API NUMBER: 045 23517

Oil & Gas

Horizontal Hole

Name:

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 03/09/2015 Expiration Date:

PERMIT TO DRILL

WELL LOCATION:	Sec: 31	Twp: 20N	Rge:	25W	Count	y: ELLI	S		
SPOT LOCATION:	C S2	sw	SW	FEET FROM	UQUARTER:	FROM	SOUTH	FROM	WEST
				SECTION L	INES:		330		660
Lease Name: I	KCM 31-20-25				w	ell No:	1H		
Operator	CHESAPEA	KE OPERAT	ING LLC				Telent	one.	405935814

OTC/OCC Number: Telephone: 4059358143; 4059358 17441 0

Well will be 330 feet from nearest unit or lease boundary.

CHESAPEAKE OPERATING LLC PO BOX 18496 OKLAHOMA CITY. 73154-0496 OK

Ground Elevation: 2493

LEAH M. BATTY 6220 E. MONTEREY WAY **SCOTTSDALE** ΑZ 85251

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

	Name	Depth		Name	Dep	oth
1	CLEVELAND	8446	6			
2			7			
3			8			
4			9			
5			10			
Spacing Orders:	576795	Location Exception Orders:	623468		Increased Density Orders:	609985
						623164
Pending CD Nur	nbers:				Special Orders:	

Surface Casing: 1500

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

Approved Method for disposal of Drilling Fluids: PIT 1 INFORMATION Type of Pit System: ON SITE A. Evaporation/dewater and backfilling of reserve pit. Type of Mud System: WATER BASED

Chlorides Max: 25000 Average: 8000 H. SEE MEMO

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?

is located in a Hydrologically Sensitive Area.

Category of Pit: 1B Liner required for Category: 1B Pit Location is BED AQUIFER Pit Location Formation: OGALLALA

Total Depth: 13550

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 14-28257

Depth to base of Treatable Water-Bearing FM: 600

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 BED AQUIFER

Pit Location Formation: OGALLALA

HORIZONTAL HOLE 1

Sec. 31 Twp 20N Rge 25W County **ELLIS** NW Spot Location of End Point: С N2 NW Feet From: NORTH 1/4 Section Line: 330 Feet From: WEST 1/4 Section Line: 660

Depth of Deviation: 7996
Radius of Turn: 780
Direction: 360
Total Length: 4329

Measured Total Depth: 13550

True Vertical Depth: 8776

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

 Additional Surface Owner
 Address
 City, State, Zip

 KRISTIN C. MCCARTOR
 3808 N. 85TH PLACE
 SCOTTSDALE, AZ 85251

Notes:

Category Description

DEEP SURFACE CASING 9/3/2014 - 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 - 609985 9/9/2014 - G75 - 31-20N-25W

X576795 CLVD 2 WELLS

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

4-4-2013

INCREASED DENSITY - 623164 9/9/2014 - G75 - EXTEND 609985 UNTIL 4-4-2015

LOCATION EXCEPTION - 623468 9/9/2014 - G75 - (I.O.) 31-20N-25W

X576795 CLVD

COMPL. INT. NCT 330 FSL, NCT 330 FNL, NCT 660 FWL CHESAPEAKE OP., INC. (NOW CHESAPEAKE OP., LLC)

4-2-2014

MEMO 9/3/2014 - G76 - PIT 1 & 2 - CONCRETE-LINED PIT PER OPERATOR REQUEST: PIT 2 - OBM TO

VENDOR, OBM CUTTINGS PER DISTRICT

SPACING - 576795 9/9/2014 - G75 - (640) 31-20N-25W

EXT 185772 CLVD