API NUMBER: 011 24076

Oil & Gas

Horizontal Hole

Operator

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

Approval Date: 08/27/2018
Expiration Date: 02/27/2019

20751 0

Well will be 1000 feet from nearest unit or lease boundary.

OTC/OCC Number:

PERMIT TO DRILL

Telephone: 4052353611; 4052353

WELL LOCATION:	Sec: 36	6 Twp:	16N	Rge: 1	10W	County	BLAIN	NE		
SPOT LOCATION:	NW I	NW SE		SE	FEET FROM QU SECTION LINES		FROM	SOUTH	FROM	EAST
Lease Name: MORNING THUNDER 36-16N-10W					We	II No:	3H		1200	

DEVON ENERGY PRODUCTION CO LP 333 W SHERIDAN AVE

OKLAHOMA CITY, OK 73102-5015

DEVON ENERGY PRODUCTION CO LP

COMMISSIONERS OF THE LAND OFFICE 204 N. ROBINSON, SUITE 900

OKLAHOMA CITY OK 73102

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

	Name	Depth	Name	Depti	h
1	MISSISSIPPI SOLID	9739	6		
2			7		
3			8		
4			9		
5			10		
Spacing Orders:	635274	Location Exception Orders:		Increased Density Orders:	681805

Pending CD Numbers: 201804943 Special Orders:

Total Depth: 13894 Ground Elevation: 1239 Surface Casing: 1999 Depth to base of Treatable Water-Bearing FM: 40

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 D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-34904
Chlorides Max: 8000 Average: 5000 H. SEE MEMO

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 not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: FLOWERPOT

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 not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C
Pit Location is NON HSA

Pit Location Formation: FLOWERPOT

HORIZONTAL HOLE 1

Sec 36 Twp 16N Rge 10W County **BLAINE** Spot Location of End Point: NW NF NW NF Feet From: NORTH 1/4 Section Line: 50 EAST Feet From: 1/4 Section Line: 1686

Depth of Deviation: 9366
Radius of Turn: 477
Direction: 354
Total Length: 3779

Measured Total Depth: 13894

True Vertical Depth: 9844

End Point Location from Lease,
Unit, or Property Line: 50

Notes:

Category Description

DEEP SURFACE CASING 8/9/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF

CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR

SURFACE CASING

HYDRAULIC FRACTURING 8/9/2018 - 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 - 681805 8/24/2018 - G75 - 36-16N-10W

X635274 MSSSD

4 WELLS

DEVON ENERGY PROD. CO., L.P.

8-21-2018

INTERMEDIATE CASING 8/9/2018 - 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

MEMO 8/9/2018 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 -

OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

PENDING CD - 201804943 8/24/2018 - G75 - (I.O.) 36-16N-10W

X635274 MSSSD

X165:10-3-28(C)(2)(B) MAY BE CLOSER THAN 600' TO RAY OPDENHOFF 1-36 & OTHER

PROPOSED WELLS

COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 660' FEL

NO OP. NAMED

REC 7-17-2018 (MILLER)

SPACING - 635274 8/24/2018 - G75 - (640)(HOR) 36-16N-10W

VAC 168134/169097 MSSSD, OTHER SW4

EST MSSSD, OTHERS POE TO BHL NCT 660' FB

(COEXIST SP. ORDER # 168134/169097 MSSSD N2 & SE4)

OPERATOR: DEVON ENERGY PRODUCTION COMPANY, L.P. Yukon, OK 73099 LEASE NAME: MORNING THUNDER 36-16N-10W **DISTANCE & DIRECTION FROM HWY JCT OR TOWN:** 405.787.6270 † 405.787.6276 f AT THE JCT. OF HWY 281 & HWY 3 GO EAST ON HWY 33 WELL NO. 3H www.craftontull.com 12 MILES, SOUTH 1.7 MILES ON N2690 RD TO LEASE RD GOOD DRILL SITE: YES Crafton Tull COUNTY, STATE:OK **BLAINE** PLEASE NOTE THAT THIS LOCATION WAS STAKED ON THE GROUND UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL LAND SURVEYOR, BUT ACCURACY OF THIS EXHIBIT IS NOT GUARANTEED. PLEASE CONTACT CRAFTON TULL PROMPILY IF ANY INCONSISTENCY IS DETERMINED, GPS DATA IS OBSERVED FROM RIK-GPS.

