API NUMBER: 129 23999

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: 09/09/2014 Expiration Date: 03/09/2015

PERMIT TO DRILL

							SECTION LINES:		250		1800
SPOT LOCATION:	SW	SE	SV	N	SE		FEET FROM QUARTER:	FROM	SOUTH	FROM	EAST
WELL LOCATION:	Sec:	30	Twp:	16N	Rge:	23V	V County	: ROG	ER MILLS		

Lease Name: LOVETT 30-16-23 Well No: 2H Well will be 250 feet from nearest unit or lease boundary.

Operator CHESAPEAKE OPERATING LLC Telephone: 4059358143; 4059358 OTC/OCC Number: 17441 0

CHESAPEAKE OPERATING LLC

PO BOX 18496

OKLAHOMA CITY, OK 73154-0496

NETTIE M. LOVETT TRUST

P.O. BOX 69

ALVORD TX 76225

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

	Name	Depth	Name	Depti	n .
1	TONKAWA	8280	6		
2			7		
3			8		
4			9		
5			10		
Spacing Orders:	132221	Location Exception Orders: 6274	31	Increased Density Orders:	627430

Pending CD Numbers: Special Orders:

Total Depth: 13250 Ground Elevation: 2135 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 490

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: 25000 Average: 8000

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: 14-28197

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 30 Twp 16N Rge 23W County ROGER MILLS

Spot Location of End Point: NW NE NW NE Feet From: NORTH 1/4 Section Line: 200

Feet From: EAST 1/4 Section Line: 1700

Depth of Deviation: 7697 Radius of Turn: 780

Direction: 1

Total Length: 4328

Measured Total Depth: 13250

True Vertical Depth: 8477

End Point Location from Lease,
Unit, or Property Line: 200

Notes:

Category Description

DEEP SURFACE CASING 8/21/2014 - G76 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS

OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR

SURFACE CASING

INCREASED DENSITY - 627430 9/9/2014 - G75 - 30-16N-23W

X132221 TNKW

1 WELL

CHESAPEAKE OP., INC. (NOW CHESAPEAKE OP., LLC)

7-2-2014

LOCATION EXCEPTION - 627431 9/9/2014 - G75 - (I.O.) 30-16N-23W

X132221 TNKW

COMPL. INT. NCT 330 FSL, NCT 330 FNL, NCT 560 FEL CHESAPEAKE OP., INC. (NOW CHESAPEAKE OP., LLC)

7-2-2014

MEMO 8/21/2014 - G76 - PIT 1 & 2 - CONCRETE-LINED PIT PER OPERATOR REQUEST; PIT 2 - OBM TO

VENDOR, OBM CUTTINGS PER DISTRICT

SPACING - 132221 9/9/2014 - G75 - (640) 30-16N-23W

EXT 79514 TNKW