ATS-08-445

Form 3160-3
(April 2004)

OCD-HOBBS

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

## APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM-2512

6. If Indian, Allotee or Tribe Name
---

1a. Type of work: [XX] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.
---

1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.
HAWK "B-3" #34 <24433>

2. Name of Operator
APACHE CORPORATION (LANA WILLIAMS 918-491-4980) <873>

9. API Well No.
30-025-38960

3a. Address 6120 SOUTH YALE SUITE 1500
TULSA, OKLAHOMA 74136-4224

3b. Phone No. (include area code)
918-491-4980

10. Field and Pool, or Exploratory
~~EUNICE MONUMENT~~-Grbg./San Andres
Penrose Skelly

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface 990' FNL & 990' FWL SECTION3 T21S-R37E Unit D
At proposed prod. zone SAME

11. Sec., T. R. M. or Blk. and Survey or Area
SECTION 3 T21S-R37E

14. Distance in miles and direction from nearest town or post office*
Approximately 5 miles North of Eunice New Mexico

12. County or Parish
LEA CO.

13. State
NM

| 15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) | 16. No. of acres in lease | 17. Spacing Unit dedicated to this well |
|---|---|---|
| 990' | 709 | 40 |

| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. | 19. Proposed Depth | 20. BLM/BIA Bond No. on file |
|---|---|---|
| 300' | 4550' | BLM-CO-1463 NATION WIDE |

| 21. Elevations (Show whether DF, KDB, RT, GL, etc.) | 22. Approximate date work will start* | 23. Estimated duration |
|---|---|---|
| 3484' GL | WHEN APPROVED | 20 days |

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

| 25. Signature | Name (Printed/Typed) | Date |
|---|---|---|
| Joe T. Janica | Joe T. Janica | 03/31/08 |

Title: Permit Engineer

| Approved by (Signature) | Name (Printed/Typed) | Date |
|---|---|---|
| /s/ Don Peterson | /s/ Don Peterson | MAY 29 2008 |

| Title | Office |
|---|---|
| FOR FIELD MANAGER | CARLSBAD FIELD OFFICE |

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, are attached.

**APPROVAL FOR TWO YEARS**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

*(Instructions on page 2)*

**Oil Conservation Division**
*Conditions of approval: Approval for drilling/workover ONLY--- CANNOT produce Downhole Commingled until DHC is approved in Santa Fe.*

CAPITAN CONTROLLED WATER BASIN

RECEIVED
JUN 02 2008
HOBBS OCD

**SEE ATTACHED FOR CONDITIONS OF APPROVAL**

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

Form 3160-5
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

OCD-HOBBS

## SUNDRY NOTICES AND REPORTS ON WELLS

***Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***

***SUBMIT IN TRIPLICATE- Other instructions on reverse side.***

5. Lease Serial No. NM-2512
6. If Indian, Allottee or Tribe Name ----------
7. If Unit or CA/Agreement, Name and/or No. ----------

1. Type of Well: [XX] Oil Well [ ] Gas Well [ ] Other
8. Well Name and No. HAWK "B-3" # 34
2. Name of Operator APACHE CORPORATION
9. API Well No.
3a. Address 6120 SOUTH YALE SUITE 1500 TULSA, OKLAHOMA 74136-4224
3b. Phone No. *(include area code)* 918-491-4980
10. Field and Pool, or Exploratory Area EUNICE MONUMENT-GRBG. SAN ANDRES
4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)* 990' FNL & 990' FWL SEC 3 T21S-R37E LOT # 4
11. County or Parish, State LEA CO. NEW MEXICO

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|---|---|---|---|---|
| [X] Notice of Intent | [ ] Acidize | [ ] Deepen | [ ] Production (Start/Resume) | [ ] Water Shut-Off |
| [ ] Subsequent Report | [ ] Alter Casing | [ ] Fracture Treat | [ ] Reclamation | [ ] Well Integrity |
| [ ] Final Abandonment Notice | [ ] Casing Repair | [ ] New Construction | [ ] Recomplete | [X] Other Lay flowline from well to battery. |
| | [ ] Change Plans | [ ] Plug and Abandon | [ ] Temporarily Abandon | |
| | [ ] Convert to Injection | [ ] Plug Back | [ ] Water Disposal | |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

1. Apache Corporation requests the approval to lay a flowline from their HAWK "B-3" # 34 to the existing tank battery located in Lot # 16. Section 3 T21S-R37E Lea Co. New Mexico. Flowline will follow existing roads and R-O-W's.

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)* Joe T. Janica — Title Agent

Signature Joe T. Janica — Date 04/28/08

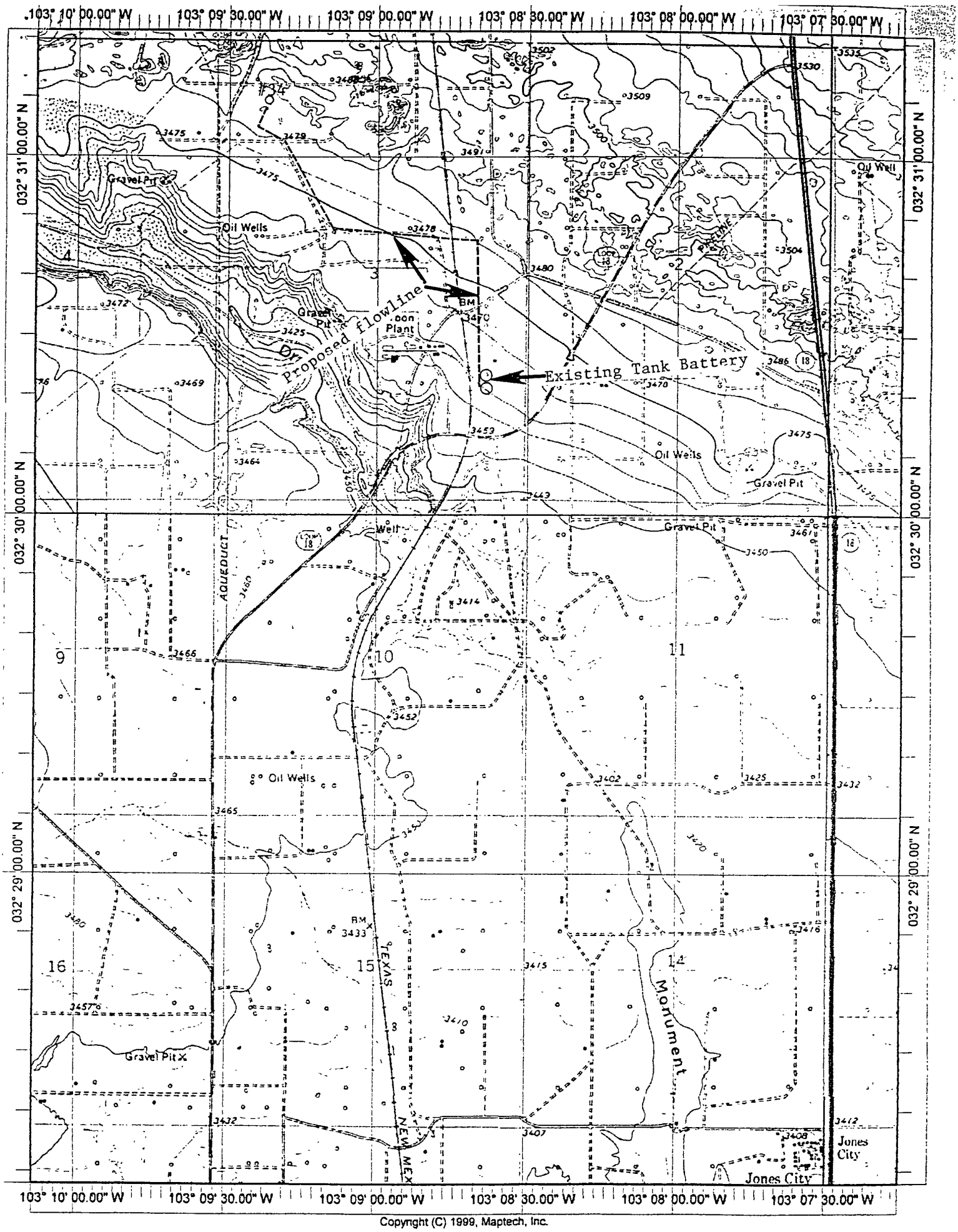
**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by /s/ Don Peterson FOR FIELD MANAGER — Date MAY 29 2008

Conditions of approval, if any, are attached. Approval of this notice 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. — Office CARLSBAD FIELD OFFICE

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

*(Instructions on page 2)*


103° 10' 00.00" W
103° 09' 30.00" W
103° 09' 00.00" W
103° 08' 30.00" W
103° 08' 00.00" W
103° 07' 30.00" W
032° 31' 00.00" N
032° 30' 00.00" N
032° 29' 00.00" N
Proposed flowline
Existing Tank Battery
Oil Wells
Gravel Pit
Oil Well
Plant
AQUEDUCT
TEXAS
NEW MEX
Monument
Jones City
Copyright (C) 1999, Maptech, Inc.

