

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

API NUMBER: 125 23948

Approval Date: 08/22/2019

Expiration Date: 02/22/2021

Straight Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 21 Twp: 8N Rge: 3E

County: POTTAWATOMIE

SPOT LOCATION:

FEET FROM QUARTER: FROM NORTH FROM EAST

SECTION LINES: 380 2310

Lease Name: PEARCY

Well No: 3-21

Well will be 330 feet from nearest unit or lease boundary.

Operator Name: ARROWHEAD ENERGY INC

Telephone: 4058485777

OTC/OCC Number: 10239 0

ARROWHEAD ENERGY INC
2934 NW 156TH ST
EDMOND, OK 73013-2102

KAREN SUE PEARCY
160 SPERRY DRIVE
FOLLETT TX 79034

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

	Name	Depth		Name	Depth
1	OSAGE LAYTON /MISSOURIAN/	3100	6	WOODFORD	4600
2	CALVIN	3750	7	MISENER	4640
3	EARLSBORO	4350	8	HUNTON	4650
4	PENN BASAL (BASAL PENN UNC)	4550	9	VIOLA	5050
5	MAYES	4560	10		

Spacing Orders: 205029
213527

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 5200

Ground Elevation: 925

Surface Casing: 200

Depth to base of Treatable Water-Bearing FM: 130

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

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

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? N

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is ALLUVIAL

Pit Location Formation: ALLUVIUM

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 19-36845

H. CLOSED SYSTEM=STEEL PITS (REQUIRED - LITTLE RIVER)

Notes:

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.

Category	Description
HYDRAULIC FRACTURING	<p>7/30/2019 - G71 - OCC 165:10-3-10 REQUIRES:</p> <p>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;</p> <p>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: OCCWEB.COM/OG/OGFORMS.HTML; AND,</p> <p>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</p>
SPACING - 205029	<p>8/22/2019 - G56 - (40) 21-8N-3E EXT OTHER EXT 174191 BPBPU, MSNR, HNTN, VIOL, OTHERS EST OSGL, CLVN, ERLB, MYES, WDFD, OTHERS</p>
SPACING - 213527	<p>8/22/2019 - G56 - (40) NE4 21-8N-3E EXT 44800 HNTN EST OSGL, CLVN, ERLB, BPBPU, MYES, WDFD, MSNR, VIOL, OTHERS</p>



