ATS-07-241

Form 3160-3
(April 2004)

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

UNITED STATES OCD-HOBBS
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

# APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. LC-~~063458~~ 031670B

6. If Indian, Allotee or Tribe Name

1a. Type of work: [X] DRILL [ ] ~~REENTER~~

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

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

8. Lease Name and Well No. (31488) Warren Unit #322

2. Name of Operator ConocoPhillips Company (217817)

9. API Well No. 30-025- 38949

3a. Address 3300 N. "A" Street, Bldg. 6 #247 Midland, TX 79705

3b. Phone No(*include area code*) (432)688-6884

10. Field and Pool, or Exploratory Warren; Drinkard/Warren;Blinebry-Tubb Oil

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface ~~1320' FNL & 1320' FWL~~ 1310/N & 1310/W Unit D
At proposed prod. zone ~~1320' FNL & 1320' FWL~~ LEA COUNTY CONTROLLED WATER BASIN See Amended Plat

11. Sec., T. R. M. or Blk. and Survey or Area UL "D", Sec. 28, T-20-S, R-38-E

14. Distance in miles and direction from nearest town or post office*
Approx. 9 miles NW from Eunice, NM

12. County or Parish Lea

13. State NM

| | | | |
|---|---|---|---|
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) | 3960' FNL & 3960' FWL | 16. No. of acres in lease 5120 | 17. Spacing Unit dedicated to this well 40 |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. | 909' from #133 | 19. Proposed Depth 7250' | 20. BLM/BIA Bond No. on file ES0085 |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3542' GL | | 22. Approximate date work will start* 06/23/2007 | 23. Estimated duration |

## 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 |
|---|---|---|
| Celeste G. Dale | Celeste G. Dale | 03/28/2007 |

Title: Regulatory Specialist

| Approved by *(Signature)* /s/ James Stovall | Name *(Printed/Typed)* | Date APR 30 2007 |
|---|---|---|
| Title ACTING FIELD MANAGER | Office 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 1 YEAR

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 Untied States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on page 2)

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Conditions of Approval Approval to drill & test all new zones separate, but cannot produce Downhole commingle until DHC is approved in Hobbs District office according to R-11363

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Received Hobbs OCD

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

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised August 15, 2000
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| API Number | Pool Code | Pool Name |
|---|---|---|
| 30-025- | 63080 | Warren; Drinkard |

| Property Code | Property Name | Well Number |
|---|---|---|
| 31488 | WARREN UNIT | 322 |

| OGRID No. | Operator Name | Elevation |
|---|---|---|
| 217817 | CONOCOPHILLIPS COMPANY | 3542' |

## Surface Location

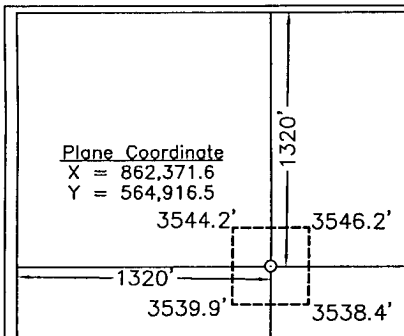
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| D | 28 | 20 S | 38 E | | 1320 | NORTH | 1320 | WEST | LEA |

## 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




NOTE:

1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.

## OPERATOR CERTIFICATION

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

Signature

Celeste G. Dale
Printed Name

Regulatory Specialist
Title

03/28/07
Date

## 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 supervison and that the same is true and correct to the best of my belief.*

January 9, 2007
Date Surveyed

KMT
Signature & Seal of Professional Surveyor

W.O. Num. 2007-0015

Certificate No. MACON McDONALD 12185

See Amended Plat

Form 3160-5
(April2004)

UNITEDSTATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-HOBBS

FORMAPPROVED
OM B No 1004-0137
Expires: March 31, 2007

## 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.**

RECEIVED
MAY 22 2008
HOBBS OCD

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

5. Lease Serial No.
LC-031670B

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No.
Warren Unit #322

2 Name of Operator
ConocoPhillips Company

9. API Well No.
30-025- 38949

3a. Address
3300 N. "A" Street, Bldg. 6 Midland TX 79705-5406

3b. Phone No. *(include area code)*
(432)688-6884

10. Field and Pool, or Exploratory Area
Warren;Drinkard/Warren;Blinebry-Tubb C

4 Location of Well (Footage, Sec., T., R., M., or Survey Description)
1310' FNL & 1310' FWL
Sec. 28, T-20-S, R-38-E

11. County or Parish, State
Lea
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 Renew APD & Amend Location |
| | [ ] 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.)

Ref. Bond #ES0085

Original location (1320' FNL & 1320' FWL) was previously approved/permitted by the BLM 04/30/07.

In order to maintain the spacing requirements as set forth by the Oil conservation Division, to remain a "standard" location; ConocoPhillips wishes to amend the location to be 1310' FNL & 1310' FWL. New survey plat is attached.

*Additionally, the original permit was subject to expire 04/30/08 we, therefore, wish to request the permit to be extended for 1 year beyond the original expiration date.

APPROVED FOR 12 MONTH PERIOD
ENDING 4-30-09

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
Celeste G. Dale

Title Regulatory Specialist

Signature Celeste G. Dale

Date 04/25/2008

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

Approved by /s/Dorothy M. Morgan

Title

Date 5/19/08

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)*

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Frances Dr.
Santa Fe, NM 87505

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

☒ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| API Number | Pool Code | Pool Name |
|---|---|---|
| 30-025- 38949 | 63080 | Warren; Drinkard |

| Property Code | Property Name | Well Number |
|---|---|---|
| 31488 | WARREN UNIT | 322 |

| OGRID No. | Operator Name | Elevation |
|---|---|---|
| 217817 | CONOCOPHILLIPS COMPANY | 3542' |

## Surface Location

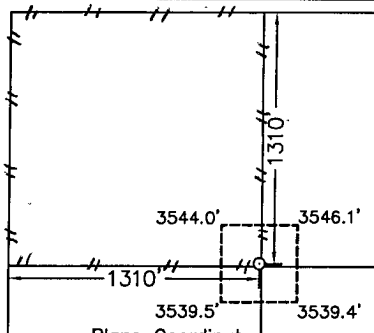
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| D | 28 | 20 S | 38 E | | 1310 | NORTH | 1310 | WEST | LEA |

## 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




Plane Coordinate
X = 862,361.4
Y = 564,927.5

NOTE:

1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.

## OPERATOR CERTIFICATION

*I hereby certify the the information contained 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 interestin 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.*

Signature 4/25/08 Date

Celeste G. Dale

Printed Name

## SURVEYOR CERTIFICATION

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

March 18, 2008

Date of Survey

LVA

Signature & Seal of Professional Surveyor

W.O. Num. 2006-0280

Certificate No. MACON McDONALD 12185

DISTRICT I
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1301 W. Grand Avenue, Artesia, NM 88210

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# WELL LOCATION AND ACREAGE DEDICATION PLAT

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|---|---|---|
| 30-025- 38949 | 62965 | Warren; Blinebry-Tubb Oil & Gas |

| Property Code | Property Name | Well Number |
|---|---|---|
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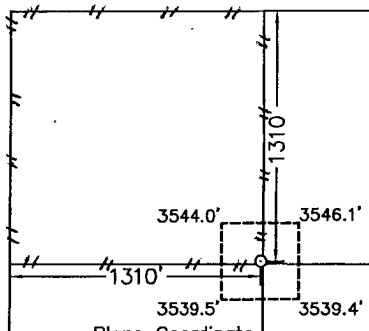


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Signature 04/25/08 Date

Celeste G. Dale

Printed Name

## SURVEYOR CERTIFICATION

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

March 18, 2008

Date of Survey

LVA

Signature & Seal of Professional Surveyor

W.O. Num. 2006-0280

Certificate No. MACON McDONALD 12185

# PECOS DISTRICT
# CONDITIONS OF APPROVAL

| | |
|---|---|
| OPERATOR'S NAME: | ConocoPhillips Company |
| LEASE NO.: | NMLC031670B |
| WELL NAME & NO.: | Warren Unit #323 |
| SURFACE HOLE FOOTAGE: | 610' FSL & 1820' FEL |
| LOCATION: | Section 21, T20S., R38E., NMPM |
| COUNTY: | Lea County, New Mexico |

## I. 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. BOP/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 **Grayburg Formation. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.**

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. Note: All casing shall meet or exceed API standards for new casing. Onshore Order #2. III. B. 1. a**

**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 each casing string.**

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

**All casing strings will be tested as per Onshore Order 2.III.B.1.h prior to drilling shoe plug.**

**Possible lost circulation in the Glorieta Formation.**

1. The **8-5/8 inch** surface casing shall be set **at approximately 1450 - 1500 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **If salt is penetrated surface casing shall be set 25 feet above the salt.**

    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 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, remedial cementing 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 a Two-Stage cementing option is used the minimum required fill of cement behind the **5-1/2 inch** production casing is:

   a. **First stage to DV tool, cement shall:**

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office, before proceeding with second stage cement job.

   b. **Second stage above DV tool, cement shall:**

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office and a Temperature Survey or Cement Bond Log will be required prior to any remedial work being done.

