

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

API NUMBER: 017 25405

Approval Date: 02/27/2019  
Expiration Date: 08/27/2020

Horizontal Hole Oil & Gas  
Multi Unit

PERMIT TO DRILL

WELL LOCATION: Sec: 31 Twp: 14N Rge: 8W County: CANADIAN  
SPOT LOCATION:  SE  SE  SE  SE FEET FROM QUARTER: FROM SOUTH FROM EAST  
SECTION LINES: 260 230

Lease Name: OKORONKWO Well No: 1H-3130X Well will be 230 feet from nearest unit or lease boundary.  
Operator Name: CIMAREX ENERGY CO Telephone: 9185851100 OTC/OCC Number: 21194 0

CIMAREX ENERGY CO  
202 S CHEYENNE AVE STE 1000  
TULSA, OK 74103-3001

ROTHER CHILDREN'S TRUST C/O RON ROTHER  
P.O. BOX 274  
KINGFISHER OK 73750

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

Name	Depth	Name	Depth
1 WOODFORD	10790	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 690883 Location Exception Orders: Increased Density Orders:

Pending CD Numbers: 201900546 Special Orders:  
201900545

Total Depth: 21070 Ground Elevation: 1417 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 400

Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: No

**PIT 1 INFORMATION**

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 located in a Hydrologically Sensitive Area.

**Category of Pit: C**

**Liner not required for Category: C**

Pit Location is AP/TE DEPOSIT

Pit Location Formation: TERRACE

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 19-36202  
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 30 Twp 14N Rge 8W County CANADIAN

Spot Location of End Point: NE NE NE NE

Feet From: NORTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 300

Depth of Deviation: 10577

Radius of Turn: 573

Direction: 359

Total Length: 9593

Measured Total Depth: 21070

True Vertical Depth: 11102

End Point Location from Lease,  
Unit, or Property Line: 150

Notes:

Category

Description

DEEP SURFACE CASING

2/12/2019 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING

HYDRAULIC FRACTURING

2/12/2019 - G71 - OCC 165:10-3-10 REQUIRES:

1) PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE;

2) WITH NOTICE ALSO GIVEN 48 HOURS IN ADVANCE OF HYDRAULIC FRACTURING ALL WELLS TO BOTH THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES, USING THE "FRAC NOTICE FORM" FOUND AT THE FOLLOWING LINK: [OCCEWEB.COM/OG/OGFORMS.HTML](http://OCCEWEB.COM/OG/OGFORMS.HTML); AND,

3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION THE HYDRAULIC FRACTURING OPERATIONS, USING THE FOLLOWING LINK: [FRACFOCUS.ORG](http://FRACFOCUS.ORG)

PENDING CD - 201900545

2/27/2019 - G75 - (I.O.) 31 & 30-14N-8W  
EST MULTIUNIT HORIZONTAL WELL  
X690883 WDFD, OTHER  
50% 31-14N-8W  
50% 30-14N-8W  
NO OP. NAMED  
REC 2-11-2019 (DUNN)

PENDING CD - 201900546

2/27/2019 - G75 - (I.O.) 31 & 30-14N-8W  
X690883 WDFD, OTHER  
COMPL. INT. (31-14N-8W) NCT 150' FSL, NCT 0' FNL, NCT 250' FEL  
COMPL. INT. (30-14N-8W) NCT 0' FSL, NCT 150' FNL, NCT 250' FEL  
NO OP. NAMED  
REC 2-11-2019 (DUNN)

SPACING - 690883

2/27/2019 - G75 - (640)(HOR) 31 & 30-14N-8W  
EXT OTHER  
EXT 587888 WDFD  
POE TO BHL NLT 165' FNL & FSL, NLT 330' FEL & FWL

**TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA**

13800 Wireless Way, Okla. City, OK. 73134 \* LOCAL (405) 843-4847 \* OUT OF STATE (800) 654-3219

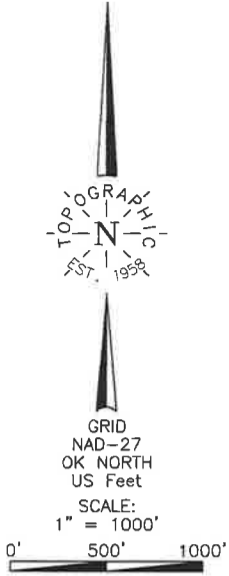
Certificate of Authorization No. 1293 LS

