

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

API NUMBER: 073 25460

Approval Date: 12/08/2016
Expiration Date: 06/08/2017

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 34 Twp: 17N Rge: 6W

County: KINGFISHER

SPOT LOCATION: NE NE NW NE

FEET FROM QUARTER: FROM NORTH FROM EAST

SECTION LINES: 277 1542

Lease Name: BROWN 27-17-6

Well No: 2H

Well will be 277 feet from nearest unit or lease boundary.

Operator Name: CHESAPEAKE OPERATING LLC

Telephone: 4059353425; 4059358

OTC/OCC Number: 17441 0

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

JANET BRISCOE WILLMS
825 NW 39TH STREET
OKLAHOMA CITY OK 73118

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

Name	Depth	Name	Depth
1 OSWEGO	6403	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 647364

Location Exception Orders: 657917

Increased Density Orders: 657916

Pending CD Numbers:

Special Orders:

Total Depth: 11700

Ground Elevation: 1058

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 130

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

PIT 1 INFORMATION

Approved Method for disposal of Drilling Fluids:

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 5000 Average: 3000

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 not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: SALT PLAINS

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

PERMIT NO: 16-31844

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

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.

HORIZONTAL HOLE 1

Sec 27 Twp 17N Rge 6W County KINGFISHER

Spot Location of End Point: C N2 N2 N2

Feet From: NORTH 1/4 Section Line: 330

Feet From: EAST 1/4 Section Line: 2640

Depth of Deviation: 6238

Radius of Turn: 390

Direction: 349

Total Length: 4850

Measured Total Depth: 11700

True Vertical Depth: 6599

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

Notes:

Category	Description
DEEP SURFACE CASING	12/7/2016 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING
HYDRAULIC FRACTURING	12/7/2016 - G71 - OCC 165:10-3-10 REQUIRES: 1) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS BE REPORTED TO FRACFOCUS USING THE FOLLOWING LINK HTTP://FRACFOCUS.ORG/ WITH NOTICE GIVEN 48 HOURS IN ADVANCE OF FRACTURING TO THE LOCAL OCC DISTRICT OFFICE; AND, 2) PRIOR TO COMMENCEMENT OF FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE ALSO GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE.
INCREASED DENSITY - 657916	12/7/2016 - G64 - (F.O.) 27-17N-6W X647364 OSWG 2 WELLS CHESAPEAKE OPERATING, L.L.C. 11-14-2016
LOCATION EXCEPTION - 657917	12/7/2016 - G64 - (I.O.) 27-17N-6W X647364 OSWG COMPL. INT. NCT 330' FSL, NCT 330' FNL, NCT 1320' FEL, NCT 1320' FWL CHESAPEAKE OPERATING, L.L.C. 11-14-2016
SPACING - 647364	12/7/2016 - G64 - (640)(HOR) 27-17N-6W EST OSWG, OTHER POE TO BHL NCT 660' FB (COEXIST SP. ORDER 67372 OSWG)

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219
 Certificate of Authorization No. 1293 LS

CANADIAN

County, Oklahoma

API 017-24960

275'FNL - 875'FEL Section 33 Township 13N Range 9W I.M.

X= 1951661
Y= 205975

X= 1949015
Y= 205982

X= 1954298
Y= 205973

LANDING POINT
492'FNL-132'FEL
NAD-27 (US Feet)
35°33'51.8"N
98°09'14.8"W
35.564391577 N
98.154102116 W
X=1954165
Y=205481