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

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

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

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

## WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

| API Number | Pool Code | Pool Name |
|---|---|---|
| 30-025-38960 | ~~23000~~ 50350 | ~~EUNICE-MONUMENT~~ Penrose Skelly GRAYBURG, SAN ANDRES Wildcat |

| Property Code | Property Name | Well Number |
|---|---|---|
| 24433 | HAWK B-3 | 34 |

| OGRID No. | Operator Name | Elevation |
|---|---|---|
| 873 | APACHE CORPORATION | 3484' |

### Surface Location

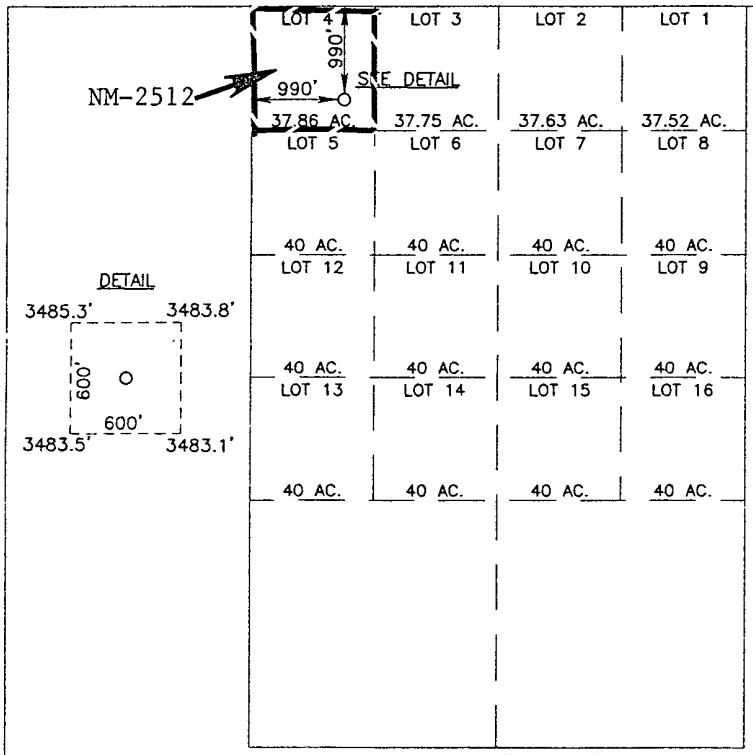
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| 4 | 3 | 21-S | 37-E | | 990 | NORTH | 990 | WEST | LEA |

### 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 | | | |

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




SCALE: 1"=2000'

GEODETIC COORDINATES
NAD 27 NME
Y=554679.6 N
X=862972.2 E
LAT.=32.519411° N
LONG.=103.155784° W
LAT.=32°31'09.88" N
LONG.=103°09'20.82" W

### OPERATOR CERTIFICATION

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

Joe T. Janica
Signature

03/31/08
Date

Printed Name
Joe T. Janica

### SURVEYOR CERTIFICATION

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

RONALD J. EIDSON
DECEMBER 26, 2007

Date Surveyed DSS

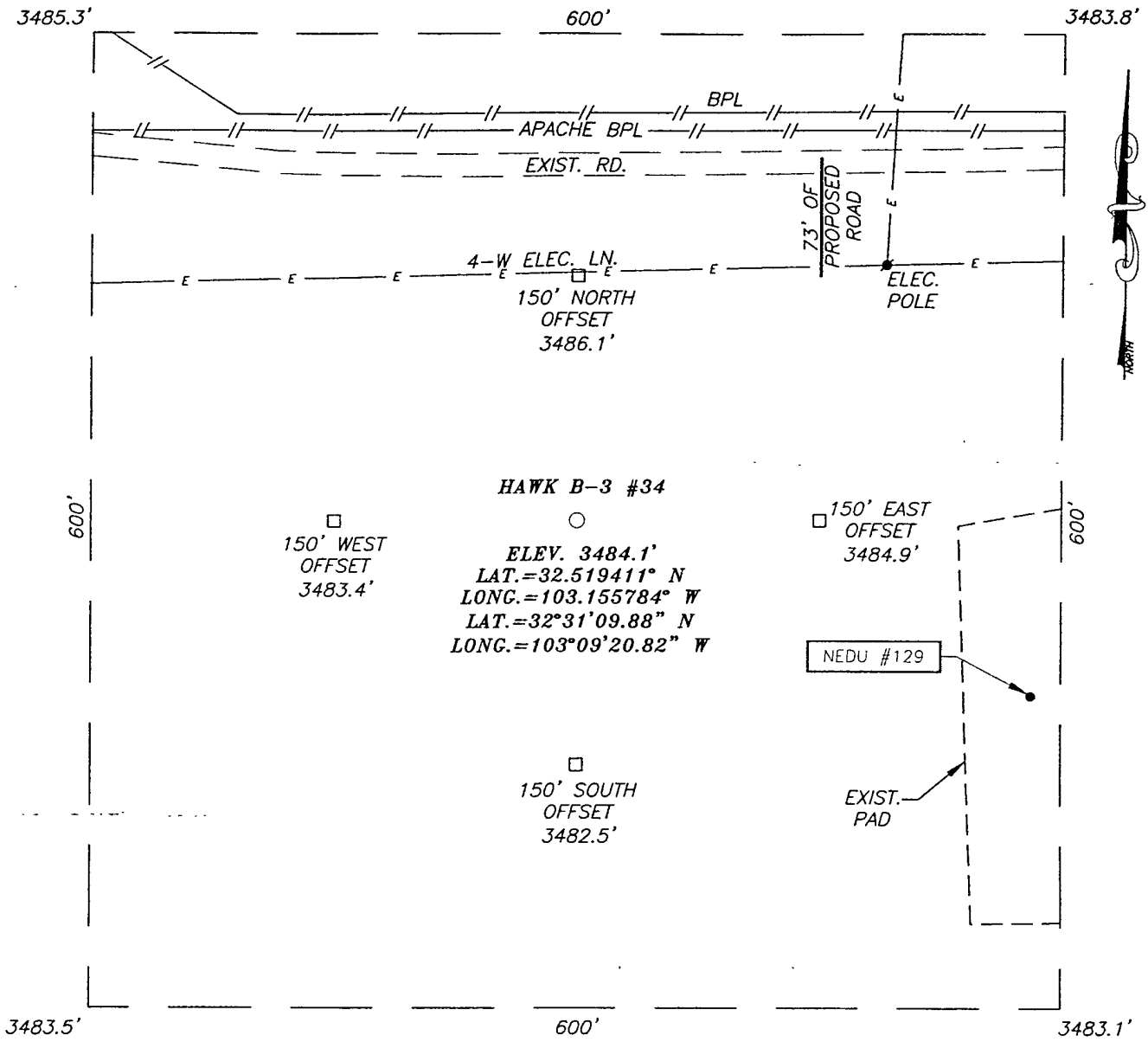
Signature & Seal of Professional Surveyor

Ronald J. Eidson 03/04/08
07.11.1756

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

# SECTION 3, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO




DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF STATE HIGHWAY 207 AND STATE HIGHWAY 18, GO NORTH ON STATE HIGHWAY 18 APPROX. 0.2 MILES. TURN LEFT ON CALICHE ROAD AND GO WEST APPROX. 1.2 MILES. TURN LEFT AND GO SOUTH APPROX. 0.25 MILES. TURN RIGHT AND GO WEST APPROX. 0.5 MILES. THIS LOCATION IS APPROX. 220 FEET SOUTH.

