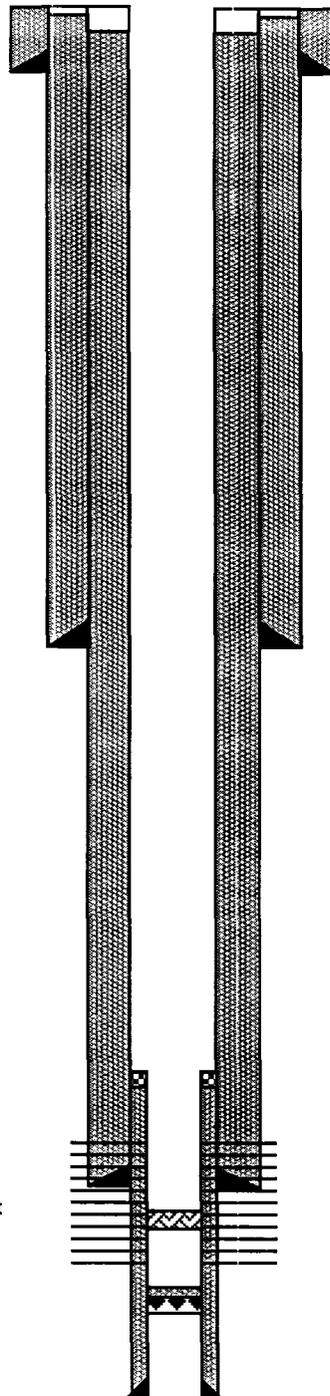
Other Data

- Is this a new well drilled for injection?  Yes  No  
If no, for what purpose was the well originally drilled? Drinkard Producer
- Name of the Injection formation Blinebry-Tubb-Drinkard
- Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. Blinebry 5889 - 5975 Open Hole / P&A'd behind 4" Liner from 5552 - 7568 / Tubb 6394 - 6704 & Drinkard 6732 - 6961 Behind Partial Packer w/ cement @ 6389'
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.  
See C-108 Attachment

Well: Northeast Drinkard Unit # 123  
 Field: Eunice N. Blinebry-Tubb-Drinkard  
 Location: 2217' FNL & 989' FEL  
 Unit H, Sec. 2, T21S, R37E  
 Lea County, New Mexico  
 API #: 30-025-06360

Current Status: Active Oil

Elevation: 3509' (GR)



17-1/2" Hole  
 13-3/8" 48# H-40 CSA 332'  
 Cement w / 375 sx  
 Circulated to Surface

11" Hole  
 8-5/8" 24/32# J-55 CSA 3099'  
 Cement w / 1800 sx  
 TOC @ 47' (TS)

7-7/8" Hole  
 5-1/2" 14/15.5# J-55 CSA 5889'  
 Cement w / 775 sx  
 TOC @ 61' (TS)

4-3/4" Hole  
 4" 13# K-55 LSA 7568'  
 Cement w / 135 sx  
 TOC @ 5552' (Top of Liner)

**Blinebry Open Hole:**  
 5889 - 5975  
**Cement squeezed behind 4" Liner**  
**Blinebry Perfs:**  
 5844 - 6286 (64 Holes)

**Tubb Perfs:**  
 6300 - 6704 (35 Holes)

**Partial Packer @ 6389' w/ 1 sx cement**

**Drinkard Perfs:**  
 6732 - 6961 (31 Holes)

**CIBP @ 7100' w/ 35' cement**

TD @ 7569'



30-025-06506

|          |                           |                                 |   |          |            |            |
|----------|---------------------------|---------------------------------|---|----------|------------|------------|
| OPERATOR | <u>Apache Corporation</u> | LEASE                           | <u>Northeast Drinkard Unit (formerly Hawk B-3 # 22)</u> |          |            |            |
| WELL NO. | <u>204</u>                | <u>3300' FNL &amp; 760' FWL</u> | <u>L</u>  | <u>3</u> | <u>21S</u> | <u>37E</u> |
|          |                           | FOOTAGE LOCATION                | UNIT  | SECTION  | TOWNSHIP   | RANGE      |

Well Construction Data

Surface Casing

Size 9-5/8 Cemented with 625 sx

TOC Surface feet determined by Circulation

Hole Size 10-3/4

Intermediate Casing

Size \_\_\_\_\_ Cemented with \_\_\_\_\_

TOC \_\_\_\_\_ feet determined by \_\_\_\_\_

Hole Size \_\_\_\_\_

Long String

Size 7 Cemented with 650 sx

TOC 2200 feet determined by Temp Survey

Hole Size 8-3/4

Total Depth 6800

Injection Interval

5600 feet to 6800 feet **Perforated**  
 (perforated or open-hole; indicate which)

Tubing Size 2-3/8 lined with IPC set in a  
 (type of internal coating)  
7" Baker Lok-Set packer at 5500 feet

Other type of tubing / casing seal if applicable N/A

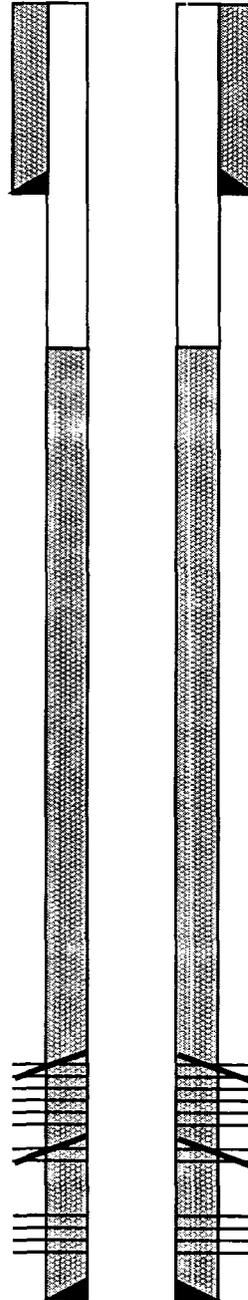
Other Data

- Is this a new well drilled for injection?  Yes  No  
 If no, for what purpose was the well originally drilled? Blinebry Producer
- Name of the Injection formation Blinebry-Tubb-Drinkard
- Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. Blinebry 5607 - 5714 / Cement squeezed w/ 150 sx / Tubb 6218 - 6374 / Cement squeezed w/ 100 sx / Drinkard 6610 - 6686 / Cement squeezed w/ 100 sx
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area. See C-108 Attachment

Well: Northeast Drinkard Unit # 204  
Field: Eunice N. Blinebry-Tubb-Drinkard  
Location: 3300' FNL & 760' FWL  
Unit L, Sec. 3, T21S, R37E  
Lea County, New Mexico  
API #: 30-025-06506

Current Status: Active Oil

Elevation: 3477' (GR)



10-3/4" Hole  
9-5/8" 36# H-40 CSA 1310'  
Cement w / 625 sx  
Circulated to Surface

**Blinebry Perfs:**  
5607 - 5714 (11 Holes)  
Cement squeezed w/ 150 sx  
5736 - 6037 (124 Holes)

**Tubb Perfs:**  
6218 - 6374 (94 Holes)  
Cement squeezed w/ 100 sx  
6056 - 6144 (22 Holes)

**Drinkard Perfs:**  
6610 - 6686 (58 Holes)  
Cement squeezed w/ 100 sx  
6526 - 6740 (98 Holes)

8-3/4" Hole  
7" 20/23# J-55 CSA 6800'  
Cement w / 650 sx  
TOC @ 2200' (Temp Survey)

TD @ 6800'

# NORTHEAST DRINKARD UNIT

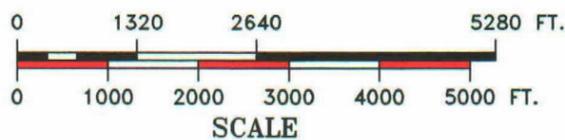
20S 37E

21S 37E

RADIUS 10560'

RADIUS 2640'

- OIL PRODUCER
- \* GAS PRODUCER
- ▲ WATER INJECTION
- △ SALT WATER SOURCE
- ◇ DRY HOLE



**NEDU AREA**  
LEA COUNTY, NEW MEXICO

**CONVERSIONS**  
**Injection Well Permitting**  
Well #: 204

|                        |                   |                     |
|------------------------|-------------------|---------------------|
| DATE: 11/29/2000       | REVISED: 00\00\00 | GEOL. : B. USZYNSKI |
| J:\PER\NEDU\INJ204.DWG | DRAFTED BY: HGS   | LANDMAN: M. MORENO  |

30 025-06519

|          |                           |                                  |  |          |            |            |
|----------|---------------------------|----------------------------------|--|----------|------------|------------|
| OPERATOR | <u>Apache Corporation</u> | LEASE                            | <u>Northeast Drinkard Unit (formerly Livingston # 8)</u> |          |            |            |
| WELL NO. | <u>207</u>                | <u>2970' FSL &amp; 2308' FWL</u> | <u>N</u>   | <u>3</u> | <u>21S</u> | <u>37E</u> |
|          |                           | FOOTAGE LOCATION                 | UNIT   | SECTION  | TOWNSHIP   | RANGE      |

Well Construction Data

Surface Casing

Size 13-3/8 Cemented with 250 sx

TOC Surface feet determined by Circulation

Hole Size 17-1/2

Intermediate Casing

Size 8-5/8 Cemented with 1600 sx

TOC Surface feet determined by Circulation

Hole Size 11

Long String

Liner

Size 5-1/2 Cemented with 810 sx

TOC 2648 feet determined by Top of Liner

Hole Size 7-7/8

Total Depth 8030

Injection Interval

5620 feet to 6885 feet **Perforated**  
(perforated or open-hole; indicate which)

Tubing Size 2-3/8 lined with IPC set in a  
(type of internal coating)  
5-1/2" Baker Lok-Set packer at 5520 feet

Other type of tubing / casing seal if applicable N/A

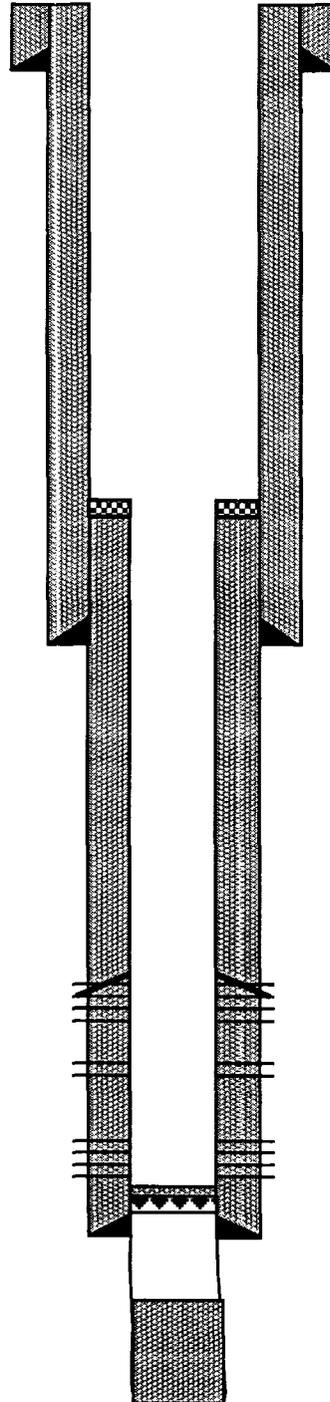
Other Data

- Is this a new well drilled for injection?  Yes  No  
If no, for what purpose was the well originally drilled? Drinkard Producer
- Name of the Injection formation Blinebry-Tubb-Drinkard
- Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. Blinebry 5655 - 5790 / Cement squeezed w/ 350 sx
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.  
See C-108 Attachment

Well: Northeast Drinkard Unit # 207  
Field: Eunice N. Blinebry-Tubb-Drinkard  
Location: 2970' FSL & 2308' FWL  
Unit N, Sec. 3, T21S, R37E  
Lea County, New Mexico  
API #: 30-025-06519

Current Status: Active Oil

Elevation: 3458' (GR)



17-1/2" Hole  
13-3/8" 36# H-40 CSA 215'  
Cement w / 250 sx  
Circulated to Surface

11" Hole  
8-5/8" 28/32# J-55 CSA 3153'  
Cement w / 1600 sx  
Circulated to Surface

**Blinebry Perfs:**  
5655 - 5790 (432 Holes)  
Cement squeezed w/ 350 sx  
5819 - 5890 (123 Holes)

**Tubb Perfs:**  
6097 - 6191 (35 Holes)

**Drinkard Perfs:**  
6555 - 6813 (338 Holes)

**CIBP @ 6920' w/ 35' cement**

**Plugback from 8030' to 7400'  
w/ 250 sx**

7-7/8" Hole  
5-1/2" 15.5# J-55 LSA 70C0'  
Cement w / 810 sx  
TOC @ 2648' (Top of Liner)

TD @ 8030'

# NORTHEAST DRINKARD UNIT

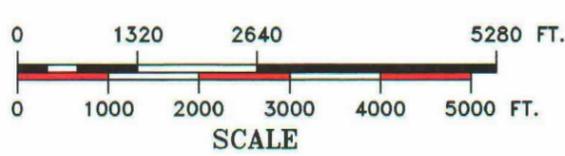
20S 37E

21S 37E

RADIUS 10560'

RADIUS 2640'

- OIL PRODUCER
- ✱ GAS PRODUCER
- WATER INJECTION
- ▲ SALT WATER SOURCE
- ◇ DRY HOLE



**NEDU AREA**  
LEA COUNTY, NEW MEXICO

**CONVERSIONS**  
**Injection Well Permitting**  
Well #. 207

|                        |                   |                    |
|------------------------|-------------------|--------------------|
| DATE: 11/29/2000       | REVISED: 00\00\00 | GEOL : B. USZYNSKI |
| J:\PER\NEDU\INJ207.DWG | DRAFTED BY: HGS   | LANDMAN: M. MORENO |

30-025-06355

|          |                           |                                 |  |          |            |            |
|----------|---------------------------|---------------------------------|--|----------|------------|------------|
| OPERATOR | <u>Apache Corporation</u> | LEASE                           | <u>Northeast Drinkard Unit (formerly Harry Leonard # 11)</u> |          |            |            |
| WELL NO. | <u>223</u>                | <u>2970' FSL &amp; 990' FEL</u> | <u>P</u>   | <u>2</u> | <u>21S</u> | <u>37E</u> |
|          |                           | FOOTAGE LOCATION                | UNIT   | SECTION  | TOWNSHIP   | RANGE      |

Well Construction Data

Surface Casing

Size 13-3/8 Cemented with 450 sx

TOC Surface feet determined by Circulation

Hole Size 17-1/2

Intermediate Casing

Size 9-5/8 Cemented with 1550 sx

TOC 309 feet determined by Temp Survey

Hole Size 12-1/4

Long String

Size 7 Cemented with 600 sx

TOC 2670 feet determined by Temp Survey

Hole Size 8-3/4 Liner Size 4-1/2 Cemented with 325 sx

Total Depth 7542 TOC 5131 feet determined by Liner Top

Hole Size 6-1/4

Injection Interval

5780 feet to 6950 feet **Perforated**  
 (perforated or open-hole; indicate which)

Tubing Size 2-3/8 lined with IPC set in a  
 (type of internal coating)  
4-1/2" Baker Lok-Set packer at 5680 feet

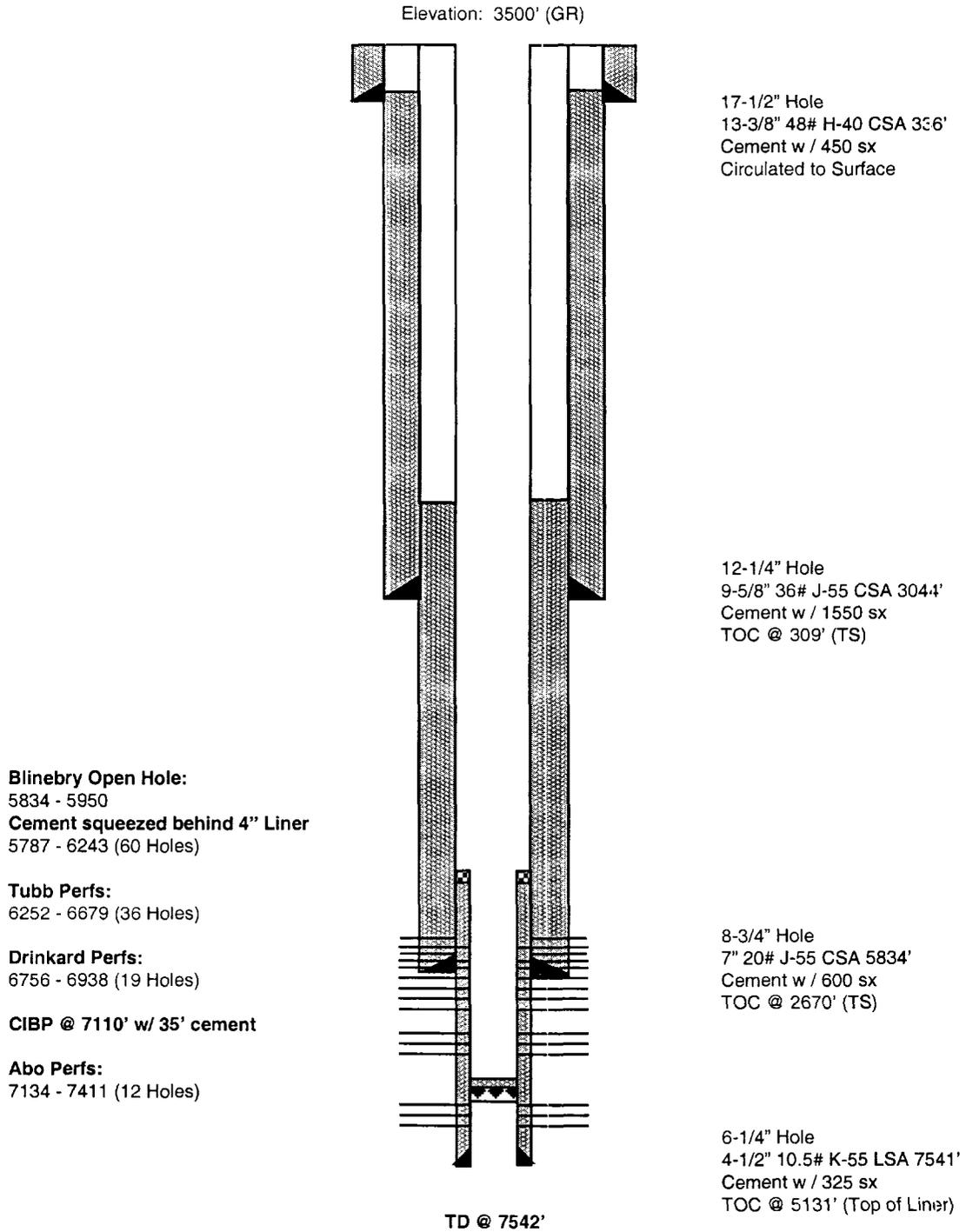
Other type of tubing / casing seal if applicable N/A

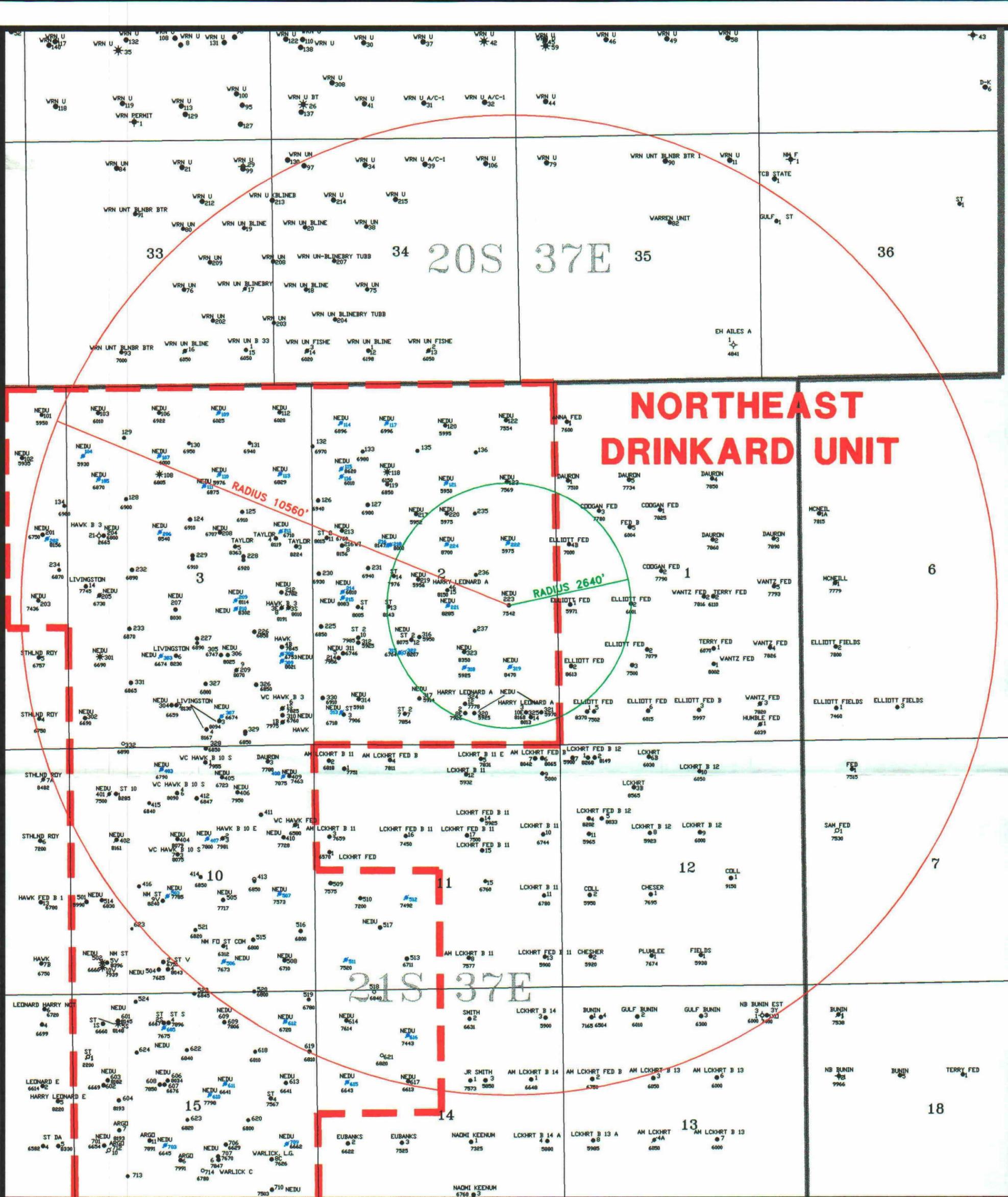
Other Data

- Is this a new well drilled for injection?  Yes  No  
 If no, for what purpose was the well originally drilled? Blinebry Producer
- Name of the Injection formation Blinebry-Tubb-Drinkard
- Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. Blinebry 5834 - 5950 Open Hole / P&A'd behind 4-1/2" Liner from 5131 - 7541 / Abo 7134 - 7411 / CIBP @ 7110' w/ 35' cement
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.  
See C-108 Attachment

Well: Northeast Drinkard Unit # 223  
Field: Eunice N. Blinebry-Tubb-Drinkard  
Location: 2970' FSL & 990' FEL  
Unit P, Sec. 2, T21S, R37E  
Lea County, New Mexico  
API #: 30-025-06355

Current Status: Active Oil





# NORTHEAST DRINKARD UNIT

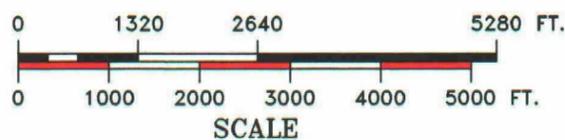
RADIUS 10560'

RADIUS 2640'

21S 37E



- OIL PRODUCER
- ✱ GAS PRODUCER
- WATER INJECTION
- △ SALT WATER SOURCE
- ◇ DRY HOLE





**Apache**  
CORPORATION  
SOUTHERN REGION

**NEDU AREA**  
LEA COUNTY, NEW MEXICO

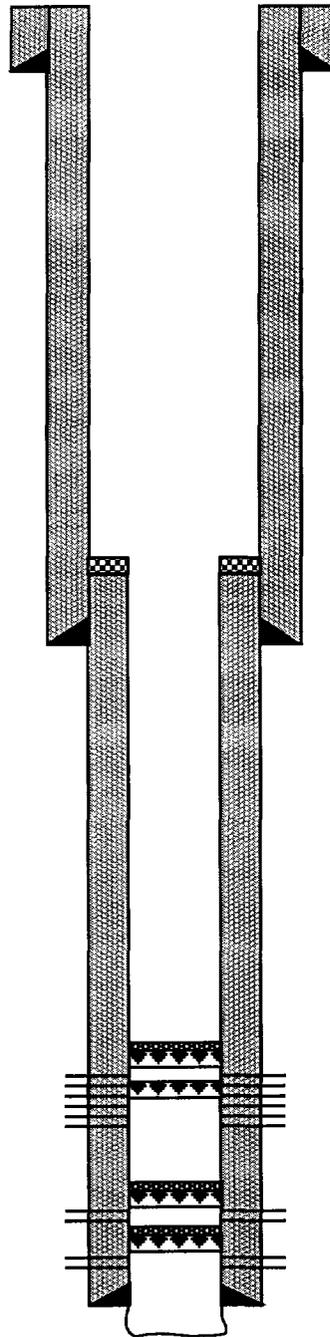
**CONVERSIONS**  
**Injection Well Permitting**  
Well #: 223

|                        |                   |                    |
|------------------------|-------------------|--------------------|
| DATE: 11/29/2000       | REVISED: 00\00\00 | GEOL : B. USZYNSKI |
| J:\PER\NEDU\INJ223.DWG | DRAFTED BY: HGS   | LANDMAN: M. MORENO |

