API NUMBER: 119 24279

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: 09/26/2014 Expiration Date: 03/26/2015

PERMIT TO DRILL

WELL LOCATION: Sec: 20 Twp: 18N Rge: 1E County: PAYNE

SPOT LOCATION: SW SE SE FEET FROM QUARTER: FROM SOUTH FROM EAST SECTION LINES: 171 1232

Lease Name: J WILLIAMS 20-18N-1E Well No: 1MH Well will be 171 feet from nearest unit or lease boundary.

Operator AMERICAN ENERGY-WOODFORD LLC Telephone: 4056085574; 4054188 OTC/OCC Number: 23358 0

AMERICAN ENERGY-WOODFORD LLC

PO BOX 18756

OKLAHOMA CITY, OK 73154-0756

JAMES O. WILLIAMS & RUTH A. WILLIAMS 9605 SOUTH MERIDIAN

COYLE OK 73027

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

Name Depth Name Depth MISSISSIPPIAN 1 4880 6 2 7 8 3 4 9 5 10 591538 Spacing Orders: Location Exception Orders: Increased Density Orders:

Pending CD Numbers: 201406483 Special Orders:

201406482

Total Depth: 10500 Ground Elevation: 1100 Surface Casing: 640 Depth to base of Treatable Water-Bearing FM: 390

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

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 D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 14-28231
Chlorides Max: 5000 Average: 3000 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? N

Pit **is** located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C
Pit Location is BED AQUIFER

Pit Location Formation: WELLINGTON

HORIZONTAL HOLE 1

Sec 20 County **PAYNE** Twp 18N Rge 1E Spot Location of End Point: NE ΝE NE NW Feet From: NORTH 1/4 Section Line: 165 Feet From: WEST 1/4 Section Line: 2320

Depth of Deviation: 4137 Radius of Turn: 1388

Direction: 360
Total Length: 4050

Measured Total Depth: 10500

True Vertical Depth: 4968

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

Notes:

Category Description

PENDING CD - 201406482 9/26/2014 - G72 - 20-18N-01E

X 591538 MSSP

1 WELL

NO OPER NAMED REC 9/23/2014 (STUCK)

PENDING CD - 201406483 9/26/2014 - G72 - 20-18N-01E (I.O.)

X 591538 MSSP;

COMP INT. NCT 165 FNL NCT 165 FSL NCT 1200 FEL/FWL;

NO OPER NAMED; REC 9/23/2014 (STUCK)

SPACING - 591538 9/26/2014 - G72 - (640 HOR) 20-18N-1E

DEL 209633 MSSP (NW4)

DEL 250180/252437 MSSP (W2 NE4) DEL 346492/346726 MSSP (E2 NE4)

DEL 394202 MSSP (SW4 & NE4 SE4 & S2 SE4)

EST MSSP

POE TO BHL: NCT 660' FB

(SUPERCEDE EXISTING NON-DEVELOPED NON-HORIZONTAL SPACING UNITS) (COEXIST

WITH PRODUCING NON-HORIZONTAL SPACING UNITS: SP. #394202 NW4 SE4)

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. 119-24279 PAYNE County, Okłahoma

18N Range 171'FSL-1232'FEL Section _ 20 Township __ Range __1E__I.M. 2643' 1 NAD-27 NAD-27 NAD-27 X 2233212 X 2230569 Y 375454 2227918 BOTTOM HOLE 165'FNL-2320'FW \parallel 375468 Y 375443 NAD-83 NAD-83 NAD-83 NAD-27 36 01 42.4 N 97 13 16.9 W 1 X 2198969 Y 375480 X 2201613 Y 375494 X 2196319 Y 375469 36.028451 N 97.221350 W 97.221350° W X 2230243 Y 375288 NAD-83 36'01'42.6" N 97'13'18.0" W 36.028500' N PROPOSED E り 97.221665 X 2198644 Y 375314 NAD-27 NAD-27 X 2233219 Y 372828 X 2227981 Y 372700 DRILL / 5097 STANCE 372790 39 NAD-83 NAD-83 X 2201620 Y 372854 X 2196382 Y 372816 PATH (20 = 4== LANDING POINT SURFACE HOLE GRID 300'FSL-1285'FEL NAD-83 NAD-27 OK NORTH NAD-27 36'00'54.8" N 97'12'56.7" W 36°00′53.7″ N 97°12′57.2″ W 36.014904° N 2466 US FEET 36.015210 N 97.215744 W X 2231940 Scale: 97.215881' W = 1000'X 220039 Y 370379 2200394 370481 NAD-83 36'00'54.9" N 97'12'57.8" W 36.015259 N 97.216058 W NAD-27 X 2233225 Y 370193 NAD-27 NAD-27 2200340 X 2230589 Y 370169 X 2228032 370508 WILLIAMS 370193 370153 20-2MH NAD-83 NAD-83 NAD-83 X 2198990 Y 370196 X 2201626 Y 370219 X 2196433 Y 370179 F-1404 2636 2557' LANDING POINT, BOTTOM HOLE AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. THE INFORMATION SHOWN HEREIN IS FOR CONSTRUCTION PURPOSES ONLY **ELEVATION:** Operator: AMERICAN ENERGY - WOODFORD, LLC Lease Name: J. WILLIAMS 20-18N-1E 1100' Gr. on existing pad Well No.: ___1MH Topography & Vegetation Loc. fell on existing pad, ± 71' SW of existing Williams 20-2MH Reference Stakes or Alternate Location None Good Drill Site? _ Stakes Set From South off county road Best Accessibility to Location ____ Distance & Direction From the junction of 1-35 & St. Hwy 51, go \pm 7.5 miles East on St. Hwy 51, then from Hwy Jct or Town go ± 6 miles South to the Southeast Corner of Section 20, T18N-R1E. Date of Drawing: Sept. 5, 2014 DATUM: NAD-27 **NMB** Invoice # 229601 Date Staked: Aug. 28, 2014 LAT: 36'00'53.5"N LONG: 97'12'56.0"W **CERTIFICATE:** is information with a GPS refoot Horiz./Vert. a 36.014854° N LAT: _ I,_____a Licensed Land Surveyor, and an authorized agent of Topographic Land Surveyors, do hereby certify to the information flow herein. LONG: 97.215567 W STATE PLANE COORDINATES (US FEET): This ered ±1 fo ZONE: OK NORTH X: 2231993 Y: 370353 Oklahoma Reg. No.