

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD-HOBBS

SUBMIT IN TRIPLICATE \*  
(Other Instructions on  
reverse side)FORM APPROVED  
OMB NO. 1004-0136

Expires: February 28, 1995

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/>		5..LEASE DESIGNATION AND SERIAL NO. <b>NMNM-90161</b>	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>		6..IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR <b>Apache Corporation (CO143 Bond) (0873 OGRID)</b>		7. UNIT AGREEMENT NAME	
3. ADDRESS AND TELEPHONE NO. Agent: P.O.Box 8309, Roswell, NM 88202 505-624-9799 (Bonnie Jones) <b>Apache: 6120 S. Yale Ave., #1500, Tulsa, OK 74136 918-491-4801 (Terry Gilbert)</b>		8. FARM OR LEASE NAME, WELL NO. <b>24427</b> <b>Hawk B-1 #45</b>	
4. LOCATION OF WELL (Report location clearly and in accordance with any State or Federal law) At Surface <b>1,332' FSL, 2,629' FWL, Unit K (NESW)</b> At proposed prod. Zone <b>1,332' FSL, 2,629' FWL, Unit K (NESW)</b>		9. API WELL NO. <b>30-025-37741</b>	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* <b>±3 miles Northwest of Eunice, NM</b>		10. FIELD AND POOL OR WILDCAT <b>Eunice Monument, Grayburg-San Andres</b> <b>23000 W-1-1-2 Abo</b>	
15. DISTANCE FROM PROPOSED * LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. <b>1,308' more or less</b> (Also to nearest drlg. unit line, if any)		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>Sec. 8, T21S-R37E, NMPM</b>	
16. NO. OF ACRES IN LEASE <b>958.25</b>		12. COUNTY FOR PARISH <b>Lea</b>	
17. NO. OF ACRES ASSIGNED TO THIS WELL <b>40.00</b>		13. STATE <b>NM</b>	
18. DISTANCE FROM PROPOSED LOCATION * TO NEAREST WELL, DRILLING, COMPLETED OR APPLIED FOR, ON THIS LEASE, FT. <b>822'</b>		19. PROPOSED DEPTH <b>7,400'</b>	
20. ROTARY OR CABLE TOOLS <b>Rotary</b>		21. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>3512' (KB)</b>	
22. APPROX. DATE WORK WILL START * <b>ASAP</b>			

23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
<b>See Exhibit A</b>				

Anticipated Duration of Program: Drilling - 16 days  
Completion - 28 days  
See attached Exhibit A for complete Drilling Program

**APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED**

**EXHIBITS**  
Exhibit A: Drilling Program  
Exhibit B: H<sub>2</sub>S Plan  
Exhibit C: Surface Use Plan  
Exhibit D: Survey Plat  
Exhibit E: Location Plat  
Exhibit F: Existing Well Plat  
Exhibit G: Rig Layout  
Exhibit H: BOP Layout

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Bonita L. L. Jones TITLE Permit Agent for Apache Corporation DATE 1-12-06  
**Bonita L. L. Jones, RPL (Bonnie)**

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_

APPROVAL DATE \_\_\_\_\_

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY /s/ Joe G. Lara

ACTING

TITLE FIELD MANAGER

DATE

**FEB 17 2006**

\*See Instructions On Reverse Side  
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Witness Surface Casing

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or re-entry to a different reservoir.  
Use "APPLICATION FOR PERMIT - " for such proposals.

5. Lease Designation and Serial No.  
**NMNM-90161**

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

**Hawk B-1 #45**

9. API Well No.

**30-025- 3774**

10. Field and Pool, or Exploratory Area

**Wantz; Abo**

11. County or Parish, State

**Lea County, NM**

**SUBMIT IN TRIPLICATE**

1. Type of Well



Oil  
Well



Gas  
Well



Other

2. Name of Operator

**Apache Corporation (Bond: CO1463) (OGRID: 0873)**

3. Address and Telephone No.

**6120 S. Yale, #1500, Tulsa, OK 74136, Terry Gilbert 918-491-4801**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

**1,332' FSL, 2,629' FWL, (NE $\frac{1}{4}$ SW $\frac{1}{4}$ , Unit K)**

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION



Notice of Intent



Subsequent Report



Final Abandonment Notice

TYPE OF ACTION



Abandonment



Recompletion



Plugging Back



Casing Repair



Altering Casing



Other Change Deepest Pool



Change of Plans



New Construction



Non-Routine Fracturing



Water Shut-Off



Conversion to Injection



Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

The original APD for this well erroneously cited the deepest pool for this well as the Eunice Monument; Grayburg-San Andres (23000). In fact, with a TD of 7,400', the deepest pool should have been cited as the Wantz, Abo (62700). Attached is a revised Exhibit D-1 (C-102) reflecting the proper pool.

14. I hereby certify that the foregoing is true and correct.

SIGNED

*Bonita L. Jones*

TITLE

**Permit Agent**

DATE

**3-1-06**

**Bonita (Bonnie) L. L. Jones, Permit Agent, P.O. Box 8309, Roswell, NM 88202-8309, 505-624-9799**

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*See Instruction On Reverse Side

## State of New Mexico

Energy, Minerals and Natural Resources Department

## DISTRICT I

1625 N. FRENCI DR., BOBBS, NM 86240

## 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

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 30-025- <b>37241</b>	Pool Code 62700	Pool Name Wantz; Abo
Property Code 24427	Property Name HAWK B-1	Well Number 45
OGRID No. 0873	Operator Name APACHE CORPORATION	Elevation 3512'

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	8	21-S	37-E		1332	SOUTH	2629	WEST	LEA

## Bottom Hole Location If Different From Surface

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40.00			<b>NSL-5254</b>

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</p> <p>Y=543783.2 N X=854175.0 E</p> <p>LAT.=32°29'23.02" N LONG.=103°11'04.92" W</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>[Signature]</i> Signature GARY BONE Printed Name Dirg Emer Title 10/28/05 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>JUNE 13, 2005</p> <p>Date Surveyed Signature &amp; Seal Professional Surveyor GARY EDISON NEW MEXICO 05.11.0868 Certificate No. GARY EDISON 12641</p>

**Hawk B-1 # 45**

**DRILLING PROGRAM**

I. The geological surface formation is recent Permian with quaternary alluvium and other surficial deposits.

II. Estimated Tops of Geological Markers:

## DEPTH

III. Estimated depths at which water, oil, gas, or other mineral-bearing formations are expected to be encountered:

DEPTH

All fresh water and prospectively valuable minerals (as described by BLM) encountered during drilling will be recorded by depth and adequately protected. All oil and gas shows within zones of correlative rights will be tested to determine commercial potential.

<u>HOLE SIZE</u>	<u>CASING SIZE</u>	<u>GRADE</u>	<u>WEIGHT PER FOOT</u>	<u>DEPTH</u>	<u>SACKS CEMENT</u>	<u>ESTIMATED TOC - REMARKS</u>
12 1/4"	8 5/8" 8.097"	J55 STC	24#	1300' 25' into the top of the Rustler Anhyd.	600	TOC - Surface 8.9 ppg Water-based Mud; 89 ° F Est. Static Temp; 83 ° F Est. Circ. Temp.
7 7/8"	5 1/2" 4.892"	J55 LTC	17#	7400'	1,400	TOC - Surface Float Collar set @ 7355' / 10.10 ppg Brine Mud; 141 ° F Est. Static Temp; 117 ° F Est. Circ. Temp

B. Proposed Cement Program:

<u>CASING</u>	<u>LEAD SLURRY</u>	<u>TAIL SLURRY</u>	<u>DISPLACEMENT</u>
8 5/8"	400 sacks 35:65 Poz:Class C Cement + 2% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 0.003 gps FP-6L + 6% bwoc Bentonite gel 752 Vol. Cu Ft 1.94 Vol. Factor Slurry Weight (ppg) 12.7 Slurry Yield (cf/sack) 1.88 Amount of Mix Water (gps) 10.7; <u>Estimated Pumping Time</u> <u>- 70 BC (HH:MM)-4:00;</u>	200 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water 270 Vol. Cu Ft 1.94 Vol. Factor Slurry Weight (ppg) 14.8 Slurry Yield (cf/sack) 1.35 Amount of Mix Water (gps) 6.35 Estimated Pumping Time - 70 BC (HH:MM)-3:00;	79.8 bbls Fresh Water @ 8.33 ppg