4. 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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.

3. 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.

JDW 5/12/08

# DRILLING PROGRAM

## ConocoPhillips Company
## Warren Unit # 322

Section 28, T20S – R38E, 1320' FNL & 1320' FWL
Lea County, New Mexico
Field: Blinebry
Objective: Warren Drinkard, Blinebry / Tubb

The following items supplement Form 3160-3 in accordance with instructions contained in Onshore Oil and Gas Orders # 1 and # 2, and all other applicable federal and state regulations.

1. Estimated tops of geological markers: (Datum is RKB 12' above Ground Level)

| | |
|---|---|
| Rustler | 1424' |
| Salado (Top salt) | 1508' |
| Tansill | 2564' |
| Yates | 2699' |
| Seven Rivers | 2964' |
| Queen | 3529' |
| Penrose | 3679' |
| Grayburg | 3864' |
| San Andres | 4089' |
| Glorieta | 5384' |
| Blinebry Top | 5689' |
| Tubb | 6349' |
| Drinkard | 6689' |
| Abo | 6934' |
| TD | 7185' |

2. Estimated depths to water, oil, or gas formations:

| | |
|---|---|
| Fresh Water: | Above 1424' (above top of Rustler formation) |
| Oil, gas, or salt water: | 2564' to TD |

Protection of fresh water will be accomplished by setting the surface casing into the Rustler formation and cementing the surface casing in accordance with the provisions of Onshore Oil and Gas Order No. 2 and New Mexico Oil Conservation Division Title 19.

3. Pressure Control Equipment: The blowout preventer equipment (BOP) will be installed after running and cementing the surface casing and will consist of a 5000 psi double ram and 5000 psi annular type preventer for drilling the production hole. A diagram of the BOPs and choke manifold is attached.

A variance to the provisions of Onshore Order No. 2 is proposed to allow us to test our BOPs as follows:

- We propose to test the ram type BOP's and choke and kill lines and valves to 250 psi (low pressure test) and to 2000 psi (high pressure test) instead of to the rated working pressure of the equipment.
- We propose to test the annular type BOP to 250 psi (low pressure test) and to 2000 psi (high pressure test) instead of to 50% of the rated working pressure of the equipment.

The Pressure Control Equipment tests will be performed with an independent BOP tester.

4. Proposed casing program:

| Type | Hole Size | Interval | Casing Size | Weight | Grade | Joint |
|---|---|---|---|---|---|---|
| Conductor | 17-1/2" | 0-40' to 80' | 13-3/8" or 14" | | | |
| Surface Casing | 12-1/4" | 0 – 1450 to 1500' | 8-5/8" | 24# | J-55 | ST&C |
| Production Casing | 7-7/8" | 0 – 7135 to 7185' | 5-1/2" | 17# | J-55 or L-80 | LT&C |

We propose an **alternative option to run a stage tool** at 3800' to 5400' in the 5-1/2" production casing based on hole conditions if losses are observed to occur while drilling the 7-7/8" production hole.

Proposed wellhead program:
Casing Head: 8-5/8" Slip on and Weld x 11" 5M Casing Head installed on 8-5/8" surface casing
Tubing Head: 11" 5M x 7-1/6" 5M Tubing Head installed after setting 5-1/2" production casing

5. Proposed cementing program:

13-3/8" or 14" Conductor: Cemented with ready mix to surface

8-5/8" Surface Casing:

Lead Slurry: 600 sx
65% Class C
35% Poz
+ 6% bentonite
+ 3% salt
+ 0.125 lb/sx Poly-E-Flake
Mix Weight = 12.9 ppg,
Yield = 1.83 cuft/sx yield,
Mix Water = 9.78 gal/sx
Top of Lead Slurry at Surface

Tail Slurry:
200 sx Class C Cement
+ 2% calcium chloride
+ 0.125 lb/sx Poly-E-Flake
Mix Weight = 14.8 ppg,
Yield = 1.35 cuft/sx yield,
Mix Water = 6.35 gal/sx
Length of Tail Slurry: 300'
Top of Tail Slurry at 1150' - 1200' MD RKB

Proposed cementing program (continued)

5-1/2" Production Casing: Single Stage Cementing Option

Lead Slurry: 700 sx
50% Class C
50% Poz
+ 10% bentonite
+ 8 lb/sx salt
+ 0.4% Fluid Loss Additive
+ 0.2% Dispersant
+ 0.125 pps Poly-E-Flake
+ 1% Well Life Loss Circulation Material if needed
Mix Weight = 11.8 ppg,
Yield = 2.53 cuft/sx yield,
Mix Water = 14.63 gal/sx
Top of Lead Slurry at Surface

Tail Slurry: 400 sx
50% Class H
50% Poz
+ 2% bentonite
+ 5% salt (bwow)
+ 0.4% Fluid Loss Additive
+ 0.2% dispersant
+ 1% Well Life Loss Circulation Material if needed
Mix Weight = 14.2 ppg,
Yield = 1.31 cuft/sx yield,
Mix Water = 6.11 gal/sx
Top of Tail Slurry at ~ 200' to 400' above the Stage Tool

The volumes presented here are estimates and we propose to adjust the cement volumes based on caliper data if logs are available.

Proposed cementing program (continued)

5-1/2" Production Casing: Two-Stage Cementing Option

It is proposed to use Two-Stage Cementing if needed based on wellbore conditions and observations of any loss of circulations events or heavy seepage loses while drilling the 7-7/8" hole. In the event of the implementation of this option, the cementing program would be as follows:

- Stage 1 Cement: Will place cement from the 5-1/2" production casing shoe to the Stage Tool.
- Stage 2 Cement: Will place cement from the stage tool in the 5-1/2" production casing to Surface.

Stage 1:

Lead Slurry: This slurry is proposed as an option to be used if needed depending on the depth at which the Stage Tool is set.
50% Class C
50% Poz
+ 10% bentonite
+ 8 lb/sx salt
+ 0.4% Fluid Loss Additive
+ 0.2% Dispersant
+ 0.125 pps Poly-E-Flake
+ 1% Well Life Loss Circulation Material if needed
Mix Weight = 11.8 ppg,
Yield = 2.53 cuft/sx yield,
Mix Water = 14.63 gal/sx

Tail Slurry: 400 sx
50% Class H
50% Poz
+ 2% bentonite
+ 5% salt (bwow)
+ 0.4% Fluid Loss Additive
+ 0.2% dispersant
+ 1% Well Life Loss Circulation Material if needed
Mix Weight = 14.2 ppg,
Yield = 1.31 cuft/sx yield,
Mix Water = 6.11 gal/sx
Top of Tail Slurry ~ 5400' MD RKB

Proposed cementing program (continued)

5-1/2" Production Casing: Two-Stage Cementing Option (continued)

Stage 2:

Lead Slurry:
50% Class C
50% Poz
+ 10% bentonite
+ 8 lb/sx salt
+ 0.4% Fluid Loss Additive
+ 0.2% Dispersant
+ 0.125 pps Poly-E-Flake
+ 1% Well Life Loss Circulation Material if needed
Mix Weight = 11.8 ppg,
Yield = 2.53 cuft/sx yield,
Mix Water = 14.63 gal/sx
Top of Lead Slurry at Surface

Tail Slurry: 100 sx
Class C Neat
Mix Weight = 14.8 ppg,
Yield = 1.35 cuft/sx yield,
Mix Water = 6.37 gal/sx
Top of Stage 2 Tail Slurry at ~ 5000' - 5200' MD RKB

Note: The volumes presented here are estimates and we propose to adjust the cement volumes based on caliper data if logs are available.