Well: Northeast Drinkard Unit # 304  
Field: Eunice N. Blinebry-Tubb-Drinkard  
Location: 915' FSL & 2208' FWL  
Unit V, Sec. 3, T21S, R37E  
Lea County, New Mexico  
API #: 30-025-06520

Current Status: TA'd

Elevation: 3428' (GR)



17" Hole  
13-3/8" 48# H-40 CSA 237'  
Cement w / 250 sx  
Circulated to Surface

11" Hole  
8-5/8" 32# H-40 CSA 3151'  
Cement w / 2000 sx  
Circulated to Surface

**CIBP @ 5500' w/ 35' cement**

**Blinebry Perfs:**  
5558 - 6134 (576 Holes)  
**CIBP @ 5577'**

**CIBP @ 6315' w/ 35' cement**

**Tubb Perfs:**  
6381 - 6413 (10 Holes)

**CIBP @ 6450' w/ 35' cement**

**Drinkard Perfs:**  
6520 - 6525 (6 Holes)  
**Open Hole:**  
6584 - 6659

7-7/8" Hole  
5-1/2" 15.5# J-55 LSA 6584'  
Cement w / 700 sx  
TOC @ 2950' (Top of Liner)

**TD @ 6659'**

30-025-06520

|          |                           |                                 |  |          |            |
|----------|---------------------------|---------------------------------|--|----------|------------|
| OPERATOR | <b>Apache Corporation</b> | LEASE                           | <b>Northeast Drinkard Unit (formerly Livingston # 9)</b> |          |            |
| WELL NO. | <b>304</b>                | <b>915' FSL &amp; 2208' FWL</b> | <b>V</b>   | <b>3</b> | <b>21S</b> |
|          |                           | FOOTAGE LOCATION                | UNIT   | SECTION  | TOWNSHIP   |
|          |                           |                                 |  |          | <b>37E</b> |
|          |                           |                                 |  |          | RANGE      |

Well Construction Data

Surface Casing

Size 13-3/8 Cemented with 250 sx

TOC Surface feet determined by Circulation

Hole Size 17

Intermediate Casing

Size 8-5/8 Cementec with 2000 sx

TOC Surface feet determined by Circulation

Hole Size 11

Long String Liner

Size 5-1/2 Cemented with 700 sx

TOC 2950 feet determined by Top of Liner

Hole Size 7-7/8

Total Depth 6659

Injection Interval

5550 feet to 6659 feet **Perforated & Open Hole**  
(perforated or open-hole; indicate which)

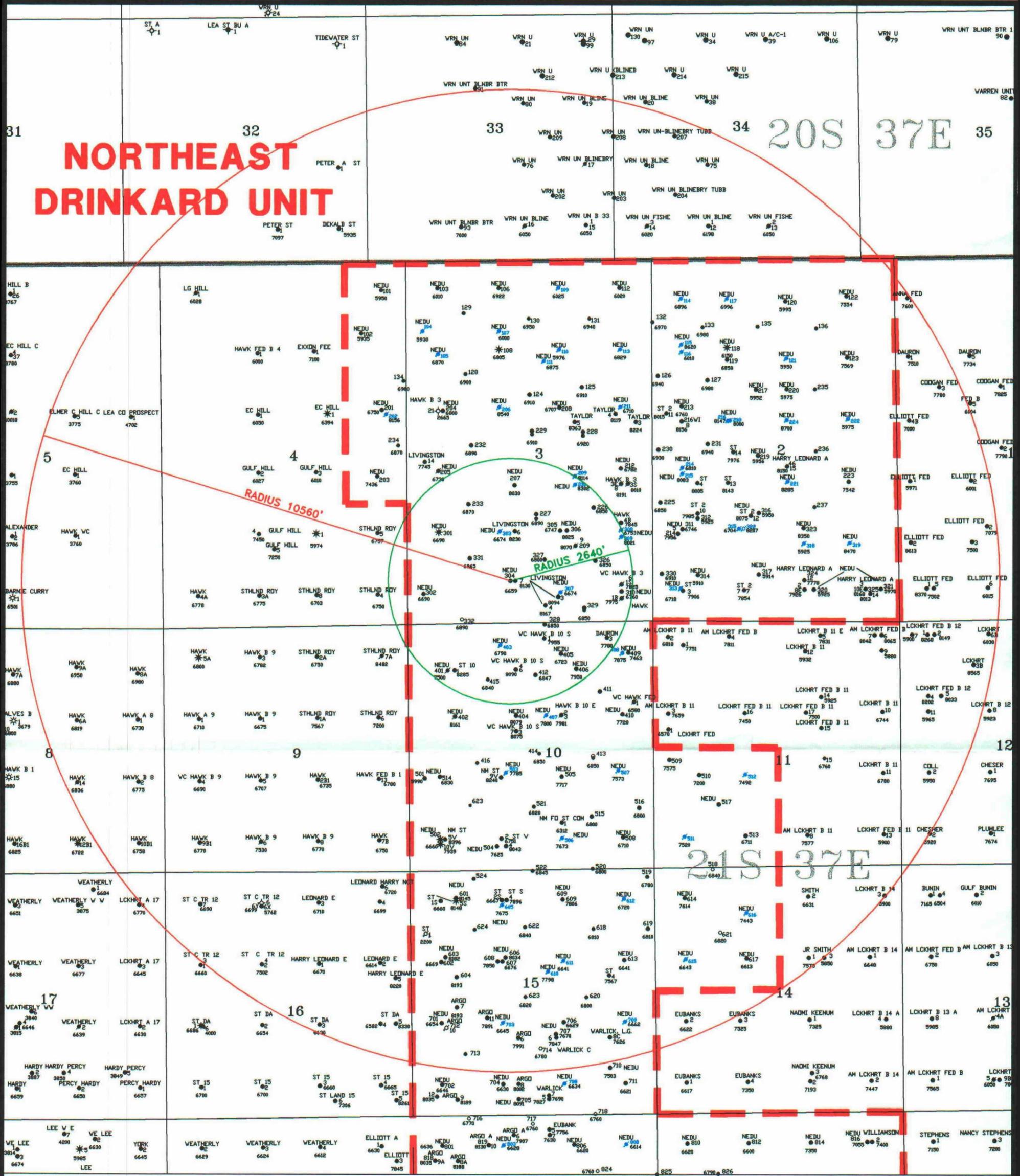
Tubing Size 2-3/8 lined with IPC set in a  
(type of internal coating)  
5-1/2" Baker Lok-Set packer at 5450 feet

Other type of tubing / casing seal if applicable N/A

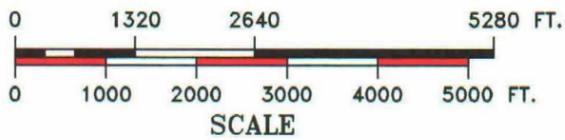
Other Data

- Is this a new well drilled for injection?  Yes  No  
If no, for what purpose was the well originally drilled? Drinkard Producer
- Name of the Injection formation Blinebry-Tubb-Drinkard
- Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. N/A
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.  
See C-108 Attachment

# NORTHEAST DRINKARD UNIT



- OIL PRODUCER
- ✱ GAS PRODUCER
- WATER INJECTION
- ▲ SALT WATER SOURCE
- ◇ DRY HOLE



## NEDU AREA LEA COUNTY, NEW MEXICO

### CONVERSIONS Injection Well Permitting Well #: 304

|                        |                   |                    |
|------------------------|-------------------|--------------------|
| DATE: 11/29/2000       | REVISED: 00\00\00 | GEOL : B. USZYNSKI |
| J:\PER\NEDU\INJ304.DWG | DRAFTED BY: HGS   | LANDMAN: M. MORENO |

30-025-06493

OPERATOR Apache Corporation LEASE Northeast Drinkard Unit (formerly Hawk B-3 # 12)  
WELL NO. 305 1980' FSL & 1980' FEL R 3 21S 37E  
FOOTAGE LOCATION UNIT SECTION TOWNSHIP RANGE

Well Construction Data

Surface Casing

Size 13-3/8 Cemented with 250 sx  
TOC Surface feet determined by Circulation  
Hole Size 17-1/2

Intermediate Casing

Size 9-5/8 Cemented with 1525 sx  
TOC 725 feet determined by Temp Survey  
Hole Size 12-1/4

Long String

Size 7 Cemented with 875 sx  
TOC 3000 feet determined by Temp Survey  
Hole Size 8-3/4  
Total Depth 6747

Injection Interval

5610 feet to 6747 feet Perforated  
(perforated or open-hole; indicate which)

Tubing Size 2-3/8 lined with IPC set in a  
(type of internal coating)  
7" Baker Lok-Set packer at 5510 feet

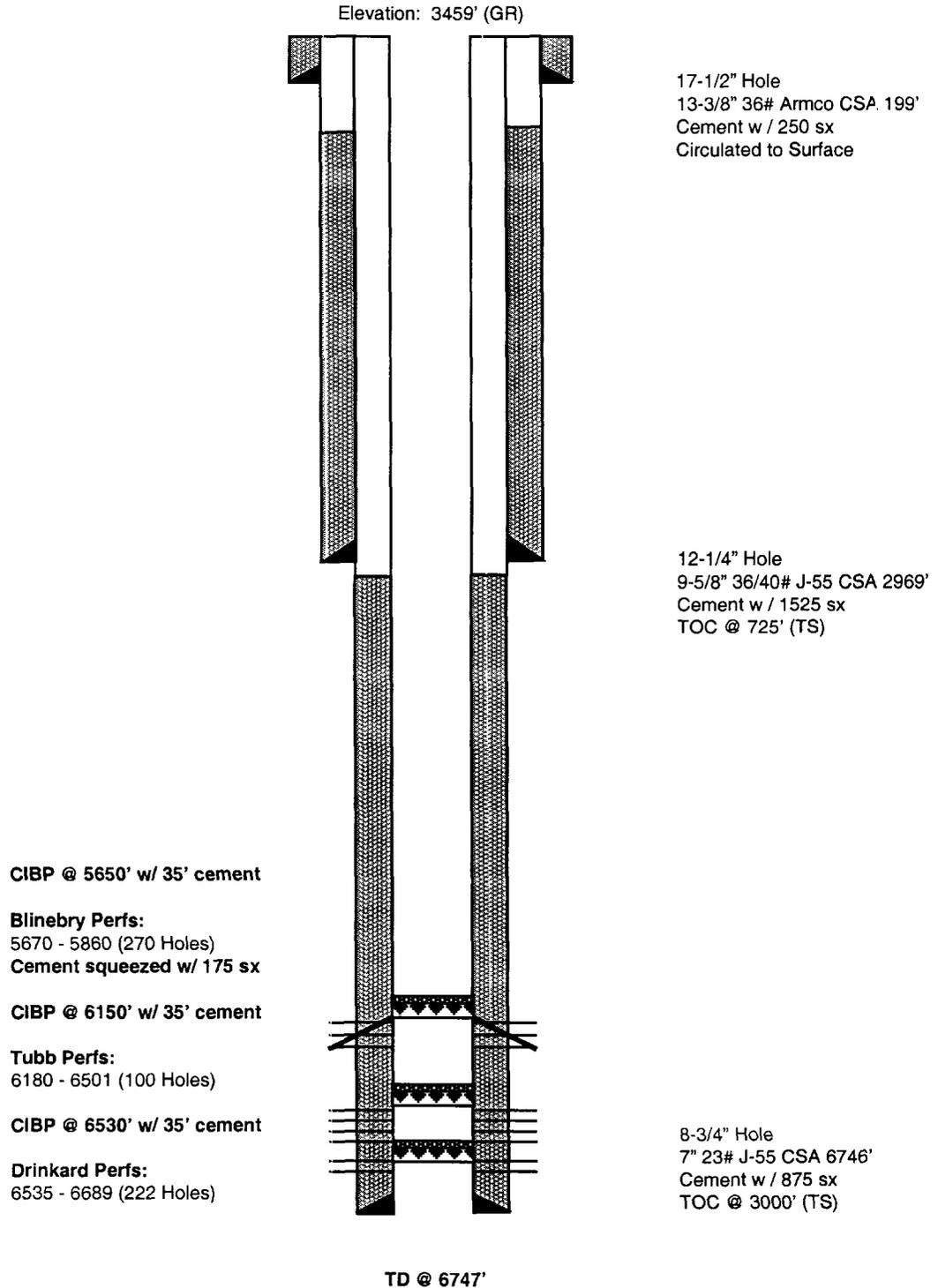
Other type of tubing / casing seal if applicable N/A

Other Data

- Is this a new well drilled for injection?  Yes  No  
If no, for what purpose was the well originally drilled? Drinkard Producer
- Name of the Injection formation Blinebry-Tubb-Drinkard
- Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. Blinebry 5670 - 5860 / Cement squeezed w/ 175 sx
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.  
See C-108 Attachment

Well: Northeast Drinkard Unit # 305  
Field: Eunice N. Blinebry-Tubb-Drinkard  
Location: 1980' FSL & 1980' FEL  
Unit R, Sec. 3, T21S, R37E  
Lea County, New Mexico  
API #: 30-025-06493

Current Status: TA'd



# NORTHEAST DRINKARD UNIT

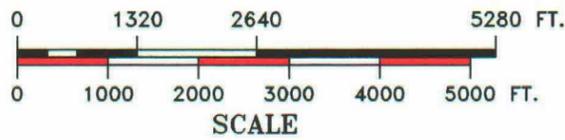
20S 37E

21S 37E

RADIUS 10560'

RADIUS 2640'

- OIL PRODUCER
- ✱ GAS PRODUCER
- WATER INJECTION
- ▲ SALT WATER SOURCE
- DRY HOLE



**NEDU AREA**  
LEA COUNTY, NEW MEXICO

## CONVERSIONS

### Injection Well Permitting

Well #. 305

|                        |                   |                    |
|------------------------|-------------------|--------------------|
| DATE: 11/29/2000       | REVISED: 00\00\00 | GEOL : B. USZYNSKI |
| J:\PER\NEDU\INJ305.DWG | DRAFTED BY: HGS   | LANDMAN: M. MORENO |

Check South

30-025-06507

OPERATOR Apache Corporation LEASE Northeast Drinkard Unit (formerly Hawk B-3 # 5)  
 WELL NO. 306 1980' FNL & 1830' FEL R 3 21S 37E  
 FOOTAGE LOCATION UNIT SECTION TOWNSHIP RANGE

Well Construction Data

Surface Casing

Size 10-3/4 Cemented with 225 sx  
 TOC Surface feet determined by Circulation  
 Hole Size 13-3/4

Intermediate Casing

Size 7-5/8 Cemented with 1150 sx  
 TOC 650 feet determined by Temp Survey  
 Hole Size 9-7/8

Long String

Size 5-1/2 Cemented with 625 sx  
 TOC 3200 feet determined by Temp Survey  
 Hole Size 6-3/4  
 Total Depth 8025

Injection Interval

5620 feet to 6800 feet **Perforated**  
 (perforated or open-hole; indicate which)

Tubing Size 2-3/8 lined with IPC set in a  
 (type of internal coating)  
5-1/2" Baker Lok-Set packer at 5520 feet

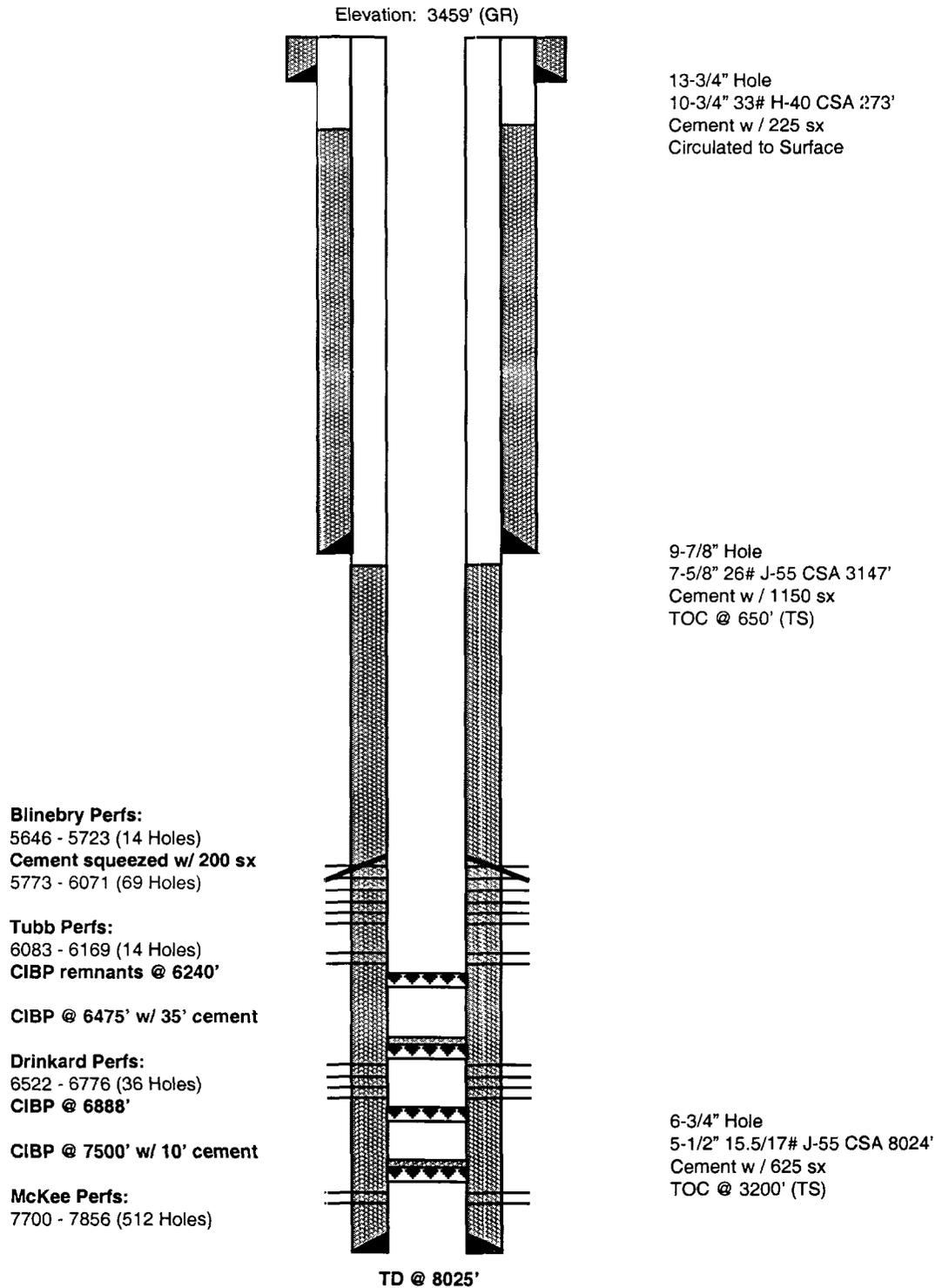
Other type of tubing / casing seal if applicable N/A

Other Data

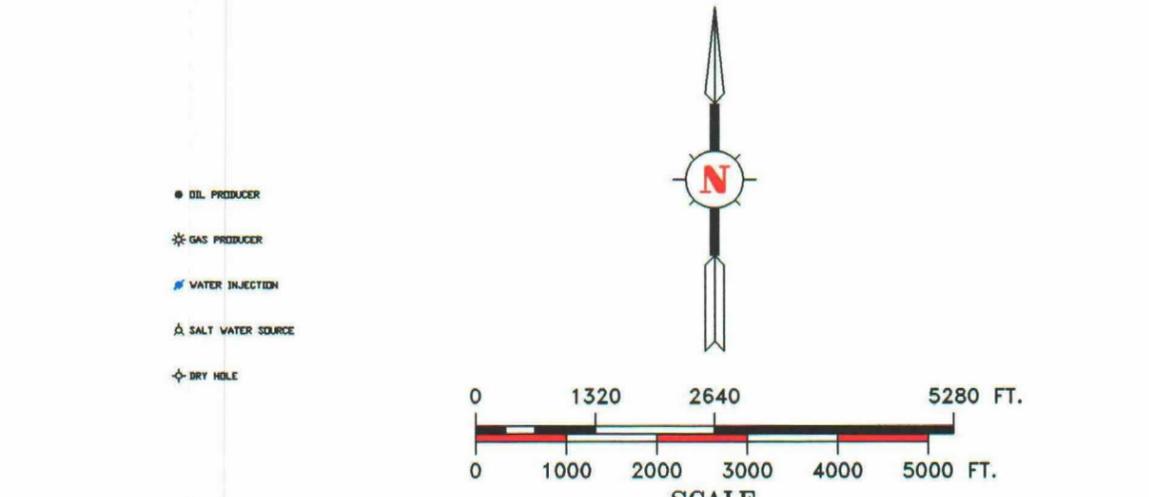
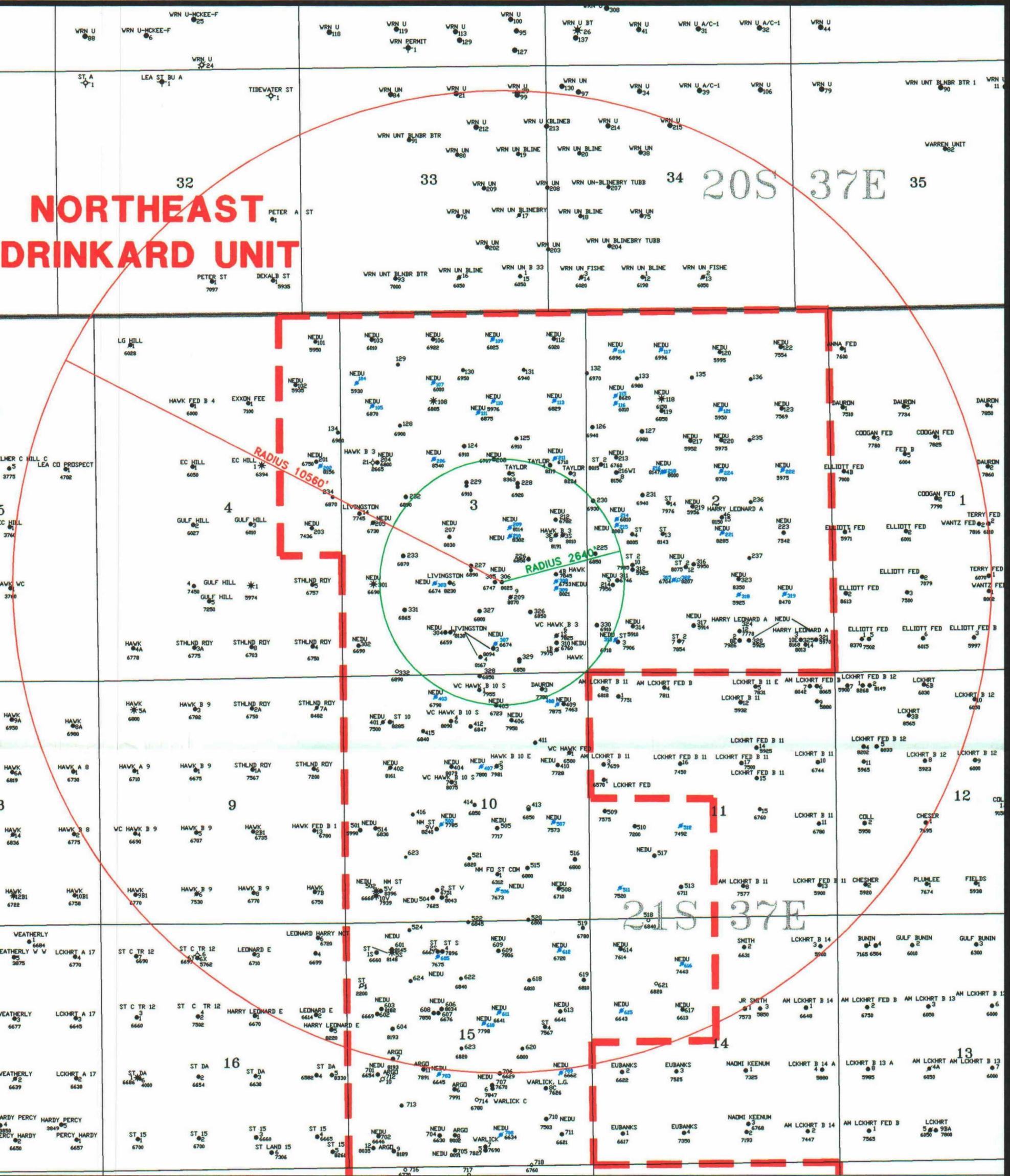
- Is this a new well drilled for injection?  Yes  No  
 If no, for what purpose was the well originally drilled? McKee Producer
- Name of the Injection formation Blinebry-Tubb-Drinkard
- Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. Blinebry 5646 - 5723 / Cement squeezed w/ 200 sx / Drinkard 6522 - 6776 / CIBP @ 6475' w/ 35' cement / CIBP @ 6888' / CIBP @ 6940' w/ 35' cement / McKee 7700 - 7856 / CIBP @ 7500' w/ 10' cement
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area. See C-108 Attachment

Well: Northeast Drinkard Unit # 306  
 Field: Eunice N. Blinebry-Tubb-Drinkard  
 Location: 1980' FNL & 1830' FEL  
 Unit R, Sec. 3, T21S, R37E  
 Lea County, New Mexico  
 API #: 30-025-06507