8 5/8" Casing: Volume Calculations:

1260 ft	x	0.4127 cf/ft	with 100% excess	=	1040.0 cf
40 ft		x 0.8214 cf/ft	with 0% excess	=	32.8 cf
40 ft	x	0.3576 cf/ft	with 0% excess	=	14.3 cf (inside pipe)
TOTAL SLURRY VOLUME					= 1087.1 cf
					= 193.6 bbls

Spacer 20.0 bbls Water @ 8.33 ppg

<u>CASING</u>	<u>LEAD SLURRY</u>	<u>TAIL SLURRY</u>	<u>DISPLACEMENT</u>
5 1/2"	950 sacks (50:50) Poz (Fly Ash): Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.003 gps FP-6L + 10% bwoc Bentonite 2318 Vol. Cu Ft 2.66 Vol. Factor Slurry Weight (ppg) 11.8 Slurry Yield (cf/sack) 2.44 Amount of Mix Water (gps) 14.07; Amount of Mix Fluid (gps) 14.07 <u>Estimated Pumping Time - 70</u> <u>BC (HH:MM)-4:00;</u>	450 sacks (50:50) Poz (Fly Ash): Class C Cement + 5% bwow Sodium Chloride + 0.003 gps FP-6L 581 Vol. Cu Ft 1.84 Vol. Factor Slurry Weight (ppg) 14.2 Slurry Yield (cf/sack) 1.29 Amount of Mix Water (gps) 5.91; Amount of Mix Fluid (gps) 5.91; Estimated Pumping Time - 70 BC (HH:MM)-3:00;	171 bbls 2% Kcl Water @ 8.43 ppg

5 1/2" Casing: Volume Calculations:

1300 ft	x	0.1926 cf/ft	with 0% excess	=	250.4 cf
3750 ft	x	0.1733 cf/ft	with 159% excess	=	1683 cf
2350 ft	x	0.1733 cf/ft	with 85% excess	=	577.0 cf
40 ft	x	0.1305 cf/ft	with 0% excess	=	5.2 cf (inside pipe)
TOTAL SLURRY VOLUME					= 2515.6 cf
					= 448 bbls

All slurries will be tested prior to loading to confirm thickening times and a lab report furnished to Apache. Fluid loss will be tested and reported on slurries with fluid loss additives. Lab test report will be furnished prior to pumping cement.

V. A. Proposed Mud Program

<u>DEPTH</u>	<u>MUD PROPERTIES</u>	<u>REMARKS</u>
0 – 1,300'	Weight: 8.6 – 9.6 ppg Viscosity: 34 – 36 sec/qt  pH: NC Filtrate: NC	Spud with a Conventional New Gel/Lime "Spud mud". Use NewGel and native solids to maintain a sufficient viscosity to keep the hole clean. Mix Paper one-two sacks every 100 feet drilled to minimize wall cake build up on water sands and to control seepage loss. At TD of interval, mix in pre-mix pit, 100 barrels of system fluid, NewGel viscosity of 60 sec/100cc, add 0.25 ppb of Super Sweep.
1300' – 5600'	Weight: 9.9 – 10.1 ppg Viscosity: 28 – 29 sec/qt  pH: 9-10 Filtrate: NC	Drill out from under the surface casing with Brine Water. Paper should be added at 2 bags after every 100' drilled to control seepage losses. Use Lime to maintain pH at 9-10. Mix one gallon of New-55 at flowline every 250 feet drilled to promote solids settling. Sweep hole with 5-ppb of Super Sweep every 500 feet.
5600' – TD	Weight: 9.9 – 10.1 ppg Viscosity: 30 – 40 sec/qt  pH: 9-10 Filtrate: 8-15 cm/30 min	From 5600' to Total Depth, it is recommended the system be restricted to the working pits. Adjust and maintain pH with Caustic Soda. Treat system with Newcide to prevent dacterial degradation of organic materials. Mix Starch (yellow) to control API filtrate at <15cc.

VI. Proposed Control Equipment:

Will install on the 8 5/8" surface casing a 9" x 3000 psi WP Double Ram BOP and will test before drilling out of surface casing. **As expected pressures will not exceed 2000 psi, we request a waiver of the remote control requirement on the accumulator of the 3M BOP and a variance to run a 2M BOP, if available.** See Exhibit "H" for BOP layout.

VII. Auxiliary Equipment:

- 9" x 3000 psi double BOP/blind & pipe ram **(2M BOP if available)**
- 41/2" x 3000 psi Kelly valve
- 9" x 3000 psi mud cross – H<sub>2</sub>S detector on production hole
- Gate-type safety valve 3" choke line from BOP to manifold
- 2" adjustable chokes – 3" blowdown line

VIII

- A. Testing Program: None planned
- B. Logging Program: The following logs may be run:  
CNL, LDT, GR, CAL, DLL, MSFL, NGT, Sonic from TD-1300'  
CNL, GR from TD-Surface
- C. Coring Program: None planned
- D. Mudlogging Program: 5,200 – TD, Samples every 10 ft

IX.

No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered, however, the proposed mud program will be modified to increase the mud-weight. The estimated maximum bottom hole pressure is 2700 psi.

EXHIBIT "B"  
Hawk B-1 # 45

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

No H<sub>2</sub>S is anticipated.

EXHIBIT "C"

SURFACE USE AND OPERATIONS PLAN  
CULTURAL RESOURCES SURVEY  
APPROXIMATE REHABILITATION SCHEDULE

LOCALITY: **HAWK B-1 # 45**  
OPERATOR: **APACHE CORPORATION**

LOCATION: NE $\frac{1}{4}$ SW $\frac{1}{4}$  OF SECTION 8, T21S-R37E, N.M.P.M.  
LEA COUNTY, NEW MEXICO

SUBMITTED TO:

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
ROSWELL DISTRICT OFFICE  
2909 WEST 2<sup>ND</sup> STREET  
ROSWELL, NEW MEXICO 88201  
TELEPHONE (505) 627-0272

This plan is submitted to provide permitting agencies with information necessary to allow an appraisal of the environmental effects associated with the proposed drilling operations. Within the context of typical drilling operations, this plan provides for protection of surface resources and other environmental components. This plan has been developed in conformity with the United States Geological Survey NTL-6 guidelines, Bureau of Land Management Oil and Gas Order No. 1, and in connection and consultation with the private surface owner of record, if other than the United States of America, as well as the Roswell District Office for the Bureau of Land Management and the United States Department of the Interior personnel.

PART #1:

1) Surface Location:

NE $\frac{1}{4}$ SW $\frac{1}{4}$  of Section 8, Township 21 South, Range 37 East, N.M.P.M.  
Lea County, New Mexico  
1332' FSL, 2629' FWL, Lot No. K  
See attached Exhibits "D" and "E"

2) Bottom Hole Location:

NE $\frac{1}{4}$ SW $\frac{1}{4}$  of Section 8, Township 21 South, Range 37 East, N.M.P.M.  
Lea County, New Mexico  
1332' FSL, 2629' FWL, Lot No. K  
See attached Exhibits "D" and "E"

3) Leases Issued: NM-90161

4) Record Lessee:

Apache Corporation	50%
BP America	25%
Chevron USA	25%

- 5) Acres in Lease:  
Township 21 South, Range 37 East, NMPM  
 Section 4: Lots 3, 6  
 Section 6: E/2SE/4, SW/4SE/4  
 Section 8: E/2SW/4, SE/4  
 Section 9: E/2NW/4, S/2  
Township 20 South, Range 37 East, NMPM  
 Section 13: SW/4NE/4, NW/4, SW/4  
Township 20 South, Range 38 East, NMPM  
 Section 30: Lot 1

Total Acres: 958.25

6) Acres Dedicated to Well:

There are 40.00 acres dedicated to this well, which takes in the NE $\frac{1}{4}$ SW $\frac{1}{4}$  of Section 8, Township 21 South, Range 37 East, N.M.P.M., Lea County, New Mexico.

PART #2:

1) Existing Roads:

Exhibits "E-1" & "E-2" comprise maps showing the proposed well site in relation to existing roads. From Jct. of Hwy. 8 & 207 in Eunice N.M. go 2.7 miles North on Hwy. 207, turn West at Hill Road and go 1.4 miles West and North on Main lease road, then 0.1 mile South on Turner Road, 0.3 mile West, And 0.1 mile South into location as illustrated on Exhibit "E-2".

