

|                 |                     |                |                 |             |                      |
|-----------------|---------------------|----------------|-----------------|-------------|----------------------|
| DATE<br>5/23/01 | SUSPENSE<br>6/12/01 | ENGINEER<br>DC | LOGGED IN<br>KW | TYPE<br>DHC | APP NO.<br>114445650 |
|-----------------|---------------------|----------------|-----------------|-------------|----------------------|

ABOVE THIS LINE FOR DIVISION USE ONLY

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

2922

**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]

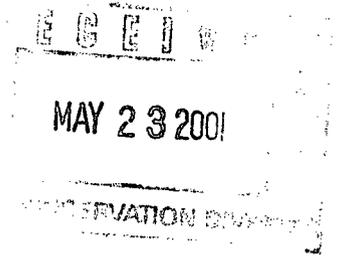
[1] **TYPE OF APPLICATION - Check Those Which Apply for [A]**

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

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 5/23/01*  
 Signature

Engineering Manager  
 Title

5/21/2001  
 Date

Lee.White@Apachecorp.com  
 e-mail Address



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON  
Governor  
Jennifer A. Salisbury  
Cabinet Secretary

6/4/01

Lori Wrotenberg  
Director  
Oil Conservation Division

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

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

Gentlemen:

I have examined the application for the:

*Apache Corp*      *JG Hare*      *#10-L-23-21s-37e*  
Operator                      Lease & Well No.      Unit                      S-T-R      *API # 30-025-34336*

and my recommendations are as follows:

\_\_\_\_\_  
*OK*  
\_\_\_\_\_  
\_\_\_\_\_

Yours very truly,

*Chris Williams*

Chris Williams  
Supervisor, District 1

May 21, 2001

Attn: David Catanach  
State of New Mexico - Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Application to Downhole Commingle  
J G Hare No. 10  
Penrose Skelly; Grayburg Pool (50350)  
Eunice; San Andres Pool (24150)  
Sec. 33, T22S – R37E  
Lea County, New Mexico**

Apache Corporation would like to request administrative approval to downhole commingle the production from the referenced pools in our J G Hare # 10 well.

To support this request we submit the following:

- 1) New Mexico – OCD Form C-107A
- 2) New Mexico – OCD Form C-102 for Penrose Skelly; Grayburg Pool
- 3) New Mexico – OCD Form C-102 for Eunice; San Andres Pool
- 4) Production Curve for the Penrose Skelly; Grayburg Pool
- 6) Production Curve for offset well Owen “B” # 9 in the Eunice; San Andres Pool
- 7) Allocation formula is based on current production
- 8) Copy of letter sent (by Certified Mail) to Offset operators within one-half mile of the J G Hare # 10

9) Well Bore Diagrams of current completion and proposed completion

If you have any questions or require additional information regarding this application, please contact me at 713-296-6338. Thank you.

Sincerely,

**APACHE CORPORATION**

A handwritten signature in black ink, appearing to read "Debra J. Anderson". The signature is written in a cursive style with a long horizontal stroke at the beginning.

Debra J. Anderson  
Sr. Engineering Technician

Attachments

cc: New Mexico Oil Conservation Division  
District I  
1625 N. French Drive  
Hobbs, New Mexico 88240

DISTRICT I  
1625 N. French Drive, Hobbs, NM 88240

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised May 15, 2000

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

OIL CONSERVATION DIVISION  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505-6429

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

DISTRICT IV  
1220 South St. Francis Dr., Santa Fe, NM 87505

APPLICATION TYPE  
 Single Well  
 Established Pre-Approved Pools  
Existing Wellbore  
 Yes  No

APPLICATION FOR DOWNHOLE COMMINGLE

APACHE CORPORATION 2000 POST OAK BLVD., SUITE 100, HOUSTON, TEXAS 77056-4400  
Operator Address

J G HARE 10 L / Sec. 33 / T-21S / R-37E Lea  
Lease Well No. Unit Ltr.-Sec-Twp-Rgn County