X= 1949017
Y= 203346

X= 1954293
Y= 203333

BOTTOM HOLE
150'FSL-132'FEL
NAD-27 (US Feet)
35°33'05.9"N
98°09'14.8"W
35.551650882 N
98.154101253 W
X=1954158
Y=200843

X= 1951655
Y= 200702

X= 1954290
Y= 200692

X= 1949021
Y= 200711

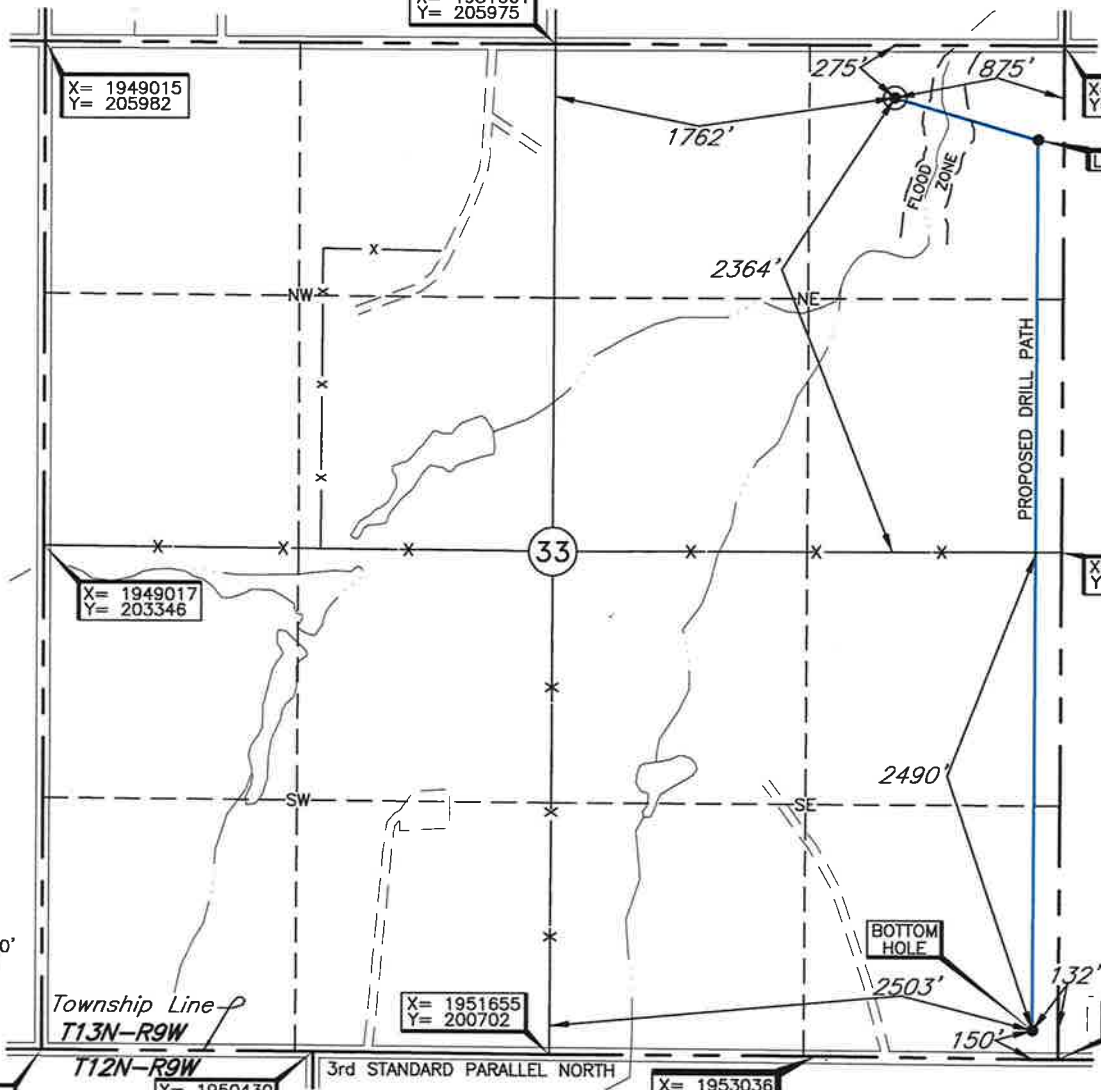
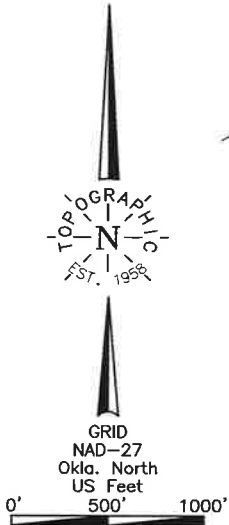
X= 1950430
Y= 200711

X= 1953036
Y= 200702

Landing Point, Bottom Hole and Drill Path information provided by operator listed, NOT Surveyed.

NOTE:

The information shown herein is for construction purposes ONLY.



Operator: CIMAREX ENERGY CO.

Lease Name: COPELAND

Well No.: 9-33H **ELEVATION:** 1473' Gr. at level pad NGVD29

Topography & Vegetation Loc. fell on level pad under construction

Good Drill Site? Yes

Reference Stakes or Alternate Location
Stakes Set None

Best Accessibility to Location From North off county road

Distance & Direction from Hwy Jct or Town From Calumet, OK, go ±±2.5 mi. South on US Hwy. 270, then ±2.25 mi. West on Britton Road West to the NE Cor. of Sec. 33-T13N-R9W

Date of Drawing: Dec. 01, 2016

Invoice # 268193E Date Staked: Nov. 29, 2016

AC

This information was gathered with a GPS receiver with ±1 foot Horiz./Vert. accuracy.
 DATUM: NAD-27
 LAT: 35°33'53.9"N
 LONG: 98°09'23.8"W
 LAT: 35.564985907° N
 LONG: 98.156599873° W
 STATE PLANE COORDINATES: (US Feet)
 ZONE: OK NORTH
 X: 1953422
 Y: 205699

CERTIFICATE:

I, Thomas L. Howell an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein

Thomas L. Howell

Oklahoma Lic. No. 1433