OBSERVED FROM RIK-GPS.

NOTE:X AND Y DATA SHOWN HEREON FOR SECTION CORNERS MAY NOT HAVE BEEN SURVEYED ON THE GROUND, AND FURTHER, DOES NOT REPRESENT A TRUE BOUNDARY SURVEY.

QUARTER SECTION DISTANCES MAY BE ASSUMED FROM A GOVERNMENT SURVEY PLAT OR ASSUMED AT A PROPORTIONATE DISTANCE FROM OPPOSING SECTION CORNERS, OR OCCUPATION THEREOF, AND MAY NOT HAVE BEEN MEASURED ON THE GROUND, AND FURTHER, DOES NOT REPRESENT A TRUE BOUNDARY SURVEY. **GROUND ELEVATION:**1239.26' GR. AT STAKE SURFACE HOLE FOOTAGE: 1200' FEL - 1000' FSL SECTION: 36 TOWNSHIP: T16N RANGE: R10W BOTTOM HOLE: 36-T16N-R10W, I.M. ACCESSIBILITY TO LOCATION: FROM EAST LINE TOPOGRAPHY & VEGETATION: N LOCATION FELL IN A FIELD API 011-24076 COUNTY, OKLAHOMA **BLAINE OKLAHOMA - NORTH ZONE** 1200' FEL - 1000' FSL SECTION 36 TOWNSHIP 16N RANGE 10W I.M. GRID NORTH (NAD NW COR. 50, **NE COR** X=1933481 SEC. 36 SEC. 36 Y=300946 X=1936117 Y=300935 X=1938754 Y=300923 1686 LAST PERFORATION POINT BOTTOM HOLE 1686' FEL - 50' FNL 1686' FEL - 165' FNL 35° 49' 35.00" NORTH 98° 12' 44.22" WEST 98° 12' 44.22" WEST X:1937067.5 Y:300880.7 LAT: 35.82638955 LONG:-98.21228370 **SURFACE HOLE DATA STATE PLANE COORDINATES: ZONE:** OK-NORTH NAD27 **X:** 1937543.3 Y: 296652.4 GPS DATUM: NAD27 **LAT**: <u>35.81477631</u> LONG: -98.21064761 STATE PLANE COORDINATES: **ZONE: OK** X=1938747 Y=298302 Y=298286 GPS DATUM: NAD83 36 **LONG:** -98.21098861 MORNING THUNDER 36-16N-10W 3H 1200' FFL - 1000' FSL 35° 48' 53.19" NORTH 98° 12' 38.33" WEST X:1937543.3 **BOTTOM HOLE DATA** STATE PLANE COORDINATES: ZONE: OK-NORTH NAD27 Y:296652.4 LAT: 35.81477631 LONG:-98.21064761 X: 1937067.5 ELEV:1239.26 Y: 300880.7 **GPS DATUM: NAD27** LAT: 35.82638955 1200 LONG: <u>-98.21228370</u> **STATE PLANE COORDINATES: ZONE: OK-NORTH NAD83** X:1905467.8 1000 **Y**: 300904.4 GPS DATUM: NAD83 X=1938741 X=1933467 Y=295649 LAT: 35.82643214 LONG: -98.21262494 **BOTTOM HOLE** X=1936103 SE COR. SW COR. Y=295656 INFORMATION PROVIDED SEC. 36 SEC. 36 FIRST PERFORATION POINT BY OPERATOR LISTED. 1686' FEL- 165' FSL 2018.08.02.08.52:47-05'00' ESSIONAL **DENVER** WINCHESTER 1952 GRAPHIC SCALE IN FEET OKLAHOMP 500 1000 0 1000 **REVISION** "MORNING THUNDER 36-16N-10W 3H" PART OF THE SE/4 OF SECTION 36, T-16-N, R-10-W devon PROPOSED DRILL SITE BLAINE COUNTY, OKLAHOMA SCALE: 1" = 1000' PLOT DATE: 08-01-2018 | DRAWN BY: JJ SHEET NO.: 1 OF 6

300 Pointe Parkway Blvd.