100 0 100 200 Feet

Scale:1"=100'


PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO

HOBBS, N.M. 88240

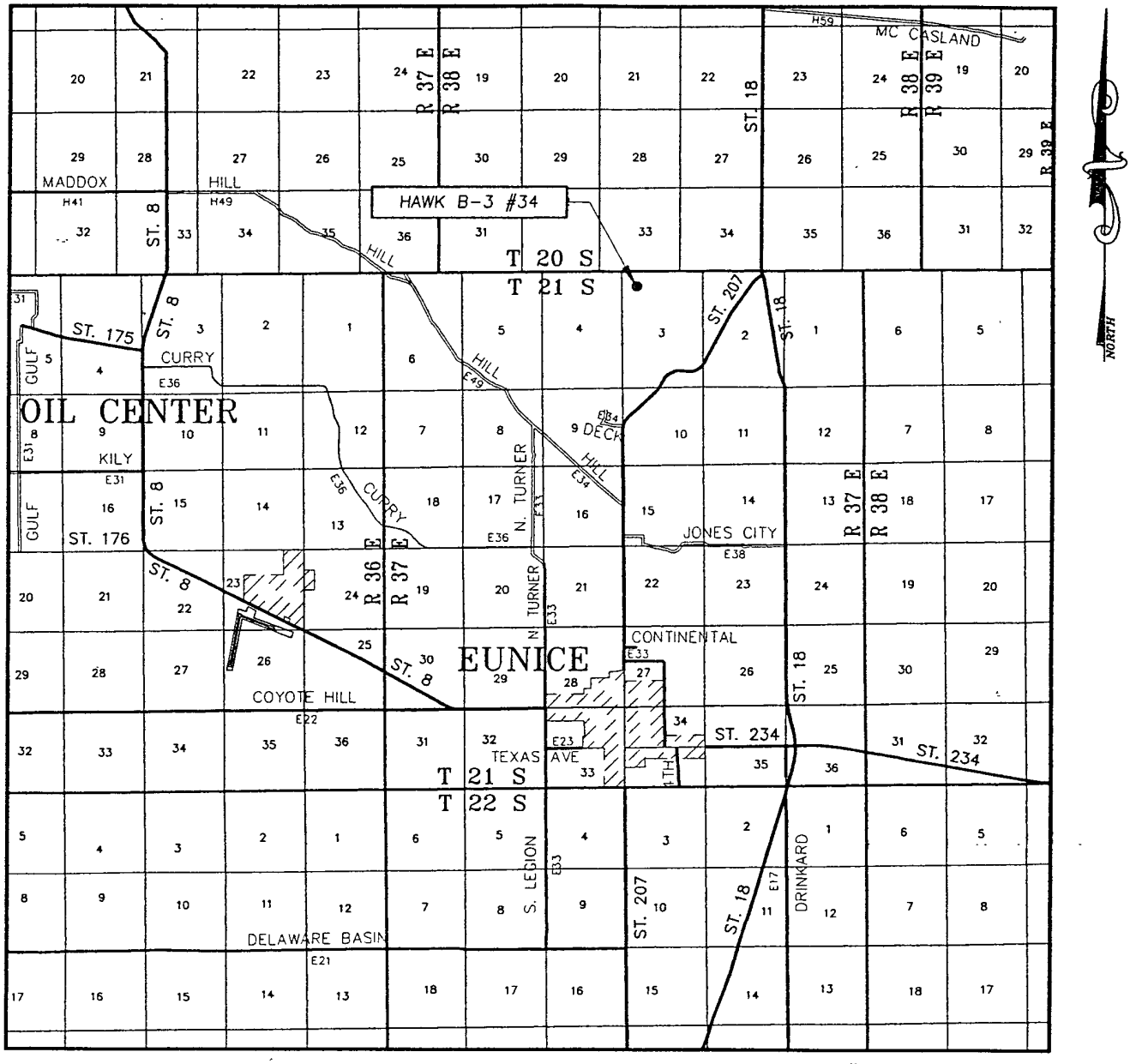
(505) 393-3117


## APACHE CORPORATION

HAWK B-3 #34 WELL
LOCATED 990 FEET FROM THE NORTH LINE
AND 990 FEET FROM THE WEST LINE OF SECTION 3,
TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

| | | | |
|---|---|---|---|
| Survey Date: 12/26/07 | Sheet 1 of 1 Sheets | | |
| W.O. Number: 07.11.1756 | Dr By: DSS | Rev 1: | |
| Date: 1/02/08 | Disk: . | 07111756 | Scale:1"=100' |

# VICINITY MAP




SCALE: 1" = 2 MILES

SEC. 3 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 990' FNL & 990' FWL

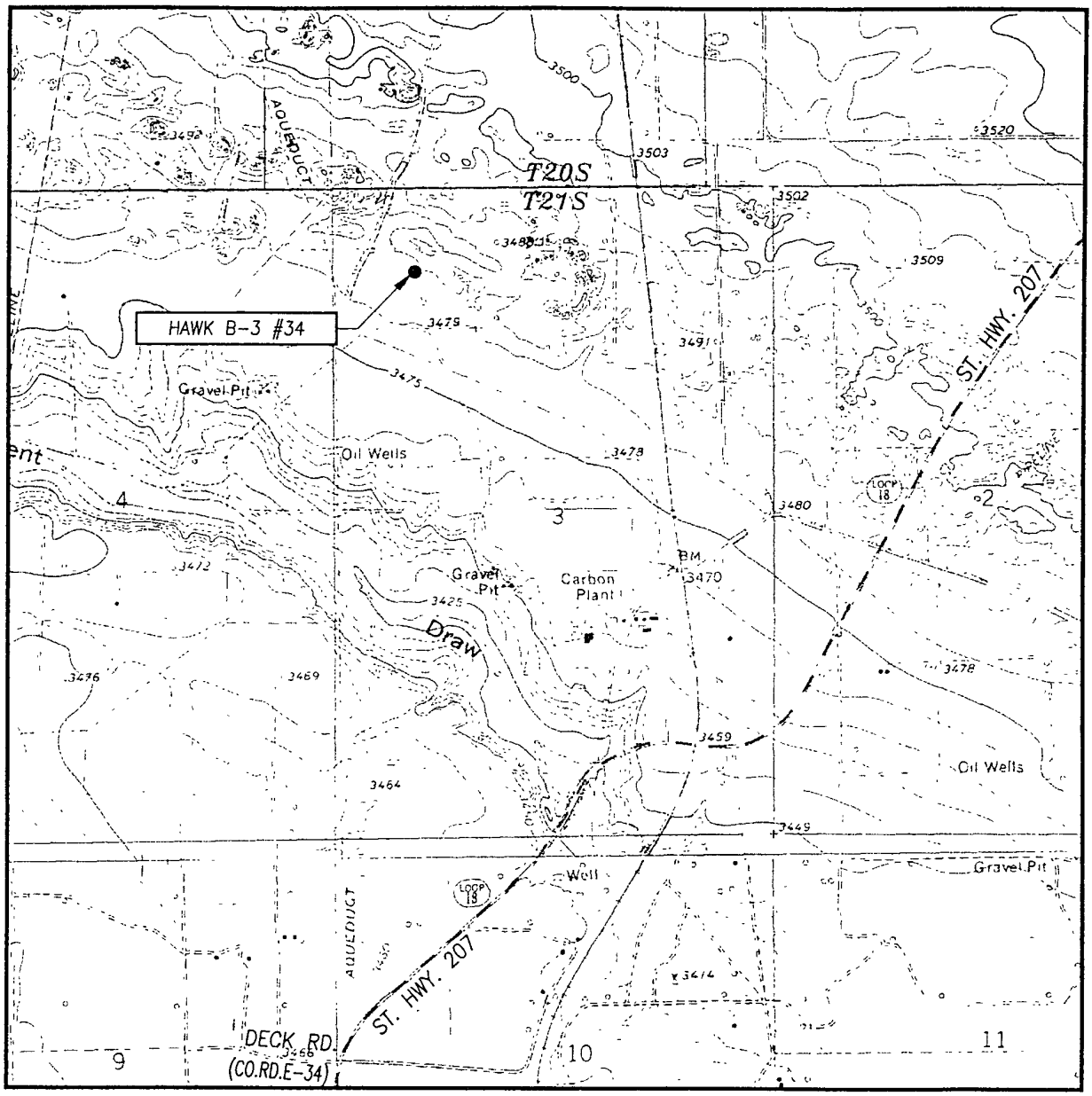
ELEVATION 3484'

OPERATOR APACHE CORPORATION

LEASE HAWK B-3


PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

# LOCATION VERIFICATION MAP




SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOBBS SW, N.M. – 5'
EUNICE, N.M. – 10'

SEC. 3 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 990' FNL & 990' FWL

ELEVATION 3484'

OPERATOR APACHE CORPORATION

LEASE HAWK B-3

U.S.G.S. TOPOGRAPHIC MAP
HOBBS SW, N.M.


PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

APPLICATION TO DRILL

APACHE CORPORATION
HAWK "B-3" #34
LOT #4 SECTION 3
T21S-R37E LEA CO. NM

In response to questions asked under Section II of Bulliten NTL-6, the following information on the above will be provided.

1. LOCATION: 990' FNL & 990' FWL SECTION 3 T21S-R37E

2. ELEVATION ABOVE SEA LEVEL: 3484' GL

3. GEOLOGICAL NAME OF SURFACE FORMATION: Quaternery Aeolian Deposits.

4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.

5. PROPOSED DRILLING DEPTH: 4550'

6. ESTIMATED TOPS OF GEOLOGICAL FORMATIONS:

| | | | |
|---|---|---|---|
| Rustler Anhydrite | 1332' | Grayburg | 3811' |
| Yates | 2690' | San Andres | 4064' |
| Seven Rivers | 2918' | TD | 4550' |
| Queen | 3492' | | |

7. POSSIBLE MINERAL BEARING FORMATIONS:

Grayburg "A, B, C," Oil

8. CASING PROGRAM:

| HOLE SIZE | INTERVAL | OD OF CASING | WEIGHT | THREAD | COLLAR | GRADE | CONDITION |
|---|---|---|---|---|---|---|---|
| 26" | 0-40 | 20" | NA | NA | NA | Conductor | New |
| 12¼" | 0-~~1300~~ 1350' * See COA | 8 5/8" | 24# | 8-R | ST&C | J-55 | New |
| 7 7/8" | 0-4550' | 5½" | 17# | 8-R | LT&C | J-55 | New |

* At least into the Rustler Anhydrit.

Casing safety design factors:

Collapse 1.25 Burst 1.00 Body yield 1.5 Joint strength 8-R 1.8
Butt 1.6

APPLICATION TO DRILL

APACHE CORPORATION
HAWK "B-3" #34
LOT #4 SECTION 3
T21S-R37E LEA CO. NM

9. CASING CEMENTING & SETTING DEPTHS:

| | | |
|---|---|---|
| 20" | Conductor | Set 40' of 20" conductor pipe and cement to surface with Redi-mix. |
| 8 5/8" | Surface | Set 1300'± at least 25' into the Rustler 85/8" 24# J-55 ST&C casing. Cement with 500 Sx. of 35/65 Class "C" POZ + 2% CaCl, +.25# Flocele/Sx., + 6% Bentonite, Yield 1.88, tail in with 200 Sx. of Class "C" cement + 2% CaCl, + .125# Flocele/Sx. Yield 1.3, circulate cement to surface. |
| 5½" | Production | Set 4550' of 5½" 17# J-55 LT&C casing. Cement with 500 Sx. of 50/50 Class "C" POZ + 5% NaCl, + .125# Celoflakes/Sx., + .003 gps FP-6L + 10% Bentonite, Yield 2.66, tail in with 300 Sx. of 50/50 Class "C" POZ, + 5% NaCl, + .003 gpsFP-6L Yield 1.84, circulate cement to surface. |

10: PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 series 3000 PSI working pressure B.O.P.. Consisting of an annular bag type preventor, middle blind rams, and bottom pipe rams, This B. O. P. will be nippled up on the 8 5/8" surface casing and tested to API specifications by a third party before drilling out from under the surface casing. The B. O. P. will be operated at least once in each 24 hour period and the blind rams will be operated when the drill pipe is out of the hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E" also shows a 3" ~~5000~~ 3000 PSI choke manifold with dual adjustiable chokes with a 3" blow down line. No abnormal pressures or abnormal temperatures are expected while drilling this well.

11. PROPOSED MUD CIRCULATING SYSTEM:

| DEPTH | MUD WT. | VISC. | FLUID LOSS | TYPE SYSTEM |
|---|---|---|---|---|
| 40-~~1300~~ 1350±' | 8.6-9.2 | 34-36 | NC | Fresh water spud mud add paper to control seepage |
| ~~1300~~ 1350-4000' | 9.0-10.5 | 32-34 | NC | Brine water add paper to control seepage and use high viscosity to clean hole. |
| 4000-TD | 10.0-10.4 | 34-36 | 15-20 cc or less | Same as above using caustic soda to control pH, Mix starch to control water loss as needed. |

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run logs, DST's and casing water loss/viscosity may have to be altered or adjusted in order to meet these needs.

12. LOGGING, CORING, AND TESTING PROGRAM:

A. Open hole logs: Dual Laterolog, MSFL, CNL, LDT, NGT, Sonic, Gamma Ray, Caliper from TD back to 8 5/8" casing shoe. CNL, Gamma Ray from 8 5/8" casing shoe back to surface.

B. Rig up mud logger on hole at 3000±' and remain on hole to TD.

C. No DST's or cores are planned at this time.

13. POTENTIAL HAZARDS:

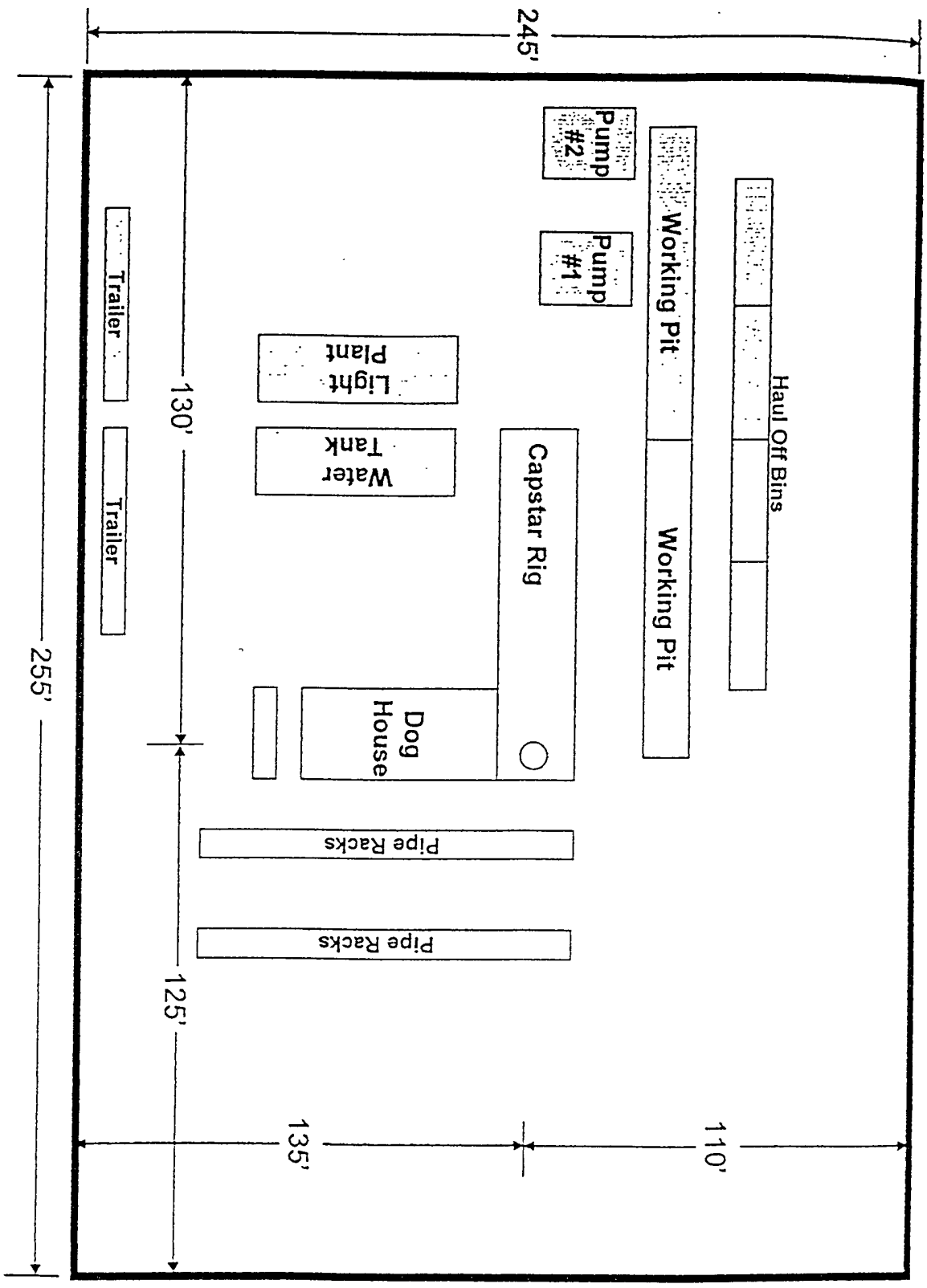
No abnormal pressures or temperatures are expected. There is no known presence of $H^2S$ in this area. If $H^2S$ is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 1550 PSI, and Estimated BHT 125°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 10 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Grayburg formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as an oil well.