Current Status: Active Oil



# NORTHEAST DRINKARD UNIT



**Apache**  
CORPORATION  
SOUTHERN REGION

**NEDU AREA**  
LEA COUNTY, NEW MEXICO

**CONVERSIONS**  
**Injection Well Permitting**  
Well #: 306

|                        |                   |                    |
|------------------------|-------------------|--------------------|
| DATE: 11/29/2000       | REVISED: 00/00/00 | GEOL : B. USZYNSKI |
| J:\PER\NEDU\INJ306.DWG | DRAFTED BY: HGS   | LANDMAN: M. MORENO |

30-025-06497

|          |                           |                                |   |          |            |            |
|----------|---------------------------|--------------------------------|---|----------|------------|------------|
| OPERATOR | <u>Apache Corporation</u> | LEASE                          | <u>Northeast Drinkard Unit (formerly Hawk B-3 # 13)</u> |          |            |            |
| WELL NO. | <u>310</u>                | <u>660' FSL &amp; 660' FEL</u> | <u>X</u>  | <u>3</u> | <u>21S</u> | <u>37E</u> |
|          |                           | FOOTAGE LOCATION               | UNIT  | SECTION  | TOWNSHIP   | RANGE      |

Well Construction Data

Surface Casing

Size 13-3/8 Cemented with 250 sx

TOC Surface feet determined by Circulation

Hole Size 17-1/2

Intermediate Casing

Size 9-5/8 Cemented with 1200 sx

TOC 1044 feet determined by Temp Survey

Hole Size 12-1/4

Long String

Size 7 Cemented with 775 sx

TOC 2975 feet determined by Temp Survey

Hole Size 8-3/4

Total Depth 6760

Injection Interval

5620 feet to 6760 feet **Perforated**  
(perforated or open-hole; indicate which)

Tubing Size 2-3/8 lined with IPC set in a  
(type of internal coating)  
7" Baker Lok-Set packer at 5520 feet

Other type of tubing / casing seal if applicable N/A

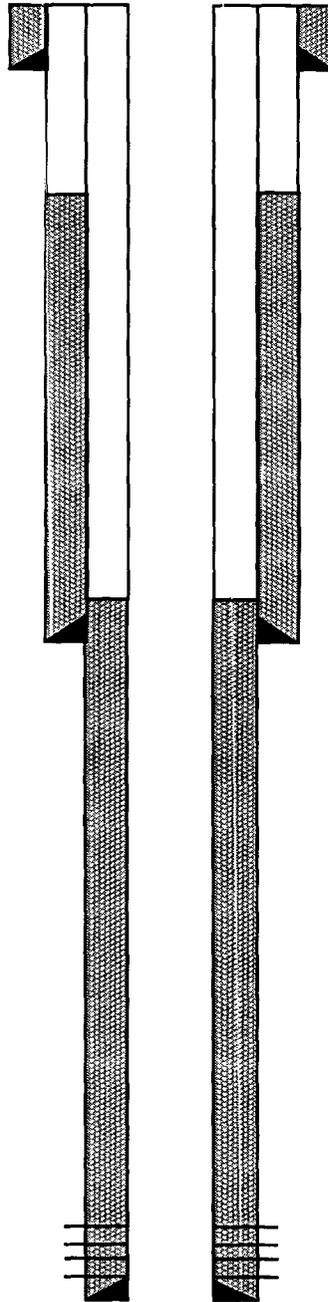
Other Data

- Is this a new well drilled for injection?  Yes  No  
If no, for what purpose was the well originally drilled? Drinkard Producer
- Name of the Injection formation Blinebry-Tubb-Drinkard
- Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. N/A
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.  
See C-108 Attachment

Well: Northeast Drinkard Unit # 310  
Field: Eunice N. Blinebry-Tubb-Drinkard  
Location: 660' FSL & 660' FEL  
Unit X, Sec. 3, T21S, R37E  
Lea County, New Mexico  
API #: 30-025-06497

Current Status: Active Oil

Elevation: 3456 (GR)



17-1/2" Hole  
13-3/8" 48# H-40 CSA 224'  
Cement w / 250 sx  
Circulated to Surface

12-1/4" Hole  
9-5/8" 32/36# H-40/J-55 C:SA 3049'  
Cement w / 1200 sx  
TOC @ 1044' (TS)

**Blinebry Perfs:**  
5760 - 6050 (175 Holes)

**Tubb Perfs:**  
6109 - 6457 (39 Holes)

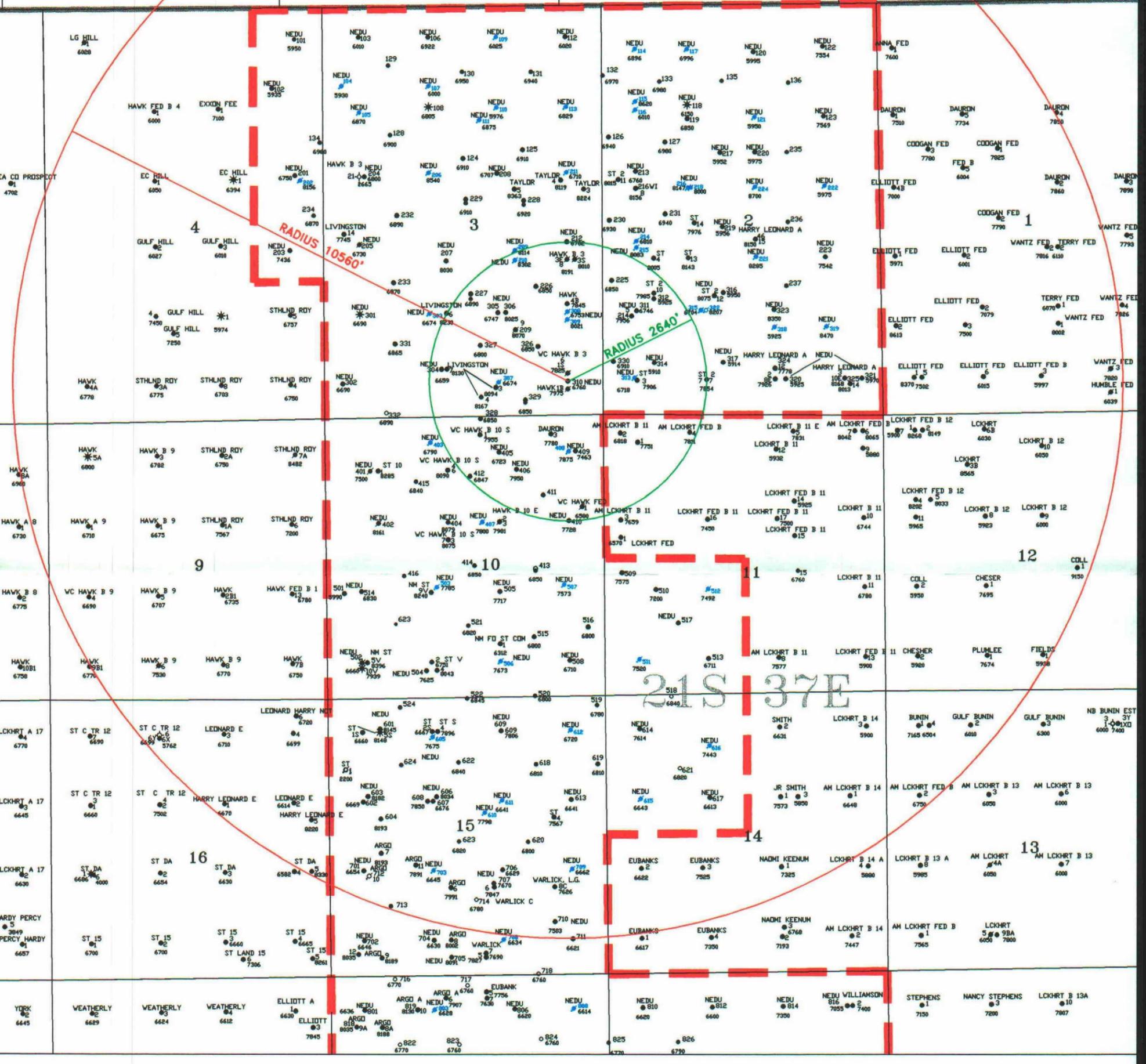
**Drinkard Perfs:**  
6512 - 6725 (317 Holes)

8-3/4" Hole  
7" 23/26# J-55 CSA 6759'  
Cement w / 775 sx  
TOC @ 2975' (TS)

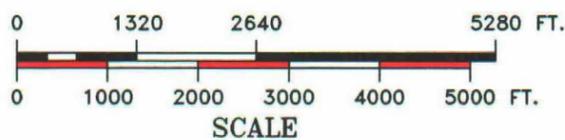
TD @ 6760'

32 20S 37E 33

# NORTHEAST DRINKARD UNIT



- OIL PRODUCER
- \* GAS PRODUCER
- WATER INJECTION
- ▲ SALT WATER SOURCE
- ◇ DRY HOLE



**NEDU AREA**  
LEA COUNTY, NEW MEXICO

## CONVERSIONS

### Injection Well Permitting

Well #. 310

|                        |                   |                    |
|------------------------|-------------------|--------------------|
| DATE: 11/29/2000       | REVISED: 00\00\00 | GEOL : B. USZYNSKI |
| J:\PER\NEDU\INJ310.DWG | DRAFTED BY: HGS   | LANDMAN: M. MORENO |

30-025-06367

|          |                           |                                 |   |          |            |            |
|----------|---------------------------|---------------------------------|---|----------|------------|------------|
| OPERATOR | <u>Apache Corporation</u> | LEASE                           | <u>Northeast Drinkard Unit (formerly State 2 # 1)</u> |          |            |            |
| WELL NO. | <u>311</u>                | <u>1980' FSL &amp; 660' FWL</u> | <u>T</u>  | <u>2</u> | <u>21S</u> | <u>37E</u> |
|          |                           | FOOTAGE LOCATION                | UNIT  | SECTION  | TOWNSHIP   | RANGE      |

Well Construction Data

Surface Casing  
 Size 13-3/8 Cemented with 300 sx  
 TOC Surface feet determined by Circulation  
 Hole Size 17-1/2

Intermediate Casing  
 Size 8-5/8 Cemented with 2000 sx  
 TOC Surface feet determined by Circulation  
 Hole Size 11

Long String  
 Size 5-1/2 Cemented with 500 sx  
 TOC 3450 feet determined by Free Point  
 Hole Size 7-7/8  
 Total Depth 6746

Injection Interval  
5650 feet to 6746 feet **Perforated and Open Hole**  
 (perforated or open-hole; indicate which)

Tubing Size 2-3/8 lined with IPC set in a  
 (type of internal coating)  
5-1/2" Baker Lok-Set packer at 5550 feet

Other type of tubing / casing seal if applicable N/A

Other Data

- Is this a new well drilled for injection?  Yes  No  
 If no, for what purpose was the well originally drilled? Drinkard Producer
- Name of the Injection formation Blinebry-Tubb-Drinkard
- Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. N/A
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.  
See C-108 Attachment

Well: Northeast Drinkard Unit # 311

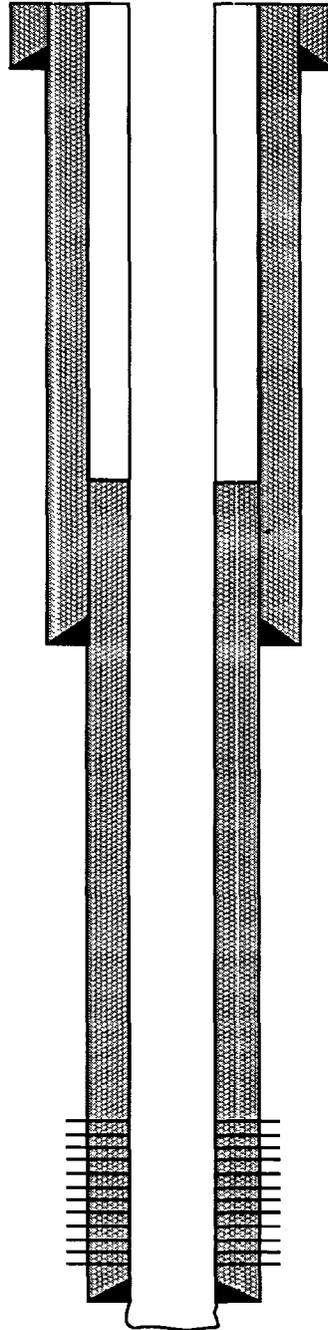
Field: Eunice N. Blinebry-Tubb-Drinkard

Current Status: Active Oil

Location: 1980' FSL & 660' FWL  
Unit T, Sec. 2, T21S, R37E  
Lea County, New Mexico

API #: 30-025-06367

Elevation: 3469' (GR)



17-1/2" Hole  
13-3/8" 32# H-40 CSA 225'  
Cement w / 300 sx  
Circulated to Surface

11" Hole  
8-5/8" 28/32# J-55 CSA 3047'  
Cement w / 2000 sx  
Circulated to Surface

**Blinebry Perfs:**  
5734 - 6149 (170 Holes)

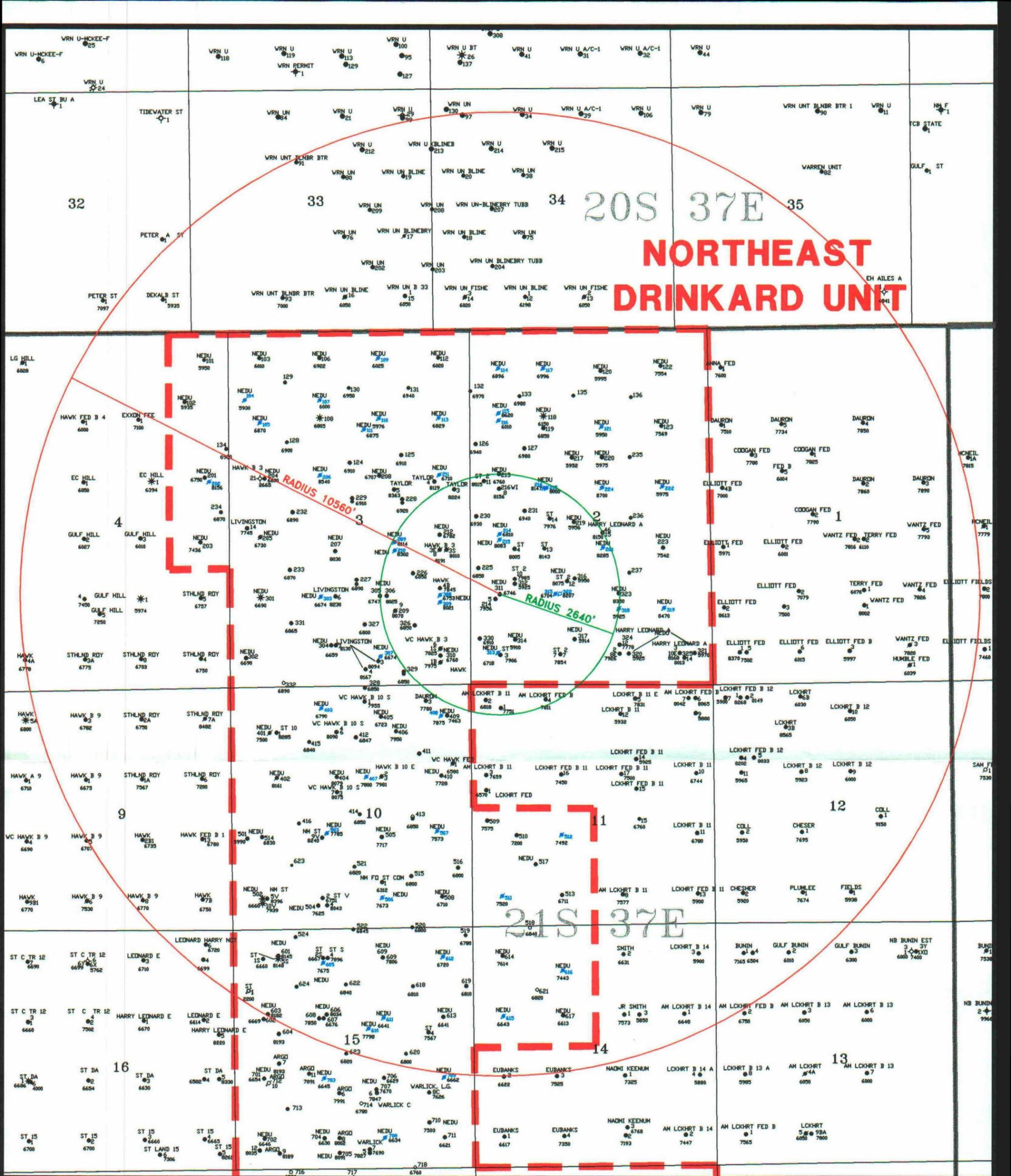
**Tubb Perfs:**  
6157 - 6508 (75 Holes)

**Drinkard Perfs:**  
6534 - 6626 (40 Holes)

**Open Hole:**  
6670 - 6746

7-7/8" Hole  
5-1/2" 15.5# J-55 CSA 6670'  
Cement w / 500 sx  
TOC @ 3450' (Free Point)

TD @ 6746'



# NORTHEAST DRINKARD UNIT

RADIUS 10560'

RADIUS 2640'

21S 37E

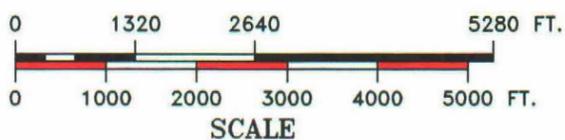


**NEDU AREA**  
LEA COUNTY, NEW MEXICO

## CONVERSIONS Injection Well Permitting

Well # 311

- OIL PRODUCER
- \* GAS PRODUCER
- WATER INJECTION
- ▲ SALT WATER SOURCE
- ◇ DRY HOLE



|                        |                   |                    |
|------------------------|-------------------|--------------------|
| DATE: 11/29/2000       | REVISED: 00\00\00 | GEOL : B. USZYNSKI |
| J:\PER\NEDU\INJ311.DWG | DRAFTED BY: HGS   | LANDMAN: M. MORENO |

30-025-06454

|          |                           |                                  |   |           |            |            |
|----------|---------------------------|----------------------------------|---|-----------|------------|------------|
| OPERATOR | <u>Apache Corporation</u> | LEASE                            | <u>Northeast Drinkard Unit (formerly Hawk B-10 # 2)</u> |           |            |            |
| WELL NO. | <u>404</u>                | <u>1980' FNL &amp; 2310' FWL</u> | <u>F</u>  | <u>10</u> | <u>21S</u> | <u>37E</u> |
|          |                           | FOOTAGE LOCATION                 | UNIT  | SECTION   | TOWNSHIP   | RANGE      |

Well Construction Data

Surface Casing

Size 10-3/4 Cemented with 250 sx

TOC Surface feet determined by Circulation

Hole Size 13-3/4

Intermediate Casing

Size 7-5/8 Cemented with 1360 sx

TOC 1125 feet determined by Temp Survey

Hole Size 9-7/8

Long String

Size 5-1/2 Cemented with 470 sx

TOC 3250 feet determined by Temp Survey

Hole Size 6-3/4

Total Depth 8079

Injection Interval

5580 feet to 6790 feet **Perforated**  
(perforated or open-hole; indicate which)

Tubing Size 2-3/8 lined with IPC set in a  
(type of internal coating)  
5-1/2" Baker Lok-Set packer at 5480 feet

Other type of tubing / casing seal if applicable N/A

Other Data

- Is this a new well drilled for injection?  Yes  No  
If no, for what purpose was the well originally drilled? Ellenburger Producer
- Name of the Injection formation Blinebry-Tubb-Drinkard
- Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. Ellenburger 7966 - 8073 / CIBP @ 6800' w/ 10' cement
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.  
See C-108 Attachment

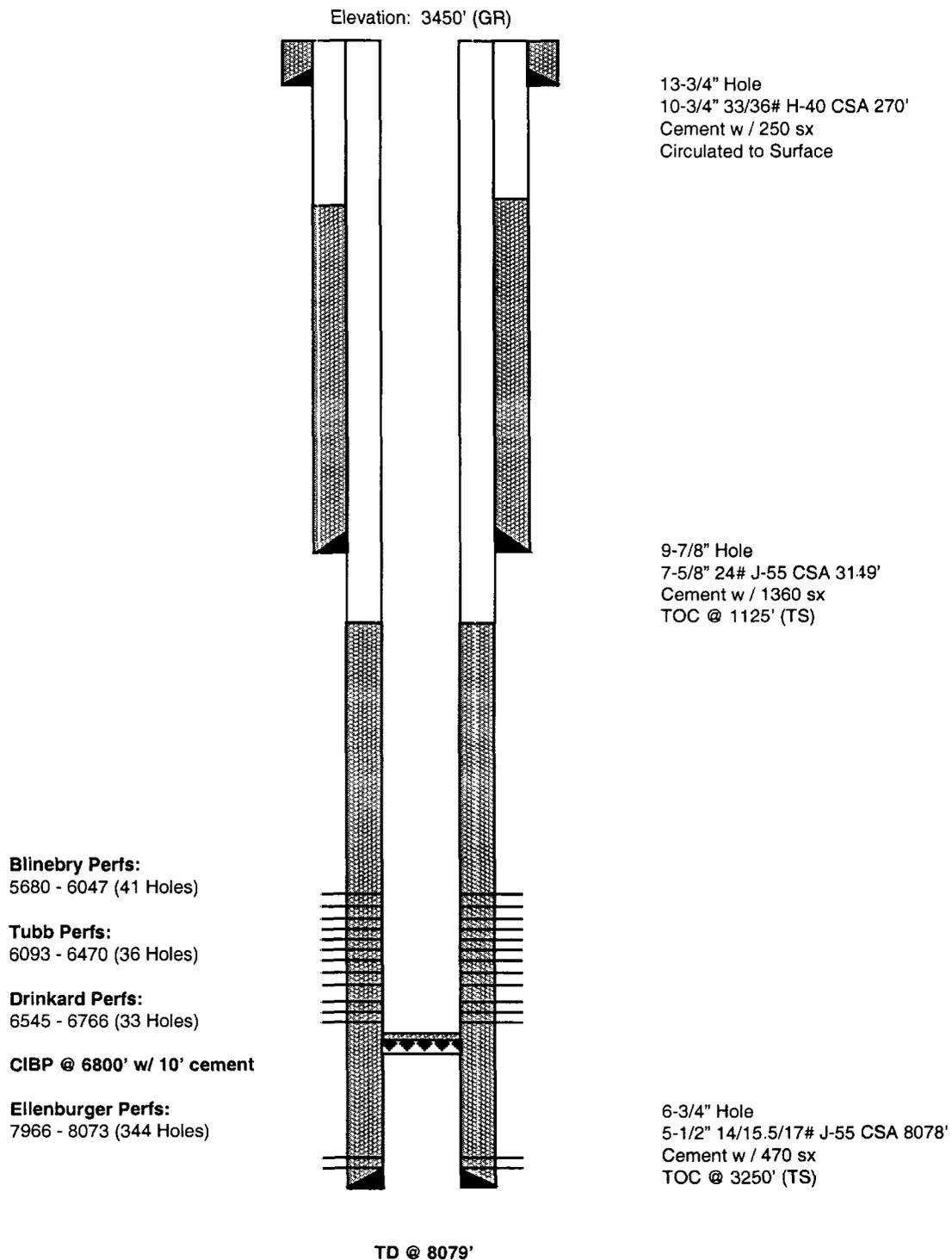
Well: Northeast Drinkard Unit # 404

Field: Eunice N. Blinebry-Tubb-Drinkard

Current Status: Active Oil

Location: 1980' FNL & 2310' FWL  
Unit F, Sec. 10, T21S, R37E  
Lea County, New Mexico

