API NUMBER: 017 25107 Α **OKLAHOMA CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION** P.O. BOX 52000 **OKLAHOMA CITY, OK 73152-2000** (Rule 165:10-3-1)

11/15/2017 Approval Date: Expiration Date: 05/15/2018

Horizontal Hole Oil & Gas

nend reason: OCC (CORRECTION: SURFACE HOLE	<u>AM</u>	END PERMIT TO DRILL			
WELL LOCATION		Rge: 8W County: CAN. NE FEET FROM QUARTER: FROM SECTION LINES:	ADIAN NORTH FROM EAST 270 1690			
Lease Name:	SHELLY	Well No:	8H-3106X	Well will be 270 feet for	rom nearest unit or lease boundary.	
Operator Name:	CIMAREX ENERGY CO		Telephone: 9185851100	OTC/OCC N	lumber: 21194 0	
CIMAREX ENERGY CO 202 S CHEYENNE AVE STE 1000				AARON & CARLA LOUISE KOERNER 504 COUNTY STREET 2790		
TULSA,	(OK 74103-3001	MINCO		OK 73059	
Formation(s) (Permit Valid for Liston	ed Formations Only): Depth	Name		Depth	
1	MISSISSIPPI LIME	12006	6			
2	MISSISSIPPIAN	12268	7			
3	WOODFORD	12583	8			
4			9			
5			10			
Spacing Orders:	663653 560154 138217	Location Exception	Location Exception Orders:		Increased Density Orders:	
Pending CD Num	bers: 201706447 201706446			Special Orders:		

201706449 201706440 201706441

Total Depth: 22628 Ground Elevation: 1374 Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 350

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?

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: DOG CREEK

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 17-33206 H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

HORIZONTAL HOLE 1

GRADY Sec 06 Twp 10N Rge 8W County Spot Location of End Point: SE SE SW SE SOUTH 1/4 Section Line: 150 Feet From: Feet From: EAST 1/4 Section Line: 1648

Depth of Deviation: 12050 Radius of Turn: 340 Direction: 179

Total Length: 9739

Measured Total Depth: 22628 True Vertical Depth: 12583 End Point Location from Lease. Unit, or Property Line: 150

Notes:

Description Category

DEEP SURFACE CASING 11/3/2017 - 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 11/3/2017 - 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; 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

PENDING CD - 201706440 11/8/2017 - G60 - (E.O.) 31-11N-8W & 6-10N-8W

EST MULTIUNIT HORIZONTAL WELL X663653 (31-11N-8W) MSSP, WDFD X138217 (6-10N-8W) MSSLM X560154 (6-10N-8W) WDFD

(MSSP AND MSSLM ARE ASSOCIATED COMMON SOURCES OF SUPPLY TO WDFD)

50% 31-11N-8W 50% 6-10N-8W

CIMAREX ENERGY, CO. REC. 10/31/17 (JOHNSON)

PENDING CD - 201706441 11/8/2017 - G60 - (E.O.) 31-11N-8W & 6-10N-8W

X663653 (31-11N-8W) MSSP, WDFD X138217 (6-10N-8W) MSSLM X560154 (6-10N-8W) WDFD

COMPL. INT. (31-11N-8W) NCT 150' FNL, NCT 0' FSL, NCT 900' FEL COMPL. INT. (6-10N-8W) NCT 0' FNL, NCT 150' FSL, NCT 900' FEL

CIMAREX ENERGY, CO. REC. 10/31/17 (JOHNSON)

PENDING CD - 201706446 11/8/2017 - G60 - 6-11N-8W

X663653 WDFD 8 WELLS NO OP. NAMED

REC. 10/31/17 (JOHNSON)

PENDING CD - 201706447 11/8/2017 - G60 - 31-11N-8W

X663653 WDFD 8 WELLS NO OP. NAMED

REC. 10/31/17 (JOHNSON)

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.

017 25107 SHELLY 8H-3106X

Category Description

PENDING CD - 201706449 11/8/2017 - G60 - (E.O.) 31-11N-8W & 6-10N-8W

X165:10-3-28(C)(2)(B) WDFD

MAY BE CLOSER THAN 600' TO ANY OF THE SHELLY 1H-3106X, SHELLY 2H-3106X, SHELLY 3H-3106X, SHELLY 5H-3106X, SHELLY 5H-3106X, SHELLY 6H-3106X, SHELLY 6H-3106X, SHELLY 8H

-3106X, SHELLY 9H-3106X WELLS

NO OP. NAMED

REC. 10/2/17 (JOHNSON)

SPACING - 138217 11/8/2017 - G60 - (640) 6-10N-8W

EXT OTHERS

EXT 98732 MSSLM, OTHERS

SPACING - 560154 11/8/2017 - G60 - (640) 6-10N-8W

EXT 144223 WDFD, OTHER EXT OTHER EST OTHER

SPACING - 663653 11/8/2017 - G60 - (640)(HOR) 31-11N-8W

VAC 138217 MSSLM, CSTR

VAC 144223 WDFD EST MSSP, WDFD

POE TO BHL (MSSP) NCT 660' FB

POE TO BHL (WDFD) NCT 165' FNL/FSL, NCT 330' FEL/FWL