

API NUMBER: 017 25887 A

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

Approval Date: 11/18/2022

Expiration Date: 05/18/2024

Multi Unit Oil & Gas

Amend reason: AMEND SHL & BHL

AMEND PERMIT TO DRILL

WELL LOCATION: Section: 18 Township: 14N Range: 8W County: CANADIAN

SPOT LOCATION: FEET FROM QUARTER: FROM NORTH FROM WEST
SECTION LINES: 288 1275

Lease Name: DOUGHERTY BROS 18_19-14N-8W Well No: 2HX Well will be 288 feet from nearest unit or lease boundary.

Operator Name: DEVON ENERGY PRODUCTION CO LP Telephone: 4052353611; 4052353611; OTC/OCC Number: 20751 0

DEVON ENERGY PRODUCTION CO LP
333 W SHERIDAN AVE
OKLAHOMA CITY, OK 73102-5015

ROBERT E. DOUGHERTY
PO BOX 344
OKARCHE OK 73762

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

	Name	Code	Depth
1	MISSISSIPPIAN	359MSSP	9069
2	WOODFORD	319WDFD	10456

Spacing Orders: 589583
697072
728552

Location Exception Orders: 728553

Increased Density Orders: No Density

Pending CD Numbers: No Pending

Working interest owners' notified: ***

Special Orders: No Special

Total Depth: 20293 Ground Elevation: 1251

Surface Casing: 1999

Depth to base of Treatable Water-Bearing FM: 400

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: 22-38681

H. (Other) SEE MEMO

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: BLAINE

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 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: BLAINE

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.

MULTI UNIT HOLE 1					
Section: 19	Township: 14N	Range: 8W	Meridian: IM	Total Length: 9757	
County: CANADIAN				Measured Total Depth: 20293	
Spot Location of End Point: SW SW SE SW				True Vertical Depth: 11000	
Feet From: SOUTH		1/4 Section Line: 50		End Point Location from	
Feet From: WEST		1/4 Section Line: 1585		Lease, Unit, or Property Line: 50	

Additional Surface Owner(s)	Address	City, State, Zip
TERRY C. DOUGHERTY	5535 KAPALUA CT.	GUTHRIE, OK 73044
TERRY C. DOUGHERTY	5535 KAPALUA CT.	OKC, OK 73112

NOTES:

Category	Description
DEEP SURFACE CASING	[11/17/2022 - 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>[11/17/2022 - 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 FRACTURING OPERATIONS. FORM 6000NHF SHALL BE FOUND HERE: HTTPS://OKLAHOMA.GOV/OCC/DIVISIONS/OIL-GAS/OGCD-FORMS; 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>
INTERMEDIATE CASING	[11/17/2022 - GC2] - DUE TO THE KNOWN POTENTIAL RISK OF ENCOUNTERING AN OVER-PRESSURED ZONE IN THE MORROW SERIES IN THIS AREA, THE TECHNICAL MANAGER RECOMMENDS SETTING AN INTERMEDIATE STRING OF CASING IMMEDIATELY ABOVE THE MORROW SERIES
LOCATION EXCEPTION - 728553	<p>[11/18/2022 - G56] - (I.O.) 18 & 19-14N-8W X589583 MSSP, WDFD 18-14N-8W X697072 MSS, WDFD 19-14N-8W COMPL INT (18-14N-8W) NCT 165' FNL, NCT 0' FSL, NCT 330' FWL COMPL INT (19-14N-8W) NCT 0' FNL, NCT 165' FSL, NCT 330' FWL DEVON ENERGY PROD CO, LP 9/19/2022</p>
MEMO	[11/17/2022 - GC2] - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
SPACING - 589583	<p>[11/18/2022 - G56] - (640) 18-14N-8W VAC 166936 CSTRU, MSSSD EST MSSP, OTHER EXT 579575/585504 WDFD</p>
SPACING - 697072	<p>[11/18/2022 - G56] - (640)(HOR) 19-14N-8W EST MSSP, OTHER EXT 631677 WDFD POE TO BHL (MSSP) NLT 660' FB POE TO BHL (WDFD) NLT 165' FNL/FSL, NCT 330' FEL/FWL</p>
SPACING - 728552	<p>[11/18/2022 - G56] - (I.O.) 18 & 19-14N-8W EST MULTIUNIT HORIZONTAL WELL X589583 MSSP, WDFD 18-14N-8W X697072 MSS, WDFD 19-14N-8W (WDFD IS ADJACENT CSS TO MSSP) 50% 18-14N-8W 50% 19-14N-8W DEVON ENERGY PROD CO, LP 9/19/2022</p>

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.

017 25887 DOUGHERTY BROS 18_19-14N-8W 2HX