

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

API NUMBER: 153 23637

Approval Date: 10/30/2018  
Expiration Date: 04/30/2020

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 28 Twp: 20N Rge: 17W County: WOODWARD  
SPOT LOCATION:  NE  SW  NE  NE FEET FROM QUARTER: FROM NORTH FROM EAST  
SECTION LINES: 800 880

Lease Name: HARGIS 21/16-20-17 Well No: 1H Well will be 800 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

GARY L HARGIS AND DEBBIE R HARGIS H/W  
902 NORTH ELM STREET  
MOORELAND OK 73852

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

Name	Depth	Name	Depth
1	MISSISSIPPIAN	10400	6
2			7
3			8
4			9
5			10

Spacing Orders: 667719

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201807958  
201807959  
201807957

Special Orders:

Total Depth: 21200 Ground Elevation: 1761 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 80

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: 18-35632

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 20N Rge 17W County WOODWARD

Spot Location of End Point: NE NW NE NE

Feet From: NORTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 880

Depth of Deviation: 9851

Radius of Turn: 712

Direction: 1

Total Length: 10230

Measured Total Depth: 21200

True Vertical Depth: 10400

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

Notes:

Category

Description

DEEP SURFACE CASING

10/30/2018 - GA8 - 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

10/30/2018 - GA8 - 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](http://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](http://FRACFOCUS.ORG)

INTERMEDIATE CASING

10/30/2018 - GA8 - 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

10/30/2018 - GA8 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS REQUIRED (BENT CREEK), PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

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.

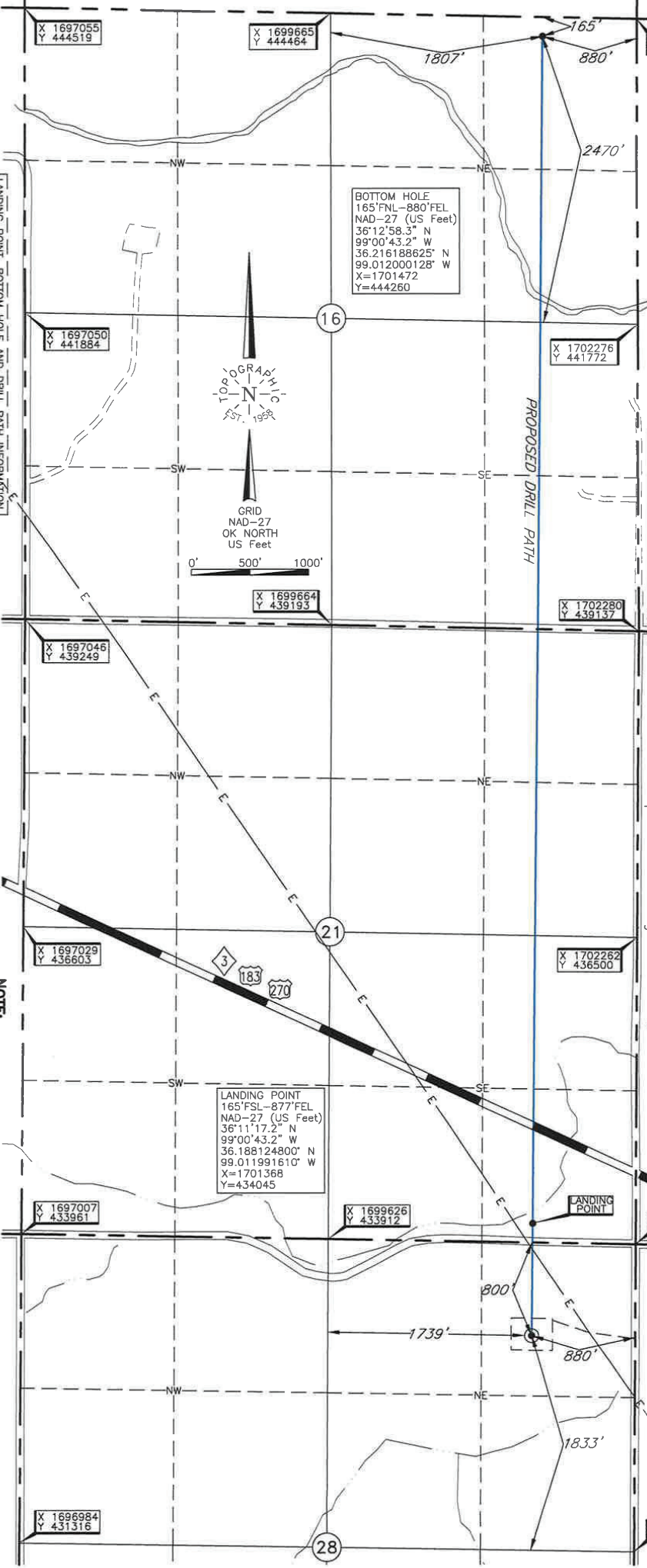
Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

