

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

API NUMBER: 091 21802 C

Approval Date: 06/13/2018

Expiration Date: 12/13/2018

Horizontal Hole  
Oil & Gas  
Multi Unit

Amend reason: CHANGE SURFACE HOLE FOOTAGES, NAME,  
AND LATERAL INFORMATION, UPDATE ORDERS

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 17 Twp: 8N Rge: 13E

County: MCINTOSH

SPOT LOCATION:  NW  NW  NW  NW

FEET FROM QUARTER: FROM NORTH FROM WEST

SECTION LINES: 290 324

Lease Name: OSCAR LU

Well No: 1-18-19WH

Well will be 290 feet from nearest unit or lease boundary.

Operator CALYX ENERGY III LLC  
Name:

Telephone: 9189494224

OTC/OCC Number: 23515 0

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

MIDDLE CREEK, LLC  
2798 N 394  
DUSTIN OK 74839

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

	Name	Depth		Name	Depth
1	CANEY	4500	6	HUNTON	4840
2	MISSISSIPPIAN	4525	7		
3	MAYES	4675	8		
4	WOODFORD	4775	9		
5	SYLVAN	4840	10		

Spacing Orders: 672567  
674734  
681027

Location Exception Orders: 681028

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 14725

Ground Elevation: 754

**Surface Casing: 1500**

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: ON SITE

Type of Mud System: AIR

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

B. Solidification of pit contents.

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.

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

H. SEE MEMO

Category of Pit: 4

Liner not required for Category: 4

Pit Location is BED AQUIFER

Pit Location Formation: SENORA

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

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? 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: SENORA

## HORIZONTAL HOLE 1

Sec 19 Twp 8N Rge 13E County PITTSBURG

Spot Location of End Point: S2 SE SE SE

Feet From: SOUTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 330

Depth of Deviation: 3729

Radius of Turn: 382

Direction: 185

Total Length: 10395

Measured Total Depth: 14725

True Vertical Depth: 5022

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

### Notes:

#### Category

#### Description

#### DEEP SURFACE CASING

1/25/2019 - G56 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING

#### HYDRAULIC FRACTURING

1/25/2019 - G56 - 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: [OCCWEB.COM/OG/OGFORMS.HTML](http://OCCWEB.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)

#### LOCATION EXCEPTION - 681028

1/25/2019 - G56 - (I.O.) 18 & 19-8N-13E  
X672567 CNEY, MYES, WDFD 18-8N-13E  
X674734 CNEY, MYES, WDFD, HNTN, SLVN 19-8N-13E MYES  
COMPL. INT. (18-8N-13E) NCT 165' FNL, NCT 0' FSL, NCT 330' FEL MYES  
COMPL. INT. (19-8N-13E) NCT 0' FNL, NCT 165' FSL, NCT 330' FEL WDFD  
COMPL. INT. (19-8N-13E) NCT 165' FNL, NCT 165' FSL, NCT 330' FEL  
CALYX ENERGY III, LLC  
8/6/2018

#### MEMO

1/25/2019 - G56 - PIT 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, WBM/CUTTINGS CAPTURED IN CONCRETE-LINED PIT, SOLIDIFIED AND HELD UNTIL DISPOSAL APPROVED BY OCC

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.

