

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

API NUMBER: 107 23615

Approval Date: 03/13/2019

Expiration Date: 09/13/2020

Horizontal Hole  
Multi Unit

Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 17 Twp: 10N Rge: 12E

County: OKFUSKEE

SPOT LOCATION: ☐ SE ☐ NE ☐ NE ☐ SE

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 2060 199

Lease Name: HALPERT

Well No: 1-16-4CH

Well will be 199 feet from nearest unit or lease boundary.

Operator Name: CALYX ENERGY III LLC

Telephone: 9189494224

OTC/OCC Number: 23515 0

CALYX ENERGY III LLC  
6120 S YALE AVE STE 1480  
TULSA, OK 74136-4226

JACQUELINE SHAMEL  
PO BOX 277  
WELEETKA OK 74880

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN	3350	6	
2 WOODFORD	3800	7	
3		8	
4		9	
5		10	

Spacing Orders: 689076  
690619  
557682

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201900142  
201900141

Special Orders:

Total Depth: 16479

Ground Elevation: 664

Surface Casing: 440

Depth to base of Treatable Water-Bearing FM: 190

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

PIT 1 INFORMATION

Type of Pit System: ON SITE

Type of Mud System: AIR

Is depth to top of ground water greater than 10ft below base of pit? Y

Within 1 mile of municipal water well? Y

Wellhead Protection Area? Y

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: 4

Liner not required for Category: 4

Pit Location is ALLUVIAL

Pit Location Formation: ALLUVIUM

Mud System Change to Water-Based or Oil-Based Mud Requires an Amended Intent (Form 1000).

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

B. Solidification of pit contents.

F. Haul to Commercial soil farming facility: Sec. 14 Twn. 7N Rng. 9E Cnty. 63 Order No: 551649

H. SEE MEMO

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.

PIT 2 INFORMATION

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? Y

Wellhead Protection Area? Y

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

HORIZONTAL HOLE 1

Sec 04 Twp 10N Rge 12E County OKFUSKEE

Spot Location of End Point: NE NW NW NW

Feet From: NORTH 1/4 Section Line: 165

Feet From: WEST 1/4 Section Line: 400

Depth of Deviation: 3068

Radius of Turn: 382

Direction: 10

Total Length: 12811

Measured Total Depth: 16479

True Vertical Depth: 3840

End Point Location from Lease,  
Unit, or Property Line: 199

Notes:

Category

Description

HYDRAULIC FRACTURING

2/20/2019 - 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](http://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](http://FRACFOCUS.ORG)

MEMO

2/20/2019 - G71 - PIT 2 - CLOSED SYSTEM=STEEL PITS (REQUIRED - NORTH CANADIAN RIVER), WBM/CUTTINGS CAPTURED IN CONCRETE-LINED PIT, SOLIDIFIED AND HELD UNTIL DISPOSAL APPROVED BY OCC

PENDING CD - 201900141

3/12/2019 - G58 - (I.O.) 4, 9,, & 16-10N-12E  
EST MULTIUNIT HORIZONTAL WELL  
X557682 MSSP, WDFD  
X690619 MSSP, WDFD  
X689076 MSSP, WDFD  
(WDFD IS ADJACENT CSS TO MSSP)  
20% 16-10N-12E  
40% 9-10N-12E  
40% 4-10N-12E  
NO OP. NAMED  
REC 2/4/2019 (DUNN)

This permit does not address the right of entry or settlement of surface damages.

107 23615 HALPERT 1-16-4CH

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
PENDING CD - 201900142	3/12/2019 - G58 - (I.O.) 4, 9, & 16-10N-12E X557682 MSSP, WDFD X690619 MSSP, WDFD X689076 MSSP, WDFD COMPL. INT. 16-10N-12E NLT 660' FNL, NCT 0' FNL, NCT 330' FWL COMPL. INT. 9-10N-12E NCT 0' FSL, NCT 0' FNL, NCT 330' FWL COMPL. INT. 4-10N-12E NCT 0' FSL, NCT 165' FNL, NCT 330' FWL NO OP. NAMED REC 2/4/2019 (DUNN)
PUBLIC WATER SUPPLY WELLS	2/20/2019 - G71 - MCINTOSH CO RWD #13 - 3 PWS/WPA, SW/4 17-10N-12E
SPACING - 557682	3/12/2019 - G58 - (640) 4-10N-12E EXT 554633 MSSP, WDFD, OTHERS
SPACING - 689076	3/12/2019 - G58 - (640)(HOR) 16-10N-12E EST MSSP, WDFD, OTHERS COMPL. INT. (MSSP) NLT 660' FB COMPL. INT. (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL
SPACING - 690619	3/12/2019 - G58 - (640)(HOR) 9-10N-12E EST MSSP, WDFD, OTHERS COMPL. INT. (MSSP) NLT 660' FB COMPL. INT. (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL

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.



# Well Location Plat

S.H.L. Sec. 17-10N-12E I.M.  
B.H.L. Sec. 4-10N-12E I.M.

Operator: CALYX ENERGY III, LLC  
Lease Name and No.: HALPERT 1-16-4CH  
Footage: 2060' FSL - 199' FEL Gr. Elevation: 664'  
Section: 17 Township: 10N Range: 12E I.M.  
County: Okfuskee State of Oklahoma  
Terrain at Loc.: Location fell in a flat, open, cultivated field, Southeast of an existing well site.