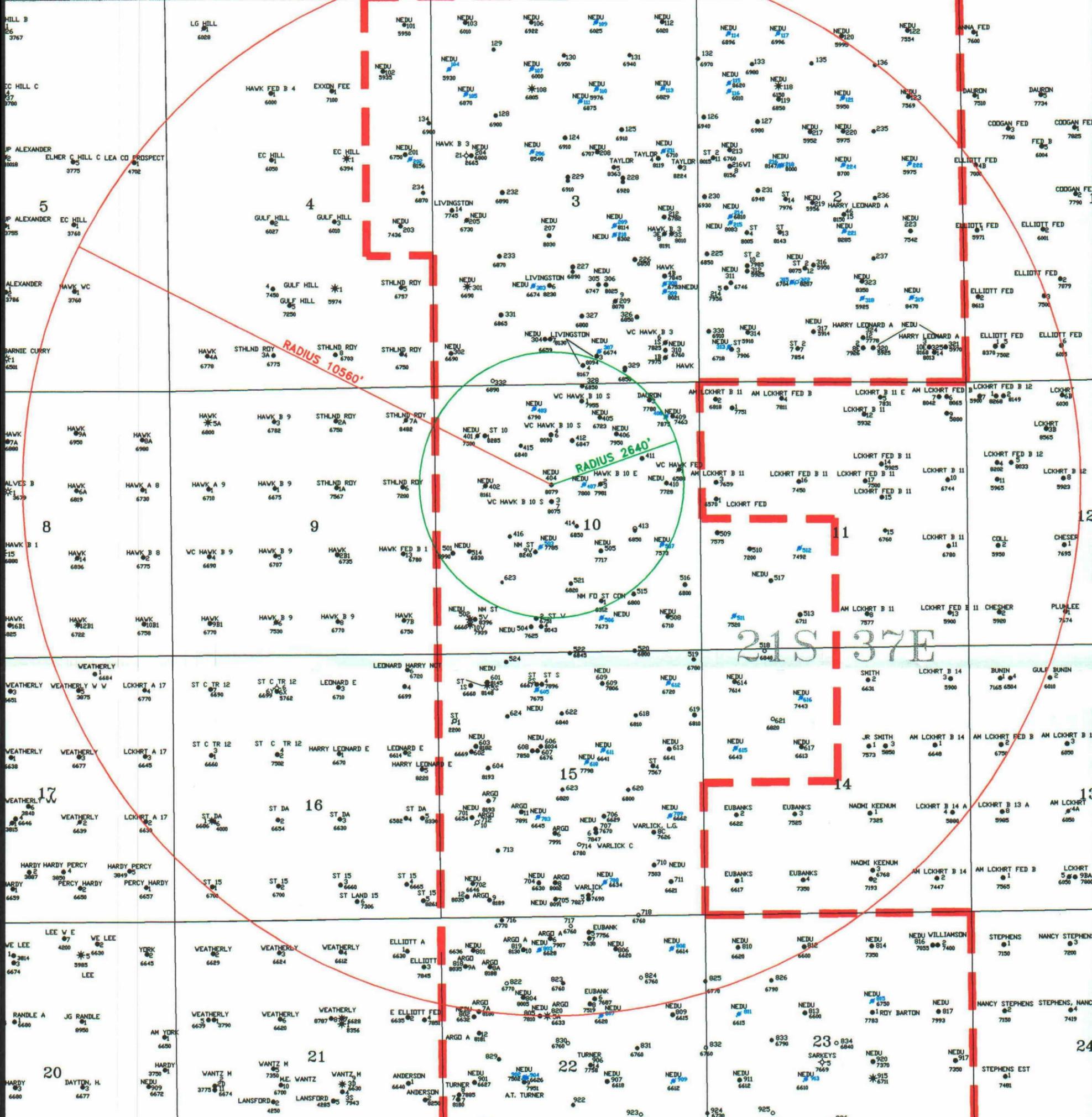
API #: 30-025-06454



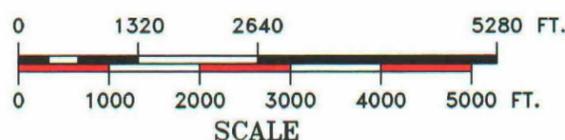
# NORTHEAST DRINKARD UNIT

20S 37E

21S 37E



- OIL PRODUCER
- \* GAS PRODUCER
- WATER INJECTION
- ▲ SALT WATER SOURCE
- ◇ DRY HOLE



## NEDU AREA LEA COUNTY, NEW MEXICO

### CONVERSIONS Injection Well Permitting Well #: 404

|                        |                   |                    |
|------------------------|-------------------|--------------------|
| DATE: 11/29/2000       | REVISED: 00/00/00 | GEOL.: B. USZYNSKI |
| J:\PER\NEDU\INJ404.DWG | DRAFTED BY: HGS   | LANDMAN: M. MORENO |

30 025-06453

|          |                           |                                 |   |           |            |            |
|----------|---------------------------|---------------------------------|---|-----------|------------|------------|
| OPERATOR | <u>Apache Corporation</u> | LEASE                           | <u>Northeast Drinkard Unit (formerly Hawk B-10 # 4)</u> |           |            |            |
| WELL NO. | <u>410</u>                | <u>1980' FNL &amp; 660' FEL</u> | <u>H</u>  | <u>10</u> | <u>21S</u> | <u>37E</u> |
|          |                           | FOOTAGE LOCATION                | UNIT  | SECTION   | TOWNSHIP   | RANGE      |

Well Construction Data

Surface Casing

Size 10-3/4 Cemented with 250 sx

TOC Surface feet determined by Circulation

Hole Size 13-3/4

Intermediate Casing

Size 7-5/8 Cemented with 1695 sx

TOC 550 feet determined by Temp Survey

Hole Size 9-7/8

Long String

Size 5-1/2 Cemented with 529 sx

TOC Surface feet determined by Circulation

Hole Size 6-3/4

Total Depth 7728

Injection Interval

5560 feet to 6720 feet **Perforated**  
 (perforated or open-hole; indicate which)

Tubing Size 2-3/8 lined with IPC set in a  
 (type of internal coating)  
5-1/2" Baker Lok-Set packer at 5460 feet

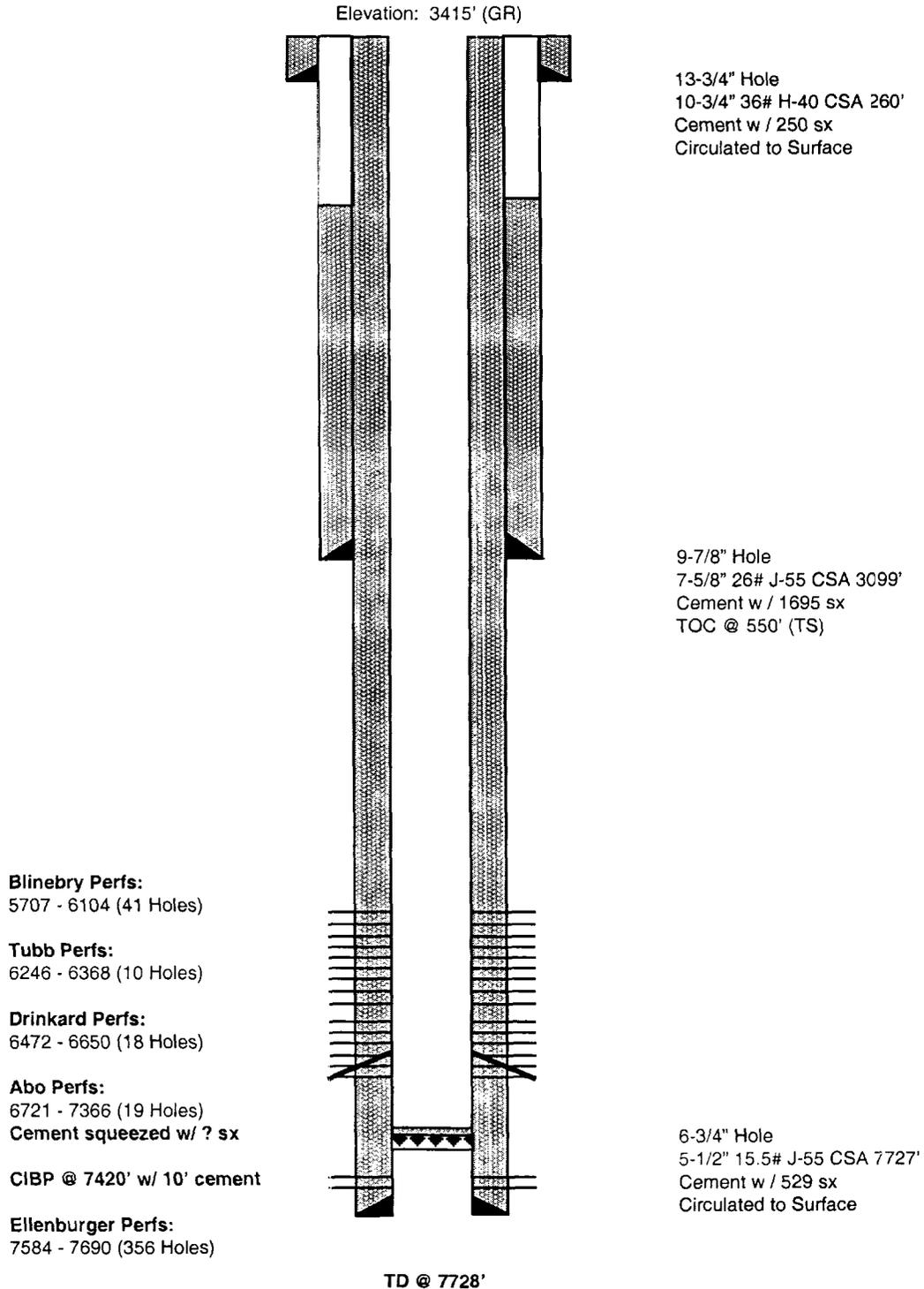
Other type of tubing / casing seal if applicable N/A

Other Data

- Is this a new well drilled for injection?  Yes  No  
 If no, for what purpose was the well originally drilled? Ellenburger Producer
- Name of the Injection formation Blinebry-Tubb-Drinkard
- Name of Field or Pool (if applicable) Eunice N., Blinebry-Tubb-Drinkard
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. Ellenburger 7584 - 7690 / CIBP @ 7420' w/ 10' cement / Abo 6721 - 7366 / Cement squeezed w/ ? Sx
- Give the names and depths of any over or underlying oil or gas zones (pools) in this area.  
See C-108 Attachment

Well: Northeast Drinkard Unit # 410  
Field: Eunice N. Blinebry-Tubb-Drinkard  
Location: 1980' FNL & 660' FEL  
Unit H, Sec. 10, T21S, R37E  
Lea County, New Mexico  
API #: 30-025-06453

Current Status: Active Oil



32

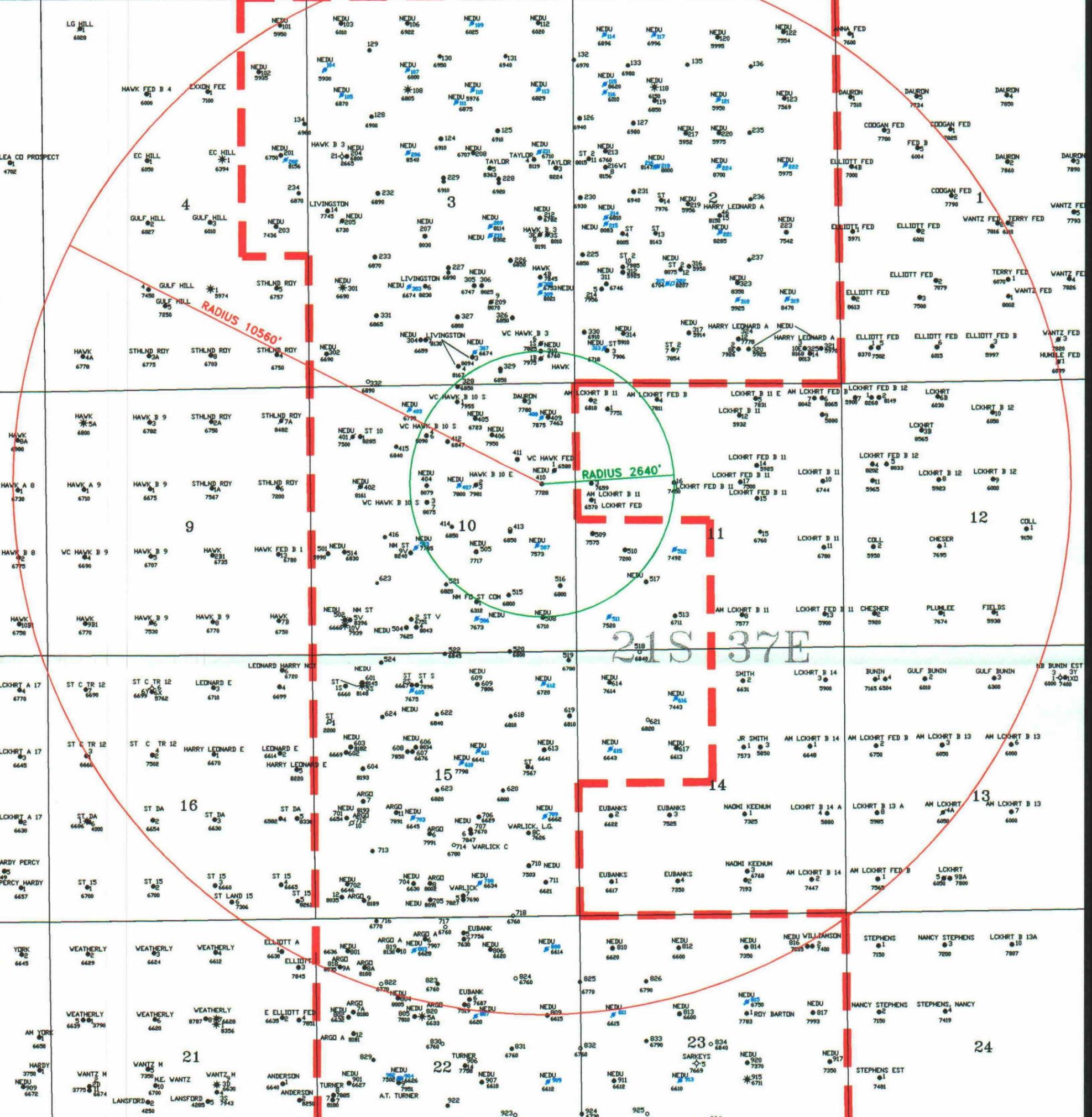
33

34

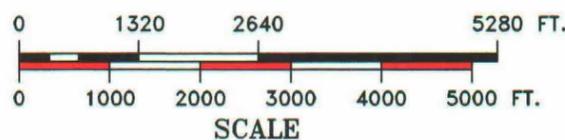
35

20S 37E

# NORTHEAST DRINKARD UNIT



- OIL PRODUCER
- \* GAS PRODUCER
- ▲ WATER INJECTION
- △ SALT WATER SOURCE
- ◇ DRY HOLE



**NEDU AREA**  
LEA COUNTY, NEW MEXICO

## CONVERSIONS

### Injection Well Permitting

Well #: 410

|                        |                   |                    |
|------------------------|-------------------|--------------------|
| DATE: 11/29/2000       | REVISED: 00/00/00 | GEOL : B. USZYNSKI |
| J:\PER\NEDU\INJ410.DWG | DRAFTED BY: HGS   | LANDMAN: M. MORENO |

AFFIDAVIT OF PUBLICATION

State of New Mexico,  
County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of 1 weeks.

Beginning with the issue dated

November 26 2000

and ending with the issue dated

November 26 2000

*Kathi Bearden*

Publisher

Sworn and subscribed to before

me this 27th day of

November 2000

*Jodi Benson*

Notary Public.

My Commission expires

October 18, 2004

(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

November 26, 2000

Notice is hereby given of the application of Apache Corporation, 2000 Post Oak Blvd., Ste. 100, Houston, TX 77056, (713) 296-6000, 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: Eunice, Blinebry-Tubb-Drinkard, North

All wells are located in Lea County, New Mexico

Lease/Unit Name: Northeast Drinkard Unit

Well No. 102 - (formerly Taylor Glenn # 7)

Location: 1582' FNL & 990' FEL, Section 4, T21S, R37E, Unit H

Well No. 103 - (formerly Hawk B-3 # 17)

Location: 660' FNL & 660' FWL, Section 3, T21S, R37E, Unit D

Well No. 106 - (formerly Hawk B-3 # 16)

Location: 660' FNL & 1980' FWL, Section 3, T21S, R37E, Unit C

Well No. 112 - (formerly Hawk B-3 # 14)

Location 660' FNL & 660' FEL, Section 3, T21S, R37E, Unit A

Well No. 122 (formerly Harry Leonard # 17)

Location: 897' FNL & 990' FEL, Section 2, T21S, R37E, Unit A

Well No. 123 (formerly Harry Leonard # 16)

Location: 2217' FNL & 989' FEL, Section 2, T21S, R37E, Unit H

Well No. 204 - (formerly Hawk B-3 # 22)

Location: 3300' FNL & 760' FWL, Section 3, T21S, R37E, Unit L

Well No. 207 - (formerly Livingston # 8)

Location: 2970' FSL & 2308' FWL, Section 3, T21S, R37E, Unit N

Well 223 - (formerly Harry Leonard # 11)

Location: 2970' FSL & 990' FEL, Section 2, T21S, R37E, Unit P

Well No. 304 - (formerly Livingston # 9)

Location: 915' FSL & 2208' FWL, Section 3, T21S, R37E, Unit V

Well No. 305 - (formerly Hawk B-3 # 12)

Location: 1980' FSL & 1980' FEL, Section 3, T21S, R37E, Unit R

Well No. 306 - (formerly Hawk B-3 # 5)

Location: 1980' FNL & 1830' FEL, Section 3, T21S, R37E, Unit R

Well No. 310 - (formerly Hawk B-3 # 13)

Location: 660' FSL 660' FEL, Section 3, T21S, R37E, Unit X

Well No. 311 - (formerly State 2 # 1)

Location: 1980' FSL & 660' FWL, Section 2, T21S, R37E, Unit T

Well No. 404 - (formerly Hawk B-10 # 2)

Location: 1980' FNL & 2310' FWL, Section 10, T21S, R37E, Unit F

Well No. 410 - (formerly Hawk B-10 # 4)

Location: 1980' FNL & 660' FEL, Section 10, T21S, R37E, Unit H

The injection formations are the Blinebry, Tubb and Drinkard located between the interval of 5450' MD to 7050' MD below the surface of the ground. Expected maximum injection rate is 2000 barrels per day and the expected maximum injection pressure is 1200 psi. Interested parties must file objections or requests for hearing with the Oil Conservation Division, 2040 S. Pacheco, Santa Fe, NM 87505 within fifteen days.

#17762

02102716000 02543116

Apache Corporation  
2000 Post Oak Boulevard Suite 100  
Houston, TX 77056-4400

**APPLICATION TO EXPAND WATERFLOOD  
NORTHEAST DRINKARD UNIT  
SURFACE OWNERS**

State of New Mexico  
Office of Land Commissioner  
P O Box 1148  
State Land Office Bldg.  
Santa Fe, New Mexico 87504-1148  
Certified Rcpt. # Z 116 149 401

Dora "B" Newson  
for Joe Taylor Et Al & RB Glenn  
c/o Florence Newson  
3383-C Punta-Alta  
Laguna Hills, California 92653  
Certified Rcpt. # Z 116 149 407

Bureau of Land Management  
2909 West 2nd Street  
Roswell, New Mexico 88201  
Certified Rcpt. # Z 116 149 402

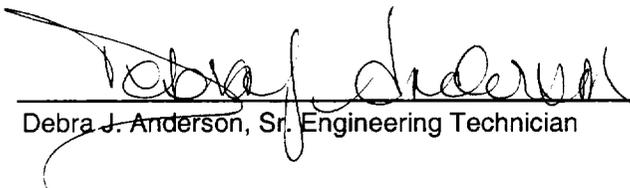
GP Sims  
P O Box 1046  
Eunice, New Mexico 88231  
Certified Rcpt. # Z 116 149 408

Farm & Ranch Ltd Ptn  
Robert McCasland  
P O Box 206  
Eunice, New Mexico 88231  
Certified Rcpt. # Z 116 149 403

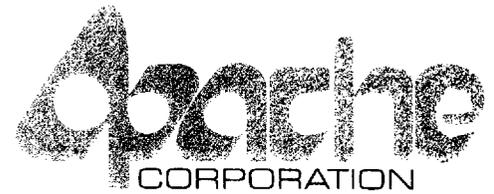
Will N. Terry Trust, et al  
c/o Page McNeill  
McNeill Ranch  
P O Box 1092  
Eunice, New Mexico 88240  
Certified Rcpt. # Z 116 149 409

William F McNeill Et Al  
c/o Page McNeill  
McNeill Ranch  
P O Box 1092  
Eunice, New Mexico 88240  
Certified Rcpt. # Z 116 149 404

A copy of the application to expand the Northeast Drinkard Waterflood was mailed to the Surface Land Owners listed above on April 12, 2001.

  
Debra J. Anderson, Sr. Engineering Technician

4-12-01  
Date



April 12, 2001

**Surface Owner**

**Re: Application to Expand Waterflood Project  
Northeast Drinkard Unit  
Well No. 102, 103, 106, 112, 122, 123, 204, 207, 223,  
304, 305, 306, 310, 311, 404, 410  
Eunice N., Blinebry-Tubb-Drinkard  
Lea County, New Mexico**

Attached please find a copy of completed form C-108 with attachments on the above referenced wells, which Apache Corporation has filed with the New Mexico Oil Conservation Division.

Sincerely,

**APACHE CORPORATION**



Debra J. Anderson  
Sr. Engineering Technician

Attachments

cc: State of New Mexico  
Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**APPLICATION TO EXPAND WATERFLOOD  
NORTHEAST DRINKARD UNIT  
OFFSET OPERATORS**

Lewis B Burleson Inc.  
Box 2479  
Midland, Texas 79702  
Certified Rcpt. # Z 116 149 410

John H Hendrix Corporation  
Box 3040  
Midland, Texas 79702  
Certified Rcpt. # Z 116 149 417

Morexco Inc.  
1211 W Chisum Avenue  
Artesia, New Mexico 88211  
Certified Rcpt. # Z 116 149 424

Campbell & Hedrick  
Box 401  
Midland, Texas 79701  
Certified Rcpt. # Z 116 149 411

Lynx Petroleum Consultants Inc.  
Box 1708  
Hobbs, New Mexico 88241-1708  
Certified Rcpt. # Z 116 149 418

Permian Resources Inc.  
608 N Main Street, Suite 200  
Midland, Texas 79702  
Certified Rcpt. # Z 116 149 425

Chevron USA Inc  
Box 688  
Eunice, New Mexico 88231  
Certified Rcpt. # Z 116 149 412

Marathon Oil Company  
Box 2409  
Hobbs, New Mexico 88240  
Certified Rcpt. # Z 116 149 419

SDX Resources Inc.  
511 W Ohio Avenue, Suite 601  
Midland, Texas 79704  
Certified Rcpt. # Z 116 149 426

J R Cone  
Box 10217  
Lubbock, Texas 79408  
Certified Rcpt. # Z 116 149 413

Mayne & Mertz Inc.  
Box 183  
Midland, Texas 79702  
Certified Rcpt. # Z 116 149 420

Stephens & Johnson Oper. Co.  
Box 2249  
Wichita Falls, Texas 76307-2249  
Certified Rcpt. # Z 116 149 427

Conoco Inc  
10 Desta Drive, Ste. 100W  
Midland, Texas 79705  
Certified Rcpt. # Z 116 149 414

Mewbourne Oil Company  
Box 5270  
Hobbs, New Mexico 88241  
Certified Rcpt. # Z 116 149 421

Texaco Expl & Prod Inc.  
Hobbs Operating Unit  
P O Box 3109  
Midland, Texas 79702  
Certified Rcpt. # Z 116 149 428

Exxon Company USA  
Box 1600  
Midland, Texas 79702  
Certified Rcpt. # Z 116 149 415

MGM Oil & Gas Company  
P O Box 891  
Midland, Texas 79702  
Certified Rcpt. # Z 116 149 422

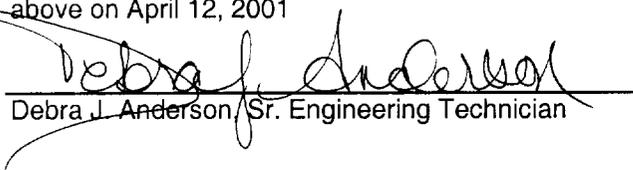
Xeric Oil & Gas Corporation  
201 W Wall, Suite 700  
Midland, Texas 79702  
Certified Rcpt. # Z 116 149 431

Gruy Petroleum Management  
600 E Las Colinas Blvd., Ste1200  
Irving, Texas 75014-0907  
Certified Rcpt. # Z 116 149 416

Mirage Energy Inc.  
7915 N Llewelyn  
Hobbs, New Mexico 88242  
Certified Rcpt. # Z 116 149 423

Zia Energy Inc.  
Box 2510  
Hobbs, New Mexico 88241-2510  
Certified Rcpt. # Z 116 149 432

A copy of the application to expand the Northeast Drinkard Waterflood was mailed to the Offset Operators listed above on April 12, 2001

  
Debra J. Anderson, Sr. Engineering Technician

4-12-01  
Date

April 12, 2001

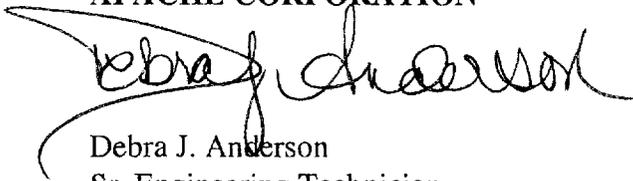
**Offset Operator**

**Re: Application to Expand Waterflood Project  
Northeast Drinkard Unit  
Well No. 102, 103, 106, 112, 122, 123, 204, 207, 223,  
304, 305, 306, 310, 311, 404, 410  
Eunice N., Blinebry-Tubb-Drinkard  
Lea County, New Mexico**

Attached please find a copy of completed form C-108 with attachments and a plat of Apache Corporation's lease, which we have filed with the New Mexico Oil Conservation Division. The plat shows the referenced wells in relation to your offset operations.

