API NUMBER: 093 24977 Α

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

Approval Date: 08/27/2013 02/27/2014 Expiration Date:

Horizontal Hole Oil & Gas

Amend reason: ADD OIL-BASED MUD SYSTEM; UPDATE ORDERS

AMEND PERMIT TO DRILL

WELL LOCATION:	Sec:	22	Twp:	23N	Rge:	11W	County:	: MAJ	OR		
SPOT LOCATION:	NW	NE	N	E	NE	FEET FROM	и QUARTER:	FROM	NORTH	FROM	EAST

SECTION LINES 200 400

Lease Name: MCCOLLUM 2311 Well No: 1-22H Well will be 200 feet from nearest unit or lease boundary.

SANDRIDGE EXPLORATION & PRODUCTION LLC Operator OTC/OCC Number: Telephone: 4054296169 22281 0 Name:

SANDRIDGE EXPLORATION & PRODUCTION LLC 123 ROBERT S KERR AVE STE 1702

OKLAHOMA CITY. OK 73102-6406

JEFFREY MCCOLLUM & DIANE MCCOLLUM 67414 ALINE RD.

**HELENA** OK 73741

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

	Name	Depth	Name	Depth
1	WOODFORD	7452	6	
2			7	
3			8	
4			9	
5			10	
Spacing Orders:	615776	Location Exception Orders:	616158	Increased Density Orders:

Pending CD Numbers: Special Orders:

Total Depth: 13005 Ground Elevation: 1363 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 380

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

Approved Method for disposal of Drilling Fluids: PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED D. One time land application -- (REQUIRES PERMIT) H. SEE MEMO Chlorides Max: 10000 Average: 5000

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?

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 PERMIT NO: 13-24090

## 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 22 Twp 23N Rge 11W County MAJOR SW SE Spot Location of End Point: SE SE Feet From: SOUTH 1/4 Section Line: 200 Feet From: EAST 1/4 Section Line: 800

Depth of Deviation: 6966 Radius of Turn: 890 Direction: 185

Total Length: 4641

Measured Total Depth: 13005

True Vertical Depth: 7543

End Point Location from Lease,
Unit, or Property Line: 200

Notes:

Category Description

DEEP SURFACE CASING 8/20/2013 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS

OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR

SURFACE CASING

LOCATION EXCEPTION - 616158 12/26/2013 - G75 - (I.O.) 22-23N-11W

X615776 WDFD

COMPL. INT. NCT 300 FNL, NCT 300 FSL, NCT 560 FEL

SANDRIDGE EXPLOR. & PROD., LLC

9-20-2013

MEMO 12/26/2013 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 -

OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

SPACING - 615776 12/26/2013 - G75 - (640)(HOR) 22-23N-11W

EST WDFD, OTHER COMPL. INT. NLT 330' FB

9-12-2013