

ABOVE THIS LINE FOR DIVISION USE ONLY

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



Hawk B-1 (Fed) #66  
 8-215-37E  
 Fed → Fed

**ADMINISTRATIVE APPLICATION CHECKLIST**

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]

2006 SEP 11 AM 11 33

- [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 \_\_\_\_\_
- [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  
 Print or Type Name

*James Bruce*  
 Signature

Attorney for applicant  
 Title

9/11/06  
 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)  
(505) 982-2151 (Fax)

[jamesbruc@aol.com](mailto: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:

<u>Well Name:</u>	Hawk B-1 Well No. 66
<u>Well Location:</u>	2620 feet FSL & 20 feet FEL
<u>Well Unit:</u>	NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 8, Township 21 South, Range 37 East, N.M.P.M., Lea County, New Mexico

The well will test the Blinebry, Tubb, and Drinkard formations (North Eunice Blinebry-Tubb-Drinkard Pool).

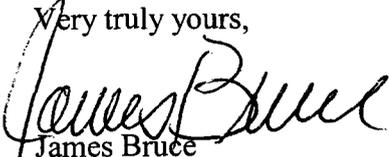
The application is based on geological and engineering reasons. A complete discussion, with exhibits, is attached as Exhibit A. The well is in the approximate center of existing Blinebry, Tubb, and Drinkard wells, and the proposed location will drain additional undrained reserves.

The well unit will be simultaneously dedicated to the proposed well and to the existing Hawk B-1 Well No. 11.

Exhibit B is a land plat. The location encroaches on the Hawk A Lease, which covers the NE $\frac{1}{4}$  of Section 8 and the W $\frac{1}{2}$ NW $\frac{1}{4}$  of Section 9 (the S $\frac{1}{2}$  of Section 9 is part of the Hawk B-1 Lease). The working interest owners have entered into the Cooperative Well Agreement attached as Exhibit C. Production from the proposed well will be allocated between the two leases as set forth in Exhibit C (52.95% to the Hawk B-1 Lease and 47.05% to the Hawk A Lease). Because all interest owners have agreed to the allocation of production, no interest owner has been notified of this application.

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 – 2620 FSL & 20' FEL  
 Section 8, Township 21 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 **Hawk B-1 #66** well (**Exhibit 1**).
2. The proposed unorthodox location encroaches toward 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, 5500', 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.

*Now in North  
 Example B-1-D  
 Pool  
 Order-12538*

API	Op.	Well	Loc	Pool	Cum O/G/W	Daily O/G/W
30-025-						
06432	Apache	Hawk A #02	8-H	Blinebry (06660)	30/426/15	1/9/0
06432	Apache	Hawk A #02	8-H	Tubb (60540)	3/36/5	1/14/1
06432	Apache	Hawk A #02	8-H	Drinkard (19190)	128/794/9	0/0/0
36339	Apache	Hawk A #19	8-H	Blinebry (06660)	0/2/0	0/20/0
36339	Apache	Hawk A #19	8-H	Tubb (60540)	0/2/0	0/21/0
36339	Apache	Hawk A #19	8-H	Drinkard (19190)	14/69/10	5/22/2
06440	Apache	Hawk A #03	9-E	Blinebry (06660)	52/486/9	1/7/0
06440	Apache	Hawk A #03	9-E	Drinkard (19190)	209/1875/10	2/14/1
09910	Apache	Hawk B-1 #04	9-L	Blinebry (06660)	87/2067/18	1/8/0
09910	Apache	Hawk B-1 #04	9-L	Drinkard (19190)	236/1783/3	0.1/5/0
06434	Apache	Hawk B-1 #11	8-I	Blinebry (06660)	12/430/4	0.12/5/0
06434	Apache	Hawk B-1 #11	8-I	Drinkard (19190)	214/1390/7	1/17/2

MBO BOPD  
 MMCFG MCFGPD  
 MBW BWPD

3. Apache expects the proposed **Hawk B-1 #66** 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) Apparent gas well producing characteristics of Hawk A #19 appears to be a math error in multiplying reported production by allocation factors (**Exhibit 3**). There is sufficient oil production for all three reservoirs to show oil production.

EXHIBIT A

4. The proposed **Hawk B-1 #66** location of 2620' from south line and 20' 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 4**).

The reservoir was analyzed by mapping hydrocarbon pore volume (SoPhiH) (**Exhibit 4**) 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. Water saturations can be adequately estimated from offsetting modern wells, however 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 of wells drilled prior to 1985 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. SoPhiH values are either from modern logs, or estimated from the grid. Wells with values determined from modern logs will be in bold, others are estimates from the grid.

Op.	Well	Loc	Reservoir	SoPhiH Ft	Area A	EUR MBO	EUR MMCFG
Apache	Hawk A #02	8-H	BTD	6.2	40	161	1258
<b>Apache</b>	<b>Hawk A #19</b>	<b>8-H</b>	<b>BTD</b>	<b>8.7</b>	<b>5</b>	<b>32</b>	<b>289</b>
Apache	Hawk A #03	9-E	BTD	11.3	36	261	2363
Apache	Hawk B-1 #04	9-L	BTD	13.9	36	323	3850
Apache	Hawk B-1 #11	8-I	BTD	11.0	32	227	1821

The proposed **Hawk B-1 #66** 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 planimetry 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:

Op.	Well	Loc	Reservoir	SoPhiH Ft	Area A	EUR MBO	EUR MMCFG
Apache	<b>Hawk B-1 #66</b>	8-I	BTD	9.7	12	75	600

**4. Notice**

Apache is the only operator of the Blinebry, Tubb, and Drinkard wells toward which the proposed well will encroach. Other working interest owners who need to be notified are:

BP America Production Company  
 501 Westlake Park Blvd  
 Houston, TX 77079  
 Attn: Land Department

Chevron U.S.A. Inc.  
11111 S. Wilcrest  
Houston, TX 77099  
Attn: Land Department

**Hawk B-1 #66** is additionally a "leaseline" location. The two leases involved, Hawk A and Hawk B-1, are both Federal Leases. Apache will enter into an appropriate Lease Line Agreement before the well is spudded.

