API NUMBER: 011 24031

Oil & Gas

Horizontal Hole

Category of Pit: C

Pit Location Formation:

Liner not required for Category: CPit Location is AP/TE DEPOSIT

TERRACE

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

Approval Date: 06/20/2018
Expiration Date: 12/20/2018

255 feet from nearest unit or lease boundary.

21194 0

								<u>PERMI</u>	DRILL		
WELL LOCATION: Sec: 11 Twp: 15N Rge: SPOT LOCATION: SE SW SE SW Lease Name: LEHMAN BIA Operator CIMAREX ENERGY CO Name:				sw	FEET FROM QU SECTION LINES	FROM		SOUTH FROM 255 4-11H		WEST 1790 9185851100	
		(ENERGY EYENNE A		1000	7/102-30	001				BUI P O CO	

BUREAU OF INDIAN AFFAIRS
P O BOX 68
CONCHO AGENCY
EL RENO OK 73036

OTC/OCC Number:

Well will be

Formation(s) (Permit Valid for Listed Formations Only): Name Depth Name Depth MISSISSIPPIAN 1 9860 6 2 7 3 8 4 9 10 652593 Spacing Orders: Location Exception Orders: Increased Density Orders: Pending CD Numbers: 201803405 Special Orders: 201803402 Total Depth: 15921 Ground Elevation: 1501 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 70 Under Federal Jurisdiction: 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: 18-33760 H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST Chlorides Max: 10000 Average: 5000 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? is located in a Hydrologically Sensitive Area.

HORIZONTAL HOLE 1

BLAINE Sec 11 Twp 15N Rge 11W County Spot Location of End Point: N2 N2 NI2 NΙ\Λ Feet From: NORTH 1/4 Section Line: 150 Feet From: WEST 1/4 Section Line: 1320

Depth of Deviation: 10569
Radius of Turn: 590
Direction: 355
Total Length: 4426

Measured Total Depth: 15921

True Vertical Depth: 11116

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

Notes:

Category Description

DEEP SURFACE CASING 6/7/2018 - 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 6/7/2018 - 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

INTERMEDIATE CASING 6/7/2018 - G71 - 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 - 201803402 6/18/2018 - G58 - (I.O.) 11-15N-11W

X652593 MSSP

COMPL. INT. NCT 150' FSL, NCT 150' FNL, NCT 1240' FWL

NO OP. NAMED REC 5/21/2018 (DUNN)

PENDING CD - 201803405 6/18/2018 - G58 - 11-15N-11W

X652593 MSSP 4 WELLS NO OP. NAMED REC 5/21/2018 (DUNN)

SPACING - 652593 6/18/2018 - G58 - (640)(HOR) 11-15N-11W

EST OTHERS

EXT 649479 MSSP, WDFD COMPL. INT. (MSSP) NLT 660' FB

COMPL. INT. (WDFD) NLT 165' FNL & FSL, NCT 330' FEL & FWL

(COEXIST WITH SP. ORDER 222673 CSTR; OTHER)

13800 WIRELESS WAY, OKLA. CITY, OKLA. 73134 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1293 LS 011-24031 BLAINE County, Oklahoma 255'FSL-1790'FWL 11 15N Range 11W I.M. Section Township X= 1901965 Y= 290463 150' The 1320'-1334 construction purposes information ±485 EXISTING WELLS EXISTING WELLS BOTTOM HOLE ABANDONED WELL LAST PERF LAST PERF 150'FNL-1320'FWL NAD-27 (US Feet) 35'47'49.6"N 98'20'38.4"W 35.797103333°N 98.344007337*W X= 1897980 erein is Y= 290333 2489 ģ X= 1901945 Y= 287826 ROPOSED DRILL OGR46 6-N-2 PATH 557 1950 2381' FIRST PERF 700'FSL-1320'FWL NAD-27 (US Feet) 35'47'05.8"N 98'20'38.4"W 35.784944597°N 98.344006308°W GRID 1897965 NAD-27 OK NORTH Y= 285907 US Feet 500 1000 X= 1899284 Y= 285201 FIRST PERF, LAST PERF, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. Operator: CIMAREX ENERGY CO. **ELEVATION:** Lease Name: <u>LEHMAN</u> BIA Well No .: _ 4-11H 1501' Gr. at Stake NGVD29 Topography & Vegetation Loc. fell in heavy trees and brush Reference Stakes or Alternate Location Stakes Set None Good Drill Site? ___ From South off county road. Best Accessibility to Location ____ Distance & Direction From the junction of St. Hwy. 33 and US Hwy, 270 in Watonga, OK, from Hwy Jct or Town _ go East on St. Hwy, 33 ±4 miles, then South ±4 miles to the SW Cor. of Sec. 11-T15N-R11W. Date of Drawing: Jan. 9, 2018 DATUM: NAD-27 Invoice # 286416 Date Staked: Dec. 29, 2017 LAT: 35°47'01.4"N LONG: 98'20'32.7"W **CERTIFICATE:** s information w d with a GPS foot Horiz./Vert. t CENSED SURVE LAT: 35.783722151°N THOMAS L Thomas L. Howell _an Oklahoma Licensed Land HOWELL LONG: 98.342422169°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 ZONE: OK NORTH *LAHOMA 1898433

285461

Oklahoma Lic. No.

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA