

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

API NUMBER: 081 24193

Approval Date: 08/11/2014
Expiration Date: 02/11/2015

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 13 Twp: 14N Rge: 4E County: LINCOLN
SPOT LOCATION: NW NW NW NE FEET FROM QUARTER: FROM NORTH FROM EAST
SECTION LINES: 155 2410

Lease Name: MORPHEUS Well No: 1-13H Well will be 155 feet from nearest unit or lease boundary.

Operator Name: EQUAL ENERGY US INC Telephone: 4052426000; 4052426 OTC/OCC Number: 22671 0

EQUAL ENERGY US INC
4801 GAILLARDIA PKWY STE 325
OKLAHOMA CITY, OK 73142-1920

CRUM LIVING TRUST
880119 S. 3420 ROAD
CHANDLER OK 74834

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

Name	Depth	Name	Depth
1 HUNTON	4808	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 516277

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201405421

Special Orders:

Total Depth: 9150

Ground Elevation: 941

Surface Casing: 600

Depth to base of Treatable Water-Bearing FM: 210

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 3000 Average: 1200

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: VANOSS

Approved Method for disposal of Drilling Fluids:

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

PERMIT NO: 14-27668

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

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 13 Twp 14N Rge 4E County LINCOLN

Spot Location of End Point: C SW SW

Feet From: SOUTH 1/4 Section Line: 660

Feet From: WEST 1/4 Section Line: 660

Depth of Deviation: 3850

Radius of Turn: 636

Direction: 235

Total Length: 3851

Measured Total Depth: 8700

True Vertical Depth: 4848

End Point Location from Lease,
Unit, or Property Line: 660

HORIZONTAL HOLE 2

Sec 13 Twp 14N Rge 4E County LINCOLN

Spot Location of End Point: C SW SE

Feet From: SOUTH 1/4 Section Line: 660

Feet From: EAST 1/4 Section Line: 1980

Depth of Deviation: 5000

Radius of Turn: 509

Direction: 170

Total Length: 3350

Measured Total Depth: 9150

True Vertical Depth: 4848

End Point Location from Lease,
Unit, or Property Line: 660

Notes:

Category	Description
DEEP SURFACE CASING	8/6/2014 - G76 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING
PENDING CD - 201405421	8/11/2014 - G75 - (E.O.) 13-14N-4E X516277 HNTN SHL NCT 155 FNL, NCT 2410 FEL POE NCT 660 FNL, NCT 1320 FEL BHL LAT 1 NCT 660 FSL, NCT 660 FWL BHL LAT 2 NCT 660 FSL, NCT 1320 FEL EQUAL ENERGY US INC. REC 8-4-2014 (DECKER)
SPACING - 516277	8/11/2014 - G75 - (640) 13-14N-4E VAC 481831/482648 HNTN VAC OTHER EXT 485542 HNTN

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