DATE IN 9/11/06	SUSPENSE	ENGINEER BROOKS / ~~MSTOGNER~~	LOGGED IN 9/11/06	TYPE NSL	APP NO. pTDS0625452283

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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

Apache
H Corrigan #26
4-22S-37E

ADMINISTRATIVE APPLICATION CHECKLIST 5492

THIS CHECKLIST 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:

[NSL-Non-Standard Location] [NSP-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

[D] Other: Specify _____

2006 SEP 11 AM 11 27

[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 is 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] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

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

James Bruce	James Bruce	Attorney for applicant	9/11/06
Print or Type Name	Signature	Title	Date

jamesbruc@aol.com
e-mail Address

JAMES BRUCE
ATTORNEY AT LAW

POST OFFICE BOX 1056
SANTA FE, NEW MEXICO 87504

369 MONTEZUMA, NO. 213
SANTA FE, NEW MEXICO 87501

(505) 982-2043 (Phone)
(505) 660-6612 (Cell)
(5050 982-2151 (Fax)

jamesbruc@aol.com

September 11, 2006

Hand Delivered

Mark E. Fesmire, P.E.
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Dear Mr. Fesmire:

Pursuant to Division Rule 104.F(2), Apache Corporation applies for administrative approval of an unorthodox oil well location for the following well:

Well Name:	H. Corrigan Well No. 20
Well Location:	1480 feet FNL & 330 feet FEL
Well Unit:	SE¼NE¼ of Section 4, Township 22 South, Range 37 East, N.M.P.M., Lea County, New Mexico

The well will test the Blinebry (Blinebry Oil and Gas Pool), Tubb (Tubb Oil and Gas Pool), and Drinkard (Drinkard Pool) formations, and applicant requests unorthodox location approval in all three zones. The Blinebry, Tubb, and Drinkard zones are expected to be oil productive.

The application is based on geological and engineering reasons. A complete discussion, with exhibits, is attached as Exhibit A. The well is in the approximate center of existing Blinebry, Tubb, and Drinkard wells, and the proposed location will drain additional undrained reserves.

30-025-10015

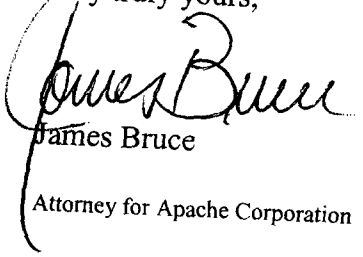
The well unit will be simultaneously dedicated to the proposed well and to the existing H. Corrigan Well No. 10 in the Drinkard formation, and to the proposed well and to the existing H. Corrigan Well No. 7 in the Blinebry and Tubb formations.

30-025-10012

Exhibit B is a land plat. The Corrigan fee lease covers Lots 1, 2, and the S½NE¼ (the NE¼) of Section 4, and no offset owner is adversely affected by the application. Therefore, notice has not been provided to anyone.

Please call me if you need any further information on this matter.

Very truly yours,



James Bruce

Attorney for Apache Corporation

Application of Apache Corporation for administrative approval of an unorthodox well location:

40 acres – 1480 FNL & 330' FEL
Section 4, Township 22 South, Range 37 East, NMPM
Lea County, New Mexico

PRIMARY OBJECTIVES: Blinebry, Tubb, and Drinkard

In support:

1. Apache Corporation (Apache) is the operator of the proposed **H Corrigan #20** well (**Exhibit 1**).

2. The proposed unorthodox location encroaches toward, or is in the same quarter section, as the following wells, which are, or have been, productive from various combinations of the Blinebry, Tubb, and Drinkard (**Exhibit 2**). **Exhibit 2** displays only those wells with a total depth equal to, or greater than, 5250', sufficient to penetrate at least part of the Blinebry, Tubb, and Drinkard interval. Production from the three reservoirs is assigned to individual Blinebry Oil and Gas, Tubb Oil and Gas, and Drinkard Pools, but downhole commingling is pre-approved pending submission of allocations to the Hobbs District Office.

