

API NUMBER: 093 25286

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

Approval Date: 09/14/2022
Expiration Date: 03/14/2024

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Section: 12 Township: 20N Range: 16W County: MAJOR

SPOT LOCATION: SW SE SE SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 300 500

Lease Name: GRAVES Well No: 12-13-1H Well will be 300 feet from nearest unit or lease boundary.
Operator Name: COMANCHE EXPLORATION CO LLC Telephone: 4057555900 OTC/OCC Number: 20631 0

COMANCHE EXPLORATION CO LLC
6520 N WESTERN AVE STE 300
OKLAHOMA CITY, OK 73116-7334

MARY G. GRAVES & MARGIE E. MARNEY
1200 WILD PLUM COURT
EDMOND OK 73025-2993

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

Name	Code	Depth
1 MISSISSIPPIAN(MERAMEC-OSAGE)	359MNMCO	9550

Spacing Orders: 147505

Location Exception Orders: 727162

Increased Density Orders: 727403

Pending CD Numbers: No Pending

Working interest owners' notified: ***

Special Orders: No Special

Total Depth: 14127

Ground Elevation: 1789

Surface Casing: 800

Depth to base of Treatable Water-Bearing FM: 460

Deep surface casing has been approved

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

Approved Method for disposal of Drilling Fluids:

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

PERMIT NO: 22-38563

H. (Other)

SEE MEMO

PIT 1 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: AP/TE DEPOSIT

Pit Location Formation: TERRACE

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

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.

HORIZONTAL HOLE 1

Section: 13	Township: 20N	Range: 16W	Meridian: IM	Total Length: 4895
	County: MAJOR			Measured Total Depth: 14127
Spot Location of End Point: SW	SE	SE	SE	True Vertical Depth: 10000
Feet From: SOUTH	1/4 Section Line: 135			End Point Location from
Feet From: EAST	1/4 Section Line: 600			Lease, Unit, or Property Line: 135

NOTES:

Category	Description
DEEP SURFACE CASING	[9/1/2022 - GC2] - 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	<p>[9/1/2022 - GC2] - OCC 165:10-3-10 REQUIRES:</p> <p>1) NOTICE SHALL BE GIVEN AT LEAST 5 BUSINESS DAYS PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS ON A HORIZONTAL WELL TO OPERATORS PRODUCING WELLS WITHIN 1 MILE OF THE COMPLETION INTERVAL OF THE SUBJECT WELL. THE NOTICE TO SUCH OPERATORS SHALL CONTAIN THE INFORMATION IN FORM 6000NOO. IF THE HYDRAULIC FRACTURING OPERATIONS SCHEDULE CHANGES AFTER NOTICE HAS BEEN PROVIDED, RESULTING IN A DELAY OF OPERATIONS OF MORE THAN 5 DAYS FROM THE INITIAL NOTICE, NEW NOTICE IS REQUIRED TO BE GIVEN;</p> <p>2) NOTICE WILL BE GIVEN TO THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS. FORM 6000NHF SHALL BE USED AND IS FOUND AT THIS LINK: OCCEWEB.COM/OG/OGFORMS.HTML; AND,</p> <p>3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS IS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION OF HYDRAULIC FRACTURING OPERATIONS, FOUND AT FRACFOCUS.ORG</p>
INCREASED DENSITY - 727403	<p>[9/13/2022 - GB7] - 13-20N-16W</p> <p>X147505 MNMCO</p> <p>1 WELL</p> <p>NO OP. NAMED</p> <p>7/18/2022</p>
INTERMEDIATE CASING	[9/1/2022 - GC2] - 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 - 727162 (CD2022-002425)	<p>[9/13/2022 - GB7] - (I.O) 13-20N-16W</p> <p>X147505 MNMCO</p> <p>COMPL. INT. NCT 165' FNL, NCT 165' FSL, NCT 560' FEL</p> <p>NO OP. NAMED</p> <p>REC 7/18/2022 (PORTER)</p>
MEMO	[9/1/2022 - GC2] - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
SPACING - 147505	<p>[9/13/2022 - GB7] - (640) 13-20N-16W</p> <p>EXT 76570 MNMCO, OTHERS</p>