OGRID NO. 000873 Property Code 26473 API No. 30-025-34336  Federal  State  Fee

| DATA ELEMENT  | UPPER ZONE                          | INTERMEDIATE ZONE | LOWER ZONE  |
|---|-------------------------------------|-------------------|---|
| Pool Name   | Penrose Skelly; Grayburg            |                   | Eunice; San Andres                                  |
| Pool Code   | 50350                               |                   | 24150   |
| Top and Bottom of Pay Section<br>(Perforated or Open-Hole Interval)   | 3688 - 3708                         |                   | 3860 - 3907   |
| Method of Production<br>(Flowing or Artificial Lift)  | Artificial Lift                     |                   | Artificial Lift                                     |
| Bottomhole Pressure<br><small>(Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)</small>   |                                     |                   |   |
| Oil Gravity or Gas BTU<br>(Degree API or Gas BTU)   | 36.7                                |                   | 37.1  |
| Producing, Shut-In or New Zone  | Producing                           |                   | Shut-In   |
| Date and Oil/Gas/Water Rates of Last Production<br><small>(Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)</small> | Date: 5/3/2001<br>Rates: 2 x 72 x 4 | Date:<br>Rates:   | Owen "B" # 9<br>Date: 5/7/2001<br>Rates: 3 x 36 x 9 |
| Fixed Allocation Percentage<br><small>(Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)</small>                 | Oil 40% Gas 67%                     | Oil % Gas %       | Oil 60% Gas 33%                                     |

ADDITIONAL DATA

Are all working, royalty and overriding royalty interest identical in all commingle zones?  Yes  No  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail?  Yes  No

Are all produced fluids from all commingled zones compatible with each other?  Yes  No

Will commingling decrease the value of production?  Yes  No

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application?  Yes  No

NMOCD Reference Cases No. applicable to this well: DHC-2674 / DHC-2675

- Attachments:
- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
  - Production curve for each zone for at least one year. (If not available, attach explanation.)
  - For zones with no production history, estimated production rates and supporting data.
  - Data to support allocation method or formula.
  - Notification list of working, royalty and overriding interests for uncommon interest cases.
  - Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application
- Bottomhole pressure data

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Detra J. Anderson TITLE Sr. Engineering Technician DATE 5/21/2001  
TYPE OR PRINT NAME Detra J. Anderson TELEPHONE NO. 713-296-6338

District I  
1625 N. French Drive, Hobbs, NM 88240

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised October 18, 1994  
Instruction on Back

District II  
P O Drawer DD, Artesia, NM 88210

**OIL CONSERVATION DIVISION**  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

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

AMENDED REPORT

District IV  
1220 South St. Francis Drive, Santa Fe, NM 87505

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|                              |  |                                       |  |   |                     |
|------------------------------|--|---------------------------------------|--|---|---------------------|
| 1 API Number<br>30-025-34336 |  | 2 Pool Code<br>50350                  |  | 3 Pool Name<br>Penrose Skelly; Grayburg |                     |
| 4 Property Code<br>26473     |  | 5 Property Name<br>J G Hare           |  |   | 6 Well Number<br>10 |
| 7 OGRID No.<br>000873        |  | 8 Operator Name<br>Apache Corporation |  |   | 9 Elevation<br>3451 |