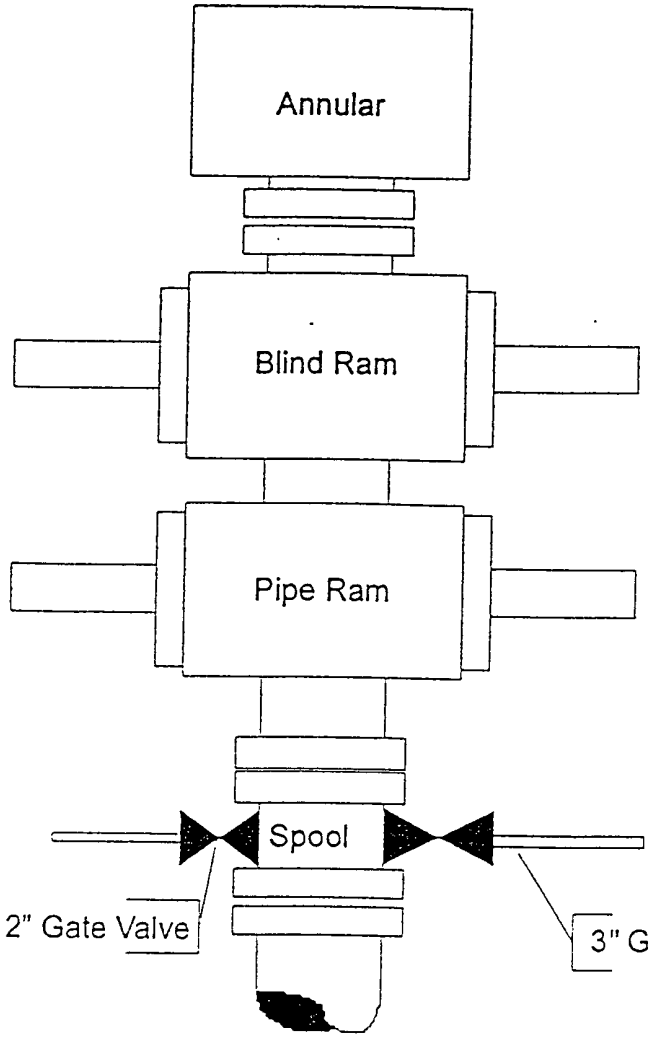



SEE ATTACHED FOR CONDITIONS OF APPROVAL

EXHIBIT "G"
RIG LAY OUT PLAT

APACHE CORPORATION
HAWK "B-3" #34
LOT #4 SECTION 3
T21S-R37E LEA CO. NM

3000psi -
BOPE



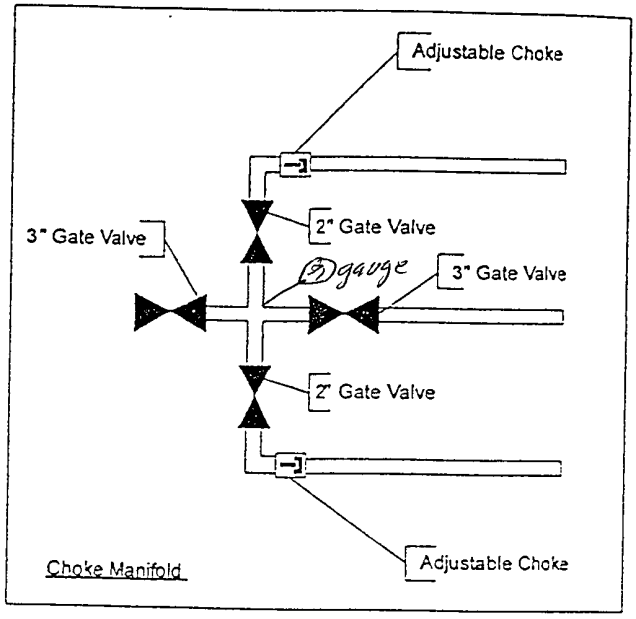




EXHIBIT "H"
SKETCH OF BOP & CHOKE MANIFOLD

APACHE CORPORATION
HAWK "B-3" #34
LOT #4 SECTION 3
T21S-R37E LEA CO. NM

HAWK B-3 # 34

## DRILLING PROGRAM

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

Formatted: Bullets and Numbering

Estimated Tops of Geological Markers:

| FORMATION | DEPTH |
|---|---|
| Quaternary alluvials | Surface |
| Rustler | 1332' |
| Yates | 2690' |
| Seven Rivers | 2918' |
| Queen | 3492' |
| Grayburg | 3811' |
| San Andres | 4064' |
| TD | 4550' |

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

| SUBSTANCE | DEPTH |
|---|---|
| Oil | Grayburg A @ 3811' |
| | Grayburg B @ 3956' |
| | Grayburg C @ 4039' |
| Gas | None anticipated |
| Fresh Water | None anticipated |

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.

Proposed Casing Program:

| HOLE SIZE | CASING SIZE OD / ID | GRADE | WEIGHT PER FOOT | DEPTH | SACKS CEMENT | ESTIMATED TOC - REMARKS |
|---|---|---|---|---|---|---|
| 12 ¼" | 8 5/8" 8.097" | J55 STC | 24# | 1,300' | 700 | TOC - Surface 8.9 ppg Water-based Mud; 89 ° F Est. Static Temp; 83 ° F Est. Circ. Temp. |
| 7 7/8" | 5 ½" 4.892" | J55 LTC | 17# | 4,550 | 800 | TOC – Surface Float Collar set @ 4500'/ 10.10 ppg Brine Mud; 123 ° F Est. Static Temp; 104 ° F Est. Circ. Temp. |

Proposed Cement Program:

| CASING | LEAD SLURRY | TAIL SLURRY | DISPLACEMENT |
|---|---|---|---|
| 8 5/8" | 500 sacks 35:65 Poz:Class C Cement + 2% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 6% bwoc Bentonite gel 940 Vol. Cu Ft 1.8 Vol. Factor Slurry Weight (ppg) 12.7 Slurry Yield (cf/sack) 1.88 Amount of Mix Water (gps) 10.7; Estimated Pumping Time – 70 BC (HH:MM)-5:00; | 200 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water 270 Vol. Cu Ft 1.3 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)-3:15; | 80.3 bbls Fresh Water @ 8.33 ppg |

8 5/8" Casing: Volume Calculations:

| | | | | | | |
|---|---|---|---|---|---|---|
| 1,300 ft | x | 0.4127 cf/ft | with | 100% excess | = | 1,072.5 cf |
| 40 ft | x | 0.3576 cf/ft | with | 0% excess | = | 14.3 cf (inside pipe) |
| | | TOTAL SLURRY VOLUME | | | = | 1,086.8 cf |
| | | | | | = | 193..6 bbls |

Spacer 20.0 bbls Water @ 8.33 ppg

| CASING | LEAD SLURRY | TAIL SLURRY | DISPLACEMENT |
|---|---|---|---|
| 5 ½" | 500 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<br>1,270 Vol. Cu Ft<br>2.66 Vol. Factor<br>Slurry Weight (ppg) 11.8<br>Slurry Yield (cf/sack) 2.54<br>Amount of Mix Water (gps) 14.72;<br>Amount of Mix Fluid (gps) 14.72<br>Estimated Pumping Time – 70 BC (HH:MM)-4:00; | 300 sacks (50:50) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride +0.003 gps FP-6L<br>405 Vol. Cu Ft<br>1.84 Vol. Factor<br>Slurry Weight (ppg) 14.2<br>Slurry Yield (cf/sack) 1.35<br>Amount of Mix Water (gps) 6.34;<br>Amount of Mix Fluid(gps) 6.34;<br>Estimated Pumping Time – 70 BC (HH:MM)-3:00; | 102.5 bbls 2% Kcl Water @ 8.43 ppg |

5 ½" Casing: Volume Calculations:

| | | | | | | |
|---|---|---|---|---|---|---|
| 1,300 ft | x | 0.1926 cf/ft | with | 0% excess | = | 250.3 cf |
| 2,100 ft | x | 0.1733 cf/ft | with | 120% excess | = | 800.0 cf |
| 1,050 ft | x | 0.1733 cf/ft | with | 80% excess | = | 327.3 cf |
| 40 ft | x | 0.1305 cf/ft | with | 0% excess | = | 5.2 cf(inside pipe) |
| | | TOTAL SLURRY VOLUME | | | = | 1,382.8 cf |
| | | | | | = | 246.3 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

| DEPTH | MUD PROPERTIES | REMARKS |
|---|---|---|
| 0 – 1,300' | Weight: 8.6 – 9.2 ppg<br>Viscosity: 34 – 36 sec/qt<br><br>pH: NC<br>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. |
| 1.300' – 4,000' | Weight: 9.0 – 10.4 ppg<br>Viscosity: 32 – 34 sec/qt<br><br>pH: NC<br>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. Mix one gallon of New-55 at flowline every 250 feet drilled to promote solids settling. Sweep hole with 3-ppb of Super Sweep every 500 feet. |
| 4,000' – TD | Weight: 10.0 – 10.4 ppg<br>Viscosity: 34 – 36 sec/qt<br><br>pH: 9-10<br>Filtrate: 15-20 cm/30 min | From 3,900' 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 bacterial degradation of organic materials. Mix Starch (yellow) to control API filtrate at <15cc-20cc. |

Proposed Control Equipment:

Will install on the 8 5/8" surface casing a 9" x 3000 psi WP Double Ram BOP and will test using a 3rd party tester before drilling out of surface casing.

