API NUMBER: 073 25953

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: 03/02/2018

Expiration Date: 09/02/2018

PERMIT TO DRILL

WELL LOCATION:	Sec:	20	Twp:	18N	Rge:	W8	County:	KING	SFISHER	
ODOT LOCATION	05	ا [مد			05	$\neg$	FEET FROM OUARTER:	ED 01.1	COLITII	ED 01

SPOT LOCATION: SE SE SE SE SE FEET FROM QUARTER: FROM SOUTH FROM EAST SECTION LINES: 158 183

Lease Name: FRANCHISE 1808 Well No: 20-1MH Well will be 158 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

HILDA MILLER TRUST 12117 LOMICA DRIVE

C/O EMMA HAMIL MOONEY, TRUSTEE

SAN DIEGO CA 92128

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

Name Depth Name Depth MISSISSIPPI LIME 1 8050 6 2 WOODFORD 8584 7 3 8 4 9 5 10 650922 Spacing Orders: Location Exception Orders: 670297 Increased Density Orders: 669157

Pending CD Numbers: Special Orders:

Total Depth: 13129 Ground Elevation: 1144 Surface Casing: 470 Depth to base of Treatable Water-Bearing FM: 230

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 BED AQUIFER

Pit Location Formation: CEDAR HILLS

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-33978

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

## **HORIZONTAL HOLE 1**

Sec 20 Twp 18N Rge 8W County KINGFISHER

Spot Location of End Point: NW NE NE NE Feet From: NORTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 440

Depth of Deviation: 7250
Radius of Turn: 578
Direction: 355
Total Length: 4971

Measured Total Depth: 13129

True Vertical Depth: 8614

End Point Location from Lease,
Unit, or Property Line: 150

Notes:

Category Description

HYDRAULIC FRACTURING 2/27/2018 - 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 - 669157 3/2/2018 - G58 - (I.O.) 20-18N-8W

X650922 MSSLM, WDFD

COMPL. INT. NCT 150' FSL, NCT 150' FNL, NCT 330' FEL

GASTAR EXPLORATION INC.

10/18/2017

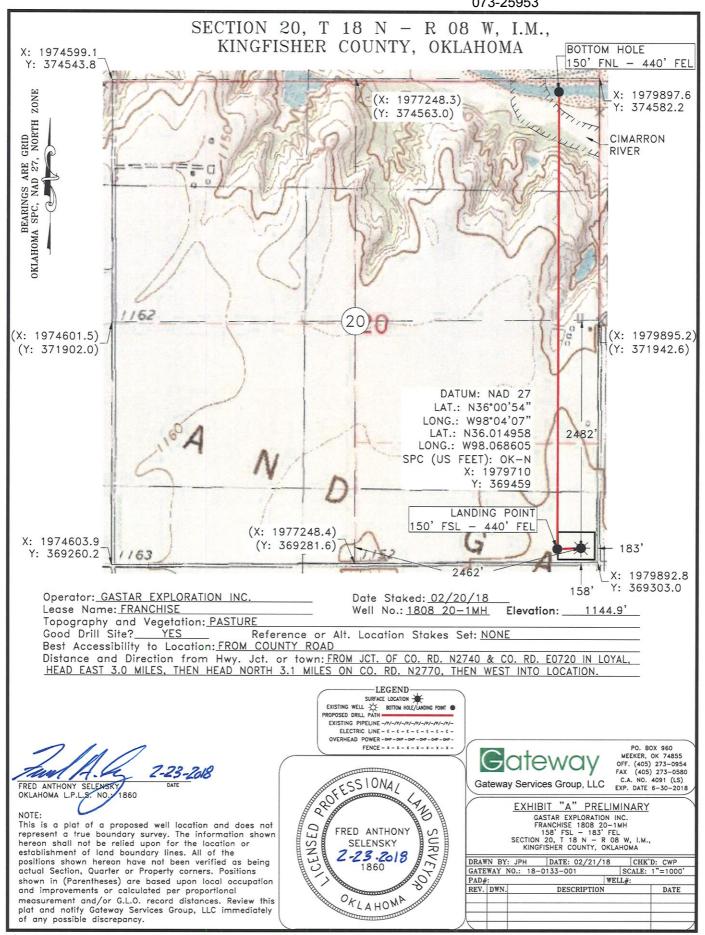
LOCATION EXCEPTION - 670297 3/2/2018 - G58 - NPT TO 669157 FOR TIMELY MAILING OF ORDER 669157

