

API NUMBER: 051 25013

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

Approval Date: 02/23/2023  
Expiration Date: 08/23/2024

Directional Hole Injection

**PERMIT TO DRILL**

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

SPOT LOCATION: SW NE NW NW FEET FROM QUARTER: FROM NORTH FROM WEST  
SECTION LINES: 641 722

Lease Name: STMU Well No: 6-4-2 INJ Well will be 641 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 73142-1839

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	9848

Spacing Orders: No Spacing

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: 10592

Ground Elevation: 1274

Surface Casing: 1500

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: CHICKAHSA

**DIRECTIONAL HOLE 1**

Section: 6 Township: 3N Range: 5W Meridian: IM  
County: GRADY

Measured Total Depth: 10592

Spot Location of End Point: SE SE SE SE

True Vertical Depth: 10490

Feet From: SOUTH 1/4 Section Line: 299

End Point Location from  
Lease, Unit, or Property Line: 236

Feet From: EAST 1/4 Section Line: 236

**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	<p>[2/17/2023 - 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 FRACTURING OPERATIONS. FORM 6000NHF SHALL BE FOUND HERE: <a href="https://oklahoma.gov/occ/divisions/oil-gas/ogcd-forms">HTTPS://OKLAHOMA.GOV/OCC/DIVISIONS/OIL-GAS/OGCD-FORMS</a>; 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 <a href="http://FRACFOCUS.ORG">FRACFOCUS.ORG</a></p>
SPACING	[2/17/2023 - GC2] - N/A - INJECTION WELL