6. Proposed Mud System

12-1/4" hole from surface to 1460 – 1510' MD RKB: The circulating media will be either a spud mud or fresh water with high viscosity sweeps. The mud components will be:

- Fresh Water
- Bentonite
- Lime
- Soda Ash
- Starch if needed
- Drilling Paper
- Other loss of circulation material if needed (nut plug or fiberous material)
- Soap sticks

7-7/8" hole from ~ 1450' to ~ 7185' (TD): The circulating media will be 10 ppg brine and will be converted to a mud with starch, attapulgite, and lime upon reaching Total Depth (TD).
The mud components will be:

- Brine (approximately 10 lb/gal density)
- Attapulgite
- Lime
- Starch
- Drilling Paper
- Other loss of circulation material if needed (nut plug, fiberous material, gilsonite, or asphalt)
- Soap Sticks if needed

7. Testing, Logging, and Coring
   - Mud logging (samples) 2000' to TD
   - Open hole electric line logs: (Gamma Ray, Neutron, Density, Resistivity, Spectral Gamma Ray, Sonic, Caliper)
   - Formation pressure data (XPT) on electric line
   - No whole cores are planned
   - No sidewall cores are planned
   - No drill stem tests will be done

8. Abnormal Pressures and Temperatures:

   - No abnormal pressure is anticipated. All pressures in the surface hole are expected to be 8.33 ppg equivalent mud weight or less. All pressures in the production hole are anticipated to be 9 ppg equivalent mud weight or less. The maximum bottom hole pressure should not exceed 3363 psi.

   - The expected bottom hole temperature is 113 degrees F

   - The estimated Hydrogen Sulfide concentrations in this well is 10-100 ppm H2S with a maximum estimated gas rate of 28 MCFPD. The 100 ppm H2S ROE = 0-3 feet. The 500 ppm ROE = 0-1 feet. ConocoPhillips will provide H2S monitoring and an H2S contingency plan. Monitoring equipment will be rigged up and tested prior to drilling out from surface casing. The Hydrogen Sulfide Contingency Plan will be posted at the wellsite.

9. Anticipated starting date and duration of operations:
   - It is estimated that drilling will commence about June 23, 2007 or August 10, 2007.
   - Drilling operations should be finished within 15 to 18 days and followed by completion operations.

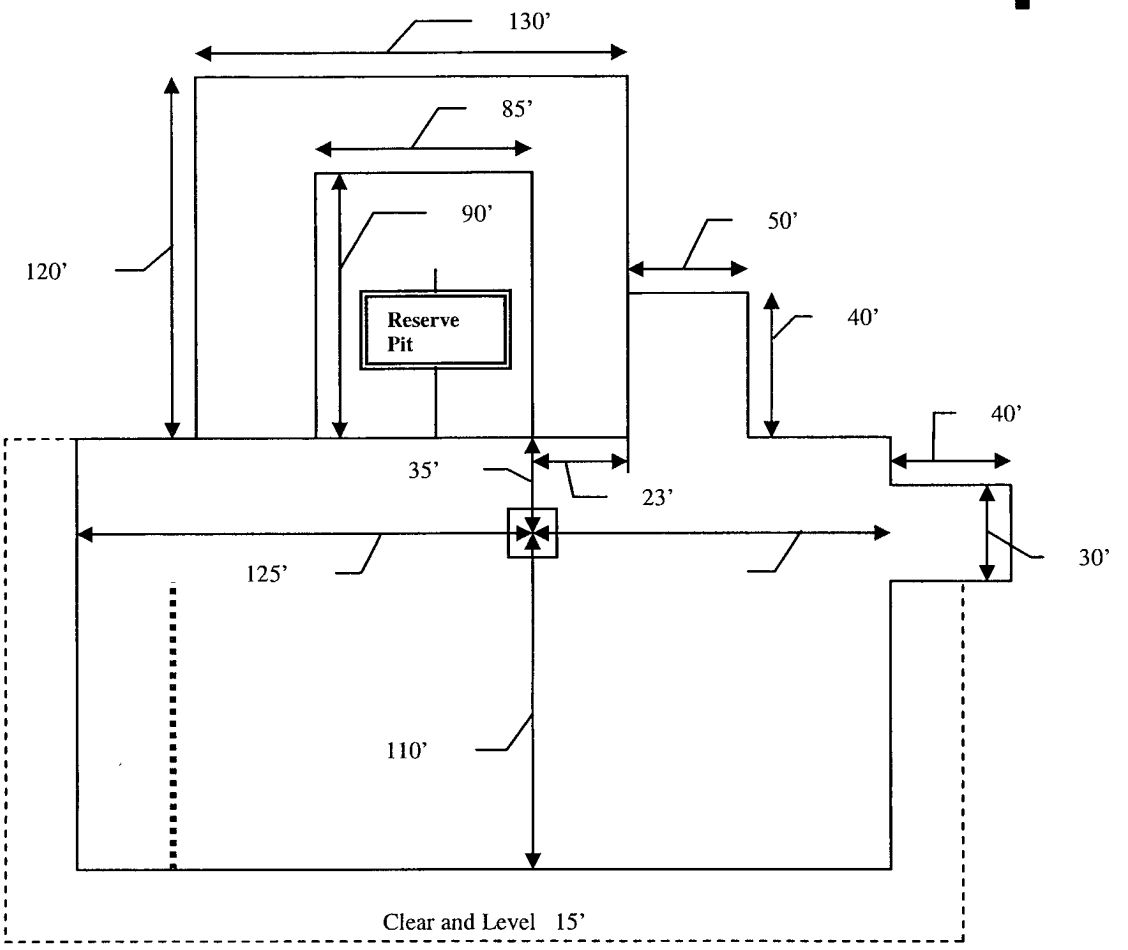
Program prepared by:
Steven O. Moore, Drilling Engineer, ConocoPhillips Company
Phone 832 486 2459
Cell Phone 281 467 7596
Date: March 28, 2007

# ConocoPhillips

## Sledge Drilling

**Well:** Warren Unit #322

North




## PVC Conduit

- 100' Left of center line of cellar
- 50' Back of berm wall or 15' back of center line of cellar
- -------- Conduit

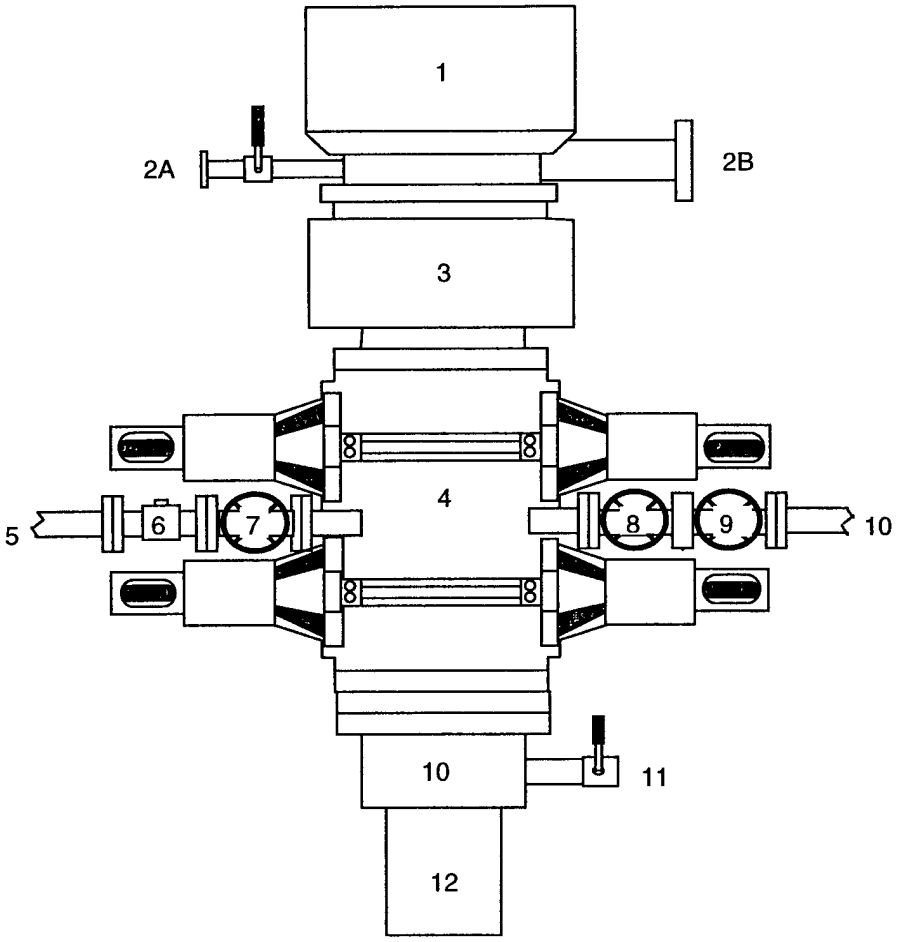
**Sledge Drilling Rig # 5 & Rig # 10**

**Location dimensions**

**Revised 12-18-06**

# BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling Production Hole and Setting 5.5 inch Casing




1. Rotating Head
2A. Fill-up Line & valve
2B. Flow Line
3. Annular BOP (11", 5000 psi)
4. Double Ram BOP (11", 5000 psi)
   (Blind Rams - Upper Set)
   (Pipe Rams - Lower Set)
5. Kill Line
6. Kill Line Check Valve
7. Kill Line Valve
8 Inner Choke Line Valve (3")
9. Outer Choke Line Valve (3")
10. Csg Head "A" Section (11", 5M)
11. Csg Head Valve (2", 3M)
12. 8 5/8" Casing

