API NUMBER: 043 23526

Horizontal Hole Oil & Gas

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

Approval Date: 06/27/2017
Expiration Date: 12/27/2017

PERMIT TO DRILL

WELL LOCATION: Sec: 29 Twp: 19N Rge: 17W County: DEWEY

SPOT LOCATION: SW NW NW NE FEET FROM QUARTER: FROM **NORTH** FROM **EAST**
SECTION LINES: **350** **2350**

Lease Name: NILES TRUST 20-19-17 **Well No: 1H** **Well will be 350 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

KENT & INGRID NILES REVOC. LIVING TRUST
3617 E. SPECTRUM DRIVE
IDAHO FALLS ID 83401

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

	Name	Depth		Name	Depth
1	MISS (MERAMEC-OSAGE)	11700	6		
2			7		
3			8		
4			9		
5			10		

Spacing Orders: 132649 Location Exception Orders: Increased Density Orders:

Pending CD Numbers: 201702397 Special Orders:

Total Depth: 16800 Ground Elevation: 1913 **Surface Casing: 440** Depth to base of Treatable Water-Bearing FM: 290

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: 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

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 17-32552
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 20 Twp 19N Rge 17W County DEWEY

Spot Location of End Point: N2 N2 NW NE

Feet From: NORTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 1980

Depth of Deviation: 11143

Radius of Turn: 477

Direction: 5

Total Length: 4908

Measured Total Depth: 16800

True Vertical Depth: 11700

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

Notes:

Category	Description
HYDRAULIC FRACTURING	6/20/2017 - G71 - OCC 165:10-3-10 REQUIRES: 1) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS BE REPORTED TO FRACFOCUS USING THE FOLLOWING LINK HTTP://FRACFOCUS.ORG/ WITH NOTICE GIVEN 48 HOURS IN ADVANCE OF FRACTURING TO THE LOCAL OCC DISTRICT OFFICE; AND, 2) PRIOR TO COMMENCEMENT OF FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE ALSO GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE
INTERMEDIATE CASING	6/20/2017 - 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
MEMO	6/20/2017 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT
PENDING CD - 201702397	6/26/2017 - G75 - (I.O.) 20-19N-17W X132649 MMROG COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 660' FEL NO OP. NAMED REC 5-15-2017 (NORRIS)
SPACING - 132649	6/26/2017 - G75 - (640) 20-19N-17W EXT 126186 MMROG, OTHER

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.

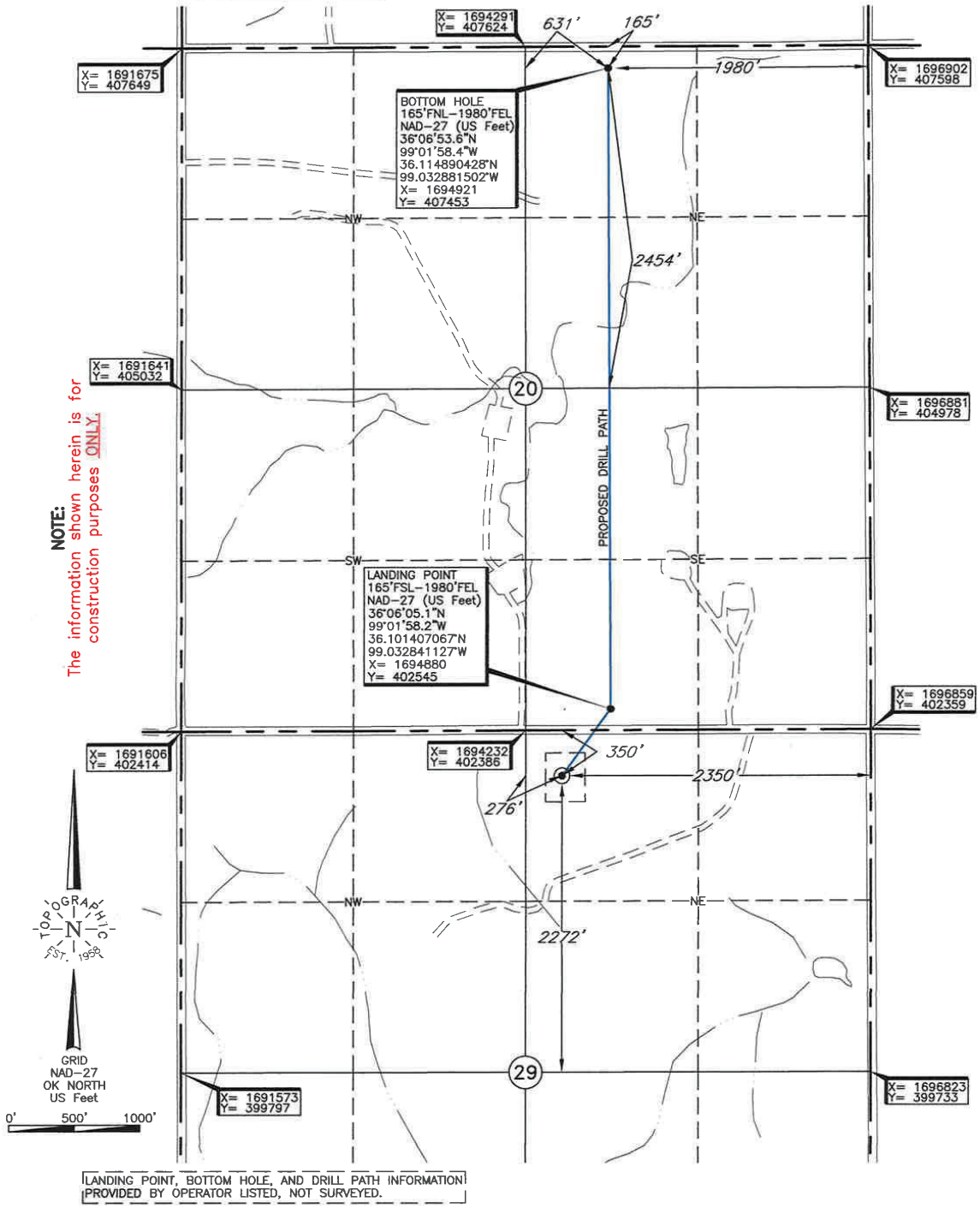
TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219
Certificate of Authorization No. 1293 LS

API 043-23526

DEWEY County, Oklahoma

350'FNL-2350'FEL Section 29 Township 19N Range 17W I.M.



NOTE: The information shown herein is for construction purposes ONLY

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

Operator: TAPSTONE ENERGY

Lease Name: NILES TRUST 20-19-17 Well No.: 1H

ELEVATION: 1913' Gr. at Stake

Topography & Vegetation Loc. fell in sloping grass pasture.

Good Drill Site? Yes

Reference Stakes or Alternate Location
Stakes Set None

Best Accessibility to Location From North off county road.

Distance & Direction
from Hwy Jct or Town From Seiling, OK, go ±5.75 West on St. Hwy. 51/US Hwy. 60, then ±3.0 mi. South to the NE Cor. of Sec. 29-T19N-R17W

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

DATUM: NAD-27
LAT: 36°05'60.0"N
LONG: 99°02'02.7"W
LAT: 36.099992129°N
LONG: 99.034095508°W
STATE PLANE COORDINATES: (US Feet)
ZONE: OK NORTH
X: 1694504
Y: 402034

Revision [X] A
Invoice # 274839
Date of Drawing: Apr. 24, 2017
Date Staked: Apr. 17, 2017 TR

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

LICENSED PROFESSIONAL LAND SURVEYOR
LEE K. GOSS 1778
OKLAHOMA
04-24-17