

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

API NUMBER: 087 22149 A

Approval Date: 06/15/2018  
Expiration Date: 12/15/2018

Horizontal Hole Oil & Gas

Amend reason: ADDING FORMATION

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 05 Twp: 6N Rge: 4W

County: MCCLAIN

SPOT LOCATION: ☐ NE ☐ NW ☐ NE ☐ NE

FEET FROM QUARTER: FROM NORTH FROM EAST

SECTION LINES: 285 837

Lease Name: LODI

Well No: 9-5H

Well will be 285 feet from nearest unit or lease boundary.

Operator Name: ECHO E & P LLC

Telephone: 4057534232

OTC/OCC Number: 23925 0

ECHO E & P LLC  
3817 NW EXPRESSWAY STE 840  
OKLAHOMA CITY, OK 73112-1400

KLAASEN CATTLE COMPANY LLC  
21686SH 76  
BLANCHARD OK 73010

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	10400	6	
2	WOODFORD	10822	7	
3			8	
4			9	
5			10	

Spacing Orders: 671562

Location Exception Orders: 678619

Increased Density Orders: 680838

Pending CD Numbers:

Special Orders:

Total Depth: 16000

Ground Elevation: 1265

**Surface Casing: 1500**

Depth to base of Treatable Water-Bearing FM: 290

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

PIT 1 INFORMATION

Approved Method for disposal of Drilling Fluids:

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 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

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

PERMIT NO: 18-34577

H. SEE MEMO

This permit does not address the right of entry or settlement of surface damages.

The duration of this permit is SIX 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.

## 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

## HORIZONTAL HOLE 1

Sec 05 Twp 6N Rge 4W County MCCLAIN

Spot Location of End Point: S2 SE SE SE

Feet From: SOUTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 330

Depth of Deviation: 10322

Radius of Turn: 735

Direction: 170

Total Length: 4523

Measured Total Depth: 16000

True Vertical Depth: 10900

End Point Location from Lease,  
Unit, or Property Line: 165

### Notes:

#### Category

#### Description

DEEP SURFACE CASING

6/13/2018 - G71 - 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

6/5/2018 - G71 - OCC 165:10-3-10 REQUIRES:

1) PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE;

2) WITH NOTICE ALSO GIVEN 48 HOURS IN ADVANCE OF HYDRAULIC FRACTURING ALL WELLS TO BOTH THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES, USING THE "FRAC NOTICE FORM" FOUND AT THE FOLLOWING LINK: [OCCEWEB.COM/OG/OGFORMS.HTML](http://OCCEWEB.COM/OG/OGFORMS.HTML); AND,

3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION THE HYDRAULIC FRACTURING OPERATIONS, USING THE FOLLOWING LINK: [FRACFOCUS.ORG](http://FRACFOCUS.ORG)

INCREASED DENSITY - 680838

9/11/2018 - G58 - 5-6N-4W  
X671652 MSSP, WDFD  
1 MSSP WELL  
2 WDFD WELLS  
ECHO E&P, LLC  
8/1/2018

LOCATION EXCEPTION - 678619

9/11/2018 - G58 - (I.O.) 5-6N-4W  
X671652 MSSP  
COMPL. INT. NCT 165' FNL, NCT 165' FSL, NCT 330' FWL  
ECHO E&P, LLC  
6/1/2018

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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.

087 22149 LODI 9-5H

Category	Description
MEMO	6/5/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
PENDING CD - 201803885	6/6/2018 - G58 - 5-6N-4W X671652 WDFD 2 WELLS NO OP. NAMED HEARING 6/5/2018
SPACING - 671652	6/6/2018 - G58 - (640)(HOR) 5-6N-4W VAC OTHER EXT 652240 WDFD, OTHER COMPL. INT. NCT 165' FNL & FSL, NCT 330' FEL & FWL