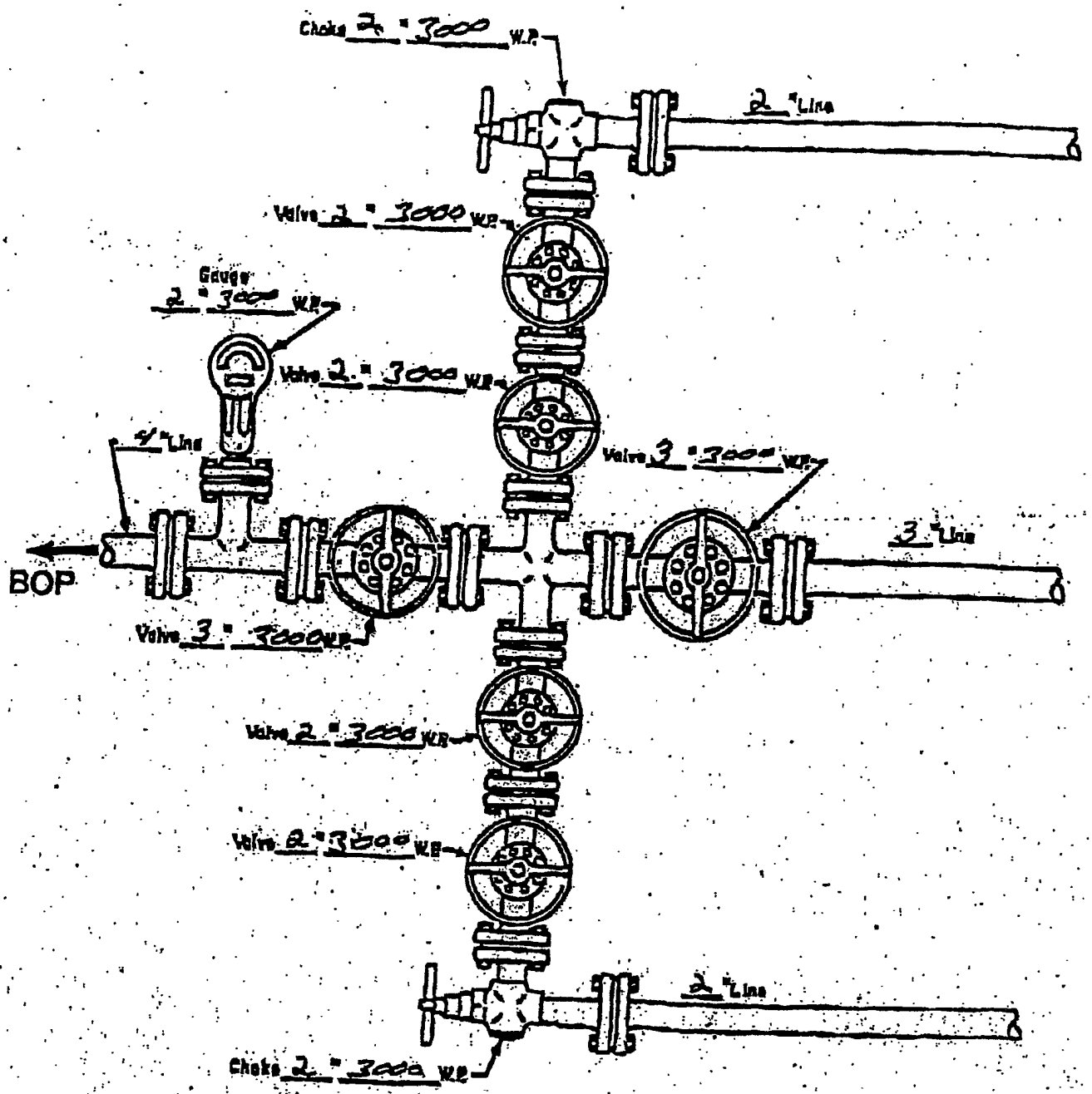
We propose a VARIANCE to Onshore Order No. 2 to allow us to test our BOPs as follows:
Test Pipe Rams and Blind Rams to 3000 psi instead of 5000 psi
Test Annular BOP to 2000 psi instead of 2500 psi
The reason for this request is that we feel that this is an adequate test and reduces wear and tear on the equipment.

We propose a VARIANCE to Order # 2 to allow us to pressure test the Surface Casing to 1000 psi instead of to 1500 psi. Per Onshore Order # 2 the test would be performed for a minimum of 30 minutes with less than 10% pressure decline in the 30 minute test period. The reason for this is that we feel this is an adequate test pressure and will allow us to use the rig pump for the test instead of a testing unit pump and will reduce wear and tear on the equipment.

Drawn by: Steven O. Moore, Drilling Engineer, 20-Feb-2007

Revision Date: February 20, 2007

# CHOKE MANIFOLD DIAGRAM




MANIFOLD
3000 # W.P.

☒ Manual
☐ Hydraulic

ConocoPhillips

# *Proposed Drilling Wellbore Schematic*
## *Warren Unit # 322*

Datum: RKB (12' above ground level)

11" 5M x 7 1/16" 5M Tubing Head
8-5/8" SOW x 11" 5M Casing Head

**Conductor**
13-3/8" conductor set at 40 - 80' BGL with rat hole machine

**Surface Casing**

[X] New
[ ] Used

Size 8 5/8 in
Wt. 24 ppf
Gtrade: J-55 ppf
Conn: STC ppf

Hole Size 12 1/4 in
Excess Cmt 100 %
T.O.C. SURFACE

Surface Casing Shoe set at 1450' - 1500' MD RKB
TD of 12-1/4" hole at 1460' - 1510' MD RKB

**Surface Cement**

Spacer: 20 bbls fresh water

Lead Slurry:
600 sx
Mix Weight = 12.9 ppg
Yield = 1.83 cuft/sx

Top of Lead Slurry at Surface

Tail Slurry:
200 sx
Mix Weight = 14.8 ppg
Yield = 1.35 cuft/sx

Length of Tail Slurry: 300'
Top of Tail Slurry: 1150 - 1200' MD RKB

Displacement: Fresh Water

**Production Cement**

Spacer: 20 bbls fresh water

Lead Slurry: 700 sx
Mix Weight = 11.8 ppg,
Yield = 2.53 cuft/sx yield,

Top of Lead Slurry at Surface

Tail Slurry: 400 sx
Mix Weight = 14.2 ppg
Yield = 1.31 cuft/sx

Top of Tail Slurry @ 5400' to 5500' MD RKB

Displacement: 2% KCL water

**Production Casing:**

[X] New
[ ] Used

Size 5 1/2 in
Wt. 17 ppf
Gtrade: J-55 or L-80 ppf
Conn: LTC ppf

Hole Size 7 7/8 in

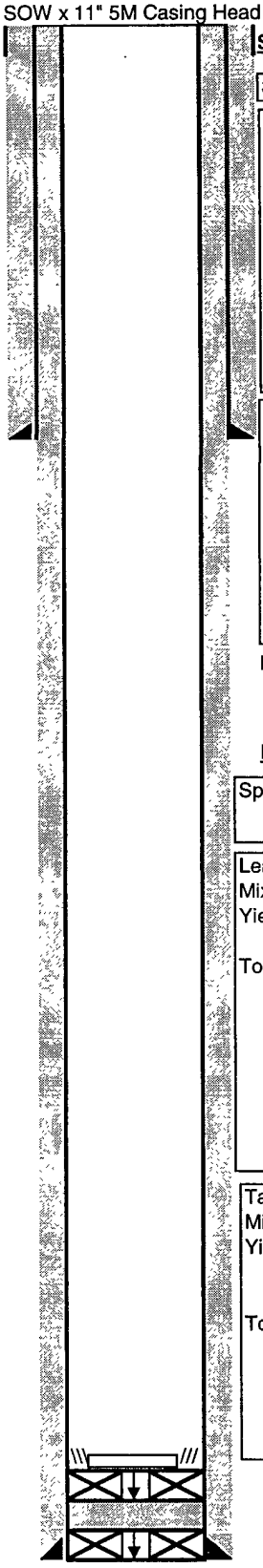
T.O.C. SURFACE

Cement volumes are estimates and will be adjusted based on the caliper log if available.

Top of Float Collar at 7080' - 7130' MD RKB

Production Casing Shoe 7125 - 7175' MD RKB
TD of 7-7/8" hole at 7135' - 7185' MD RKB

Schematic prepared by:
Steven O. Moore, Drilling Engineer
28-March-2007



ConocoPhillips

# *Proposed Alternative Drilling Wellbore Schematic*

## *Warren Unit # 322*

Datum: RKB (12' above ground level)

11" 5M x 7 1/16" 5M Tubing Head

8-5/8" SOW x 11" 5M Casing Head

**Conductor**

13-3/8" conductor set at 40 - 80' BGL with rat hole machine

**Surface Casing**

Size 8 5/8 in
Wt. 24 ppf
Gtrade: J-55 ppf
Conn: STC ppf

[X] New
[ ] Used

Hole Size 12 1/4 in
Excess Cmt 100 %
T.O.C. SURFACE

Surface Casing Shoe set at 1450' - 1500' MD RKB
TD of 12-1/4" hole at 1460' - 1510' MD RKB

**Surface Cement**

Spacer: 20 bbls fresh water

Lead Slurry:
600 sx
Mix Weight = 12.9 ppg
Yield = 1.83 cuft/sx

Top of Lead Slurry at Surface

Tail Slurry:
200 sx
Mix Weight = 14.8 ppg
Yield = 1.35 cuft/sx

Length of Tail Slurry: 300'
Top of Tail Slurry: 1150 - 1200' MD RKB

Displacement: Fresh Water

**Production Cement**

Stage 2
Lead Slurry:
Mix Weight = 11.8 ppg,
Yield = 2.53 cuft/sx yield
Top of cement at Surface

Stage 2
Tail Slurry: 100 sx Class C Neat
Mix Weight = 14.8 ppg
Yield = 1.35 cuft/sx

**Production Casing:**

Size 5 1/2 in
Wt. 17 ppf
Gtrade: J-55 or L-80 ppf
Conn: LTC ppf

[X] New
[ ] Used

Hole Size 7 7/8 in

T.O.C. SURFACE

Alternative Program: Stage Tool Placed at some depth between 3800' and 5400' depending on where losses may be observed.

Cement Volumes are estimates and will be adjusted based on the caliper log if available.

Stage 1
Lead Slurry: if needed depending on depth at which stage tool is placed

Mix Weight = 11.8 ppg,
Yield = 2.53 cuft/sx yield,

Stage 1
Tail Slurry: 400 sx
Mix Weight = 14.2 ppg
Yield = 1.31 cuft/sx

Top of Tail Slurry @ 5400' to 5500' MD RKB

Displacement: Mud or Fresh Water

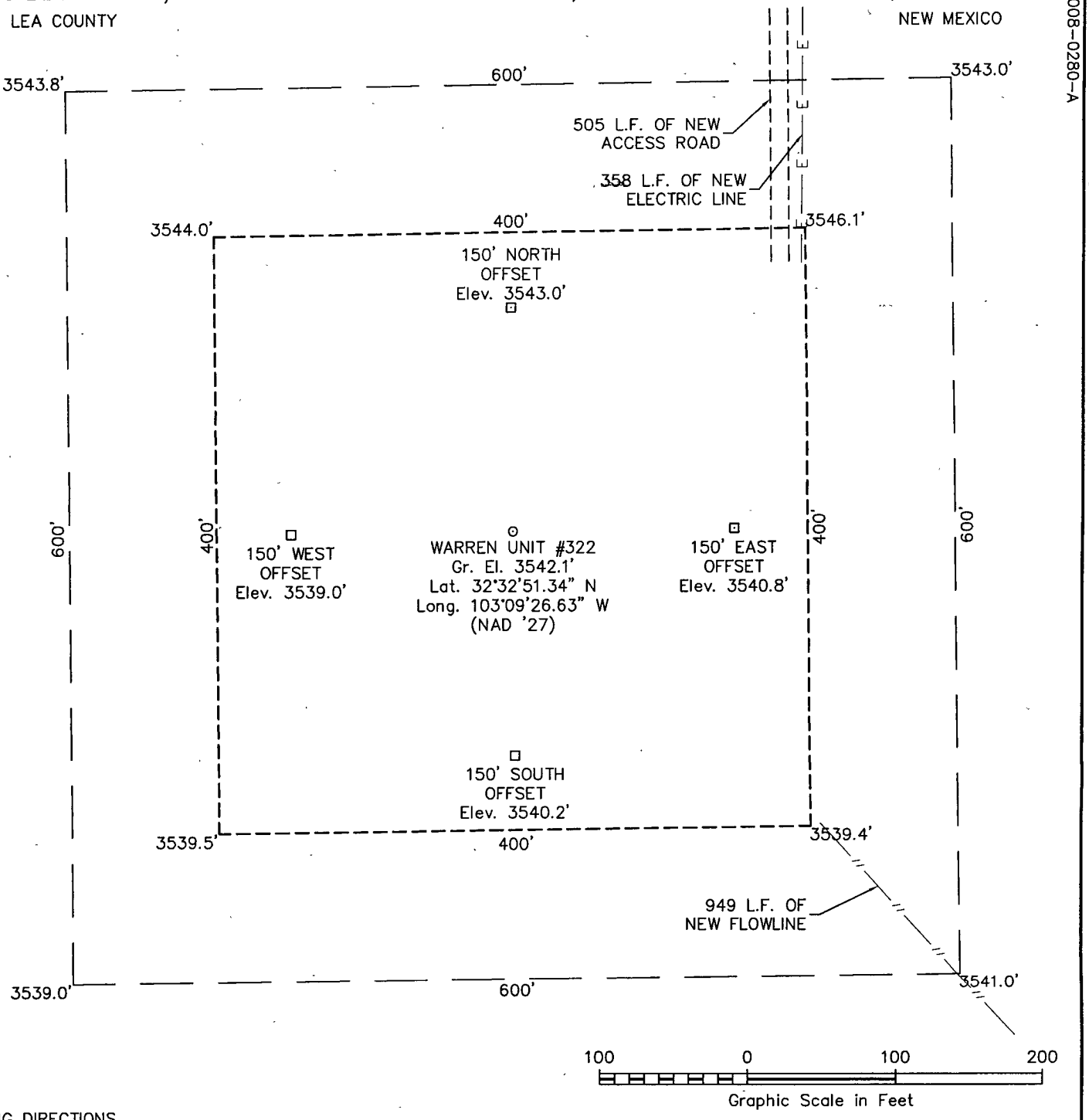
Top of Float Collar at 7080' - 7130' MD RKB

Production Casing Shoe 7125 - 7175' MD RKB
TD of 7-7/8" hole at 7135' - 7185' MD RKB

Schematic prepared by:
Steven O. Moore, Drilling Engineer
28-March-2007

# SECTION 28, TOWNSHIP 20 SOUTH, RANGE 38 EAST, N.M.P.M.

L-2008-0280-A




DRIVING DIRECTIONS

FROM THE INTERSECTION OF U.S. HIGHWAY 18 AND U.S. HIGHWAY 176 IN EUNICE, NEW MEXICO GO NORTH ON SAID U.S. HIGHWAY 18 7.4 MILES TO A CATTLE GUARD ON WEST (LEFT) SIDE OF SAID U.S. HIGHWAY 18, THEN GO WEST THROUGH SAID CATTLE GUARD ON LEASE ROAD 1.3 MILES TO A LEASE ROAD ON NORTH (LEFT) SIDE OF SAID LEASE ROAD, THEN GO NORTH AND WEST ALONG SAID LEASE ROAD 0.8 MILES TO A POINT WHERE A NEW ACCESS ROAD BEGINS, THEN FOLLOW NEW ACCESS ROAD 500 FEET TO THE PROPOSED LOCATION.