2) Planned Access:

- A. Length and Width: A new 434' access road, 20' wide, will be built from the existing lease/access road into the well site. Application for a buried pipeline will be made if it becomes necessary.
- B. Construction: The existing roads will be lightly graded and topped with compacted caliche as needed.
- C. Turnouts: None required.
- D. Culverts: None required.
- E. Cuts and Fills: As needed.
- F. Gates and Cattleguards: None required.

3) Location of Existing Wells:

Exhibit "F" shows existing wells within a 1-mile radius of the proposed well.

4) Location of Existing and/or Proposed Facilities:

- A. There are production facilities within the area of the Hawk B-1 lease.
- B. If the oil well proves to be commercial, any necessary production facilities will be installed on the drilling pad, and flow lines will be installed along the proposed and existing roads to the production facilities and storage tanks. See Exhibit "E-3" for flow-line route.

5) Location and Type of Water Supply:

Apache Corporation plans to drill the proposed well with fresh and brine water which will be transported by truck over proposed and existing access roads.

6) Source of Construction Materials:

Caliche for surfacing access roads and the wellsite pad will be obtained from the location itself or from BLM pits in the area.

7) Method of Handling Waste Material:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system.
- E. Oil produced during operation will be stored in tanks until sold.
- F. Apache Corporation will comply with current laws and regulations pertaining to the disposal of human waste.
- G. All waste materials will be contained to prevent scattering by the wind and will be removed from the well site within 30 days after drilling and/or completion operations are finished.

8) Ancillary Facilities: None planned.

- 8) Ancillary Facilities: None planned.
- 9) Well Site Layout:
- A. Exhibit "G" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area have been staked and flagged.
  - B. Mat Size: 150' x 210' plus reserve pits as shown on Exhibit "G".
  - C. Cut & Fill: Only minor leveling of the drilling site is anticipated.
  - D. The surface will be topped with compacted caliche and the reserve pits will be lined with 12 mil plastic.
- 10) Plans for Restoration of the Surface:
- A. After completion of drilling and/or completion operations, all equipment and other material, not needed for operations, will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible.
  - B. Any unguarded pits containing fluids will be fenced until they are filled.
  - C. If the proposed well is non-productive, Apache Corporation will comply with all rehabilitation and/or vegetation requirements of the Bureau of Land Management, and such rehabilitation will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment.
- 11) Other Information:
- A. Topography: The wellsite and access road are located in the Querecho Plains and are relatively flat.
  - B. Soil: The proposed location, access road and production facilities consist of sandy soil. Slope in the proposed area ranges from zero (0) to five (5) degrees.
  - C. Flora and Fauna: Vegetation is one of a grassland environment and a scrub-grass, scrub disclimax community. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
  - D. Ponds and Streams: There are no ponds, lakes, streams or feeder creeks in the immediate area.
  - E. Residences and Other Structures: There are no occupied residences or other structures on or near the proposed location.
  - F. Land Use: The land is used for grazing cattle.
  - G. Surface Ownership: The surface is owned by the Miller Deck Estate, c/o Bank of America NA, attention Tim Wolters, P. O. Box 270, Midland, TX 79701, 432-685-2064. A Surface Damage Release between Apache Corporation and the Miller Deck Estate was executed October 26, 2005.
  - H. Archaeological, Historical, and Other Cultural Sites:  
Don Clifton, Archaeological Consultant, of Pep, New Mexico, completed an archaeological survey of the proposed well which covers the drilling location, production facilities, and access road, including a corridor along said access road for power and flow lines. His report, dated January 5, 2006, was filed under separate cover.

I. Senior Representative (Manager, Engineering & Production):

Ross Murphy  
Apache Corporation  
Suite 1500 – Two Warren Place  
6120 South Yale Avenue  
Tulsa, Oklahoma 74136  
(918) 491-4834

Project (Operations Engineer):

Kevin Mayes  
Apache Corporation  
Suite 1500 – Two Warren Place  
6120 South Yale Avenue  
Tulsa, Oklahoma 74136  
(918) 491-4972

Drilling Operations (Operations Engineer):

Terry Gilbert  
Apache Corporation  
Suite 1500 – Two Warren Place  
6120 South Yale Avenue  
Tulsa, Oklahoma 74136  
(918) 491-4801

CERTIFICATION

I hereby certify that Apache Corporation has inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Apache Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.



Bonita L. L. Jones, RPL, Consulting Landman  
Agent for Apache Corporation  
P. O. Box 8309  
Roswell, New Mexico 88202-8309  
(505) 624-9799 FAX (505) 624-9799  
E-Mail: 'blljones@plateautel.net'

Date: 1-12-06

DISTRICT I  
1625 N. FRENCH DR., BOBBS, 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

Exhibit D-1

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 30-025-	Pool Code 23000	Pool Name <del>Conice Monument; Grayburg-San Andres</del>
Property Code 24427	Property Name HAWK B-1	Well Number 45
OGRID No. 873	Operator Name APACHE CORPORATION	Elevation 3512'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	8	21-S	37-E		1332	SOUTH	2629	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40.00	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

	<b>OPERATOR CERTIFICATION</b>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  Signature: <i>[Signature]</i> Printed Name: <i>Glen Bone</i> Title: <i>Dir. Engr</i> Date: <i>10/28/05</i>
	<b>SURVEYOR CERTIFICATION</b>  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, 2005 Date Surveyed: <i>[Signature]</i> JR Signature & Seal of Professional Surveyor: <i>[Signature]</i> Certificate No. <i>05.11.0868</i> GARY KINSON 12641

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Exhibit D-2

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

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 <b>HAWK B-1</b>	Well Number <b>45</b>
OGRID No.	Operator Name <b>APACHE CORPORATION</b>	Elevation <b>3512'</b>

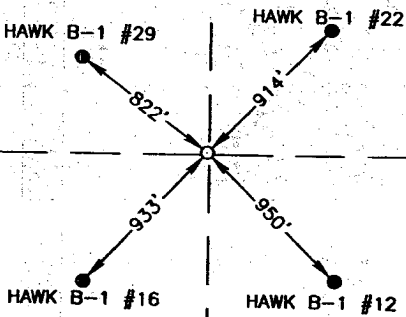
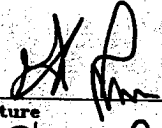
Surface Location

UL or lot No. <b>K</b>	Section <b>8</b>	Township <b>21-S</b>	Range <b>37-E</b>	Lot Idn	Feet from the <b>1332</b>	North/South line <b>SOUTH</b>	Feet from the <b>2629</b>	East/West line <b>WEST</b>	County <b>LEA</b>
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Bottom Hole Location If Different From Surface

