

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

API NUMBER: 045 23551

Approval Date: 12/22/2014
Expiration Date: 06/22/2015

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 05 Twp: 19N Rge: 26W County: ELLIS
SPOT LOCATION: N2 N2 NE NE FEET FROM QUARTER: FROM NORTH FROM EAST
SECTION LINES: 200 660

Lease Name: HD DOWLING 32-20-26 Well No: 1H Well will be 200 feet from nearest unit or lease boundary.

Operator Name: CHESAPEAKE OPERATING LLC Telephone: 4059358143; 40593358 OTC/OCC Number: 17441 0

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

RALPH KELLN
5438 SOUTH LOUTHAN WAY
LITTLETON CO 80120

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

	Name	Depth	Name	Depth
1	DOUGLAS	6651	6	
2	TONKAWA	7246	7	
3	COTTAGE GROVE	8291	8	
4	CLEVELAND	8351	9	
5	DES MOINES	8396	10	

Spacing Orders: 215013 Location Exception Orders: 632444 Increased Density Orders: 632443

Pending CD Numbers:

Special Orders:

Total Depth: 13150 Ground Elevation: 2494 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 620

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: 14-29249

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 32 Twp 20N Rge 26W County ELLIS
Spot Location of End Point: N2 N2 NE NE
Feet From: NORTH 1/4 Section Line: 200
Feet From: EAST 1/4 Section Line: 660
Depth of Deviation: 7605
Radius of Turn: 780
Direction: 360
Total Length: 4320
Measured Total Depth: 13150
True Vertical Depth: 8396
End Point Location from Lease,
Unit, or Property Line: 200

Notes:

Table with 2 columns: Category, Description. Rows include DEEP SURFACE CASING, INCREASED DENSITY - 632443, LOCATION EXCEPTION - 632444, MEMO, and SPACING - 215013.

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.