CONOCOPHILLIPS

## WARREN UNIT #322

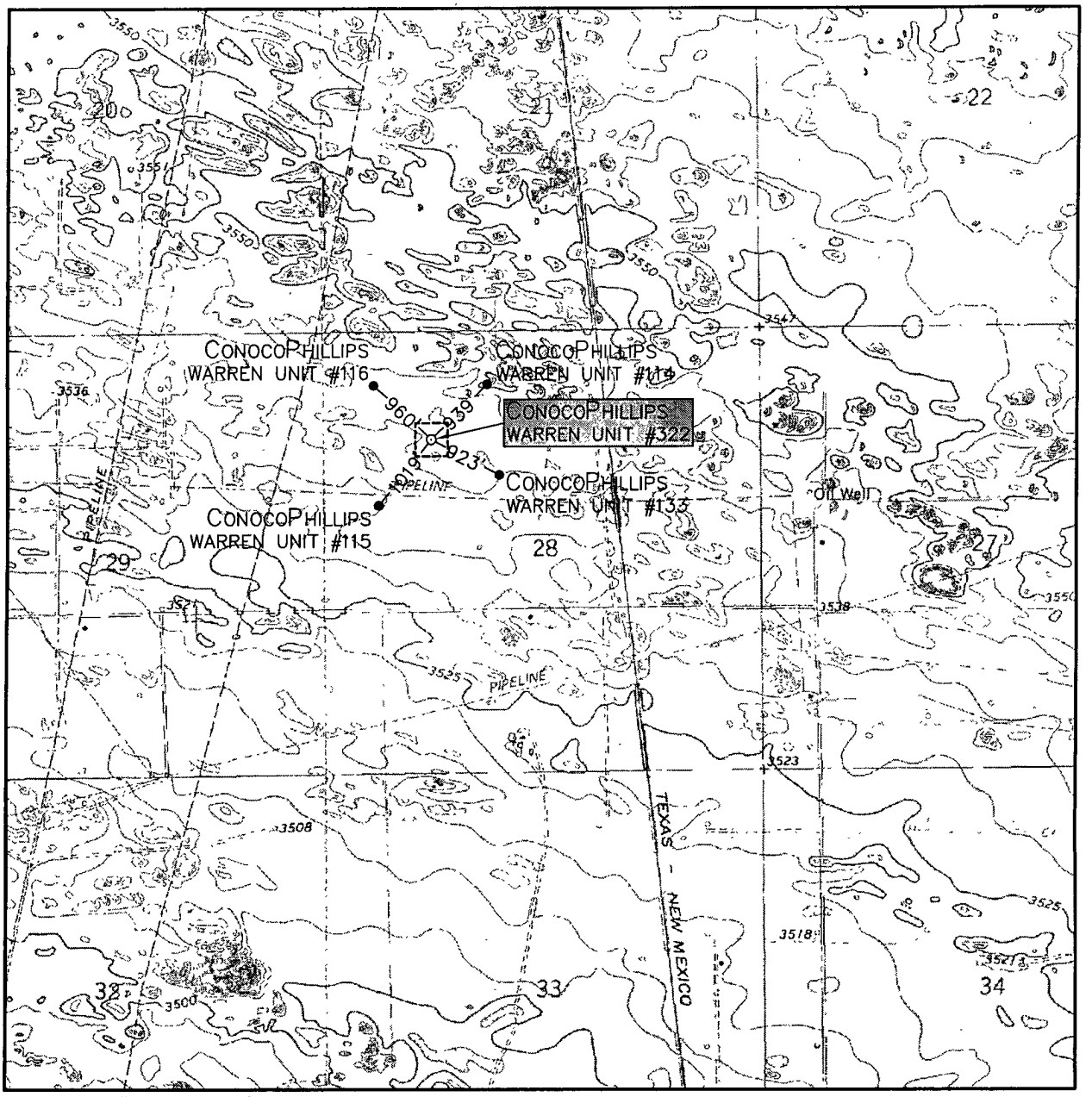
**Located 1310' FNL & 1310' FWL, Section 28 Township 20 South, Range 37 East, N.M.P.M. Lea County, New Mexico**

| | |
|---|---|
| Drawn By: LVA | Date: April 8, 2008 |
| Scale: 1"=100' | Field Book: 409 / 1-10 |
| Revision Date: | Quadrangle: Hobbs SW |
| W.O. No: 2008-0280 | Dwg. No.: L-2008-0280-A |


WEST COMPANY of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

# LOCATION VERIFICATION MAP




SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOBBS SW – 5'

SEC. 28 TWP. 20-S RGE. 38-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1310' FNL & 1310' FWL

ELEVATION 3542'

OPERATOR CONOCOPHILLIPS

LEASE WARREN UNIT

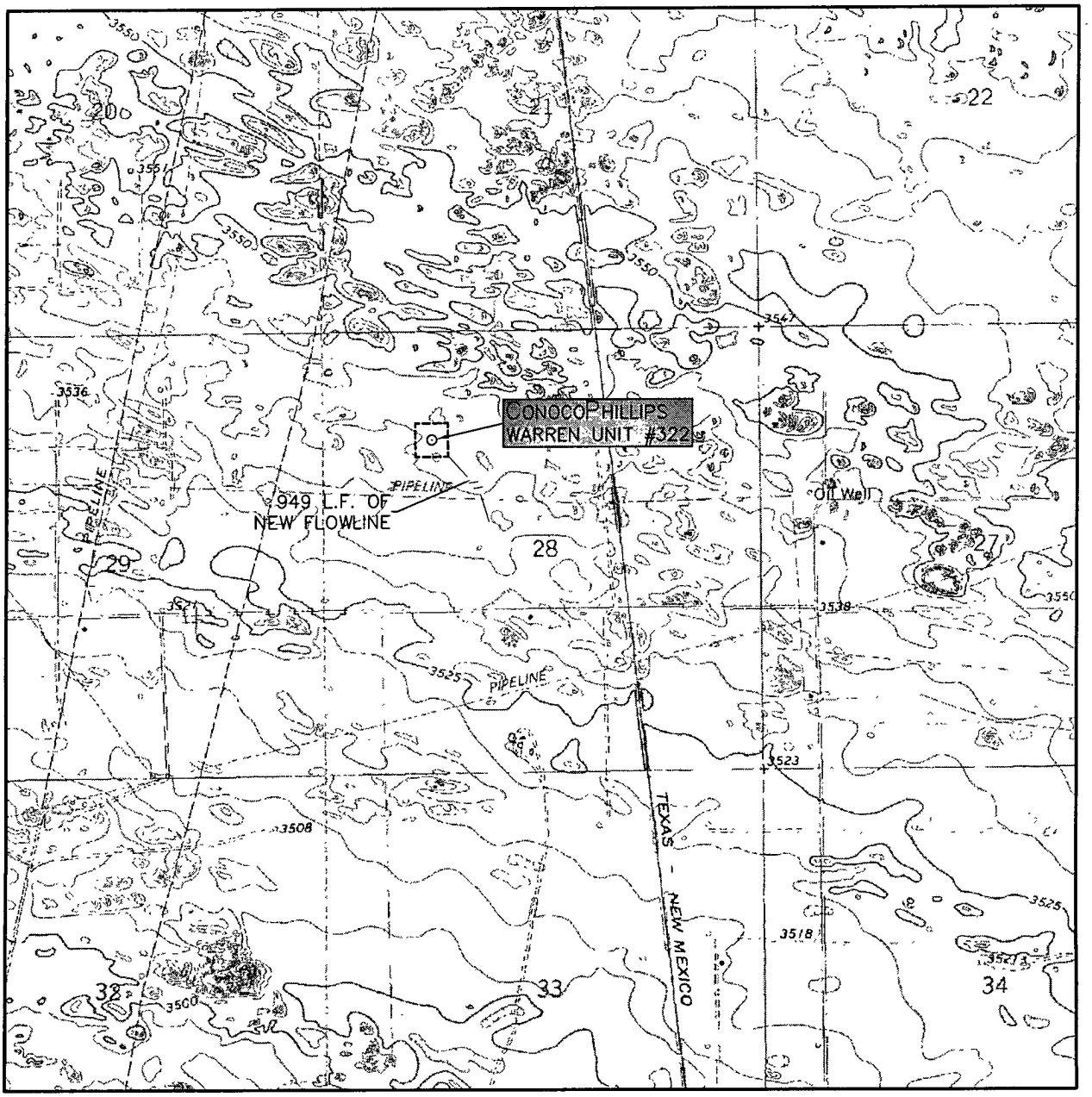
U.S.G.S. TOPOGRAPHIC MAP
HOBBS SW

NORTH


WEST COMPANY of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 – (432) 687-0868 FAX

# LOCATION VERIFICATION MAP




SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOBBS SW – 5'