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.

DISTRICT I  
1625 N. FRENCH DR., HOBBS, NM 80240

DISTRICT II  
1301 W. GRAND AVENUE, ARTESIA, NM 86210

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 JUNE 10, 2003  
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 HAWK B-1	Well Number 66
OGRID No.	Operator Name APACHE CORPORATION	Elevation 3522'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	8	21-S	37-E		2620	SOUTH	20	EAST	LEA

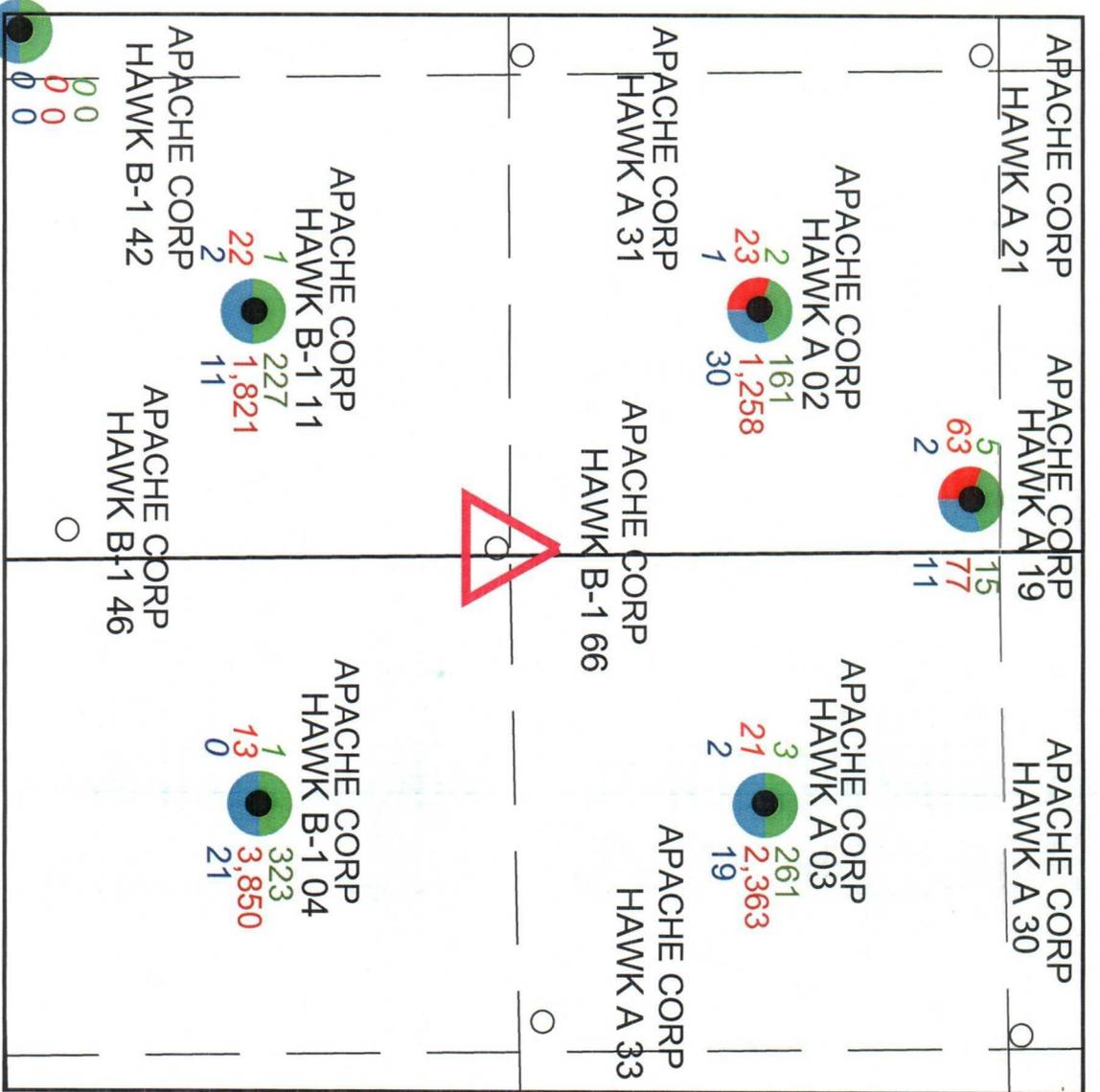
Bottom Hole Location If Different From Surface

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

<p>GEODETIC COORDINATES NAD 27 NME Y=545096.0 N X=856790.5 E LAT.=32°29'35.73" N LONG.=103°10'34.22" W</p> <p>SECTION 8 SECTION 9</p> <p>20'</p> <p>SEE DETAIL</p> <p>3524.2'</p> <p>3516.5'</p> <p>600'</p> <p>600'</p> <p>3527.1'</p> <p>3518.7'</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature _____</p> <p>Printed Name _____</p> <p>Title _____</p> <p>Date _____</p>
	<p><b>SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p>JANUARY 18, 2006</p> <p>Date Surveyed: Rev. 2/1/06 JR</p> <p>Signature &amp; Seal of Professional Surveyor</p> <p><i>Gary Edson</i> 2/1/06</p> <p>06.11.0068</p> <p>Certificate No. GARY EDSON 12641</p>