Auxiliary Equipment:

9" x 3000 psi double BOP/blind & pipe ram
41/2" x 3000 psi Kelly valve
9" x 3000 psi mud cross – $H_2S$ detector on production hole
Gate-type safety valve 3" choke line from BOP to manifold
2" adjustable chokes – 3" blowdown line

Logging Program:

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The following logs may be run:

CNL, LDT, GR, CAL, DLL, MSFL, NGT, Sonic from TD-1300'
CNL, GR from TD-Surface

Mudlogging Program:

It is planned for mud loggers to catch samples from 3,000' to TD.

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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 1,550 psi.

Bottom Hole Pressure Calculations

Since January 1, 2003, Apache has drilled 80 Graybug wells in the Eunice Area. Data gained from those wells have demonstrated that:

1. All the wells have been completed as pumping oil wells.
2. The environment of deposition of the reservoir carbonate facies was extremely variable. Compartmentalized reservoirs are expected. Every wellbore will contain some pay zones that are at, or near, original pressure and some that are drawn down to various extents.
3. Pressures obtained from wireline tests conducted in wells drilled in 2003 and 2004 were not as expected. Pay zones expected to be drawn down often were not and those expected to be at original pressure often were not.
4. Continuity of pay zones determined from log analysis and correlation of those pay zones is much less than 50%.

Apache estimates bottom hole pressure by multiplying the median depth of perforations in the Grayburg by 0.44, then subtracting a few hundred pounds based upon number of and cumulative production from nearby offsets.

For example:
Hawk A-34

| | |
|---|---|
| Expected median depth of perforations: | 3950*0.44=1750 |
| Reduction due to offset production: | 200 |
| Expected bottom hole pressure: | 1550 |

Hydrogen Sulfide Drilling Operations Plan

No $H_2S$ is anticipated.

Surface Location

NW ¼ of Section 3, Township 21 South, Range 37 East, N.M.P.M.
Lea County, New Mexico
990' FNL, 990' FWL, Lot 4

Bottom Hole Location

NW ¼ of Section 3, Township 21 South, Range 37 East, N.M.P.M.
Lea County, New Mexico
990' FNL, 990' FWL, Lot 4

Leases Issued: NM-2512

Operating Rights

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

Acres in Lease

Township 21 South, Range 37 East, NMPM
Section 3: N2SE,SESE;
Section 3: LOT 1-4, 8, 12, 15, 16
Section 4: LOT 1
Section 10: W2NE,SENE,E2NW;

Total Acres: 708.67

Acres Dedicated to Well:

There are 40.00 acres dedicated to this well, which takes in the Lot 4, of Section 3, Township 21 South, Range 37 East, N.M.P.M., Lea County, New Mexico.

Driving Directions

From the intersection of State Highway 207 and State Highway 18, go North on State Highway 18 approximately 0.2 miles. Turn left on Caliche Road and go West approximately 1.2 miles. Turn left and go South approximately 0.25 miles. Turn Right and go West approximately 0.5 miles. This location is 220' South.

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.

Method of Handling Waste Material

We will be utilizing a closed-loop mud system, all drill cuttings and fluids will be hauled off to a licensed disposal location.

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Water produced during operations will be collected in tanks until hauled to an approved disposal system.

Oil produced during operation will be stored in tanks until sold.

Apache Corporation will comply with current laws and regulations pertaining to the disposal of human waste.

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.

Surface Ownership

The surface is owned by McCasland Trust, P O Box 206, Eunice, New Mexico, 88231. We have a signed surface damage agreement dated 1/28/2008. Minerals are owned by the U S Department of Interior and is administered by The Bureau of Land Management.

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Archaeological, Historical, and Other Cultural Sites

Don Clifton, Archaeological Consultant, of Pep, New Mexico, will be conducting 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 will be 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

# CERTIFICATION

I HEREBY CERTIFY THAT I OR PERSONS UNDER MY SUPERVISION HAVE INSPECTED THE PROPOSED DRILL SITE AND THE ACCESS ROAD ROUTES, THAT I AM FAMILIAR WITH THE CONDITIONS THAT CURRENTLY EXIST, AND THAT THE STATEMENTS MADE IN THIS PLAN ARE TO THE BEST OF MY KNOWLEDGE ARE TRUE AND CORRECT, AND THAT THE WORK ASSOCIATED WITH THE OPERATIONS PROPOSED HEREIN WILL BE PERFORMED BY APACHE CORPORATION ITS CONTRACTORS OR ITS SUB-CONTRACTORS IS IN CONFORMANCE WITH THIS PLAN AND THE TERMS AND THE CONDITIONS UNDER WHICH IT IS APPROVED. THIS STATEMENT IS SUBJECT TO THE PROVISIONS OF U.S.C. 1001 FOR THE FILING OF A FALSE STATEMENT.

