API NUMBER: 149 21711

Oil & Gas

Horizontal Hole

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

Approval Date: 11/05/2014
Expiration Date: 05/05/2015

PERMIT TO DRILL

WELL LOCATION: Sec: 16 Twp: 11N Rge: 18W County: WASHITA

SPOT LOCATION: SW SE SE SE FEET FROM QUARTER: FROM SOUTH FROM EAST SECTION LINES: 270 610

Lease Name: RODOLPH 21-11-18 Well No: 1H Well will be 270 feet from nearest unit or lease boundary.

Operator CHESAPEAKE OPERATING LLC Telephone: 4059358143; 4059358 OTC/OCC Number: 17441 0

CHESAPEAKE OPERATING LLC

PO BOX 18496

OKLAHOMA CITY, OK 73154-0496

DON RODOLPH P.O. BOX 277

CLINTON OK 73601

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

|                 | Name       | Depth                           | Name | Dept                      | :h     |
|-----------------|------------|---------------------------------|------|---------------------------|--------|
| 1               | VIRGILIAN  | 9370                            | 6    |                           |        |
| 2               | MISSOURIAN | 10141                           | 7    |                           |        |
| 3               | DES MOINES | 12045                           | 8    |                           |        |
| 4               |            |                                 | 9    |                           |        |
| 5               |            |                                 | 10   |                           |        |
| Spacing Orders: | 582330     | Location Exception Orders: 6313 | 73   | Increased Density Orders: | 631372 |

Pending CD Numbers: Special Orders:

Total Depth: 18000 Ground Elevation: 1746 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 600

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: 8000

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?

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: ELK CITY

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 14-28742

H. SEE MEMO

PIT 2 INFORMATION

Type of Pit System: ON SITE

Type of Mud System: OIL BASED

Chlorides Max: 300000 Average: 160000

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

Liner required for Category: 3
Pit Location is BED AQUIFER
Pit Location Formation: ELK CITY

## **HORIZONTAL HOLE 1**

Sec 21 Twp 11N Rge 18W County WASHITA

Spot Location of End Point: SW SE SE SE Feet From: SOUTH 1/4 Section Line: 225
Feet From: EAST 1/4 Section Line: 415

Depth of Deviation: 11905
Radius of Turn: 780
Direction: 178
Total Length: 4870

Measured Total Depth: 18000

True Vertical Depth: 12685

End Point Location from Lease,
Unit, or Property Line: 225

Notes:

Category Description

DEEP SURFACE CASING 10/27/2014 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS

OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR

SURFACE CASING

INCREASED DENSITY - 631372 11/5/2014 - G75 - 21-11N-18W

X582330 DSMN

1 WELL

CHESAPEAKE OP., L.L.C.

10-1-2014

LOCATION EXCEPTION - 631373 11/5/2014 - G75 - (I.O.) 21-11N-18W

X582330 VRGN, MSRN, DSMN

COMPL. INT. NCT 300 FNL, NCT 300 FSL, NCT 500 FEL

CHESAPEAKE OP., L.L.C.

10-1-2014

MEMO 10/27/2014 - G71 - PIT 1 & 2 - CONCRETE-LINED PIT PER OPERATOR REQUEST; PIT 2 - OBM TO

VENDOR, OBM CUTTINGS PER DISTRICT

SPACING - 582330 11/5/2014 - G75 - (640) 21-11N-18W

VAC 181671 MOGW, DMSGW

VAC 244354 DGLS EXT 564752 VRGN, MSRN EXT 208748 DSMN

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.