

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

API NUMBER: 091 21814

Approval Date: 03/01/2019

Expiration Date: 09/01/2020

Horizontal Hole
Multi Unit
Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 18 Twp: 9N Rge: 13E County: MCINTOSH
SPOT LOCATION: ☐ SW ☐ NE ☐ SE ☐ NW FEET FROM QUARTER: FROM NORTH FROM WEST
SECTION LINES: 1897 1999

Lease Name: DUNDER Well No: 1-18-30CH Well will be 1897 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

JACK CAMPBELL RANCH, LLC
399356 HIGHWAY 9
HANNA OK 74845

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN	3850	6	
2 WOODFORD	4100	7	
3		8	
4		9	
5		10	

Spacing Orders: 516040
530437

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201810505
201810507

Special Orders:

Total Depth: 17162 Ground Elevation: 890 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 120

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 30 Twp 9N Rge 13E County MCINTOSH

Spot Location of End Point: SE SW SE SW

Feet From: SOUTH 1/4 Section Line: 165

Feet From: WEST 1/4 Section Line: 1800

Depth of Deviation: 3077

Radius of Turn: 573

Direction: 185

Total Length: 13185

Measured Total Depth: 17162

True Vertical Depth: 4100

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

Notes:

Category

Description

DEEP SURFACE CASING

2/14/2019 - 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

2/14/2019 - 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

MEMO

2/14/2019 - 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

PENDING CD - 201810505

2/21/2019 - GA8 - (E.O.) 18, 19 & 30-9N-13E
X516040 MSSP, WDFD 18 & 19-9N-13E
X530437 MSSP, WDFD 30-9N-13E
COMPL. INT. (18-9N-13E) NCT 2640' FNL, NCT 0' FSL, NCT 1320' FWL
COMPL. INT. (19-9N-13E) NCT 0' FNL, NCT 0' FSL, NCT 1320' FWL
COMPL. INT. (30-9N-13E) NCT 0' FNL, NCT 165' FSL, NCT 1320' FWL
NO OP. NAMED
REC. 3/1/2019 (JOHNSON)

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

091 21814 DUNDER 1-18-30CH

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
PENDING CD - 201810507	2/21/2019 - GA8 - (E.O.) 18, 19 & 30-9N-13E EST MULTIUNIT HORIZONTAL WELL X516040 MSSP, WDFD 18 & 19-9N-13E X530437 MSSP, WDFD 30-9N-13E (WDFD ADJACENT COMMON SOURCE OF SUPPLY TO MSSP) 18.61% 18-9N-13E 45.91% 19-9N-13E 35.48% 30-9N-13E NO OP. NAMED REC. 3/1/2019 (JOHNSON)
SPACING - 516040	2/21/2019 - GA8 - (640) 18 & 19-9N-13E VAC OTHERS EXT OTHERS EST MSSP, WDFD, OTHERS
SPACING - 530437	2/21/2019 - GA8 - (640) 30-9N-13E EST OTHERS EXT 516040 MSSP, WDFD, OTHERS

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API NUMBER: 000 00000

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Multi UnitOKLAHOMA CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION
P.O. BOX 52000
OKLAHOMA CITY, OK 73152-2000
(Rule 165:10-3-1)Approval Date:
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PERMIT TO DRILL

WELL LOCATION: Sec: 18 Twp: 9N Rge: 13E County: MCINTOSH
SPOT LOCATION: SW NE SE NW FEET FROM QUARTER: FROM NORTH FROM WEST
SECTION LINES: 1937 999

Lease Name: DUNDER

Well No: 1-18-30CH

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Telephone: 9189494224

OTC/OCC Number: 23515 0

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Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201810505 } (E.O.) Hearing 3-1-2019
201810507

Special Orders:

Total Depth: 17162

Ground Elevation: 890

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 120

DEEP SURFACE CASING HAS BEEN APPROVED

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

PIT 1: AIR

PIT 2: WATER-BASED, CLOSED
8K - 5K ppm CHLORIDES

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

MEMO: PIT 2-CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, WBM/CUTTINGS CAPTURED IN CONCRETE-LINED PIT, SOLIDIFIED AND HELD UNTIL DISPOSAL APPROVED BY OCC.

