API NUMBER: 011 23990

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: 04/16/2018 10/16/2018 Expiration Date:

PERMIT TO DRILL

WELL LOCATION:	Sec:	04	Twp:	15N	Rge:	101	V County	: BLAI	NE		
SPOT LOCATION:	NE	NE	N	W	NE		FEET FROM QUARTER:	FROM	NORTH	FROM	EAST
							SECTION LINES:		30		1450

Lease Name: DOPPELGANGER 4_9-15N-10W Well No: 9НХ Well will be feet from nearest unit or lease boundary.

DEVON ENERGY PRODUCTION CO LP Operator Telephone: 4052353611; 4052353 OTC/OCC Number: 20751 0 Name:

DEVON ENERGY PRODUCTION CO LP 333 W SHERIDAN AVE

OKLAHOMA CITY. OK 73102-5015 LOOSEN FAMILY LIMITED PARTNERSHIP

P.O. BOX 1337

OKLAHOMA CITY OK 73101-

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN (EX CHESTER)	10103	6	
2	WOODFORD	10738	7	
3			8	
4			9	
5			10	
Spacing Orders:	658265 658264	Location Exception Orders:		Increased Density Orders:
Pending CD Numbers: 201801351				Special Orders:

Pending CD Numbers: 201801351

> 201801352 201801335 201801336

Total Depth: 20972 Ground Elevation: 1306 Surface Casing: 1999 Depth to base of Treatable Water-Bearing FM: 40

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

H SEE MEMO

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 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?

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

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-34192

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 09 Twp 15N Rge 10W County **BLAINE** Spot Location of End Point: SW SE SF SF Feet From: SOUTH 1/4 Section Line: 50 EAST Feet From: 1/4 Section Line: 590

Depth of Deviation: 9982 Radius of Turn: 477 Direction: 176

Total Length: 10241

Measured Total Depth: 20972

True Vertical Depth: 10768

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

Notes:

Category Description

DEEP SURFACE CASING 3/23/2018 - 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 3/23/2018 - 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 3/23/2018 - 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 3/23/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 -

OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

Category Description PENDING CD - 201801335 4/11/2018 - G58 - 4-15N-10W X658265 MSNLC, WDFD 10 WELLS NO OP. NAMED REC 4/3/2018 (MINMIER) PENDING CD - 201801336 4/11/2018 - G58 - 9-15N-10W X658264 MSNLC, WDFD 10 WELLS NO OP. NAMED REC 4/3/2018 (MINMIER) PENDING CD - 201801338 4/11/2018 - G58 - (I.O.) 4 & 9-15N-10W X658265 MSNLC, WDFD (4-15N-10W) X658264 MSNLC, WDFD (9-15N-10W) X165:10-3-28(C)(2)(B) MAY BE CLOSER THAN 600' TO PROPOSED WELL COMPL. INT (4-15N-10W) NCT 0' FNL, NCT 0' FSL, NCT 330' FEL COMPL. INT (9-15N-10W) NCT 0' FNL, NCT 165' FSL, NCT 330' FEL NO OP. NAMÈD **REC 4/3/2018 (MINMIER)** PENDING CD - 201801351 4/11/2018 - G58 - (I.O.) 4 & 9-15N-10W EST MULTIUNIT HORÍZONTAL WELL X658265 MSNLC, WDFD (4-15N-10W) X658264 MSNLC, WDFD (9-15N-10W) 50% 4-15N-10W 50% 9-15N-10W