Sincerely,

**APACHE CORPORATION**



Debra J. Anderson  
Sr. Engineering Technician

Attachments

cc: State of New Mexico  
Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

AREA OF REVIEW / WELL DATA

| WELL NAME                             | API NO.      | S / T / R  | LOCATION          | WELL TYPE | COMP DATE | TD   | SURFACE CASING |        |      | INTERMEDIATE CASING |        |       | PRODUCTION CASING |      |       | HOLE LINER | DEPTH | CMT  | TOC      |
|---------------------------------------|--------------|------------|-------------------|-----------|-----------|------|----------------|--------|------|---------------------|--------|-------|-------------------|------|-------|------------|-------|------|----------|
|                                       |              |            |                   |           |           |      | HOLE           | CSG    | SET  | CMT                 | HOLE   | CSG   | SET               | CMT  | HOLE  |            |       |      |          |
| Peter State # 1                       | 30-025-27048 | 32/20S/38E | 660 FSL-1980 FEL  | O         | 12/23/80  | 7097 | 12-1/4         | 8-5/8  | 1406 | 725                 |        |       |                   |      | 7-7/8 | 5-1/2      | 7097  | 2250 | 0 (C)    |
| DeKalb State # 1                      | 30-025-07871 | 32/20S/38E | 660 FSL-660 FEL   | O         | 7/13/54   | 5935 | 17-1/2         | 13-3/8 | 265  | 250                 | 12-1/4 | 9-5/8 | 2900              | 250  | 7-7/8 | 5-1/2      | 5935  | 200  | 4792 (C) |
| Warren Unit # 15                      | 30-025-07875 | 33/20S/38E | 660 FSL-660 FEL   | O         | 3/26/55   | 6050 | 13-3/4         | 10-3/4 | 249  | 250                 | 9-7/8  | 7-5/8 | 3049              | 1150 | 6-3/4 | 5-1/2      | 6048  | 680  | 0 (C)    |
| Warren Unit # 16                      | 30-025-07876 | 33/20S/38E | 660 FSL-1980 FEL  | O         | 5/15/55   | 6050 | 13-3/4         | 10-3/4 | 274  | 250                 | 9-7/8  | 7-5/8 | 3049              | 1111 | 6-3/4 | 5-1/2      | 6049  | 541  | 0 (C)    |
| Warren Unit # 76                      | 30-025-26313 | 33/20S/38E | 1980 FSL-1980 FEL | O         | 7/21/79   | 6100 | 12-1/4         | 8-5/8  | 1425 | 700                 |        |       |                   |      | 7-7/8 | 5-1/2      | 6150  | 1693 | 0 (C)    |
| Warren Unit # 93                      | 30-025-27584 | 33/20S/38E | 660 FSL-1980 FEL  | O         | 6/24/82   | 7000 | 12-1/4         | 9-5/8  | 1400 | 525                 |        |       |                   |      | 8-3/4 | 7          | 6995  | 1192 | 0 (C)    |
| Warren Unit # 202                     | 30-025-33624 | 33/20S/38E | 1330 FSL-1310 FWL | O         | 2/11/97   | 6800 | 12-1/4         | 8-5/8  | 1505 | 700                 |        |       |                   |      | 7-7/8 | 5-1/2      | 6800  | 1305 | 0 (C)    |
| Warren Unit # 12                      | 30-025-07880 | 34/20S/38E | 660 FSL-1980 FWL  | O         | 10/31/54  | 6198 | 13-3/4         | 10-3/4 | 252  | 250                 | 9-7/8  | 7-5/8 | 3049              | 1120 | 6-3/4 | 5-1/2      | 6197  | 415  | 1278 (C) |
| Warren Unit # 13                      | 30-025-07881 | 34/20S/38E | 660 FSL-1980 FEL  | O         | 11/30/54  | 6050 | 13-3/4         | 10-3/4 | 284  | 250                 | 9-7/8  | 7-5/8 | 3087              | 1255 | 6-3/4 | 5-1/2      | 6049  | 466  | 525 (C)  |
| Warren Unit # 14                      | 30-025-07889 | 34/20S/38E | 660 FSL-660 FWL   | O         | 1/26/55   | 6020 | 13-3/4         | 10-3/4 | 256  | 250                 | 9-7/8  | 7-5/8 | 3051              | 1150 | 6-3/4 | 5-1/2      | 6019  | 336  | 2036 (C) |
| Warren Unit # 18                      | 30-025-07883 | 34/20S/38E | 1980 FSL-660 FWL  | O         | 9/30/55   | 6008 | 17-1/2         | 13-3/8 | 263  | 250                 | 12-1/4 | 9-5/8 | 3049              | 954  | 8-3/4 | 7          | 6007  | 540  | 2451 (C) |
| Warren Unit # 203                     | 30-025-32995 | 34/20S/38E | 1330 FSL-10 FWL   | O         | 10/3/95   | 6982 | 12-1/4         | 8-5/8  | 1510 | 920                 |        |       |                   |      | 7-7/8 | 5-1/2      | 6982  | 1325 | 0 (C)    |
| Warren Unit # 204                     | 30-025-33640 | 34/20S/38E | 1330 FSL-1330 FWL | O         | 2/10/97   | 6750 | 12-1/4         | 8-5/8  | 1490 | 650                 |        |       |                   |      | 7-7/8 | 5-1/2      | 6750  | 1205 | 0 (C)    |
| Anna Federal # 1                      | 30-025-23355 | 1/21S/37E  | 990 FNL-330 FWL   | O         | 1/17/70   | 7600 | 12-1/4         | 9-5/8  | 808  | 300                 |        |       |                   |      | 8-3/4 | 7          | 7593  | 750  | 2654 (C) |
| Coogan Federal # 3                    | 30-025-30640 | 1/21S/37E  | 2875 FNL-990 FWL  | O         | 8/25/89   | 7780 | 12-1/4         | 8-5/8  | 1560 | 600                 |        |       |                   |      | 7-7/8 | 5-1/2      | 7780  | 1275 | 494 (C)  |
| Dauron # 1                            | 30-025-06338 | 1/21S/37E  | 2214 FNL-330 FWL  | O         | 2/15/55   | 5960 | 13-3/4         | 10-3/4 | 224  | 200                 | 9-7/8  | 7-5/8 | 3045              | 1100 | 6-3/4 | 5-1/2      | 5935  | 200  | 3564 (C) |
| Dauron # 5                            | 30-025-30835 | 1/21S/37E  | 2214 FNL-1650 FWL | O         | 6/15/90   | 5774 | 12-1/4         | 8-5/8  | 1650 | 345                 |        |       |                   |      | 6-3/4 | 5-1/2      | 7726  | 1300 | 298 (C)  |
| Elliott Federal B # 1                 | 30-025-06326 | 1/21S/37E  | 2970 FSL-330 FWL  | O         | 7/30/54   | 5931 | 13-3/4         | 10-3/4 | 277  | 200                 | 9-7/8  | 7-5/8 | 3145              | 530  | 6-3/4 | 5-1/2      | 5880  | 350  | 1731 (C) |
| Elliott Federal B # 2                 | 30-025-06326 | 1/21S/37E  | 2970 FSL-1650 FWL | O         | 10/8/54   | 6001 | 13-3/4         | 10-3/4 | 218  | 250                 | 9-7/8  | 7-5/8 | 3087              | 1150 | 6-3/4 | 5-1/2      | 5885  | 350  | 1736 (C) |
| Elliott Federal B # 4                 | 30-025-06328 | 1/21S/37E  | 3630 FNL-330 FWL  | O         | 12/13/54  | 7000 | 12-1/4         | 8-5/8  | 1029 | 1300                |        |       |                   |      | 7-7/8 | 5-1/2      | 5890  | 500  | 3033 (C) |
| Elliott Federal # 1                   | 30-025-06332 | 1/21S/37E  | 1650 FSL-330 FWL  | O         | 3/3/52    | 8613 | 17-1/2         | 13-3/8 | 240  | 225                 | 11     | 8-5/8 | 3157              | 1500 | 7-7/8 | 5-1/2      | 7370  | 525  | 5074 (C) |
| NEDU # 114 (State # 6)                | 30-025-06344 | 2/21S/37E  | 906 FNL-660 FWL   | WI        | 5/5/54    | 6896 | 17-1/2         | 13-3/8 | 208  | 240                 | 11     | 8-5/8 | 3008              | 1750 | 7-7/8 | 5-1/2      | 6030  | 250  | 4780 (T) |
| NEDU # 115 (State # 2)                | 30-025-06340 | 2/21S/37E  | 1896 FNL-660 FWL  | WI        | 8/3/51    | 8620 | 17-1/2         | 13-3/8 | 152  | 165                 | 12-1/4 | 9-5/8 | 3005              | 1600 | 7-7/8 | 5-1/2      | 8500  | 550  | 4255 (T) |
| NEDU # 116 (State # 8)                | 30-025-06346 | 2/21S/37E  | 5790 FSL-660 FWL  | WI        | 1/26/56   | 6010 | 17-1/2         | 13-3/8 | 218  | 200                 | 11     | 8-5/8 | 3092              | 2100 | 7-7/8 | 5-1/2      | 6010  | 210  | 4200 (T) |
| NEDU # 117 (State # 7)                | 30-025-06345 | 2/21S/37E  | 921 FNL-1650 FWL  | WI        | 6/23/54   | 6996 | 17-1/2         | 13-3/8 | 215  | 245                 | 11     | 8-5/8 | 3030              | 2100 | 7-7/8 | 5-1/2      | 6030  | 200  | 4930 (T) |
| NEDU # 118 (State # 9)                | 30-025-06347 | 2/21S/37E  | 1973 FNL-1650 FWL | O         | 7/16/62   | 6150 | 17-1/2         | 13-3/8 | 326  | 335                 |        |       |                   |      | 7-7/8 | 4-1/2      | 5682  | 570  | 2560 (T) |
| NEDU # 119 (State # 5)                | 30-025-06343 | 2/21S/37E  | 5610 FSL-1650 FWL | O         | 7/20/53   | 6850 | 17-1/2         | 13-3/8 | 200  | 225                 | 11     | 8-5/8 | 3015              | 1650 | 7-7/8 | 5-1/2      | 5980  | 225  | 4715 (T) |
| NEDU # 120 (Harry Leonard NCT-F # 13) | 30-025-06357 | 2/21S/37E  | 990 FNL-2310 FEL  | O         | 8/29/54   | 5995 | 17-1/2         | 13-3/8 | 318  | 425                 | 11     | 8-5/8 | 3099              | 2025 | 7-7/8 | 5-1/2      | 5879  | 670  | 2760 (T) |
| NEDU # 121 (Harry Leonard NCT-F # 10) | 30-025-06354 | 2/21S/37E  | 2220 FNL-2307 FEL | WI        | 5/6/54    | 5950 | 17-1/2         | 13-3/8 | 375  | 425                 | 11     | 8-5/8 | 3021              | 1550 | 7-7/8 | 5-1/2      | 5844  | 560  | 3100 (T) |
| NEDU # 126                            | 30-025-34415 | 2/21S/37E  | 2500 FNL-130 FWL  | O         | 9/25/98   | 6940 | 11             | 8-5/8  | 1396 | 410                 |        |       |                   |      | 7-7/8 | 5-1/2      | 6940  | 1350 | Surface  |
| NEDU # 127                            | 30-025-34426 | 2/21S/37E  | 2600 FNL-1200 FWL | O         | 10/14/98  | 6980 | 11             | 8-5/8  | 1390 | 410                 |        |       |                   |      | 7-7/8 | 5-1/2      | 6980  | 1200 | Surface  |
| NEDU # 132                            | 30-025-34601 | 2/21S/37E  | 1339 FNL-130 FWL  | O         | 7/24/99   | 6970 | 12-1/4         | 8-5/8  | 1323 | 380                 |        |       |                   |      | 7-7/8 | 5-1/2      | 6970  | 1250 | Surface  |
| NEDU # 133                            | 30-025-34600 | 2/21S/37E  | 1458 FNL-1098 FWL | O         | 8/1/99    | 6980 | 12-1/4         | 8-5/8  | 1333 | 460                 |        |       |                   |      | 7-7/8 | 5-1/2      | 6980  | 1660 | Surface  |
| NEDU # 135                            | 30-025-34796 | 2/21S/37E  | 1450 FNL-2280 FWL | O         | 2/27/00   | 6610 | 12-1/4         | 8-5/8  | 1273 | 460                 |        |       |                   |      | 7-7/8 | 5-1/2      | 6610  | 1300 | Surface  |
| NEDU # 136                            | 30-025-34882 | 2/21S/37E  | 1450 FNL-1700 FEL | O         | 8/8/00    | 6370 | 12-1/4         | 8-5/8  | 1365 | 460                 |        |       |                   |      | 7-7/8 | 5-1/2      | 6370  | 1275 | Surface  |
| NEDU # 213 (State Sec 2 # 2)          | 30-025-06368 | 2/21S/37E  | 4620 FSL-660 FWL  | O         | 12/5/49   | 6760 | 17-1/2         | 13-3/8 | 224  | 300                 | 11     | 8-5/8 | 2936              | 2200 | 7-7/8 | 5-1/2      | 6660  | 600  | 3610 (T) |
| NEDU # 214 (State # 1)                | 30-025-06491 | 2/21S/37E  | 3300 FSL-660 FWL  | WI        | 6/25/49   | 6810 | 17-1/2         | 13-3/8 | 145  | 150                 | 12-1/4 | 9-5/8 | 2939              | 1600 | 8-3/4 | 7          | 6810  | 600  | 1970 (T) |
| NEDU # 215 (State # 3)                | 30-025-06341 | 2/21S/37E  | 3175 FSL-660 FWL  | WI        | 4/19/51   | 8083 | 17-1/2         | 13-3/8 | 240  | 200                 | 11     | 8-5/8 | 3000              | 1800 | 7-7/8 | 5-1/2      | 8010  | 550  | 4060 (T) |
| NEDU # 216 (State # 15)               | 30-025-06483 | 2/21S/37E  | 3546 FNL-1650 FWL | WI        | 7/28/52   | 8147 | 17-1/2         | 13-3/8 | 223  | 250                 | 11     | 8-5/8 | 3148              | 1600 |       |            |       |      |          |
| NEDU # 217 (State # 17)               | 30-025-06485 | 2/21S/37E  | 2886 FNL-2970 FEL | O         | 7/15/54   | 5952 | 17-1/2         | 13-3/8 | 250  | 250                 | 11     | 8-5/8 | 3127              | 1500 | 7-7/8 | 5-1/2      | 5816  | 100  | 5245 (C) |
| NEDU # 218 (State # 16)               | 30-025-06484 | 2/21S/37E  | 3546 FNL-1700 FWL | WI        | 9/17/55   | 8000 | 17-1/2         | 13-3/8 | 222  | 250                 | 11     | 8-5/8 | 3150              | 1800 |       |            |       |      |          |
| NEDU # 219 (State # 18)               | 30-025-06486 | 2/21S/37E  | 3550 FSL-2300 FWL | O         | 3/17/52   | 5956 | 17-1/2         | 13-3/8 | 256  | 250                 | 11     | 8-5/8 | 3108              | 1600 | 7-7/8 | 5-1/2      | 5955  | 200  | 4812 (C) |
| NEDU # 220 (Harry Leonard NCT-F # 14) | 30-025-06358 | 2/21S/37E  | 2886 FNL-2307 FEL | O         | 9/30/54   | 5975 | 17-1/2         | 13-3/8 | 330  | 350                 | 11     | 8-5/8 | 3548              | 1500 | 7-7/8 | 5-1/2      | 5829  | 500  | 2727 (T) |
| NEDU # 221 (Harry Leonard NCT-F # 6)  | 30-025-06350 | 2/21S/37E  | 2982 FSL-2317 FEL | WI        | 3/18/53   | 8285 | 17-1/2         | 13-3/8 | 271  | 300                 | 11     | 8-5/8 | 2498              | 1700 | 7-7/8 | 5-1/2      | 8285  | 675  | 4085 (T) |
| NEDU # 222 (Harry Leonard # 12)       | 30-025-06356 | 2/21S/37E  | 3534 FNL-990 FEL  | WI        | 8/2/54    | 5975 | 17-1/2         | 13-3/8 | 332  | 450                 | 11     | 8-5/8 | 3039              | 1900 | 7-7/8 | 5-1/2      | 5859  | 475  | 2480 (T) |
| NEDU # 224 (Harry Leonard # 7)        | 30-025-06351 | 2/21S/37E  | 4303 FSL-2317 FEL | WI        | 4/20/53   | 8700 | 17-1/2         | 13-3/8 | 299  | 350                 | 12-1/4 | 9-5/8 | 2999              | 1350 | 7-7/8 | 5-1/2      | 8280  | 700  | 3750 (T) |
| NEDU # 225                            | 30-025-34249 | 2/21S/37E  | 2540 FSL-175 FWL  | O         | 6/3/98    | 6850 | 11             | 8-5/8  | 1402 | 410                 |        |       |                   |      | 7-7/8 | 5-1/2      | 6850  | 2250 | Surface  |

46 - A 1 - PA



AREA OF REVIEW / WELL DATA

6,950' 600SX

| WELL NAME                     | API NO.      | S / T / R | LOCATION          | WELL TYPE | COMP DATE | TD                                | SURFACE CASING                    |        |         | INTERMEDIATE CASING |        |         | PRODUCTION CASING |        |         | LINER |                               |       |          |     |
|-------------------------------|--------------|-----------|-------------------|-----------|-----------|-----------------------------------|-----------------------------------|--------|---------|---------------------|--------|---------|-------------------|--------|---------|-------|-------------------------------|-------|----------|-----|
|                               |              |           |                   |           |           |                                   | HOLE                              | CSG    | SET CMT | HOLE                | CSG    | SET CMT | HOLE              | CSG    | SET CMT | TOC   | HOLE LINER                    | DEPTH | CMT      | TOC |
| NEDU # 130                    | 30-025-34617 | 3/21S/37E | 1254 FNL-2625 FWL | O         | 8/1/99    | 6950                              | 12-1/4                            | 8-5/8  | 1365    | 460                 |        |         | 7-7/8             | 5-1/2  | 0       | 1400  | Surface                       |       |          |     |
| NEDU # 131                    | 30-025-34609 | 3/21S/37E | 1253 FNL-1244 FEL | O         | 8/20/99   | 6990                              | 12-1/4                            | 8-5/8  | 1365    | 460                 |        |         | 7-7/8             | 5-1/2  | 6990    | 1525  | Surface                       |       |          |     |
| NEDU # 205 (Livingston # 11)  | 30-025-06521 | 3/21S/37E | 3300 FSL-660 FWL  | WI        | 1/1/02    | 6730                              | 12-1/4                            | 9-5/8  | 271     | 250                 |        |         | 8-3/4             | 2-7/8* | 6724    | 635   | *Triple-Tubingless Completion |       |          |     |
| NEDU # 206 (Taylor Glenn # 1) | 30-025-06522 | 3/21S/37E | 3226 FNL-1980 FWL | WI        | 3/1/48    | 8590                              | 17-1/2                            | 13-3/8 | 301     | 250                 | 11     | 8-5/8   | 3879              | 3000   | 7-7/8   | 5-1/2 | 8060                          | 675   | 2915 (T) |     |
| NEDU # 208 (Taylor Glenn # 6) | 30-025-06385 | 3/21S/37E | 4620 FSL-1979 FEL | O         | 8/28/82   | 6707                              | 17-1/2                            | 13-3/8 | 225     | 250                 | 11     | 8-5/8   | 3147              | 2000   |         |       |                               |       |          |     |
| NEDU # 209 (Hawk B-3 # 2)     | 30-025-06508 | 3/21S/37E | 3150 FSL-1650 FEL | WI        | 1/29/83   | 8114                              | 17-1/2                            | 13-3/8 | 250     | 250                 | 12-1/4 | 9-5/8   | 3133              | 1300   | 8-3/4   | 7     | 8113                          | 900   | 2950 (T) |     |
| NEDU # 210 (Hawk B-3 # 5)     | 30-025-06502 | 3/21S/37E | 2970 FSL-1650 FEL | WI        | 10/16/82  | 8302                              | 17-1/2                            | 13-3/8 | 269     | 260                 | 12-1/4 | 9-5/8   | 3149              | 1300   | 8-3/4   | 7     | 8301                          | 940   | 3125 (T) |     |
| NEDU # 211 (Taylor Glenn # 2) | 30-025-06381 | 3/21S/37E | 4620 FSL-660 FEL  | WI        | 2/10/80   | 6710                              | 17-1/2                            | 13-3/8 | 222     | 300                 | 11     | 8-5/8   | 2920              | 2200   | 7-7/8   | 5-1/2 | 6665                          | 600   | 3236 (C) |     |
| NEDU # 212 (Hawk B-3 # 1)     | 30-025-06492 | 3/21S/37E | 3300 FSL-660 FEL  | O         | 11/10/49  | 6782                              | 17-1/2                            | 13-3/8 | 222     | 250                 | 12-1/4 | 9-5/8   | 2819              | 650    | 8-3/4   | 7     | 6781                          | 675   | 3272 (T) |     |
| NEDU # 226                    | 30-025-34380 | 3/21S/37E | 2449 FSL-1266 FEL | O         | 7/18/98   | 6850                              | 11                                | 8-5/8  | 1370    | 410                 |        |         | 7-7/8             | 5-1/2  | 6850    | 1200  | Surface                       |       |          |     |
| NEDU # 227                    | 30-025-34428 | 3/21S/37E | 2225 FSL-2507 FEL | O         | 12/6/98   | 6890                              | 11                                | 8-5/8  | 1310    | 410                 |        |         | 7-7/8             | 5-1/2  | 6890    | 1315  | Surface                       |       |          |     |
| NEDU # 228                    | 30-025-34427 | 3/21S/37E | 3768 FNL-1493 FEL | O         | 12/4/98   | 6920                              | 11                                | 8-5/8  | 1311    | 410                 |        |         | 7-7/8             | 5-1/2  | 6920    | 1200  | 180 (B)                       |       |          |     |
| NEDU # 229                    | 30-025-34429 | 3/21S/37E | 3730 FNL-2594 FEL | O         | 12/12/98  | 6910                              | 11                                | 8-5/8  | 1309    | 410                 |        |         | 7-7/8             | 5-1/2  | 6910    | 1325  | Surface                       |       |          |     |
| NEDU # 232                    | 30-025-34430 | 3/21S/37E | 3828 FSL-1397 FWL | O         | 11/8/98   | 6890                              | 11                                | 8-5/8  | 1302    | 410                 |        |         | 7-7/8             | 5-1/2  | 6890    | 1225  | Surface                       |       |          |     |
| NEDU # 233                    | 30-025-34431 | 3/21S/37E | 2562 FSL-1330 FWL | O         | 1/30/99   | 6870                              | 11                                | 8-5/8  | 1285    | 410                 |        |         | 7-7/8             | 5-1/2  | 6870    | 1300  | Surface                       |       |          |     |
| NEDU # 301 (JC Estack # 1)    | 30-025-06388 | 3/21S/37E | 1980 FSL-660 FWL  | O         | 4/12/80   | 6690                              | 17-1/2                            | 13-3/8 | 286     | 300                 | 11     | 8-5/8   | 2972              | 1800   | 7-7/8   | 5-1/2 | 6620                          | 200   | 2620 (T) |     |
| NEDU # 302 (Livingston # 5)   | 30-025-06516 | 3/21S/37E | 560 FSL-330 FWL   | O         | 2/27/82   | 6690                              | 17-1/2                            | 13-3/8 | 218     | 250                 | 11     | 8-5/8   | 3153              | 2200   |         |       |                               |       | 2943     |     |
| NEDU # 303 (Livingston # 1)   | 30-025-06512 | 3/21S/37E | 1980 FSL-1980 FWL | WI        | 11/14/49  | 6674                              | 17-1/2                            | 13-3/8 | 228     | 300                 | 11     | 8-5/8   | 2900              | 1800   | 7-7/8   | 5-1/2 | 6674                          | 600   | 3600 (T) |     |
| NEDU # 307 (Livingston # 2)   | 30-025-06513 | 3/21S/37E | 660 FSL-1980 FEL  | WI        | 3/24/50   | 6674                              | 17-1/2                            | 13-3/8 | 224     | 300                 | 11     | 8-5/8   | 3148              | 2200   | 7-7/8   | 5-1/2 | 6674                          | 600   | 3245 (C) |     |
| NEDU # 308 (Hawk B-3 # 11)    | 30-025-06494 | 3/21S/37E | 1980 FSL-660 FEL  | WI        | 12/17/49  | 6753                              | 17-1/2                            | 13-3/8 | 232     | 250                 | 12-1/4 | 9-5/8   | 2895              | 1000   | 8-3/4   | 7     | 6752                          | 625   | 2850 (T) |     |
| NEDU # 309 (Hawk B-3 # 7)     | 30-025-06499 | 3/21S/37E | 1830 FSL-660 FEL  | WI        | 5/9/51    | 8021                              | 13-3/4                            | 10-3/4 | 288     | 250                 | 9-7/8  | 7-5/8   | 3128              | 1000   | 6-3/4   | 5-1/2 | 8020                          | 550   | 2550 (T) |     |
| NEDU # 326                    | 30-025-34365 | 3/21S/37E | 1310 FSL-1233 FEL | O         | 11/5/98   | 6850                              | 11                                | 8-5/8  | 1370    | 410                 |        |         | 7-7/8             | 5-1/2  | 6850    | 1254  | Surface                       |       |          |     |
| NEDU # 327                    | 30-025-34366 | 3/21S/37E | 1348 FSL-2330 FEL | O         | 8/20/98   | 6800                              | 11                                | 8-5/8  | 1320    | 410                 |        |         | 7-7/8             | 5-1/2  | 6800    | 1230  | Surface                       |       |          |     |
| NEDU # 329                    | 30-025-34432 | 3/21S/37E | 249 FSL-1478 FEL  | O         | 10/28/98  | 6850                              | 11                                | 8-5/8  | 1350    | 410                 |        |         | 7-7/8             | 5-1/2  | 6850    | 1545  | Surface                       |       |          |     |
| NEDU # 331                    | 30-025-34433 | 3/21S/37E | 1400 FSL-1350 FWL | O         | 12/13/98  | 6865                              | 11                                | 8-5/8  | 1328    | 410                 |        |         | 7-7/8             | 5-1/2  | 6865    | 1450  | Surface                       |       |          |     |
| NEDU # 332                    | 30-025-34739 | 3/21S/37E | 140 FSL-1174 FWL  | O         | 4/1/00    | 6890                              | 12-1/4                            | 8-5/8  | 1305    | 460                 |        |         | 7-7/8             | 5-1/2  | 6890    | 1425  | Surface                       |       |          |     |
| Hawk B-3 # 1                  | 30-025-06498 | 3/21S/37E | 510 FSL-660 FEL   | WI        | 2/25/51   | 7975                              | 13-3/4                            | 10-3/4 | 259     | 250                 | 9-7/8  | 7-5/8   | 3149              | 1175   | 6-3/4   | 5-1/2 | 7974                          | 400   | 2275 (T) |     |
| Hawk B-3 # 3                  | 30-025-06505 | 3/21S/37E | 2970 FSL-510 FEL  | O         | 1/22/82   | 8010                              | 13-3/4                            | 10-3/4 | 265     | 250                 | 9-7/8  | 7-5/8   | 3149              | 1045   | 6-3/4   | 5-1/2 | 8009                          | 573   | 3500 (T) |     |
| Hawk B-3 # 4                  | 30-025-06504 | 3/21S/37E | 2130 FSL-660 FEL  | O         | 11/18/51  | 7845                              | 13-3/4                            | 10-3/4 | 265     | 250                 | 9-7/8  | 7-5/8   | 3115              | 942    | 6-3/4   | 5-1/2 | 7844                          | 520   | 3550 (T) |     |
| Hawk B-3 # 6                  | 30-025-06503 | 3/21S/37E | 810 FSL-660 FEL   | WI        | 10/11/51  | 7825                              | 13-3/4                            | 10-3/4 | 260     | 250                 | 9-7/8  | 7-5/8   | 3149              | 1420   | 6-3/4   | 5-1/2 | 7805                          | 625   | 3230 (T) |     |
| Hawk B-3 # 8                  | 30-025-06500 | 3/21S/37E | 2970 FSL-660 FEL  | WI        | 6/15/51   | 8191                              | 13-3/4                            | 10-3/4 | 265     | 250                 | 9-7/8  | 7-5/8   | 3149              | 1110   | 6-3/4   | 5-1/2 | 8187                          | 650   | 3115 (T) |     |
| Hawk B-3 # 9                  | 30-025-06501 | 3/21S/37E | 1650 FSL-1650 FEL | WI        | 11/29/51  | 8070                              | 13-3/4                            | 10-3/4 | 266     | 250                 | 9-7/8  | 7-5/8   | 3154              | 1335   | 6-3/4   | 5-1/2 | 8069                          | 700   | 3098 (T) |     |
| Hawk B-3 # 21                 | 30-025-06511 | 3/21S/37E | 3300 FNL-660 FWL  | WI        | 8/13/62   | 2665                              | DOES NOT PENETRATE INJECTION ZONE |        |         |                     |        |         |                   |        |         |       |                               |       |          |     |
| Livingston # 3                | 30-025-06514 | 3/21S/37E | 560 FSL-2030 FEL  | O         | 5/9/51    | 8094                              | 17-1/2                            | 13-3/8 | 223     | 250                 | 11     | 8-5/8   | 3147              | 2200   | 7-7/8   | 5-1/2 | 7968                          | 500   | 5100 (C) |     |
| Livingston # 4                | 30-025-06515 | 3/21S/37E | 380 FSL-2310 FEL  | WI        | 3/14/52   | 8167                              | 17-1/2                            | 13-3/8 | 151     | 200                 | 11     | 8-5/8   | 3147              | 2000   |         |       |                               |       | 2961     |     |
| Livingston # 6                | 30-025-06517 | 3/21S/37E | 1980 FSL-2308 FWL | O         | 8/1/52    | 8230                              | 17-1/2                            | 13-3/8 | 222     | 250                 | 11     | 8-5/8   | 3147              | 2200   |         |       |                               |       | 2944     |     |
| Livingston # 7                | 30-025-06518 | 3/21S/37E | 915 FSL-2308 FWL  | O         | 9/19/52   | 8130                              | 17-1/2                            | 13-3/8 | 222     | 250                 | 11     | 8-5/8   | 3142              | 2000   |         |       |                               |       | 3585 (T) |     |
| Livingston # 14               | 30-025-28671 | 3/21S/37E | 3500 FSL-367 FWL  | O         | 6/2/84    | 7745                              | 17-1/2                            | 13-3/8 | 481     | 475                 | 11     | 8-5/8   | 2470              | 1425   | 7-7/8   | 5-1/2 | 7745                          | 1295  | 364 (C)  |     |
| Livingston # 16               | 30-025-35225 | 3/21S/37E | 3240 FSL-1839 FWL | O         | 1/26/01   | 4500                              | DOES NOT PENETRATE INJECTION ZONE |        |         |                     |        |         |                   |        |         |       |                               |       |          |     |
| Livingston # 17               | 30-025-35226 | 3/21S/37E | 990 FSL-990 FWL   | O         | 2/1/01    | 4455                              | DOES NOT PENETRATE INJECTION ZONE |        |         |                     |        |         |                   |        |         |       |                               |       |          |     |
| Taylor Glenn # 3              | 30-025-06382 | 3/21S/37E | 3546 FNL-330 FEL  | O         | 1/10/52   | 8224                              | 17-1/2                            | 13-3/8 | 219     | 250                 | 11     | 8-5/8   | 3150              | 2000   |         |       |                               |       | 2960     |     |
| Taylor Glenn # 4              | 30-025-06383 | 3/21S/37E | 3376 FNL-764 FEL  | O         | 5/12/52   | 8119                              | 17-1/2                            | 13-3/8 | 200     | 250                 | 11     | 8-5/8   | 3147              | 2200   |         |       |                               |       | 2999     |     |
| Taylor Glenn # 5              | 30-025-06384 | 3/21S/37E | 3546 FNL-1650 FEL | O         | 10/25/52  | 8361                              | 17-1/2                            | 13-3/8 | 225     | 250                 | 11     | 8-5/8   | 3147              | 2200   |         |       |                               |       | 2943     |     |
| Taylor Glenn # 13             | 30-025-35352 | 3/21S/37E | 2310 FNL-990 FWL  | O         | 4/4/50    | DOES NOT PENETRATE INJECTION ZONE |                                   |        |         |                     |        |         |                   |        |         |       |                               |       |          |     |
| Taylor Glenn # 15             | 30-025-35354 | 3/21S/37E | 3448 FNL-1576 FWL | O         | 4/4/50    | DOES NOT PENETRATE INJECTION ZONE |                                   |        |         |                     |        |         |                   |        |         |       |                               |       |          |     |
| NEDU # 101 (Hawk B-3 # 23)    | 30-025-06390 | 4/21S/37E | 560 FNL-560 FEL   | O         | 6/8/57    | 5950                              | 13-3/4                            | 10-3/4 | 270     | 250                 | 12-1/4 | 9-5/8   | 3149              | 1100   | 7-7/8   | 5-1/2 | 5950                          | 400   | 3100 (T) |     |
| NEDU # 134                    | 30-025-34737 | 4/21S/37E | 2620 FNL-116 FEL  | O         | 2/13/00   | 6900                              | 12-1/4                            | 8-5/8  | 1315    | 460                 |        |         | 7-7/8             | 5-1/2  | 6900    | 1170  | 330 (B)                       |       |          |     |

