API NUMBER: 073 26535 A

Horizontal Hole Oil & Gas

Amend reason: CHANGE SHL AND OPERATOR NAME

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

Approval Date: 04/16/2019
Expiration Date: 10/16/2020

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 16 Twp: 18N Rge: 8W County: KINGFISHER

SPOT LOCATION: NW NW NE NE

FEET FROM QUARTER: FROM **NORTH** FROM **EAST**

SECTION LINES: **245** **1242**

Lease Name: PHOENIX 1808 **Well No: 16-1MH** **Well will be 245 feet from nearest unit or lease boundary.**

Operator Name: CHISHOLM OIL & GAS OPERATING LLC Telephone: 9184886400 OTC/OCC Number: 23991 0

CHISHOLM OIL & GAS OPERATING LLC
6100 S YALE AVE STE 1700
TULSA, OK 74136-1921

BARRY BOLLENBACH
PO BOX 901
KINGFISHER OK 73750

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

	Name	Depth		Name	Depth
1	MISSISSIPPIAN	7777	6		
2	WOODFORD	8277	7		
3			8		
4			9		
5			10		

Spacing Orders: 641116

Location Exception Orders: 692345

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 13011 Ground Elevation: 1072 **Surface Casing: 460** Depth to base of Treatable Water-Bearing FM: 220

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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 19-36491

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

This permit does not address the right of entry or settlement of surface damages.
The duration of this permit is 18 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 16 Twp 18N Rge 8W County KINGFISHER

Spot Location of End Point: S2 S2 SW SE

Feet From: SOUTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 1980

Depth of Deviation: 7341

Radius of Turn: 446

Direction: 185

Total Length: 4970

Measured Total Depth: 13011

True Vertical Depth: 8277

End Point Location from Lease,
Unit, or Property Line: 150

Notes:

Category	Description
HYDRAULIC FRACTURING	4/13/2019 - 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
LOCATION EXCEPTION - 692345	4/16/2019 - G56 - (I.O.) 16-18N-8W X641116 MSSLM, WDFD COMPL INT NCT 150' FNL, NCT 150' FSL, NCT 330' FEL GASTAR EXPLOR. INC. (BOUGHT IN ITS ENTIRETY BY CHISHOLM OIL & GAS OPERATING LLC) 3/4/2019
SPACING - 641116	4/16/2019 - G56 - (640)(HOR) 16-18N-8W EXT 624024 MSSLM, WDFD, OTHER COMPL INT (MSSLM) NCT 660' FB COMPL INT (WDFD) NCT 165' FNL OR FSL, NCT 330' FEL OR FWL (COEXIST WITH SP # 81983 MSSP, OTHER)

This permit does not address the right of entry or settlement of surface damages.
The duration of this permit is 18 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.

