

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

API NUMBER: 045 23460

Approval Date: 04/14/2014
Expiration Date: 10/14/2014

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 14 Twp: 17N Rge: 24W County: ELLIS
SPOT LOCATION: SW SW SE SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 250 1290

Lease Name: BERRYMAN Well No: 23-4H Well will be 250 feet from nearest unit or lease boundary.
Operator Name: EOG RESOURCES INC Telephone: 4052463226; 7136517 OTC/OCC Number: 16231 0

EOG RESOURCES INC
3817 NW EXPRESSWAY STE 500
OKLAHOMA CITY, OK 73112-1483

THOMAS R.C. BERRYMAN
PO BOX 787
ASHLAND KS 67831

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

Name	Depth	Name	Depth
1 MARMATON	9600	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 578772

Location Exception Orders: 622578

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 14940

Ground Elevation: 2303

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 580

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: 100000 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: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: OGALLALA

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

PERMIT NO: 14-26719

H. CLOSED SYSTEM=STEEL PITS (PER OPERATOR OPTION)

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 23 Twp 17N Rge 24W County ELLIS

Spot Location of End Point: SW SW SE SE

Feet From: SOUTH 1/4 Section Line: 65

Feet From: EAST 1/4 Section Line: 1090

Depth of Deviation: 9933

Radius of Turn: 477

Direction: 178

Total Length: 5007

Measured Total Depth: 14940

True Vertical Depth: 9709

End Point Location from Lease,
Unit, or Property Line: 65

Notes:

Category	Description
DEEP SURFACE CASING	4/14/2014 - G30 - APPROVED CONTINGENT ON NOTIFYING OCC FIELD STAFF IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING
LOCATION EXCEPTION - 622578	4/14/2014 - G30 - (I.O.) 23-17N-24W X578772 MRMN 1ST PERF NCT 165 FNL, NCT 1290 FEL LAST PERF NCT 165 FSL, NCT 1090 FEL EOG RESOURCES, INC. 3/12/14
SPACING - 578772	4/14/2014 - G30 - (640 HOR) 23-17N-24W EST MRMN POE TO BHL NCT 660' FB (SUPERCEDE NON-DEVELOPED NON-HORIZONTAL SPACING UNITS; COEXIST WITH PRODUCING NON-HORIZONTAL SPACING UNITS)

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