API NUMBER: 073 25597

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: 04/05/2017
Expiration Date: 10/05/2017

PERMIT TO DRILL

WELL LOCATION:	Sec:	07	Twp:	18N	Rge:	5W	County:	KING	FISHER		
SPOT LOCATION:	SW	sw		SW	SE		FEET FROM QUARTER:	FROM	SOUTH	FROM	EAST
							SECTION LINES:		315		2390

Lease Name: CAIN TRUST 7-18-5 Well No: 2H Well will be 315 feet from nearest unit or lease boundary.

Operator CHESAPEAKE OPERATING LLC Telephone: 4059353425; 4059358 OTC/OCC Number: 17441 0

CHESAPEAKE OPERATING LLC

PO BOX 18496

OKLAHOMA CITY, OK 73154-0496

NORA CAIN FAMILY TRUST C/O KELLY CHOATE

P.O. BOX 133

HENNESSEY OK 73742

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

	Name	Depth	Name	Depth		
1	BIG LIME	6100	6			
2	OSWEGO	6200	7			
3			8			
4			9			
5			10			
Spacing Orders:	No Spacing	Location Exception Orders:		Increased Density Orders:		
Spacing Orders: No Spacing		Location Exception Orders:		Increased Density Orders:		

Pending CD Numbers: 201700383 Special Orders:

201700384 201700386

Total Depth: 11750 Ground Elevation: 1161 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 210

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

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: 5000 Average: 3000

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 AP/TE DEPOSIT
Pit Location Formation: TERRACE

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 17-32311

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

## **HORIZONTAL HOLE 1**

Sec 07 Twp 18N Rge 5W County KINGFISHER

Spot Location of End Point: C N2 N2 N2 Feet From: NORTH 1/4 Section Line: 330

Feet From: EAST 1/4 Section Line: 2640

Depth of Deviation: 5869
Radius of Turn: 564
Direction: 357
Total Length: 4995

Measured Total Depth: 11750

True Vertical Depth: 6230

End Point Location from Lease,
Unit, or Property Line: 330

Notes:

Category Description

DEEP SURFACE CASING 3/23/2017 - 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 3/23/2017 - G71 - OCC 165:10-3-10 REQUIRES: 1) THE CHEMICAL DISCLOSURE OF HYDRAULIC

FRACTURING INGREDIENTS FOR ALL WELLS BE REPORTED TO FRACFOCUS USING THE FOLLOWING LINK HTTP://FRACFOCUS.ORG/ WITH NOTICE GIVEN 48 HOURS IN ADVANCE OF FRACTURING TO THE LOCAL OCC DISTRICT OFFICE; AND, 2) PRIOR TO COMMENCEMENT OF FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE ALSO GIVEN FIVE BUSINESS

DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME

COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE

PENDING CD - 201700383 3/29/2017 - G60 - (640)(HOR) 7-18N-5W

EXT 652843 BGLM, OSWG COMPL. INT. NCT 660' FB

(COEXIST WITH SP. ORDER 44307/51133 OSWG)

REC. 4/4/17 (M. PORTER)

PENDING CD - 201700384 3/29/2017 - G60 - 7-18N-5W

X201700383 BGLM, OSWG

2 WELLS

NO OP. NAMED

REC. 4/4/17 (M. PORTER)

PENDING CD - 201700386 3/29/2017 - G60 - (I.O.) 7-18N-5W

X201700383 BGLM, OSWG

POE TO BHL NCT 330' FNL, NCT 330' FSL, NCT 1320' FEL

NO OP. NAMED

REC. 4/4/17 (M. PORTER)

