

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

API NUMBER: 045 23398

Approval Date: 10/04/2013
Expiration Date: 04/04/2014

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 20 Twp: 18N Rge: 23W County: ELLIS
SPOT LOCATION: S2 S2 SE SW FEET FROM QUARTER: FROM SOUTH FROM WEST
SECTION LINES: 200 1980

Lease Name: SHREWDER Well No: 2-20H Well will be 200 feet from nearest unit or lease boundary.
Operator Name: PRIMARY NATURAL RESOURCES III LLC Telephone: 9184950598 OTC/OCC Number: 22514 0

PRIMARY NATURAL RESOURCES III LLC
7134 S YALE AVE STE 430
TULSA, OK 74136-6351

THE SHREWDER TRUST A-B C/O FARMERS NATIONAL
COMPANY
P. O. BOX 1783
ATTN: MATT FOOS
DODGE CITY KS 67901

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

	Name	Depth	Name	Depth
1	COTTAGE GROVE	8458	6	
2	CLEVELAND	9338	7	
3	MARMATON	9351	8	
4			9	
5			10	

Spacing Orders: 607265

Location Exception Orders: 611530

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 13831

Ground Elevation: 2421

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 650

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

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: 100000 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? 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: OGALLALA

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

PERMIT NO: 13-25444

H. SEE MEMO

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: 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: OGALLALA

HORIZONTAL HOLE 1

Sec 20 Twp 18N Rge 23W County ELLIS

Spot Location of End Point: C N2 NE NW

Feet From: NORTH 1/4 Section Line: 330

Feet From: WEST 1/4 Section Line: 1980

Depth of Deviation: 8738

Radius of Turn: 600

Direction: 90

Total Length: 4150

Measured Total Depth: 13831

True Vertical Depth: 9351

End Point Location from Lease,
Unit, or Property Line: 330

Notes:

Category	Description
DEEP SURFACE CASING	10/3/2013 - G71 - APPROVED CONTINGENT ON NOTIFYING OCC FIELD STAFF IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING
LOCATION EXCEPTION - 611530	10/4/2013 - G30 - (I.O.) 20-18N-23W X607265 CGGV, CLVD, MRMN, OTHER 1ST PERF NCT 330 TO SL, NCT 1650 TO WL LAST PERF NCT 330 TO NL, NCT 1650 TO WL PRIMARY NATURAL RESOURCES III, LLC 5/13/13
MEMO	10/3/2013 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR OPTION, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
SPACING - 607265	10/4/2013 - G30 - (640 HOR) 20-18N-23W EXT 592221 CLVD, CGGV, MRMN, OTHER POE TO BHL NCT 660' FB (COEXIST WITH SP. 346245/428378 CLVD, SHREWDER 6-20, 045-22267) 1/31/13

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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.