<sup>10</sup> Surface Location

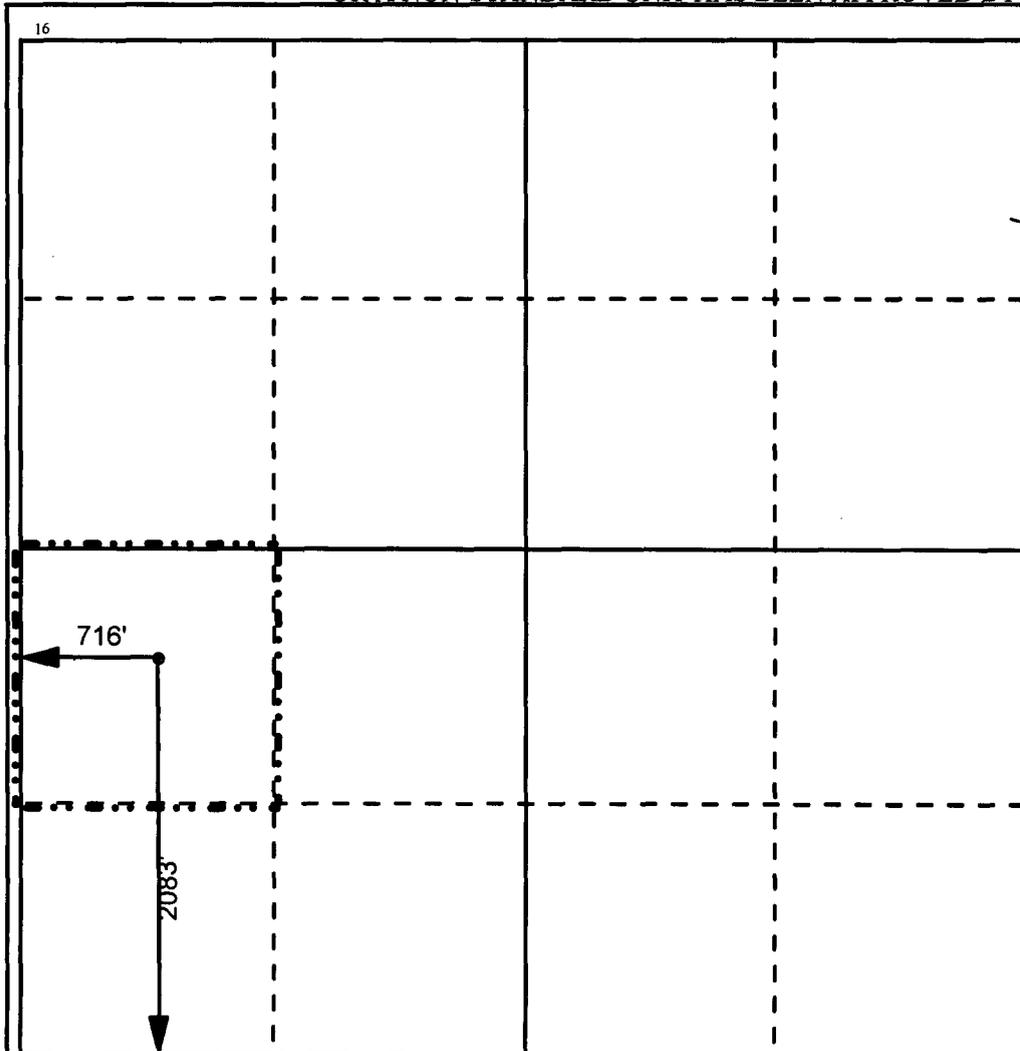
|                    |               |                 |              |         |                       |                           |                      |                        |               |
|--------------------|---------------|-----------------|--------------|---------|-----------------------|---------------------------|----------------------|------------------------|---------------|
| UL or Lot No.<br>L | Section<br>33 | Township<br>21S | Range<br>37E | Lot Idn | Feet from the<br>2083 | North/South line<br>South | Feet from the<br>716 | East/West line<br>West | County<br>Lea |
|--------------------|---------------|-----------------|--------------|---------|-----------------------|---------------------------|----------------------|------------------------|---------------|

<sup>11</sup> Bottom Hole Location If Different From Surface

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

|                                     |                               |                                  |                         |
|-------------------------------------|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br>40 | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>14</sup> Order No. |
|-------------------------------------|-------------------------------|----------------------------------|-------------------------|

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



<sup>17</sup> OPERATOR CERTIFICATION

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

Signature  
*Debra J. Anderson*

Printed Name  
Debra J. Anderson

Title  
Sr. Engineering Technician

Date  
5/21/01

<sup>18</sup> SURVEYOR CERTIFICATION

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

Date Surveyed

Signature and Seal of Professional Surveyor

Certificate Number

District I  
1625 N. French Drive, Hobbs, NM 88240

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised October 18, 1994  
Instruction on Back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

District II  
P O Drawer DD, Artesia, NM 88210

**OIL CONSERVATION DIVISION**  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

AMENDED REPORT

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

District IV  
1220 South St. Francis Drive, Santa Fe, NM 87505

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|                              |  |                                       |  |                                   |                     |
|------------------------------|--|---------------------------------------|--|-----------------------------------|---------------------|
| 1 API Number<br>30-025-34336 |  | 2 Pool Code<br>24150                  |  | 3 Pool Name<br>Eunice; San Andres |                     |
| 4 Property Code<br>26473     |  | 5 Property Name<br>J G Hare           |  |                                   | 6 Well Number<br>10 |
| 7 OGRID No.<br>000873        |  | 8 Operator Name<br>Apache Corporation |  |                                   | 9 Elevation<br>3451 |

**10 Surface Location**

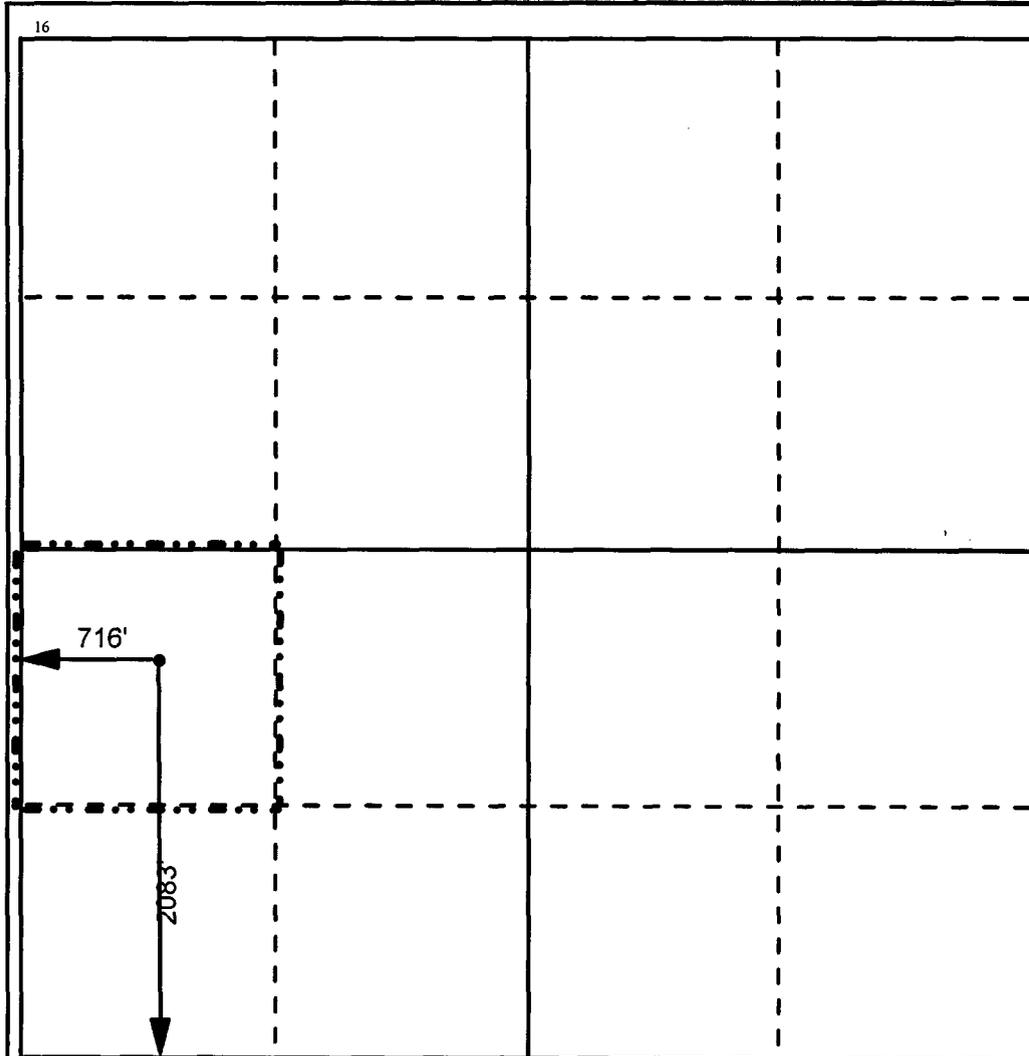
|                    |               |                 |              |         |                       |                           |                      |                        |               |
|--------------------|---------------|-----------------|--------------|---------|-----------------------|---------------------------|----------------------|------------------------|---------------|
| UL or Lot No.<br>L | Section<br>33 | Township<br>21S | Range<br>37E | Lot Idn | Feet from the<br>2083 | North/South line<br>South | Feet from the<br>716 | East/West line<br>West | County<br>Lea |
|--------------------|---------------|-----------------|--------------|---------|-----------------------|---------------------------|----------------------|------------------------|---------------|

**11 Bottom Hole Location If Different From Surface**

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

|                          |                    |                       |              |
|--------------------------|--------------------|-----------------------|--------------|
| 12 Dedicated Acres<br>40 | 13 Joint or Infill | 14 Consolidation Code | 14 Order No. |
|--------------------------|--------------------|-----------------------|--------------|