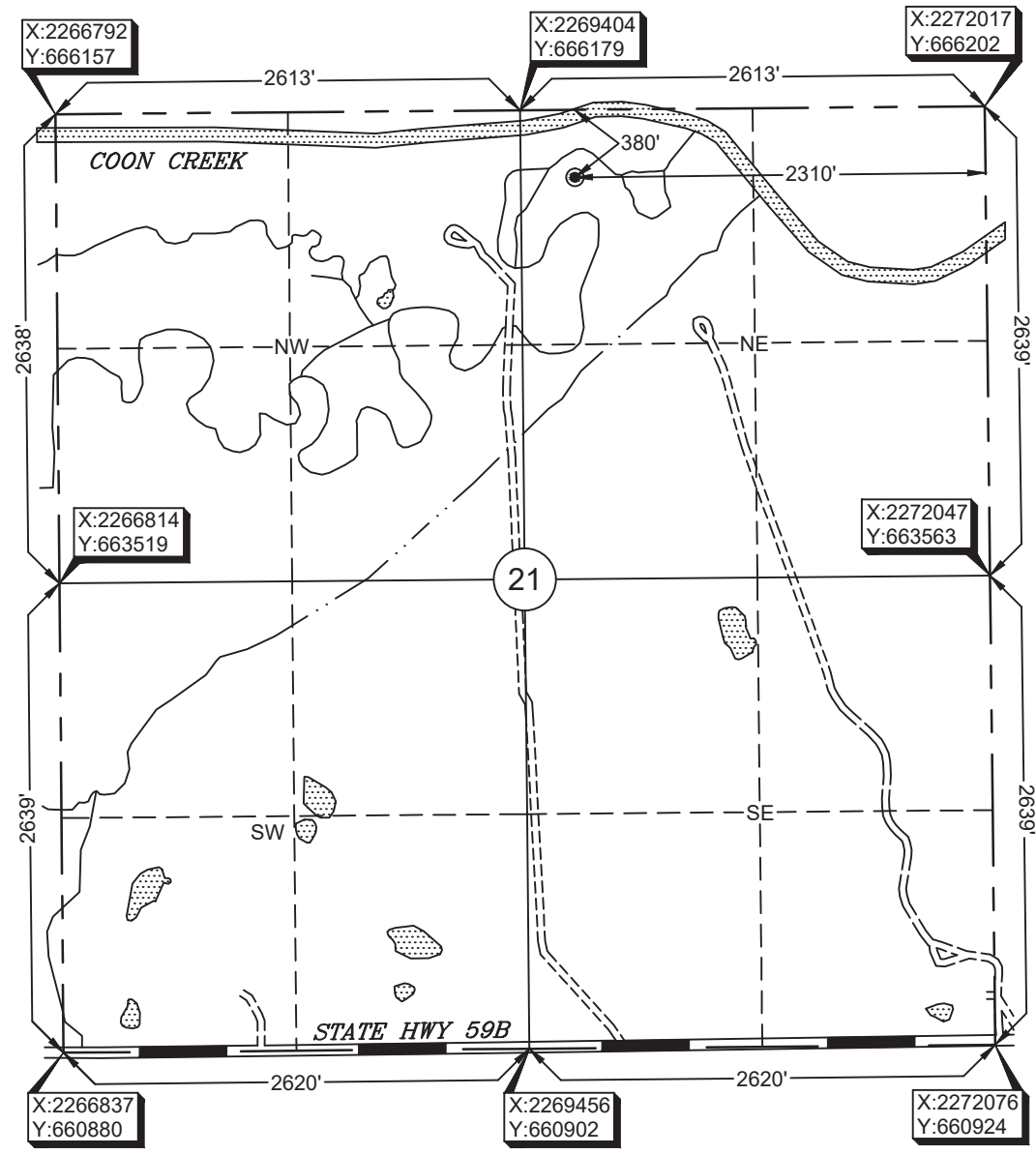
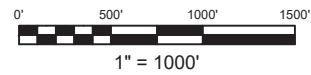
Well Location Plat

Sec. 21-8N-3E I.M.

Operator: ARROWHEAD ENERGY, INC.
Lease Name and No.: PEARCY 3-21 ALT
Footage: 380' FNL - 2310' FEL Gr. Elevation: 925'
Section: 21 Township: 8N Range: 3E I.M.
County: Pottawatomie State of Oklahoma
Terrain at Loc.: Location fell in timber, with waterways to the North, West and South.



All bearings shown
are grid bearings.



GPS DATUM
NAD 83
OK SOUTH ZONE
Surface Hole Loc.:
Lat: 35°09'31.23"N
Lon: 96°59'32.31"W
Lat: 35.15867588
Lon: -96.99230938
X: 2269712
Y: 665802

Please note that this location was staked on the ground under the supervision of a Licensed Professional Land Surveyor, but the accuracy of this survey is not guaranteed. Please contact Arkoma Surveying and Mapping promptly if any inconsistency is determined. GPS data is observed from RTK - GPS. NOTE: X and Y data shown hereon for Section Corners may NOT have been surveyed on-the-ground, and further, does NOT represent a true Boundary Survey. Quarter Section distances may be assumed from a Government Survey Plat or assumed at a proportionate distance from opposing section corners, or occupation thereof, and may not have been measured on-the-ground, and further, does not represent a true boundary survey.

Survey and plat by:
Arkoma Surveying and Mapping, PLLC
P.O. Box 238 Wilburton, OK 74578
Ph. 918-465-5711 Fax 918-465-5030
Certificate of Authorization No. 5348
Expires June 30, 2020

Invoice #8736-ALT
Date Staked: 06/28/19 By: J.W.
Date Drawn: 07/01/19 By: J.H.

Certification:
This is to certify that this Well Location Plat represents the results of a survey made on the ground performed under the supervision of the undersigned.

LANCE G. MATHIS 07/02/19
OK LPLS 1664

