API NUMBER: 093 25230

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)

Approval Date: 06/10/2019 12/10/2020 **Expiration Date**

PERMIT TO DRILL

WELL LOCATION: Sec: Twp: 20N Rge: 15W County: MAJOR

FEET FROM QUARTER: FROM SPOT LOCATION: NW FROM NORTH EAST N2 llnw SECTION LINES: 220 660

Lease Name: STEWART Well No: 29-1H Well will be 220 feet from nearest unit or lease boundary.

COMANCHE EXPLORATION CO LLC Operator OTC/OCC Number: Telephone: 4057555900 20631 0 Name:

COMANCHE EXPLORATION CO LLC 6520 N WESTERN AVE STE 300

OKLAHOMA CITY. OK 73116-7334 MICHELLE STEWART, TTEE

P.O. BOX 349

FAIRVIEW OK 73737

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

Name Depth Name Depth MISSISSIPPIAN 1 8500 6 2 7 3 8 4 9 10 610999 Spacing Orders: Location Exception Orders: Increased Density Orders:

Pending CD Numbers: 201902603 Special Orders:

201902602

Total Depth: 13981 Ground Elevation: 1728 Surface Casing: 800 Depth to base of Treatable Water-Bearing FM: 440

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

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)

H. SEE MEMO Chlorides Max: 8000 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.

Category of Pit: C

Liner not required for Category: C Pit Location is AP/TE DEPOSIT Pit Location Formation: TERRACE PERMIT NO: 19-36624

PIT 2 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: OIL BASED
Chlorides Max: 300000 Average: 200000

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

HORIZONTAL HOLE 1

Sec. 29 Twp 20N Rge 15W County **MAJOR** Spot Location of End Point: S2 S2 SW SW Feet From: SOUTH 1/4 Section Line: 135 EAST Feet From: 1/4 Section Line: 660

Depth of Deviation: 8800
Radius of Turn: 356
Direction: 180
Total Length: 4622

Measured Total Depth: 13981

True Vertical Depth: 9378

End Point Location from Lease,
Unit, or Property Line: 135

Notes:

Category Description

DEEP SURFACE CASING 5/14/2019 - 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 5/14/2019 - 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 5/14/2019 - 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

MEMO 5/14/2019 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 -

OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

Category Description

PENDING CD - 201902603

PENDING CD - 201902602 5/28/2019 - G58 - (I.O.) 29-20N-15W

X610999 MSSP, OTHÉRS

X165:10-3-28(C)(2)(B) MAY BE CLOSER THAN 600' TO THE STEWART 29-20-1H WELL

COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 560' FWL

NO OP. NAMED

REC 5/28/2019 (P. PORTER) 5/28/2019 - G58 - 29-20N-15W

X610999 MSSP 2 WELLS

NO OP. NAMED REC 5/28/2019 (P. PORTER)

SPACING - 610999 5/22/2019 - G58 - (640) 29-20N-15W

EST MSSP, OTHERS POE TO BHL NCT 660' FB

(SUPERSEDE NON-PRODUCING, NON-HORIZONTAL SPACING UNITS; COEXIST WITH

PRODUCING, NON-HORIZONTAL SPACING UNITS)

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

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

Certificate of Authorization No. 1293 LS MAJOR County, Oklahoma 220'FNL - 660'FWL 20N Range 15W I.M. _ Section Township X 1757281 Y 433275 1759905 433212 X 1754657 Y 433338 1964 660 LANDING POINT 500'FNL-560'FWL NAD-27 (US Feet) 36'11'10.2" N 98'49'45.0" W 36.186172671' N 98.829160301° W 2402 X = 1755313Y=432823 29 PROPOSED 1754636 1759895 X 1734636 Y 430704 Y 430677 DRILL 11 PATH 11 BOTTOM HOLE 135'FSL-660'FWL NAD-27 (US Feet) 36'10'24.5" N 98'49'45.0" W 36.173475649' N 2500 11 GRID 98.829155764° W 11 NAD-27 OK NORTH X = 1755275Y=428201 US FEET 1000' BOTTOM HOLE 1754614 X 175986 Y 428042 X 1757249 Y 428056 1759883 NOTE: BOTTOM HOLE, LANDING POINT, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. The information shown herein is for construction purposes ONLY. Operator: COMANCHE EXPLORATION CO., LLC **ELEVATION:** Well No.: 29-1H Lease Name: STEWART Gr. at Stake Topography & Vegetation Loc. fell in sandy pasture with rough thick brush and trees Reference Stakes or Alternate Location None Good Drill Site? _____ Stakes Set _ Best Accessibility to Location ____ From North off county road Distance & Direction From Jct. US Hwy. 281 N-S and US Hwy. 60 E-W, East of Chester, from Hwy Jct or Town C PROFESSIONAL go ±2.0 mi. South on US Hwy. 60, then ±5.0 mi. East to the NW Cor. of Sec. 29-T20N-R15W Date of Drawing: Aug. 01, 2018 Invoice # 299975 Date Staked: Jul. 31, 2018 AC NAD-27 DATUM: LAT: 36°11'13.0"N LONG: 98°49'45.0"W **CERTIFICATE:** ENSED LAT: 36.186941757° N I, <u>Thomas L. Howell</u> an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land THOMAS L. HOWELL LONG: 98.829160896° W Surveyors of Oklahoma, do hereby certify to the 1433 COORDINATES: (US Feet) information shown herein OKLAHOMA MANAGEMENT

Oklahoma Lic. No. _