Well Location Plat

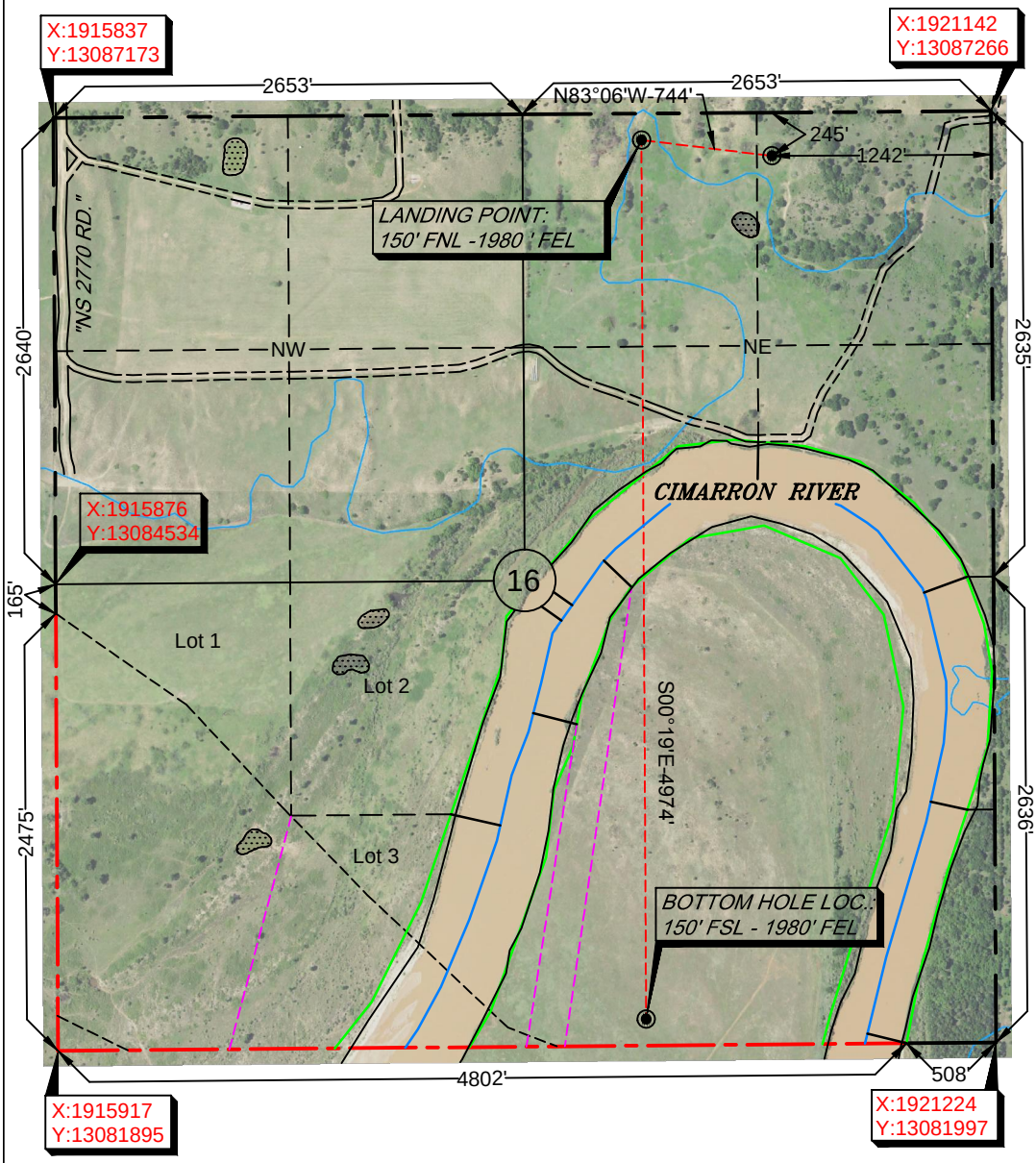
Sec. 16-18N-8W I.M.

Operator: CHISHOLM OIL & GAS OPERATING, LLC
Lease Name and No.: PHOENIX 1808 16-1MH
Footage: 245' FNL - 1242' FEL Gr. Elevation: 1072'
NW/4-NE/4-NW/4-NE/4 Section: 16 Township: 18N Range: 8W I.M.
County: Kingfisher State of Oklahoma
Terrain at Loc.: Location fell on existing pad site.

All bearings shown are grid bearings.

0' 500' 1000' 1500'
1" = 1000'

GPS DATUM
NAD 83
NAD 27
UTM - ZONE 14



Surface Hole Loc.:
Lat: 36°02'34.76"N
Lon: 98°03'16.81"W
Lat: 36.04295141
Lon: -98.05432966
X:1919904
Y:13087000

Landing Point:
Lat: 36°02'35.64"N
Lon: 98°03'25.80"W
Lat: 36.04319588
Lon: -98.05682880
X:1919165
Y:13087081

Bottom Hole Loc.:
Lat: 36°01'46.45"N
Lon: 98°03'25.44"W
Lat: 36.02953147
Lon: -98.05672837
X:1919243
Y:13082109

-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 #8761-A
Date Staked: 08/14/19 By: B.A.
Date Drawn: 08/15/19 By: J.C.

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.

08/19/19
LANCE G. MATHIS OK LPLS 1664

LICENSED PROFESSIONAL LAND SURVEYOR
LANCE G. MATHIS
1664
OKLAHOMA

Well Location Plat

Sec. 16-18N-8W I.M.