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



**17 OPERATOR CERTIFICATION**

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

Signature *Debra J. Anderson*

Printed Name  
Debra J. Anderson

Title  
Sr. Engineering Technician

Date  
5/21/01

**18 SURVEYOR CERTIFICATION**

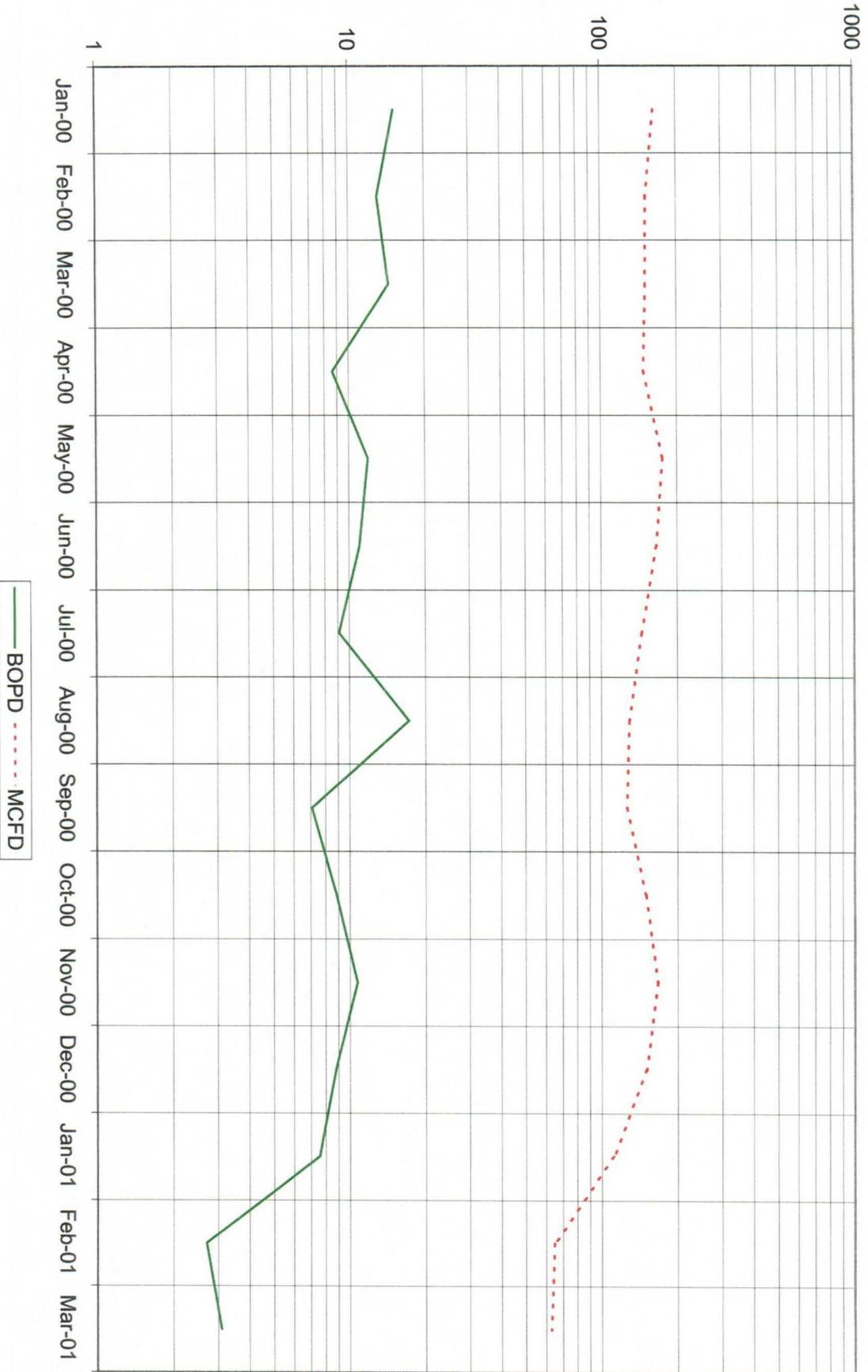
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Surveyed

