

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

API NUMBER: 073 26321

Approval Date: 10/17/2018

Expiration Date: 04/17/2020

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 20 Twp: 15N Rge: 9W

County: KINGFISHER

SPOT LOCATION: ☐ NW ☐ NE ☐ NW ☐ NE

FEET FROM QUARTER: FROM NORTH FROM EAST

SECTION LINES: 250 1940

Lease Name: BILLY

Well No: 5-20H

Well will be 250 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

MERLE BERNHARDT  
15051 EAST 202ND STREET  
BIXBY OK 74008

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

Name	Depth	Name	Depth
1 MISSISSIPPI SOLID	9500	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 139333

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201806987  
201806985  
201807955

Special Orders:

Total Depth: 15596

Ground Elevation: 1264

**Surface Casing: 1500**

Depth to base of Treatable Water-Bearing FM: 440

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

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: CHICKASHA

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-35466  
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 20 Twp 15N Rge 9W County KINGFISHER

Spot Location of End Point: SW SE SE SE

Feet From: SOUTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 650

Depth of Deviation: 9866

Radius of Turn: 477

Direction: 170

Total Length: 4981

Measured Total Depth: 15596

True Vertical Depth: 10023

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

## Notes:

### Category

### Description

DEEP SURFACE CASING

10/15/2018 - GA8 - 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

10/15/2018 - GA8 - 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)

INTERMEDIATE CASING

10/15/2018 - GA8 - DUE TO THE KNOWN POTENTIAL RISK OF ENCOUNTERING AN OVER-PRESSURED ZONE IN THE MORROW SERIES IN THIS AREA, THE TECHNICAL MANAGER RECOMMENDS SETTING AN INTERMEDIATE STRING OF CASING IMMEDIATELY ABOVE THE MORROW SERIES

PENDING CD - 201806985

10/16/2018 - G58 - 20-15-9W  
X139333 MSSSD  
4 WELLS  
NO OP. NAMED  
REC 9/17/2018 (THOMAS)

PENDING CD - 201806987

10/16/2018 - G58 - (I.O.) 20-15N-9W  
X139333 MSSSD  
COMPL. INT. NCT 150' FNL, NCT 150' FSL, NCT 330' FEL  
NO OP. NAMED  
REC 9/17/2018 (THOMAS)

PENDING CD - 201807955

10/17/2018 - G58 - (E.O.) 20-15N-9W  
XX165:10-3-28(C)(2)(B) MSSSD (BILLY 5-20H)  
MAY BE CLOSER THAN 600' TO PROPOSED WELL  
MAY BE CLOSER THAN 600' TO HERSCHEL 1-20 WELL  
MAY BE CLOSER THAN 600' TO PLANCK 1-20 WELL  
MAY BE CLOSER THAN 600' TO DISCOVERY 1-20 WELL  
REC 10/8/2018 (JACKSON)

SPACING - 139333

10/16/2018 - G58 - (640) 20-15N-9W  
EXT OTHERS  
EXT 125914/137756 MSSSD, OTHERS

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073 26321 BILLY 5-20H

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