

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

API NUMBER: 119 24300 A

Approval Date: 10/30/2014
Expiration Date: 04/30/2015

Horizontal Hole Oil & Gas

Amend reason: SURFACE OWNER CHANGE

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 33 Twp: 19N Rge: 3E County: PAYNE
SPOT LOCATION: NE NW NE NE FEET FROM QUARTER: FROM NORTH FROM EAST
SECTION LINES: 275 795

Lease Name: FRIEDEMANN WEST 28-21-19N-3E Well No: 2WH Well will be 275 feet from nearest unit or lease boundary.

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

AMERICAN ENERGY-WOODFORD LLC
PO BOX 18756
OKLAHOMA CITY, OK 73154-0756

ADOLPH & FLORENCE FRIEDEMANN, CO-TRUSTEES
ROUTE 4, BOX 9
ADOLPH T. & FLORENCE FRIEDEMANN TRUST
STILLWATER OK 74074

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

Name	Depth	Name	Depth
1 WOODFORD	4170	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 616533
619448

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201407216
201407217
201407218

Special Orders:

Total Depth: 16000 Ground Elevation: 869 **Surface Casing: 590** 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

PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

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? 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: OSCAR

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 14-28312
H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

This permit does not address the right of entry or settlement of surface damages.
The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.
Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

HORIZONTAL HOLE 1

Sec 21 Twp 19N Rge 3E County PAYNE

Spot Location of End Point: NW NE NW NE

Feet From: NORTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 1950

Depth of Deviation: 3670

Radius of Turn: 1338

Direction: 357

Total Length: 10228

Measured Total Depth: 16000

True Vertical Depth: 4170

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

Notes:

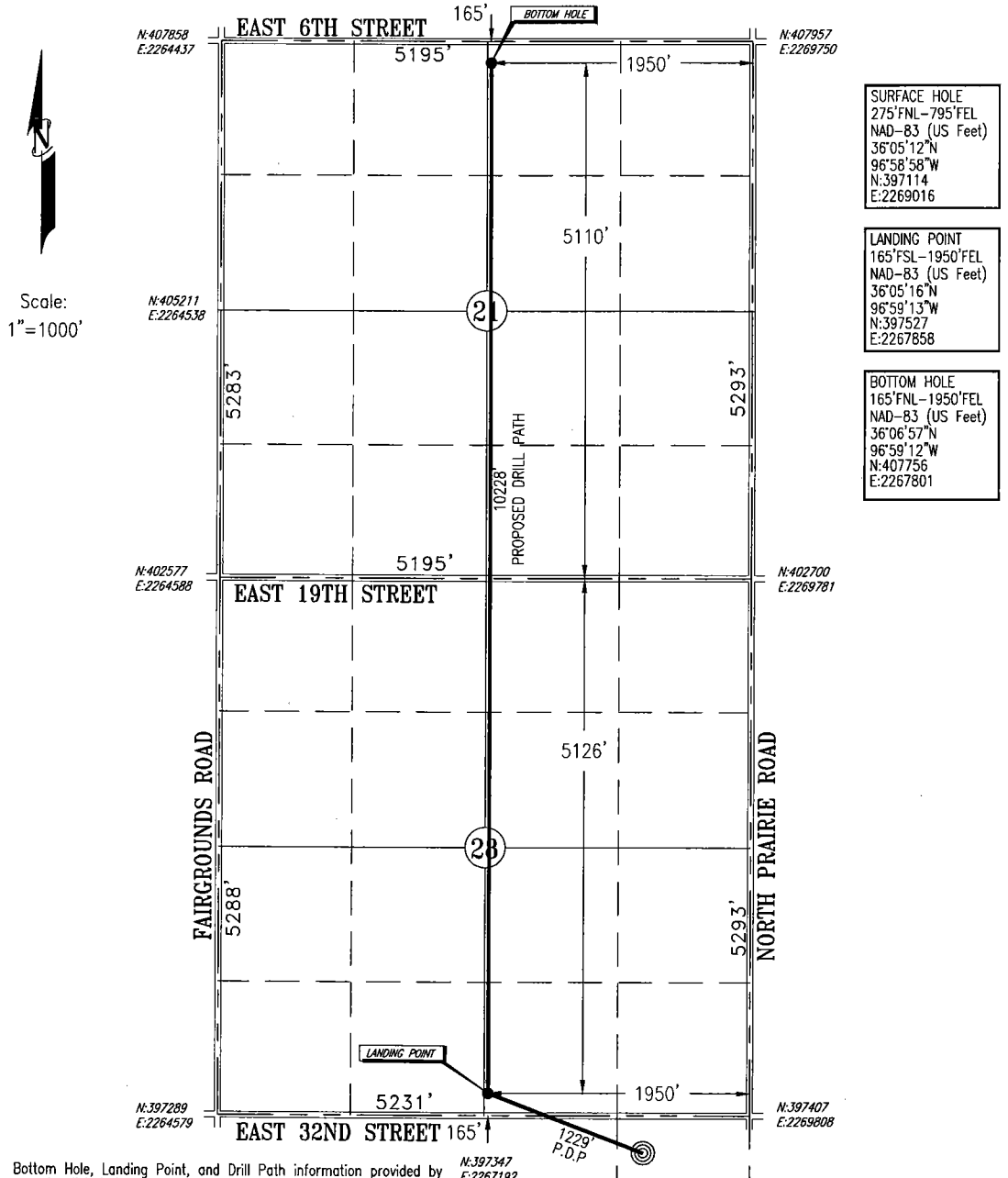
Category	Description
PENDING CD - 201407216	10/29/2014 - G91 - (I.O.)(640) 21 & 28-19N-3E EST MULTIUNIT HORIZONTAL WELL X 616533 WDFD, OTHERS 28-19N-3E X 619448 WDFD, OTHERS 21-19N-3E (MSSP, MSRH ASSOCIATED COMMON SOURCES OF SUPPLY TO WDFD) 50% 21-19N-3E 50% 28-19N-3E AMERICAN ENERGY - WOODFORD, LLC. REC. 10-21-2014 (N. STUCK)
PENDING CD - 201407217	10/29/2014 - G91 - 21 & 28-19N-3E X 616533 WDFD 28-19N-3E X 619448 WDFD 21-19N-3E 1 WELL AMERICAN ENERGY-WOODFORD, LLC. REC. 10-21-2014 (N. STUCK)
PENDING CD - 201407218	10/29/2014 - G91 - (I.O.) 21 & 28-19N-3E X 616533 WDFD 28-19N-3E X 619448 WDFD 21-19N-3E COMPL. INT. (28-19N-3E) NCT 165 FSL, NCT 0 FNL, NCT 1800 FEL COMPL. INT. (21-19N-3E) NCT 0 FSL, NCT 165 FNL, NCT 1800 FEL AMERICAN ENERGY - WODDFORD, LLC. REC. 10-21-2014 (N. STUCK)
SPACING - 616533	10/29/2014 - G91 - (640)(HOR) 28-19N-3E VAC 271050 WDFD, OTHERS VAC 362551/369480 WDFD, OTHERS (N2 SE4 SE4, SW4 SE4 SE4) VAC 362551 WDFD, OTHERS (N2 SE4, SW4 SE4, SE4 SE4 SE4, SW4) EXT 603961 WDFD, OTHERS POE TO BHL NCT 330' FB
SPACING - 619448	10/29/2014 - G91 - (640)(HOR) 21-19N-3E VAC 268329 WDFD, OTHERS EXT 612294 WDFD, OTHERS POE TO BHL NCT 330' FB