351A

AREA OF REVIEW / WELL DATA

| WELL NAME                    | API NO.      | S / T / R  | LOCATION          | WELL TYPE | COMP DATE | TD                                | SURFACE CASING                    | INTERMEDIATE CASING    | PRODUCTION CASING      | LINER                         | TOC | CMT       | TOC      |  |
|------------------------------|--------------|------------|-------------------|-----------|-----------|-----------------------------------|-----------------------------------|------------------------|------------------------|-------------------------------|-----|-----------|----------|--|
|                              |              |            |                   |           |           |                                   | HOLE CSG SET CMT                  | HOLE CSG SET CMT       | HOLE CSG SET CMT       | HOLE LINER DEPTH              |     |           |          |  |
| NEDU # 201 (Livingston # 12) | 30-025-06399 | 4/21S/37E  | 4620 FSL-560 FEL  | O         | 6/12/62   | 6750                              | 12-1/4 9-5/8 308 250              |                        | 8-3/4 2-7/8* 6745 635  | *Triple-Tubingless Completion |     |           | 2200 (T) |  |
| NEDU # 202 (Livingston # 13) | 30-025-26990 | 4/21S/37E  | 3330 FNL-467 FEL  | WI        | 11/18/81  | 8156                              | 17-1/2 13-3/8 1190 935            | 12-1/4 9-5/8 3500 1200 | 8-3/4 7 8153 1720      | Surface                       |     |           |          |  |
| NEDU # 203 (Livingston # 10) | 30-025-06398 | 4/21S/37E  | 3200 FSL-660 FEL  | O         | 3/29/53   | 7436                              | 17-1/2 13-3/8 283 250             | 11 8-5/8 3151 2300     | 7-7/8 5-1/2 7435 550   | 4255 (T)                      |     |           |          |  |
| NEDU # 234                   | 30-025-34738 | 4/21S/37E  | 3810 FSL-200 FEL  | O         | 2/13/00   | 6900                              | 12-1/4 8-5/8 1275 460             |                        | 7-7/8 5-1/2 6900 1740  | Surface                       |     |           |          |  |
| Livingston # 15              | 30-025-36224 | 4/21S/37E  | 3196 FSL-426 FEL  | O         | 2/6/01    | 4482                              | DOES NOT PENETRATE INJECTION ZONE |                        |                        |                               |     |           |          |  |
| Livingston # 19              | 30-025-35341 | 4/21S/37E  | 3630 FNL-810 FEL  | O         | 2/28/01   | 4450                              | DOES NOT PENETRATE INJECTION ZONE |                        |                        |                               |     |           |          |  |
| Taylor Glenn # 12            | 30-025-35351 | 4/21S/37E  | 2310 FNL-810 FEL  | O         | 4200      | DOES NOT PENETRATE INJECTION ZONE |                                   |                        |                        |                               |     |           |          |  |
| Exxon Fee # 1                | 30-025-33439 | 4/21S/37E  | 1911 FNL-1980 FEL | O         | 8/29/96   | 7100                              | 11 8-5/8 1245 750                 |                        | 7-7/8 5-1/2 7100 1200  | 243 (C)                       |     |           |          |  |
| Hawk B-4 # 1                 | 30-025-06391 | 4/21S/37E  | 1980 FNL-1980 FWL | O         | 12/4/55   | 6000                              | 13-3/4 10-3/4 231 250             | 9-7/8 7-5/8 3003 895   | 6-3/4 5-1/2 5998 418   | 1043 (C)                      |     |           |          |  |
| EC Hill # 1                  | 30-025-06394 | 4/21S/37E  | 3300 FNL-1730 FEL | O         | 8/27/54   | 6394                              | 17-1/2 13-3/8 265 250             | 12-1/4 9-5/8 2935 200  | 7-7/8 5-1/2 6394 800   | 1823 (C)                      |     |           |          |  |
| NEDU #328                    | 30-025-34367 | 10/21S/37E | 42 FNL-2334 FEL   | O         | 7/20/98   | 6850                              | 11 8-5/8 1365 410                 |                        | 7-7/8 5-1/2 6850 1330  | Surface                       |     |           |          |  |
| NEDU #401 (State 10 #3)      | 30-025-06459 | 10/21S/37E | 990 FNL-840 FWL   | O         | 6/1/54    | 7500                              | 17-1/2 13-3/8 240 250             | 12-1/4 9-5/8 3150 1612 | 8-3/4 7 7499 835       | 3275 (T)                      |     |           |          |  |
| NEDU #402 (State 10 #2)      | 30-025-06461 | 10/21S/37E | 1980 FNL-990 FWL  | O         | 6/1/54    | 8161                              | 13-3/4 10-3/4 249 250             | 9-7/8 7-5/8 3128 1275  | 6-3/4 5-1/2 7669 494   | 3180 (T)                      |     |           |          |  |
| NEDU #403 (Hawk B-10 #10)    | 30-025-06449 | 10/21S/37E | 460 FNL-1980 FWL  | WI        | 6/19/62   | 6790                              | 17-1/2 13-3/8 337 300             | 11 8-5/8 3000 350      | 7-7/8 5-1/2 6485 505   | 3150 (T)                      | 4   | 6413-6790 | 35       |  |
| NEDU #405 (Hawk B-10 #9)     | 30-025-06450 | 10/21S/37E | 660 FNL-1980 FEL  | O         | 8/7/50    | 6723                              | 13-3/4 10-3/4 245 200             | 9-7/8 7-5/8 3049 750   | 6-3/4 5-1/2 6715 452   | 3155 (T)                      |     |           |          |  |
| NEDU #406 (Hawk B-10 #1)     | 30-025-06451 | 10/21S/37E | 990 FNL-1650 FEL  | O         | 5/23/51   | 7950                              | 13-3/4 10-3/4 253 250             | 11 9-5/8 3099 1000     | 8-3/4 7-5/8 7795 1308  | Surface                       |     |           |          |  |
| NEDU #407 (Hawk B-10 #8)     | 30-025-06456 | 10/21S/37E | 1980 FNL-2310 FEL | WI        | 7/4/52    | 7800                              | 17-1/2 13-3/8 228 175             | 12-1/4 9-5/8 2987 1200 | 7-7/8 5-1/2 7725 650   | 4815 (T)                      |     |           |          |  |
| NEDU #408 (Dauron #1)        | 30-025-06446 | 10/21S/37E | 660 FNL-660 FEL   | WI        | 11/26/50  | 7875                              | 17-1/2 13-3/8 196 200             | 11 8-5/8 2995 1500     | 7-7/8 5-1/2 7462 500   | 4540 (T)                      |     |           |          |  |
| NEDU #409 (Dauron #2)        | 30-025-06447 | 10/21S/37E | 660 FNL-525 FEL   | O         | 1/11/51   | 7463                              | 17-1/2 13-3/8 196 200             | 11 8-5/8 2995 1500     | 7-7/8 5-1/2 7462 500   | 4540 (T)                      |     |           |          |  |
| NEDU #412                    | 30-025-34490 | 10/21S/37E | 1124 FNL-2541 FEL | O         | 10/7/98   | 6847                              | 11 8-5/8 1280 410                 |                        | 7-7/8 5-1/2 6847 1400  | Surface                       |     |           |          |  |
| NEDU #413                    | 30-025-34434 | 10/21S/37E | 2388 FSL-1306 FEL | O         | 9/16/98   | 6850                              | 11 8-5/8 1325 410                 |                        | 7-7/8 5-1/2 6850 1350  | Surface                       |     |           |          |  |
| NEDU #414                    | 30-025-34435 | 10/21S/37E | 2499 FSL-2470 FEL | O         | 9/24/98   | 6850                              | 11 8-5/8 1306 410                 |                        | 7-7/8 5-1/2 6850 1490  | Surface                       |     |           |          |  |
| NEDU #415                    | 30-025-34661 | 10/21S/37E | 1208 FNL-1745 FWL | O         | 10/15/99  | 6870                              | 12-1/4 8-5/8 1365 460             |                        | 7-7/8 5-1/2 6870 1500  | Surface                       |     |           |          |  |
| NEDU #416                    | 30-025-34798 | 10/21S/37E | 2304 FSL-1431 FWL | O         | 6/8/80    | 6880                              | 12-1/4 8-5/8 1223 460             |                        | 7-7/8 5-1/2 6880 1425  | Surface                       |     |           |          |  |
| NEDU #501 (NM State V #12)   | 30-025-06474 | 10/21S/37E | 1980 FSL-330 FWL  | O         | 6/6/62    | 5990                              | 13-3/4 10-3/4 310 200             | 9-7/8 7-5/8 2975 200   | 6-3/4 2-7/8* 5990 1200 | 3000 (T)                      |     |           |          |  |
| NEDU #503 (NM State V #11)   | 30-025-06473 | 10/21S/37E | 2080 FSL-2080 FWL | WI        | 12/4/52   | 7785                              | 17-1/2 13-3/8 333 275             | 12-1/4 9-5/8 3165 1400 | 7-7/8 5-1/2 7785 400   | 2500 (T)                      |     |           |          |  |
| NEDU #505 (NM State V #6)    | 30-025-06468 | 10/21S/37E | 1980 FSL-1980 FEL | O         | 10/24/51  | 7717                              | 15 12-3/4 329 350                 | 11 8-5/8 3100 1400     | 7-7/8 5-1/2 7711 500   | 2100 (T)                      |     |           |          |  |
| NEDU #507 (NM State V #8)    | 30-025-06470 | 10/21S/37E | 2100 FSL-760 FEL  | WI        | 2/2/52    | 7573                              | 13-3/4 10-3/4 305 350             | 9-7/8 7-5/8 3105 1100  | 6-3/4 5-1/2 7573 400   | 2950 (C)                      |     |           |          |  |
| NEDU #508 (State S #9)       | 30-025-20548 | 10/21S/37E | 660 FSL-660 FEL   | O         | 3/9/64    | 6710                              | 17-1/2 13-3/8 336 325             | 11 8-5/8 2999 960      | 7-7/8 5-1/2 6709 1065  | Surface                       |     |           |          |  |
| NEDU #514                    | 30-025-30913 | 10/21S/37E | 2010 FSL-660 FWL  | O         | 5/15/91   | 6830                              | 17-1/2 13-3/8 410 450             | 11 8-5/8 3014 1650     | 7-7/8 5-1/2 6827 1055  | 3010 (B)                      |     |           |          |  |
| NEDU #515                    | 30-025-34436 | 10/21S/37E | 1131 FSL-1342 FEL | O         | 8/30/98   | 6800                              | 11 8-5/8 1310 410                 |                        | 7-7/8 5-1/2 6800 1365  | 1260 (B)                      |     |           |          |  |
| NEDU #516                    | 30-025-34437 | 10/21S/37E | 1330 FSL-315 FEL  | O         | 8/20/98   | 6800                              | 11 8-5/8 1315 410                 |                        | 7-7/8 5-1/2 6800 1315  | Surface                       |     |           |          |  |
| NEDU #521                    | 30-025-34599 | 10/21S/37E | 1366 FSL-2593 FEL | O         | 8/7/99    | 6890                              | 12-1/4 8-5/8 1240 460             |                        | 7-7/8 5-1/2 6890 1350  | 750 (B)                       |     |           |          |  |
| NEDU #523                    | 30-025-34799 | 10/21S/37E | 1420 FSL-1300 FWL | O         | 6/8/80    | 6860                              | 12-1/4 8-5/8 1203 460             |                        | 7-7/8 5-1/2 6860 1375  | Surface                       |     |           |          |  |
| Dauron #3                    | 30-025-06448 | 10/21S/37E | 330 FNL-990 FEL   | WI        | 12/13/51  | 7780                              | 17-1/4 13-3/8 215 200             | 11 8-5/8 3002 1800     | 7-7/8 5-1/2 7772 350   | 4860 (T)                      |     |           |          |  |
| Hawk B-10 #1                 | 30-025-06475 | 10/21S/37E | 1715 FNL-409 FEL  | WI        | 6/5/53    | 6580                              | 13-3/4 10-3/4 207 150             | 9-7/8 7-5/8 3004 700   | 6-3/4 5-1/2 6453 250   | 4060 (T)                      |     |           |          |  |
| Hawk B-10 #3                 | 30-025-06452 | 10/21S/37E | 1980 FNL-1980 FEL | O         | 6/22/51   | 7981                              | 13-3/4 10-3/4 268 250             | 9-7/8 7-5/8 3099 1250  | 6-3/4 5-1/2 7980 750   | 3140 (T)                      |     |           |          |  |
| Hawk B-10 #5                 | 30-025-06455 | 10/21S/37E | 330 FNL-2340 FEL  | O         | 3/16/52   | 7955                              | 13-3/4 10-3/4 273 225             | 9-7/8 7-5/8 3099 1308  | 6-3/4 5-1/2 7954 625   | 3275 (T)                      |     |           |          |  |
| Hawk B-10 #6                 | 30-025-06458 | 10/21S/37E | 990 FNL-2310 FWL  | O         | 5/17/52   | 8090                              | 13-3/4 10-3/4 256 250             | 9-7/8 7-5/8 3099 1250  | 6-3/4 5-1/2 8089 507   | 3350 (T)                      |     |           |          |  |
| Hawk B-10 #7                 | 30-025-06457 | 10/21S/37E | 2310 FNL-2310 FWL | O         | 8/4/52    | 8075                              | 17-1/2 13-3/8 251 260             | 12-1/4 9-5/8 3149 1500 | 8-3/4 7 8074 1050      | 3200 (T)                      |     |           |          |  |
| NM 'FO' State Corn #1        | 30-025-06462 | 10/21S/37E | 990 FSL-1980 FEL  | O         | 7/13/55   | 6312                              | 17-1/2 13-3/8 353 300             | 11 8-5/8 3200 1500     | 7-7/8 5-1/2 6311 325   | 4454 (C)                      |     |           |          |  |
| NM State V #2                | 30-025-06464 | 10/21S/37E | 660 FSL-1980 FWL  | WI        | 2/15/49   | 6751                              | 13-3/8 10-3/4 332 275             | 9-7/8 7-5/8 3194 1250  | 6-3/4 5-1/2 6656 565   | 2200 (C)                      |     |           |          |  |
| NM State V #9                | 30-025-06471 | 10/21S/37E | 1980 FSL-1980 FWL | O         | 3/22/52   | 8240                              | 13-3/4 10-3/4 329 375             | 9-7/8 7-5/8 3079 1000  | 6-3/4 5-1/2 8240 450   | 2906 (C)                      |     |           |          |  |
| State 10 #1                  | 30-025-06460 | 10/21S/37E | 990 FNL-990 FWL   | O         | 2/24/53   | 8285                              | 17-1/2 13-3/8 236 250             | 12-1/4 9-5/8 3128 1308 | 8-3/4 7 8279 1250      | 0 (C)                         |     |           |          |  |
| NEDU # 509 (Gutman # 1)      | 30-025-06537 | 11/21S/37E | 2310 FSL-345 FWL  | O         | 4/22/52   | 7575                              | 17-1/2 13-3/8 245 275             | 11 8-5/8 3001 2450     | 7-7/8 5-1/2 7490 870   | Surface                       |     |           |          |  |
| NEDU # 510 (Gutman # 2)      | 30-025-20218 | 11/21S/37E | 1980 FSL-990 FWL  | O         | 1/29/64   | 7200                              | 17-1/2 13-3/8 366 300             | 12-1/4 9-5/8 3008 900  | 8-3/4 7 6000 930       | 6-3/4 4-1/2 6000-7200         | 930 | 3400 (T)  |          |  |
| Lockhart B-11 #1             | 30-025-06524 | 11/21S/37E | 510 FNL-660 FWL   | O         | 12/5/50   | 7751                              | 13-3/4 10-3/4 248 250             | 9-7/8 7-5/8 3049 865   | 6-3/4 5-1/2 7750 770   | 3030 (T)                      |     |           |          |  |

40-1A  
4-PA

**AREA OF REVIEW / WELL DATA**

| WELL NAME           | APINO.       | S / T / R  | LOCATION          | WELL TYPE | COMP DATE | TD   | SURFACE CASING |        |         | INTERMEDIATE CASING |        |         | PRODUCTION CASING |      |         | LINER |       |     |          |  |  |  |
|---------------------|--------------|------------|-------------------|-----------|-----------|------|----------------|--------|---------|---------------------|--------|---------|-------------------|------|---------|-------|-------|-----|----------|--|--|--|
|                     |              |            |                   |           |           |      | HOLE           | CSG    | SET CMT | HOLE                | CSG    | SET CMT | HOLE              | CSG  | SET CMT | HOLE  | DEPTH | CMT | TOC      |  |  |  |
| Lockhart B-11 #2    | 30-025-06477 | 11/21S/37E | 330 FNL-330 FWL   | O         | 9/10/51   | 6818 | 13-3/4         | 10-3/4 | 266     | 250                 | 9-7/8  | 7-5/8   | 3049              | 1230 | 6-3/4   | 5-1/2 | 6817  | 375 | Surface  |  |  |  |
| Lockhart B-11 #3    | 30-025-06525 | 11/21S/37E | 1980 FNL-330 FWL  | O         | 10/4/51   | 7659 | 13-3/4         | 10-3/4 | 262     | 250                 | 9-7/8  | 7-5/8   | 3099              | 100  | 6-3/4   | 5-1/2 | 7658  | 550 | 3380 (T) |  |  |  |
| Lockhart B-11 #4    | 30-025-06476 | 11/21S/37E | 330 FNL-1650 FWL  | O         | 1/24/52   | 7811 | 13-3/4         | 10-3/4 | 272     | 250                 | 9-7/8  | 7-5/8   | 3149              | 1200 | 6-3/4   | 5-1/2 | 7805  | 835 | Surface  |  |  |  |
| Lockhart B-11 # 16  | 30-025-06531 | 11/21S/37E | 1980 FNL-1980 FWL | O         | 3/4/62    | 7450 | 17-1/2         | 13-3/8 | 322     | 250                 | 12-1/4 | 9-5/8   | 2912              | 950  | 8-3/4   | 7     | 7450  | 770 | 1200 (T) |  |  |  |
| Lockhart B-11 E # 1 | 30-025-06535 | 11/21S/37E | 2310 FNL-330 FWL  | O         | 3/8/53    | 6570 | 17-1/2         | 13-3/8 | 174     | 250                 | 11     | 8-5/8   | 3044              | 900  | 7-7/8   | 5-1/2 | 6453  | 250 | 4650 (T) |  |  |  |
|                     |              |            |                   |           |           |      |                |        |         |                     |        |         |                   |      |         |       |       |     |          |  |  |  |
|                     |              |            |                   |           |           |      |                |        |         |                     |        |         |                   |      |         |       |       |     |          |  |  |  |

