

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

API NUMBER: 047 25021

Approval Date: 03/25/2015

Expiration Date: 09/25/2015

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 28 Twp: 21N Rge: 8W

County: GARFIELD

SPOT LOCATION: ☐ SE ☐ SE ☐ SW ☐ SW

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 225 1000

Lease Name: COTTONTAIL

Well No: 1-28H

Well will be 225 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

NOLA JO HILL  
2830 NORTH CLEVELAND STREET  
ENID OK 73703

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

Name	Depth	Name	Depth
1 MISS SAND	7000	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 62980

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201501019  
201501023

Special Orders:

Total Depth: 12080

Ground Elevation: 1230

**Surface Casing: 420**

Depth to base of Treatable Water-Bearing FM: 370

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: 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: C**

**Liner not required for Category: C**

Pit Location is BED AQUIFER

Pit Location Formation: CEDAR HILLS

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

PERMIT NO: 15-29793

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 28 Twp 21N Rge 8W County GARFIELD

Spot Location of End Point: NE NE NW NW

Feet From: NORTH 1/4 Section Line: 200

Feet From: WEST 1/4 Section Line: 1000

Depth of Deviation: 6600

Radius of Turn: 600

Direction: 360

Total Length: 4537

Measured Total Depth: 12080

True Vertical Depth: 7200

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

## Notes:

### Category

### Description

PENDING CD - 201501019

3/24/2015 - G75 - 28-21N-8W  
X62980 MSSND  
2 WELLS  
NO OP. NAMED  
REC 3-13-2015 (NORRIS)

PENDING CD - 201501023

3/24/2015 - G75 - (I.O.) 28-21N-8W  
X62980 MSSND  
SHL NCT 200 FSL, NCT 660 FWL  
COMPL. INT. NCT 200 FSL, NCT 200 FNL, NCT 660 FWL  
BHL NCT 200 FNL, NCT 660 FWL  
NO OP. NAMED  
REC 3-13-2015 (NORRIS)

SPACING - 62980

3/24/2015 - G75 - (640) 28-21N-8W  
VAC OTHER  
EXT 60948 MSSND

SURFACE LOCATION

3/24/2015 - G75 - 225' FSL, 1000' FWL SW4 28-21N-8W PER SURVEY PLAT;

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.

