API NUMBER: 017 25546

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

PERMIT TO DRILL

Approval Date: 10/18/2019
Expiration Date: 04/18/2021

1363 0

Well will be 364 feet from nearest unit or lease boundary.

OTC/OCC Number:

Horizontal Hole Multi Unit Oil & Gas

WELL LOCATION:	Sec: 09 Twp: 14N Rge:	8W County: CAN	IADIAN	
SPOT LOCATION:	NE SW SE SW	FEET FROM QUARTER: FROM	SOUTH FROM	WEST
		SECTION LINES:	364	1871
Lease Name:	KNIGHT 1408	Well No:	3-9-4MXH	
Operator MARATHON OIL COMPANY			Telephone:	4057285228

MARATHON OIL COMPANY

PO BOX 68

HOUSTON, TX 77001-0068

GEORGE RAY HEUPEL 15151 N CHILES RD

OKARCHE OK 73762

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

	Name	Depth		Name	D	epth
1	MISSISSIPPIAN	9714	6			
2			7			
3			8			
4			9			
5			10			
Spacing Orders:	625910	Location Exception Orders:	703768		Increased Density Orders:	702959
	651936					702960
	703120					

Pending CD Numbers: Special Orders:

Total Depth: 19660 Ground Elevation: 1239 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 340

Deep surface casing has been approved

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

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 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

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

H. SEE MEMO

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: FLOWERPOT

HORIZONTAL HOLE 1

Sec 04 Twp 14N Rge 8W County CANADIAN

Spot Location of End Point: NW NE NE NW
Feet From: NORTH 1/4 Section Line: 50
Feet From: WEST 1/4 Section Line: 2020

Depth of Deviation: 9272 Radius of Turn: 462

Direction: 2

Total Length: 9662

Measured Total Depth: 19660

True Vertical Depth: 10242

End Point Location from Lease,
Unit, or Property Line: 50

Notes:

Category Description

DEEP SURFACE CASING 10/1/2019 - 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 10/1/2019 - 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; 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

INCREASED DENSITY - 702959 10/16/2019 - GB1 - 4-14N-8W

X625910 MSSP *** 3 WELLS NO OP. NAMED

9/30/2019

*** NPT WILL BE FILED TO ADD SP 651936 PER ATTORNEY

INCREASED DENSITY - 702960 10/16/2019 - GB1 - 9-14N-8W

X625910 MSSP *** 3 WELLS

3 WELLS NO OP NAMED 9/30/2019

*** NPT WILL BE FILED TO ADD SP 651936 PER ATTORNEY

INTERMEDIATE CASING 10/1/2019 - 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

LOCATION EXCEPTION - 703768 10/16/2019 - GB1 - (I.O.) 4 & 9-14N-8W

X625910/651936 MSSP

COMPL. INT. (4-14N-8W) NCT 150' FNL, NCT 0' FSL, NCT 1650' FWL COMPL. INT. (9-14N-8W) NCT 0' FNL, NCT 150' FSL, NCT 1650' FWL

NO OP. NAMÈD 10/16/2019

MEMO 10/1/2019 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 -

OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

SPACING - 625910 10/16/2019 - GB1 - (640)(HOR) 4 & 9-14N-8W

VAC 168986 CSTRÙ, MSSSD, MNNG VAC 171385 CSTRU, MSSSD, MNNG

EXT 619356 MSSP, OTHER COMPL. INT. (MSSP) NLT 330' FB

SPACING - 651936 10/16/2019 - GB1 - NPT PARAGRAPH 8.D OF #625910 TO CHANGE MSSP TO CONVENTIONAL

RESERVOIR WITH WELL LOCATION NLT 660' FB

SPACING - 703120 10/16/2019 - GB1 - (I.O.) 4 & 9-14N-8W

EST MULTIUNIT HÒRIZONTAL WELL

X625910 MSSP *** 50% 4-14N-8W 50% 9-14N-8W NO OP. NAMED 10/2/2019

*** SP 651936 WILL BE ADDED AT FINAL HEARING PER ATTORNEY