- WELL SYMBOLS
- Location Only
  - Oil Well
  - ☀ Gas Well
  - Dry

POSTED WELL DATA

OPERATOR  
WELL LABEL

CURRENT BOPD  
CURRENT MCFGD  
CURRENT BWPD

MBO  
MMCFG  
MBW



**Apache**  
CORPORATION  
CENTRAL REGION

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

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**HAWK B-1 #66**

SEG B-T21S-R37E  
LEA COUNTY, NEW MEXICO

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**EXHIBIT 2**

WELL INFORMATION

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DATE: 2/14/06      DWG: CURTISBTD NSLWELL (EX2)

Submit 3 Copies to Appropriate District Office

State of New Mexico  
Energy, Minerals and Natural Resources

FORM C-103  
Revised March 25, 1999

- DISTRICT I  
1623 N. French Dr., Hobbs, NM 88240
- DISTRICT II  
811 South First, Artesia, NM 88210
- DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410
- DISTRICT IV  
1220 South St. Francis Dr., Santa Fe, NM 87505

OIL CONSERVATION DIVISION  
1220 South St. Francis Drive  
Santa Fe, NM 87505

WELL API NO.	30-025-36339
5. Indicate Type of Lease	<input type="checkbox"/> STATE <input type="checkbox"/> FEE
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name	Hawk A
8. Well No.	19
9. Pool name or Wildcat	Blinebry O&G, Tubb O&G, Drinkard

**SUNDRY NOTICES AND REPORTS ON WELLS**  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:  
 OIL WELL     GAS WELL     OTHER

2. Name of Operator  
 Apache Corporation

3. Address of Operator  
 6120 South Yale, Suite 1500 Tulsa, Oklahoma 74136-4224

4. Well Location  
 Unit Letter H : 1420 Feet From The North Line and 150 Feet From The East Line  
 Section 8 Township 21S Range 37E NMPM Lea County

10. Elevation (Show whether DP, RKB, RT, GR, etc.)  
 3509' GR

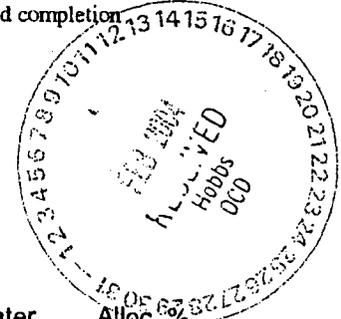
11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
<input type="checkbox"/> Perform Remedial Work <input type="checkbox"/> Temporarily Abandon <input type="checkbox"/> Pull or Alter Casing <input checked="" type="checkbox"/> Other    Downhole Commingle	<input type="checkbox"/> Remedial Work <input type="checkbox"/> Commence Drilling Operations <input type="checkbox"/> Casing Test and Cement Job <input type="checkbox"/> Other
<input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Change Plans	<input type="checkbox"/> Altering Casing <input type="checkbox"/> Plug and Abandonment

12. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Per Order R-11363, Apache Corporation respectfully requests authorization to downhole commingle the designated pools.

		Perforations:
Blinebry	6660	5675-6122
Drinkard	19190	6556-6735
Tubb	60240	6231-6476



The allocation method will be as follows:

	Oil	Alloc. %	Test: Gas	48 x 92 x 40 Alloc. %	Water	Alloc. %
Blinebry	10	20%	0	0%	0	0%
Drinkard	20	42%	49	53%	24	59%
Tubb	18	38%	43	47%	16	41%
	<u>48</u>		<u>92</u>		<u>40</u>	

Downhole commingling will not reduce the value of these pools.  
 Ownership is the same for each of these pools.  
 The Bureau of Land Management has been notified of this request.

