API NUMBER: 011 23988

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

EAST

2012

WELL LOCATION:	Sec:	04	Twp:	15N	Rge:	10W	County	BLAI	NE	
SPOT LOCATION:	NE	NW	N)	Ν	NE		FEET FROM QUARTER:	FROM	NORTH	FROM
							SECTION LINES:		30	

Lease Name: DOPPELGANGER 4_9-15N-10W Well No: 7HX Well will be 30 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)	10123	6	
2	WOODFORD	10753	7	
3			8	
4			9	
5			10	
Spacing Orders:	658264 658265	Location Exception Orders:		Increased Density Orders:
Pending CD Num	bers: 201801347			Special Orders:

Pending CD Numbers: 201801347

> 201801348 201801336 201801335

Total Depth: 20407 Ground Elevation: 1304 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? 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

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-34213

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: SE SE SW SE
Feet From: SOUTH 1/4 Section Line: 50

Feet From: EAST 1/4 Section Line: 1510

Depth of Deviation: 9414
Radius of Turn: 477
Direction: 178

Total Length: 10244

Measured Total Depth: 20407

True Vertical Depth: 10753

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

Notes:

Category Description

DEEP SURFACE CASING 4/2/2018 - 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 4/2/2018 - 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 4/2/2018 - 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 4/2/2018 - 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 4/10/2018 - G58 - 4-15N-10W X658265 MSNLC, WDFD 10 WELLS NO OP. NAMED REC 4/3/2018 (MINMIER) PENDING CD - 201801336 4/10/2018 - G58 - 9-15N-10W X658264 MSNLC, WDFD 10 WELLS NO OP. NAMED REC 4/3/2018 (MINMIER) PENDING CD - 201801347 4/10/2018 - G58 - (I.O.) 4 & 9-15N-10W **EST MULTIUNIT HORIZONTAL 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) PENDING CD - 201801348 4/10/2018 - 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

NO OP. NAMED REC 4/3/2018 (MINMIER)

SPACING - 658264 4/10/2018 - 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

COMPL. INT (9-15N-10W) NCT 0' FNL, NCT 165' FSL, NCT 330' FEL

SPACING - 658265 4/10/2018 - 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 BLAINE 011-23988 County, Oklahoma
__15N___ Range 30'FNL-2012.5'FEL _ Range _10W_I.M. Section Township X 1920292.2 Y 295681.0 1922921.5 295667.0 V-DOOR SOUTH 30.0 T16N-Township Line-P T15N-R10W X 1917662.8 Y 295694.9 2012.5 construction purposes information LOT 1 617 FIRST PERF O'FNL-1510'FEL NAD-27 (US Feet) 35'48'43.1"N 98'15'54.2"W 35.811980679'N 98.265048085'W X= 1921411 Y= 295675 NAD-83 (US Feet) 35'48'43.3"N 98'15'55.4"W 98.26538941'W X= 1889812 Y= 295699 -NE/4 LOT 2 LOT 3 OGRANT ON LOT 4 SURFACE HOLE 30'FNL-2012.5'FEL NAD-83 (US Feet) 35'48'43.0"N 98'16'01.5"W 98.26708431'W X= 1889309 Y= 295671 shown 1950 2506.6 herein is ses <u>ONLY.</u> GRID NAD-27 OK NORTH US Feet S/2-NW/4 ð S/2-NE/4 500' 1000 1 4 X 1922890.7 Y 293137.6 Best Acco Distance from Hwy Operator: Good Lease Name: lopography & Vegetation South t Accessibility to Loc ance & Direction n Hwy Jct or Town_ Drill ð Site? DEVON the NE DOPPELGANGER ENERGY Cor. Location 으 Yes PRODUCTION From Sec. ±382 4 _9-15N-10W 4-T15N-R10W 6 From Kingfisher, NE ≥. 9 X 1922858.4 Y 290502.7 X 1920220.4 Y 290507.4 sloping wheat field, of NW-SE power line CO. 1917582.3 290512.1 Blaine Reference S Stakes Set Stakes off county County Stakes or let None road line Line ±249' PROPOSED 9 VeⅡ Alternate West Ş No. PRILL Hwy. 으 PATH 1922846.3 1917569.0 Location N-S 287857.8 33 287868.4 9 90 pipeline; LAST PERF 165'FSL-1510'FEL NAD-27 (US Feet) 35'47'01.3"N 98'15'54.9"W 35.783701036'N 98.265245349'W X= 1921325 Y= 285381 NAD-83 (US Feet) 35'47'01.5"N 98'15'56.1"W 98.26558594'W X= 1889725 ±3 1304 ELEVATION: miles 0 Gr. at Stake er. BOTTOM HOLE 50'FSL—1510'FEL NAD—27 (US Feet) 35'47'00.2"N 98'15'54.9"W 35.783385105'N 98.265246073'W X= 1921324 Y= 285266 NAD—83 (US Feet) 35'47'00.4"N 98'15'56.1"W 35.78343107'N 98.26558666'W X= 1889725 Y= 285290 BOTTOM HOLE 2594.5 West, Stake then NGVD29 NAVD88 1889725 285405 ±2 miles 1129.2 1510.0 CALCULATED X 1922834. Y 285213.0 X 1920194.9 Y 285218.9 50.0' 285213.0 285213.0 20 FESSIONAL FIRST PERF, LAST PERF, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED, 11, 2018 Apr. Date of Drawing: Invoice # 291966A Date Staked: Feb. DATUM: NAD-27 LAT: 35'48'42.8"N 26, 2018 TR LONG: 98°16'00.3"W **CERTIFICATE:** is information with a GPS refoot Horiz./Vert. a SURVE LAT: _35.811901716°N Dan W. Rogers DAN W. an Oklahoma Licensed Land LONG: 98.266742919°W Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the STATE PLANE COORDINATES: (US Feet) information shown herein This gathered with ±1 for ZONE: OK NORTH anu 1920909 X: (1/200 295648 Oklahoma Lic. No.

