

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

API NUMBER: 063 24848 A

Approval Date: 09/04/2018

Expiration Date: 03/04/2019

Horizontal Hole Oil & Gas
Multi Unit

Amend reason: UPDATE AS DRILLED BHL PER OCC REQUEST &
UPDATE ORDERS

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 05 Twp: 8N Rge: 12E County: HUGHES

SPOT LOCATION: ☐ NE ☐ NW ☐ SE ☐ SE FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 999 920

Lease Name: ROOSEVELT Well No: 4-5-18CH Well will be 920 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

JAMES B. WISE
3401 HICKORY STICK RD
OKC OK 73120

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

Name	Depth	Name	Depth
1 CANEY	3800	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 673572
671026
694723

Location Exception Orders: 694724

Increased Density Orders: 694963
694964
700328

Pending CD Numbers:

Special Orders:

Total Depth: 15825

Ground Elevation: 736

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 280

Deep surface casing has been approved

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 18 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 18 Twp 8N Rge 12E County HUGHES

Spot Location of End Point: NE NE NW SW

Feet From: SOUTH 1/4 Section Line: 2575

Feet From: WEST 1/4 Section Line: 1041

Depth of Deviation: 901

Radius of Turn: 2563

Direction: 215

Total Length: 10898

Measured Total Depth: 15825

True Vertical Depth: 3974

End Point Location from Lease,
Unit, or Property Line: 1041

Notes:

Category

Description

DEEP SURFACE CASING

7/13/2018 - 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

7/13/2018 - 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

INCREASED DENSITY - 694873

11/25/2019 - G56 - 18-8N-12E
X671026 CNEY
1 WELL
CALYX ENERGY, LLC
4/18/2019

INCREASED DENSITY - 694963

11/25/2019 - G56 - 5-8N-12E
X673572 CNEY
1 WELL
CALYX ENERGY III, LLC
4/22/2019

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

063 24848 ROOSEVELT 4-5-18CH

The duration of this permit is 18 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.

INCREASED DENSITY - 694964	11/25/2019 - G56 - 7-8N-12E X673572 CNEY 1 WELL CALYX ENERGY III, LLC 4/22/2019
INCREASED DENSITY - 700328	11/25/2019 - G56 - 8-8N-12E X673572 CNEY 1 WELL NO OP NAMED 8/6/2019
LOCATION EXCEPTION - 694724	11/25/2019 - G56 - (F.O.) 5,7,8,18-8N-12E X673572 CNEY 5,7,8-8N-12E X671026 CNEY 18-8N-12E SHL (5-8N-12E) 999' FSL, 920' FEL 5-8N-12E COMPL. INT. (FIRST PERF) 647' FSL, 2361' FWL COMPL. INT. (LAST PERF) 0' FSL, 1640' FWL 8-8N-12E COMPL. INT. (FIRST PERF) 1' FNL, 1640' FWL COMPL. INT. (LAST PERF) 2293' FNL, 0' FWL 7-8N-12E COMPL. INT. (FIRST PERF) 2293' FNL, 0' FWL COMPL. INT. (LAST PERF) 0' FSL, 2133' FEL 18-8N-12E COMPL. INT. (FIRST PERF) 1' FNL, 2133' FEL COMPL. INT. (LAST PERF) 2623' FNL, 1110' FWL CALYX ENERGY III, LLC 4/16/2019
MEMO	7/13/2018 - 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
SPACING - 671026	11/25/2019 - G56 - (640) 18-8N-12E EST CNEY, OTHERS POE TO BHL NLT 330' FB
SPACING - 673572	11/25/2019 - G56 - (640)(HOR) 5,7,8-8N-12E EXT OTHERS EST CNEY, OTHER POE TO BHL NLT 330' FB
SPACING - 694723	11/25/2019 - G56 - (F.O.) 5,7,8,18-8N-12E EST MULTIUNIT HORIZONTAL WELL X673572 CNEY 5,7,8-8N-12E X671026 CNEY 18-8N-12E 9.1129% 5-8N-12E 26.2042% 8-8N-12E 34.3221% 7-8N-12E 30.3608% 18-8N-12E CALYX ENERGY III, LLC. 4/16/2019

SUMMARY OF BOTTOM HOLE LOCATIONS
CALYX ENERGY III, LLC

Roosevelt 4-5-18CH
 5,7,8,18-8N-12E
 Hughes Co.

