

OKLAHOMA CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION  
P.O. BOX 52000  
OKLAHOMA CITY, OK 73152-2000  
(Rule 165:10-3-1)

API NUMBER: 045 23250

Approval Date: 09/26/2012  
Expiration Date: 03/26/2013

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 02 Twp: 19N Rge: 25W County: ELLIS  
SPOT LOCATION:  S2  S2  SW  SW FEET FROM QUARTER: FROM SOUTH FROM WEST  
SECTION LINES: 240 660

Lease Name: CHARLENE 2-19-25 Well No: 1H Well will be 240 feet from nearest unit or lease boundary.

Operator Name: CHESAPEAKE OPERATING INC Telephone: 4059357853 OTC/OCC Number: 17441 0

CHESAPEAKE OPERATING INC  
P.O. Box 18496  
OKLAHOMA CITY, OK 73154-0496

CHARLENE KNOWLES  
HCR 63, BOX 6  
ARNETT OK 73832

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

	Name	Depth	Name	Depth
1	TONKAWA	8400	6	
2	COTTAGE GROVE	8435	7	
3	CLEVELAND	8485	8	
4	MARMATON	8778	9	
5			10	

Spacing Orders: 204648  
585108

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201205266

Special Orders:

Total Depth: 14025 Ground Elevation: 2414 **Surface Casing: 880** Depth to base of Treatable Water-Bearing FM: 630

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: 5000  
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 BED AQUIFER

Pit Location Formation: OGALLALA

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 12-21398

H. PITS 1 & 2 - SEE MEMO

This permit does not address the right of entry or settlement of surface damages.  
The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.  
Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

PIT 2 INFORMATION

Type of Pit System: ON SITE
Type of Mud System: OIL BASED
Chlorides Max: 300000 Average: 200000
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 02 Twp 19N Rge 25W County ELLIS
Spot Location of End Point: C N2 NW NW
Feet From: NORTH 1/4 Section Line: 330
Feet From: WEST 1/4 Section Line: 660
Depth of Deviation: 8489
Radius of Turn: 361
Direction: 360
Total Length: 4444
Measured Total Depth: 14025
True Vertical Depth: 8850
End Point Location from Lease,
Unit, or Property Line: 330

Additional Surface Owner Address City, State, Zip
CHARLENE KNOWLES HCR 63, BOX 6 ARNETT, OK 73832

Notes:

Table with 2 columns: Category, Description. Rows include PENDING CD - 201205266, PITS 1 & 2, SPACING - 204648, and SPACING - 585108.

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