API NUMBER: 011 23985

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: 10W | County: BLAINE |
|------------------------|----------|----------|----------------|
|------------------------|----------|----------|----------------|

FEET FROM QUARTER: SPOT LOCATION: NW NW || NE lww NORTH WEST SECTION LINES: 250 1350

Lease Name: DOPPELGANGER 4\_9-15N-10W Well No: 4HX Well will be 250 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):

Depth Name Depth MISSISSIPPIAN (EX CHESTER) 1 10163 6 2 WOODFORD 10793 7 3 8 4 9 10 658264 Spacing Orders: Location Exception Orders: Increased Density Orders: 658265 Special Orders:

Pending CD Numbers: 201801335

> 201801336 201801341 201801342

Total Depth: 19057 Ground Elevation: 1316 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: 18-34240

#### 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?

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 SF SF SW Feet From: SOUTH 1/4 Section Line: 50 WEST Feet From: 1/4 Section Line: 2075

Depth of Deviation: 8059 Radius of Turn: 477 Direction: 176

Total Length: 10249

Measured Total Depth: 19057 True Vertical Depth: 10793 End Point Location from Lease. Unit, or Property Line: 50

Notes:

Category Description

**DEEP SURFACE CASING** 4/4/2018 - 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 4/4/2018 - 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 4/4/2018 - 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** 4/4/2018 - 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 – 201801341 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 – 201801342 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' FWL COMPL. INT (9-15N-10W) NCT 0' FNL, NCT 165' FSL, NCT 330' FWL

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

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 County, Oklahoma 011-23985 \_10W\_I.M. 250'FNL-1350'FWL 15N Range Section Township 1280.5 T16N-R10W Township Line-P The T15N-R10W 250.0 X 1917662.8 Y 295694.9 construction purposes information X 1922921. Y 295667.0 1350.0 295681.0 V-DOOR LOT 1 SOUTH 0 GRA 0 7 - 0 - N - 0 - N - 0 LOT 3 LOT 4 NOTE: FIRST PERF 0'FNL-2075'FWL NAD-27 (US Fee 35'48'43.2"N 98'16'14.5"W 98.270692483'W X= 1919738 Y= 295684 NAD-83 (US Fee 35'48'43.3"N 98'15'55.4"W 35.81202584'N FIRST PERF herein ß. GRID S/2-NE/4 S/2-NW/4 NAD-27 OK NORTH US Feet 35.81202584'N 98.26538941'W X= 1889812 Y= 295699 or 1000 4 1922890.3 293137.6 X 1917616.9 Y 293147.0 SURFACE HOLE 250'FNL-1350'FWL NAD-83 (US Feet) 35'48'40.9"N 98'16'24.6"W 35.81135586'N 98.27349273'W X= 1887408 Y= 295462 Distance Good Operator: from \_ease opography & Vegetation Hwy Accessibility to Drill Name: ō ጵ & Direction Jct or Tow Site? DEVON the DOPPELGANGER K ENERGY Town EXISTING WELL ±413' TO PDP Cor. EXISTING WELL Location Ó Q. Yes PRODUCTION From Loc. Sec. 4 fell 1920220.4 \_9-15N-1 Kingfisher/Blaine Ξ. X 1922858. Y 290502.7 PROPOSED CO. sloping East 1917582.3 290512.1 0 Reference Stakes Set DRILL wheat county County Set PATH Stakes or None field. road Line 9 on Ve∥ Alternate Ş No:: EXISTING WELL Hwy. 0 X 1922846.3 Y 287857.8 4HX Location 1917569.0 33 9 90 LAST PERF 165'FSL-2075'FWL NAD-27 (US Feet) 35'47'01.3"N 98'16'15.4"W 35.783698636'N 98.270954129'W X= 1919632 Y= 285385 NAD-83 (US Feet) 35'47'01.5"N 98'16'16.7"W 35.78374464'N 98.27129518'W X= 1888032 Y= 285409 ±3 1316 316 miles LEVATION: BOTTOM HOLE 50'FSL-2075'FWL NAD-27 (US Feel 35'47'00.2"N 98'16'15.4"W 35.783382705'N 98.270954996'W X= 1919631 Y= 285270 NAD-83 (US Feel 35'47'00.3"N 98'16'16.7"W 35.78342871'N 98.27129604'W X= 1888031 Y= 285294 BOTTOM HOLE Gr 2594.1 6 West 阜 9 Stake Stake then NAVD88 ±2 miles CALCULATED X 1922834. Y 285213.0 1917555.7 285224.8 1920194.9 564.2 2075.0 Was a second 50.0' FIRST PERF, LAST PERF, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED DASESSIONAL PASESSIONAL Date of Drawing: \_ Apr. 11, 2018 Invoice # 291966 Date Staked: Feb. was receiver accuracy. DATUM: <u>NAD-27</u> LAT: <u>35'48'40.7"N</u> 26, 2018 TR LONG: 98'16'23.3"W **CERTIFICATE:** is information with a GPS rate foot Horiz./Vert. a SURVE LAT: 35.811310613'N Dan W. Rogers OK LAHOMA an Oklahoma Licensed Land LONG: 98.273151087°W Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the STATE PLANE This II. COORDINATES: (US Feet) herein information shown ZONE: OK NORTH 1919008 X: 295438 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 250'FNL-1350'FWL 15N Range Section Township \_10W\_1.M. 1280.5 T16N-R10W he ownship T15N-R10W construction purposes ONLY information shown herein 920292.2 95681.0 1917662 295694. LOT S GRID NAD-27 OK NORTH US Feet TOP 1000 Distance & Direction from Hwy Jct or Town Operator: opography & Vegetation Accessibility to Drill Site? DOPPELGANGER Cor. EXISTING WELL Location of. Yes From Sec. Loc. fell Kingfisher/Blaine 9-15N-10W 9 ₹. CO., sloping Reference S Stakes Set 5 wheat county road County field. Stakes Line 9 on. Well Alternate Location ş No 33 go ±3 1316 miles Gr. Gr. West Stake then NAVD88 NGVD29 ±2 miles 191755 285224 FIRST PERF, LAST PERF, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED THE STATE OF THE S Apr. Date of Drawing: ESSIONAL Invoice # 291966 Date Staked: Feb. POUR DATUM: NAD-27 LAT: 35°48'40.7"N 26, 2018 TR was receiver accuracy. LONG: 98°16'23.3"W **CERTIFICATE:** 

