

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

API NUMBER: 045 23273

Approval Date: 11/05/2012
Expiration Date: 05/05/2013

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 07 Twp: 20N Rge: 25W County: ELLIS
SPOT LOCATION: SW SW SE SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 300 1125

Lease Name: RADER 7-20-25 Well No: 1H Well will be 300 feet from nearest unit or lease boundary.

Operator Name: CHESAPEAKE OPERATING INC Telephone: 4059357853 OTC/OCC Number: 17441 0

CHESAPEAKE OPERATING INC
P.O. Box 18496
OKLAHOMA CITY, OK 73154-0496

DON W. AND ESTHER RADER
RR 38 BOX 39
CANADIAN TX 79014

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

| Name | Depth | Name | Depth |
|---------------------------------|-------|------|-------|
| 1 PENNSYLVANIAN MISSOURI SERIES | 7000 | 6 | |
| 2 | | 7 | |
| 3 | | 8 | |
| 4 | | 9 | |
| 5 | | 10 | |

Spacing Orders: 208169 Location Exception Orders: 603051 Increased Density Orders: 603050

Pending CD Numbers: Special Orders:

Total Depth: 13000 Ground Elevation: 2293 Surface Casing: 800 Depth to base of Treatable Water-Bearing FM: 550

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: 25000 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: OGALLALA

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.
D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 12-21713
H. SEE MEMO

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.

PIT 2 INFORMATION

Type of Pit System: ON SITE
Type of Mud System: OIL BASED
Chlorides Max: 300000 Average: 200000
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: 3

Liner required for Category: 3

Pit Location is BED AQUIFER
Pit Location Formation: OGALLALA

HORIZONTAL HOLE 1

Sec 07 Twp 20N Rge 25W County ELLIS
Spot Location of End Point: C N2 NE NE
Feet From: NORTH 1/4 Section Line: 330
Feet From: EAST 1/4 Section Line: 660
Depth of Deviation: 7314
Radius of Turn: 780
Direction: 360
Total Length: 4420
Measured Total Depth: 13000
True Vertical Depth: 8094
End Point Location from Lease,
Unit, or Property Line: 330

Notes:

Table with 2 columns: Category and Description. Contains notes for INCREASED DENSITY, LOCATION EXCEPTION, PITS 1 & 2, and SPACING.

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