

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

API NUMBER: 109 22430 A

Approval Date: 09/04/2014
Expiration Date: 03/04/2015

Horizontal Hole Oil & Gas

Amend reason: SHL FOOTAGE CORRECTION

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 21 Twp: 14N Rge: 4W

County: OKLAHOMA

SPOT LOCATION: SW SW SE NW

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 309 1484

Lease Name: DEER DRAW

Well No: 21-5H

Well will be 309 feet from nearest unit or lease boundary.

Operator Name: GASTAR EXPLORATION INC

Telephone: 7137391800

OTC/OCC Number: 23199 0

GASTAR EXPLORATION INC
1331 LAMAR STE 650
HOUSTON, TX 77010-3131

TLW PROPERTIES LLC
PO BOX 54525
HOUSTON OK 77010

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

Name	Depth	Name	Depth
1 HUNTON	6950	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 20212

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 7000

Ground Elevation: 1094

Surface Casing: 830

Depth to base of Treatable Water-Bearing FM: 770

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

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: SALT PLAINS

Approved Method for disposal of Drilling Fluids:

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

PERMIT NO: 14-28235

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

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 16 Twp 14N Rge 4W County OKLAHOMA

Spot Location of End Point: SE SW SE NW

Feet From: SOUTH 1/4 Section Line: 243

Feet From: WEST 1/4 Section Line: 1722

Depth of Deviation: 6200

Radius of Turn: 750

Direction: 177

Total Length: 6100

Measured Total Depth: 13400

True Vertical Depth: 6950

End Point Location from Lease,
Unit, or Property Line: 243

Notes:

Category

Description

SPACING - 20212

9/4/2014 - G72 - 16 & NW & E2 21-14N-4W
EST WEST EDMOND HUNTON LIME UNIT FOR HNTN