NO OP. NAMED REC 4/3/2018 (MINMIER) SPACING - 658264 4/11/2018 - G58 - (640)(HOR) 9-15N-10W

EST MSNLC EXT 643729 WDFD

POE TO BHL (MSNLC) NCT 660' FB

POE TO BHL (WDFD) NCT 165' FNL & FSL, NCT 330' FEL & FWL

SPACING - 658265 4/11/2018 - G58 - (640)(HOR) 4-15N-10W

EXT 644506 MSNLC, WDFD POE TO BHL (MSNLC) NCT 660' FB

POE TO BHL (WDFD) NCT 165' FNL & FSL, NCT 330' FEL & FWL

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

13800 WIRELESS WAY, OKLA. CITY, OKLA. 73134 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1293 LS 011-23990 BLAINE County, Oklahoma 30'FNL-1450'FEL Township X 1920292.2 Y 295681.0 10W I.M. 15N Section Range X 1922921.5 Y 295667.0 1450.0 T16N-30.0 Township Line-P he T15N-R10W 1179.5 construction information X 1917662.8 Y 295694.9 -DOOR FIRST PERF SOUTH LOT 3 LOT 2 OGRANZ ON-O LOT 1 LOT 4 SURFACE HOLE 30'FNL-1450'FEL NAD-83 (US Feet) 35'48'43.0"N 98'15'54.7"W 35.81194302'N 98.265'18742'W X= 1889871 Y= 295668 shown purposes 1958 2504.6 herein 8 GRID S/2-NW/4 NAD-27 OK NORTH US Feet ð S/2-NE/4 500' 1000 FIRST PERF 165'FNL-590'FEL NAD-27 (US Feet) 35'48'41.5"N 98'15'43.0"W 35.811520814'N 98.261950537'W X= 1922329 Y= 295505 NAD-83 (US Feet) 35'48'41.6"N 98'15'44.3"W 35.81156596'N 98.26229177'W X= 1890730 Y= 295529 Best n Distance a Tomm Hwy Jo Good Topography & _ease Name: Operator: t Accessibility to L ance & Direction 1 Hwy Jct or Towr Drill to DEVON Site? the NE Vegetation DOPPELGANGER Town ENERGY Cor. Location 앜 Yes PRODUCTION From Sec. Loc. 4 4-T15N-R10W fell _9-15N-10W Kingfisher/Blaine 3 1922858.4 290502.7 X 1920220.4 Y 290507.4 CO. East X 1917582.3 Y 290512.1 sloping Reference Stakes o Stakes Set None off county wheat PROPOSED County field, road Line DRILL ±313 LAST PERF 165'FSL-590'FEL NAD-27 (US Feet) 35'47'01.3"N 98'15'43.7"W 35.783702226'N 98.262143678'W X= 1922245 Y= 285379 NAD-83 (US Feet) 35'47'01.5"N 98'15'44.9"W 35.78374816'N 98.26248420'W X= 1890645 Y= 285403 9 PATH 9 We∥ Alternate East 35 Zo:: Hwy. 잌 X 1922846.3 Y 287857 9 9HX Location 1917569.0 N-S 287868.4 33 9 go ±3 1306² ELEVATION: miles BOTTOM HOLE 50'FSL-590'FEL NAD-27 (US Feet) 35'47'00.2"N 98'15'43.7"W 35.783386295'N 98.262144414'W X= 1922244 Y= 285264 NAD-83 (US Feet) 35'47'00.4"N 98'15'44.9"W 35.78343224'N 98.26248492'W X= 1890645 Y= 285288 Gr. at 0 Gr. at Stake West 2594 Stake then NAVD88 NGVD29 ±2 miles 1917555.7 2049. 590.0' 50.0 CALCULATED X 1922834. Y 285213.0 FIRST PERF, LAST PERF, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. <u>5,</u> 2018 Mar. Date of Drawing: -ESSIONAL was receiver accuracy. Invoice # 288615A Date Staked: Feb. 26, 2018 TR DATUM: NAD-35°48'42.8"N LAT: = LONG: 98°15'53.4"W **CERTIFICATE:** information with a GPS out Horiz./Vert. SURVE LAT: <u>35.811897852°N</u> DAN W. Dan W. Rogers an Oklahoma Licensed Land 8-18 ST LONG: 98.264846106 W **ROGERS** Surveyor and an authorized agent of Topographic Land STATE PLANE Surveyors of Oklahoma, do hereby certify to the This h gathered win COORDINATES: (US Feet) information shown herein OK NORTH ZONE: . an 1921471 X:_ 295645 Oklahoma Lic. No.