API NUMBER: 051 25010 A

Directional Hole Oil & Gas

Amend reason: SET DEEPER SURFACE CASING AT 1990'

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

Approval Date: 02/17/2023
Expiration Date: 08/17/2024

AMEND PERMIT TO DRILL

WELL LOCATION: Section: 08 Township: 3N Range: 5W County: GRADY

SPOT LOCATION: NW SE NW NW FEET FROM QUARTER: FROM **NORTH** FROM **WEST**

SECTION LINES: **659** **730**

Lease Name: **STMU** **Well No:** **5-5-4** **Well will be** **659** **feet from nearest unit or lease boundary.**

Operator Name: **MACK ENERGY CO** Telephone: 4058329830; 5802525580 OTC/OCC Number: 11739 0

MACK ENERGY CO
OKLAHOMA CITY, OK 73102-8831

MCCASLAND FARMS
4700 GAILLARDIA PARKWAY
SUITE 102
OKLAHOMA CITY OK 73142

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

	Name	Code	Depth
1	MORROW SUBTHRUST	402MRWST	10601

Spacing Orders: 731833 Location Exception Orders: No Exceptions Increased Density Orders: No Density

Pending CD Numbers: No Pending Working interest owners' notified: DNA Special Orders: No Special

Total Depth: 10918 Ground Elevation: 1274 **Surface Casing: 1990** Depth to base of Treatable Water-Bearing FM: 320

Deep surface casing has been approved

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

Approved Method for disposal of Drilling Fluids:	
D. One time land application -- (REQUIRES PERMIT)	PERMIT NO: 23-38881
H. (Other)	CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits
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 not** located in a Hydrologically Sensitive Area.

Category of Pit: C
Liner not required for Category: C
Pit Location is: NON HSA
Pit Location Formation: CHICKASHA

DIRECTIONAL HOLE 1

Section: 5 Township: 3N Range: 5W Meridian: IM
County: GRADY
Spot Location of End Point: SE SW SW SW
Feet From: **SOUTH** 1/4 Section Line: 55
Feet From: **WEST** 1/4 Section Line: 433

Measured Total Depth: 10918
True Vertical Depth: 10881
End Point Location from Lease, Unit, or Property Line: 55

NOTES:

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.

Category	Description
DEEP SURFACE CASING	[2/17/2023 - GC2] - APPROVED; (1) NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING. (2) SUBSEQUENT WELLS ON SAME PAD WILL NOT BE ALLOWED DEEP SURFACE CASING IN THE EVENT OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING.
HYDRAULIC FRACTURING	[2/17/2023 - GC2] - OCC 165:10-3-10 REQUIRES: 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; 2) NOTICE WILL BE GIVEN TO THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF FRACTURING OPERATIONS. FORM 6000NHF SHALL BE FOUND HERE: HTTPS://OKLAHOMA.GOV/OCC/DIVISIONS/OIL-GAS/OGCD-FORMS; AND, 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
SPACING - 731833	[2/17/2023 - G56] - (UNIT) 5 & 8-3N-5W EST CARTER KNOX SUBTHRUSTED MORROW OP UNIT FOR MRWST

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.