DHC Order No. HOB-0076

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

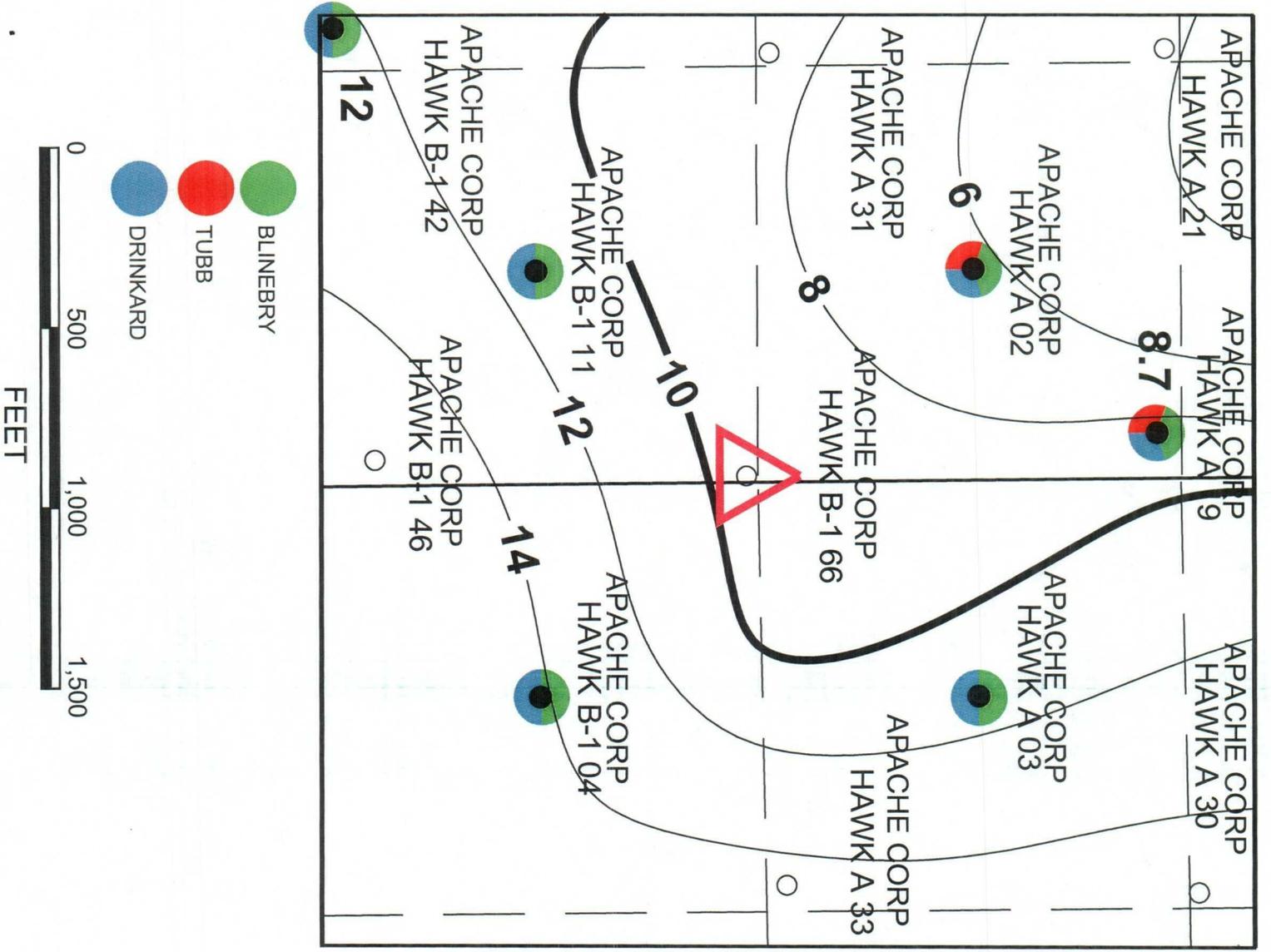
SIGNATURE Kara Coday TITLE Sr. Engineering Technician DATE 2/3/2004

TYPE OR PRINT NAME Kara Coday TELEPHONE NO. 918-491-4957

(This space for State Use)

APPROVED BY Paul F. Kautz TITLE PETROLEUM ENGINEER DATE FEB 12 2004

CONDITIONS OF APPROVAL, IF ANY:



- BLINEBRY
- TUBB
- DRINKARD

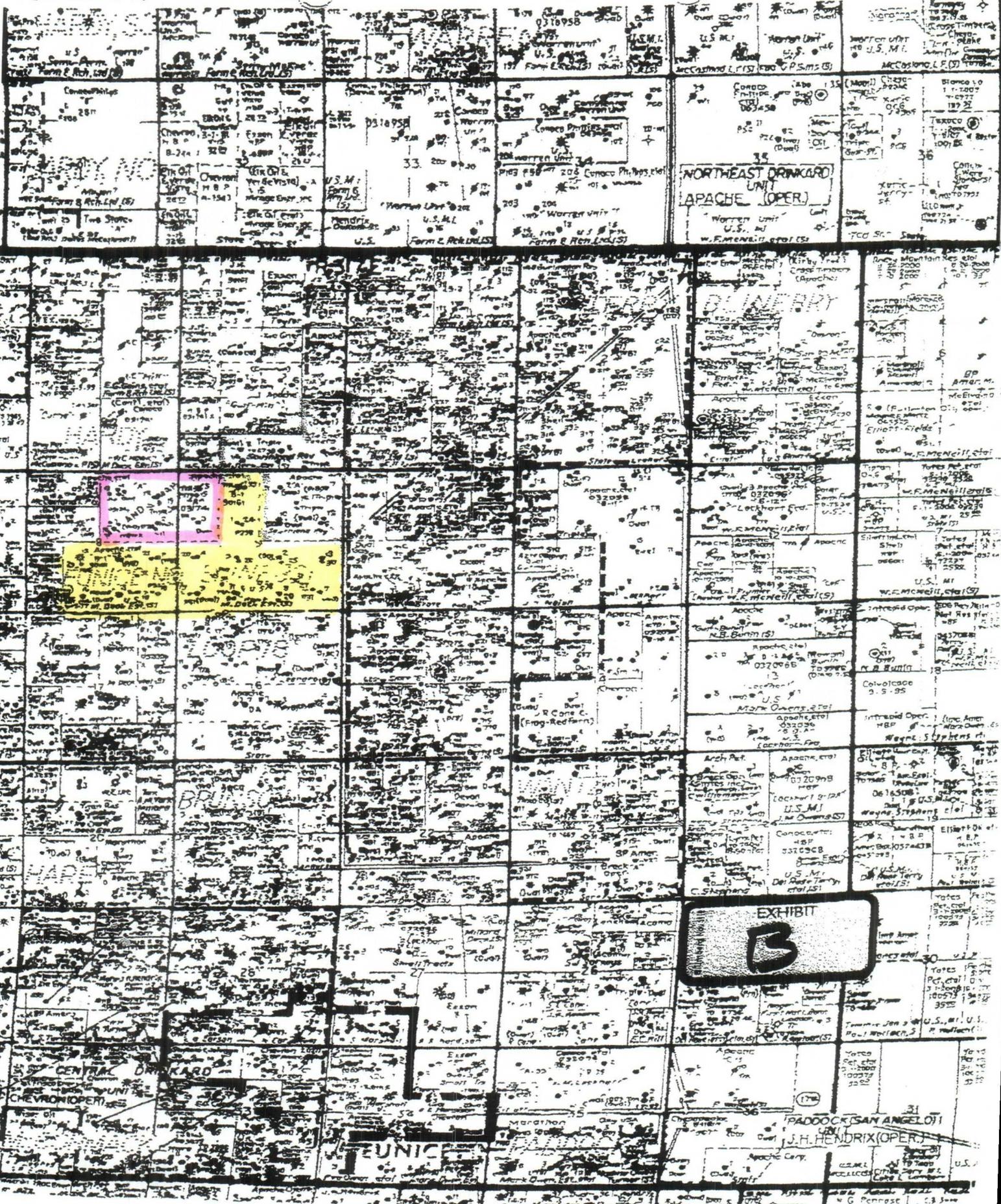
- WELL SYMBOLS
- Location Only
  - Oil Well
  - ☀ Gas Well
  - ⊖ Dry