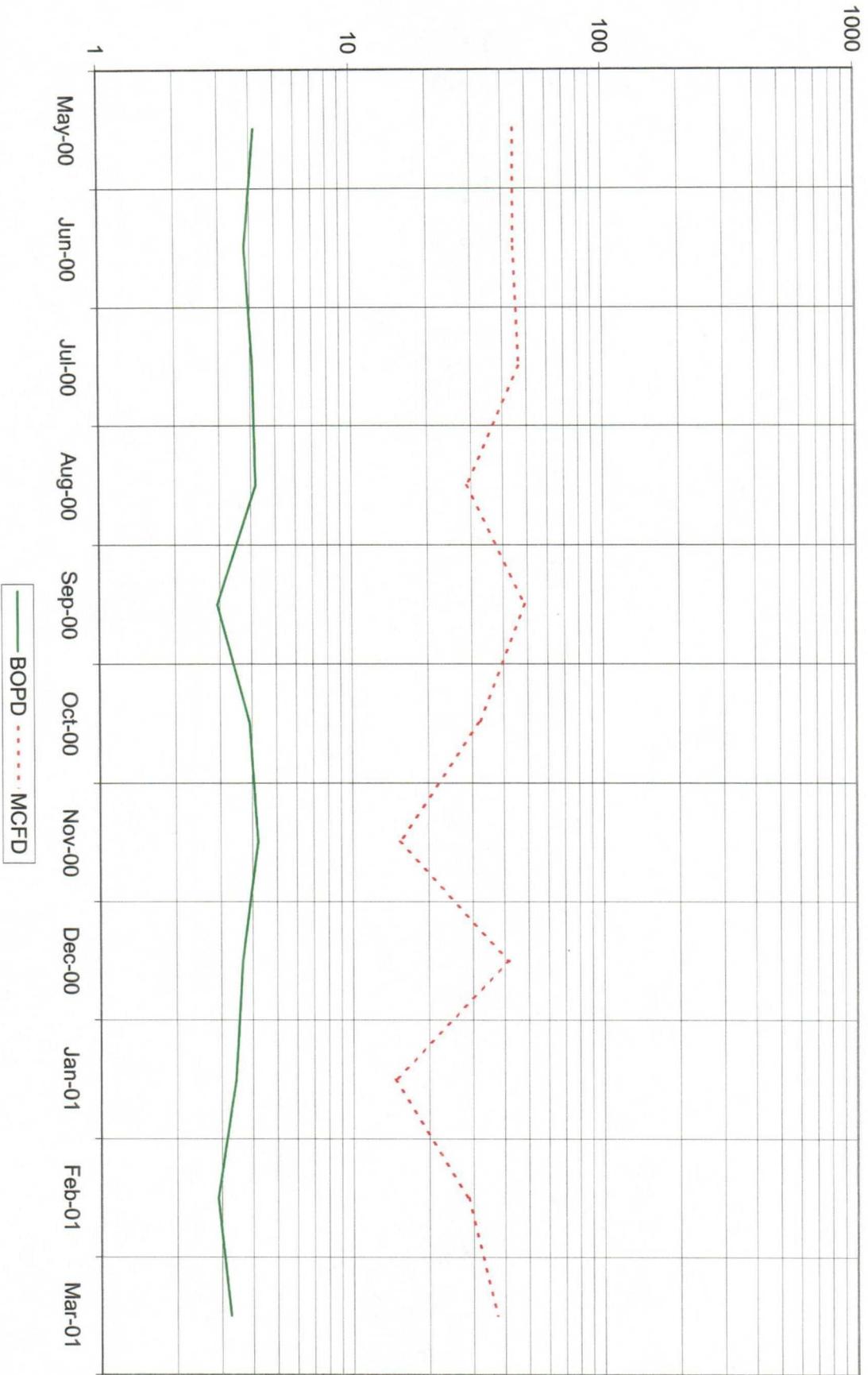
Signature and Seal of Professional Surveyor

Certificate Number

J G HARE NO. 10 - PENROSE SKELLY; GRAYBURG



OWEN "B" NO. 9 - EUNICE (SAN ANDRES)





May 21, 2001

Offset Operators

**Re: Application to Downhole Commingle  
J G Hare No. 10  
Penrose Skelly; Grayburg Pool (50350)  
Eunice; San Andres Pool (24150)  
Sec. 33, T22S - R37E  
Lea County, New Mexico**

Attached please find a copy of an Application to Downhole Commingle production from the referenced pools in the J G Hare # 10 well that Apache Corporation has filed with the New Mexico Oil Conservation Division. If you have an objection to this application, you must notify the OCD in writing within 20 days from the date of this letter. Thank you.

Sincerely,

**APACHE CORPORATION**

A handwritten signature in black ink that reads "Debra J. Anderson". The signature is written in a cursive style with a large, sweeping initial "D".