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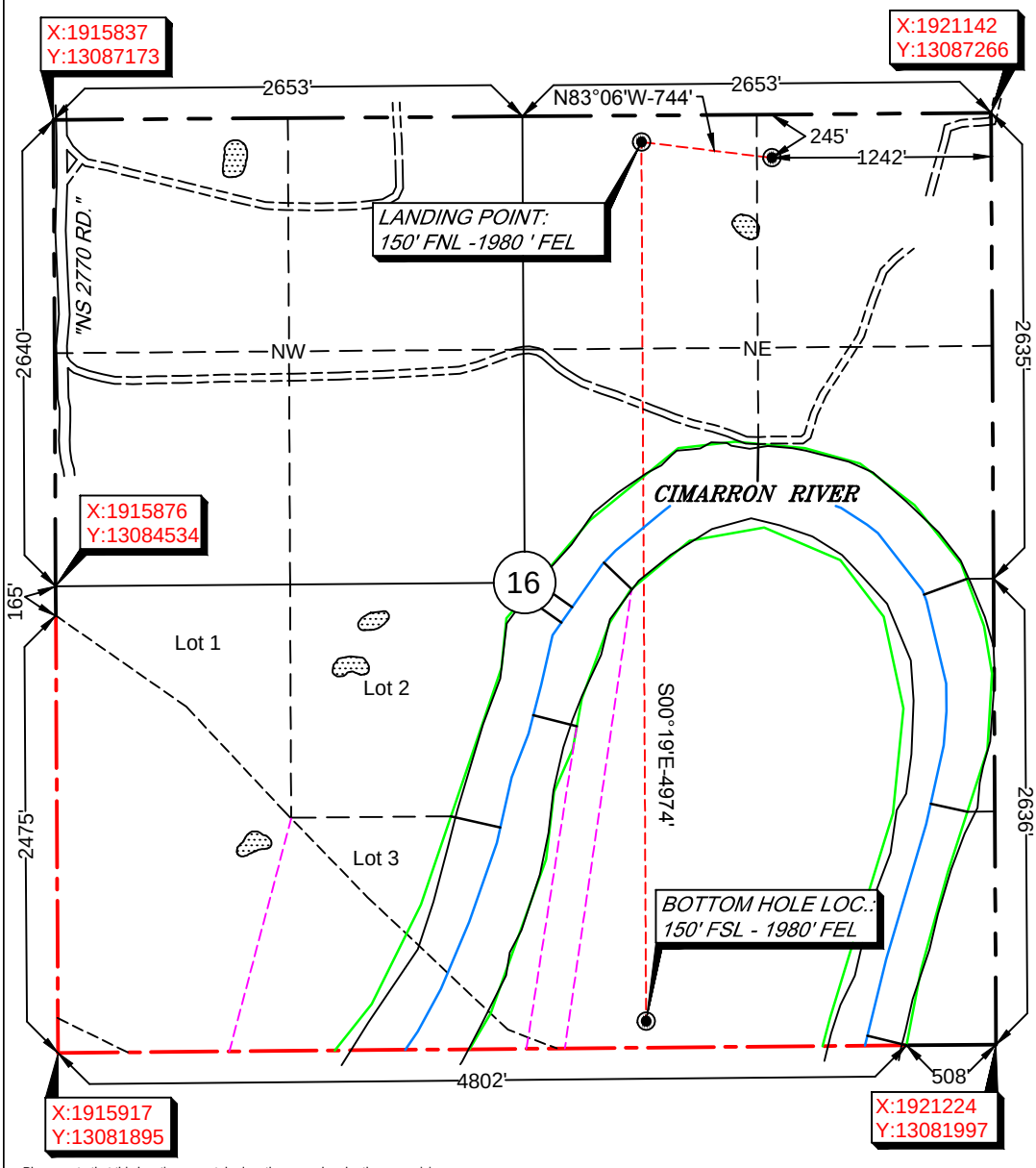

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08/19/19
LANCE G. MATHIS OK LPLS 1664

LICENSED PROFESSIONAL LAND SURVEYOR
LANCE G. MATHIS
1664
OKLAHOMA

Anti-Collision

Sec. 16-18N-8W I.M.

Operator: CHISHOLM OIL & GAS OPERATING, LLC
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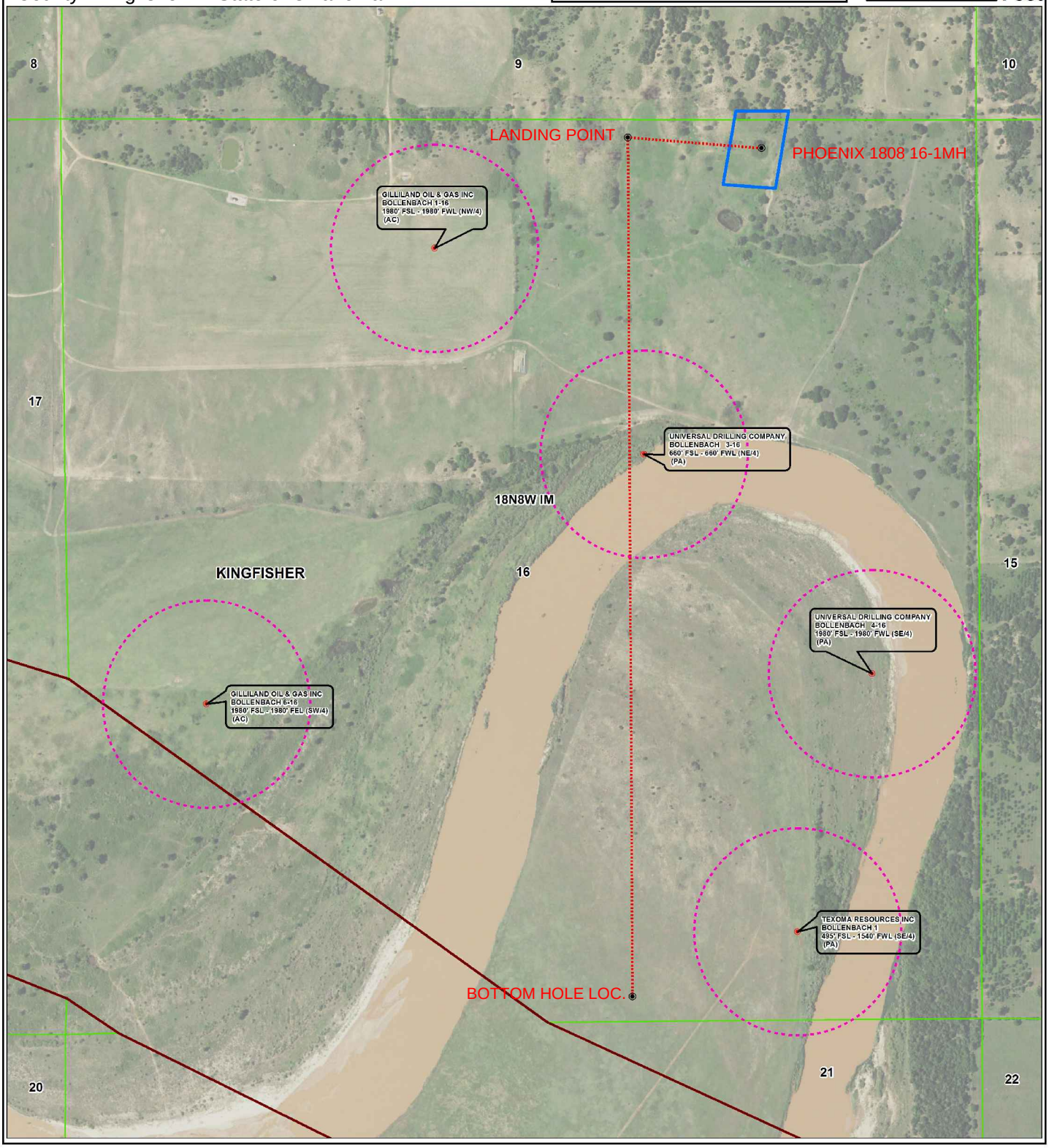
Surface Hole Location: 245' FNL - 1242' FEL
Landing Point: 150' FNL - 1980' FEL
Bottom Hole Location: 150' FSL - 1980' FEL
Sec. 16 Twp. 18N Rng. 8W I.M.
County: Kingfisher State of Oklahoma

SHL, LP, & BHL
Bore Path
Pad
OCC Wells
600ft Buffer
Counties
Township-Range
Sections

0 375 750 Feet

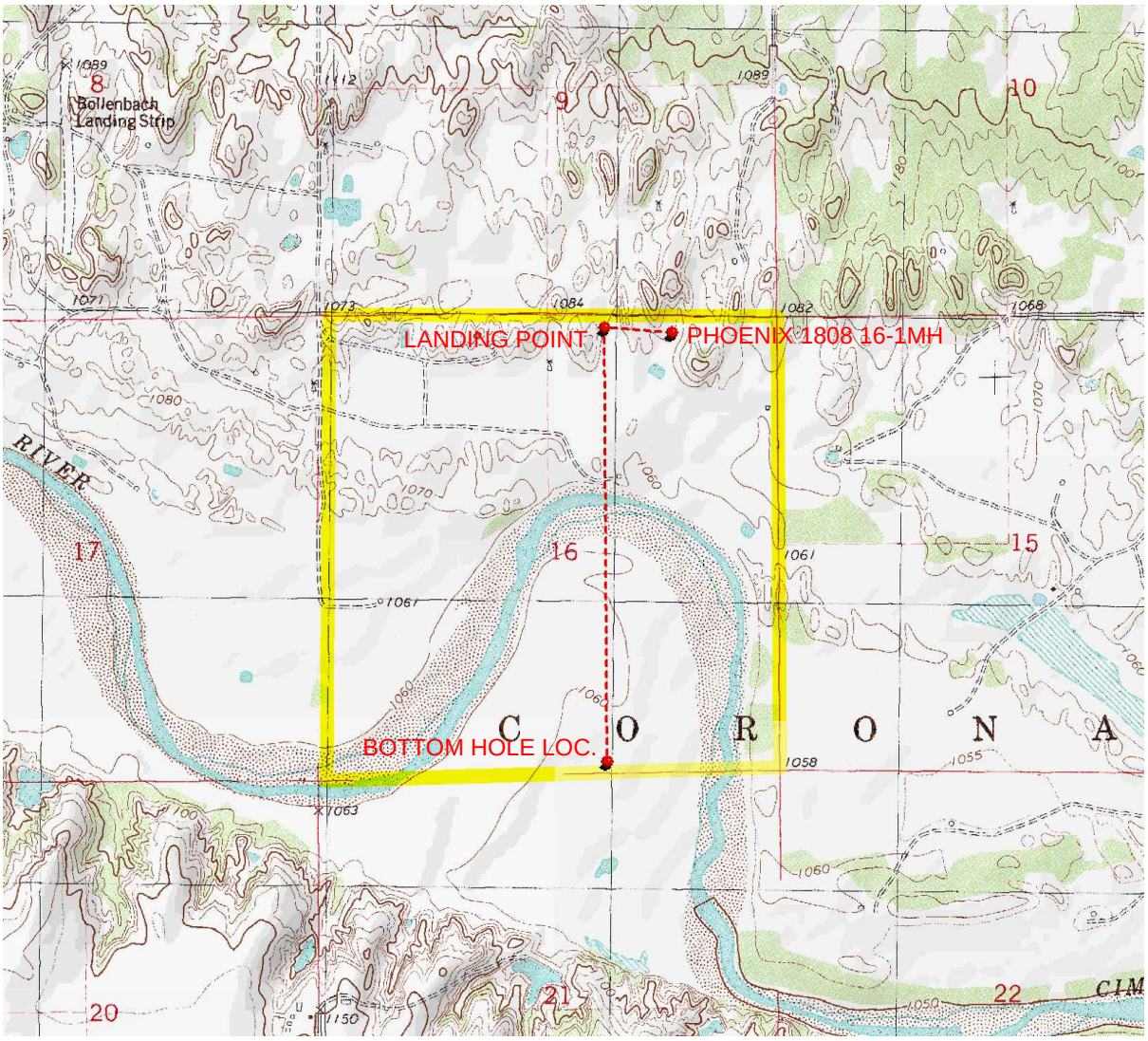


Topographic Vicinity Map

Operator: CHISHOLM OIL & GAS OPERATING, LLC
Lease Name and No.: PHOENIX 1808 16-1MH
Surface Hole Location: 245' FNL - 1242' FEL
Landing Point: 150' FNL - 1980' FEL
Bottom Hole Location: 150' FSL - 1980' FEL
Sec. 16 Twp. 18N Rng. 8W I.M.
County: Kingfisher State of Oklahoma

Ground Elevation at Surface Hole Location: 1072'

Scale 1" = 2000'
Contour Interval: 10'



Provided 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

Date Staked: 08/14/19

The purpose of this map is to verify the location and elevation as staked on the ground and to show the surrounding Topographic features. The footage shown hereon is only as SCALED onto a U.S.G.S. Topographic Map.

Please note that this location was staked carefully on the ground under the supervision of a Licensed Professional Land Surveyor, but the accuracy of this survey is not guaranteed.

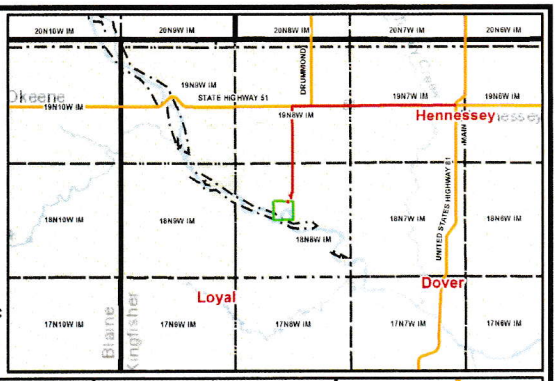
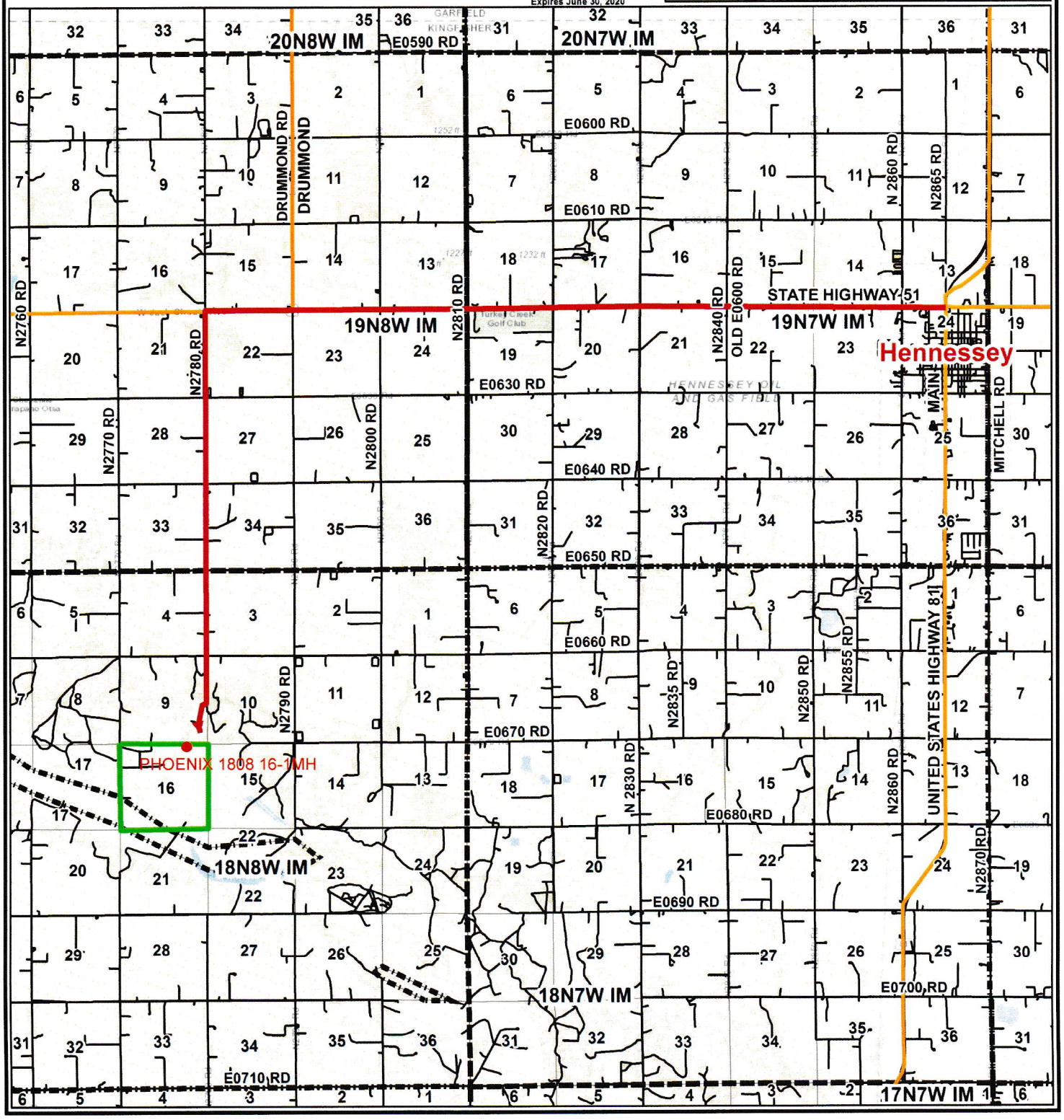
Please contact Arkoma Surveying and Mapping promptly if any inconsistency is determined.

County Highway Vicinity Map

Job #: 8761-A
Operator: CHISHOLM OIL & GAS OPERATING, LLC
Lease Name and No.: PHOENIX 1808 16-1MH

Accessibility: From the North.
Directions: From the junction of US HWY 81 & State HWY 51 in the town of Hennessey, OK, go 8.5 miles West on State HWY 51, then go 4.9 miles South on "NS 278 RD." to the Northeast Quarter of Section 16-18N-8W on the South side of the road.

CHISHOLM OIL & GAS OPERATING, LLC

1 inch = 1.5 mile

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