

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

API NUMBER: 093 25116 A

Approval Date: 12/28/2017
Expiration Date: 06/28/2018

Horizontal Hole Oil & Gas

Amend reason: CHANGES TO APPROVED METHOD FOR
DISPOSAL OF DRILLING FLUIDS.

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 05 Twp: 20N Rge: 16W County: MAJOR
SPOT LOCATION: FEET FROM QUARTER: FROM SOUTH FROM WEST
SECTION LINES: 235 650

Lease Name: KOPPER 2016 Well No: 1-5H Well will be 235 feet from nearest unit or lease boundary.
Operator Name: SANDRIDGE EXPLORATION & PRODUCTION LLC Telephone: 4054295610 OTC/OCC Number: 22281 0

SANDRIDGE EXPLORATION & PRODUCTION LLC
123 ROBERT S KERR AVE STE 1702
OKLAHOMA CITY, OK 73102-6406

ELEANOR JOAN KOPPER TRUST
2613 NW 153RD ST
EDMOND OK 73013

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN(MERAMEC-OSAGE)	9009	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 80607

Location Exception Orders: 673369

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 14213 Ground Elevation: 1760 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 680

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

PIT 1 INFORMATION

Approved Method for disposal of Drilling Fluids:

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 10000 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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-34527
H. CLOSED SYSTEM-STEEL PITS PER OPERATOR REQUEST.

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: 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: C

Liner not required for Category: C

Pit Location is AP/TE DEPOSIT

Pit Location Formation: TERRACE

HORIZONTAL HOLE 1

Sec 05 Twp 20N Rge 16W County MAJOR

Spot Location of End Point: NE NW NW NW

Feet From: NORTH 1/4 Section Line: 150

Feet From: WEST 1/4 Section Line: 430

Depth of Deviation: 8652

Radius of Turn: 800

Direction: 355

Total Length: 4305

Measured Total Depth: 14213

True Vertical Depth: 9059

End Point Location from Lease,
Unit, or Property Line: 150

Notes:

Category

Description

DEEP SURFACE CASING

12/5/2017 - 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

12/5/2017 - 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

INTERMEDIATE CASING

12/5/2017 - G71 - DUE TO THE KNOWN POTENTIAL RISK OF ENCOUNTERING AN OVER-PRESSURED ZONE IN THE MORROW SERIES IN THIS AREA, THE TECHNICAL MANAGER RECOMMENDS SETTING AN INTERMEDIATE STRING OF CASING IMMEDIATELY ABOVE THE MORROW SERIES

LOCATION EXCEPTION - 673369

12/28/2017 - G58 - (I.O.) 5-20N-16W
X80607 MNMCO
COMPL. INT. NCT 150' FNL, NCT 150' FSL, NCT 330' FWL
SANDRIDGE EXPLORATION AND PRODUCTION, LLC
2/8/2018

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

093 25116 KOPPER 2016 1-5H

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 - 80604

12/28/2017 - G58 - (640) 5-20N-16W
EXT OTHERS
EXT 76570 MNMCO, OTHERS

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.