

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

API NUMBER: 043 23637

Approval Date: 06/25/2018

Expiration Date: 12/25/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 16 Twp: 19N Rge: 17W

County: DEWEY

SPOT LOCATION:

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 200 1320

Lease Name: KATHLEEN 16-19-17

Well No: 1H

Well will be 200 feet from nearest unit or lease boundary.

Operator Name: TAPSTONE ENERGY LLC

Telephone: 4057021600

OTC/OCC Number: 23467 0

TAPSTONE ENERGY LLC
100 E MAIN ST
OKLAHOMA CITY, OK 73104-2509

K. YAWGER, W. SANDER, P. EPP, D. EPP, J. EPP
C/O 61679 N. 2280 ROAD
SEILING OK 73663

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN	11900	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 666760

Location Exception Orders: 678818

Increased Density Orders: 678817

Pending CD Numbers:

Special Orders:

Total Depth: 16300

Ground Elevation: 1860

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 230

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: RUSH SPRINGS

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

PERMIT NO: 18-34722

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: CLOSED Closed System Means Steel Pits

Type of Mud System: OIL BASED

Chlorides Max: 300000 Average: 200000

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: RUSH SPRINGS

HORIZONTAL HOLE 1

Sec 16 Twp 19N Rge 17W County DEWEY

Spot Location of End Point: N2 N2 N2 NE

Feet From: NORTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 1320

Depth of Deviation: 11270

Radius of Turn: 401

Direction: 1

Total Length: 4400

Measured Total Depth: 16300

True Vertical Depth: 11900

End Point Location from Lease,
Unit, or Property Line: 165

Notes:

Category

Description

DEEP SURFACE CASING

6/15/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING

HYDRAULIC FRACTURING

6/15/2018 - G71 - OCC 165:10-3-10 REQUIRES:

1) PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE;

2) WITH NOTICE ALSO GIVEN 48 HOURS IN ADVANCE OF HYDRAULIC FRACTURING ALL WELLS TO BOTH THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES, USING THE "FRAC NOTICE FORM" FOUND AT THE FOLLOWING LINK: OCCEWEB.COM/OG/OGFORMS.HTML; AND,

3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION THE HYDRAULIC FRACTURING OPERATIONS, USING THE FOLLOWING LINK: FRACFOCUS.ORG

INCREASED DENSITY - 678817

6/25/2018 - G60 - 16-19N-17W
X666760 MSSP
2 WELLS
TAPSTONE ENERGY, LLC
6-6-2018

INTERMEDIATE CASING

6/15/2018 - G71 - DUE TO THE KNOWN POTENTIAL RISK OF ENCOUNTERING AN OVER-PRESSURED ZONE IN THE MORROW SERIES IN THIS AREA, THE TECHNICAL MANAGER RECOMMENDS SETTING AN INTERMEDIATE STRING OF CASING IMMEDIATELY ABOVE THE MORROW SERIES

This permit does not address the right of entry or settlement of surface damages.

043 23637 KATHLEEN 16-19-17 1H

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.

Category	Description
LOCATION EXCEPTION - 678818	6/25/2018 - G60 - (I.O.) 16-19N-17W X666760 MSSP COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 660' FEL TAPSTONE ENERGY, LLC 6-6-2018
MEMO	6/15/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
SPACING - 666760	6/25/2018 - G60 - (640)(HOR) 16-19N-17W VAC 78413 MCSTR EXT 661124 MSSP COMPL. INT. NLT 660' FB

