API NUMBER: 063 24892

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

Approval Date: 03/21/2019
Expiration Date: 09/21/2020

Horizontal Hole Multi Unit Oil & Gas

located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C
Pit Location is BED AQUIFER
Pit Location Formation: CALVIN

## PERMIT TO DRILL

Case Name:   PRICE   Well No.   2314-2HXM   Well will be   315   Total persons   Total persons   ANTIOCH OPERATING LLC	SPOT LOCATION	N: SE NE NE	NE FEET FROM SECTION LI	QUARTER: FROM	NORTH FROM	EAST			
Name	Lagge Name	BBICE			347	315	Wall will be	21E foot from pooro	ot unit or loans houndary
PO BOX 1557   OKLAHOMA CITY, OK 73101-1557	Operator		BLLC	well No.		1052360080	well will be		
Name	РО ВОХ	(1557	OK 73101-	1557		8121 E 1	29 ROAD	OK 7	4883
1 MAYES 3986 6 2 MISSISSIPPIAN 4000 7 3 WOODFORD 4100 8 4 HUNTON 4166 9 5 SYLVAN 4178 10  pacing Orders: 667058 Location Exception Orders: 674532 Increased Density Orders: 674531 687000 689126 692205 674531  ending CD Numbers: Special Orders: 851 Surface Casing: 290 Depth to base of Treatable Water-Bearing FM: 240  Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: Yes PT 1 INFORMATION Approved Method for disposal of Drilling Fluids: Type of Mud System: CLOSED Closed System Means Steel Pits System: CLOSED Closed System Means Steel Pits System: WATER BASED D. One time land application (REQUIRES PERMIT) PERMIT NO: 18-355: Chlorides Max: 8000 Average: 5000	Formation(s					Nama		Dont	_
2 MISSISSIPHA 4000 7 3 WOODFORD 4100 8 4 HUNTON 4166 9 5 SYLVAN 4178 10  pacing Orders: 670240 6774531 687000 689126 692205 674531								Dept	n
3									
4 HUNTON 4166 9 5 SYLVAN 4178 10  pacing Orders: 667058									
5 SYLVAN 4178 10  pacing Orders: 667058   Location Exception Orders: 674532   Increased Density Orders: 670240 674531   687000 689126   692205   674531    ending CD Numbers: Special Orders: 851   Surface Casing: 290   Depth to base of Treatable Water-Bearing FM: 240  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   D. One time land application (REQUIRES PERMIT)   PERMIT NO: 18-355: Chlorides Max: 8000 Average: 5000									
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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 D. One time land application (REQUIRES PERMIT) PERMIT NO: 18-355:  Chlorides Max: 8000 Average: 5000	ending CD Numbers:						Sp	pecial Orders:	
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Fype of Pit System: CLOSED Closed System Means Steel Pits  Fype of Mud System: WATER BASED D. One time land application (REQUIRES PERMIT) PERMIT NO: 18-355:  Chlorides Max: 8000 Average: 5000 H. SEE MEMO	Under Federa	al Jurisdiction: No		Fresh Wate	r Supply Well Drilled	d: No		Surface Water u	used to Drill: Yes
Type of Mud System: WATER BASED D. One time land application (REQUIRES PERMIT) PERMIT NO: 18-355: Chlorides Max: 8000 Average: 5000 H. SEE MEMO	PIT 1 INFORM	ATION			А	pproved Method for	disposal of Drillin	ng Fluids:	
Chlorides Max: 8000 Average: 5000 H. SEE MEMO	Гуре of Pit Sys	tem: CLOSED Closed Sys	tem Means Steel Pits						
Shinites max. 6000 Thorage. 6000					1	D. One time land ap	plication (REQL	UIRES PERMIT)	PERMIT NO: 18-3553
s depth to top of ground water greater than 10ft below base of pit? Y	Chlorides Max:	8000 Average: 5000			1	H. SEE MEMO			
	ls depth to top	of ground water greater than	10ft below base of pit?	Υ	_				
	ellhead Prote	ction Area? N							

## 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 BED AQUIFER
Pit Location Formation: CALVIN

## **HORIZONTAL HOLE 1**

Sec 14 Twp 8N Rge 10E County HUGHES

Spot Location of End Point: NW NE NE NE Feet From: NORTH 1/4 Section Line: 165
Feet From: EAST 1/4 Section Line: 440

Depth of Deviation: 3700 Radius of Turn: 665 Direction: 359

Total Length: 10254

Measured Total Depth: 15000

True Vertical Depth: 4665

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

Notes:

Category Description

HYDRAULIC FRACTURING

10/17/2018 - GA8 - 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

LOCATION EXCEPTION - 674532 3/14/2019 - G58 - (I.O.) 14 & 23-8N-10E

X667058 MSSP, WDFD, SLVN X670240 MYES, WDFD, HNTN

COMPL. INT. (23-8N-10E) NCT 165' FSL, NCT 0' FNL, NCT 330' FEL COMPL. INT. (14-8N-10E) NCT 0' FSL, NCT 165' FNL, NCT 330' FEL

NO OP. NAMED 3/12/2018

MEMO 10/17/2018 - GA8 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS REQUIRED PER LITTLE WEWOKA

CREEK; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

Category

Description

10/25/2018 - G58 - (640)(HOR) 14-8N-10E

VAC 156037 WDFD

EST MSSP, WDFD, SLVN

POE TO BHL (MSSP) NLT 660' FB

POE TO BHL (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL

POE TO BHL (SLVN) NLT 330' FB

SPACING - 670240

10/25/2018 - G58 - (640)(HOR) 23-8N-10E

EST MYES, OTHER

EXT 667977 WDFD, OTHER

POE TO BHL (MYES) NCT 660' FB

POE TO BHL (WDFD) NCT 165' FNL & FSL, NCT 330' FEL & FWL

SPACING - 674531 3/14/2019 - G58 - (I.O.) 14 & 23-8N-10E EST MULTIUNIT HORIZONTAL WELL X667058 MSSP, WDFD, SLVN X670240 MYES, WDFD, HNTN

50% 14-8N-10E 50% 23-8N-10E NO OP. NAMED 3/12/2018

SPACING - 687000 1/17/2019 - G58 - NPT TO SP ORDER 670240 TO COEXIST SP. ORDER 153048 MSHN; SP.

**ORDER 185892 HNTN** 

SPACING - 689126 3/14/2019 - G58 - (640) 23-8N-10E

ORDER VACATES SP. ORDER 671322 MSSP, WDFD, HNTN AND CONFIRMS SP. ORDER 670240 MYES, CNEY, WDFD, HNTN

SPACING - 692205 3/14/2019 - G58 - NPT TO SP. ORDER 670240 TO VACATE SP. ORDER 185892/189993 WDFD

FOR 23-8N-10E