API					Cum	Daily
30025	Op.	Well	Loc	Pool	O/G/W	O/G/W
09999	John H Hendrix	Eva Owens #1	03-D	Blinebry (06660)	12/418/5	1/62/1
09999	John H Hendrix	Eva Owens #1	03-D	Tubb (86440)	10/1340/0	0/0/0
09999	John H Hendrix	Eva Owens #1	03-D	Drinkard (19190)	233/2591/11	0/0/0
10005	BEC Corp	Owen A #1	03-E	Blinebry (06660)	11/1415/22	1/104/6
10005	BEC Corp	Owen A #1	03-E	Drinkard (19190)	58/6/2	0/0/0
10006	Apache Corp	H Corrigan #4	04-A	Blinebry (06660)	9/112/22	3/25/22
10006	Apache Corp	H Corrigan #4	04-A	Tubb (86440)	17/2489/0	0/0/0
10006	Apache Corp	H Corrigan #4	04-A	Drinkard (19190)	144/2085/0	0/0/0
10015	Apache Corp	H Corrigan #10	04-H	Drinkard (19190)	111/657/2	0/0/0
10012	Apache Corp	H Corrigan #7	04-H	Blinebry (06660)	14/240/35	1/5/2
10012	Apache Corp	H Corrigan #7	04-H	Tubb (60240)	13/151/6	0/0/0
10011	Apache Corp	H Corrigan #6	04-B	Blinebry (06660)	11/270/8	0/0/0
10013	Apache Corp	H Corrigan #8	04-B	Blinebry (06660)	6/50/13	1/1/2
10013	Apache Corp	H Corrigan #8	04-B	Drinkard (19190)	180/2705/3	0/0/0
10010	Apache Corp	H Corrigan #5	04-G	Drinkard (19190)	15/2150/2	0/0/0
10014	Apache Corp	H Corrigan BLBY Gas Com #9	04-G	Blinebry (72480)	47/2765/11	0/24/2
10014	Apache Corp	H Corrigan BLBY Gas Com #9	04-G	Drinkard (19190)	81/0/0	0/0/0

MBO BOPD
MMCFG MCFGPD
MBW BWPD

Exhibit A

2. Apache expects the proposed **H Corrigan #20** to test as an oil well in each of the three reservoirs. Should any reservoir test gas, Apache will either gain the appropriate approvals from the OCD to produce or abandon the reservoir.

   a) Apache H Corrigan #4, Section 4, Unit A, was in the Tubb Gas Pool, with apparently 160 A dedicated, but has not produced from the Tubb since December 1977. Apache H Corrigan #7, in Unit H, the same 160 A as the #4, was in the Tubb Oil Pool as of its last production in September 1996. **Exhibit 3** shows that Corrigan #7 is actually perforated higher than Corrigan #4. It is assumed that because the most recent Tubb producer is in the Tubb Oil Pool, with 40 A dedicated, that no dedication conflict should arise with the Tubb in **H Corrigan #20**. -30-025-10014

   b) Apache H Corrigan Blinebry Gas Com #9, in Unit G, has only 40 A dedicated to Blinebry gas (**Exhibit 4**).

3. The proposed **H Corrigan #20** location of 1480' from north line and 330' from east line is based upon drainage considerations.

   a. Geology

   The Blinebry, Tubb, and Drinkard Formations are members of the Yeso Group, Permian Leonardian in age. Fluid contacts, specifically Blinebry GOC at -2255 and Drinkard OWC at -3225, employed by Shell in the unitization hearing for the NorthEast Drinkard Unit, just to the east, were used in the petrophysical evaluation of the reservoirs.

   All three formations are shallow marine carbonates, consisting primarily of dolomite. The Tubb has appreciable clastic content and the Drinkard can become limey toward its base. Anhydrite can occur throughout the interval. Pay zones are thin, erratically distributed, and separated by thick impermeable intervals. Porosity and permeability are low. Wells are not generally capable of draining a full 40 Acre spacing unit. In fact, Apache's calculations indicate drainage area usually approximates 20 Acres.

   Apache routinely fracture stimulates perforations in each of the three formations then produces them commingled and allocates production based upon well tests. At this stage in the history of all three pools, economics will not permit development of individual reservoirs. Thus, pay from all three reservoirs must be considered for well proposals. A combined Blinebry, Tubb, Drinkard map extracted from a larger area map is, therefore, presented (**Exhibit 5**).

   The reservoir was analyzed by mapping hydrocarbon pore volume (SoPhiH) (**Exhibit 5**) of the entire Blinebry, Tubb, and Drinkard interval. SoPhiH is the product of feet of net pay (H) times average porosity (PhiA) times oil saturation (So). The values were obtained as follows:

      1. Net Pay was read from modern neutron-density logs which have contractor calculated cross-plotted porosity (XPhi) using a minimum of 5% and a maximum of 20%. Additionally,

gamma ray (40 APIU in the Blinebry and Drinkard and 50 APIU in the Tubb) and water saturation (10% - 50%, using a standard equation with a=1 and m=n=2) cutoffs were also employed.

2. Average Porosity was calculated for intervals meeting those criteria.
3. Oil Saturation is the additive inverse of water saturation.

