

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

API NUMBER: 063 24711

Approval Date: 09/22/2017
Expiration Date: 03/22/2018

Straight Hole Stratigraphic Test

PERMIT TO DRILL

WELL LOCATION: Sec: 19 Twp: 7N Rge: 9E County: HUGHES
SPOT LOCATION: NE SW SE SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 353 875

Lease Name: MARK ANDY Well No: 29-1H Well will be 353 feet from nearest unit or lease boundary.
Operator Name: CORTERRA ENERGY OPERATING LLC Telephone: 9186150400 OTC/OCC Number: 23995 0

CORTERRA ENERGY OPERATING LLC
1717 S BOULDER AVE STE 900
TULSA, OK 74119-4844

CHAD W. ROGERS
P.O. BOX 152
HOLDENVILLE OK 74848

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN	4275	6	
2 WOODFORD	4680	7	
3 SYLVAN	4820	8	
4		9	
5		10	

Spacing Orders: No Spacing

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 5000 Ground Elevation: 839 **Surface Casing: 350** Depth to base of Treatable Water-Bearing FM: 300

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

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: 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: WEWOKA

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 17-33155
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: 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 BED AQUIFER

Pit Location Formation: WEWOKA

Additional Surface Owner	Address	City, State, Zip
MARK R. ROGERS	1615 WEST BEDFORD	DIMMIT, TX 79027

Notes:

Category	Description
MEMO	9/18/2017 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT
SPACING	9/22/2017 - G75 - NA-STRATIGRAPHIC TEST