TEMPORARY AUTHORIZATION
TO DRILL

Expiration Date: 3-1-2019

Signature: Virginia Huling

OAC 165: 10-3-1 (L)

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Unit, or Property Line: 165

Application for Intent to Drill

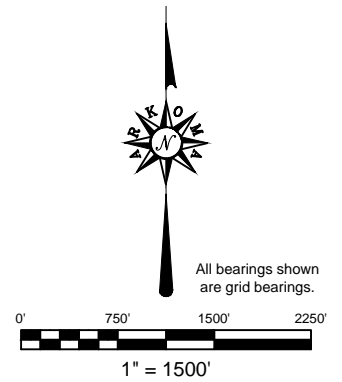
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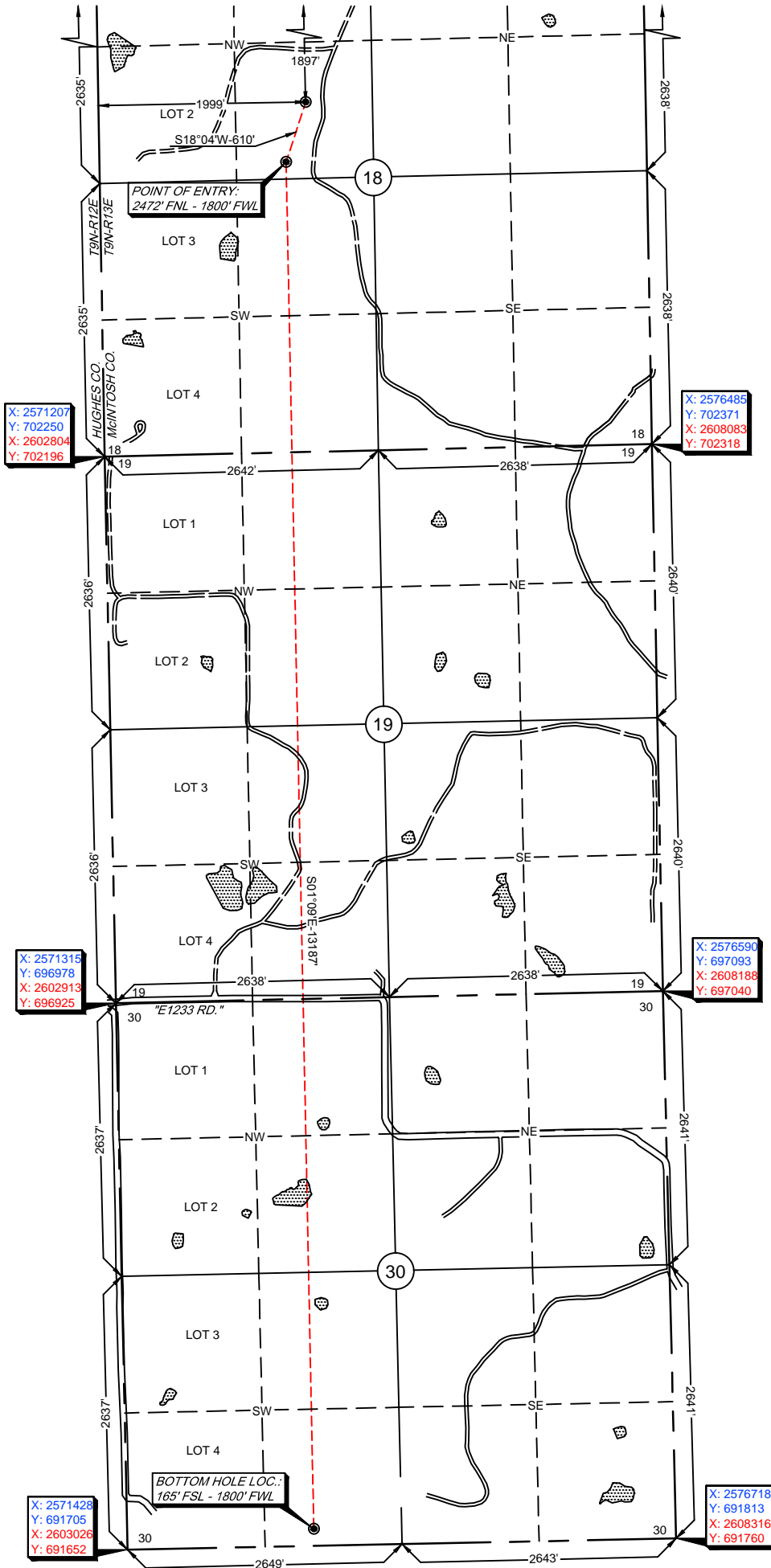
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000 00000 DUNDER 1-18-30CH