This analysis requires modern neutron-density and resistivity logs. Although water saturations can be adequately estimated from offsetting modern wells, many wells had to be excluded from analysis because of the vintage or type of porosity logs. SoPhiH isopach lines were modeled after cumulative production isopach lines where new well control is lacking. This procedure has proved successful for Apache in recent drilling in the area.

b. Drainage

The following table provides drainage areas calculated from the SoPhiH map and reserves of the offsetting wells in the four spacing units impacted. SoPhiH values are either from modern logs, or estimated from the grid. Wells with values determined from modern logs will be in bold and the others are estimated from the grid.

				SoPhiH	Area	EUR	EUR
Op.	Well	Loc	Reservoir	FT	A	MBO	MMCFG
John H Hendrix	Eva Owens #1	03-D	BTD	14.8	25.6	243	3931
BEC Corp	Owen A #1	03-E	BTD	10.0	10.8	69	1422
Apache Corp	H Corrigan #4	04-A	BTD	11.8	22.4	170	4686
Apache Corp	H Corrigan #10	04-H	BTD	9.7	17.8	111	657
Apache Corp	H Corrigan #7	04-H	BTD	9.8	4.3	27	391

The proposed **H Corrigan #20** was planned as a "true" 20 Acre infill location between existing Blinebry, Tubb, and Drinkard producers. The location was placed in the center of the vacant area between the existing wells, and then moved due to surface conditions and cultural obstructions.

Reserves for the proposed location were calculated by planimetering the undrained area of the SoPhiH isopach which lies under a drainage circle (the size of which is the average of the direct offset drainage areas) centered on the proposed location. Any competitive drainage is shared between the proposed well and the existing offset wells. The results are as follows:

				SoPhiH	Area	EUR	EUR
Op.	Well	Loc	Reservoir	Ft	A	MBO	MMCFG
Apache	**H Corrigan #20**	**04-H**	**BTD**	**9.90**	**16**	**100**	**800**

4. **Notice**

Apache, John H Hendrix Corporation, and BEC Corporation operate Blinebry, Tubb, and Drinkard wells toward which the proposed well will encroach. Working interest owners who need to be notified are:

The John H. Hendrix Corporation
110 N. Marienfield, Ste 400
Midland, TX 79702

Michael & Jeanne Klein
500 West Texas, Ste 1230
Midland, TX 79701

Daniel Viers
1209 West Cuthbert Ave.
Midland, TX 79701

Diane Patrick Tipton
911 Harvard Ave
Midland, TX 79701

Ronnie & Merlyn Westbrook
P. O. Box 3171
Midland, TX 79702

BEC Corporation
P. O. Box 1392
Midland, TX 79702

5. Approval of this application will afford the interest owners in these spacing units an opportunity to recover oil and gas which would not otherwise be recovered and to do so without violating correlative rights.

EXHIBIT 1

ok

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

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

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name

Property Code	Property Name	Well Number
	H. CORRIGAN	20
OGRID No.	Operator Name	Elevation
	APACHE CORPORATION	3437'

Surface Location

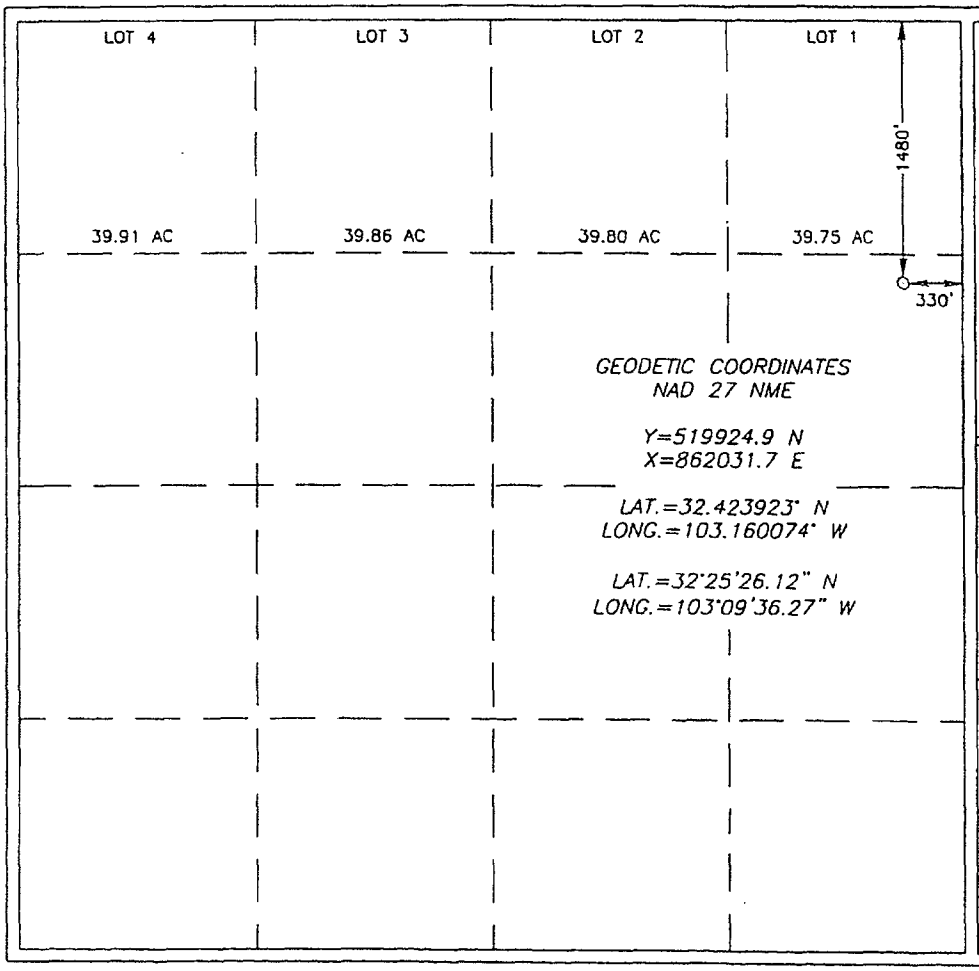
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	4	22-S	37-E		1480	NORTH	330	EAST	LEA