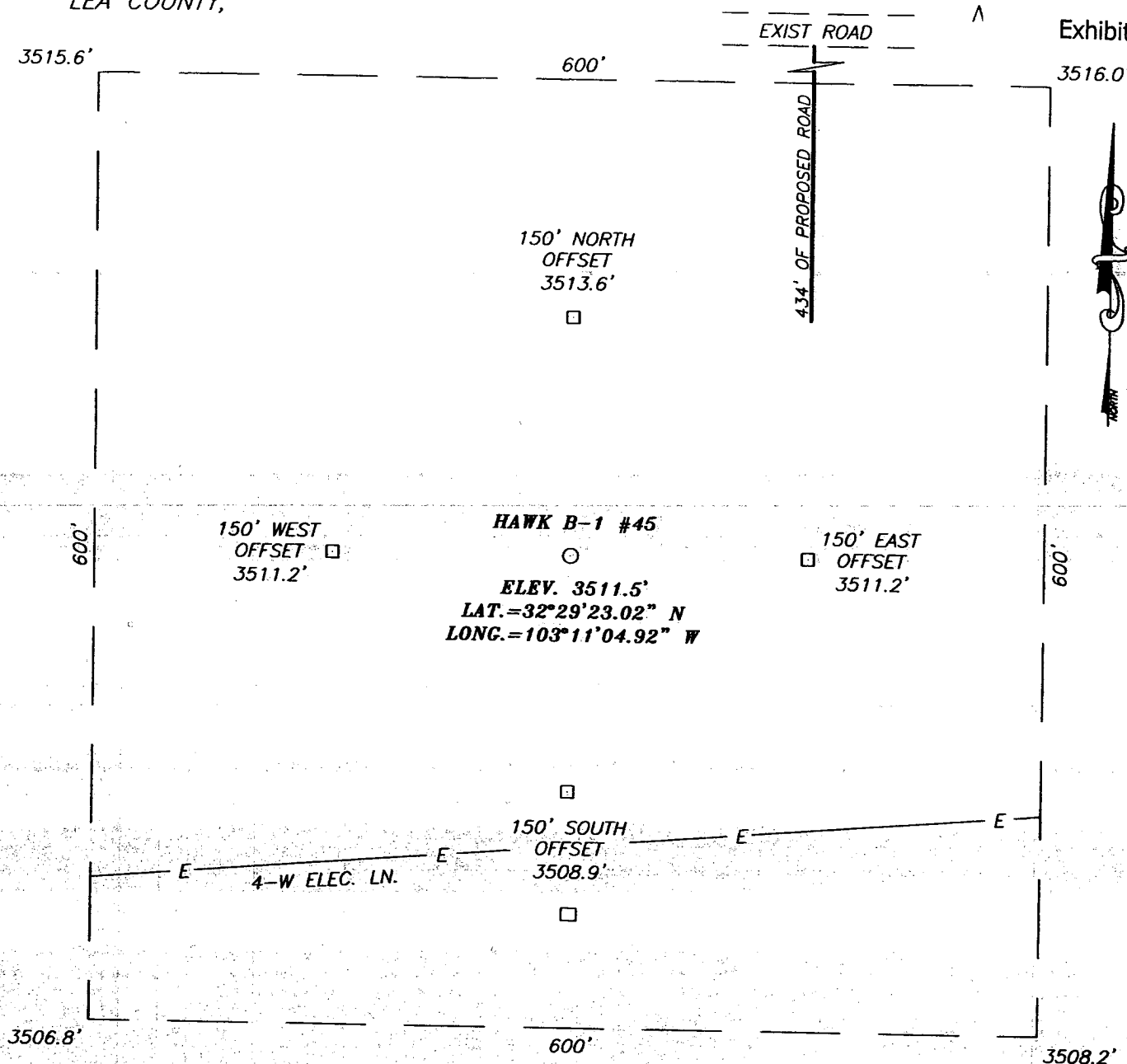
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

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

	<b>OPERATOR CERTIFICATION</b> <i>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</i>  Signature Glenn Bone Printed Name Dirg Engr Title 10/25/05 Date
	<b>SURVEYOR CERTIFICATION</b> <i>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.</i>  JUNE 13, 2005 Date Surveyed JR Signature & Seal of Professional Surveyor
	05.11.0868
	Certificate No. GARY EIDSON 12841

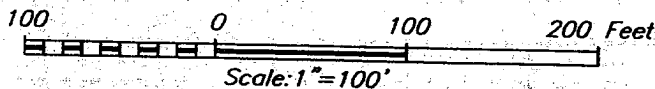
**SECTION 8, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.D.M.**  
LEA COUNTY,

Exhibit D-3



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF CO. RD. E34 (HILL RD.) AND CO. RD. E33 (TURNER) GO SOUTH ON CO. RD. E33 FOR APPROX. 0.15 MILES. TURN RIGHT (WEST) AND GO APPROX. 0.375 MILES. THIS LOCATION IS APPROX. 600' SOUTH.



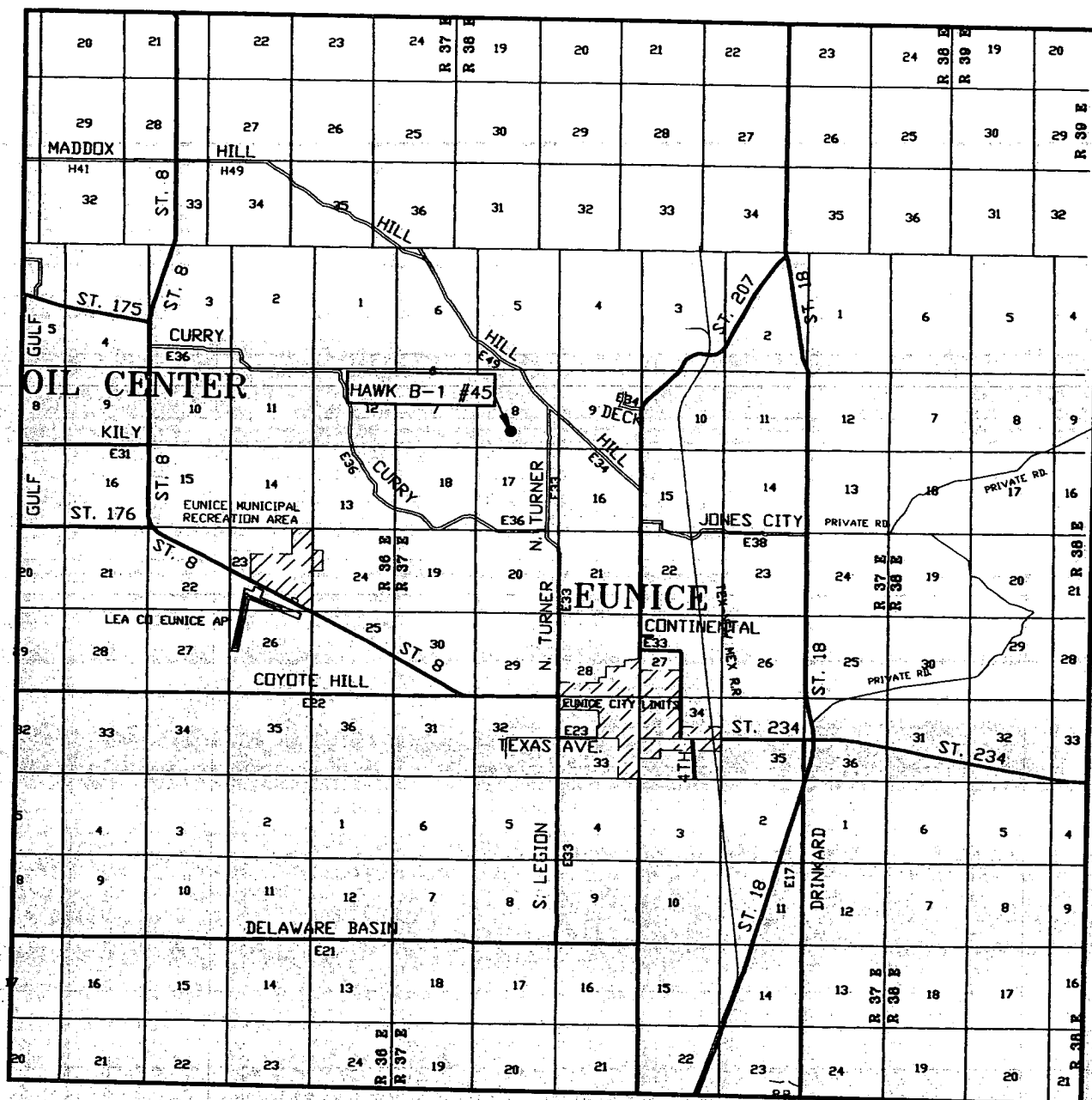
**APACHE CORPORATION**

**HAWK B-1 #45 WELL**  
LOCATED 1332 FEET FROM THE SOUTH LINE  
AND 2629 FEET FROM THE WEST LINE OF SECTION 8,  
TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.

