

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

API NUMBER: 119 24055

Approval Date: 04/12/2013

Expiration Date: 10/12/2013

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 20 Twp: 18N Rge: 1E

County: PAYNE

SPOT LOCATION: SW SW SE SE

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 200 1100

Lease Name: WILLIAMS

Well No: 20-2MH

Well will be 200 feet from nearest unit or lease boundary.

Operator Name: CALYX ENERGY LLC

Telephone: 9189494224

OTC/OCC Number: 22299 0

CALYX ENERGY LLC
10820 E 45TH ST STE 208
TULSA, OK 74146-3807

JAMES O. WILLIAMS
9605 SOUTH MERIDIAN
COYLE OK 73027

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

Name	Depth	Name	Depth
1	MISSISSIPPIAN	4968	6
2			7
3			8
4			9
5			10

Spacing Orders: 591538

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201302083
201302085

Special Orders:

Total Depth: 9545

Ground Elevation: 1087

Surface Casing: 490

Depth to base of Treatable Water-Bearing FM: 390

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 located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: WELLINGTON

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 13-22903

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR OPTION

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.

HORIZONTAL HOLE 1

Sec 20 Twp 18N Rge 1E County PAYNE

Spot Location of End Point: NW NE NE NE

Feet From: NORTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 600

Depth of Deviation: 4137

Radius of Turn: 1388

Direction: 360

Total Length: 4020

Measured Total Depth: 9545

True Vertical Depth: 4968

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

Notes:

Category	Description
PENDING CD - 201302083	4/12/2013 - G30 - 20-18N-1E X591538 MSSP COMP. INT. NCT 165 FNL/FSL, NCT 660 FEL NO OP. NAMED REC 4/8/13 (OSBURN)
PENDING CD - 201302085	4/12/2013 - G30 - 20-18N-1E X591538 MSSP 1 WELL NO OP. NAMED REC 4/8/13 (OSBURN)
SPACING - 591538	4/12/2013 - G30 - (640 HOR) 20-18N-1E DEL 209633 MSSP (NW4) DEL 250180/252437 MSSP (W2 NE4) DEL 346492/346726 MSSP (E2 NE4) DEL 394202 MSSP (SW4 & NE4 SE4 & S2 SE4) EST MSSP POE TO BHL: NCT 660' FB (SUPERCEDE EXISTING NON-DEVELOPED NON-HORIZONTAL SPACING UNITS) (COEXIST WITH PRODUCING NON-HORIZONTAL SPACING UNITS: SP. #394202 NW4 SE4)

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