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

13800 Wireless Way, Okla. City, OK. 73134 (405) 843-4847 * OUT OF STATE (800) 654-3219

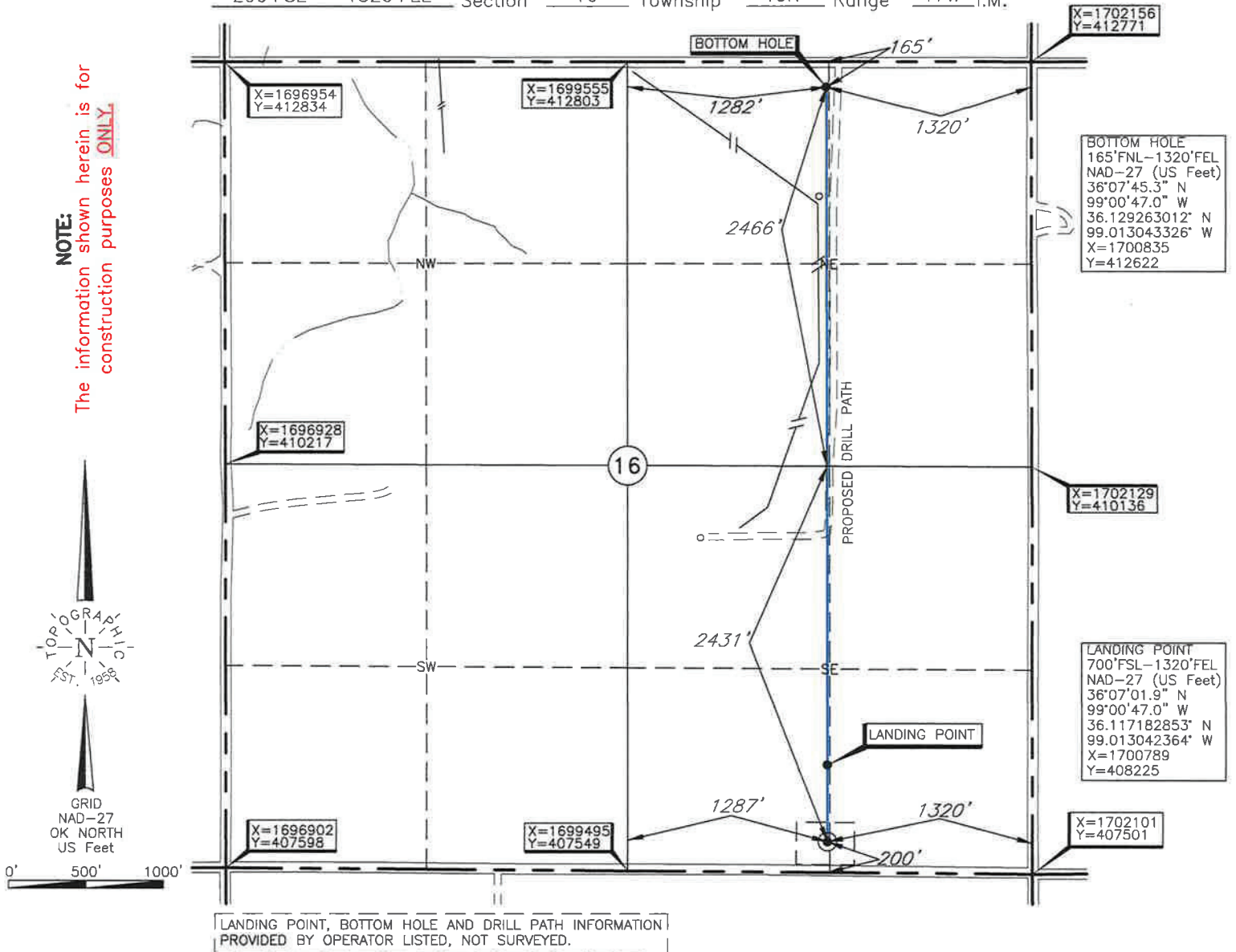
Certificate of Authorization No. 1293 LS

DEWEY

County, Oklahoma

3504323637

200'FSL - 1320'FEL Section 16 Township 19N Range 17W I.M.



Operator: TAPSTONE ENERGY

Lease Name: KATHLEEN 16-19-17

Well No.: 1H

ELEVATION:

1860' Gr. at Stake

Topography & Vegetation Loc. fell in level grass pasture

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

Best Accessibility to Location From South off county road

Distance & Direction From Seiling, OK, go ±4.75 mi. West on St. Hwy. 51/US Hwy. 60, then ±2.0 mi. South to the SE Cor. of Sec. 16-T19N-R17W

DATUM: NAD-27
LAT: 36°06'56.9"N
LONG: 99°00'47.0"W
LAT: 36.115809287° N
LONG: 99.013042254° W
STATE PLANE
COORDINATES: (US Feet)
ZONE: OK NORTH
X: 1700784
Y: 407725

Invoice # 290934 Date of Drawing: Mar. 26, 2018 AC
Date Staked: Mar. 22, 2018

CERTIFICATE:

I, Thomas L. Howell an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein

Thomas L. Howell
Oklahoma Lic. No. 1433