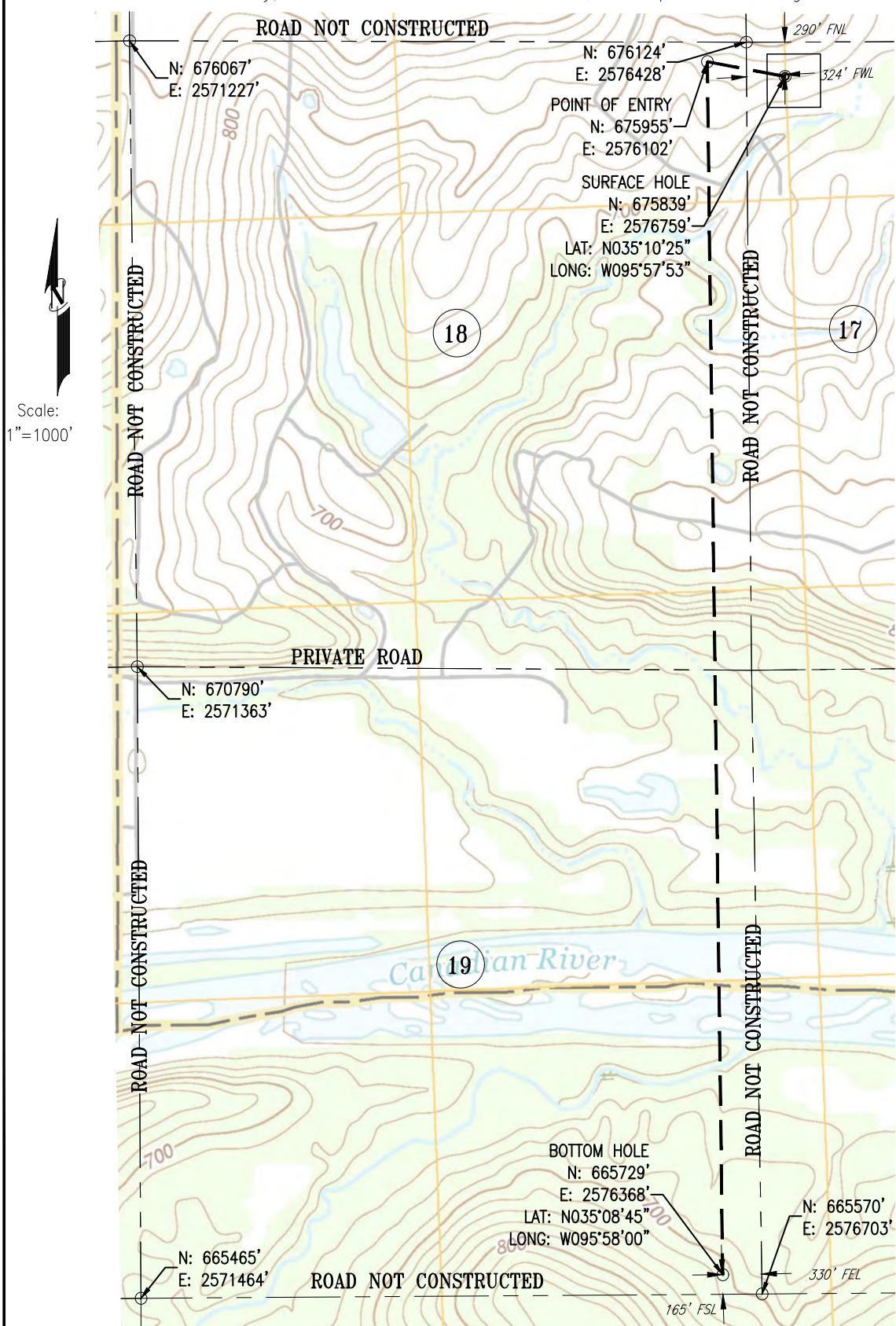
Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

091 21802 OSCAR LU 1-18-19WH

Category	Description
SPACING - 672567	1/25/2019 - G56 - (640)(HOR) 18-8N-13E EST CNEY, MYES, WDFD POE TO BHL (MYES) NLT 660' FB POE TO BHL (CNEY) NLT 330' FB POE TO BHL (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL
SPACING - 674734	1/25/2019 - G56 - (640)(HOR) 19-8N-13E EST CNEY, MYES, WDFD, HNTN, SLVN POE TO BHL (MYES, HNTN) NLT 660' FB POE TO BHL (CNEY, SLVN) NLT 330' FB POE TO BHL (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL (COEXIST WITH SP. ORDER #515955 CNEY, WDFD, HNTN)
SPACING - 681027	1/25/2019 - G56 - (I.O.) 18 & 19-8N-13E EST MULTIUNIT HORIZONTAL WELL X672567 CNEY, MYES, WDFD 18-8N-13E X674734 CNEY, MYES, WDFD, HNTN, SLVN 19-8N-13E (CNEY, WDFD ARE ADJACENT COMMON SOURCES OF SUPPLY TO THE MYES 18-8N-13E) (CNEY, HNTN, SLVN ARE ADJACENT COMMON SOURCES OF SUPPLY TO THE MYES & WDFD 19-8N-13E) 50% 18-8N-13E 50% 19-8N-13E CALYX ENEGY III, LLC 8/6/2018

# BOTTOM HOLE EXHIBIT

MCINTOSH County, Oklahoma Sections 17, 18, & 19, Township 8N, Range 13E I.M.



Above Background data from  
U.S.G.S. Topographic Map  
Contour Interval 10'

SURFACE HOLE: 324' FWL & 290' FNL Sec. 17-T8N-R13E  
POINT OF ENTRY: 330' FEL & 165' FNL Sec. 18-T8N-R13E  
BOTTOM HOLE: 330' FEL & 165' FSL Sec. 19-T8N-R13E

Operator: CALYX ENERGY III, LLC  
Well Name: OSCAR LU 1-18-19WH

W18-006 R1

Keystone Engineering  
and Land Surveying, Inc.