

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

API NUMBER: 083 24276 A

Approval Date: 03/14/2014
Expiration Date: 09/14/2014

Horizontal Hole Oil & Gas

Amend reason: CHANGE SURFACE & BOTTOM-HOLE
LOCATIONS; UPDATE ORDERS

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 11 Twp: 16N Rge: 3W County: LOGAN
SPOT LOCATION: NW NW NW NW FEET FROM QUARTER: FROM NORTH FROM WEST
SECTION LINES: 250 200

Lease Name: OSAGE WHITTEN Well No: 1-2WH Well will be 200 feet from nearest unit or lease boundary.
Operator Name: OSAGE EXPLORATION & DEVELOPMENT INC Telephone: 4052700989 OTC/OCC Number: 23098 0

OSAGE EXPLORATION & DEVELOPMENT INC
100 PARK AVE STE 1040
OKLAHOMA CITY, OK 73102-8018

BARBARA L. WHITTEN
1318 S. STILLWELL
PITTSBURG KS 66762

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

Name	Depth	Name	Depth
1 WOODFORD	5785	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 623773

Location Exception Orders: 625073

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 10576

Ground Elevation: 962

Surface Casing: 500

Depth to base of Treatable Water-Bearing FM: 390

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

PIT 1 INFORMATION

Approved Method for disposal of Drilling Fluids:

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 5000 Average: 3000

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: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: GARBER

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 14-26603
H. CLOSED SYSTEM=STEEL PITS 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 02 Twp 16N Rge 3W County LOGAN

Spot Location of End Point: N2 NW NW NW

Feet From: NORTH 1/4 Section Line: 200

Feet From: WEST 1/4 Section Line: 330

Depth of Deviation: 5200

Radius of Turn: 646

Direction: 1

Total Length: 4361

Measured Total Depth: 10576

True Vertical Depth: 5846

End Point Location from Lease,
Unit, or Property Line: 200

Notes:

Category

Description

LOCATION EXCEPTION - 625073

5/13/2014 - G75 - (I.O.) 2-16N-3W
X623773 WDFD, OTHERS
COMPL. INT. NCT 200 FSL, NCT 200 FNL, NCT 660 FWL **
OSAGE EXPLOR. & DEVELOP., INC.
5-8-2014

** ITD HAS BHL AS 330 FWL; TO BE CORRECTED AT HEARING FOR FINAL ORDER LOCATION
EXCEPTION PER OPERATOR

SPACING - 623773

5/13/2014 - G75 - (640)(HOR) 2-16N-3W
VAC OTHERS
EXT 612015 WDFD, OTHERS
POE TO BHL NCT 330' FB