

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

API NUMBER: 117 23650

Approval Date: 03/27/2015
Expiration Date: 09/27/2015

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 16 Twp: 20N Rge: 8E County: PAWNEE
SPOT LOCATION: SW SE SE SE FEET FROM QUARTER: FROM SOUTH FROM WEST
SECTION LINES: 260 2140

Lease Name: HUMMINGBIRD Well No: 1-16H Well will be 260 feet from nearest unit or lease boundary.
Operator Name: U S ENERGY DEVELOPMENT CORPORATION Telephone: 7166360401 OTC/OCC Number: 23402 0

U S ENERGY DEVELOPMENT CORPORATION
2350 N FOREST RD
GETZVILLE, NY 14068-1296

COMMISSIONERS OF THE LAND OFFICE
120 NORTH ROBINSON SUITE 1000
OKLAHOMA CITY OK 73126

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

Name	Depth	Name	Depth
1 MISSISSIPPI	2828	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 638107

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201500310
201500471

Special Orders:

Total Depth: 7780

Ground Elevation: 943

Surface Casing: 500

Depth to base of Treatable Water-Bearing FM: 400

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

PIT 1 INFORMATION

Type of Pit System: ON SITE

Type of Mud System: WATER BASED

Chlorides Max: 8000 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: 2

Liner not required for Category: 2

Pit Location is BED AQUIFER

Pit Location Formation: VAMOOSA

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

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 16 Twp 20N Rge 8E County PAWNEE

Spot Location of End Point: NW NE NE NE

Feet From: SOUTH 1/4 Section Line: 2400

Feet From: WEST 1/4 Section Line: 2140

Depth of Deviation: 2300

Radius of Turn: 600

Direction: 360

Total Length: 4537

Measured Total Depth: 7780

True Vertical Depth: 2900

End Point Location from Lease,
Unit, or Property Line: 200

Notes:

Category	Description
PENDING CD - 201500310	3/3/2015 - G76 - 16-20N-8E X638107 MISS 1 WELL NO OP. NAMED REC. 2/9/2015 (P. PORTER)
PENDING CD - 201500471	3/27/2015 - G76 - (I.O.) 16-20N-8E X638107 MISS, OTHER SHL NCT 200 FSL, NCT 500 FEL 1ST PERF NCT 200 FSL, NCT 500 FEL LAST PERF NCT 200 FNL, NCT 500 FEL BHL NCT 200 FNL, NCT 500 FEL US ENERGY DEV. CORP. REC. 3/24/2015 (P. PORTER)
SPACING - 638107	3/27/2015 - G76 - (640) 16-20N-8E EXT 623458 MISS, OTHER