OPERATORS REPRESENTATIVES

BEFORE CONSTRUCTION

JOE T. JANICA

TIERRA EXPLORATION, INC.
P. O. BOX 2188
HOBBS, NEW MEXICO 88241
PHONE 505-391-8503
CELL 505-390-1598

DURING AND AFTER CONSTRUCTION

HAROLD SWAIN

APACHE CORPORATION
6120 SOUTH YALE
SUITE 1500
TULAS, OKLAHOMA 74136-4224
PHONE 432-527-3311
CELL PH. 505-390-4368

NAME; JOE JANICA Joe T. Janica

TITLE; PERMIT ENGINEER

DATE; 03/31/08

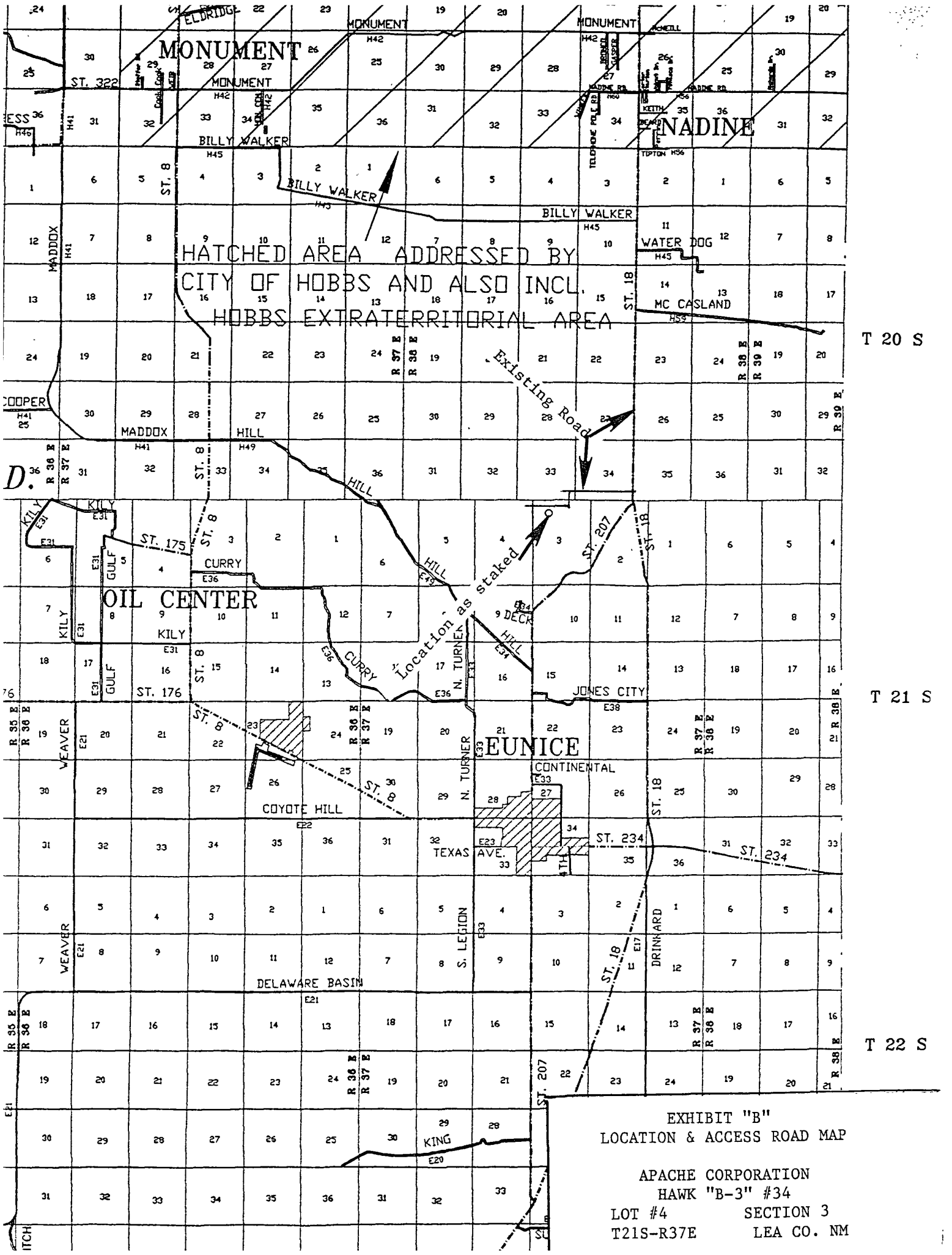



EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

APACHE CORPORATION
HAWK "B-3" #34
LOT #4 SECTION 3
T21S-R37E LEA CO. NM

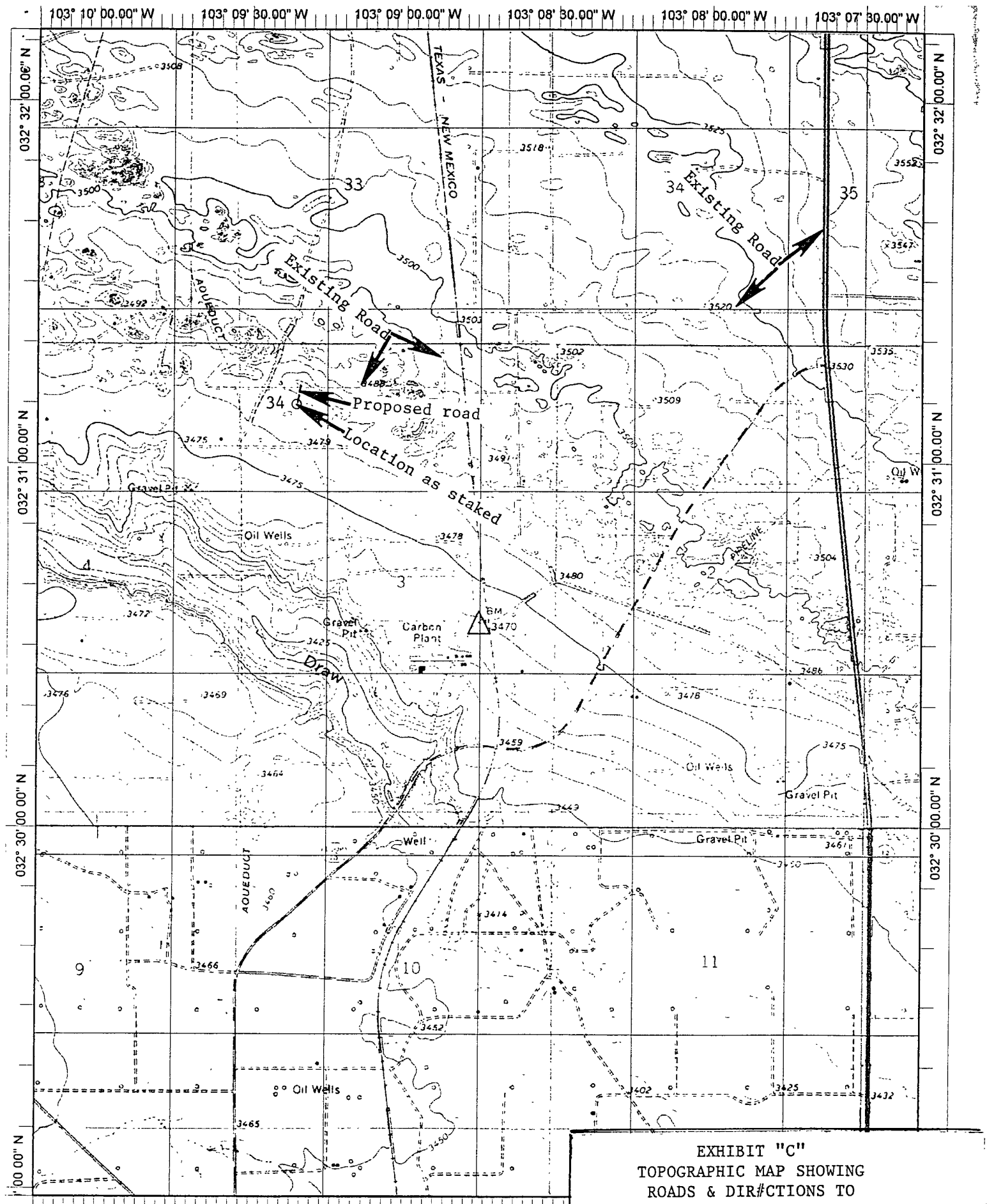



EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIR#CTIONS TO

APACHE CORPORATION
HAWK"B-3" #34
LOT #4 SECTION 3
T21S-R37E LEA CO. NM

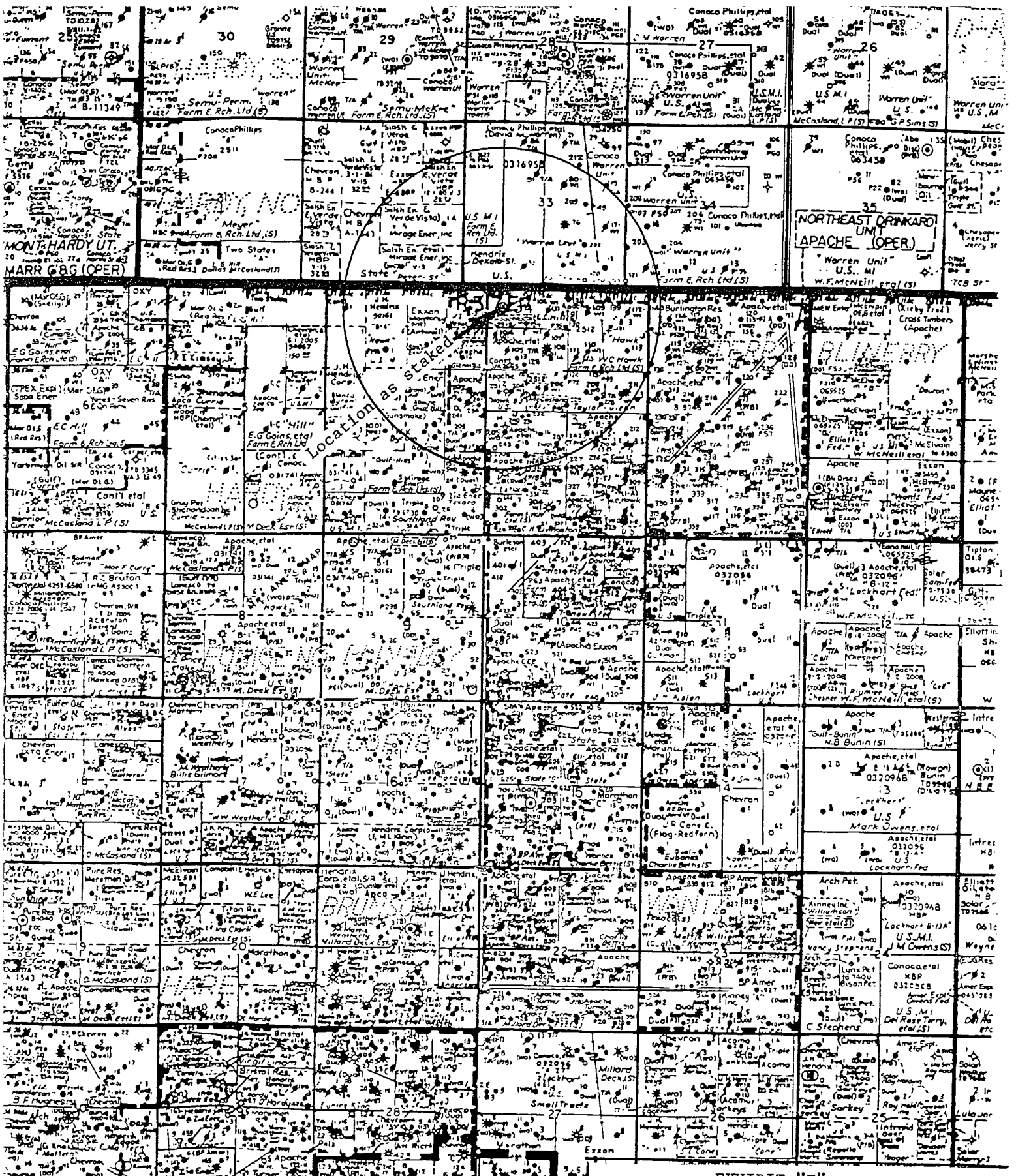



EXHIBIT "F"
ONE MILE RADIUS MAP

APACHE CORPORATION
HAWK "B-3" #34
LOT #4 SECTION 3
T21S-R37E LEA CO. NM

# PECOS DISTRICT
# CONDITIONS OF APPROVAL

| | |
|---|---|
| OPERATOR'S NAME: | Apache Corporation |
| LEASE NO.: | NMNM2512 |
| WELL NAME & NO.: | Hawk B-3 No 34 |
| SURFACE HOLE FOOTAGE: | 990' FNL & 990' FWL |
| BOTTOM HOLE FOOTAGE | |
| LOCATION: | Section 3, T. 21 S., R 37 E., NMPM |
| COUNTY: | Lea County, New Mexico |

## TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

## I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

## III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator 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 shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

## IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

# V. CONSTRUCTION

## A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Hobbs Field Station at (505) 393-3612 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

## B. TOPSOIL

There is no measurable soil on this well pad to stockpile. No topsoil stockpile is required.