Bottom Hole Location If Different From Surface

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

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



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Date

Printed Name

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.

JUNE 13, 2006

Date Surveyed MR

Signature & Seal of Professional Surveyor

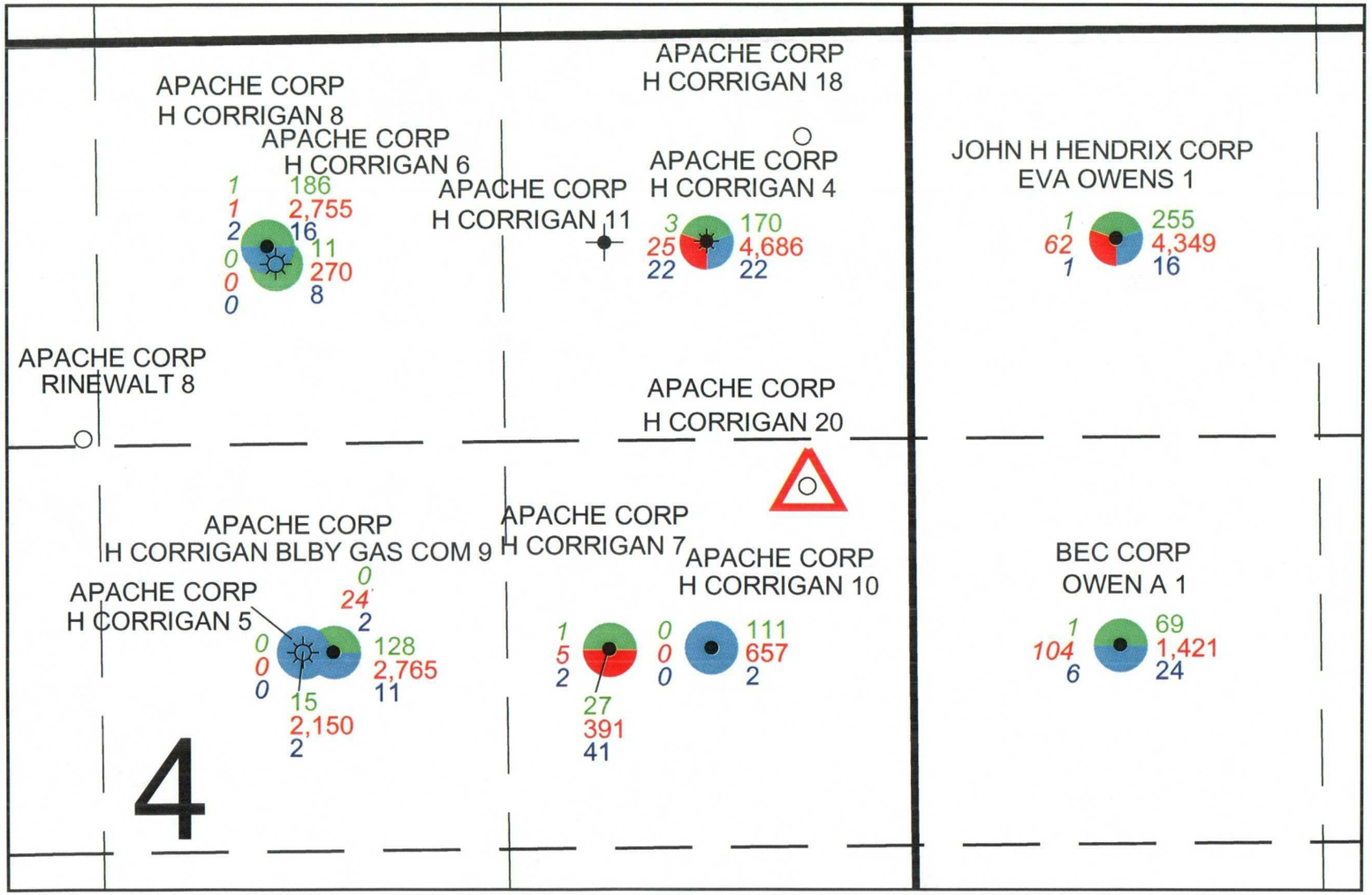
RONALD J. EIDSON NEW MEXICO

Ronald J. Eidson 6/22/06

06.11.0952

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

REGISTERED PROFESSIONAL SURVEYOR



POSTED WELL DATA

OPERATOR
WELL LABEL

CURRENT BOPD ● MBO
CURRENT MCFD MMCFG
CURRENT BWPD MBW

WELL SYMBOLS

- Location Only
