

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

API NUMBER: 091 21801 B

Approval Date: 06/13/2018  
Expiration Date: 12/13/2018

Horizontal Hole Oil & Gas  
Multi Unit

Amend reason: CHANGE NAME, BHL, 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: 305 324

Lease Name: OSCAR LU Well No: 1-17-20WHR Well will be 305 feet from nearest unit or lease boundary.

Operator CALYX ENERGY III LLC Telephone: 9189494224 OTC/OCC Number: 23515 0  
Name:

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 SYLVAN	4840
2 MISSISSIPPIAN	4500	7	
3 MAYES	4675	8	
4 WOODFORD	4775	9	
5 HUNTON	4840	10	

Spacing Orders: 528400 Location Exception Orders: 677093 Increased Density Orders:  
677186  
677022  
671800

Pending CD Numbers: Special Orders:

Total Depth: 14725 Ground Elevation: 767 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

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: 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).

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? 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 20 Twp 8N Rge 13E County PITTSBURG

Spot Location of End Point: S2 S2 SW SW

Feet From: SOUTH 1/4 Section Line: 165

Feet From: WEST 1/4 Section Line: 330

Depth of Deviation: 3742

Radius of Turn: 382

Direction: 181

Total Length: 10382

Measured Total Depth: 14725

True Vertical Depth: 5016

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

Notes:

Category

Description

DEEP SURFACE CASING

1/28/2019 - 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

1/28/2019 - 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: [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)

LOCATION EXCEPTION - 677093

1/28/2019 - G56 - (I.O.) 17 & 20-8N-13E  
X528400 MSSP, WDFD, HNTN 17-8N-13E  
X671800 MYES, WDFD, HNTN 20-8N-13E  
COMPL INT (17-8N-13E) NCT 0' FSL, NCT 165' FNL, NCT 330' FWL  
COMPL INT (20-8N-13E) NCT 0' FNL, NCT 165' FSL, NCT 330' FWL  
CALYX ENERGY III, LLC  
5/1/2018

SPACING - 528400

1/28/2019 - G56 - (640) 17-8N-13E  
VAC OTHER  
EST OTHERS  
EXT 507398 MSSP EXT 515955 WDFD, HNTN, OTHERS

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.