Debra J. Anderson  
Sr. Engineering Technician

Attachments

cc: New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**J G Hare No. 10 Downhole Commingle Application  
Offset Operators**

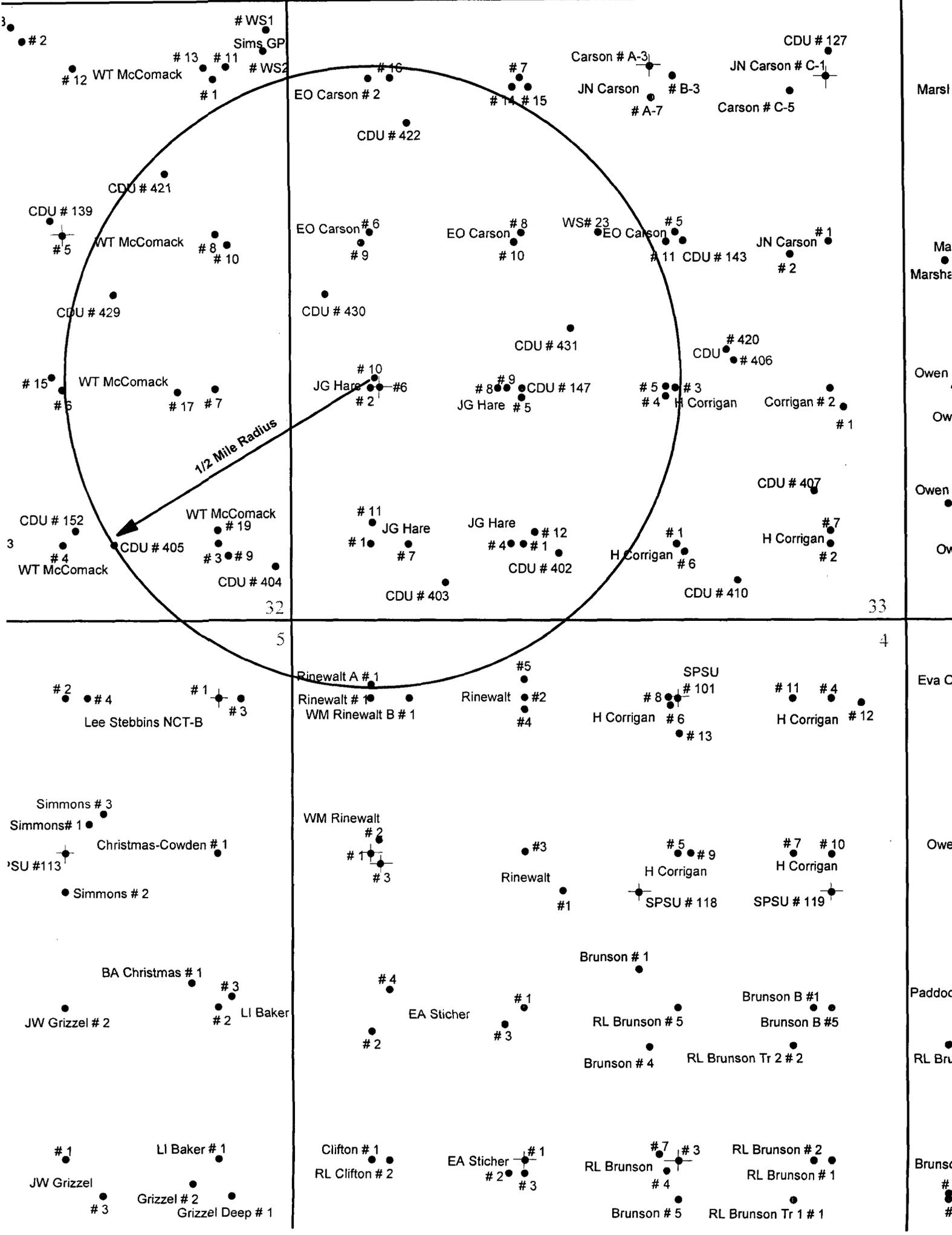
Chevron USA Inc  
P O Box 1150  
Midland, Texas 79702  
Certified Rcpt. # Z-207-261-558

Titan Resources  
500 W Texas, Suite 500  
Midland, Texas 79701  
Certified Receipt # Z-207-261-561

John H Hendrix Corporation  
110 N. Marienfeld, Suite 400  
Midland, Texas 79702-3040  
Certified Rcpt. # Z-207-261-559