POSTED WELL DATA

OPERATOR  
WELL LABEL

**BTD SOPHIH ●**

 <p>APACHE CORPORATION CENTRAL REGION</p>	
<p>TWO WARREN PLACE, SUITE 1500 6120 SOUTH YALE TULSA, OKLAHOMA 74136-4224</p>	
<p><b>HAWK B-1 66</b></p>	
<p>SEG B-T21S-R37E LEA COUNTY, NEW MEXICO</p>	
<p><b>EXHIBIT 4</b></p>	
<p><b>BTD SOPHIH</b></p>	
DATE: 2/14/06	DWG: CURTIS/BTD NSLWELL (EX3)



**COOPERATIVE WELL AGREEMENT**  
**(for the Hawk B-1 #66 Well)**

This Cooperative Well Agreement ("Agreement"), is entered into and is effective as of May 1, 2006, between **BP AMERICA PRODUCTION COMPANY**, whose address is 501 Westlake Park Blvd., Houston, TX 77079 ("BP"), **CHEVRON U.S.A. INC.**, whose address is 11111 S. Wilcrest, Houston, TX 77099 ("Chevron") and **APACHE CORPORATION**, whose address is 6120 South Yale Avenue, Suite 1500, Tulsa, Oklahoma 74136 ("Apache"). BP, Chevron, and Apache are sometimes hereafter referred to individually as "Party" and collectively as "Parties".

**WITNESSETH:**

**WHEREAS, Apache is Operator of the following oil and gas leases in Lea County, New Mexico (hereinafter sometimes collectively referred to as the "Properties"):**

1. **Hawk B-1 Lease** –  
Lessor: The United States of America NM 90161  
Lessee: Estate of Wilbur C. Hawk  
Date: March 1, 1958  
Description: Insofar and only insofar as same covers the following-described land in Lea County, New Mexico:  
**Township 21 South, Range 37 East, N.M.P.M.**  
Section 9: NW/4NW/4SW/4  
Section 8: NE/4NE/4SE/4
  
2. **Hawk A Lease** -  
Lessor: The United State of America LC 031741 (a)  
Lessee: Estate of Wilbur C. Hawk  
Date: January 1, 1958  
Description: Insofar and only insofar as same covers the following-described land in Lea County, New Mexico:  
**Township 21 South, Range 37 East, N.M.P.M.**  
Section 9: SW/4SW/4W/2NW/4  
Section 8: SE/4SE/4NE/4

WHEREAS, the Parties each own undivided operating rights in and to the Hawk B-1 Lease and the Hawk A Lease; and

WHEREAS, the Parties desire to drill and complete the **Hawk B-1 # 66 Well** ("Cooperative Well") for the production of oil, gas and related hydrocarbons, insofar as it covers the Blinebry, Tubb and Drinkard formations, at a non-standard location encroaching on the lease line between the Hawk B-1 Lease and Hawk A Lease in Sections 8 and 9 as described below; and

WHEREAS, the Parties desire to provide for the sharing of production from and the costs of drilling, completing and operating said **Hawk B-1 # 66 Well** as described herein below.

NOW THEREFORE, the Parties hereby agree as follows:

1. **DESIGNATION AND RESPONSIBILITIES OF OPERATOR**

A. Apache is designated as operator ("Operator") of the **Hawk B-1 # 66 Well** for the purposes of this Agreement.

B. Operator shall drill, complete and operate the Cooperative Well for oil and/or gas production from horizons encountered from the surface of the earth down to and including the base of the Drinkard Formation as follows:

**Hawk B-1 # 66 Well:**

SURFACE LOCATION: 2620' FSL & 20' FEL, Sec. 8, T21S-R37E,  
Lea County, New Mexico,  
Planned Total Depth: 6,975 feet, but in no event below the base of  
The Drinkard Formation plus one hundred  
(100) feet for operational purposes only.