SEC. 28 TWP. 20–S RGE. 38–E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1310' FNL & 1310' FWL

ELEVATION 3542'

OPERATOR CONOCOPHILLIPS

LEASE WARREN UNIT

U.S.G.S. TOPOGRAPHIC MAP
HOBBS SW


WEST COMPANY of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
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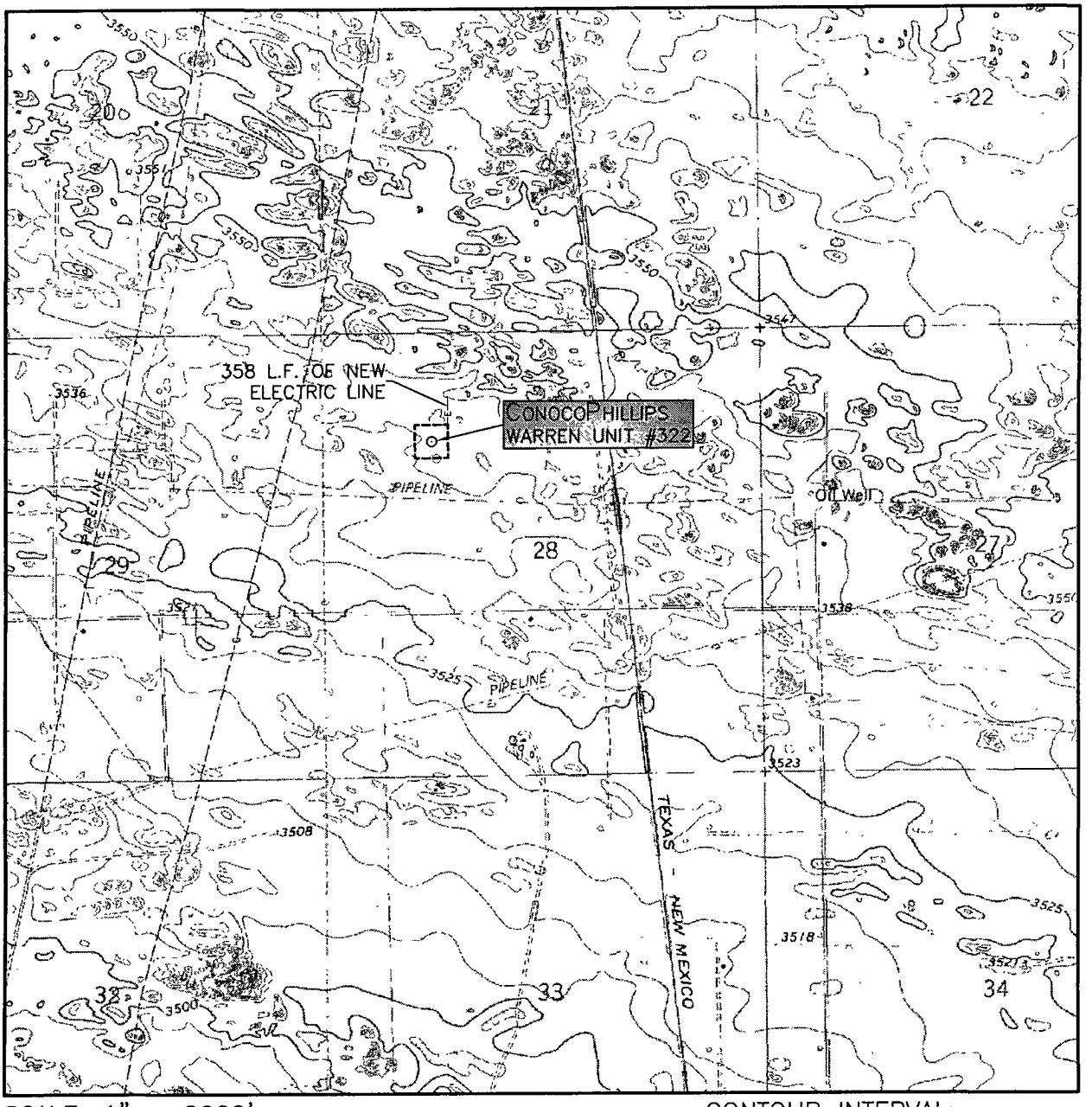
# LOCATION VERIFICATION MAP




SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOBBS SW – 5'

SEC. 28 TWP: 20–S RGE. 38–E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1310' FNL & 1310' FWL

ELEVATION 3542'

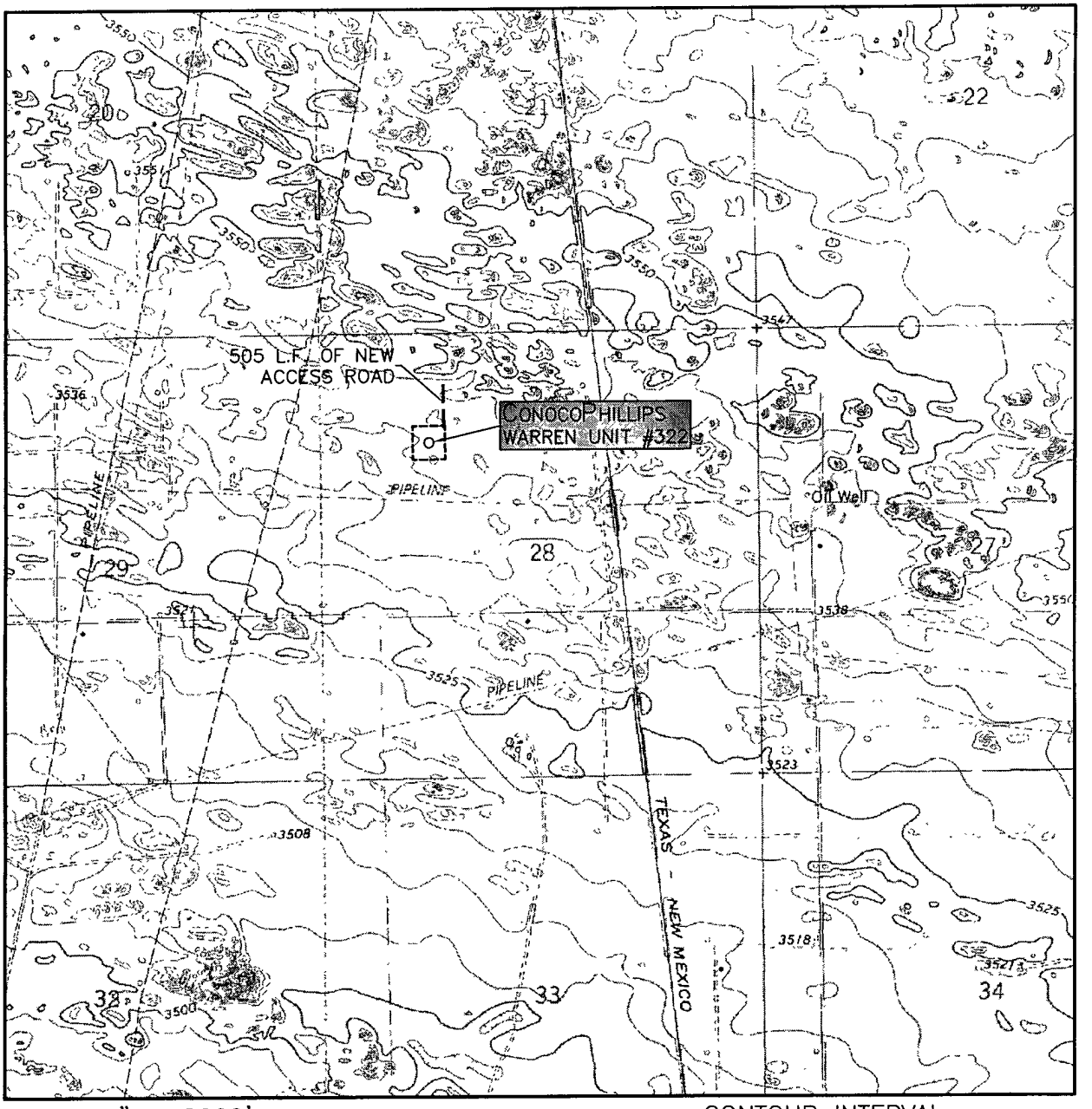
OPERATOR CONOCOPHILLIPS

LEASE WARREN UNIT

U.S.G.S. TOPOGRAPHIC MAP
HOBBS SW

WEST COMPANY of Midland, Inc.
110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687–0865 – (432) 687–0868 FAX

# LOCATION VERIFICATION MAP




SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOBBS SW – 5'

SEC. 28 TWP. 20–S RGE. 38–E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1310' FNL & 1310' FWL

ELEVATION 3542'

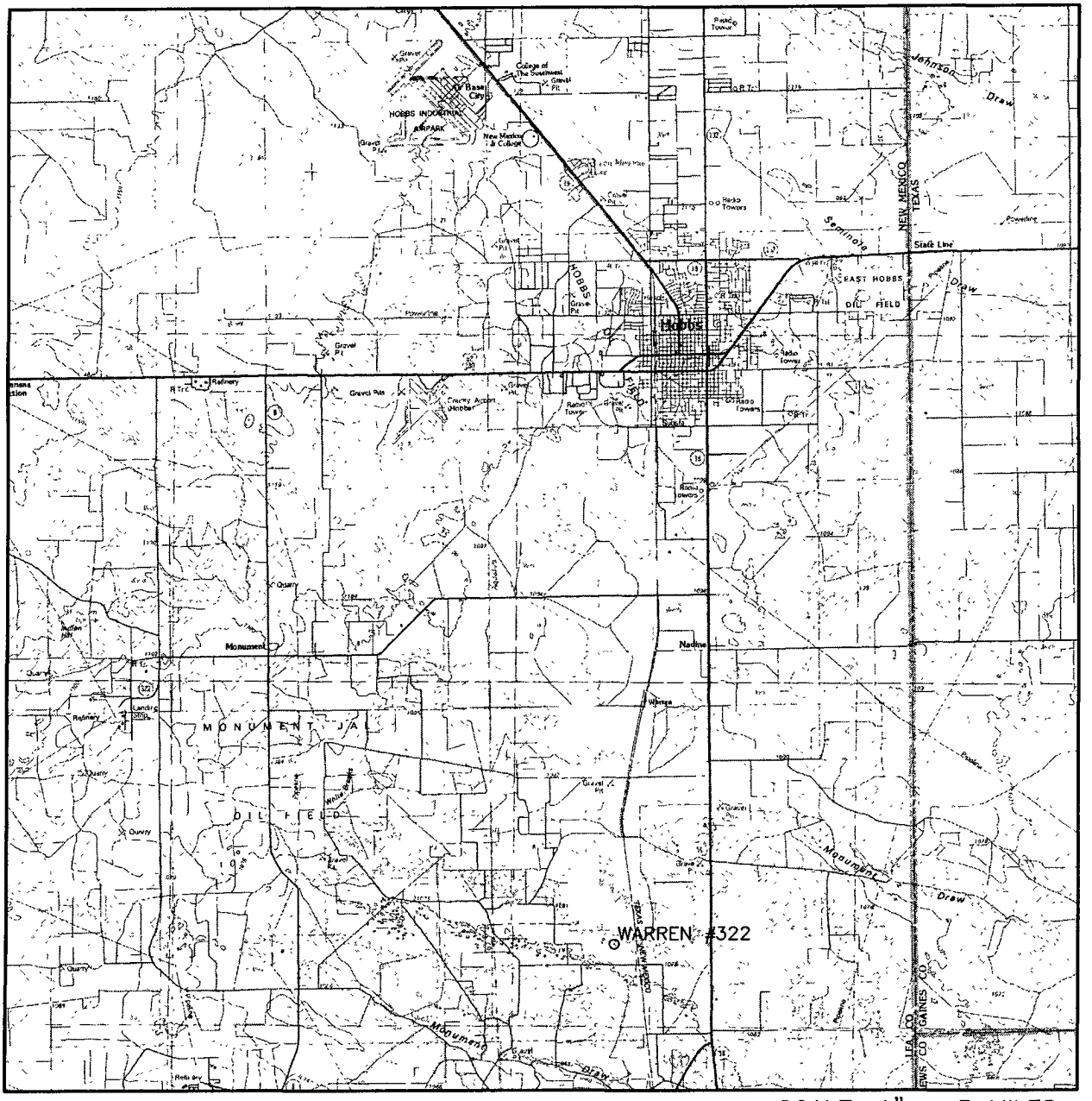
OPERATOR CONOCOPHILLIPS

LEASE WARREN UNIT

U.S.G.S. TOPOGRAPHIC MAP
HOBBS SW

WEST COMPANY of Midland, Inc.
110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687–0865 – (432) 687–0868 FAX

# VICINITY MAP




SCALE: 1" = 3 MILES

SEC. 28 TWP. 20-S RGE. 38-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1310' FNL & 1310' FWL

ELEVATION 3542'

OPERATOR CONOCOPHILLIPS

LEASE WARREN UNIT

NORTH

WEST COMPANY of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

# CONDITIONS OF APPROVAL - DRILLING

**Operator's Name:** CONOCOPhillips Co
**Well Name & No.** Warren Unit # 322
**Location:** 1320'FNL, 1320'FWL, SEC28, T20S, R38E, Lea County, NM
**Lease:** LC-031670B

## I. DRILLING OPERATIONS REQUIREMENTS:

A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance, at 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:

1. Spudding
2. Cementing casing: 13.375 inch 8.625 inch 5.5 inch
3. BOP tests

B. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Grayburg Formation at approximately 3700 feet**.

C. 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.

D. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

E. If floor controls are required, (3M or Greater) 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.

## II. CASING:

A. The **8-5/8 inch** surface casing shall be set at **1450 - 1500** feet and cemented to the surface.

1. 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.
2. Wait on Cement (WOC) time for a primary cement job will be a minimum of 12 hours for a non-water basin, 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compression strength, which ever is greater. (This is to include the lead cement)
3. WOC time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds of compression strength, which ever is greater.
4. If cement falls back, Remedial cementing shall be completed prior to drilling out that string.

B. The minimum required fill of cement behind the **5-1/2 inch** production casing is **tie back 200 feet into the 8-5/8 inch surface casing.**

C. If hard band 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.

## III. PRESSURE CONTROL:

A. 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

B. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the **8.625** inch casing shall be **2000** psi.

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

1. The tests shall be done by an independent service company.
2. The results of the test shall be reported to the appropriate BLM office.
3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of the independent service company test will be submitted to the appropriate BLM office.
4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi in accordance with API RP 53. The test will be held for a minimum of 10 minutes if the test is done with a test plug and 30 minutes without a test plug.

## IV. Hazards:

1. Our geologist has indicated that there is potential for lost circulation in the Glorieta formation.

**Engineering may be contacted at 505-706-2779 for variances if necessary.**

**FWright 4/4/07**

BLM Serial #: LC-031670B
Company Reference: ConocoPhillips Company
Well # & Name: Warren Unit #322

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 of 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).

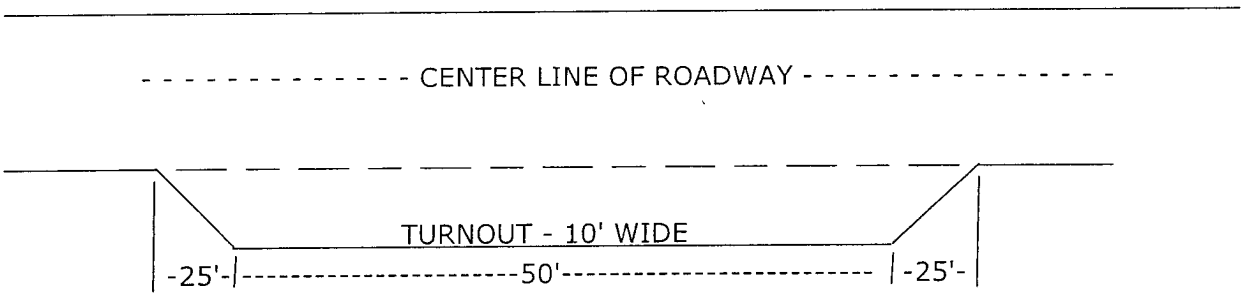
C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

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

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:

BLM Serial Number: LC-031670B
Company Reference: ConocoPhillips Company
Well No. & Name: Warren Unit #322

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

**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.**

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 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. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Powerlines shall be constructed in accordance to standards outlined in "Suggested Practices for Raptor Protection on Powerlines, " Raptor Research Foundation, Inc., 1981. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication are "raptor safe." Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large

perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

6. 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 the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, 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 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 proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:

- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.
- See attached reclamation plans.

BLM Serial Number: LC-031670B
Company Reference: ConocoPhillips Company
Well # & Name: Warren Unit #322

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

**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.**

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.

16. Special Stipulations:

The reclamation stipulation is attached.