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

API NUMBER: 017 24893 A

Approval Date: 03/23/2016
Expiration Date: 09/23/2016

Horizontal Hole Oil & Gas

Amend reason: CHANGE SURFACE LOCATION AND ORDER NUMBERS

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 21 Twp: 14N Rge: 8W County: CANADIAN

SPOT LOCATION: SE NW NE NE FEET FROM QUARTER: FROM **NORTH** FROM **EAST**
SECTION LINES: **450** **793**

Lease Name: MOELLER 1408 **Well No: 1-21MH** **Well will be 450 feet from nearest unit or lease boundary.**

Operator Name: **PAYROCK ENERGY LLC** Telephone: 4056088077 OTC/OCC Number: 23215 0

PAYROCK ENERGY LLC
3200 QUAIL SPRINGS PKWY STE 130
OKLAHOMA CITY, OK 73134-2612

BOBBY & VIOLET MOELLER
29427 N 2780 RD
OKARCHE OK 73762

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

	Name	Depth		Name	Depth
1	MISSISSIPPIAN	7733	6		
2			7		
3			8		
4			9		
5			10		

Spacing Orders: 651741 Location Exception Orders: Increased Density Orders:

Pending CD Numbers: 201600479 Special Orders:

Total Depth: 15120 Ground Elevation: 1238 **Surface Casing: 1000** Depth to base of Treatable Water-Bearing FM: 330

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

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: FLOWERPOT

Approved Method for disposal of Drilling Fluids:

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

E. Haul to Commercial pit facility: Sec. 31 Twn. 12N Rng. 8W Cnty. 17 Order No: 587498

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: 225000

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: FLOWERPOT

HORIZONTAL HOLE 1

Sec 21 Twp 14N Rge 8W County CANADIAN

Spot Location of End Point: S2 S2 S2 SE

Feet From: NORTH 1/4 Section Line: 65

Feet From: EAST 1/4 Section Line: 1320

Depth of Deviation: 9362

Radius of Turn: 692

Direction: 182

Total Length: 5758

Measured Total Depth: 15120

True Vertical Depth: 9683

End Point Location from Lease,
Unit, or Property Line: 65

Notes:

Category	Description
DEEP SURFACE CASING	3/22/2016 - 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	3/22/2016 - G71 - OCC 165:10-3-10 REQUIRES: 1) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS BE REPORTED TO FRACFOCUS USING THE FOLLOWING LINK HTTP://FRACFOCUS.ORG/ WITH NOTICE GIVEN 48 HOURS IN ADVANCE OF FRACTURING TO THE LOCAL OCC DISTRICT OFFICE; AND, 2) PRIOR TO COMMENCEMENT OF FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE ALSO GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE.
INTERMEDIATE CASING	3/22/2016 - G71 - 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
PENDING CD - 201600479	4/21/2016 - G60 - (I.O.) 21-14N-8W X201600477 MSSP, OTHERS COMPL. INT. NCT 165' FNL, NCT 165' FSL, NCT 1000' FEL OR FWL NO OP. NAMED REC. 3-7-16 (NORRIS)
SPACING - 651741	4/21/2016 - G60 - (640)(HOR) 21-14N-8W VAC 153608 MCSMN, MSSLM, OTHERS EXT 646378 MSSP, OTHERS COMPL. INT. NLT 660' FB

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