API NUMBER: 073 26177

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: 07/27/2018
Expiration Date: 01/27/2019

PERMIT TO DRILL

WELL LOCATION: Sec: 04 Twp: 18N Rge: 6W County: KINGFISHER

SPOT LOCATION: NE NW NW NE FEET FROM QUARTER: FROM NORTH FROM EAST

SECTION LINES: 156 2267

Lease Name: IGNITOR 1806 Well No: 4-1LOH Well will be 156 feet from nearest unit or lease boundary.

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

GASTAR EXPLORATION INC 1331 LAMAR STE 650

HOUSTON. TX 77010-3131

DOROTHY BURSHIK TURNER 29 BUCCANFER WAY

CORONADO CA 92118

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

Depth Name Depth MISSISSIPPIAN (LESS CHESTER) 1 6976 6 2 WOODFORD 7501 7 3 HUNTON 7563 8 9 10 665349 Spacing Orders: Location Exception Orders: 667179 Increased Density Orders:

Pending CD Numbers: Special Orders:

Total Depth: 12448 Ground Elevation: 1169 Surface Casing: 460 Depth to base of Treatable Water-Bearing FM: 220

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: 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 AP/TE DEPOSIT
Pit Location Formation: TERRACE

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-34949

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

HORIZONTAL HOLE 1

KINGFISHER Sec 04 Twp 18N Rge 6W County

Spot Location of End Point: SF SW SW SE Feet From: SOUTH 1/4 Section Line: 150 Feet From: EAST 1/4 Section Line: 2260

Depth of Deviation: 6618 Radius of Turn: 382 Direction: 179 Total Length: 5229

Measured Total Depth: 12448 True Vertical Depth: 7563 End Point Location from Lease. Unit, or Property Line: 150

Notes:

Description Category

HYDRAULIC FRACTURING 7/18/2018 - G71 - OCC 165:10-3-10 REQUIRES:

> 1) PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE:

2) WITH NOTICE ALSO GIVEN 48 HOURS IN ADVANCE OF HYDRAULIC FRACTURING ALL WELLS TO BOTH THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES, USING THE

"FRAC NOTICE FORM" FOUND AT THE FOLLOWING LINK:

OCCEWEB.COM/OG/OGFORMS.HTML; AND,

3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION THE HYDRAULIC FRACTURING OPERATIONS, USING THE FOLLOWING LINK: FRACFOCUS.ORG

LOCATION EXCEPTION - 667179

7/27/2018 - G57 - (I.O.) E2 4-18N-6W

X665349 MSNLC, WDFD, HNTN COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 330' FWL

GASTAR EXPLORATION INC.

8-18-2017

7/26/2018 - G57 - (320)(HOR) E2 4-18N-6W **SPACING - 665349**

VAC 48520 MSSSD E2 EST MSNLC, WDFD, HNTN

POE TO BHL (MSSP, WDFD) NLT 660' FB

POE TO BHL (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL