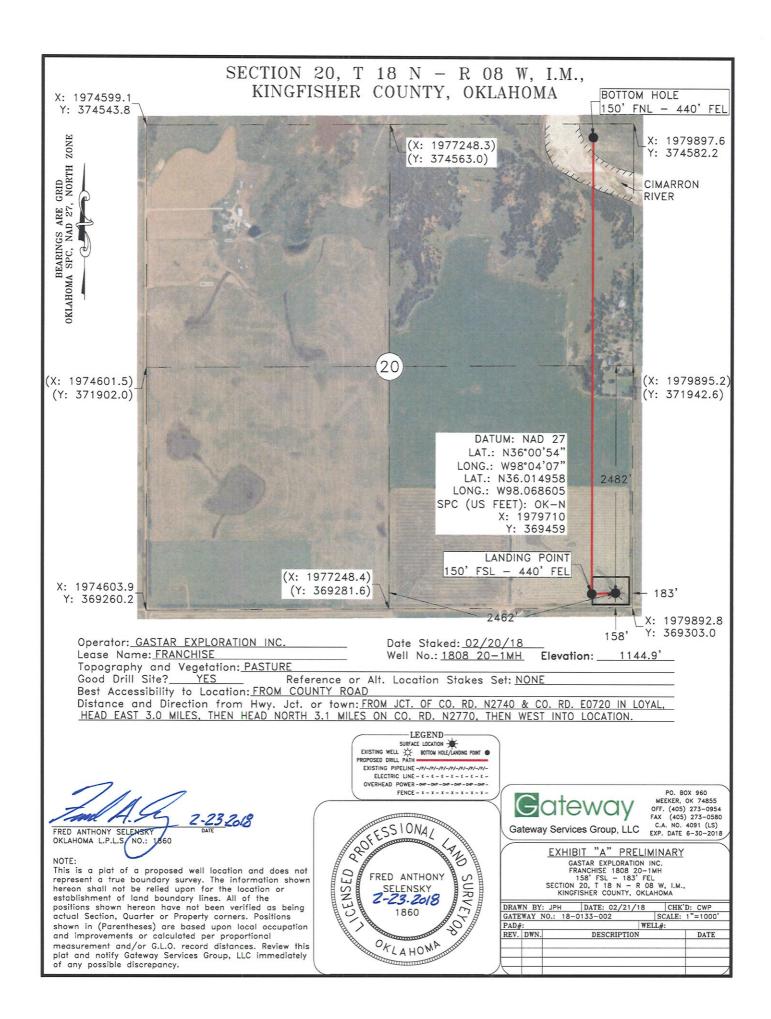
SPACING - 650922 3/2/2018 - G58 - (640)(HOR) 20-18N-8W

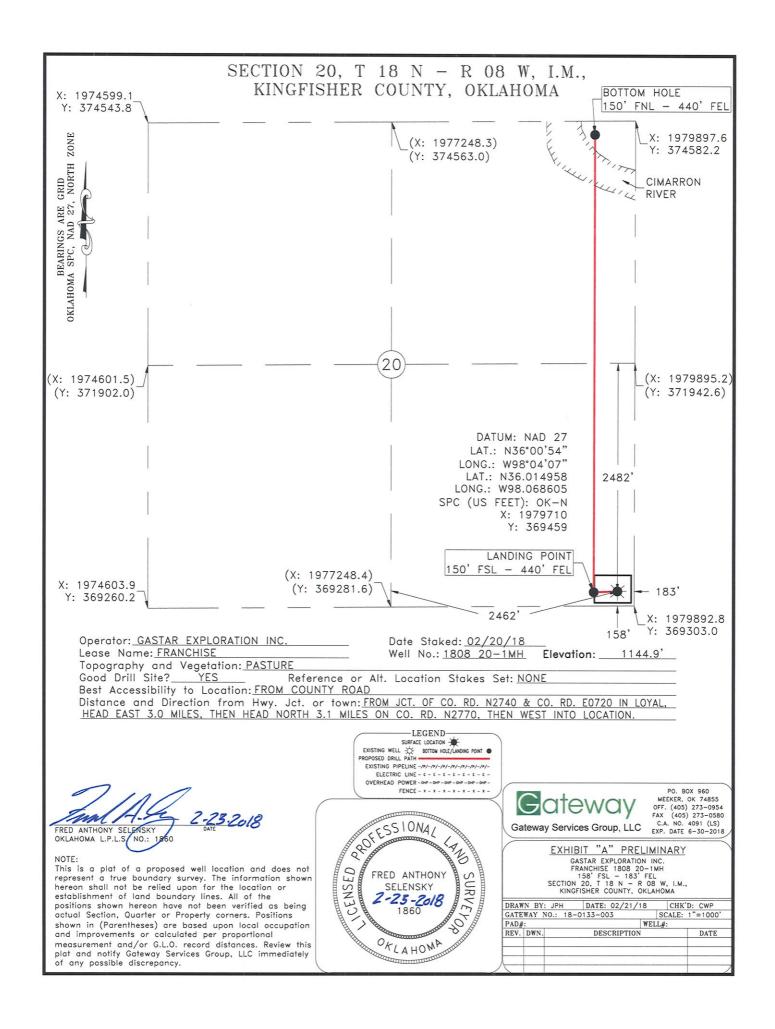
EXT 639392 MSSLM, WDFD, OTHER COMPL. INT. (MSSLM) NCT 660' FB

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

(COEXIST SP. ORDER 78596 MISS)







## SECTION 20, T 18 N - R 08 W, I.M., KINGFISHER COUNTY, OKLAHOMA ZONE TREATY 15 BEARINGS ARE GRID OKLAHOMA SPC, NAD 27, NORTH B. 22 23 ಿಂ 30 30 27 25 Locey 33 00 000 00° 2 ್ಟಿಂ 000 ္င္ေ 0= 22 00° 30° 30 28 ್ತಾಂ Burson 29 PO. BOX 960 MEEKER, OK 74855 OFF. (405) 273-054 FAX (405) 273-0540 C.A. NO. 4091 (LS) EXP. DATE 6-30-2018 EXHIBIT "A" PRELIMINARY GASTAR EXPLORATION INC. FRANCHISE 1808 20-1MH 158' FSL - 183' FEL SECTION 20, T 18 N - R 08 W, I.M., KINGFISHER COUNTY, OKLAHOMA CHK'D: CWP SCALE: N.T.S. DATE: 2/21/18 GATEWAY NO.: 18-0133-004 WELL#: DATE