## C. RESERVE PITS

The operator has applied for a closed-loop system. The operator shall properly dispose of drilling contents at an authorized disposal site.

## D. FEDERAL MINERAL MATERIALS PIT

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the
Carlsbad Field Office at (505) 234-5972.

## E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

## F. ON LEASE ACCESS ROADS

**Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

**Surfacing**
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

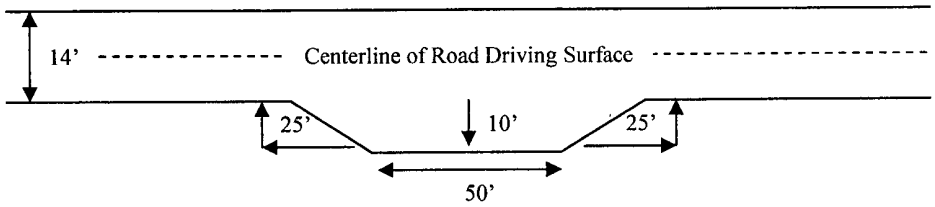
The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

**Crowning**
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

**Ditching**
Ditching shall be required on the uphill side of the road.

**Turnouts**
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

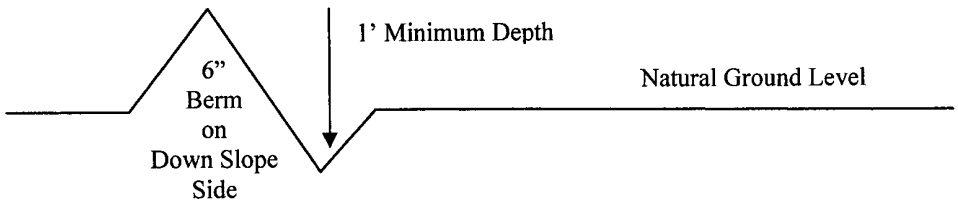
**Standard Turnout – Plan View**




**Drainage**
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

**Cross Section of a Typical Lead-off Ditch**




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

**Formula for Spacing Interval of Lead-off Ditches**

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

**Culvert Installations**
Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

**Cattleguards**
An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

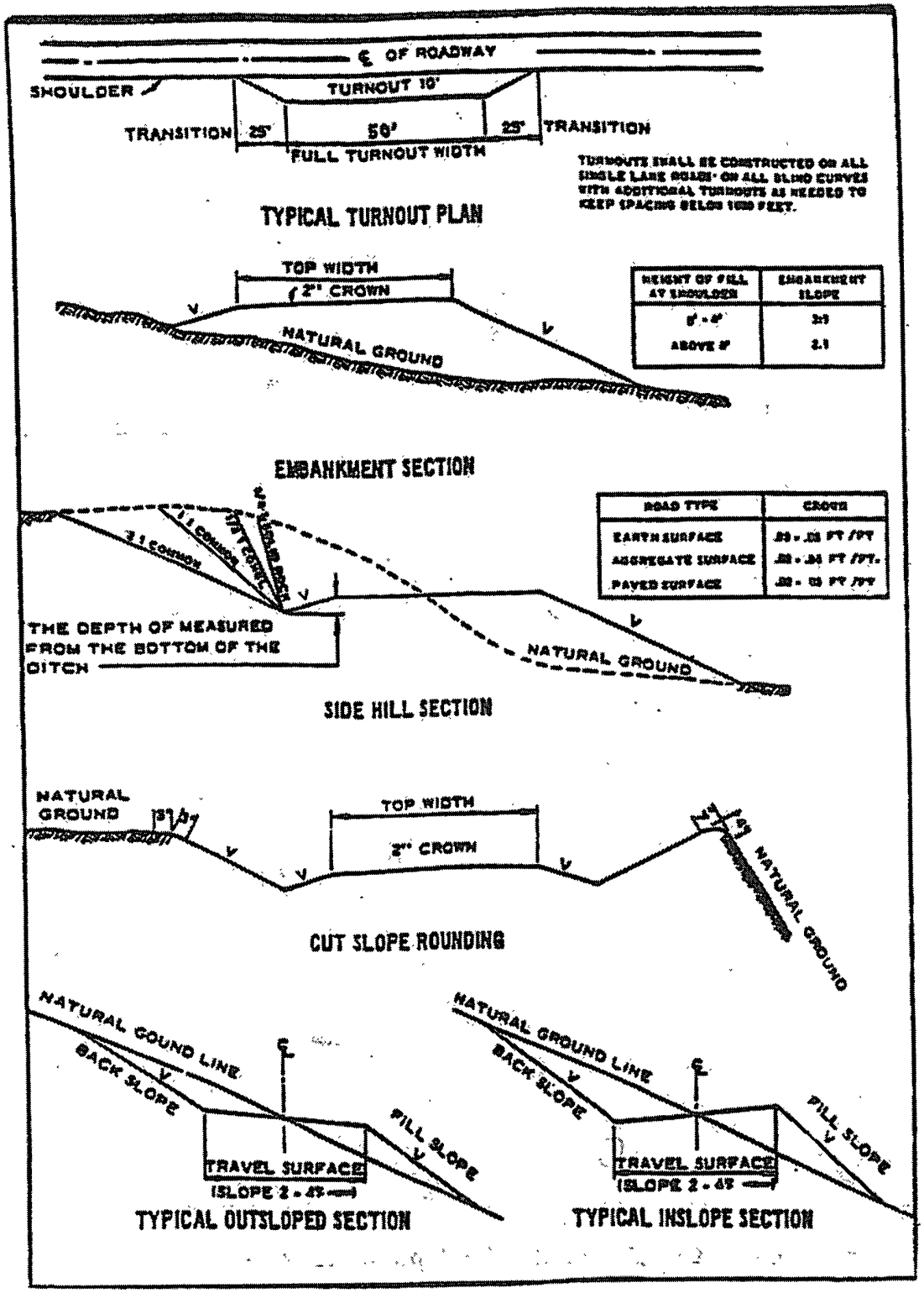
A gate shall be constructed and fastened securely to H-braces.

**Fence Requirement**
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

**Public Access**
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

## Figure 1 – Cross Sections and Plans For Typical Road Sections



# VI. DRILLING

## A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Lea County**
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 393-3612

1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Blinebry** formation. **Hydrogen Sulfide has been reported measuring 200-800 ppm in gas streams and 400-130,000 ppm in STVs.**

2. 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.

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

## B. CASING

**Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work.**

**Centralizers required on surface casing per Onshore Order 2.III.B.1.f.**

**Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing.**

**No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.**

**Possible lost circulation in the San Andres and Glorietta formations.**

1. The **8-5/8** inch surface casing shall be set **at approximately 1350 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **Fresh water mud to be used to setting depth.**

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

    b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement).

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, a remedial cement job will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **5-1/2** inch production casing is:

    ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

3. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

## C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. The tests shall be done by an independent service company.

    b. The results of the test shall be reported to the appropriate BLM office.

c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

## D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

**WWI 052208**

# VII. PRODUCTION (POST DRILLING)

## A. WELL STRUCTURES & FACILITIES

**Placement of Production Facilities**
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

**Containment Structures**
The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

**Painting Requirement**
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

## B. PIPELINES

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

**A copy of the APD 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.**

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. 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.

2. 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 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way 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.

3. 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 activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder 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.

4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.

b. Activities of other parties including, but not limited to:

(1) Land clearing.
(2) Earth-disturbing and earth-moving work.
(3) Blasting.
(4) Vandalism and sabotage.

c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars ($1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, 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 resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up 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 responsibility as provided herein.

6. All construction and maintenance activity will be confined to the authorized right-of-way width of 25 feet.

7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.

8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline will be "snaked" around hummocks and dunes rather then suspended across these features.

9. The pipeline shall be buried with a minimum of 24 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. 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 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. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object)

discovered by the holder, or any person working on his hehalf, on public or Federal land shall be immediately reported to the authorized officer. 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 cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

(March 1989)

# VIII. INTERIM RECLAMATION & RESERVE PIT CLOSURE

## A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

Seed Mixture 2, for Sandy 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 of planting where drilling is possible. The see mixture will be evenly and uniformly planted over the disturbed area (smaller/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:

| Species | lb/acre |
|---|---|
| Sand dropseed (Sporobolus cryptandrus) | 1.0 |
| Sand love grass (Eragrostis trichodes) | 1.0 |
| Plains bristlegrass (Setaria macrostachya) | 2.0 |

*Pounds of pure live seed:

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

## X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.