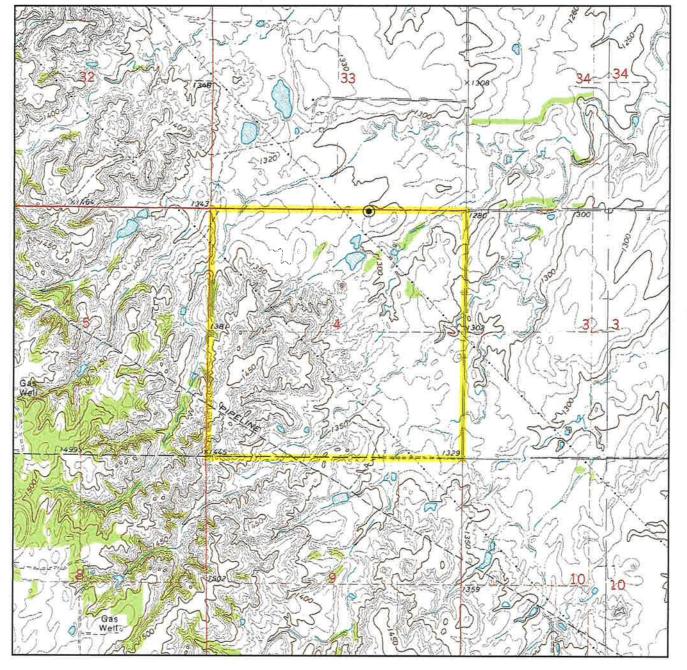
TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA
13800 WIRELESS WAY, OKLA. CITY, OKLA. 73134 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1293 LS BLAINE County, Oklahoma 30'FNL-2012.5'FEL 15N _10W_I.M. Section Township Range X 1922921.5 The T15N-R10W construction purposes ONLY. information shown herein X 1917662 Y 295694. 0GR40/ -0-N-5 100 100 S GRID NAD-27 OK NORTH US Feet TOT 500 1000 X 1922890, Y 293137.6 trom Distance Operator: opography & Vegetation Hwy Accessibility to Drill œ & Direction Jct or Town the DOPPELGANGER NE Cor. Location 9 From 9 Kingfisher, 15N-10 CO. sloping OW /Blaine Stakes Reference Ę wheat county road power line Set County Stakes or None Line ±249' on Alternate West St Hwy. 으 Location N-S 33 90 pipeline; ±3 miles West, Q. Stake then ±2 NAVD88 NGVD29 FIRST PERF, LAST PERF, BOTTOM HOLE, AND DRILL PATH-11 Apr. Date of Drawing: _ SSIONAL Invoice # 291966A Date Staked: Feb. DATUM: <u>NAD-27</u> LAT: <u>35°48'42.8"N</u> 26, 2018 wos receiver accuracy. LONG: 98'16'00.3"W **CERTIFICATE:** is Information was with a GPS | foot Horiz./Vert. c 35.811901716°N DAN W SURVE Dan W. Rogers an Oklahoma Licensed Land ROGERS LONG: 98.266742919°W Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the STATE PLANE 200 COORDINATES: (US Feet) information shown herein This gathered with ±1 for ZONE: OK NORTH 1920909 OKLAHOMA 295648 Oklahoma Lic. No.