- Oil Well
- Gas Well
- Dry

BLINEBRY
TUBB
DRINKARD

0 500 1,000 1,500
FEET

Apache CORPORATION CENTRAL REGION
TWO WARREN PLACE, SUITE 1500
6120 SOUTH YALE
TULSA, OKLAHOMA 74136-4224

H. CORRIGAN #20

SEC 4-T21S-R37E
LEA COUNTY, NEW MEXICO

EXHIBIT 2
WELL INFORMATION

DATE: 6/28/06 DWG: CURTIS\BTD NSL 6-28-06 (EX2)

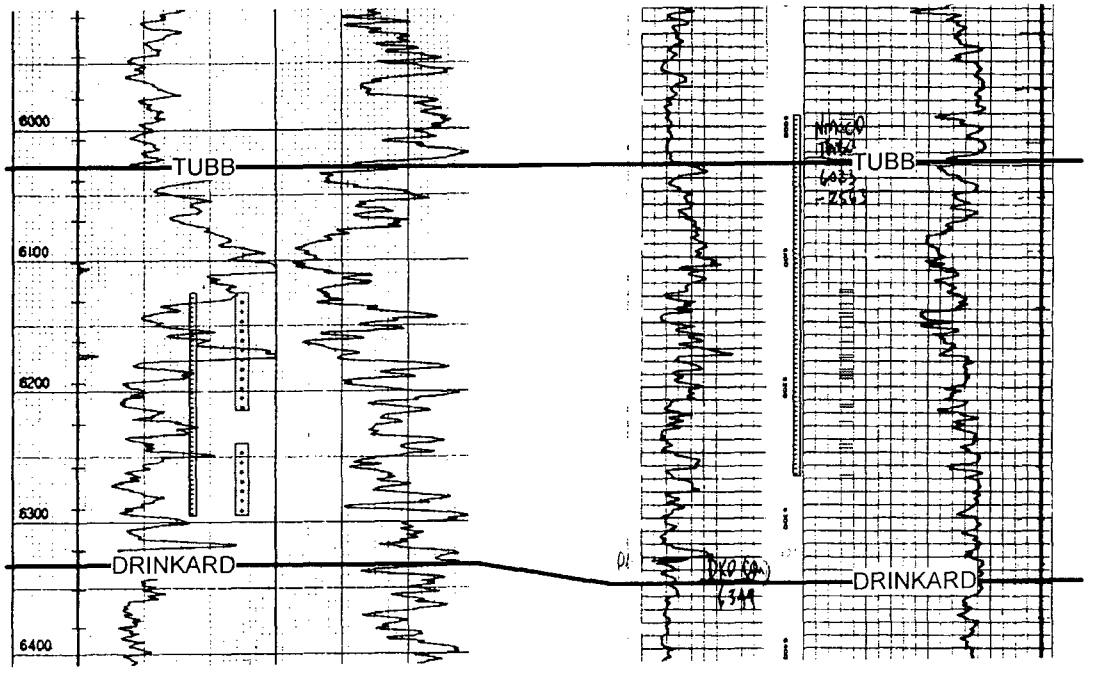
Eunice Area

APACHE CORP
H CORRIGAN 4
Twn-Rge-Sec : T22S R37E S4

O_TUBB : 17,034
G_TUBB : 2,489,256
W_TUBB : 347

AMERADA
H CORRIGAN 7
Twn-Rge-Sec : T22S R37E S4

O_TUBB : 13,267
G_TUBB : 151,180
W_TUBB : 6,472



Form C-128

EXHIBIT 4

NEW MEXICO OIL CONSERVATION COMMISSION

Well Location and Acreage Dedication Plat

Section A.