~~CD 2018-4965-T~~ (Multi Unit Hz)

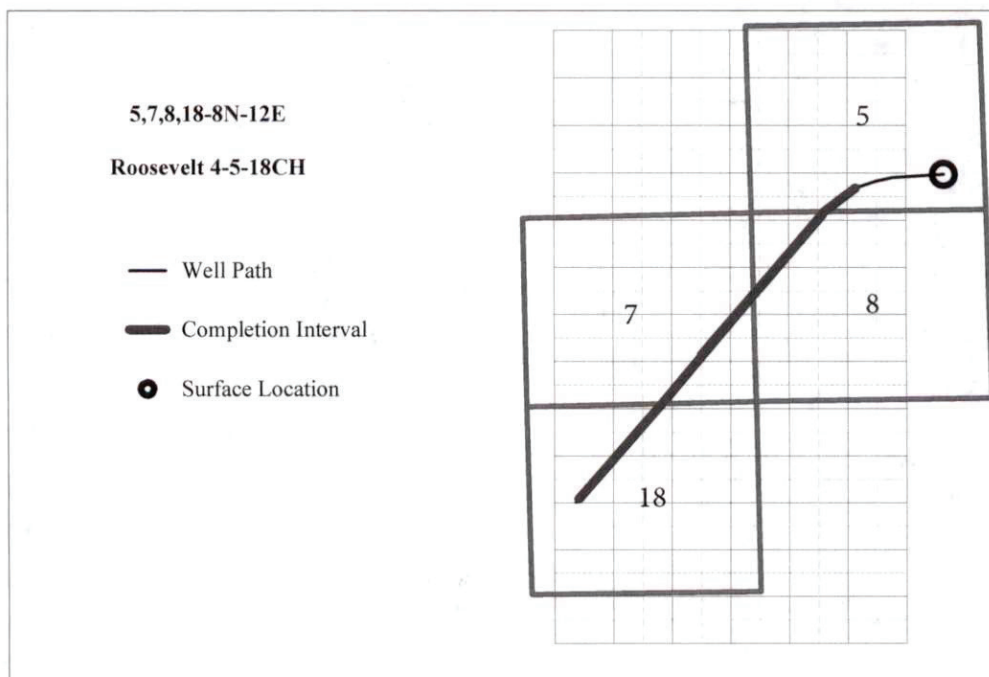
CD 2018-4966-T (Loc. Exc.- sec. 5,7,8,18) Int. Order 685663

	MD	TVD	Location
Surface Location			999' FSL & 920' FEL of sec. 5-8N-12E
Caney	4,459'	3,978'	824' FSL & 2455' FEL of sect. 5-8N-12E
First Perforation	4,950'	3,967'	647' FSL & 2361' FWL of sect. 5-8N-12E
South line of sec. 5 / North line of sec. 8	5,930'	3,938'	0' FSL & 1640' FWL of sect. 5-8N-12E
North line of sec. 8 / West line of sec. 8	8,748'	3,921'	2293' FNL & 0' FWL of sect. 8-8N-12E
South line of sec. 7 / North line of sec. 18	12,439'	3,869'	0' FSL & 2133' FEL of sect. 7-8N-12E
Last Perforation	15,704'	3,974'	2623' FNL & 1110' FWL of sect. 18-8N-12E
Terminus (BHL)	15,825'	3,974'	2575' FSL & 1041' FWL of sect. 18-8N-12E

Perforations in sections 5,7,8,&18 are in the Caney only.

The completion interval (CI) is from first perforation 4,950' to last perforation 15,704' MD.

<u>Formation tops and entry points</u>	<u>MD</u>	<u>Length of CI in each unit (% of total)</u>
Caney	4,459	
First Perforation	4,950	980 ' in section 5 (9.1129%)
South line of sec. 5 / North line of sec. 8	5,930	2,818 ' in section 8 (26.2042%)
North line of sec. 8 / West line of sec. 8	8,748	3,691 ' in section 7 (34.3221%)
South line of sec. 7 / North line of sec. 18	12,439	3,265 ' in section 18 (30.3608%)
Last Perforation	15,704	
Total Depth (BHL) in Caney	15,825	10,754 ' total length of C.I. (100%)



1/22/19