

**OKLAHOMA CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION  
P.O. BOX 52000  
OKLAHOMA CITY, OK 73152-2000  
(Rule 165:10-3-1)**

API NUMBER: 153 23563

Approval Date: 09/11/2014  
Expiration Date: 03/11/2015

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 30 Twp: 24N Rge: 21W County: WOODWARD  
SPOT LOCATION:  SW  SW  SE  SE FEET FROM QUARTER: FROM SOUTH FROM EAST  
SECTION LINES: 50 1000

Lease Name: FERN 30-24-21 Well No: 1H Well will be 50 feet from nearest unit or lease boundary.

Operator Name: APACHE CORPORATION Telephone: 9184914900; 9184914 OTC/OCC Number: 6778 0

APACHE CORPORATION  
6120 S YALE AVE STE 1500  
TULSA, OK 74136-4224

ODWC  
P.O. BOX 53465  
OKLAHOMA CITY OK 73105

Formation(s) (Permit Valid for Listed Formations Only):

| Name     | Depth | Name | Depth |
|----------|-------|------|-------|
| 1 OSWEGO | 6878  | 6    |       |
| 2        |       | 7    |       |
| 3        |       | 8    |       |
| 4        |       | 9    |       |
| 5        |       | 10   |       |

Spacing Orders: 628432 Location Exception Orders: 201403791 Increased Density Orders:

Pending CD Numbers: Special Orders:

Total Depth: 12000 Ground Elevation: 2015 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 280

Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: No

**PIT 1 INFORMATION**

Type of Pit System: ON SITE  
Type of Mud System: WATER BASED  
Chlorides Max: 8000 Average: 5000

Is depth to top of ground water greater than 10ft below base of pit? Y  
Within 1 mile of municipal water well? N  
Wellhead Protection Area? N  
Pit is located in a Hydrologically Sensitive Area.

**Category of Pit: 1B**

**Liner required for Category: 1B**

Pit Location is BED AQUIFER  
Pit Location Formation: RUSH SPRINGS

Approved Method for disposal of Drilling Fluids:

- A. Evaporation/dewater and backfilling of reserve pit.
- D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 14-27636
- H. CONCRETE LINED PIT PER OPERATOR REQUEST

This permit does not address the right of entry or settlement of surface damages.  
The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.  
Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

HORIZONTAL HOLE 1

Sec 30 Twp 24N Rge 21W County WOODWARD

Spot Location of End Point: SW NW NE NE

Feet From: NORTH 1/4 Section Line: 335

Feet From: EAST 1/4 Section Line: 1000

Depth of Deviation: 6378

Radius of Turn: 600

Direction: 360

Total Length: 4679

Measured Total Depth: 12000

True Vertical Depth: 6978

End Point Location from Lease,  
Unit, or Property Line: 335

Notes:

| Category                       | Description  |
|--------------------------------|--|
| DEEP SURFACE CASING            | 9/11/2014 - G71 - APPROVED CONTINGENT ON NOTIFYING OCC FIELD STAFF IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING |
| LOCATION EXCEPTION - 201403791 | 9/11/2014 - G91 - 30-24N-21W<br>X 628432 OSWG<br>SHL NCT 10 FSL, NCT 500 FEL<br>COMP. INT. NCT 330 FSL, NCT 330 FNL, NCT 500 FEL<br>NO OP. NAMED<br>REC 6-17-2014 (JOHNSON)            |
| SPACING - 628432               | 9/11/2014 - G91 - (640) (HOR) 30-24N- 21W<br>EST OSWG<br>POE TO BHL NCT 660 FB<br>(SUPERCEDE NON-DEVELOP NON-HORIZONTAL) SPACING UNITS;  |

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