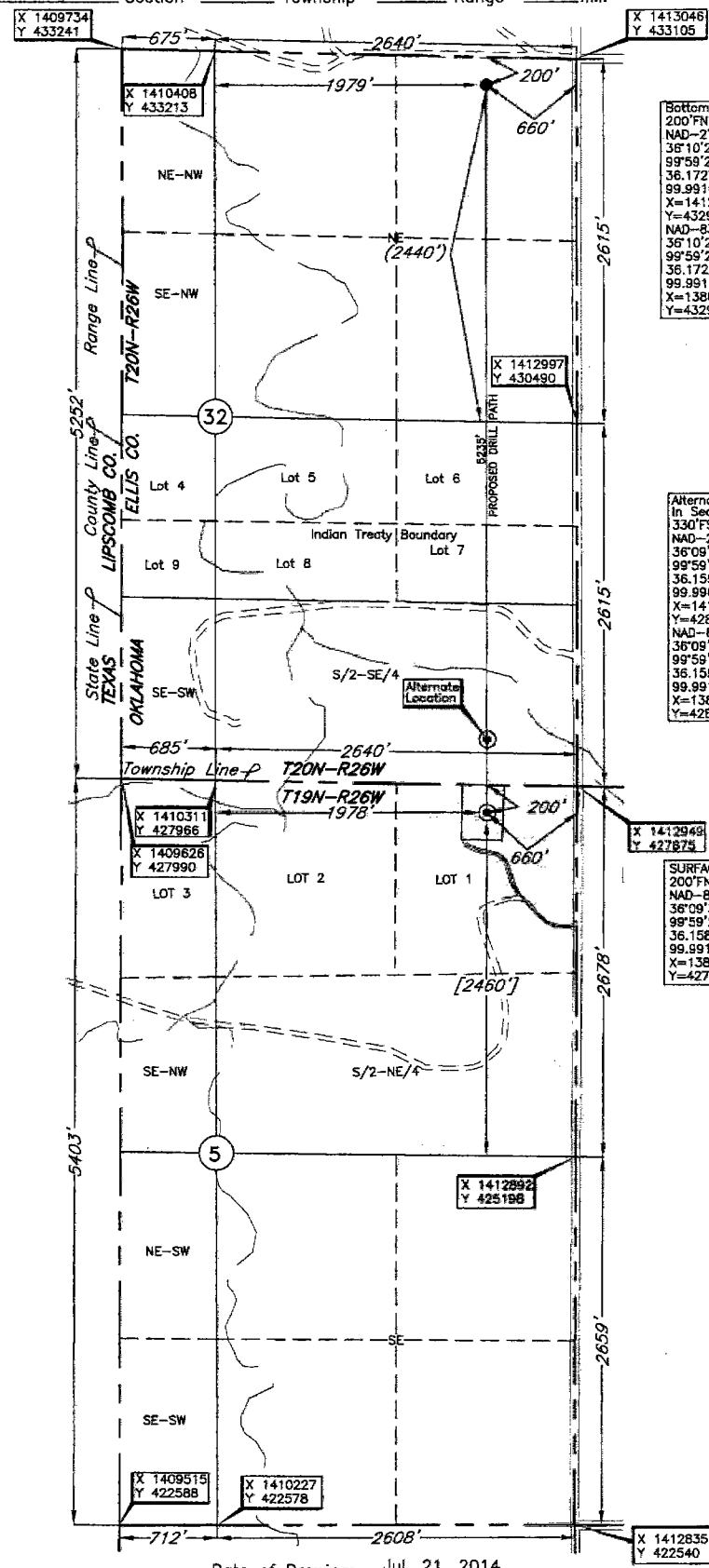
ADP 045-23551

ELLIS County, Oklahoma
 200'FNL-660'FEL Section 5 Township 19N Range 26W I.M.



The information shown herein is for construction purposes ONLY.

Bottom Hole and Drill Path Information provided by operator listed, NOT Surveyed



Bottom Hole
 200'FNL-660'FEL
 NAD-27 (US Feet)
 36°10'22.0" N
 99°59'27.6" W
 36.172791" N
 99.991011" W
 X=1412382
 Y=432932
 NAD-83 (US Feet)
 36°10'22.2" N
 99°59'29.1" W
 36.172832" N
 99.991412" W
 X=1380778
 Y=432960

Alternate Location
 In Sec. 32 T20N-R26W
 330'FSL-660'FEL
 NAD-27 (US Feet)
 36°09'35.5" N
 99°59'27.5" W
 36.159866" N
 99.990978" W
 X=1412296
 Y=428228
 NAD-83 (US Feet)
 36°09'35.7" N
 99°59'29.0" W
 36.159907" N
 99.991376" W
 X=1380681
 Y=428255

SURFACE HOLE
 200'FNL-660'FEL
 NAD-83 (US Feet)
 36°09'30.4" N
 99°59'29.0" W
 36.158451" N
 99.991376" W
 X=1380681
 Y=427726

Operator: CHESAPEAKE OPERATING, INC.
 Lease Name: HD DOWLING 32-20-26
 Topography & Vegetation: Loc. fell in plowed terraced field
 Good Drill Site? Yes Alt: Yes
 Reference Stakes or Alternate Location: Stakes Set Alt: 330'FSL-660'FEL in Sec. 32 T20N-R26W Elev. 2483' Gr. of Stake

Best Accessibility to Location: From East off county road
 Distance & Direction from Hwy Jct or Town: From State Line of Texas & Oklahoma on US Hwy. 60, go ±0.6 mile East, then ±1.6 miles North to the NE Cor. of Sec. 5-T19N-R26W

ELEVATION:
 2494' Gr. of Stake

Date of Drawing: Jul. 21, 2014
 Invoice # 227268 Date Staked: Jul. 17, 2014 LC

DATUM: NAD-27
 LAT: 36°09'30.3"N
 LONG: 99°59'27.5"W
 STATE PLANE COORDINATES: (US Feet)
 ZONE: OK NORTH
 X: 1412285
 Y: 427698

CERTIFICATE:
 I, Lee K. Goss a Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify the information shown herein.
 Oklahoma Lic. No. 1778

