API NUMBER: 047 25086

Oil & Gas

Horizontal Hole

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

Approval Date: 02/10/2017 08/10/2017 **Expiration Date** 

PERMIT TO DRILL

County: GARFIELD WELL LOCATION: Sec: 20 Twp: 20N Rge: 8W

FEET FROM QUARTER: SPOT LOCATION: SE SOUTH FROM EAST Isw SE SE SECTION LINES:

> Well No: 1H Well will be 228 feet from nearest unit or lease boundary.

503

**GASTAR EXPLORATION INC** Operator OTC/OCC Number: Telephone: 7137391800 23199 0 Name:

228

GASTAR EXPLORATION INC 1331 LAMAR STE 650

Lease Name: GUNGOLL 20

HOUSTON. 77010-3131 TX

**ELMIRA J GUNGOLL** 

PO BOX 98

DRUMMOND OK 73735

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

Name Depth Name Depth MISSISSIPPIAN 1 7350 6 2 WOODFORD 7955 7 3 8 4 9 5 10 623113 Spacing Orders: Location Exception Orders: Increased Density Orders:

Pending CD Numbers: 201605686 Special Orders:

Total Depth: 12844 Ground Elevation: 1244 Surface Casing: 660 Depth to base of Treatable Water-Bearing FM: 420

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

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

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?

located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C Pit Location is AP/TE DEPOSIT TERRACE Pit Location Formation:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 17-32137

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

## **HORIZONTAL HOLE 1**

Sec 20 Twp 20N Rge 8W County GARFIELD

Spot Location of End Point: N2 N2 NE NE Feet From: NORTH 1/4 Section Line: 165
Feet From: EAST 1/4 Section Line: 660

Depth of Deviation: 6987 Radius of Turn: 573 Direction: 359 Total Length: 4957

Measured Total Depth: 12844

True Vertical Depth: 7955

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

Notes:

Category Description

HYDRAULIC FRACTURING 2/8/2017 - G71 - OCC 165:10-3-10 REQUIRES: 1) THE CHEMICAL DISCLOSURE OF HYDRAULIC

FRACTURING INGREDIENTS FOR ALL WELLS BE REPORTED TO FRACFOCUS USING THE FOLLOWING LINK HTTP://FRACFOCUS.ORG/ WITH NOTICE GIVEN 48 HOURS IN ADVANCE OF FRACTURING TO THE LOCAL OCC DISTRICT OFFICE; AND, 2) PRIOR TO COMMENCEMENT OF FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE ALSO GIVEN FIVE BUSINESS

DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME

COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE

PENDING CD - 201605686 2/10/2017 - G60 - (I.O.) 20-20N-8W

X623113 MSSP, WDFD

SHL NCT 0' FSL, NCT 0' FNL, NCT 0' FEL, NCT 0' FWL

COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 660' FEL, NCT 660' FWL

NO OP. NAMED

REC. 1/17/17 (M. PORTER)

SPACING - 623113 2/10/2017 - G60 - (640) 20-20N-8W

EST MSSP, WDFD, OTHERS COMPL. INT. (MSSP) NCT 660' FB

COMPL. INT. (WDFD) NCT 165' FNL/FSL, NCT 330' FEL/FWL

(SUPERCEDE SP. ORDER # 130844 CSTRU, MNNG, MSSLM AND ORDER # 562444 WDFD)

