

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

API NUMBER: 017 25036 A

Approval Date: 07/06/2017

Expiration Date: 01/06/2018

Horizontal Hole Oil & Gas

Amend reason: AMENDED TO ADD THE MISSISSIPPIAN  
FORMATION

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 16 Twp: 11N Rge: 6W

County: CANADIAN

SPOT LOCATION: ☐ SE ☐ SE ☐ SW ☐ SE

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 260 1520

Lease Name: LYDIA

Well No: 4-16H

Well will be 260 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

BERNICE KOLAR  
104 UTAH AVE  
YUKON OK 73099

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	9075	6	
2	WOODFORD	9253	7	
3			8	
4			9	
5			10	

Spacing Orders: 652809

Location Exception Orders: 665712

Increased Density Orders: 665639

665639

Pending CD Numbers:

Special Orders:

Total Depth: 14488

Ground Elevation: 1388

**Surface Casing: 1500**

Depth to base of Treatable Water-Bearing FM: 150

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: 10000 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

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

PERMIT NO: 17-32636

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 16 Twp 11N Rge 6W County CANADIAN

Spot Location of End Point: N2 N2 NE NE

Feet From: NORTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 660

Depth of Deviation: 8774

Radius of Turn: 822

Direction: 3

Total Length: 4422

Measured Total Depth: 14488

True Vertical Depth: 9253

End Point Location from Lease,  
Unit, or Property Line: 165

## Notes:

### Category

### Description

DEEP SURFACE CASING

7/5/2017 - 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

7/5/2017 - 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/](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 - 665639

6/22/2018 - G60 - 16-11N-6W  
X652809 MSSP  
3 WELLS  
CIMAREX ENERGY CO.  
6/6/2017

INCREASED DENSITY - 678093

6/8/2018 - G60 - (F.O.) 16-11N-6W  
X652809 WDFD  
2 WELLS  
CIMAREX ENERGY CO.  
5/22/18

LOCATION EXCEPTION - 665712

6/8/2018 - G60 - (I.O.) 16-11N-6W  
X652809 MSSP, WDFD  
COMPL. INT. NCT 150' FSL, NCT 150' FNL, NCT 330' FEL  
CIMAREX ENERGY CO.  
7/7/17

SPACING - 652809

7/6/2017 - G60 - (640)(HOR) 16-11N-6W  
VAC 151088 MISS, OTHER  
EXT 627163 MSSP, WDFD, OTHER  
COMPL. INT. (MSSP) NLT 660' FB  
COMPL. INT. (WDFD) NLT 165' FNL/FSL, NLT 330' FEL/FWL

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017 25036 LYDIA 4-16H