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

Surveying and Mapping for the Energy Industry
13800 Wireless Way, Oklahoma City, OK 73134 www.topographic.com
Telephone Numbers: Local (405) 843-4847 Toll Free (800) 654-3219

LOCATION & ELEVATION VERIFICATION MAP



Sec. 4 Twp. 15N Rng. 10W IM

County BLAINE State OK

Operator DEVON ENERGY PRODUCTION CO., LP

Description 30'FNL-2012.5'FEL

Lease DOPPELGANGER 4_9-15N-10W 7HX

1304' Gr. at Stake NGVD29

Elevation 1304' Gr. at Stake NAVD88

Above Background Data from U.S.G.S. Topographic Map Scale: 1"=2000'

Contour Interval _____10'

When elevation is shown hereon it is the ground elevation of the location stake.

Review this plat and inform us immediately of any possible discrepancy.

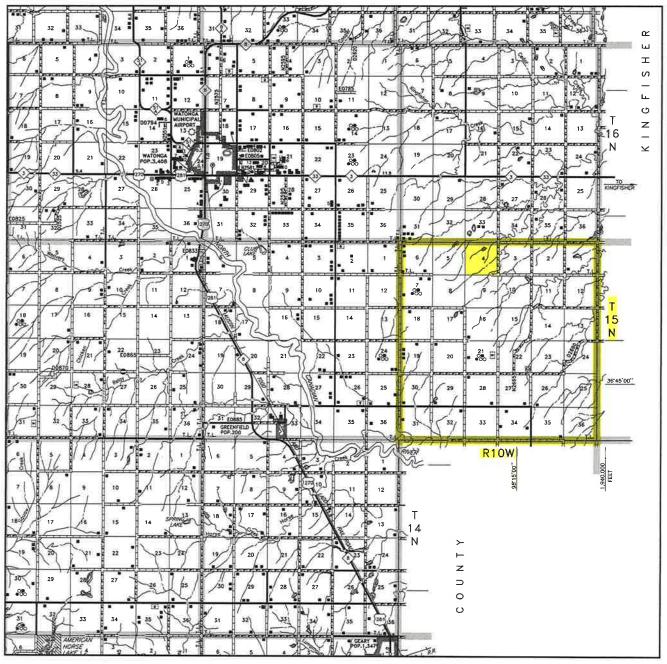


LAND SURVEYORS OF OKLAHOMA

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VICINITY MAP



Scale: 1" = 3 Miles

 Sec.
 4
 Twp.
 15N
 Rng.
 10W
 IM

 County
 BLAINE
 State
 OK

Operator DEVON ENERGY PRODUCTION CO., LP



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 BLAINE BLAINE County, Oklahoma

30'FNL-2012.5'FEL Section 4 Township 15N Range 10W I.M. HALO PLAT X 1920292.2 Y 295681.0 X 1917662.8 Y 295694.9 SURFACE HOLE 30'FNL-2012.5'FEL V-DOOR SOUTH FIRST PERF 165'FNL-1510'FEL 4 X 1917616.9 Y 293147.0 GRID NAD-27 OK NORTH US Feet 500' 1000 X 1922858.4 Y 290502.7 PROPOSED DRILL PATH 600 600 HALO HALO X 1922846.3 Y 287857.8 X 1917569.0 Y 287868.4 9 X 1917555.7 Y 285224.8 LAST PERF 165'FSL-1510'FEL X 1920194.9 Y 285218.9 BOTTOM HOLE 50'FSL-1510'FEL

