API NUMBER: 073 25302

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: 05/19/2016
Expiration Date: 11/19/2016

17441 0

PERMIT TO DRILL

WELL LOCATION:	Sec: 03	Twp: 18N	Rge: 6W	County:	KINGFISH	ER	
SPOT LOCATION:	SW	SE	SE	FEET FROM QUARTER: FR	ом <b>SO</b> l	JTH FROM	EAST
				SECTION LINES:	260		1270
Lease Name: HASTY 3-18-6				Well N	lo: 1H		

Well will be 260 feet from nearest unit or lease boundary.

OTC/OCC Number:

Operator CHESAPEAKE OPERATING LLC Telephone: 4059353425; 4059358

CHESAPEAKE OPERATING LLC

PO BOX 18496

OKLAHOMA CITY, OK 73154-0496

JOANNA R. & TURNER E. HASTY 3775 NORTHAVEN RD.

DALLAS TX 75229

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

	Name	Depth	Name	Depth	
1	BIG LIME	6171	6		
2	OSWEGO	6192	7		
3			8		
4			9		
5			10		
Spacing Orders:	645834	Location Exception Orders: 652646		Increased Density Orders:	
	652385				
D :: 0D N	<u>.                                      </u>			0 :101	

Pending CD Numbers: Special Orders:

Total Depth: 11500 Ground Elevation: 1164 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 190

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

PIT 1 INFORMATION

Type of Pit System: ON SITE

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: 1B

Liner required for Category: 1B

Pit Location is AP/TE DEPOSIT

Pit Location Formation: TERRACE

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 16-31264

H. SEE MEMO

PIT 2 INFORMATION

Type of Pit System: ON SITE

Type of Mud System: OIL BASED

Chlorides Max: 300000 Average: 160000

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: 3

Liner required for Category: 3
Pit Location is AP/TE DEPOSIT
Pit Location Formation: TERRACE

## **HORIZONTAL HOLE 1**

Sec 03 Twp 18N Rge 6W County KINGFISHER

Spot Location of End Point: C N2 N2 NE
Feet From: NORTH 1/4 Section Line: 330
Feet From: EAST 1/4 Section Line: 1320

Depth of Deviation: 5973
Radius of Turn: 750
Direction: 359

Total Length: 4349

Measured Total Depth: 11500

True Vertical Depth: 6334

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

Notes:

Category Description

DEEP SURFACE CASING 5/18/2016 - 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 5/18/2016 - 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.

LOCATION EXCEPTION - 652646 5/19/2016 - G75 - (I.O.) 3-18N-6W

X645834/652385 BGLM, OSWG

COMPL. INT. NCT 330 FSL, NCT 330 FNL, NCT 660 FEL

CHESAPEAKE OP., L.L.C.

5-13-2016

MEMO 5/18/2016 - G71 - PIT 1 & 2 - CONCRETE-LINED PIT PER OPERATOR REQUEST; PIT 2 - OBM TO

VENDOR, OBM CUTTINGS PER DISTRICT

SPACING - 645834 5/19/2016 - G75 - (640)(HOR) 3-18N-6W

EST BGLM, OSWG POE TO BHL NCT 660' FB

(COEXIST SP. ORDER # 50928 OSWG)

SPACING - 652385 5/19/2016 - G75 - CONFIRM 645834 DUE TO FAILURE TO NOTICE CERTAIN RESPONDENTS

API 073-25302 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 NAD-27 NAD-27 390529.8 KINGFISHER \_ County, Oklahoma X 2048563.9 Y 390543.5 NAD-83 260'FSL - 1270'FEL Section 3 Township 18N \_ Range X 2022251.7 Y 390554.0 NAD-83 2634 X 2016964.6 Y 390567.7 T18N - R6W BOTTOM HOLE 330 NAD-27 X 2051217.2 Y 390536.6 1320' 1315 BOTTOM HOLE 330'FNL-1320'FEL NAD-27 (US Feet) 36'04'18.6" N 97'49'20.1" W NAD-83 DISTANCE FROM REHERMAN #1 X 2019617.9 Y 390560.8 LOT 1 LOT 2 LOT 4 36.071830° N 97.822264° W X=2052527.8 SHL-1813' LOT 3 DRILL PATH-665' LP-1609 Y=390203.2 BHL-3141' NAD-83 36'04'18.7" N 97'49'21.3" W 2687, 2393' 36.071871 97.822594° W X=2020928.5 S/2-NE/4 Y=390227.4 NAD-27 NAD-27S/2-NW/4 X 2053825.0 X 2048535.7 387795.4 Y 387856.9 NAD-83 NAD-83 X 2022225. X 2016936.4 LANDING POINT Y 387819.6 Y 387881.0 LANDING POINT 500'FSL-1320'FEL NAD-27 (US Feet) 36'03'33.7" N 97'49'20.8" W 3 36.059372° N 97.822437° W X=2052484.8 REHERMAN Y=385668.4 NAD-83 36'03'33.9" N 97'49'22.0" W 36.059414° N 97.822767° W X=2020885.5 2382' GRID Y=385692.6 OK NORTH US Feet SURFACE HOLE NAD-83 1000 36'03'31.5" N 97'49'21.4" W LANDING POINT NAD-27 36.058753'N 97.822607'W X 2051144.9 385184.9 X=2020933.2 NAD-83 Y=385452.0 X 2019545.6 Y 385200.0 1384' 1270' 260' NAD-27 2655 2636 X 2053799.9 NAD-27 385152.2 NOTE: X 2048508.7 Y 385212.8 CANDING POINT, BOTTOM HOLE AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. NAD-83 The information shown herein is for X 2022200.6 NAD-83 construction purposes ONLY, Y 385176.4 X 2016909.4 Y 385236.9 **ELEVATION:** Operator: CHESAPEAKE OPERATING, L.L.C. 1164' Gr. at Stake NAVD88 1164' Gr. at Stake NGVD29 Lease Name: HASTY 3-18-6 1H Well No.:\_\_\_\_ Topography & Vegetation Loc. fell in wheat field, ±230' North of power line and Right—of—Way Fence Reference Stakes or Alternate Location Yes None Good Drill Site? Stakes Set Best Accessibility to Location From South off county road Distance & Direction from Hwy Jct or Town From Jct. US Hwy. 81 N-S and St. Hwy. 51 E-W, North of Hennessey, OK, go ±4.0 mi. South on US Hwy. 81, then ±4.5 mi. East on county road to the SE Cor. of Sec. 3-T18N-R6W MORESSIONAL Date of Drawing: Apr. 11, 2016 DATUM: NAD-27 Invoice # 259091 Date Staked: Apr. 07, 2016 **JGW** LAT: 36'03'31.4"N LONG: 97°49'20.2"W **CERTIFICATE:** SURVE LAT: 36.058711° N THOMAS L. I, Thomas L. Howell an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land LONG: 97.822277° W HOWELL STATE PLANE Surveyors of Oklahoma, do hereby certify to the 120.16 COORDINATES: (US Feet) \* LAHON A information shown herein ZONE: OK NORTH X: 2052532.5 Thomas I. Nave 385427.8

1433

Oklahoma Lic. No.