Except as otherwise provided in this Agreement, the Parties agree that all operations, and the rights and obligations of the Parties, with respect to the Cooperative Well shall be governed by the terms and conditions of that certain NMFU Operating Agreement dated September 1, 1989, as amended to date (hereinafter referred to as the "NMFU Operating Agreement"), specifically including, but not limited to, the insurance and indemnification provisions of that Agreement. Solely for purposes of drilling and operating the **Hawk B-1 # 66 Well**, Exhibit A-1 to the NMFU Operating Agreement is amended to cover the **Hawk B-1 # 66 Well** as provided herein. As between the Parties there is and shall be no cross-assignment or other transfer to title to any interests of the Parties in the Properties as a result of this Agreement. This Agreement is merely a contractual arrangement among the Parties to drill, equip, test, operate and produce the Cooperative Well. BP and Chevron shall, at their sole cost and risk, have access to the Cooperative Well location at all reasonable times to inspect or observe operations and to information pertaining to the development and operation of the Cooperative Well. BP and Chevron shall also have the right to audit Operator's books and records relating thereto in accordance with the applicable provisions of Exhibit "C" - Accounting Procedure, attached to the NMFU Operating Agreement. Operator, upon request, shall furnish BP and Chevron copies of all forms or reports filed with governmental agencies, well logs, tank tables, daily gauge and run tickets and reports of stock on hand at the first of each month, and shall make available to BP and Chevron samples of any cores or cuttings taken from the Cooperative Well. The cost of gathering and furnishing information to BP and Chevron, other than that specified above, shall be charged to BP and Chevron.

C. Operator shall establish and maintain a Joint Account for the performance hereof, and shall advance all costs incurred in connection with operating the Cooperative Well and shall charge the Joint Account for all such costs on the basis provided in Exhibit "C" - Accounting Procedure, NMFU Operating Agreement. All charges and credits to the Joint Account for the Cooperative Well shall be borne, and production therefrom will be shared, including but not limited to charges, credits and production associated with recompletions of the Cooperative Well to horizons shallower than the Drinkard formation, by the below named Parties in the percentage shown opposite their name as follows:

Apache: .....	50.00%
BP .....	25.00%
Chevron .....	25.00%

All other operations conducted or wells drilled on the lands described above not related to the Cooperative Well, will not be affected by this Agreement.

If any provision of Exhibit "C" - Accounting Procedure is inconsistent with any provision in this Agreement, the provisions of this Agreement shall prevail.

2. **TERM OF AGREEMENT**

This Agreement shall remain in full force and effect so long as such Cooperative Well continues to produce oil or gas or both, and for an additional period of ninety (90) days from cessation of all production; provided, however, if, prior to the expiration of such additional period, the Parties are engaged in drilling or reworking operations to restore production from the Cooperative Well hereunder, this Agreement shall continue in force until such operations have been completed, with no cessation of more than sixty (60) consecutive days, and if production results there from, this Agreement shall continue in force as provided herein. Upon cessation of the production of oil or gas or both, Operator shall plug and abandon the Cooperative Well in accordance with all rules and regulations of all governmental agencies having jurisdiction over the premises at the cost, risk, and expense of the Parties, and shall salvage all equipment in and on the

well for the account of the Party(ies) that initially paid for said equipment. The termination of this Agreement shall not relieve any of the parties from any liability which has accrued hereunder prior to the date of such termination.

Notwithstanding anything to the contrary contained elsewhere in this Agreement, if the actual drilling operations for the Cooperative Well are not commenced on or before June 1, 2007, then this Agreement shall immediately terminate and shall have no further force and effect.

### 3. NON-PARTNERSHIP ELECTION

A. Under no circumstances shall this Agreement be construed as creating a partnership, mining partnership or an association for profit between or among the Parties hereto. The liability of the Parties shall be several and not joint or collective. Each Party shall be liable only for the costs incurred and the risks assumed by each respective Party in connection with the performance of this Agreement.

B. Notwithstanding any provisions herein that the right and liabilities of the Parties hereunder are several and not joint or collective or that this Agreement and the operations hereunder shall not constitute a partnership, if for Federal income tax purposes this Agreement and the operations hereunder are regarded as a partnership, then each of the parties hereto hereby elects to be excluded from the application of all the provisions of Subchapter K, Chapter 1, Subtitle A, of the Internal Revenue Code of 1986, as permitted and authorized by Section 761 of said Code and the regulation promulgated thereunder. Operator is authorized and directed to execute on behalf of each of the Parties hereto such evidence of this election as may be required by the Secretary of the Treasury of the United State or the Federal Internal Revenue Service, including specifically, but not by way of limitation, all of the returns, statements, and the date required by Federal Regulations 1.761-2. Should there be any requirement that each party hereto further evidence this election, each Party hereto agrees to execute such documents and furnish such other evidence as may be required by the Federal Internal Revenue Service or as may be necessary to evidence this election. Each Party hereto further agrees not to give any notices or take any other action inconsistent with election made hereby. If any present or future income tax laws of the state or states in which the property covered by this Agreement is located, or any future income tax law of the United States, contain, or shall hereafter contain, provisions similar to those contained in Subchapter K, Chapter 1, Subtitle A, of the Internal Revenue Code of 1986, under which an election similar to that provided by Section 761 of Subchapter K is permitted, each of the parties hereby makes such election or agrees to make such election as may be permitted by such laws. In making this election, each of the Parties hereto hereby states that the income derived by it from the operations under this Agreement can be adequately determined without the computation of the partnership taxable income.

### 4. TRANSFER OF INTEREST

If any instrument purporting to effectuate the sale, assignment, or transfer of any interest of a Party in or to the Hawk B-1 Lease and/or the Hawk A Lease does not expressly provide that such sale, assignment or transfer is made and accepted subject to this Agreement, the purported sale, assignment or transfer of any such interest shall be void.

### 5. CLAIMS AND LAWSUITS

A. If any Party is sued on an alleged cause of action arising out of operations covered by this Agreement, it shall give prompt written notice of the suit to the other party.

B. Operator may settle any single damage claim or suit arising from operations hereunder for any settlement amount not exceeding Thirty-Five Thousand Dollars (\$35,000), provided such payment is in complete settlement of such claim or suit.