047 25021 COTTONTAIL 1-28H

# TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 \* LOCAL (405) 843-4847 \* OUT OF STATE (800) 654-3219

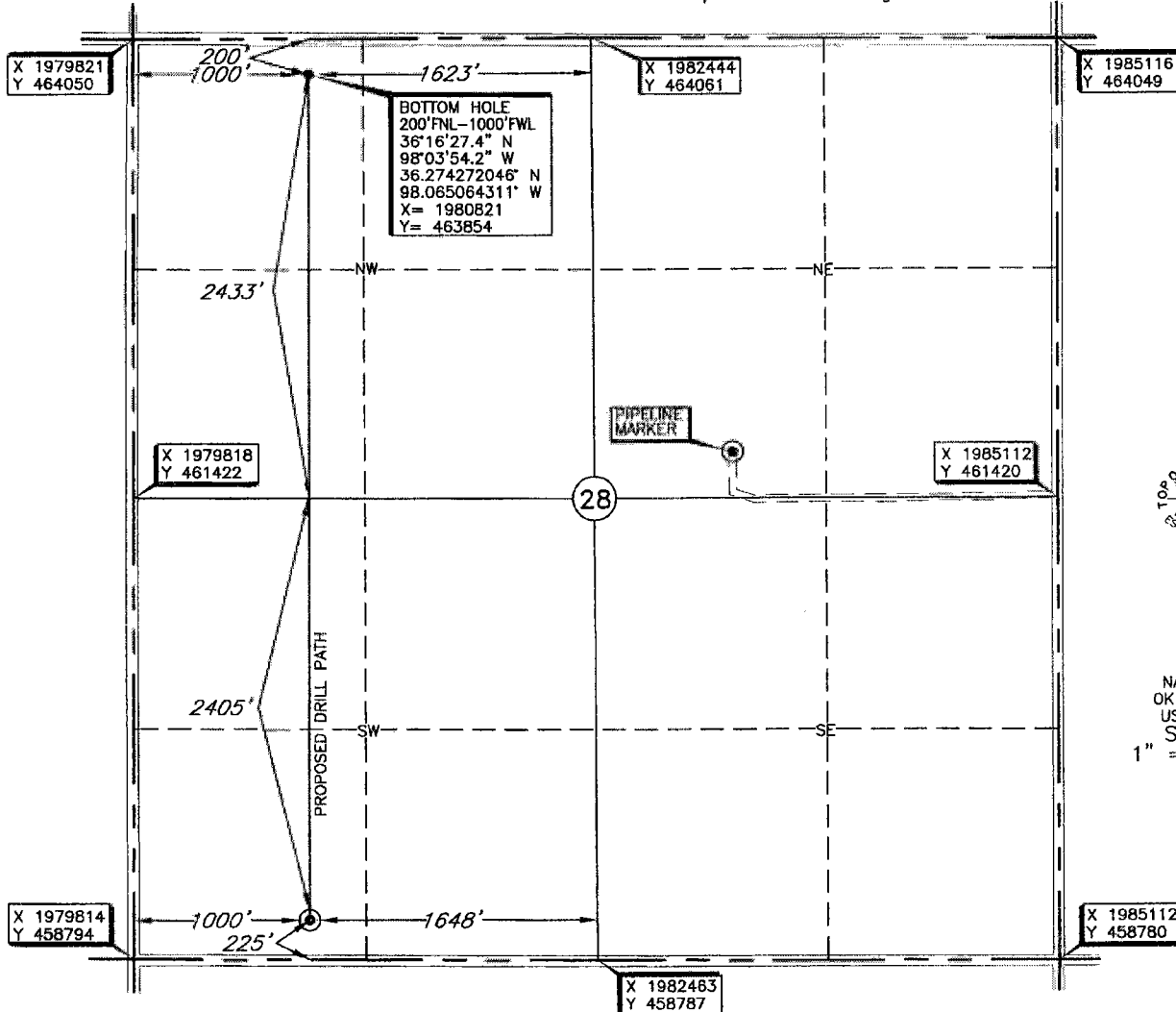
Certificate of Authorization No. 1293.

GARFIELD

County, Oklahoma

API 047-25021

225' FSL-1000' FWL Section 28 Township 21N Range 8W I.M.



BOTTOM HOLE AND DRILL PATH INFORMATION  
PROVIDED BY OPERATOR LISTED, NOT SURVEYED.

**NOTE:**  
The information shown herein is for  
construction purposes ONLY.

Operator: US ENERGY DEVELOPMENT CORP.  
Lease Name: COTTONTAIL

Well No.: #1-28H

**ELEVATION:**

1230' Gr. at Stake

Topography & Vegetation Loc. fell in wheat field

Good Drill Site? Yes Reference Stakes or Alternate Location  
Stakes Set None

Best Accessibility to Location From South off county road

Distance & Direction  
from Hwy Jct or Town From Drummond, OK, go ±0.1 mile East, then ±2.75 miles South on St. Hwy 132,  
then ±2 miles West to the Southwest Corner of Section 28, T21N-R8W

DATUM: NAD-27  
LAT: 36°15'39.5"N  
LONG: 98°03'54.3"W  
LAT: 36.260981222° N  
LONG: 98.065077161° W

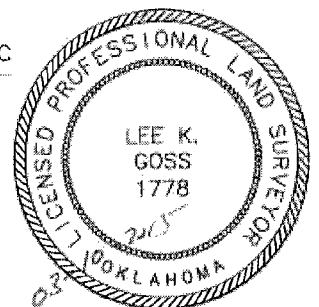
STATE PLANE  
COORDINATES (US FEET):  
ZONE: OK NORTH  
X: 1980814  
Y: 459016

Date of Drawing: Mar. 6, 2015  
Invoice # 240853 Date Staked: Mar. 5, 2015

## CERTIFICATE:

I, Lee K. Goss an Oklahoma Licensed Land  
Surveyor and an authorized agent of Topographic Land  
Surveyors of Oklahoma, do hereby certify to the  
information shown herein.

Oklahoma Lic. No. 1778



This information was  
gathered with a GPS receiver  
with ±1 foot Horiz./Vert. accuracy