

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

API NUMBER: 091 21800

Approval Date: 06/13/2018

Expiration Date: 12/13/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

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

SPOT LOCATION: FEET FROM QUARTER: FROM NORTH FROM WEST

SECTION LINES: 305 324

Lease Name: OSCAR LU Well No: 1-17-20WH Well will be 305 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

MIDDLE CREEK, LLC.
2798 N. 394
DUSTIN OK 74839

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

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

Spacing Orders: 671800
528400
677186

Location Exception Orders: 677093

Increased Density Orders:

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

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 20 Twp 8N Rge 13E County MCINTOSH

Spot Location of End Point: S2 SW 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

6/6/2018 - G71 - 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

6/6/2018 - 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 - 677093

6/7/2018 - G57 - (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 165' FNL, NCT 0' FSL, NCT 330' FWL
COMPL. INT. (20-8N-13E) NCT 0' FNL, NCT 165' FSL, NCT 330' FWL
CALYX ENERGY III, LLC.
5-1-2018

MEMO

6/6/2018 - G71 - 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.

091 21800 OSCAR LU 1-17-20WH

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.

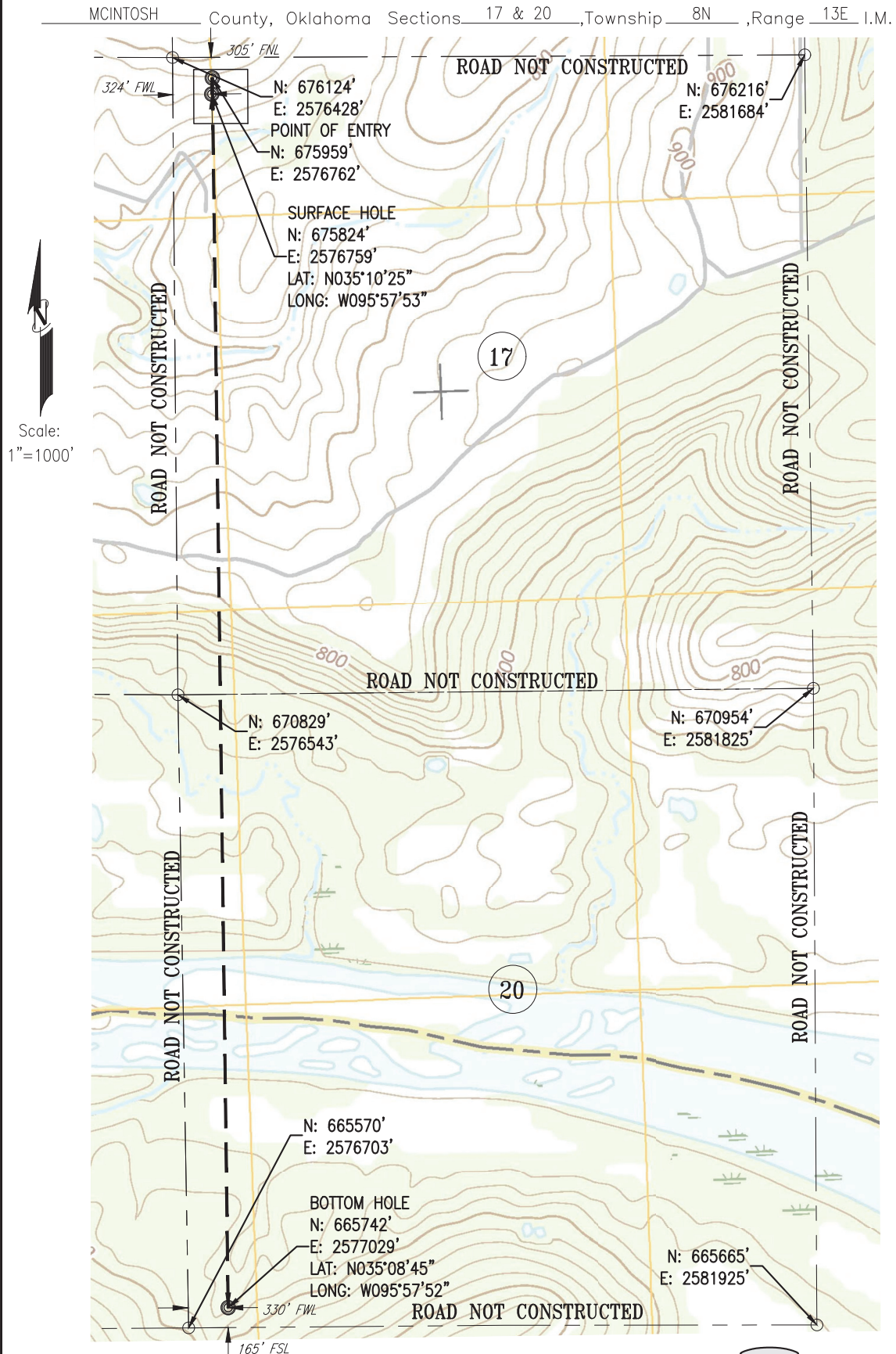
Category	Description
SPACING - 528400	6/7/2018 - G57 - (640) 17-8N-13E VAC OTHERS EXT 507398 MSSP EXT 515955 WDFD, HNTN EXT OTHERS
SPACING - 671800	6/7/2018 - G57 - (640)(HOR) 20-8N-13E EST MYES, WDFD, HNTN POE TO BHL (MYES, HNTN) NLT 660' FB POE TO BHL (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL
SPACING - 677186	6/7/2018 - G57 - (I.O.) 17 & 20-8N-13E X528400 MSSP, WDFD, HNTN 17-8N-13E X671800 MYES, WDFD, HNTN 20-8N-13E (MSSP, MYES, HNTN ARE ADJACENT COMMON SOURCES OF SUPPLY TO THE 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



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 1-17-20WH

W18-004

Keystone Engineering
and Land Surveying, Inc.