

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

API NUMBER: 045 23346 A

Approval Date: 05/01/2013

Expiration Date: 11/01/2013

Horizontal Hole Oil & Gas

Amend reason: CHANGE BOTTOM HOLE LOCATION.

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 21 Twp: 20N Rge: 26W

County: ELLIS

SPOT LOCATION: S2 S2 SE SE

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 300 660

Lease Name: G&G 21-20-26

Well No: 1H

Well will be 300 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

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

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

	Name	Depth	Name	Depth
1	DOUGLAS	7200	6	
2	TONKAWA	7300	7	
3	COTTAGE GROVE	7500	8	
4	CLEVELAND	8173	9	
5			10	

Spacing Orders: 132531
607308

Location Exception Orders: 609108

Increased Density Orders: 609105

Pending CD Numbers:

Special Orders:

Total Depth: 13050

Ground Elevation: 2421

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: 13-23217

H. 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 21 Twp 20N Rge 26W County ELLIS

Spot Location of End Point: C N2 NE NE

Feet From: NORTH 1/4 Section Line: 330

Feet From: EAST 1/4 Section Line: 660

Depth of Deviation: 7513

Radius of Turn: 780

Direction: 360

Total Length: 4470

Measured Total Depth: 13050

True Vertical Depth: 8293

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

Notes:

Category

Description

INCREASED DENSITY - 609105

5/1/2013 - G30 - 21-20N-26W
X132531 CLVD
3 WELLS
CHESAPEAKE OPERATING, INC.
3/15/13

LOCATION EXCEPTION - 609108

5/1/2013 - G30 - (I.O.) 21-20N-26W
X132531 CLVD, DGLS, TNKW, CGGV
COMP. INT. NCT 330 FNL, NCT 330 FSL, NCT 560 FEL
CHESAPEAKE OPERATING, INC.
3/15/13

MEMO

4/30/2013 - G71 - PITS 1 & 2 - CONCRETE LINED PIT PER OPERATOR REQUEST, PIT 2 - OBM
RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

SPACING - 132531

5/1/2013 - G30 - (640) 21-20N-26W
EXT 122784 DGLS, TNKW, CGGV, CLVD, OTHER
EXT OTHER

SPACING - 607308

5/1/2013 - G30 - 21-20N-26W
X132531 DEFINE TOP AND BASE OF CLVD

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Office of the Conservation Division as to when Surface Casing will be run.

045 23346 G&G 21-20-26 1H