FIRST PERF, LAST PERF, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED,

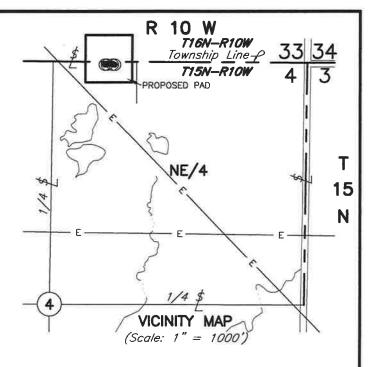
NOTE:
The information shown herein is for construction purposes <u>ONLY.</u>

T 15 N - R 10 W (INDIAN MERIDIAN)

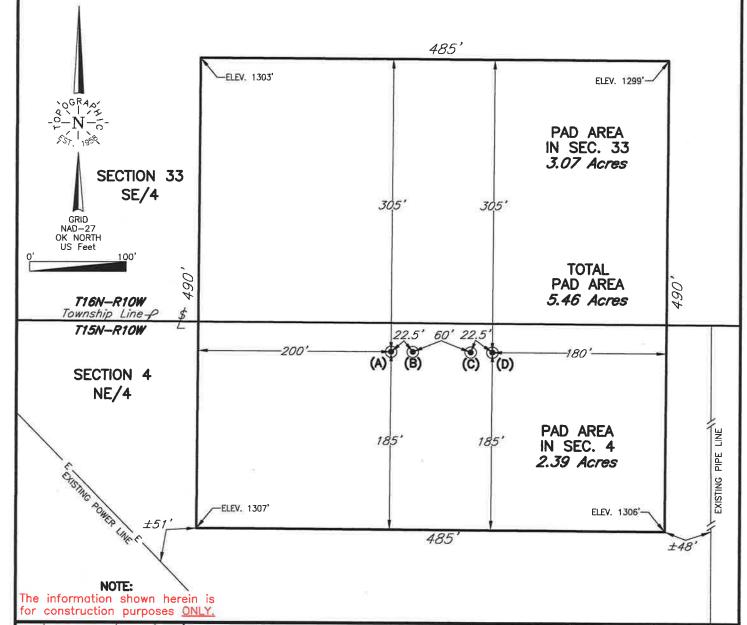
PLAT SHOWING

PROPOSED PAD AREA IN THE
NE/4 OF SECTION 4, T15N — R10W &
SE/4 OF SECTION 33, T16N — R10W
BLAINE COUNTY, OKLAHOMA





- (A) DEVON ENERGY
 PRODUCTION CO., LP
 KRAKEN 33_28-16N-10W 6HX
 30'FNL-2095'FEL
 Elev. 1303' Gr.
- (B) DEVON ENERGY PRODUCTION CO., LP KRAKEN 33_28-16N-10W 7HX 30'FNL-2072.5'FEL Elev. 1303' Gr.
- (C) DEVON ENERGY
 PRODUCTION CO., LP
 DOPPELGANGER 4_9-15N-10W 7HX
 30'FNL-2012.5'FEL
 Elev. 1304' Gr.
 - (D) DEVON ENERGY
 PRODUCTION CO., LP
 DOPPELGANGER 4_9-15N-10W 8HX
 30'FNL-1990'FEL
 Elev. 1304' Gr.



NO. REVISION DATE BY
SUR. BY: JW 2/26/18
DRAWN BY: TR
APPROVED BY: DR

This plat was prepared exclusively for DEVON ENERGY PRODUCTION CO., LP may not be relied upon by any other entity without the written consent of Topographic Land Surveyors of Okla

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA
13800 Wireless Way, Okla. City, OK. 73134 (405) 843-4847
Certificate of Authorization No. 1293 LS

SCALE: 1"=100'
DATE: 3/5/18
INVOICE NO.: 288613
FILE NAME: L2676B.DWG
DWG NO.:104059-L2-676-B

OF

SHEET