is information with a GPS refoot Horiz./Vert. a 35.811310613°N LONG: 98.273151087°W STATE PLANE COORDINATES: (US Feet) This gathered with ±1 fo ZONE: \_ OK NORTH 1919008 295438

Dan W. Rogers an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herei

1200

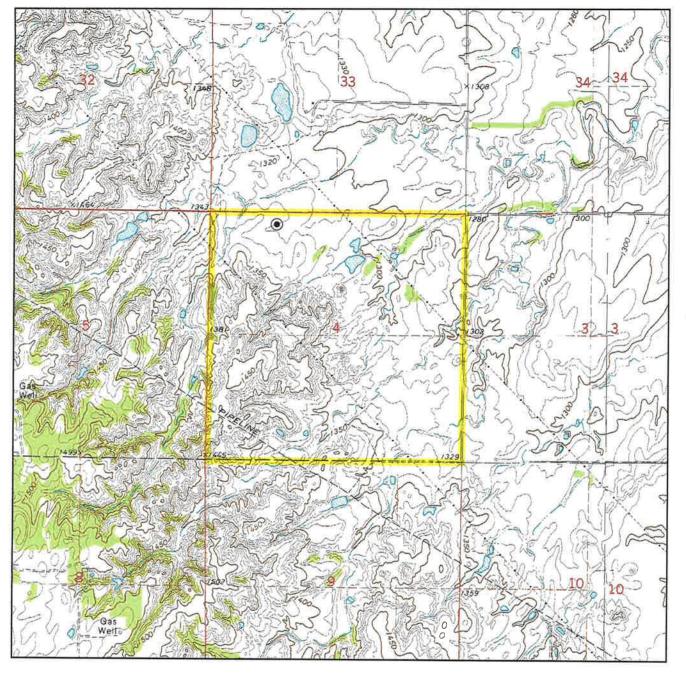
Oklahoma Lic. No.



# 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 250'FNL-1350'FWL

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

1316' Gr. at Stake NGVD29
Elevation 1316' 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.

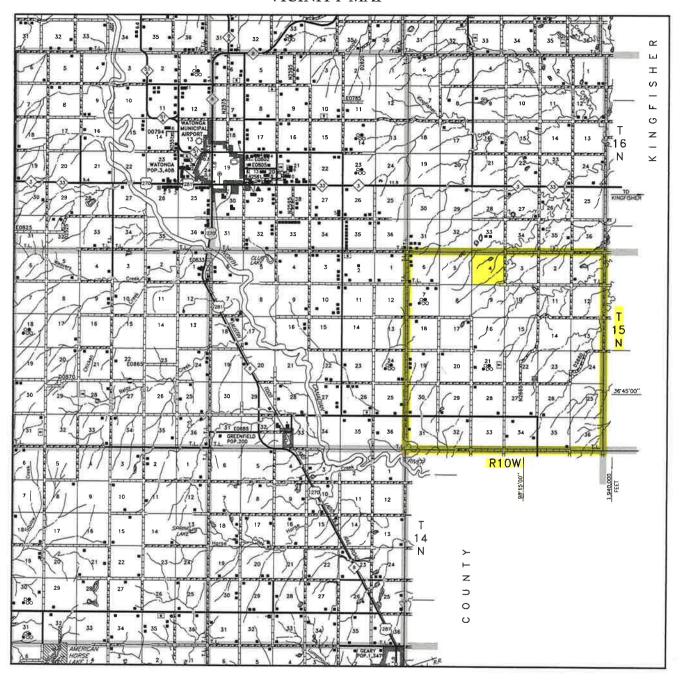


LAND SURVEYORS OF OKLAHOMA

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## VICINITY MAP



Scale: 1" = 3 Miles

557 1950

| Sec4_  | Twp    | 15N | _Rng  | 10W | IM |
|--------|--------|-----|-------|-----|----|
| County | BLAINE | S   | State | OK  | -  |

Operator <u>DEVON ENERGY PRODUCTION</u> 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

County, Oklahoma County, Oklahoma

Township 15N Range 10W I.M. 250'FNL-1350'FWL Section SURFACE HOLE 250'FNL-1350'FWL HALO PLAT FIRST PERF 165'FNL-2075'FWL V-DOOR SOUTH X 1922890.7 Y 293137.6 X 1917616.9 Y 293147.0 90 R40/5-0-N-0-EXISTING WELL ø EXISTING WELL ±413' TO PDP GRID NAD-27 OK NORTH US Feet • X 1920220.4 Y 290507.4 500' X 1922858.4 Y 290502.7 PROPOSED DRILL 600 600 HALO HALO PATH EXISTING WELL X 1922846.3 Y 287857.8 X 1917569.0 Y 287868.4 9 CALCULATED X 1922834.1 Y 285213.0 X 1917555.7 Y 285224.8 LAST PERF 165'FSL-2075'FWL BOTTOM HOLE 50'FSL-2075'FWL