Survey Date: 06/13/05	Sheet 1 of 1 Sheets
W.O. Number: 05.11.0868	Dr. By: J.R.
Date: 06/17/05	Rev 1: N/A
Disk: CD#5	05110868
	Scale: 1"=100'

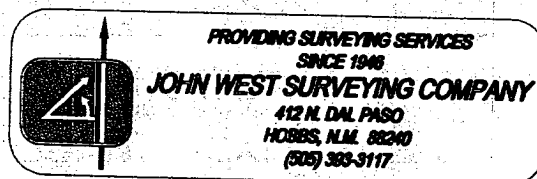
PROVIDING SURVEYING SERVICES  
SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
412 N. DAL PASO  
HOBBBS, N.M. 88240  
(505) 383-3117

## VICINITY MAP

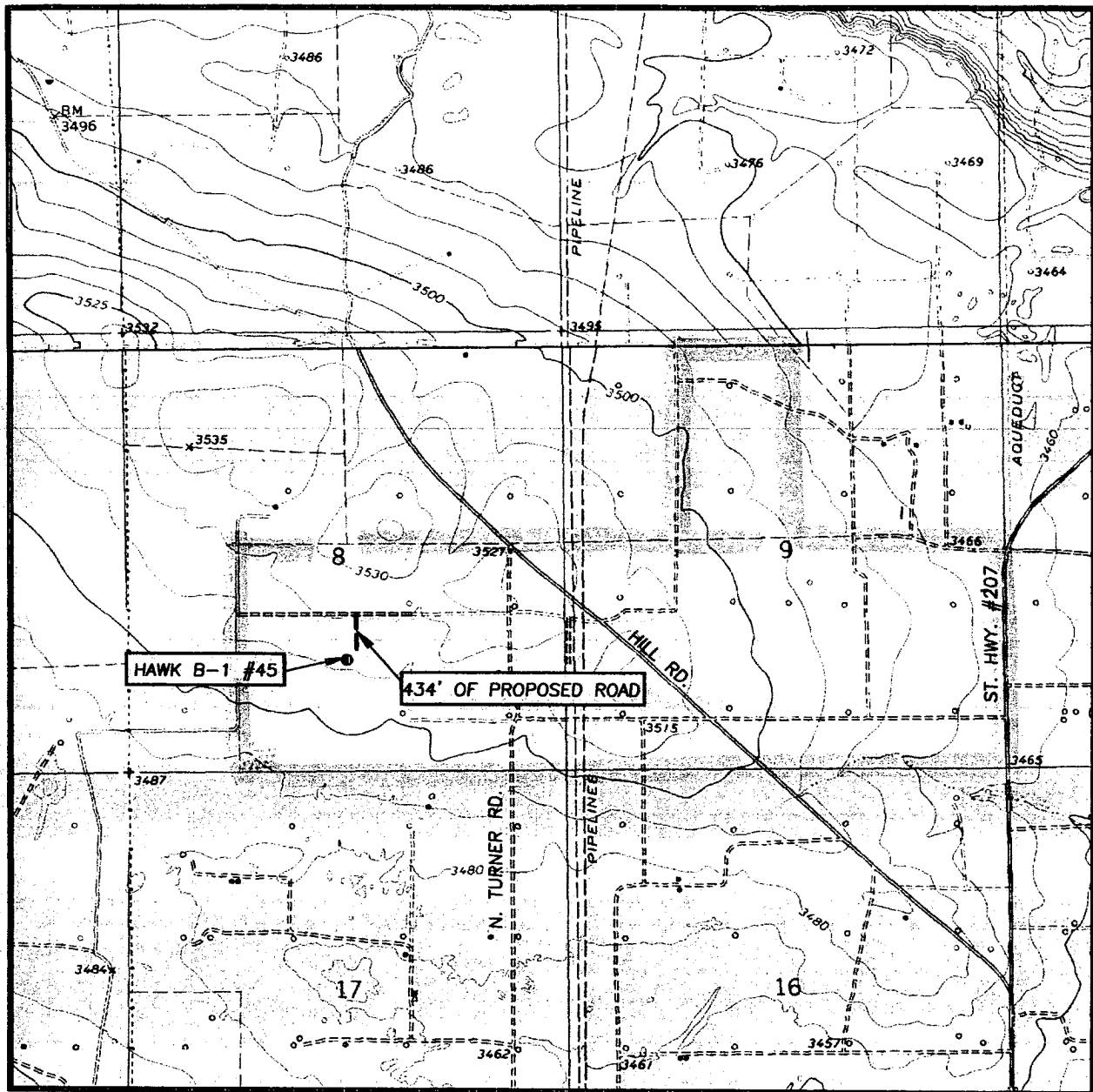


SCALE: 1" = 2 MILES

SEC. 8 TWP. 21-S. RGE. 37-E  
 SURVEY N.M.P.M.  
 COUNTY LEA  
 DESCRIPTION 1332' FSL & 2629' FWL  
 ELEVATION 3512'  
 OPERATOR APACHE CORPORATION  
 LEASE HAWK B-1



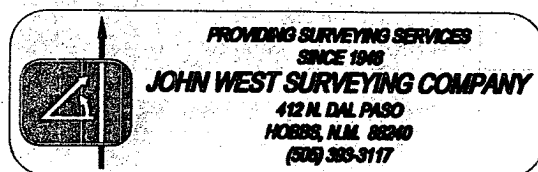
# LOCATION VERIFICATION MAP



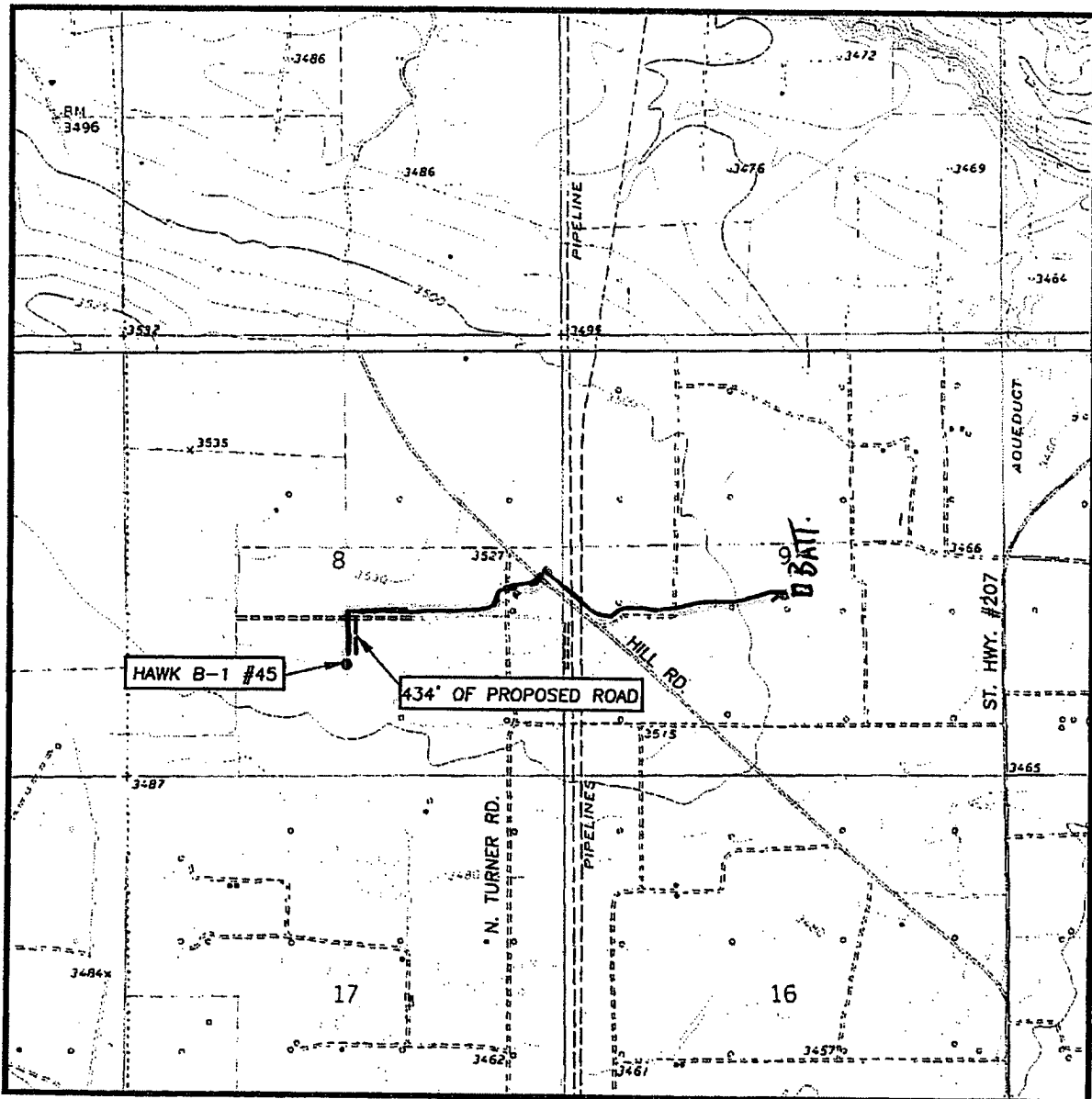
SCALE: 1" = 2000'

CONTOUR INTERVAL:  
EUNICE, N.M. - 10'SEC. 8 TWP. 21-S RGE. 37-ESURVEY N.M.P.M.COUNTY LEADESCRIPTION 1332' FSL & 2629' FWLELEVATION 3512'OPERATOR APACHE CORPORATIONLEASE HAWK B-1U.S.G.S. TOPOGRAPHIC MAP  
EUNICE, N.M.