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA 6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 \* LOCAL (405) 843-4847 \* OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1293 LS **KINGFISHER** NGFISHER County, Oklahoma
Section 7 Township 18N Range 315'FSL - 2390'FEL \_\_ Range \_\_<del>5W</del>\_1.M. NAD-27 X=2064362,9 Y=385178.0 NAD-83 X=2032763,6 2436'-NAD-27 X=2069445.9 NAD-83 NAD-27 X=2035199.9 X=2066799.1 Y=385199.8 Y=385175.6 Y=385202.2 330 Y=385173.8 NAD-83 BOTTOM HOLE 330'FNL-2640'FEL NAD-27 (US Feet) 36'03'25.3" N 97'46'26.4" W 36.057030' N X=2037846.7 Y=385198.0 8' East. O of 1/4 Sec. Line 2640 BOTTOM HOLE T18N-R6W T18N-R5W LOT 1 97.773988' W X = 2066807.6Y=384845.6 DRILL 2319' NAD-83 (US Feet) 36'03'25.5" N 36\*03\*25.5\*\* N 97\*46\*27.5\*\* W 36.057072\* N 97.774316\* W X=2035208.4 Y=384860 E/2-NW/4 EXISTING WELL GALLUP A 1 DISTANCE TO: SHL: 4410' LP: 4281' PDP: 672' BHL: 745' Y=384869.8 LOT 2 NAD-27 X=2064345.8 Y=382510.9 NAD-83 X=2032746.6 X=2069459.8 Y=382543.8 NAD-83 X=2037860.5 Y=382568 0 LANDING POINT 400'FSL-2640'FEL NAD-27 (US Feet) 36'02'40.3" N 97'46'26.2" W 36.044529' N EXISTING WELL CAIN 3-7 DISTANCE TO: EXISTING WELL CAIN 3-7 EXISTING WELL E AND DRILL PATH I SHL: 1727' LP: 1725' PDP: 663' BHL: 3032' 97.773942' W X=2066831.6 LOT 3 Y=380294.9 EXISTING WELL NAD-83 (US Feet) 36'02'40.5" N 97'46'27.4" W GALLUP 1 DISTANCE TO: SHL: 1908' LP: 1722' 36.044570° N 97.774271° W X=2035232.4 2635 2317' PDP: 675' BHL: 3043' INFORMATION Y=380319,0 E/2-SW/4 SURFACE HOLE 315'FSL-2390'FEL NAD-83 (US Feet) 36'02'39.6" N GRID LANDING POINT 36'02'39.6" N 97'46'24.3" W NAD-27 LOT 4 OK NORTH 2390' 36.044340° N 97.773424° W 264' **US Feet** PROPOSED DRILL PATH 1000 X=2035482.7 2692 Y=380235.8 NAD-27 X=2069473.6 NAD-27 X=2064317.1 2496' 2660 Y=379914.3 <u>NAD-83</u> X=2037874.4 Y=379938.5 Y=379876.4 NAD-83 X=2032717.8 NAD-83 <u>NAD-83</u> <u>NAD-27</u> X=2035214.2 X=2066813.4 Y=379918.9 Y=379894.7 NOTE: The information shown herein is for Y=379900.5 construction purposes ONLY. **ELEVATION:** Operator: CHESAPEAKE OPERATING. L.L.C. 1161' Gr. at Stake NAVD88 Lease Name: CAIN TRUST 7-18-5 Well No.: 2H 1161' Gr. at Stake NGVD29 Topography & Vegetation Loc. fell in level wheat field, ±270' East of N-S fence, ±250' North of fence Reference Stakes or Alternate Location Yes Good Drill Site? \_\_ None Stakes Set \_ From South off county road Best Accessibility to Location \_\_\_\_ Distance & Direction from Hwy Jct or Town From Jct. St. Hwy. 51 and US Hwy. 81 in Hennessey, OK, ±5.5 mi. East on St. Hwy. 51, then ±5.0 mi. South, then ±2.0 mi. East to the SE Cor. of Sec. 7-T18N-R5W Waste SSION WAS ESSIONAL Date of Drawing: Jan. 25, 2017 DATUM: NAD-27 Barbarata LAT: 36'02'39.5" LONG 97'46'23 1" Invoice # 269400B Date Staked: Jan. 23, 2017 AC LAT: 36'02'39.5" N LONG: 97'46'23.1" W **CERTIFICATE:** CENSED LAT: <u>36.044298° N</u> THOMAS L. Thomas L. Howell I, Thomas L. Howell an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land JURVE LONG: 97.773096° W HOWELL STATE PLANE Surveyors of Oklahoma, do hereby certify to the 1433 OKLAHOMA STATI COORDINATES: (US Feet) information shown herein This lered ±1 f ZONE: OK NORTH Mma J. Naver Oklahoma Lic. No. 1433 2067081.9 380211.6