API NUMBER: 153 23626

Oil & Gas

Horizontal Hole

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

Approval Date: 06/20/2018 12/20/2018 Expiration Date:

PERMIT TO DRILL

WELL LOCATION:	Sec:	24	Twp:	20N	Rge:	17W	County	: WOC	DDWARD		
SPOT LOCATION:	N2	N2	N	E	NW	FEET FRO	M QUARTER:	FROM	NORTH	FROM	WEST

SECTION LINES 200 1980

Lease Name: PATSY 13/12-20-17 Well No: зн Well will be 200 feet from nearest unit or lease boundary.

TAPSTONE ENERGY LLC Operator OTC/OCC Number: Telephone: 4057021600 23467 0 Name:

TAPSTONE ENERGY LLC

100 E MAIN ST

OKLAHOMA CITY. OK 73104-2509

JAMES & PATSY SMART 57041 S. COUNTY ROAD 2265

SEILING OK 73663

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

	Name	Depth		Name	De	pth
1	MISSISSIPPIAN (EX CHESTER)	8790	6			
2	MISSISSIPPIAN	9400	7			
3			8			
4			9			
5			10			
Spacing Orders:	672107	Location Exception Orders:	678814		Increased Density Orders	676593
	661944					676594
	678935					

Pending CD Numbers: Special Orders:

Total Depth: 20100 Ground Elevation: 1709 Surface Casing: 410 Depth to base of Treatable Water-Bearing FM: 260

Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: Yes

Approved Method for disposal of Drilling Fluids: PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-34611 H. SEE MEMO

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?

is located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C Pit Location is AP/TE DEPOSIT Pit Location Formation: TERRACE

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 AP/TE DEPOSIT
Pit Location Formation: TERRACE

HORIZONTAL HOLE 1

Sec 12 Twp 20N Rge 17W County WOODWARD

Spot Location of End Point: N2 N2 NE NW
Feet From: NORTH 1/4 Section Line: 165
Feet From: WEST 1/4 Section Line: 1980

Depth of Deviation: 8868 Radius of Turn: 750 Direction: 360

Total Length: 10054

Measured Total Depth: 20100

True Vertical Depth: 9400

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

Notes:

Category Description

HYDRAULIC FRACTURING 5/29/2018 - 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 - 676593 6/20/2018 - G75 - 13-20N-17W

X661944 MSSP 3 WELLS

TAPSTONE ENERGY, LLC

4-20-2018

INCREASED DENSITY - 676594 6/20/2018 - G75 - 12-20N-17W

X672107 MSNLC

3 WELLS

TAPSTONE ENERGY, LLC

4-20-2018

INTERMEDIATE CASING 5/29/2018 - 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

Category Description

LOCATION EXCEPTION - 678814 6/20/2018 - G75 - (I.O.) 13 & 12-20N-17W

X661944 MSSP 13-20N-17W X672107 MSNLC 12-20N-17W

COMPL. INT. (13-20N-17W) NCT 165' FSL, NCT 0' FNL, NCT 1980' FWL COMPL. INT. (12-20N-17W) NCT 0' FSL, NCT 165' FNL, NCT 1980' FWL

TAPSTONE ENERGY, LLC

6-6-2018

MEMO 5/29/2018 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS (REQUIRED - NORTH CANADIAN

RIVER); PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

SPACING - 661944 6/20/2018 - G75 - (640)(HOR) 13-20N-17W

VAC OTHER

VAC 129845 STGV, STLS, SPWR, OSGE

VAC 142459 CSTR EXT 658187 MSSP COMPL. INT. NLT 660' FB

SPACING - 672107 6/20/2018 - G75 - (640)(HOR) 12-20N-17W

VAC 129845 STGV, STLS, SPWR, OSGE

EST MSNLC

COMPL. INT. NLT 660' FB

SPACING - 678935 6/20/2018 - G75 - (I.O.) 13 & 12-20N-17W

EST MULTIUNIT HORÍZONTAL WELL

X661944 MSSP 13-20N-17W X672107 MSNLC 12-20N-17W

50% 13-20N-17W 50% 12-20N-17W

TAPSTONE ENERGY, LLC

6-8-2018

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

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

Certificate of Authorization No. 1293 LS WOODWARD County, Oklahoma 200'FNL - 1980'FWL 24 Section Township <u>20N</u> Range <u>17W</u> I.M. API 153-23626 PROPOSED BOTTOM HOLE LANDING POINT, BOTTOM HOLE AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. X 1712894 Y 449454 X 1715533 Y 449442 X 1718140 Y 449432 1980 PROPOSED BOTTOM HOLE 165'FNL-1980'FWL 36'13'49.3" N 98'58'00.3" W 36.230353632' N 98.966744122' W X=1714873 Y=449280 2475 (12 X 1712878 Y 446811 X 1718119 Y 446798 GRID NAD-27 OK NORTH US FEET PATH DRILL 1000 PROPOSED Distance & Discussion Town from Hwy Jet or Town Best Good Topography & Vegetation then Accessibility Drill ±2.0 mi. South to the NE Cor. Site? X 1712862 Y 444168 X 1715484 Y 444166 X 1718099 Y 444164 ç ENERGY Location 13/12-20-From Loc. Richmond, fe ∃. North rolling <u></u> 욧, Sec of f Reference Stakes Stakes Set Nonsandy // PROPOSED go lease PROPOSED LANDING POINT 300'FSL-1979'F 36'12'09.8" N 98'58'00.3" W 36.202732056' 98.966736745' X=1714775 Y=439226 24-T20N-R17W. ±0.4 mi. road None PROPOSED Y=439226 East, LANDING POINT 9 Alternate then X 1712792 Y 438927 1980 X 1718059 Y 438925 No.: 653 ±3.0 மா 1 N/2-NE/4 Location 3H ∄. North, SW/4-NE/4 SE/4-NE/4 }) GUIDE then 24 MERIDIAN ±5.0 Gr. X 1718038 Y 436298 9 WEST ∄. 1712757 433686 1715388 433678 1718018 433671 THO THO THE INFORMATION SHOWN HEREIN IS FOR CONSTRUCTION PURPOSES ONLY Date of Drawing: Apr. 16, 2018 Invoice # 291959 Date Staked: ___Apr. 12, 2018 AC was receiver accuracy. DATUM: NAD-27 LAT: <u>36°12'04.9"</u> LONG: 98'58'00.3" W Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein. **CERTIFICATE:** SURVE 36.201358510° N LONG: 98.966736379° W STATE PLANE TLAHOMA AND THE COORDINATES (US FEET): ZONE: OK NORTH

1714770 438726

Oklahoma Lic. No. _