Date September 5, 1962

Operator Amerada Petroleum Corporation Lease H. Corrigan

Well No. 9 Unit Letter G Section 4 Township 22-S Range 37-E NMPM

Located 1880' Feet From East Line, 1980' Feet From North Line

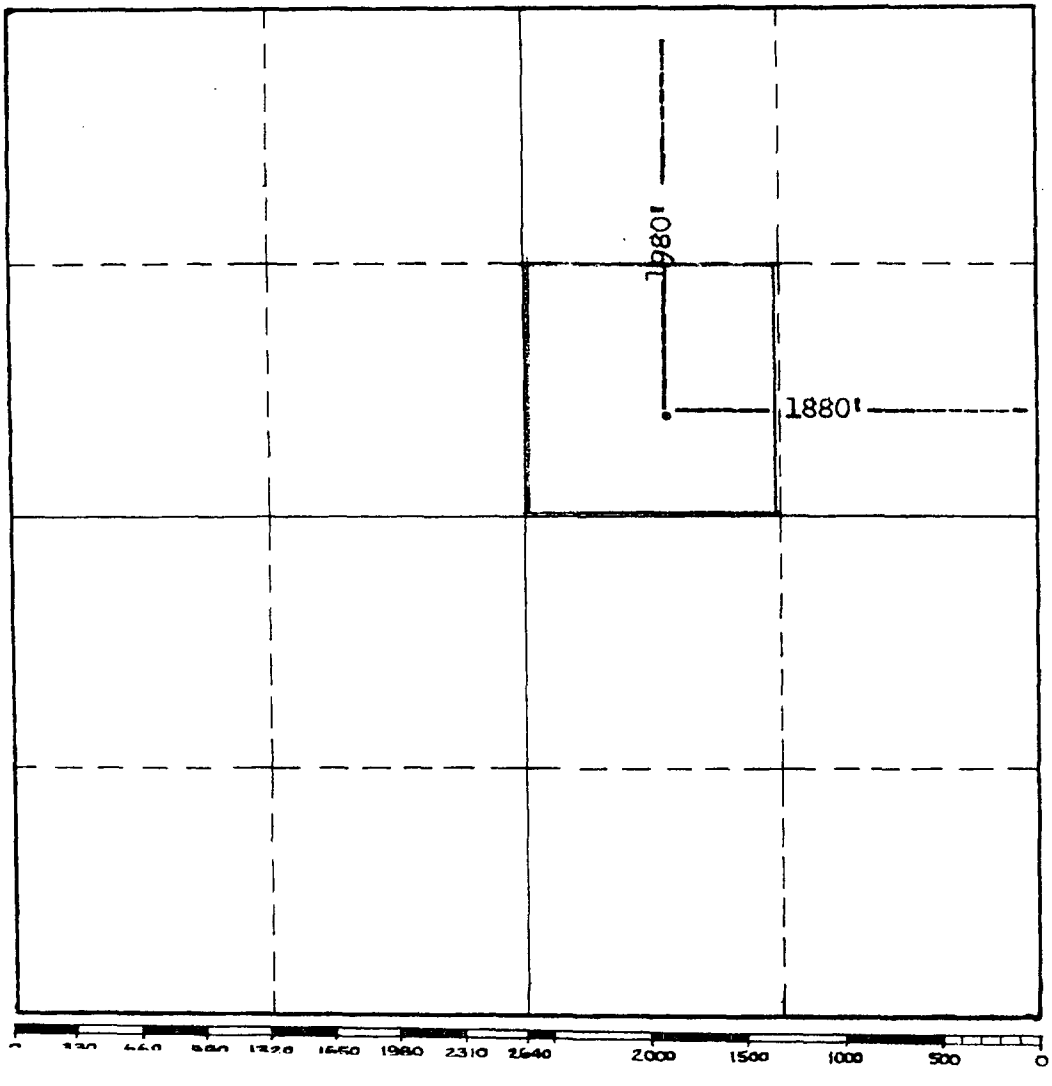
County Lea G.L. Elevation 3465' Dedicated Acreage 40 Acres