C. If the amount required for settlement exceeds the amount hereinabove set out, Operator shall give notice to BP and Chevron of its intent to settle for such higher amount, and if BP and Chevron agree to such higher amount, Operator may settle such claim or suit for such higher amount.

D. If, in Operator's opinion, such claim or suit is not amenable to or susceptible

of settlement, Operator may upon the written consent of the Parties hereto supervise the administration of said claim or suit employing Operator's staff attorneys or other attorneys as it may see fit to do so, provided that the settlement limitations set forth in paragraph 5B shall apply, inclusive of costs and attorney fees incurred by Operator. The fees and expenses of settlement and handling such claim or suit shall be charged to the Joint Account, provided no charge shall be made for services performed by the staff attorneys for either Party.

6. **TAKING PRODUCTION IN KIND**

Each Party shall take in kind or separately dispose of its proportionate share of all oil and gas produced from the Cooperative Well, exclusive of production which may be used in development and producing operations and in preparing and treating oil and gas for marketing purposes and production unavoidably lost. Any extra expenditure incurred in the taking in kind or separate disposition by any Party of its proportionate share of the production shall be borne by such Party. Any Party taking its share of production in kind shall be required to pay only for its proportionate share of such part of Operator's surface facilities which it uses. In the event one or more Parties' separate disposition of its share of the gas causes split-stream deliveries to separate pipelines which on a day-to-day basis for any reason are not exactly equal to a Party's respective proportionate share of total gas sales to be allocated to it, the balancing or accounting between the respective accounts of the Parties shall be in accordance with the Gas Balancing Agreement attached to the NMFU Operating Agreement.

In the event any Party shall fail to make the arrangements necessary to take in kind or separately dispose of its proportionate share of the oil produced from the Cooperative Well, Operator shall have the right, subject to the revocation at will by the Party owning it, but not the obligation, to purchase such oil or sell it to others at any time and from time to time, for the account of the non-taking Party at the best price obtainable in the area for such production. Any such purchase or sale by Operator shall be subject always to the right of the owner of the production to exercise at any time its right to take in kind, or separately dispose of, its share of all oil not previously delivered to a purchaser. Any purchase or sale by Operator of any other Party's share of oil shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the particular circumstances, but in no event for a period in excess of one (1) year.

7. **PRODUCTION ALLOCATION AND BURDENS ADMINISTRATION**

All royalties, overriding royalty interests, production payments, or similar lease burdens encumbering the Properties which are created and existing as of the effective date hereof are defined as the Existing Burdens. Solely for the payment of such Existing Burdens, all oil, gas and related hydrocarbons produced from or allocated to the Cooperative Well shall be allocated to the Properties as follows:

Hawk B-1 Lease .....	52.95%
Hawk A Lease .....	47.05%

Each Party shall account for and administer its share of the Existing Burdens attributable to the Hawk B-1 Lease and/or the Hawk A Lease, based on such Party's operating rights in said lease(s) insofar and only insofar as to the formation(s) being produced from the Cooperative Well. Further, each Party shall indemnify and hold harmless each other Parties for the payment of its share of such Existing Burdens.

Acceptance of the payment of such Existing Burdens by the owners thereof shall never be construed as approval or ratification of a pooling, unitization, or communitization of the Hawk B-1 Lease and the Hawk A Lease.

8. **MEASUREMENT**

Subject to the provisions of Paragraph 6, all oil produced from the Cooperative Well will be measured in accordance with the standard metering practice accepted by the Bureau of Land Management. The method used shall be checked for accuracy at least once every month. All gas separated from such oil shall be metered or determined from well test before delivery to the gas purchaser.

9. TITLE

This Agreement is not intended as a conveyance of any interest whatsoever in real property owned or controlled by the Parties, but is merely a contractual arrangement between the Parties to operate the Cooperative Well and share the production and costs thereof.

10. NOTICES

A. All notices authorized or required by this Agreement, unless otherwise specifically provided, shall be deemed to have been given when it is received by the Party to whom addressed if it is given in writing by Certified Mail, Return Receipt Requested, or telegram, postage or charges prepaid, and addressed to the parties to whom the notice is given at the addresses listed above.

B. Each Party shall have the right to change its address at any time and from time to time by giving written notice thereof to the other Parties.

11. PRE-COMMENCEMENT APPROVALS

Notwithstanding anything to the contrary contained elsewhere in this Agreement, Operator shall not commence actual drilling operations for the Cooperative Well until this Agreement, and the operations contemplated hereunder, has been approved by the Authorized Officer of the Bureau of Land Management. Operator shall be solely responsible for obtaining such approvals. All costs, expenses and fees associated with obtaining such approvals shall be billed and accounted for pursuant to 1.C. of this Agreement.

12. No director, employee, or agent of either party will give to or receive from any director, employee, or agent of the other party any commission, fee, rebate, gift, or entertainment of significant cost or value in connection with this Agreement. During the term of this Agreement and for 2 years, thereafter, any mutually agreeable representatives authorized by either party may audit the applicable records of the other party solely for the purpose of determining whether there has been compliance with this paragraph. The provisions of this paragraph will survive termination of this Agreement.

This Agreement is freely assignable and shall extend to and be binding on the successors and assigns of the Parties hereto.

This Agreement may be executed in any number of counterparts, each of which shall be considered as an original for all purposes.

