API NUMBER: 087 22188

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: 10/24/2018 04/24/2020 **Expiration Date**

PERMIT TO DRILL

WELL LOCATION: Sec: 02 Twp: 7N Rge: 4W County: MCCLAIN

FEET FROM QUARTER: SPOT LOCATION: SW sw lsw SOUTH FROM WEST II SE

SECTION LINES: 215 1580

Lease Name: JOKER Well No: 2-11H Well will be 215 feet from nearest unit or lease boundary.

ECHO E & P LLC Operator OTC/OCC Number: Telephone: 4057534232 23925 0 Name:

ECHO E & P LLC

3817 NW EXPRESSWAY STE 810

OKLAHOMA CITY. OK 73112-1470 **CHARLES NEWTON GRAY** 328 WEST ADAMS STREET

PURCELL OK 73080

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

Name Depth Name Depth WOODFORD 1 9800 6 2 7 3 8 4 9 10 678750 Spacing Orders: Location Exception Orders: Increased Density Orders: 679298

Pending CD Numbers: Special Orders:

Total Depth: 15103 Ground Elevation: 1197 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 340

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

Approved Method for disposal of Drilling Fluids: PIT 1 INFORMATION

Type of Pit System: ON SITE

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?

Wellhead Protection Area?

located in a Hydrologically Sensitive Area.

Category of Pit: 2

Liner not required for Category: 2 Pit Location is BED AQUIFER Pit Location Formation: DUNCAN D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-35504

H. SEE MEMO

PIT 2 INFORMATION

Type of Pit System: ON SITE

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: 3

Liner required for Category: 3
Pit Location is BED AQUIFER
Pit Location Formation: DUNCAN

HORIZONTAL HOLE 1

Sec 11 Twp 7N Rge 4W County MCCLAIN

Spot Location of End Point: SE SE SW SW
Feet From: SOUTH 1/4 Section Line: 165
Feet From: WEST 1/4 Section Line: 1254

Depth of Deviation: 9237 Radius of Turn: 573 Direction: 181

Total Length: 4966

Measured Total Depth: 15103

True Vertical Depth: 9810

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

Notes:

Category Description

COMPLETION INTERVAL 10/24/2018 - G56 - WILL BE NO CLOSER THAN 165' FNL, NO CLOSER THAN 165' FSL, NO

CLOSER THAN 330' FWL FOR THE WOODFORD FORMATION PER OPERATOR

DEEP SURFACE CASING 10/19/2018 - 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 10/18/2018 - 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:

THE COMMENT OF THE CO

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

INCREASED DENSITY - 679298 10/19/2018 - G56 - 11-7N-4W

X678750 WDFD 6 WELLS ECHO E&P, LLC 6/15/2018 Category Description

MEMO 10/18/2018 - GA8 - MIN. 20-MIL PIT LINER REQUIRED, OBM RETURNED TO VENDOR, CUTTINGS

PERMITTED PER DISTRICT

SPACING - 678750 10/19/2018 - G56 - (640)(HOR) 11-7N-4W

VAC. 148062 MSRH EST. OTHER

EXT. 664084 WDFD, OTHER

POE TO BHL NLT 165' FNL/FSL, NLT 330' FEL/FWL

(COEXIST WITH NON HOR. SP. 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 McCLAIN County, Oklahoma 215'FSL-1580'FWL Section 2 Township __7N__ Range _4W_I.M. Township Line P INFORMATION PROVIDED BY X 2122367 Y 649303 X 2125008 Y 649315 X 2119726 Y **54929**1 LOT 4 LOT 3 LOT 2 LOT 1 HOLE AND DRILL PATH GRID
NAD-27
OK SOUTH
US FEET
Scale:
1 = 1000' S/2-NE/4 S/2-NW/4 1000' Good Drill Site?

Best Accessibility to t
Distance & Direction
from Hwy Jct or Town X 2119734 Y 646640 Lease Operator: Š /=\=== //\ 2426 Vegetation ₫ Town Location Yes From IILocation H11 From Ħe <u>---1066</u> >215 ◈ junction fe≝ 580 South ≥. X 2122388 Y 644008 X 2125035 Y 644019 scattered PROPOSED LANDING POINT 165'FNL-1254'FWI 35'06'06.6" N 97'35'43.8" W Reference Stakes Set ş ş Section Hwy Hwy 74B 97.35 43.8 W 35.101845200 N 97.595502564 W X: 2120996 Y: 643838 brush Set Stakes c 748 T7N-R4W ۶÷ ٩ Š Alternate Location H₩y 76 West Ήî 잌 X 2125044 Y 641379 X 2119751 Y 641348 ELEVATION: 197' Gr. at Oklahoma, Stake 8 ROPOSED PROPOSED BOTTOM HOLE 165°FSL-1254°FWL 35°05'17.5" N 97'35'43.8" W 35.088201551' N 97.595510599' W X: 2121014 Y: 638872 miles East X 2122404 Y 638717 X 2125048 Y 638736 X 2119760 Y **838698** THE INFORMATION SHOWN HEREIN IS FOR CONSTRUCTION PURPOSES CONST Date of Drawing: Sept. 24, 2018 SSIONAL Invoice # 301203A Date Staked: __ Aug. 28, 2018 DATUM: NAD-27 NB LAT: 35'06'10.4" N LONG: 97'35'39.9" W LAT: 35.102889248' N **CERTIFICATE:** is information we with a GPS to foot Horiz./Vert. THOMAS L Thomas L Howell _an Oklahoma Licensed Land LONG: 97.594412228' W HOWELL Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein. STATE PLANE COORDINATES (US FEET): 1433 ZONE: OK SOUTH Thoma I. Havey X: 2121321 OKLAHOM LAHOM 644219 Oklahoma Lic. No. 1433