107-23615

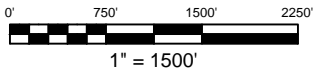
GPS DATUM  
NAD 83  
NAD 27

OK NORTH ZONE

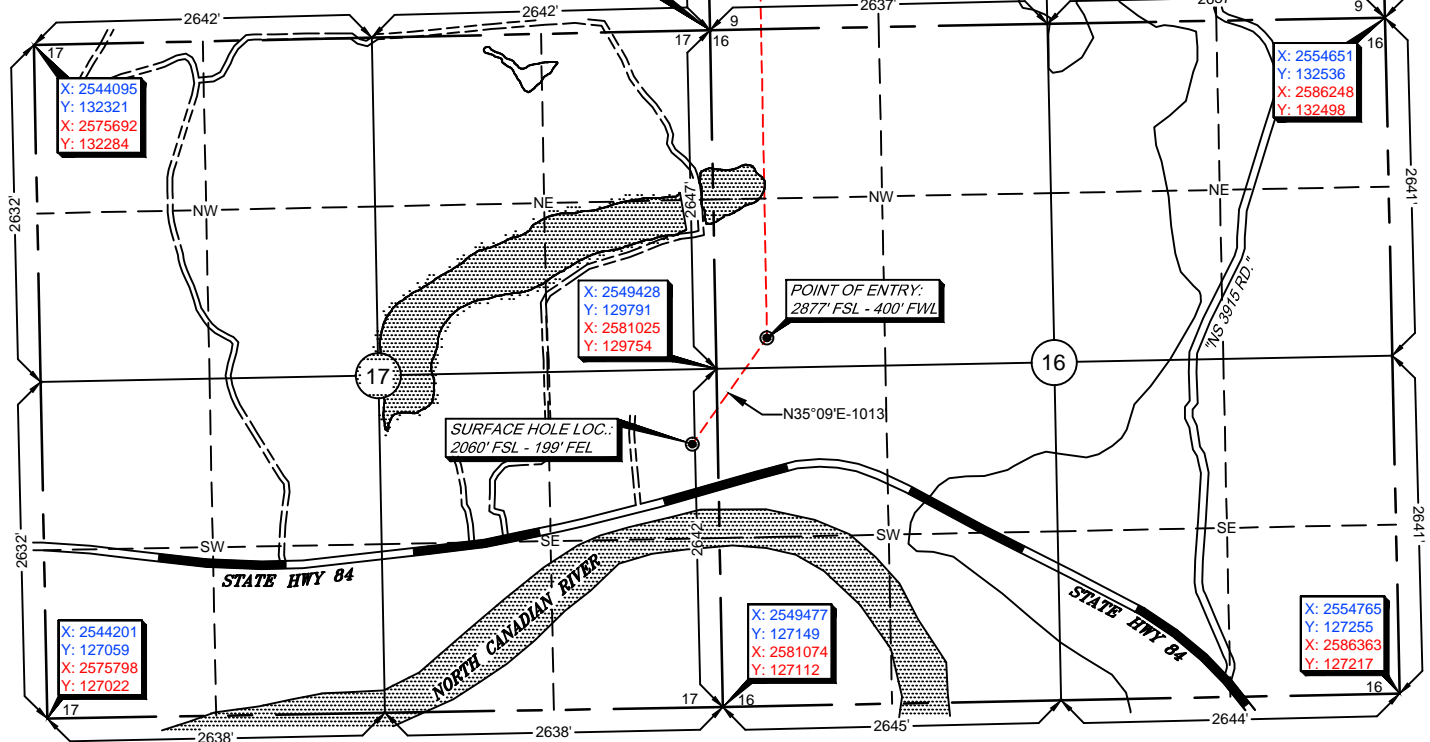
Surface Hole Loc.: Lat: 35°20'20.18"N Lon: 96°03'10.37"W Lat: 35.33893883 Lon: -96.05287938 X: 2549239.81 Y: 129205.24	Surface Hole Loc.: Lat: 35°20'19.83"N Lon: 96°03'09.36"W Lat: 35.33884063 Lon: -96.05260039 X: 2580837.28 Y: 129167.99
Point of Entry: Lat: 35°20'28.26"N Lon: 96°03'03.13"W Lat: 35.34118258 Lon: -96.05086843 X: 2549823.11 Y: 130033.87	Point of Entry: Lat: 35°20'27.90"N Lon: 96°03'02.12"W Lat: 35.34108422 Lon: -96.05058950 X: 2581420.57 Y: 129996.54
Bottom Hole Loc.: Lat: 35°22'34.98"N Lon: 96°03'03.00"W Lat: 35.37638264 Lon: -96.05083278 X: 2549576.51 Y: 142844.86	Bottom Hole Loc.: Lat: 35°22'34.62"N Lon: 96°03'02.00"W Lat: 35.37628336 Lon: -96.05055421 X: 2581173.85 Y: 142806.86



All bearings shown  
are grid bearings.



-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.



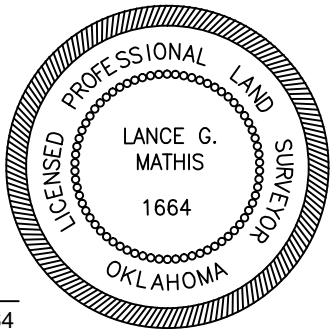
Survey and plat by:  
Arkoma Surveying and Mapping, PLLC  
P.O. Box 238 Wilburton, OK 74578  
Ph. 918-465-5711 Fax 918-465-5030  
Certificate of Authorization No. 5348  
Expires June 30, 2020

## 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

02/01/19  
OK LPLS 1664



Invoice #8433-A-B  
Date Staked: 01/24/19 By: H.S.  
Date Drawn: 01/28/19 By: C.K.  
Rev. Lease Name: 02/01/19 By: R.S.