Name of Producing Formation Blinebry Pool Blinebry

1. Is the Operator the only owner* in the dedicated acreage outlined on the plat below? Yes x No ____.
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? Yes ____ No ____. If answer is "yes," Type of Consolidation ____
3. If the answer to question two is "no," list all the owners and their respective interest below:

Owner	Land Description

Section B



This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

~~Amerada Petroleum Corporation~~
(Operator)

B. G. Mecom
(Representative)

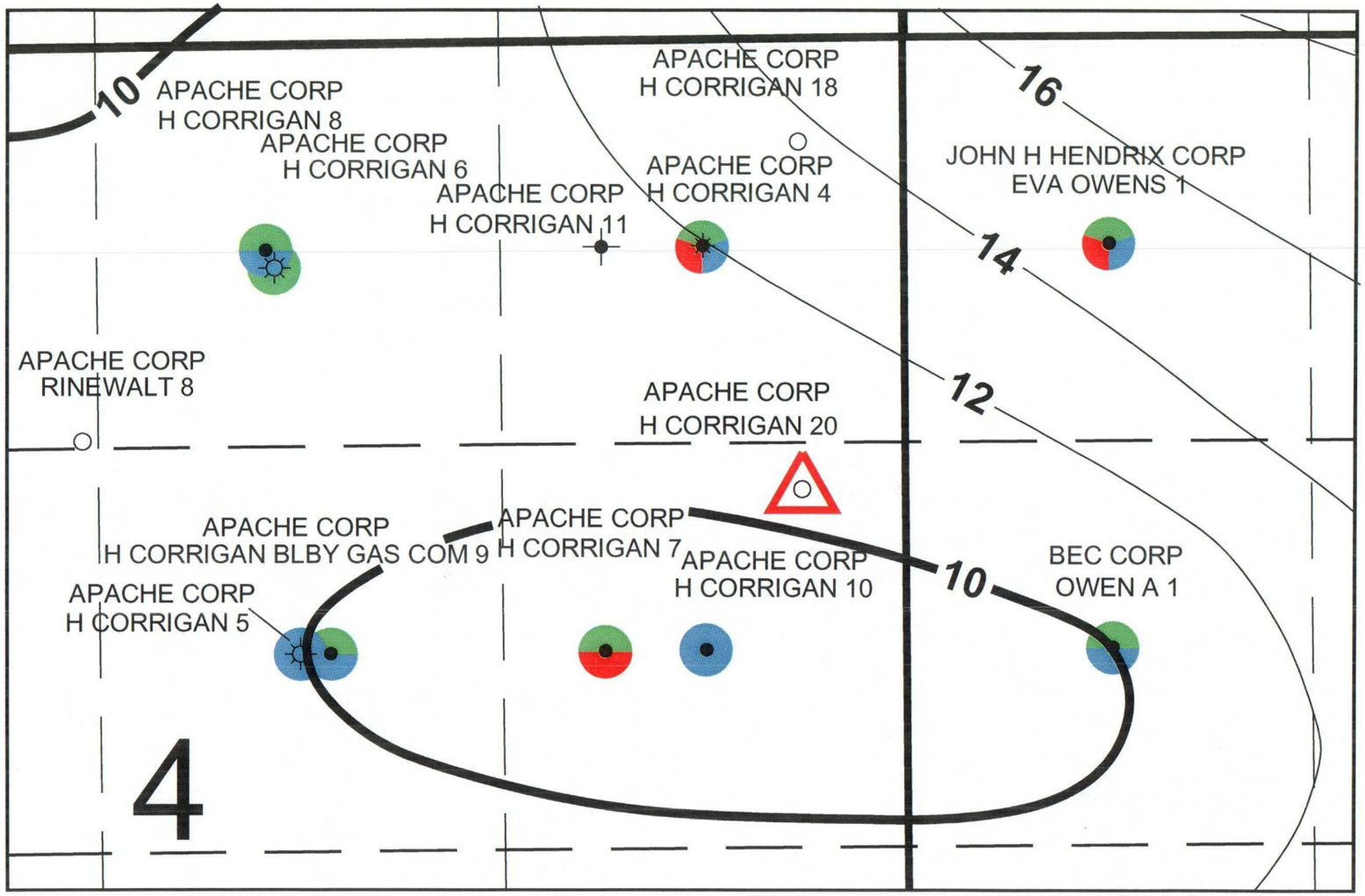
~~Box 706, Eunice, New Mexico~~
Address

This is to certify that the well location shown on the plat in Section B 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 knowledge and belief.

Date Surveyed ____

Registered Professional Engineer and/or Land Surveyor

Certificate No.



