

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

API NUMBER: 045 23472

Approval Date: 05/13/2014

Expiration Date: 11/13/2014

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 20 Twp: 17N Rge: 24W

County: ELLIS

SPOT LOCATION:

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 330 680

Lease Name: M & B 20-17-24

Well No: 1H

Well will be 330 feet from nearest unit or lease boundary.

Operator Name: CHESAPEAKE OPERATING INC

Telephone: 4059358143; 4059358

OTC/OCC Number: 17441 0

CHESAPEAKE OPERATING INC
PO BOX 18496
OKLAHOMA CITY, OK 73154-0496

MIKE GROSS
HCR 63, BOX 49
ARNETT OK 73832

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

Name	Depth	Name	Depth
1 CLEVELAND	9369	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 138264

Location Exception Orders: 614469

Increased Density Orders: 614262

Pending CD Numbers:

Special Orders:

Total Depth: 14750

Ground Elevation: 2252

Surface Casing: 630

Depth to base of Treatable Water-Bearing FM: 380

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? N

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: 1B

Liner required for Category: 1B

Pit Location is AP/TE DEPOSIT

Pit Location Formation: TERRACE

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

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

PERMIT NO: 14-26993

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: 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: 3

Pit Location is AP/TE DEPOSIT

Pit Location Formation: TERRACE

HORIZONTAL HOLE 1

Sec 20 Twp 17N Rge 24W County ELLIS

Spot Location of End Point: W2 NW NE NE

Feet From: NORTH 1/4 Section Line: 330

Feet From: EAST 1/4 Section Line: 1000

Depth of Deviation: 8852

Radius of Turn: 780

Direction: 356

Total Length: 4673

Measured Total Depth: 14750

True Vertical Depth: 9759

End Point Location from Lease,
Unit, or Property Line: 330

Notes:

Category

Description

INCREASED DENSITY - 614262

5/8/2014 - G75 - 20-17N-24W
X138264 CLVD
1 WELL
CHESAPEAKE OP., INC.
7-29-2013

LOCATION EXCEPTION - 614469

5/8/2014 - G75 - (I.O.) 20-17N-24W
X138264 CLVD
XOTHER
COMPL. INT. NCT 330 FSL, NCT 330 FNL, NCT 660 FEL
CHESAPEAKE OP., INC.
8-2-2013

MEMO

4/23/2014 - G71 - PIT 1 & 2 - CONCRETE-LINED PIT PER OPERATOR REQUEST; PIT 2 - OBM TO
VENDOR, OBM CUTTINGS PER DISTRICT

SPACING - 138264

5/8/2014 - G75 - (640) 20-17N-24W
EXT OTHERS
EXT 131528 CLVD, OTHERS

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Office of the Conservation Division as to when Surface Casing will be run.

045 23472 M & B 20-17-24 1H