API NUMBER:	051	25009	
	001	20000	

Oil & Gas

Directional Hole

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

PERMIT TO DRILL

WELL LOCATION: Section: 08 Township: SN Range: SV County: GRADY SPOT LOCATION: NW SE NW NW rest mood quarterie: mood NORTH mood WEST SECTION LAGE: 677 738 Lease Name: STMU Well Ne: 5-53 Well will be 677 feet from nearest unit or lease boundary. Operator Name: MACK ENERGY CO Telephone: 4058329830; 58025255800 OTC/OCC Number: 11739 0 MACK ENERGY CO MCCASLAND FARMS 4700 GAILLARDIA PARKWAY SUITE 102 OKLAHOMA CITY OK 73142 Formation(s) (Permit Valid for Listed Formations Only): Mame Code Depth 0 Name Code Depth 1 MORROW SUBTHRUST 402MRWST 10061 Specing Orders: 731833 Location Exception Orders: No ExceptionS Increased Density Orders: No Density Pending CD Numbers: No Pending Working interest owners' notified: *** Special Orders: No Special Total Depth: 11326 Ground Elevation: 1274 Surface Casing: 1500 Depth to base	
Interview Match Beccholulus 677 738 Lease Name: STMU Well Will 56-53 Well will be 677 feet from nearest unit or lease boundary. Operator Name: MACK ENERGY CO Telephone: 4058329830; 5802525580 OTC/OCC Number: 11739 0 MACK ENERGY CO MACK ENERGY CO MCCASLAND FARMS 4700 GAILLARDIA PARKWAY SUITE 102 0K OKLAHOMA CITY, OK 73142-1839 MCCASLAND FARMS 4700 GAILLARDIA PARKWAY SUITE 102 OKLAHOMA CITY OK 73142 OK 73142 SUITE 102 0K Formation(s) (Permit Valid for Listed Formations Only): Mame Code Depth 0 Spacing Orders: 731833 Location Exception Orders: No Exceptions Increased Density Orders: No Density Pending CD Numbers: No Pending Working interest owners' notified: *** Special Orders: No Special Total Depth: 11326 Ground Elevation: 1274 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 330 Under Federal Jurisdiction: No Fresh Water Supply Well Ditlet: No Spaceal 71823 Under Federal Jurisdiction: No Encephoree <	
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Type of Mud System: WATER BASED Pit Location is: NON HSA	
Type of Mud System: WATER BASED Pit Location is: NON HSA	
Chlorides Max: 5000 Average: 3000 Pit Location Formation: CHICKASHA	
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 <u>is not</u> located in a Hydrologically Sensitive Area.	
DIRECTIONAL HOLE 1	
Section: 5 Township: 3N Range: 5W Meridian: IM	
County: GRADY Measured Total Depth: 11326	
Spot Location of End Point: NE NW SW SW True Vertical Depth: 11171	
Feet From: SOUTH 1/4 Section Line: 1052 End Point Location from	
Feet From: WEST 1/4 Section Line: 658 Lease, Unit, or Property Line: 658	

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