Wiser Oil Company  
3504 N W County Road  
Hobbs, New Mexico 88241  
Certified Receipt # Z-207-261-565

TOWNSHIP 21S - Range 37E



Marsl

Ma  
Marsh

Owen

Ow

Owen

Ow

Eva O

Owe

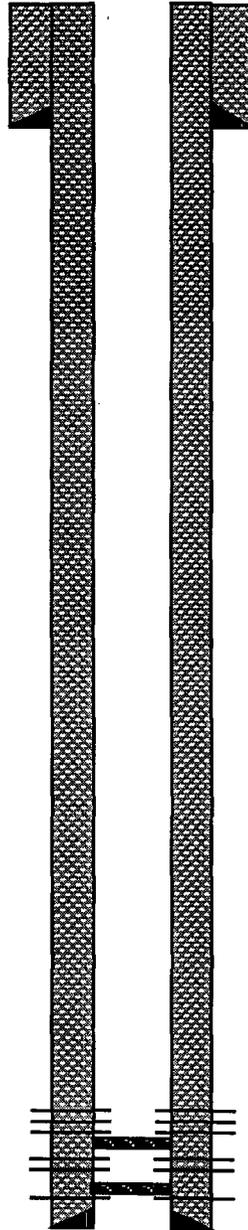
Paddoc

RL Bru

Brunso  
#1  
#2  
#3

Well: J G Hare No. 10  
Pool: Penrose Skelly; Grayburg  
Location: 2083' FSL & 716' FWL  
Unit L, Section 33, Township 21S, Range 37E  
API#: 30-025-34336

Current Status: Active Oil  
Penrose Skelly; Grayburg



**Surface Casing:** 12-1/4" Hole  
8-5/8" 24# CSA 356'  
Cement w / 230 sx  
Circulated to Surface

**Penrose Skelly; Grayburg Perfs:**  
3688 - 3708 - 4" - 21 Holes

**CIBP @ 3840'**

**Eunice; San Andres Perfs:**  
3860 - 3873, 3889 - 3894 - 4" - 11 Holes

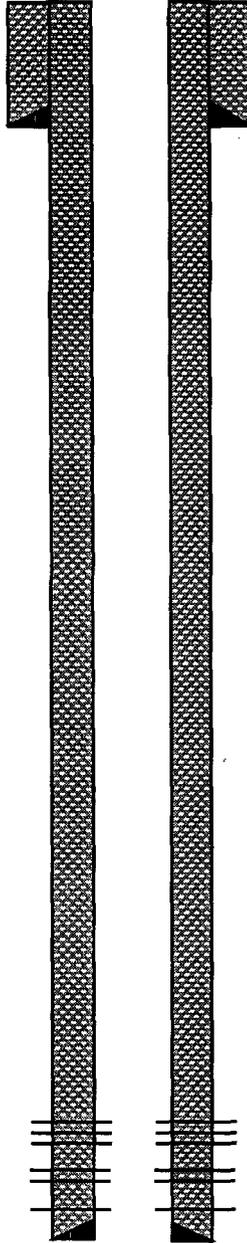
**CIBP @ 3900'**  
3903 - 3907 - 4" - 5 Holes

**TD @ 3950'**

**Production Casing:** 7-7/8" Hole  
5-1/2" 15.5# CSA 3950'  
Cement w / 900 sx  
Circulated to Surface

Well: J G Hare No. 10  
Pool: Penrose Skelly; Grayburg / Eunice; San Andres  
Location: 2083' FSL & 716' FWL  
Unit L, Section 33, Township 21S, Range 37E  
API#: 30-025-34336

Proposed Status: Active Oil  
Downhole Commingle  
Penrose Skelly; Grayburg &  
Eunice; San Andres Pools



**Surface Casing:** 12-1/4" Hole  
8-5/8" 24# CSA 356'  
Cement w / 230 sx  
Circulated to Surface

**Penrose Skelly; Grayburg Perfs:**  
3688 - 3708 - 4" - 21 Holes

**Eunice; San Andres Perfs:**  
3860 - 3873, 3889 - 3894 - 4" - 11 Holes  
3903 - 3907 - 4" - 5 Holes

TD @ 3950'

**Production Casing:** 7-7/8" Hole  
5-1/2" 15.5# CSA 3950'  
Cement w / 900 sx  
Circulated to Surface