

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

API NUMBER: 045 23281

Approval Date: 11/26/2012  
Expiration Date: 05/26/2013

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 28 Twp: 20N Rge: 26W County: ELLIS  
SPOT LOCATION:  SE  SW  SW  SW FEET FROM QUARTER: FROM SOUTH FROM WEST  
SECTION LINES: 280 500

Lease Name: GRAYSON 28-20-26 Well No: 1H Well will be 280 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

GRAYSON KELLN  
RR. 2, BOX 97A  
SHATTUCK OK 73858

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

	Name	Depth	Name	Depth
1	DOUGLAS (UP TONKAWA)	7226	6	
2	TONKAWA (LOW TONKAWA)	8034	7	
3	COTTAGE GROVE	8228	8	
4	CLEVELAND	8344	9	
5			10	

Spacing Orders: 131723 Location Exception Orders: 604479 Increased Density Orders: 604320

Pending CD Numbers:

Special Orders:

Total Depth: 13525 Ground Elevation: 2467 **Surface Casing: 860** Depth to base of Treatable Water-Bearing FM: 610

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 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)

H. SEE MEMO

PERMIT NO: 12-21630

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: 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 28 Twp 20N Rge 26W 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: 7983
Radius of Turn: 567
Direction: 3
Total Length: 4651
Measured Total Depth: 13525
True Vertical Depth: 8344
End Point Location from Lease,
Unit, or Property Line: 330

Notes:

Table with 2 columns: Category, Description. Contains notes for INCREASED DENSITY, LOCATION EXCEPTION, MEMO, and SPACING.

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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.