Operator: CALYX ENERGY III, LLC
Lease Name and No.: DUNDER 1-18-30CH
Footage: 1897' FNL - 1999' FWL Gr. Elevation: 890'
Section: 18 Township: 9N Range: 13E I.M.
County: McIntosh State of Oklahoma
Terrain at Loc.: Location fell in fairly flat, open pasture.



GPS DATUM
NAD 83
NAD 27
OK SOUTH ZONE



Surface Hole Loc.:
Lat: 35°15'20.43"N
Lon: 95°58'28.96"W
Lat: 35.25567454
Lon: -95.97471078
X: 2573146.03
Y: 705670.83
Surface Hole Loc.:
Lat: 35°15'20.07"N
Lon: 95°58'27.96"W
Lat: 35.25557629
Lon: -95.97443298
X: 2604743.75
Y: 705616.97
Point Of Entry:
Lat: 35°15'14.74"N
Lon: 95°58'31.38"W
Lat: 35.25409317
Lon: -95.97538305
X: 2572956.89
Y: 705091.31
Point Of Entry:
Lat: 35°15'14.38"N
Lon: 95°58'30.38"W
Lat: 35.25399498
Lon: -95.97510522
X: 2604554.62
Y: 705037.48
Bottom Hole Loc.:
Lat: 35°13'04.31"N
Lon: 95°58'31.35"W
Lat: 35.21786346
Lon: 95.97537441
X: 2573223.96
Y: 691906.69
Bottom Hole Loc.:
Lat: 35°13'03.96"N
Lon: 95°58'30.35"W
Lat: 35.21776605
Lon: -95.97509665
X: 2604821.69
Y: 691853.51

-Please note that this location was staked on the ground under the supervision of a Licensed Professional Land Surveyor, but the accuracy of this survey is not guaranteed.
Please contact Arkoma Surveying and Mapping promptly if any inconsistency is determined. GPS data is observed from RTK - GPS.
-NOTE: X and Y data shown hereon for Section Corners may NOT have been surveyed on-the-ground, and further, does NOT represent a true Boundary Survey.
-Quarter Section distances may be assumed from a Government Survey Plat or assumed at a proportionate distance from opposing section corners, or occupation thereof, and may not have been measured on-the-ground, and further, does not represent a true boundary survey.

Survey and plat by:
Arkoma Surveying and Mapping, PLLC
P.O. Box 238 Wilburton, OK 74578
Ph. 918-465-5711 Fax 918-465-5030
Certificate of Authorization No. 5348
Expires June 30, 2020

Certification:

This is to certify that this Well Location Plat represents the results of a survey made on the ground performed under the supervision of the undersigned.

Invoice #8479-B
Date Staked: 02/07/19 By: H.S.
Date Drawn: 02/11/19 By: E.W.

Lance G. Mathis
LANCE G. MATHIS

02/13/19

OK LPLS 1664