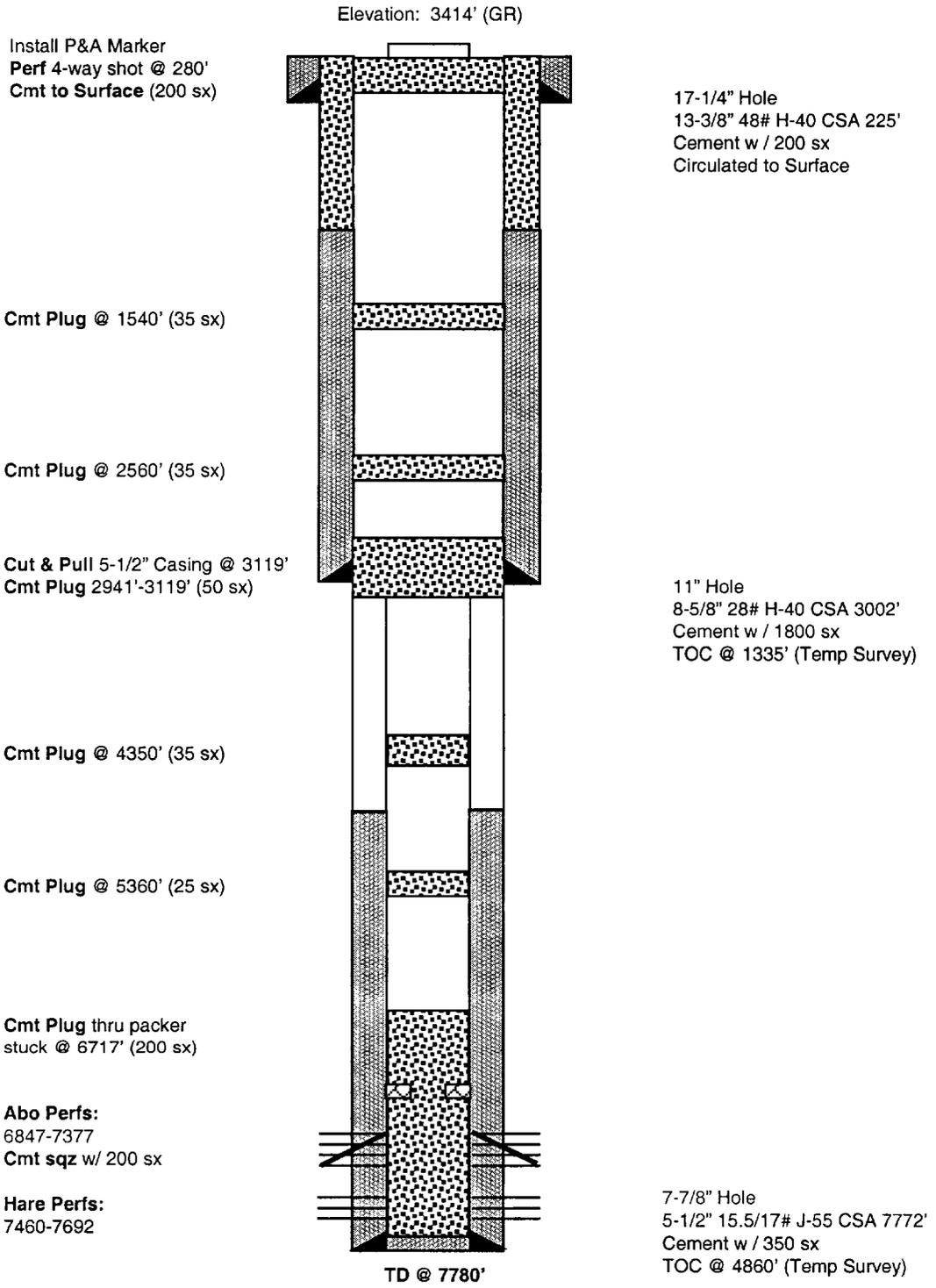
5-A

FOR Well.  
ACTIVE- 171  
PA - 14

Top of Cement Legend:  
 B = Cement Bond Log  
 C = Calculated  
 Surface = Circulated  
 T = Temperature Survey

Well: Dauron # 3  
 Field: Hare  
 Location: 330' FNL & 990' FEL  
 Unit A, Sec. 10, T21S, R37E  
 Lea County, New Mexico  
 API #: 30-025-06448

Current Status: P&A ( 3/93)



Well: DeKalb State # 1  
 Field: Blinebry  
 Location: 660' FSL & 660' FEL  
 Unit P, Sec. 32, T20S, R38E  
 Lea County, New Mexico  
 API #: 30-025-07871

Current Status: P&A ( 3/74)

Install P&A Marker  
**Cmt Plug @ Surface (10 sx)**

**Cmt Plug @ 250' (70 sx)**

**Cmt Plug @ 853' (65 sx)**  
 Shot off & Pulled 8-5/8" Casing @ 853'

**Cmt Plug @ 2985' (35 sx)**

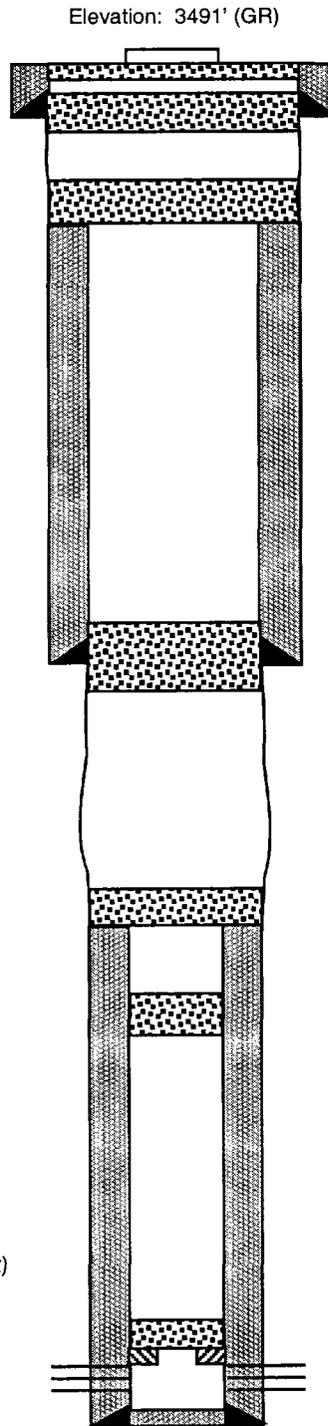
**Cmt Plug @ 4700' (100')**

**Cmt Plug @ 4822' (35 sx)**  
 Shot off & Pulled 5-1/2" Casing @ 4822'

**Cmt Plug @ 5330' (100')**

**Cmt Plug on KV-Packer @ 5803' (25 sx)**

**Blinebry Perfs:**  
 5810-5930



TD @ 5935'

17-1/2" Hole  
 13-3/8" 56# H-40 CSA 265'  
 Cement w / 250 sx  
 Circulated to Surface

10-3/4" Hole  
 8-5/8" 32# J-55 CSA 2900'  
 Cement w / 200 sx  
 TOC @ 853'

7-7/8" Hole  
 5-1/2" 20# J-55 CSA 5935'  
 Cement w / 200 sx  
 TOC @ 4822'

Well: Hawk B-3 # 1  
 Field: Hare (Simpson)  
 Location: 510' FSL & 660' FEL  
 Unit X, Sec. 3, T21S, R37E  
 Lea County, New Mexico  
 API #: 30-025-06498

Current Status: P&A ( 5/90 )

Install P&A Marker  
**Perf** 5-1/2" casing @ 310'  
**Cmt sqz** inside & outside casing  
 circulating to surface (65 sx)

**Cmt** 10-3/4" x 7-5/8" annulus  
 to surface (65 sx)

**Cmt Plug** 1334'-1440' (11 sx)

**Cmt Plug** 3094'-3200' (11 sx)

**Cmt Plug** 5594'-5795' (23 sx)

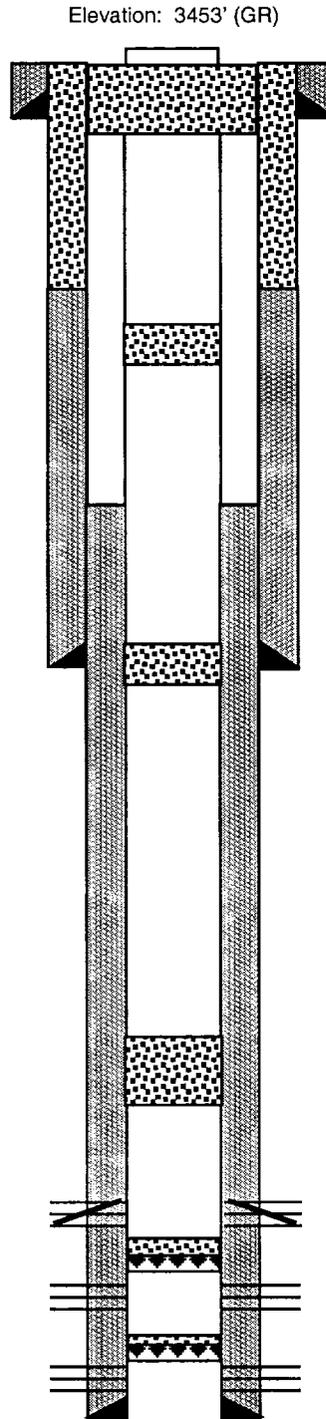
**Abo Perfs:**  
 6890-7275  
**Cmt sqz** w/ 450 sx

**CIBP @ 7455'**  
**Cmt** 7352'-7460' (12 sx)

**Hare Perfs:**  
 7517-7776

**CIBP @ 7850'**  
**Cmt** 7815'-7850'

**Ellenburger Perfs:**  
 7868-7966



13-3/4" Hole  
 10-3/4" 32.75# H-40 CSA 259'  
 Cement w / 250 sx  
 Circulated to Surface

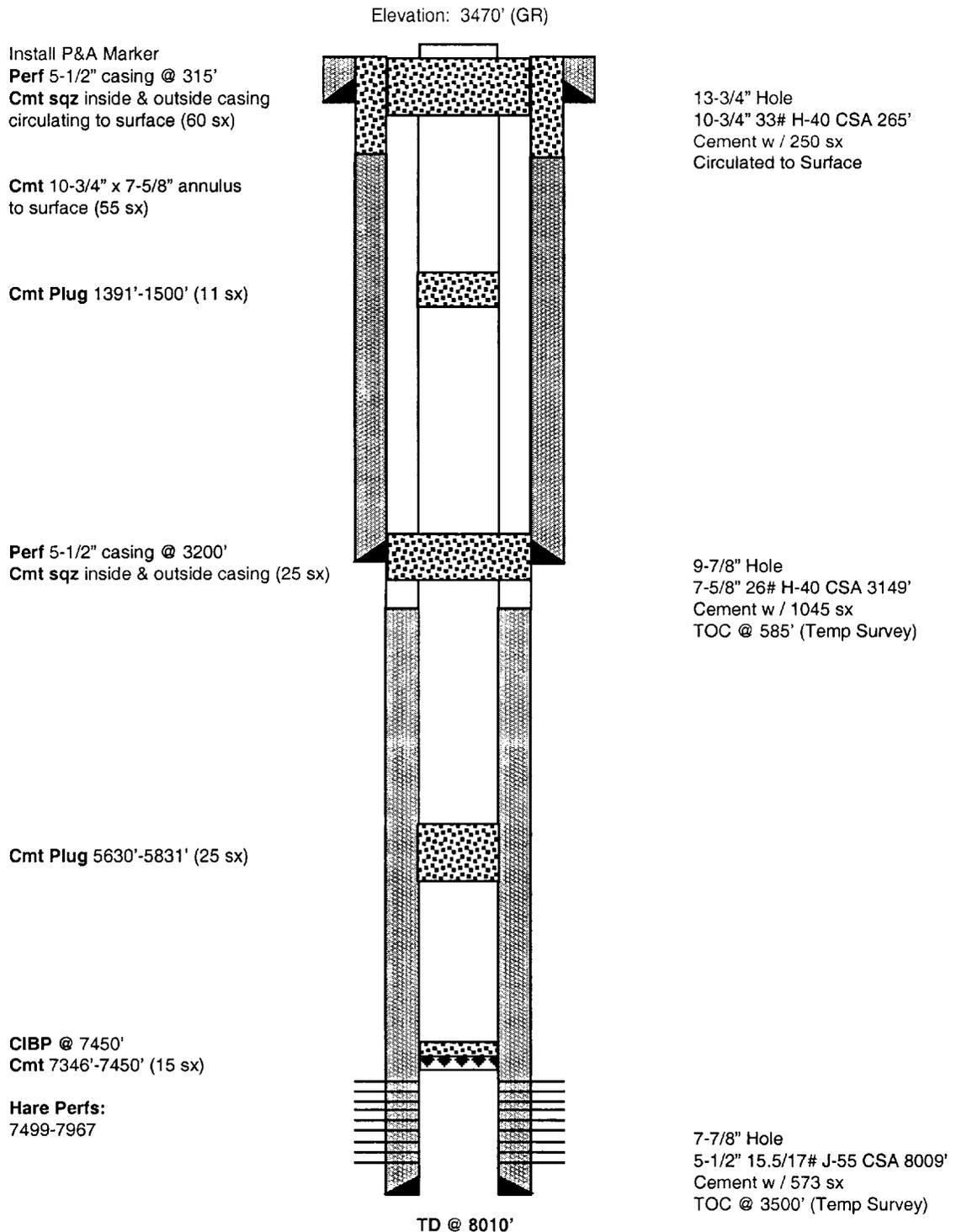
9-7/8" Hole  
 7-5/8" 24# H-40 CSA 3149'  
 Cement w / 1392 sx  
 TOC @ 1225' (Temp Survey)

7-7/8" Hole  
 5-1/2" 14/15.5/17# J-55 CSA 7974'  
 Cement w / 550 sx  
 TOC @ 2275' (Temp Survey)

TD @ 7975'

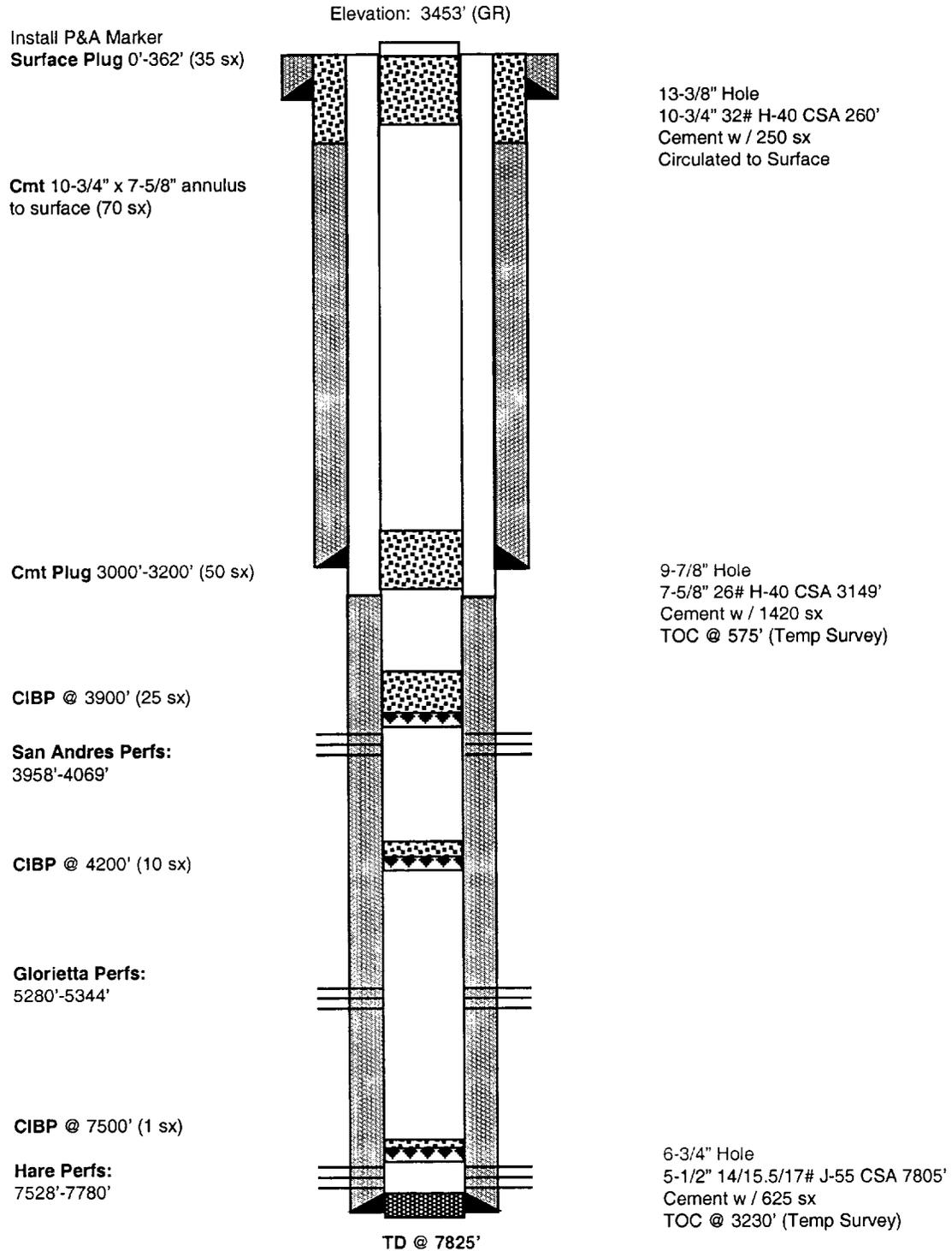
Well: Hawk B-3 # 3  
 Field: Hare  
 Location: 2970' FSL & 510' FEL  
 Unit P, Sec. 3, T21S, R37E  
 Lea County, New Mexico  
 API #: 30-025-06505

Current Status: P&A ( 5/90 )



Well: Hawk B-3 # 6  
 Field: Hare  
 Location: 810' FSL & 660' FEL  
 Unit P, Sec. 3, T21S, R37E  
 Lea County, New Mexico  
 API #: 30-025-06503

Current Status: P&A ( 11/89 )



Well: Hawk B-3 # 8

Field: Tubb

Current Status: P&A (5/90)

Location: 2970' FSL & 660' FEL  
Unit P, Sec. 3, T-21S, R-37E  
Lea County, New Mexico

API #: 30-025-06500

Elevation: 3469' (GR)

Install P&A Marker  
Perf 5-1/2" casing @ 315'  
Cmt sqz inside & outside casing  
circulating to surface (65 sx)

Cmt 10-3/4" x 7-5/8" Annulus  
to surface (60 sx)

Cmt Plug 1328'-1439' (11 sx)

Cmt Plug 3093'-3199' (11 sx)

Cmt Plug 5629'-5830' (23 sx)

CICR @ 6205'  
Cmt 6100'-6205'

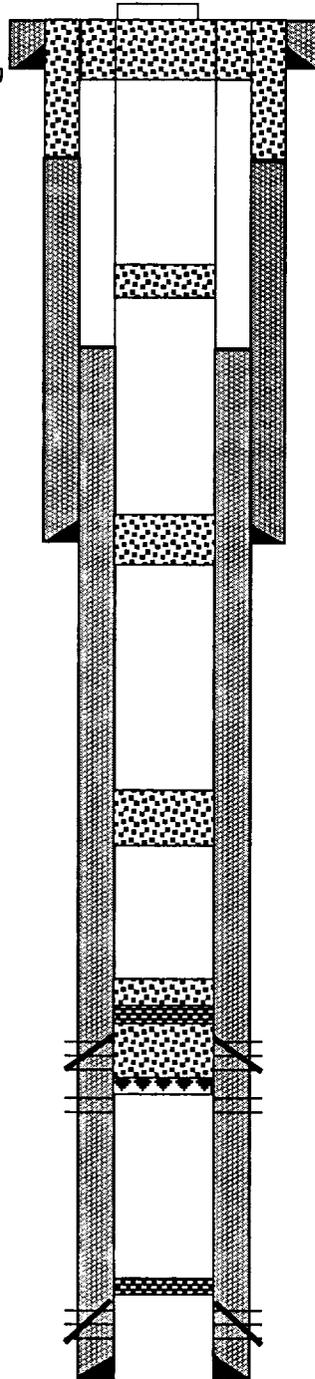
Tubb Perfs:  
6265-6337  
Cmt sqz w/ 50 sx

CIBP @ 6345'

Tubb Perfs:  
6360-6420

CICR @ 8017'

Ellenburger Perfs:  
8062-8172  
Cmt sqz w/ 100 sx



13-3/4" Hole  
10-3/4" 32# H-40 CSA 265'  
Cement w/ 250 sx  
Circulated to Surface

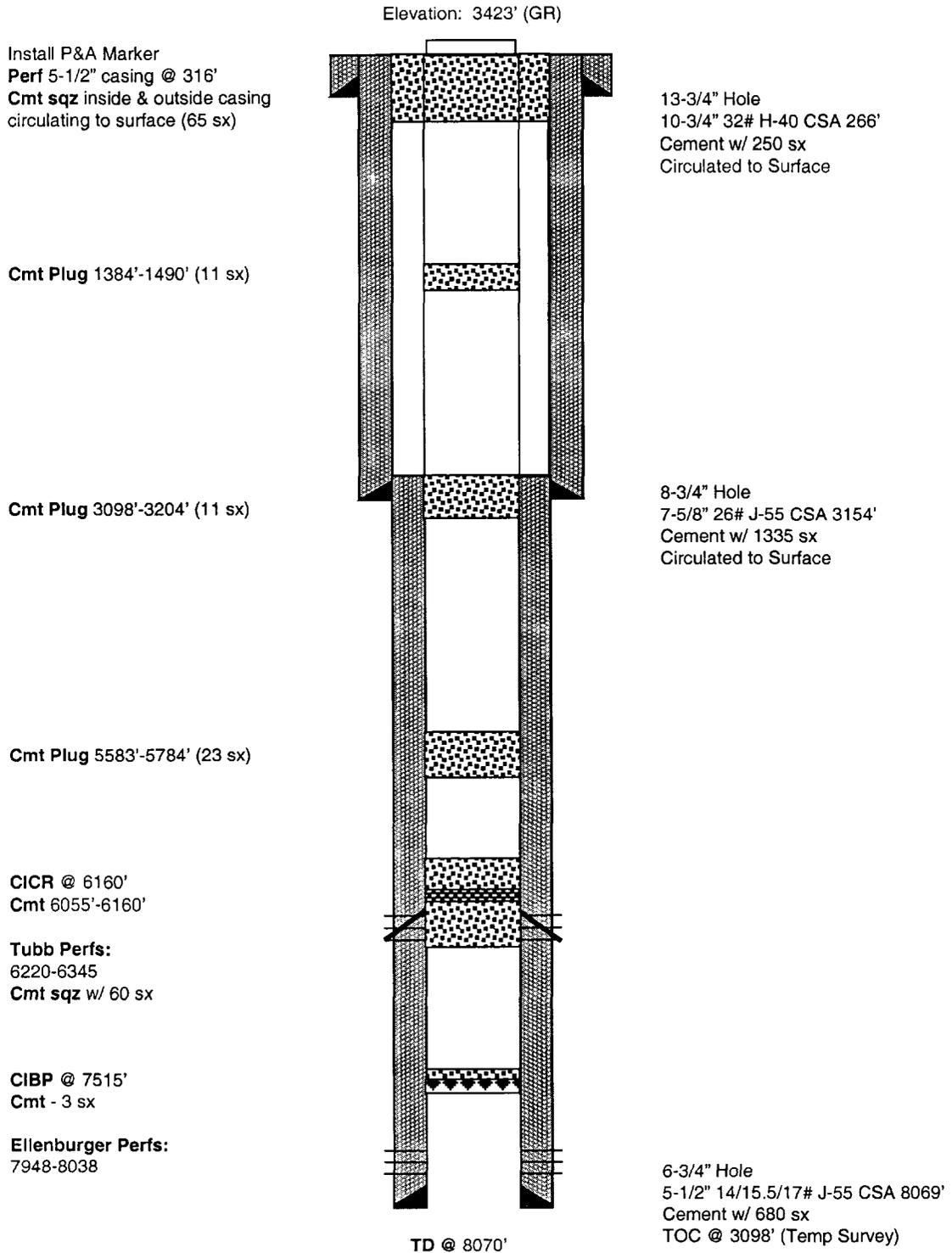
8-3/4" Hole  
7-5/8" 24# H-40 CSA 3149'  
Cement w/ 1235 sx  
TOC @ 975' (Temp Survey)

6-3/4" Hole  
5-1/2" 14/15.5/17# J-55 CSA 8187'  
Cement w/ 650 sx  
TOC @ 3115' (Temp Survey)

TD @ 8191'