LEASE BOUNDARY



# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
EUNICE, N.M. - 10'

SEC. 8 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1332' FSL & 2629' FWL

ELEVATION 3512'

OPERATOR APACHE CORPORATION

LEASE HAWK B-1

U.S.G.S. TOPOGRAPHIC MAP  
EUNICE, N.M.

Flow Lines

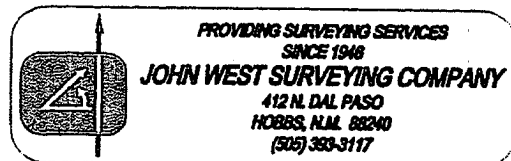
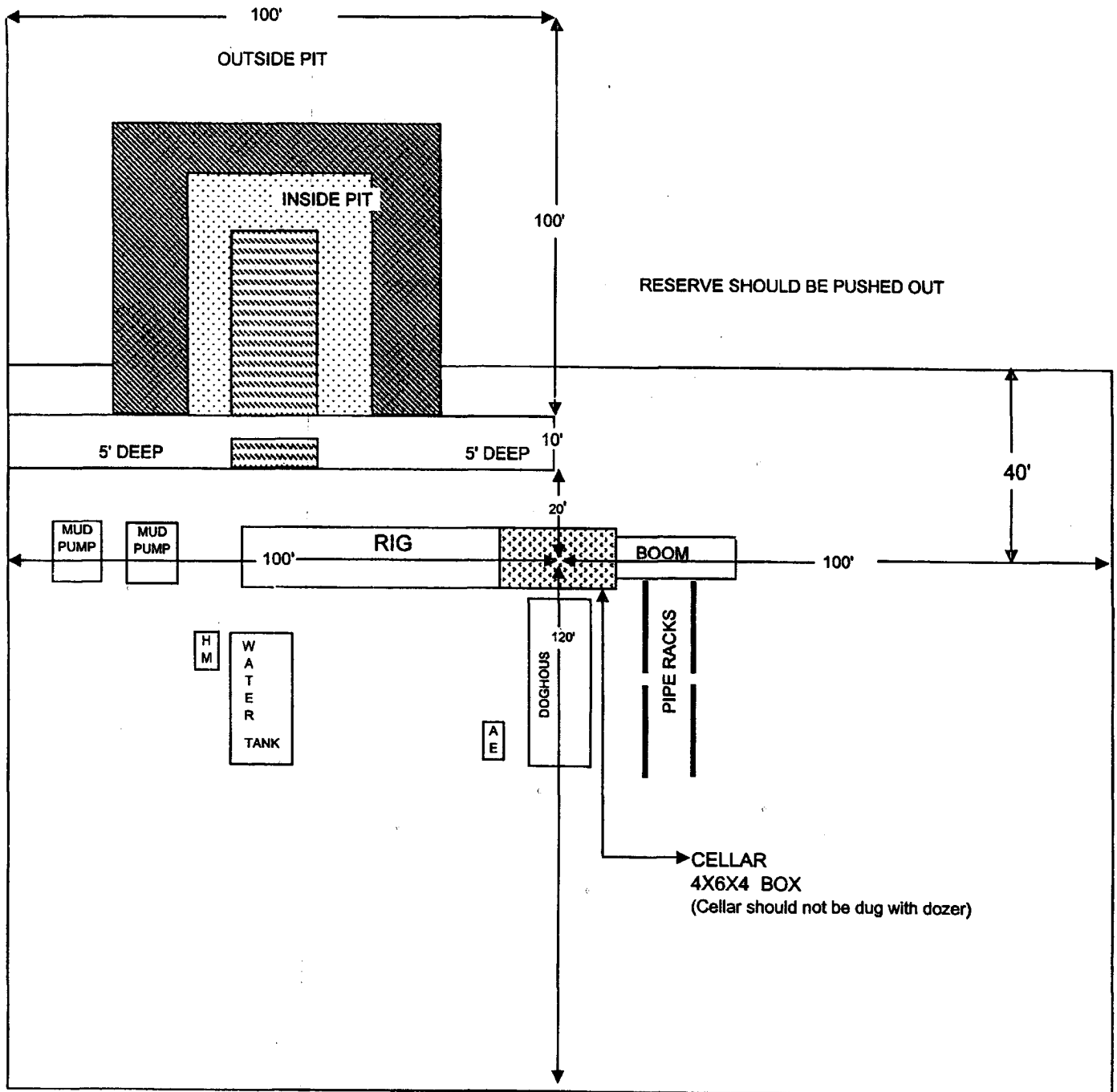




Exhibit G  
CapStar Drilling, Inc.  
LOCATION SPECIFICATIONS AND RIG LAYOUT  
FOR EARTH PITS

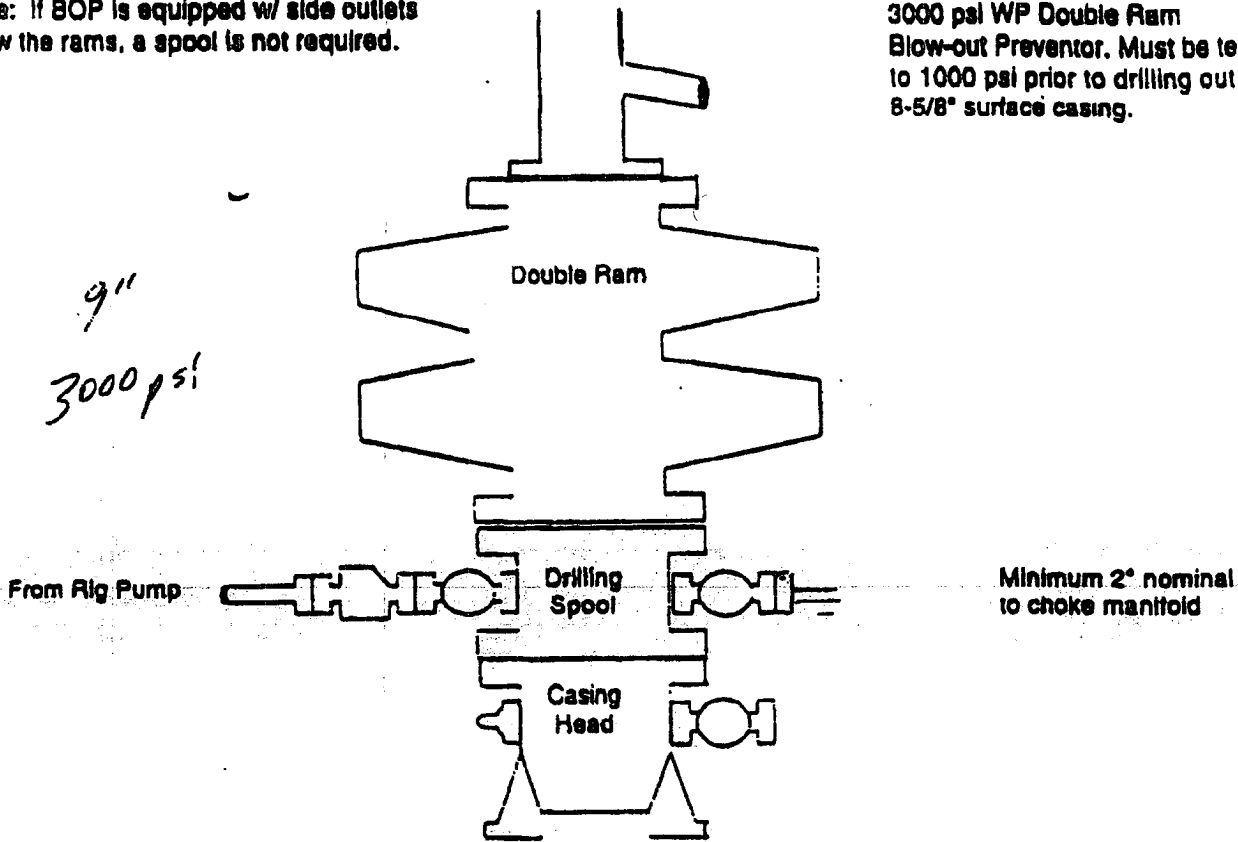


Cellar can be 4X4X4 if using a screw-on wellhead  
Working Pits dug 5' below ground level