Category	Description
PENDING CD - 201807957	10/30/2018 - G56 - (E.O.)(640)(HOR) 16-20N-17W VAC 129845 STGV, STLS, SPRG, WRSW, OSGE EXT 681229 MSNLC COMPL INT NLT 600' FB TAPSTONE ENERGY, LLC REC. 10-23-2018 (M. PORTER)
PENDING CD - 201807958	10/30/2018 - G56 - (E.O.) 16 & 21-20N-17W EST MULTIUNIT HORIZONTAL WELL X667719 MSSP 21-20N-17W X201807957 MSNLC 16-20N-17W 50% 21-20N-17W 50% 16-20N-17W TAPSTONE ENERGY, LLC REC. 10/23/2018 (M. PORTER)
PENDING CD - 201807959	10/30/2018 - G56 - (E.O.) 16 & 21-20N-17W X667719 MSSP 21-20N-17W X201807957 MSNLC 16-20N-17W COMPL INT (21-20N-17W) NCT 150' FSL, NCT 0' FNL, NCT 330' FEL COMPL INT (16-20N-17W) NCT 0' FSL, NCT 150' FNL, NCT 330' FEL TAPSTONE ENERGY, LLC REC. 10/23/2018 (M. PORTER)
SPACING - 667719	10/30/2018 - G56 - (640) 21-20N-17W VAC 55987 CRLM VAC 129845 STGV, STLS, SPWR, OSGE EXT 656960 MSSP COMPL INT NLT 660' FB

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

13800 Wireless Way, OKla. City, OK 73134 (405) 943-4947 \* OUT OF STATE (800) 654-3219  
 WOODWARD Certificate of Authorization No. 1293 LS  
 County Oklahoma Range 17W 1.M.



**BOTTOM HOLE**  
 165' FNL - 880' FEL  
 NAD-27 (US Feet)  
 36°12'58.3" N  
 99°00'43.2" W  
 36.216188625" N  
 99.012000128" W  
 X=1701472  
 Y=444260



GRID  
 NAD-27  
 OK NORTH  
 US Feet  
 0' 500' 1000'

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

**ELEVATION:**  
 1761' Gr. at Stake

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

Operator: TAPSTONE ENERGY  
 Lease Name: HARGIS 21/16-20-17  
 Topography & Vegetation Loc. fall in form ground with terrace and timber  
 Well No.: 1H  
 Good Drill Site? Yes  
 Reference Stakes or Alternate Location None  
 Stakes Set None  
 Best Accessibility to Location From East of county road  
 Distance & Direction From Major-Woodward County Line, go ±0.5 mi. NW on US Hwy. 270,  
then ±2.5 mi. West, then ±1.0 mi. North to the NE Cor. of Sec. 28-120N-R17W

DATUM: NAD-27  
 LAT: 36°11'07.7" N  
 LONG: 99°00'43.2" W  
 LAT: 36.185473905° N  
 LONG: 99.011990806° W  
 STATE PLANE  
 COORDINATES: (US Feet)  
 ZONE: OK NORTH  
 X: 1701359  
 Y: 433080

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

Revision  A Date of Drawing: Oct. 01, 2018  
 Invoice # 303300 Date Staked: Sep. 25, 2018

**CERTIFICATE:**  
 I, Thomas L. Howell on 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

