

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

API NUMBER: 051 24637

Approval Date: 05/16/2019

Expiration Date: 11/16/2020

Horizontal Hole  
Oil & Gas  
Multi Unit

PERMIT TO DRILL

WELL LOCATION: Sec: 09 Twp: 9N Rge: 5W County: GRADY  
SPOT LOCATION: ☐ SW ☐ NW ☐ NE ☐ NW FEET FROM QUARTER: FROM NORTH FROM WEST  
SECTION LINES: 335 1565

Lease Name: BIRDSTONE 4-33-9-5 Well No: 1MXH Well will be 335 feet from nearest unit or lease boundary.  
Operator Name: ROAN RESOURCES LLC Telephone: 4058968453 OTC/OCC Number: 24127 0

ROAN RESOURCES LLC  
14701 HERTZ QUAIL SPRINGS PKWY  
OKLAHOMA CITY, OK 73134-2641

GERALD L & MARY ELLEN SKAGGS  
PO BOX 235  
TUTTLE OK 73089

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN	9635	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 654124  
648701

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201902029  
201902030  
201902036  
201902037  
201902674

Special Orders:

Total Depth: 20195 Ground Elevation: 1328 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 200

Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: No

PIT 1 INFORMATION

Type of Pit System: ON SITE  
Type of Mud System: WATER BASED

Chlorides Max: 5000 Average: 3000

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: 2

Liner not required for Category: 2

Pit Location is BED AQUIFER

Pit Location Formation: DUNCAN

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

B. Solidification of pit contents.

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 19-36520

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: ON SITE

Type of Mud System: OIL BASED

Chlorides Max: 300000 Average: 200000

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: 3

Liner required for Category: 3

Pit Location is BED AQUIFER

Pit Location Formation: DUNCAN

## HORIZONTAL HOLE 1

Sec 33 Twp 10N Rge 5W County GRADY

Spot Location of End Point: NE NW NE NW

Feet From: NORTH 1/4 Section Line: 65

Feet From: WEST 1/4 Section Line: 1900

Depth of Deviation: 8941

Radius of Turn: 575

Direction: 1

Total Length: 10350

Measured Total Depth: 20195

True Vertical Depth: 9635

End Point Location from Lease,  
Unit, or Property Line: 65

### Notes:

#### Category

#### Description

#### DEEP SURFACE CASING

4/17/2019 - 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

4/17/2019 - 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](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)

#### MEMO

4/17/2019 - G71 - PITS 1 & 2 - CONCRETE LINED PIT PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

#### PENDING CD - 201902029

5/3/2019 - G56 - (I.O.) 4-9N-5W, 33-10N-5W  
ESTABLISH MULTIUNIT HORIZONTAL WELL  
X654124 MSSP 4-9N-5W  
X648701 MSSP 33-10N-5W  
50% 4-9N-5W  
50% 33-10N-5W  
ROAN RESOURCES, LLC  
REC 4/23/2019 (MINMIER)

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

051 24637 BIRDSTONE 4-33-9-5 1MXH

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 - 201902030	5/3/2019 - G56 - (I.O.) 4-9N-5W, 33-10N-5W X654124 MSSP 4-9N-5W X648701 MSSP 33-10N-5W COMPL INT (4-9N-5W) NCT 165' FSL, NCT 0' FNL, NCT 660' FWL COMPL INT (33-10N-5W) NCT 0' FSL, NCT 165' FNL, NCT 660' FWL NO OP NAMED REC 4/23/2019 (MINMIER)
PENDING CD - 201902036	5/3/2019 - G56 - 4-9N-5W X654124 MSSP 3 WELLS NO OP NAMED REC 4/23/2019 (MINMIER)
PENDING CD - 201902037	5/3/2019 - G56 - 33-10-5W X648701 MSSP 3 WELLS NO OP NAMED REC 4/23/2019 (MINMIER)
PENDING CD - 201902674	5/8/2019 - G56 - (E.O.) 33-10N-5W X165:10-3-28(C)(2)(B) MSSP MAY BE CLOSER THAN 600' TO LEONA 33-1***, DWIGHT 33-1 WELLS NO OP NAMED HEARING 5/17/2019 OK'D PER MCCOY
SPACING - 648701	***S/B LEONA 1-33, WILL BE CORRECTED AT HEARING PER ATTORNEY FOR OPERATOR 5/3/2019 - G56 - (640)(HOR) 33-10N-5W VAC OTHER EXT 641851 MSSP, OTHER POE TO BHL NCT 660' FB (COEXIST SP. ORDER # 264865/357209/480763 MSSP)
SPACING - 654124	5/3/2019 - G56 - (640)(HOR) 4-9N-5W VAC 280305 MSSP SE4, OTHER EST MSSP, OTHER POE TO BHL NCT 660' FB (COEXIST SP # 280305 MSSP N2, SW4)

