

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

API NUMBER: 045 23537

Approval Date: 11/18/2014  
Expiration Date: 05/18/2015

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 30 Twp: 17N Rge: 23W County: ELLIS  
SPOT LOCATION:  NW  NW  NE  NE FEET FROM QUARTER: FROM NORTH FROM EAST  
SECTION LINES: 230 1120

Lease Name: BERRYMAN 19-17-23 Well No: 1H Well will be 230 feet from nearest unit or lease boundary.

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

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

CRIPPLE BEAR LLC C/O FRED JOHNSTON  
19335 CYPRESS RIDGE TER., UNIT 1012  
LEESBURG VA 20176

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

Name	Depth	Name	Depth
1 CLEVELAND	9466	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 631276

Location Exception Orders: 631549

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 14500

Ground Elevation: 2327

**Surface Casing: 1500**

Depth to base of Treatable Water-Bearing FM: 670

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 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: 14-28789

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 BED AQUIFER
Pit Location Formation: OGALLALA

HORIZONTAL HOLE 1

Sec 19 Twp 17N Rge 23W County ELLIS
Spot Location of End Point: NW NW NE NE
Feet From: NORTH 1/4 Section Line: 200
Feet From: EAST 1/4 Section Line: 1300
Depth of Deviation: 8686
Radius of Turn: 780
Direction: 358
Total Length: 4589
Measured Total Depth: 14500
True Vertical Depth: 9765
End Point Location from Lease,
Unit, or Property Line: 200

Notes:

Table with 2 columns: Category, Description. Rows include DEEP SURFACE CASING, LOCATION EXCEPTION - 631549, MEMO, and SPACING - 631276.

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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.