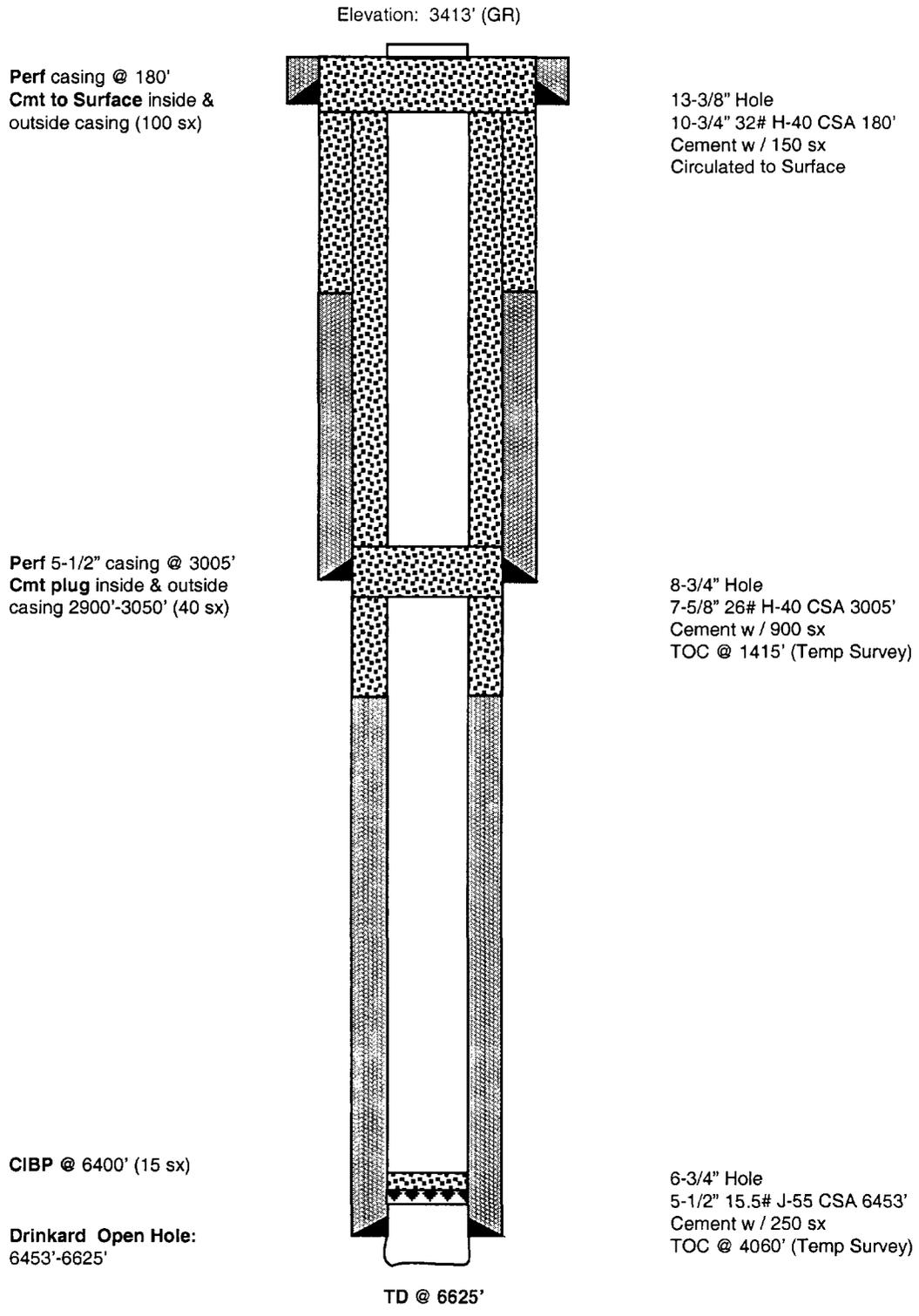
Well: Hawk B-3 # 9  
 Field: Tubb  
 Location: 1650' FSL & 1650' FEL  
 Unit R, Sec 3, T-21S, R-37E  
 Lea County, New Mexico  
 API #: 30-025-06501

Current Status: P&A (5/90)



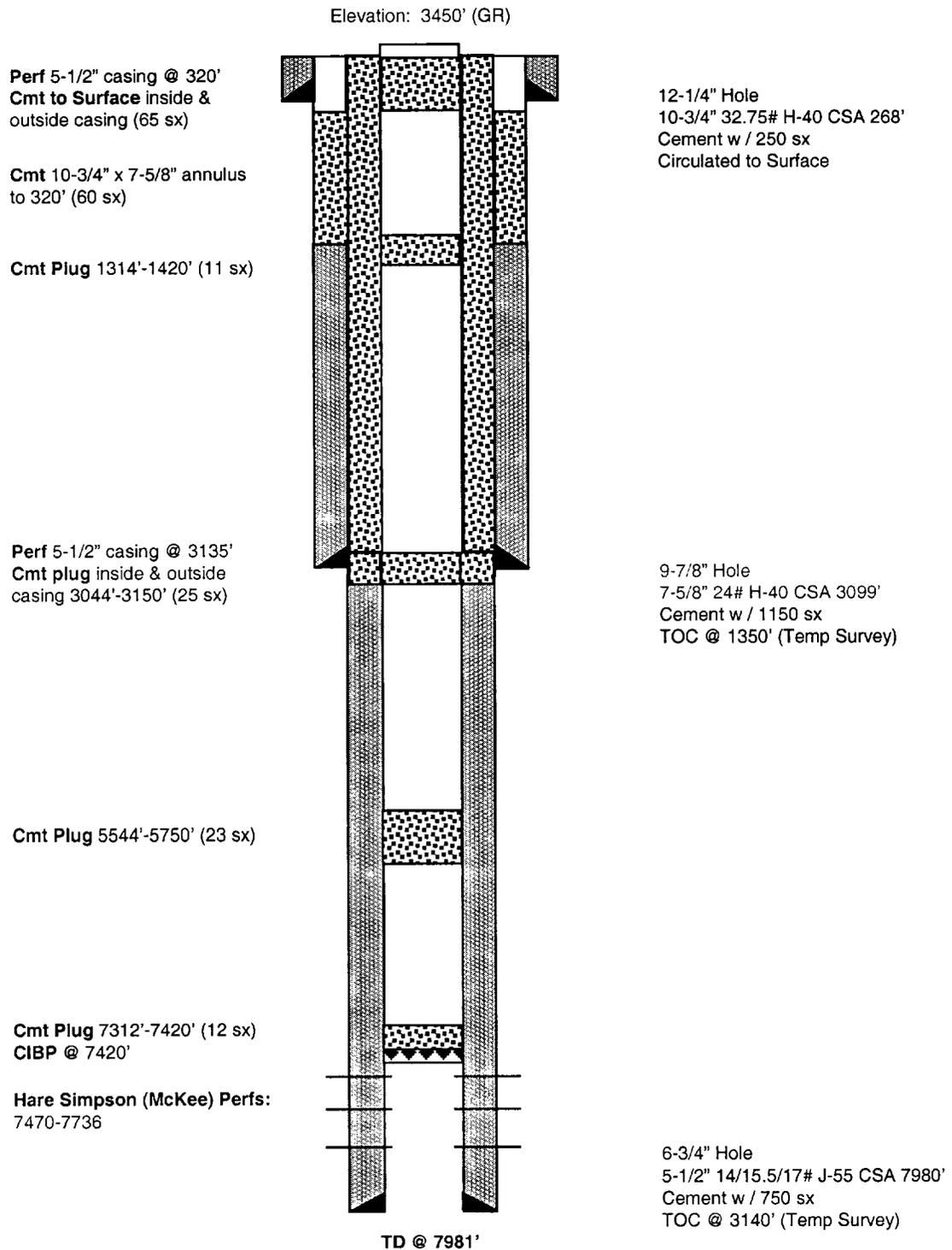
Well: Hawk B-10 No. 1  
Field: Drinkard  
Location: 1715' FNL & 409' FEL  
Unit H, Sec. 10, T21S, R37E  
Lea County, New Mexico  
API #: 30-025-06475

Current Status: P&A ( 3/93 )



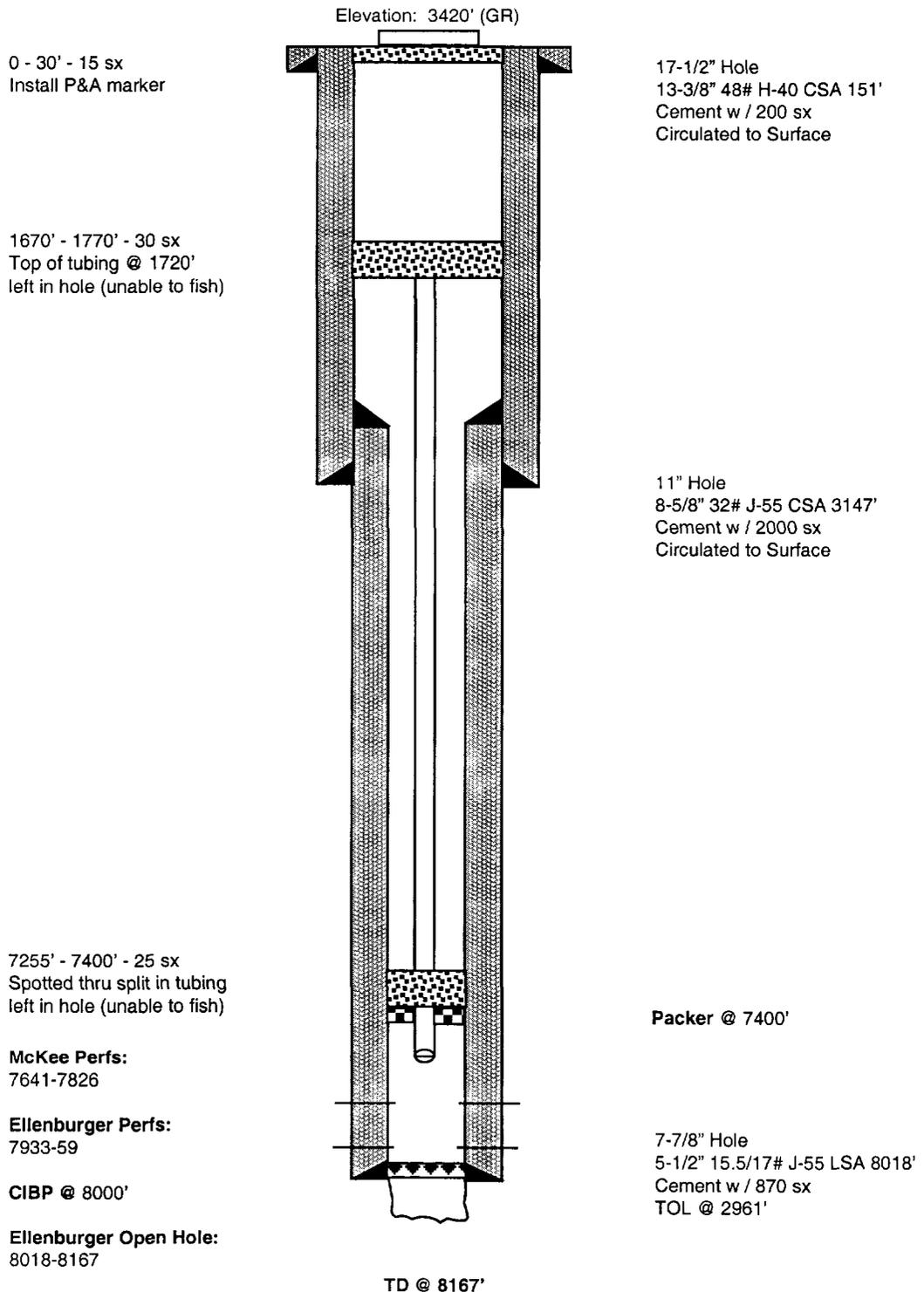
Well: Hawk B-10 No. 3  
 Field: Hare  
 Location: 1980' FNL & 1980' FEL  
 Unit G, Sec. 10, T21S, R37E  
 Lea County, New Mexico  
 API #: 30-025-06452

Current Status: P&A ( 9/90 )



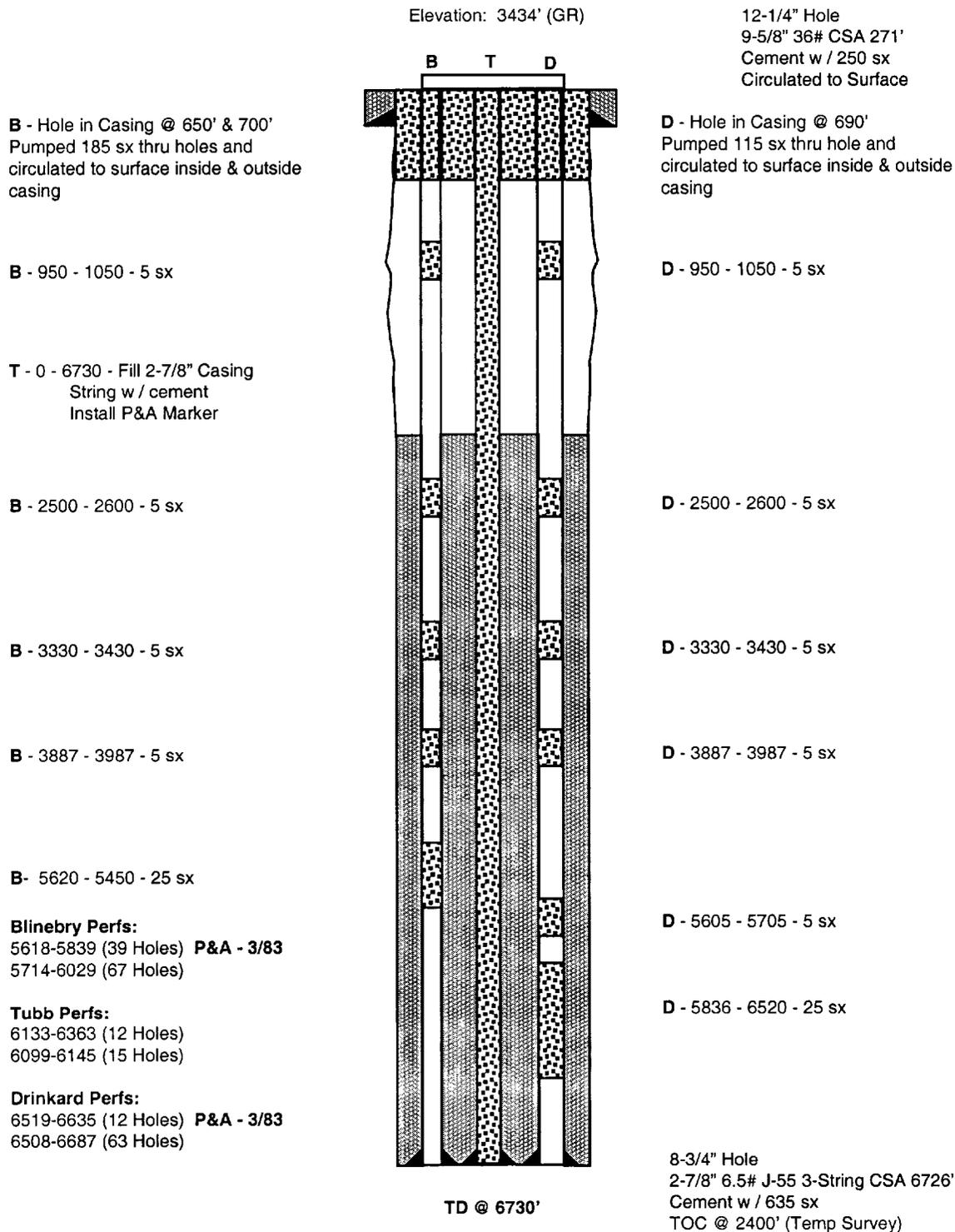
Well: Livingston # 4  
Field: Hare  
Location: 380' FSL & 2310' FEL  
Sec. 3, T21S, R37E  
Lea County, New Mexico  
API #: 30-025-06515

Current Status: P&A ( 8 / 59 )



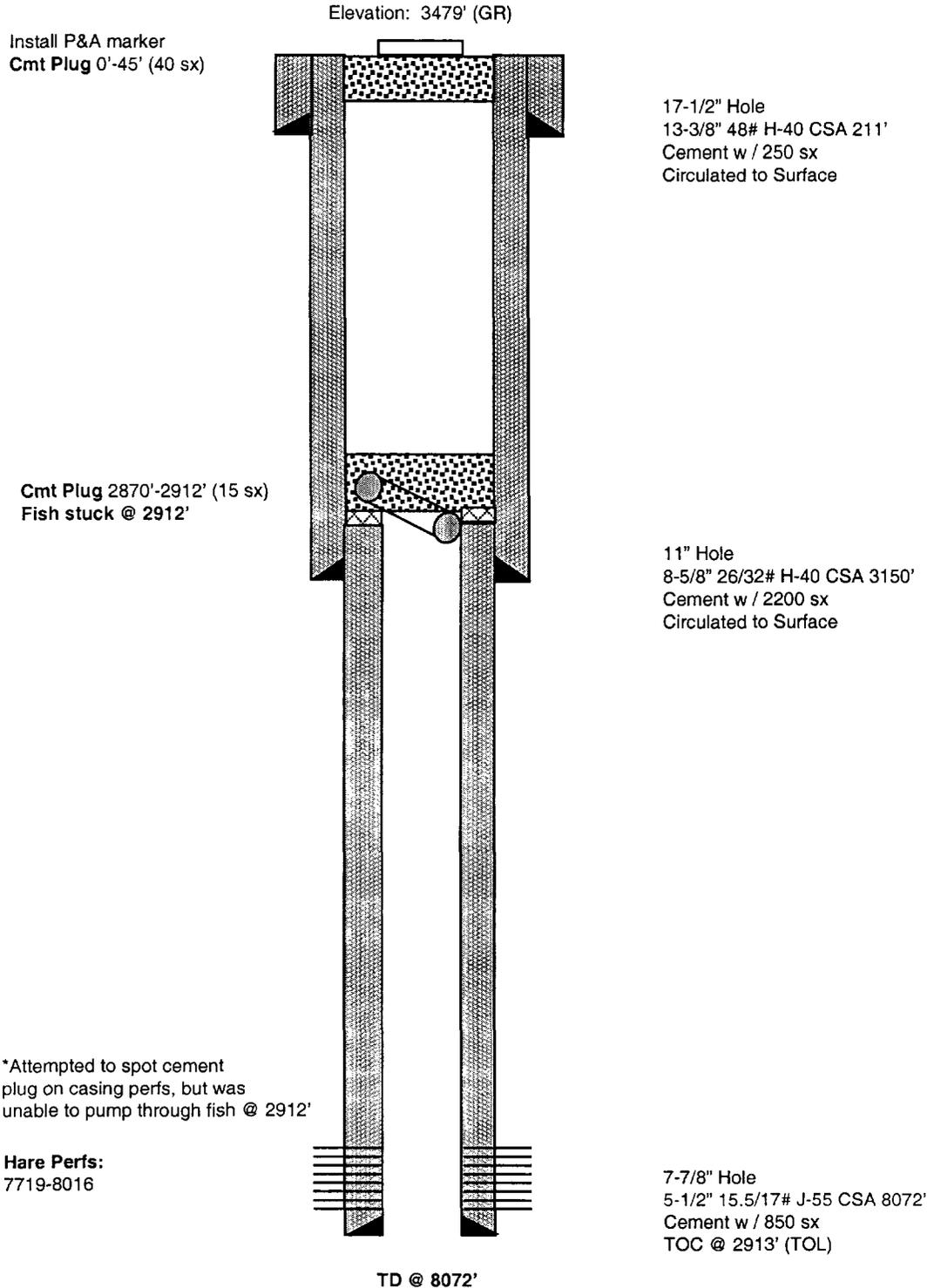
Well: Northeast Drinkard Unit # 205  
 Field: Eunice N., Blinebry-Tubb-Drinkard  
 Location: 3300' FSL & 660' FWL  
 Unit M, Sec. 3, T21S, R37E  
 Lea County, New Mexico  
 API #: 30-025-06521

Current Status:  
 P&A **B & D** ( 3 / 83 )  
 T ( 2 / 96 )



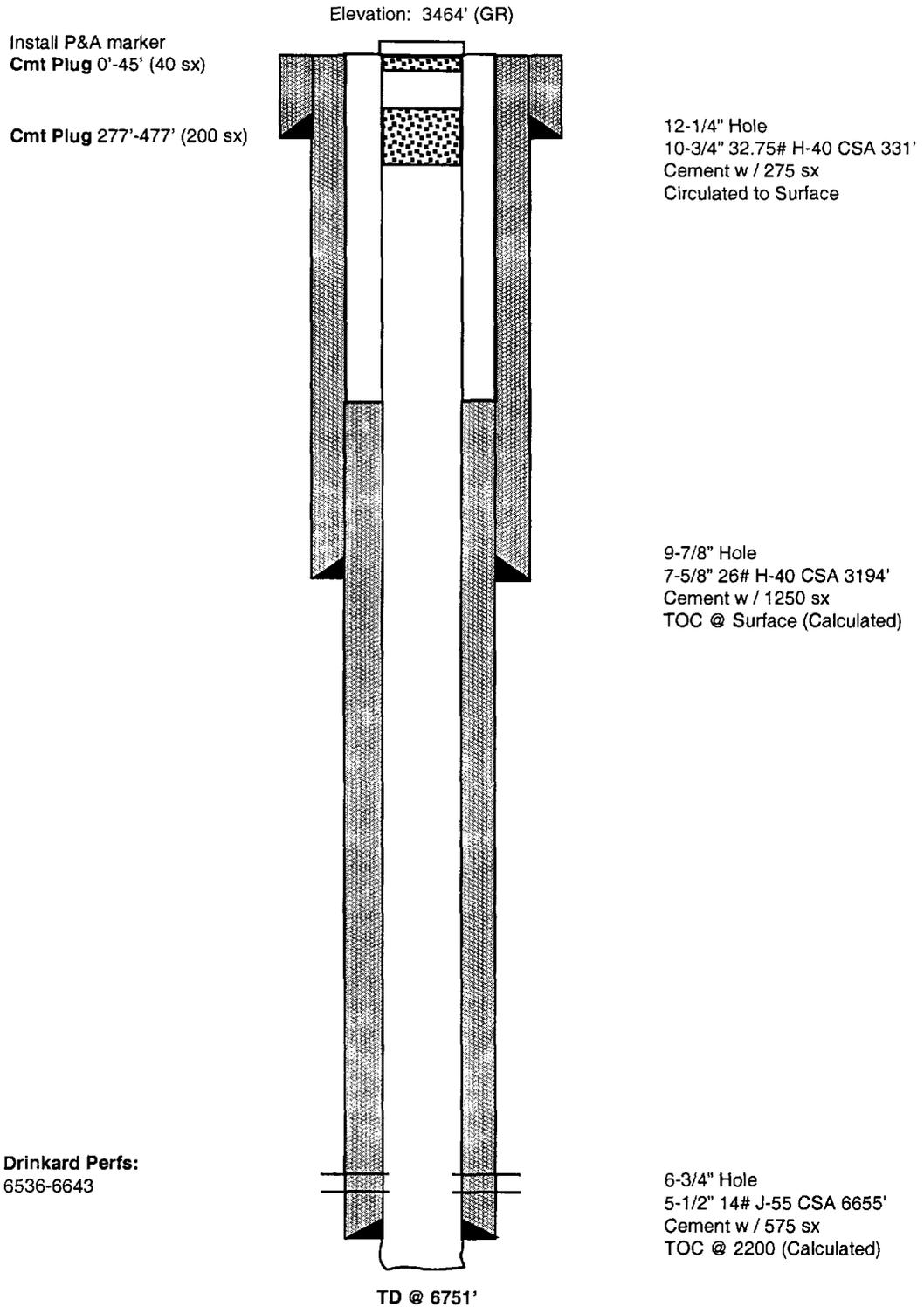
Well: State Sec 2 # 12  
Field: Hare  
Location: 2250' FSL & 2140' FWL  
Unit S, Sec. 2, T21S, R37E  
Lea County, New Mexico  
API #: 30-025-06378

Current Status: P&A ( 1/62 )



Well: New Mexico State V # 2  
Field: Drinkard  
Location: 660' FSL & 1980' FWL  
Unit N, Sec. 10, T21S, R37E  
Lea County, New Mexico  
API #: 30-025-06464

Current Status: P&A ( 3/54 )





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

WFX-774



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON  
Governor  
Jennifer A. Salisbury  
Cabinet Secretary

Lori Wrotenbery  
Director  
Oil Conservation Division

4/17/2001

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

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

Gentlemen:

I have examined the application for the:

Apache Corp.

| Operator                               | Lease & Well No.  | Unit               | S-T-R                   |
|--|-------------------|--------------------|-------------------------|
| and my recommendations are as follows: |                   |                    | Northeast Drinkard Unit |
| <i>Hawk B-10 #1</i>                    | <i>H-10-21-37</i> | #102-H, 4-21s-37e  | API #30-025-06400       |
|  |                   | #103-D, 3-21s-37e  | 30-025-09897            |
|  |                   | #106-C, 3-21s-37e  | 30-025-06410            |
| <i>Livingston #4</i>                   | <i>3-21-37</i>    | #112-A, 3-21s-37e  | 30-025-06509            |
|  |                   | #122-A, 2-21s-37e  | 30-025-06364            |
| <i>New Mexico STV #2</i>               | <i>N-10-21-37</i> | #123-H, 2-21s-37e  | 30-025-06360            |
|  |                   | #204-L, 3-21s-37e  | 30-025-06506            |
|  |                   | #207-N, 3-21s-37e  | 30-025-06519            |
| <i>State #2 #12</i>                    | <i>3-2-21-37</i>  | #223-P, 2-21s-37e  | 30-025-06355            |
|  |                   | #304-V, 3-21s-37e  | 30-025-06520            |
|  |                   | #305-R, 3-21s-37e  | 30-025-06493            |
|  |                   | #306-R, 3-21s-37e  | 30-025-06507            |
|  |                   | #310-X, 3-21s-37e  | 30-025-06497            |
|  |                   | #311-T, 2-21s-37e  | 30-025-06367            |
|  |                   | #404-F, 10-21s-37e | 30-025-06454            |
|  |                   | #410-H, 10-21s-37e | 30-025-06453            |

Yours very truly,

*Chris Williams*  
Chris Williams  
Supervisor, District 1