API NUMBER: 153 23636

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:	09/26/2018
Expiration Date:	03/26/2020

# PERMIT TO DRILL

WELL LOCATION:	Sec:	29 Tw	/p: 20N	Rge:	17W	Coun	ty: WOC	DWARD		
SPOT LOCATION:	NW	NE	NE	NE		FEET FROM QUARTER:	FROM	NORTH	FROM	EAST
						SECTION LINES:		190		560
Lease Name: J	IAMES 20	-20-17				v	/ell No:	1H		

Well will be 190 feet from nearest unit or lease boundary.

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

TAPSTONE ENERGY LLC 100 E MAIN ST

OKLAHOMA CITY. OK 73104-2509

JAMES REECE COLE 222648 E. COUNTY ROAD 57

MUTUAL OK 73853

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN (LESS CHESTER)	9800	6	
2		7	7	
3		1	8	
4		•	9	
5			10	
Spacing Orders:	681229	Location Exception Orders:		Increased Density Orders:

Pending CD Numbers: 683610 Special Orders:

Total Depth: 14700 Ground Elevation: 1747 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 60

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: 18-34804
H. SEE MEMO

#### 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 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: 9227 Radius of Turn: 428 Direction: 357 Total Length: 4800

Measured Total Depth: 14700
True Vertical Depth: 9800

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

Notes:

Category Description

DEEP SURFACE CASING 9/14/2018 - 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 9/14/2018 - 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

INTERMEDIATE CASING 9/14/2018 - 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

MEMO 9/14/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 -

OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

Category Description

9/26/2018 - G57 - (I.O.) 20-20N-17W PENDING CD - 683610

X681229 MSNLC

COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 330' FEL

TAPSTONE ENERGY, LLC.

9-24-2018

9/26/2018 - G57 - (640)(HOR) 20-20N-17W VAC 129845 STGV, STLS, SPWR, OSGE **SPACING - 681229** 

**EST MSNLC** 

POE TO BHL NLT 660' FB

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

Stake

DATUM: NAD-27 LAT: 36'11'14.1"N LONG: 99\*01'43.2"W LAT: 36.187240831° N LONG: 99.028662929° W

OGR404

GRID NAD-27 OK NORTH US Feet

Distance & Direction from Hwy Jct or Tow

then ±1.0 mi.

West to

the NE From

Cor. Jct

of. S

Sec. Hwy.

183

South and

S

Hwy

270,

go

±3.0

|∄. Z

S

Hwy.

This ered ±1 f

29-T20N-R17W

nwo

Best Accessibility to

Location

From

off county road

STATE PLANE COORDINATES: (US Feet) OK NÖRTH ZONE:

1696446 433775 | Revision | B | Date of Drawing: Sep. 19, 2018 | Invoice # 295734 | Date Staked: Jun. 11, 2018 |

# **CERTIFICATE:**

X 1691695 Y 428722

I, Inomas 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

X 1694325 Y 428698

Thema I. Nave Oklahoma Lic. No. \_