IN WITNESS WHEREOF, the parties have caused the execution of this instrument to be effective on the date first above written

**APACHE CORPORATION**

**BP AMERICA PRODUCTION COMPANY**

By: John Swain  
Printed Name: John Swain  
Title: Attorney-In-Fact

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

*MSW*

**CHEVRON U.S.A. INC.**

**BUREAU OF LAND MANAGEMENT**

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

STATE OF OKLAHOMA §  
§  
COUNTY OF TULSA §

This instrument was acknowledged before me this 13 day of June, 2006, by John Swain, Attorney-In-Fact for Apache Corporation, a Delaware corporation, on behalf of said corporation.



Michael D. Hanson  
Notary Public, State of Oklahoma

STATE OF TEXAS §  
§  
COUNTY OF \_\_\_\_\_ §

This instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_, by \_\_\_\_\_ of BP America Production Company, a Delaware corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public, State of Texas

STATE OF TEXAS §  
§  
COUNTY OF \_\_\_\_\_ §

This instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_, by \_\_\_\_\_ of Chevron U.S.A. Inc., a Pennsylvania corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public, State of Texas

STATE OF NEW MEXICO §  
§  
COUNTY OF LEA §

This instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_, by \_\_\_\_\_, Authorized Officer of the Bureau of Land Management on behalf of the Bureau of Land Management.

\_\_\_\_\_  
Notary Public, State of New Mexico

9. TITLE

This Agreement is not intended as a conveyance of any interest whatsoever in real property owned or controlled by the Parties, but is merely a contractual arrangement between the Parties to operate the Cooperative Well and share the production and costs thereof.

10. NOTICES

A. All notices authorized or required by this Agreement, unless otherwise specifically provided, shall be deemed to have been given when it is received by the Party to whom addressed if it is given in writing by Certified Mail, Return Receipt Requested, or telegram, postage or charges prepaid, and addressed to the parties to whom the notice is given at the addresses listed above.

B. Each Party shall have the right to change its address at any time and from time to time by giving written notice thereof to the other Parties.

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12. No director, employee, or agent of either party will give to or receive from any director, employee, or agent of the other party any commission, fee, rebate, gift, or entertainment of significant cost or value in connection with this Agreement. During the term of this Agreement and for 2 years, thereafter, any mutually agreeable representatives authorized by either party may audit the applicable records of the other party solely for the purpose of determining whether there has been compliance with this paragraph. The provisions of this paragraph will survive termination of this Agreement.

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This Agreement may be executed in any number of counterparts, each of which shall be considered as an original for all purposes.

IN WITNESS WHEREOF, the parties have caused the execution of this instrument to be effective on the date first above written

APACHE CORPORATION

BP AMERICA PRODUCTION COMPANY

By: John Swain  
Printed Name: John Swain  
Title: Attorney-in-Fact

By: E.M. Sierra  
Printed Name: E.M. Sierra  
Title: Attorney-in-Fact  
EGB JS

mw

CHEVRON U.S.A. INC.

BUREAU OF LAND MANAGEMENT

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

STATE OF TEXAS §  
§  
COUNTY OF Harris §

This instrument was acknowledged before me this 12<sup>th</sup> day of July, 2006, by E.M. Sierra, Attorney-In-Fact of BP America Production Company, a Delaware corporation, on behalf of said corporation.



Christie M. Smith  
Notary Public, State of Texas

STATE OF TEXAS §  
§  
COUNTY OF \_\_\_\_\_ §

This instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_, by \_\_\_\_\_ of Chevron U.S.A. Inc., a Pennsylvania corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public, State of Texas

STATE OF NEW MEXICO §  
§  
COUNTY OF LEA §

This instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_, by \_\_\_\_\_, Authorized Officer of the Bureau of Land Management on behalf of the Bureau of Land Management.

\_\_\_\_\_  
Notary Public, State of New Mexico

10. NOTICES

A. All notices authorized or required by this Agreement, unless otherwise specifically provided, shall be deemed to have been given when it is received by the Party to whom addressed if it is given in writing by Certified Mail, Return Receipt Requested, or telegram, postage or charges prepaid, and addressed to the parties to whom the notice is given at the addresses listed above.

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This Agreement may be executed in any number of counterparts, each of which shall be considered as an original for all purposes.

IN WITNESS WHEREOF, the parties have caused the execution of this instrument to be effective on the date first above written

APACHE CORPORATION

BP AMERICA PRODUCTION COMPANY

By: John Swain  
Printed Name: John Swain  
Title: Attorney-In-Fact

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

CHEVRON U.S.A. INC.

BUREAU OF LAND MANAGEMENT

By: D.A. Brelvi  
Printed Name: D.A. BRELVH  
Title: ATTORNEY-IN-FACT

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_



Mitchell Hansen  
Notary Public, State of Oklahoma

STATE OF TEXAS §  
§  
COUNTY OF \_\_\_\_\_ §

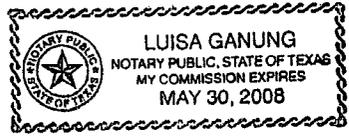
This instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_, by \_\_\_\_\_ of BP America Production Company, a Delaware corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public, State of Texas

STATE OF TEXAS §  
§  
COUNTY OF \_\_\_\_\_ §

This instrument was acknowledged before me this 17<sup>th</sup> day of JUNE, 2006, by D.A. BREIN, ATTORNEY IN FACT of Chevron U.S.A. Inc., a Pennsylvania corporation, on behalf of said corporation.

Luisa Ganung  
Notary Public, State of Texas



STATE OF NEW MEXICO §  
§  
COUNTY OF LEA §

This instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_, by \_\_\_\_\_, Authorized Officer of the Bureau of Land Management on behalf of the Bureau of Land Management.

\_\_\_\_\_  
Notary Public, State of New Mexico