API NUMBER: 129 23945

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: 04/25/2014 Expiration Date: 10/25/2014

PERMIT TO DRILL

WELL LOCATION:	Sec:	20 T	wp: 16	N	Rge:	26W	County	ROG	ER MILLS		
SPOT LOCATION:	SW	SW	sw		SE	F	EET FROM QUARTER:	FROM	SOUTH	FROM	EAST

SECTION LINES: **300 2530**

Lease Name: JYM 20-16-26 Well No: 1H Well will be 300 feet from nearest unit or lease boundary.

Operator CHESAPEAKE OPERATING INC Telephone: 4059358143 OTC/OCC Number: 17441 0

CHESAPEAKE OPERATING INC

PO BOX 18496

OKLAHOMA CITY, OK 73154-0496

JOYCE MEEK 16835 E. 810 ROAD

DURHAM OK 73642

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

	Name	Depth	Name	Depth
1	TONKAWA	8347	6	
2			7	
3			8	
4			9	
5			10	
Spacing Orders:	64766	Location Exception Orders: 621	1464	Increased Density Orders:

Pending CD Numbers: Special Orders:

Total Depth: 14500 Ground Elevation: 2292 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 580

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: 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: 1BPit Location is AP/TE DEPOSIT

Pit Location Formation: TERRACE

pprovide mounds for diopostal of 2 mining 1 large.

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 14-27007

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 20 Twp 16N Rge 26W County ROGER MILLS

Spot Location of End Point: N2 N2 N2 N2 N2 Feet From: NORTH 1/4 Section Line: 200
Feet From: WEST 1/4 Section Line: 2640

Depth of Deviation: 8984
Radius of Turn: 780
Direction: 359
Total Length: 4424

Measured Total Depth: 14500

True Vertical Depth: 9764

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

Notes:

Category Description

DEEP SURFACE CASING 4/25/2014 - G71 - APPROVED CONTINGENT ON NOTIFYING OCC FIELD STAFF IMMEDIATELY

OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY

CONDUCTOR OR SURFACE CASING

LOCATION EXCEPTION - 621464 4/25/2014 - G72 - FRAC 19 & 20-16N-26W I.O. X 64766 TNKW:

COMP INT. NCT 330 FNL NCT 330 FSL NCT 560 FEL;

CHESAPEAKE OPERATING INC / CHK CLEVELAND TONKAWA LLC / CHESAPEAKE OPERATING

INC;

2/10/2014

MEMO 4/25/2014 - G71 - PITS 1 & 2 - CONCRETE LINED PIT PER OPERATOR REQUEST, PIT 2 - OBM

RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

SPACING - 64766 4/25/2014 - G72 - (800)IRR 20-16N-26W & FRAC 19-16N-26W AMD 60492 TNKW ENLARGING UNIT

TO ADD FRAC SECTION 19.