API NUMBER: 091 21820

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

Approval Date: 03/19/2019
Expiration Date: 09/19/2020

Horizontal Hole Multi Unit Oil & Gas

## PERMIT TO DRILL

FROM

WELL LOCATION:	Sec:	14	Twp:	9N	Rge:	13E	County:	MCIN	NTOSH
SPOT LOCATION:	SW	NW	s	W	NW		FEET FROM QUARTER:	FROM	NORTH

SECTION LINES: 1750 234

Lease Name: MIFFLIN Well No: 1-14-2CH Well will be 234 feet from nearest unit or lease boundary.

Operator

CALYX ENERGY III LLC

Telephone: 9189494224

WEST

OTC/OCC Number: 23

23515 0

CALYX ENERGY III LLC 6120 S YALE AVE STE 1480

TULSA, OK 74136-4226

JACK CAMPBELL RANCH, LLC

399356 HIGHWAY 9

Approved Method for disposal of Drilling Fluids:

B. Solidification of pit contents.

A. Evaporation/dewater and backfilling of reserve pit.

HANNA OK 74845

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

	Name	Depth		Name	Dej	oth
1	MISSISSIPPIAN	3780	6			
2	WOODFORD	4140	7			
3			8			
4			9			
5			10			
Spacing Orders:	513213 500360	Location Exception Orders:	692683		Increased Density Orders:	692684 690502

Pending CD Numbers: 201810318 Special Orders:

Total Depth: 15446 Ground Elevation: 764 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 160

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.

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).

## 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 02 Twp 9N Rge 13E County MCINTOSH

Spot Location of End Point: NE NW NW NW Feet From: NORTH 1/4 Section Line: 165
Feet From: WEST 1/4 Section Line: 600

Depth of Deviation: 3004 Radius of Turn: 573

Direction: 5

Total Length: 11542

Measured Total Depth: 15446

True Vertical Depth: 4140

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

Notes:

Category Description

DEEP SURFACE CASING 2/20/2019 - 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 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; 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

INCREASED DENSITY - 690502 3/19/2019 - GA8 - 14-9N-13E

X500360 MSSP

1 WELL

CALYX ENERGY III, LLC

1/28/2019

INCREASED DENSITY - 692684 3/18/2019 - GA8 - 11-9N-13E

X500360 MSSP

1 WELL

CALYX ENERGY III, LLC

3/11/2019

Category Description

LOCATION EXCEPTION - 692683 3/18/2019 - GA8 - (I.O.) 14, 11 & 2-9N-13E

X500360 MSSP, WDFD 14 & 11-9N-13E

X513213 MSSP, WDFD 2-9N-13E

COMPL. INT. (14-9N-13E) NCT 660' FSL, NCT 0' FNL, NCT 330' FWL COMPL. INT. (11-9N-13E) NCT 0' FSL, NCT 0' FNL, NCT 330' FWL COMPL. INT. (2-9N-13E) NCT 0' FSL, NCT 165' FNL, NCT 330' FWL

CALYX ENRGY III, LLC

3/11/2019

MEMO 2/20/2019 - G71 - PIT 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST,

WBM/CUTTINGS CAPTURED IN CONCRETE-LINED PIT, SOLIDFIED AND HELD UNTIL DISPOSAL

APPROVED BY OCC

PENDING CD - 201810318 3/18/2019 - GA8 - (I.O.) 14, 11 & 2-9N-13E EST MULTIUNIT HORIZONTAL WELL

X500360 MSSP, WDFD 14 & 11-9N-13E X513213 MSSP, WDFD 2-9N-13E

(WDFD ADJACENT COMMON SOURCE OF SUPPLY TO MSSP)

22% 14-9N-13E 53% 11-9N-13E 25% 2-9N-13E NO OP. NAMED

REC. 1/4/2019 (JOHNSON)

SPACING - 500360 3/18/2019 - GA8 - (640) 14 & 11-9N-13E

VAC OTHERS

EXT OTHERS

EST MSSP, WDFD, OTHERS

SPACING - 513213 3/18/2019 - GA8 - (640) 2-9N-13E

VAC OTHERS

EXT 500360 MSSP, WDFD, OTHERS