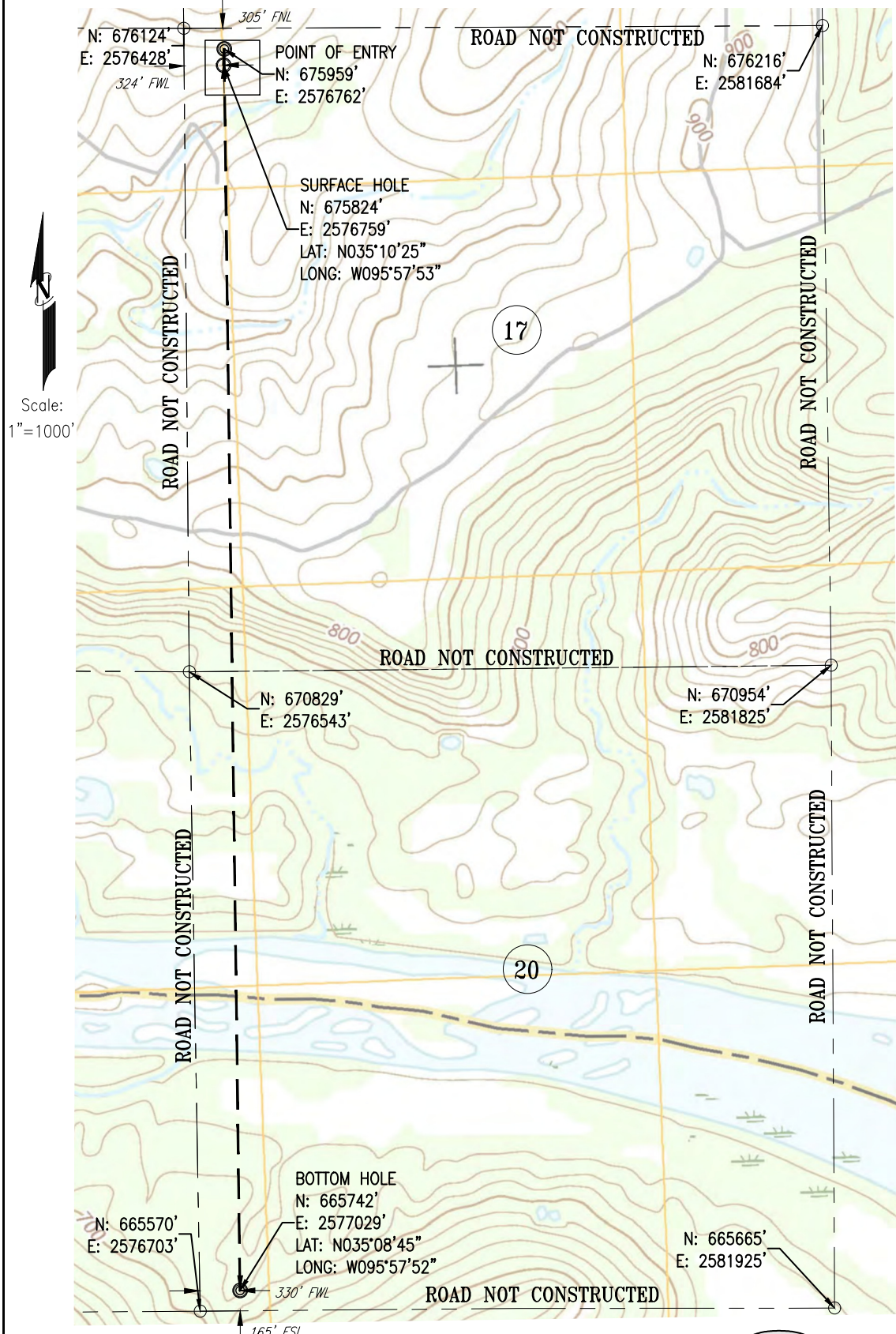
Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

Category	Description
SPACING - 671800	1/28/2019 - G56 - (640)(HOR) 20-8N-13E EST CNEY, MYES, WDFD, HNTN COMPL INT (WDFD) NLT 165' FNL/FSL, NLT 330' FEL/FWL COMPL INT (CNEY) NLT 330' FB COMPL INT (MYES, HNTN) NLT 660' FB
SPACING - 677022	1/28/2019 - G56 - (640)(HOR) 17 & 20-8N-13E EXT 671803 SLVN COMPL INT NLT 330' FB
SPACING - 677186	1/28/2019 - G56 - (I.O.) 17 & 20-8N-13E ESTABLISH MULTIUNIT HORIZONTAL WELL X528400 MSSP, WDFD, HNTN 17-8N-13E X671800 MYES, WDFD, HNTN 20-8N-13E (MSSP, MYES, HNTN ARE ADJACENT COMMON SOURCES OF SUPPLY TO WDFD) 50% 17-8N-13E 50% 20-8N-13E CALYX ENERGY III, LLC 5/2/2018

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

# BOTTOM HOLE EXHIBIT

MCINTOSH County, Oklahoma Sections 17 & 20, Township 8N, Range 13E I.M.



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

SURFACE HOLE: 324' FWL & 305' FNL Sec. 17-T8N-R13E  
 POINT OF ENTRY: 330' FWL & 165' FNL Sec. 17-T8N-R13E  
 BOTTOM HOLE: 330' FWL & 165' FSL Sec. 20-T8N-R13E



Operator: CALYX ENERGY III, LLC  
 Well Name: OSCAR LU 1-17-20WHR

**Keystone Engineering  
 and Land Surveying, Inc.**

**W18-007**