API NUMBER: 051 24113

Oil & Gas

Horizontal Hole

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

03/10/2017 Approval Date: Expiration Date: 09/10/2017

				PERMIT TO DI	RILL				
WELL LOCATION			County: GRA	SOUTH FROM	EAST 660				
Lease Name:			Well No:	1-20H		Well will be 260	feet from nearest unit or le	ease boundary	
Operator CIMAREX ENERGY CO Name:			Telephone: 9185851100			OTC/	OTC/OCC Number: 21194 0		
-	EX ENERGY CO HEYENNE AVE STE 1		3-3001		JOHN PAX 544 COUNT TUTTLE	TON TY STREET 288	OK 73089		
Formation(s	, ,	isted Formation							
	Name		Depth		Name		Depth		
1	WOODFORD		10350	6					
2				7					
3				8					
4 5				9					
3					•				
Spacing Orders: 282923 Location E			Location Exception	Exception Orders: 661752			Increased Density Orders:		
Pending CD Numbers: 201700793					Special Orders:				
Total Depth:	20409 Ground E	levation: 1296	Surface	Casing: 1500		Depth to base	of Treatable Water-Bearing Fl	M: 70	

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

Approved Method for disposal of Drilling Fluids: PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 17-32132 H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST Chlorides Max: 5000 Average: 3000

Is depth to top of ground water greater than 10ft below base of pit? Y

Wellhead Protection Area?

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

Within 1 mile of municipal water well? N

HORIZONTAL HOLE 1

Sec 20 Twp 10N Rge 6W County GRADY

Spot Location of End Point: NW NE NE NE Feet From: NORTH 1/4 Section Line: 165
Feet From: EAST 1/4 Section Line: 440

Depth of Deviation: 9961 Radius of Turn: 478

Direction: 2

Total Length: 9697

Measured Total Depth: 20409

True Vertical Depth: 10439

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

Notes:

Category Description

DEEP SURFACE CASING 3/9/2017 - 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 3/9/2017 - 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/ 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

LOCATION EXCEPTION - 661752 3/10/2017 - G64 - (I.O.) 20-10N-6W

X282923 WDFD, OTHERS

COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 330' FEL

CIMAREX ENERGY CO.

3-8-2017

PENDING CD - 201700793 3/10/2017 - G64 - 20-10N-6W

X282923 WDFD 1 WELL

NO OP. NAMED

REC. 3-3-2017 (MCKEOWN)

SPACING - 282923 3/10/2017 - G64 - (640) 20-10N-6W

EXT OTHERS

EXT 242927/275514 WDFD

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 **GRADY** _____ County, Oklahoma Township <u>10N</u> Range _ API:051 24113 6<u>W</u>1.M. 260'FSL-660'FEL Section X= 2045501 Y= 728226 ૃં 165 information shown herein is construction purposes ONLY. 2196 BOTTOM HOLE 165'FNL-440'FEL NAD-27 (US Feet) 35'20'01.7"N 97'50'56.2"W 35.333807049'N HOLE 440 97.848935121°W X= 2045061 Y= 728058 9 PATH EXISTING WELL DRILL The 2470 PROPOSED X= 2045504 Y= 725591 0GR40/ 2385 1950 EXISTING LANDING POINT 810'FSL-440'FEL NAD-27 (US Feet) 35'19'19.1"N **GRID** NAD-27 OK SOUTH 97°50′56.2″W 35.321980042*N 660 US Feet 97.848937284°W X = 20450671976 500 1000' Y= 723753 260 BOTTOM HOLE, LANDING POINT, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. **ELEVATION:** Operator: CIMAREX ENERGY CO. Well No.: 1-20H Lease Name: PAXTON 1296' Gr. at Stake NGVD29 Topography & Vegetation <u>Loc. fell in sloping corn field</u> Reference Stakes or Alternate Location Stakes Set __None Good Drill Site? __ From South off county road. Best Accessibility to Location ____ Distance & Direction from Hwy Jct or Town From the Junction of St. Hwy. 92 South and St. Hwy. 37 at Tuttle, OK, go West ±1.8 mile on St. Hwy. 37, then go North ±2 miles on St. Hwy. 37 and county road to the SE Cor. of Sec. 20-T10N-R6W. DOFESSIONAL PROPERTY OF THE PR Date of Drawing: Jan. 30, 2017 Revision X A Invoice # 269428 Date Staked: Jan. 24, NAD−27 NAD−27 LAT: <u>35°1</u>9′13.7"N LONG: 97'50'58.8"W **CERTIFICATE:** SURVE LAT: _ 35.320466646*N THOMAS L. Thomas L. Howell __an Oklahoma Licensed Land HOWELL LONG: 97.849675001°W Surveyor and an authorized agent of Topographic Land STATE PLANE Surveyors of Oklahoma, do hereby certify to the 1433 COORDINATES: (US Feet) information shown herein TLAHOMA DO ZONE: OK SOUTH 2044848 723202 Oklahoma Lic. No. _