

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

API NUMBER: 045 23455 A

Approval Date: 03/28/2014  
Expiration Date: 09/28/2014

Horizontal Hole Oil & Gas

Amend reason: CHANGE SURFACE CASING DEPTH

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 14 Twp: 20N Rge: 25W County: ELLIS  
SPOT LOCATION:  SE  SE  SW  SW FEET FROM QUARTER: FROM SOUTH FROM WEST  
SECTION LINES: 275 1235

Lease Name: HELEN HACKER 14-20-25 Well No: 1H Well will be 275 feet from nearest unit or lease boundary.  
Operator Name: CHESAPEAKE OPERATING INC Telephone: 4059358143 OTC/OCC Number: 17441 0

CHESAPEAKE OPERATING INC  
PO BOX 18496  
OKLAHOMA CITY, OK 73154-0496

HELEN HACKER  
1359 PCR 340  
FROHNA MO 63748

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

	Name	Depth	Name	Depth
1	TONKAWA	7500	6	
2	COTTAGE GROVE	7800	7	
3	CLEVELAND	8197	8	
4	MARMATON	8500	9	
5			10	

Spacing Orders: 105701 Location Exception Orders: 618909 Increased Density Orders:  
618648

Pending CD Numbers: Special Orders:

Total Depth: 13020 Ground Elevation: 2398 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 680

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.

Approved Method for disposal of Drilling Fluids:

- A. Evaporation/dewater and backfilling of reserve pit.
- D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 14-26642
- H. SEE MEMO

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

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 14 Twp 20N Rge 25W County ELLIS
Spot Location of End Point: NW NE NW NW
Feet From: NORTH 1/4 Section Line: 200
Feet From: WEST 1/4 Section Line: 960
Depth of Deviation: 7505
Radius of Turn: 571
Direction: 359
Total Length: 4618
Measured Total Depth: 13020
True Vertical Depth: 8500
End Point Location from Lease,
Unit, or Property Line: 200

Notes:

Table with 2 columns: Category, Description. Contains notes on casing, location exceptions, and spacing for various well identifiers.

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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.