WELL SYMBOLS

- Location Only
- Oil Well
- Gas Well
- Dry

- BLINEBRY
- TUBB
- DRINKARD

0 500 1,000 1,500

FEET

POSTED WELL DATA

OPERATOR
WELL LABEL

BTD SOPHIH •

Apache CORPORATION CENTRAL REGION

TWO WARREN PLACE, SUITE 1500
6120 SOUTH YALE
TULSA, OKLAHOMA 74136-4224

H. CORRIGAN #20

SEC 4-T21S-R37E
LEA COUNTY, NEW MEXICO

EXHIBIT 5

BTD SOPHIH

DATE: 7/13/06 DWG: CURTIS\BTD NSL 6-22-06 (EX5)

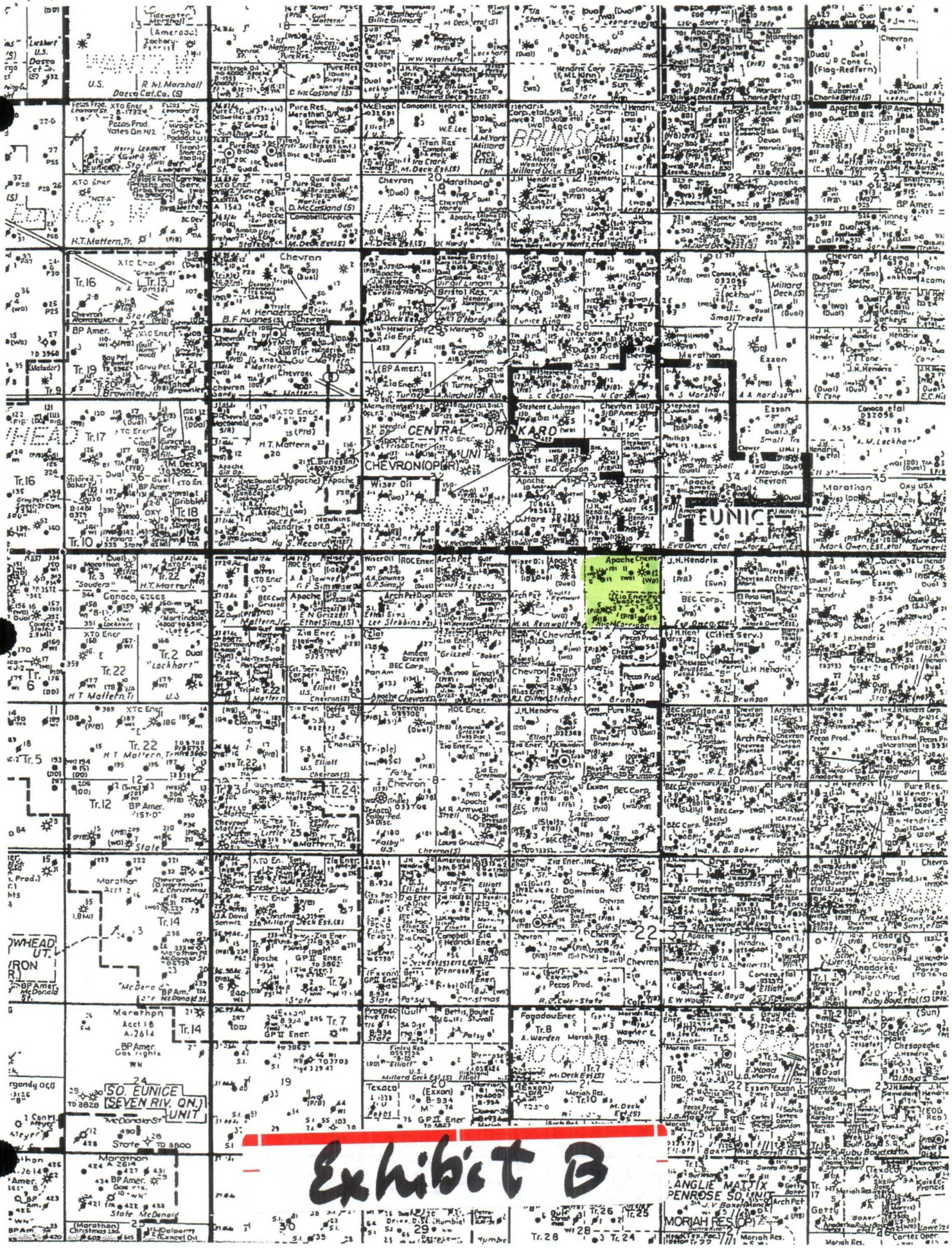


Exhibit B