This permit does not address the right of entry or settlement of surface damages.
The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.
Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District
Office of the Conservation Division as to when Surface Casing will be run.

119-24500

PROPOSED WELL LOCATION

PAYNE County, Oklahoma
 275' FNL, 545' FEL NE/4 Section 33, Township 19N, Range 3E I.M.



SURFACE HOLE
 275'FNL-795'FEL
 NAD-83 (US Feet)
 36°05'12"N
 96°58'58"W
 N:397114
 E:2269016

LANDING POINT
 165'FSL-1950'FEL
 NAD-83 (US Feet)
 36°05'16"N
 96°59'13"W
 N:397527
 E:2267858

BOTTOM HOLE
 165'FNL-1950'FEL
 NAD-83 (US Feet)
 36°06'57"N
 96°59'12"W
 N:407756
 E:2267801

Bottom Hole, Landing Point, and Drill Path information provided by operator listed, NOT Surveyed; distance between drill paths are calculated.

Operator: AMERICAN ENERGY-WOODFORD, LLC
 Lease Name: FRIEDEMANN WEST 28-21-19N-3E Well No.: 2WH
 Topography & Vegetation: LOCATION FELL IN PASTURE LAND
 Good Drill Site: YES
 Best Accessibility to Location: FROM NORTH
 Distance and Direction from Hwy Junction or Town: FROM THE INTERSECTION OF 32ND STEET AND NORTH PRAIRIE ROAD WEST
0.10 MILES TO WELL PAD

ELEVATION:
 869' GR. AT STAKE

Keystone Engineering and Land Surveying, Inc. CA #5877 Exp. 6/30/15 P.O. Box 436 Stillwater, OK. 74076 Ph. (405) 743-3355



CERTIFICATE: W14-186
 REVISED: 10-8-14
 I, Carey E. Harris, an Oklahoma Professional Land Surveyor and an authorized agent of Keystone Engineering and Land Surveying, Inc., does hereby certify that on April 07, 2014, the above described well location was surveyed on the ground as shown herein.
Carey E. Harris
 Carey E. Harris, Oklahoma Professional Land Surveyor No. 1719

(THE FOLLOWING INFORMATION WAS GATHERED USING A GPS RECEIVER. ACCURACY ±3 FOOT.)
 GPS DATUM: NAD-83
 LATITUDE: 36°05'12" N
 LONGITUDE: 96°58'58" W
 STATE PLANE COORDINATES
 ZONE: OK NORTH
 X: 2269016
 Y: 397114