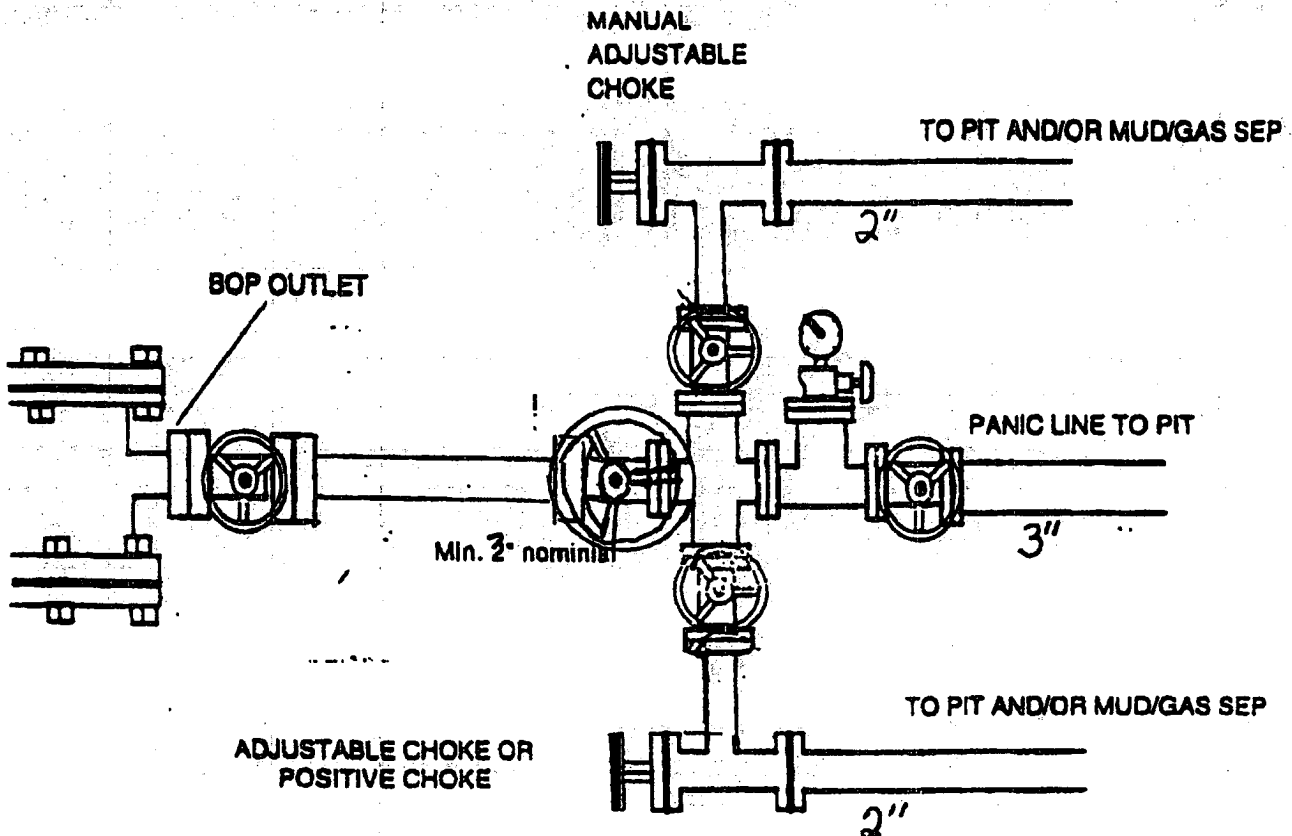
## BOP Schematic

\*Note: If BOP is equipped w/ side outlets below the rams, a spool is not required.

3000 psi WP Double Ram  
Blow-out Preventor. Must be tested  
to 1000 psi prior to drilling out  
8-5/8" surface casing.



## Choke Manifold Schematic



## SPECIAL DRILLING STIPULATIONS

### THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name: Apache Corporation Well Name & #: Hawk B-1 #45  
Location 1332 F S L & 2629 F W L; Sec. 8, T. 21 S., R. 37 E.  
Lease #: NM-90161 County: Lea State: New Mexico

The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CRF 3165.3 AND 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

#### I. SPECIAL ENVIRONMENT REQUIREMENTS

- ☐ Lesser Prairie Chicken (stips attached) ☐ Flood plain (stips attached)  
☐ San Simon Swale (stips attached) ☐ Other

#### II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

☒ The BLM will monitor construction of this drill site. Notify the ☒ Carlsbad Field Office at (505) 234-5972 ☐ Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.

☐ Roads and the drill pad for this well must be surfaced with \_\_\_\_\_ inches of compacted caliche upon completion of well and it is determined to be a producer.

☐ All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately \_\_\_\_\_ inches in depth. Approximately \_\_\_\_\_ cubic yards of topsoil material will be stockpiled for reclamation.

☐ Other.

#### III. WELL COMPLETION REQUIREMENTS

☐ A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.

☒ Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of ½ inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre.

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> A. Seed Mixture 1 (Loamy Sites)<br>Side Oats Grama ( <i>Bouteloua curtipendula</i> ) 5.0<br>Sand Dropseed ( <i>Sporobolus cryptandrus</i> ) 1.0 | <input type="checkbox"/> B. Seed Mixture 2 (Sandy Sites)<br>Sand Dropseed ( <i>Sporobolus cryptandrus</i> ) 1.0<br>Sand Lovegrass ( <i>Eragrostis trichodes</i> ) 1.0<br>Plains Bristlegrass ( <i>Setaria magrostachya</i> ) 2.0 |
| <input type="checkbox"/> C. Seed Mixture 3 (Shallow Sites)<br>Side oats Grama ( <i>Boute curtipendula</i> ) 1.0   | <input type="checkbox"/> D. Seed Mixture 4 (Gypsum Sites)<br>Alkali Sacaton ( <i>Sporobollud airoides</i> ) 1.0<br>Four-Wing Saltbush ( <i>Atriplex canescens</i> ) 5.0  |

☐ OTHER SEE ATTACHED SEED MIXTURE

Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture.

☐ Other

## RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6-mil plastic. Mineral material extracted from within the boundary of the APD during construction of the well pad and reserve pits and be used for the construction of this well pad and its immediate access road only, as long as that portion of the access road it is use on remains on-lease. Removal of any additional material from this location for construction or improvement of other well pads and other access or lease roads must first be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

## OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

- (1) Lined as specified above and
- (2) A temporary or emergency pit may be constructed immediately adjacent to the reserve pit as long as the pit remains within the APD boundary. Mineral material removed from this pit may be used for the construction of this well pad only and its immediate access road, as long as that portion of the access road the material is used on remains on-lease. Removal of any material from the APD boundary for use on other well locations or roads must first be purchased from BLM.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be re-contoured, all trash removed, and reseeded as specified in this permit.

## CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to process by BLM.

## TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

BLM SERIAL NO: NM-90161  
COMPANY REFERENCE: Apache Corporation  
WELL NO. & NAME: Hawk B-1 #45

Seed Mixture 1, for Loamy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains lovegrass ( <i>Eragrostis intermedia</i> )	0.5
Sand dropseed ( <i>Sporobolus cryptandrus</i> )	1.0
Sideoats grama ( <i>Bouteloua curtipendula</i> )	5.0

\*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

## CONDITIONS OF APPROVAL - DRILLING

Well Name & No. 45 – HAWK B-1  
Operator's Name: APACHE CORPORATION  
Location: 1332' FSL & 2629' FWL – SEC 8 – T21S – R37E – LEA COUNTY  
Lease: NM-90161

### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5909 or (505) 361-2822 (After hours) - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: 8-5/8 inch 5-1/2 inch

C. BOP tests

2. Hydrogen Sulfide (H<sub>2</sub>S) gas has been encountered in Sec 3 – T21S – R37E however there is no reported occurrence of H<sub>2</sub>S in Sec 8 – T21S – R37E.

3 Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

### II. CASING:

1. The 8-5/8 inch surface casing shall be set 25 feet into the top of the Rustler Anhydrite at approximately 1300 feet, below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 5-1/2 inch production casing is cement shall extend upward a minimum of 500 feet above the uppermost hydrocarbon bearing interval.

### III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 8-5/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) is 2000 psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

BLM Serial #: NM-90161  
Company Reference: Apache Corporation  
Well # & Name: Hawk B-1 #45

STANDARD STIPULATIONS FOR PERMANENT RESOURCE ROADS  
CARLSBAD FIELD OFFICE

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

The holder/grantee/permittee shall hereafter be identified as the holder in these stipulations. The Authorized Officer is the person who approves the Application for Permit to Drill (APD) and/or Right-of-Way (ROW).

GENERAL REQUIREMENTS

A. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

B. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, *et. seq.*) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

C. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, *et. seq.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et. seq.*) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

D. If, during any phase of the construction, operation, maintenance, or termination of the road, any oil or other pollutant should be discharged, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all

damages to Federal lands resulting there from the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

E. The holder shall minimize disturbance to existing fences and other improvements on public domain surface. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times.

The holder will make a documented good-faith effort to contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence.

F. The Holder shall ensure that the entire right-of-way, including the driving surface, ditching and drainage control structures, road verges and any construction sites or zones, will be kept free of the following plant species: Malta starthistle, African rue, Scotch thistle and salt cedar. The Holder agrees to comply with the following stipulations:

1. ROAD WIDTH AND GRADE

The road will have a driving surface of 14 feet (all roads shall have a minimum driving surface of 12 feet, unless local conditions dictate a different width). The maximum grade is 10 percent unless the box below is checked. Maximum width of surface disturbance from construction will be 30 feet.

☐ Those segments of road where grade is in excess of 10% for more than 300 feet shall be designed by a professional engineer.

2. CROWNING AND DITCHING

Crowning with materials on site and ditching on one side of the road on the uphill side will be required. The road cross-section will conform to the cross section diagrams in Figure 1. If conditions dictate, ditching may be required for both sides of the road; if local conditions permit, a flat-bladed road may be considered (if these conditions exist, check the appropriate box below). The crown shall have a grade of approximately 2% (i.e., 1" crown on a 12' wide road).

☒ Ditching will be required on both sides of the roadway as shown on the attached map or as staked in the field.

☐ Flat-blading is authorized on segment(s) delineated on the attached map.

### 3. DRAINAGE

Drainage control shall be ensured over the entire road through the use of borrow ditches, out-sloping, in-sloping, natural rolling topography, lead-off (turnout) ditches, culverts, and/or drainage dips.

A. All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval for lead-off ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road slope (in %):

#### SPACING INTERVAL FOR TURNOUT DITCHES

Percent slope	Spacing interval
0% - 4%	400' - 150'
4% - 6%	250' - 125'
6% - 8%	200' - 100'
8% - 10%	150' - 75'

A typical lead-off ditch has a minimum depth of 1 foot below and a berm 6 inches above natural ground level. The berm will be on the down-slope side of the lead-off ditch. The ditch end will tie into vegetation whenever possible.

For this road the spacing interval for lead-off ditches shall be at

☒ 400 foot intervals.

☐ \_\_\_\_\_ foot intervals.

☐ locations staked in the field as per spacing intervals above.

☐ locations delineated on the attached map.

B. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter must be 18 inches. Any culvert pipe installed shall be of sufficient diameter to pass the anticipated flow of water. Culvert location and required diameter are shown on the attached map (Further details can be obtained from the Roswell District Office or the appropriate Resource Area Office).

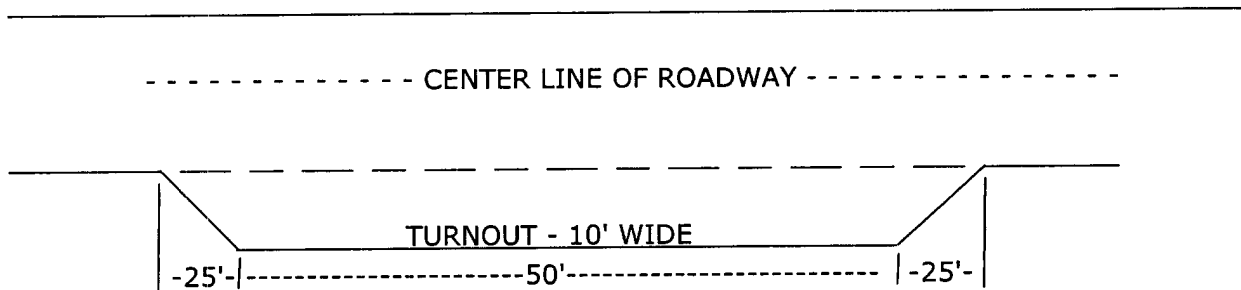
C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

$$\text{spacing interval} = \frac{400'}{\text{road slope in \%}} + 100'$$

Example: 4% slope: spacing interval =  $\frac{400}{4} + 100 = 200$  feet

#### 4. TURNOUTS

Unless otherwise approved by the Authorized Officer, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be intervisible, whichever is less. Turnouts will conform to the following diagram:



STANDARD TURNOUT - PLAN VIEW

#### 5. SURFACING

Surfacing of the road or those portions identified on the attached map may, at the direction of the Authorized Officer, be required, if necessary, to maintain traffic within the right-of-way with caliche, gravel, or other surfacing material which shall be approved by the Authorized Officer. When surfacing is required, surfacing materials will be compacted to a minimum thickness of six inches with caliche material. The width of surfacing shall be no less than the driving surface. Prior to using any mineral materials from an existing or proposed Federal source, authorization must be obtained from the Authorized Officer.

A sales contract for the removal of mineral materials (caliche, sand, gravel, fill dirt, etc.) from an authorized pit, site, or on location must be obtained from the BLM prior to using any such mineral material from public lands. Contact the BLM solid minerals staff for the various options to purchase mineral material.

#### 6. CATTLEGUARDS

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads (exceeding H-20 loading), are anticipated (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

7. MAINTENANCE

The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, drainage installation, cattleguard maintenance, and surfacing.

8. PUBLIC ACCESS

Public access along this road will not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the Authorized Officer.

9. CULTURAL RESOURCES

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the authorized officer after consulting with the holder.

10. SPECIAL STIPULATIONS:

See reclamation stipulations attached.

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-144  
June 1, 2004

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOC District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Apache Corporation (0873) Telephone: (918)-491-4801 e-mail address: terry.gilbert@apachecorp.com  
Address: 6120 S. Yale Ave., #1500, Tulsa, OK 74136  
Facility or well name: Hawk B-1 #45 API #: 30-025 - 37741 U/L or Qtr/Qtr K Sec 8 T 21S R 37E  
County: Lea Latitude 32° 29' 23.02" N Longitude 103° 11' 04.92" W NAD: 1927 ☒ 1983 ☐  
Surface Owner: Federal ☐ State ☐ Private ☒ Indian ☐

Pit	Below-grade tank
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input type="checkbox"/> Thickness <u>      </u> mil Clay <input type="checkbox"/> Pit Volume <u>      </u> bbl	Volume: <u>      </u> bbl Type of fluid: <u>      </u> Construction material: <u>      </u> Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. <u>      </u>
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet (20 points) <u>50 feet or more, but less than 100 feet</u> (10 points) 100 feet or more (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes (20 points) <u>No</u> (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet (20 points) 200 feet or more, but less than 1000 feet (10 points) <u>1000 feet or more</u> (0 points)
Ranking Score (Total Points) <b>10 points</b>	

**If this is a pit closure:** (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☐ If offsite, name of facility       . (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface        ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: **UTILIZING CLOSED LOOP SYSTEM CONSISTING OF STEEL PITS AND COMPLETE HAUL OFF OF ALL LIQUIDS AND SOLIDS.**

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOC District guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 1-18-06  
Printed Name/Title: Terry Gilbert Jr. Signature: [Signature]

Your certification and NMOC District approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:  
Printed Name/Title: PETROLEUM ENGINEER Signature: [Signature] Date: MAR 07 2006