

API NUMBER: 143 24355

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

Approval Date: 02/15/2022

Expiration Date: 08/15/2023

Straight Hole

Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Section: 12 Township: 21N Range: 12E County: TULSA

SPOT LOCATION: ☐ SE ☐ SW ☐ NE ☐ SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 1350 700

Lease Name: CWU

Well No: 21

Well will be 700 feet from nearest unit or lease boundary.

Operator Name: LDO LLC

Telephone: 9185741320

OTC/OCC Number: 24147 0

LDO LLC

TULSA, OK 74137-3020

MSH PROPERTIES LLC

2525 66 STN

TULSA OK 74127

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

	Name	Code	Depth
1	CLEVELAND	405CLVD	200
2	OSWEGO	404OSWG	700
3	BARTLESVILLE	404BRVL	1150
4	TUCKER	404TCKR	1320
5	BURGESS	404BRGS	1450

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: 1500

Ground Elevation: 613

Surface Casing: 100

Depth to base of Treatable Water-Bearing FM: 40

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

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

PIT 1 INFORMATION

Type of Pit System: ON SITE

Type of Mud System: AIR

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: 4

Liner not required for Category: 4

Pit Location is: ALLUVIAL

Pit Location Formation: ALLUVIUM

Mud System Change to Water-Based or Oil-Based Mud Requires an Amended Intent (Form 1000).

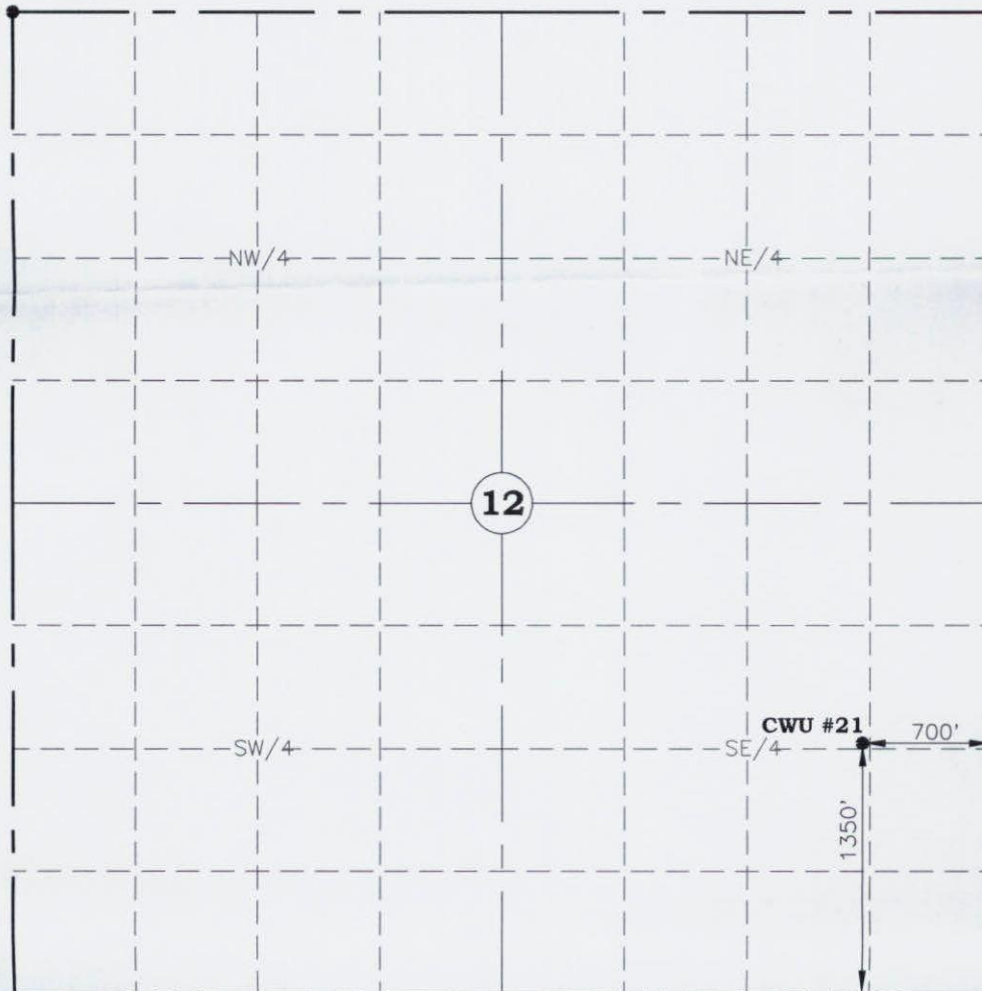
NOTES:

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
HYDRAULIC FRACTURING	<p>[2/9/2022 - 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>
SPACING	[2/11/2022 - GB1] - FORMATIONS UNSPACED; 200 ACRE LEASE (SE4, E2 E2 SW4)

WELL LOCATION PLAT

COMPANY: LDO, LLC LEASE: CWU WELL NO. 21
QUARTER: SOUTHEAST SECTION: 12 TOWNSHIP: 21 NORTH RANGE: 12 EAST MERIDIAN: INDIAN
COUNTY: TULSA STATE: OKLAHOMA LOCATION: 1350' FSL 700' FEL ELEVATION: 613 (NAD 88)
LATITUDE: 36°18'40.62" N LONGITUDE: 95°58'33.59" W ACCURACY $\pm 2-3$ METERS STAKED: 01/14/22



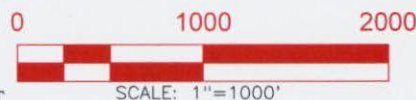
SURVEY NOTES

DISTANCES SHOWN ARE BASED ON THE QUARTER SECTION BEING 2640 FEET. ACTUAL SECTION LINE DISTANCES HAVE NOT BEEN MEASURED. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY.

THIS LOCATION HAS BEEN CAREFULLY STAKED, UTILIZING THE BEST AVAILABLE SURVEY RECORDS, MAPS, PHOTOGRAPHS AND EQUIPMENT. HOWEVER, ITS EXACT POSITION IS NOT GUARANTEED.

CERTIFICATE OF SURVEY

I HEREBY CERTIFY THAT A SURVEY WAS MADE UNDER MY SUPERVISION OF THE ABOVE DESCRIBED WELL LOCATION AND THAT THIS PLAT IS A TRUE AND CORRECT REPRESENTATION OF SAID SURVEY.



01/19/22



MARK RIEDEL LS#1902

**ALTMAN & OSAGE
SURVEYING LLC.**
107 N. 4TH ST. STE 213
PONCA CITY, OK
918-287-4029
CA # 7862

LDO, LLC
8929 S. JOPLIN AVE.
TULSA, OK 74137
**WELL LOCATION IN
TULSA COUNTY, OKLAHOMA**

SURVEYED BY: MJR
DRAWN BY: MJR
CHECKED BY: MJR
LAST ON SITE: 01/14/22
DATE: 01/19/22
JOB NO: 22-002
SHEET 1 OF 1