CANADIAN

County, Oklahoma

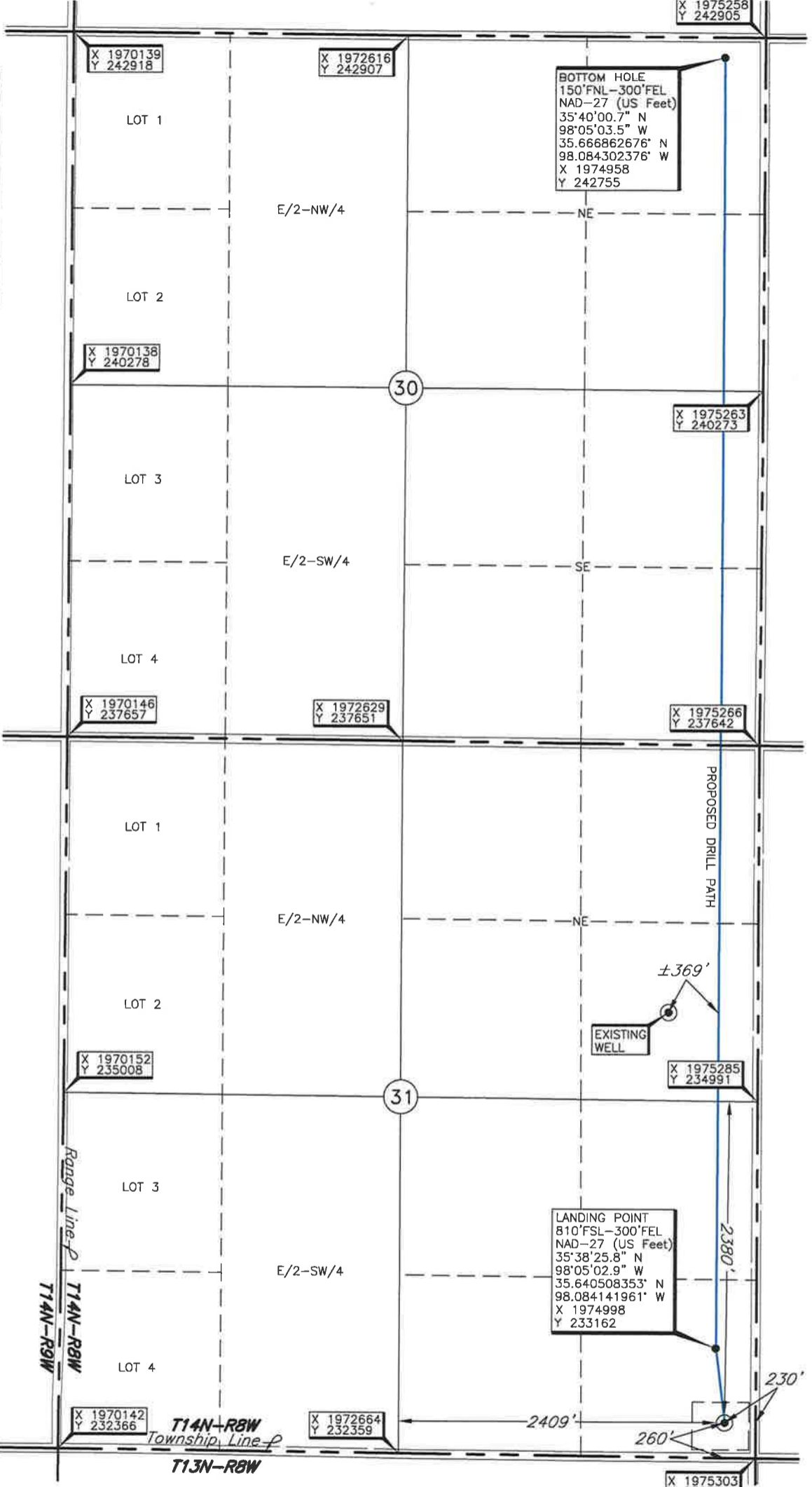
API 017-25405

260'FSL-230'FEL Section 31 Township 14N Range 8W I.M.



**THE INFORMATION SHOWN HEREIN IS FOR CONSTRUCTION PURPOSES ONLY.**

LANDING POINT, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED.



Operator: CIMAREX ENERGY CO.  
Lease Name: OKORONKWO

Well No.: 1H-3130X

**ELEVATION:**  
1417' Gr. at Stake (NGVD29)

Good Drill Site?  Yes  No

Reference Stakes or Alternate Location  
Stakes Set  None

Best Accessibility to Location  From South or East off county road.  
Distance & Direction from Hwy Jct or Town  From Calumet, OK, go North ±2.5 miles, then East ±2 miles to the Southeast corner of Section 31-T14N-R8W.

DATUM: NAD-27  
LAT: 35°38'20.4" N  
LONG: 98°05'02.0" W  
LAT: 35.638997549° N  
LONG: 98.083891841° W  
STATE PLANE COORDINATES: (US Feet)  
ZONE: OK NORTH  
X: 1975071  
Y: 232612

Date of Drawing: Jan. 28, 2019  
Project # 123212A Date Staked: Jan. 23, 2019 TR

**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

