OKLAHOMA CORPORATION COMMISSION **OIL & GAS CONSERVATION DIVISION** P.O. BOX 52000

OKLAHOMA CITY, OK 73152-2000 (Rule 165:10-3-1)

API NUMBER: Horizontal Hole

Oil & Gas

sw

073 25950

Approval Date: 03/02/2018 09/02/2018 Expiration Date:

156 feet from nearest unit or lease boundary.

PERMIT TO DRILL

WELL LOCATION: Sec: SPOT LOCATION: SW

Lease Name: CAKES 1907

22 Twp: 19N Rge: 7W SE

sw

County: KINGFISHER FEET FROM QUARTER:

WEST SOUTH

156

1354

Operator Name:

GASTAR EXPLORATION INC

Well No: 22-1LOH

Telephone: 7137391800

OTC/OCC Number:

23199 0

GASTAR EXPLORATION INC

1331 LAMAR STE 650

HOUSTON.

TX 77010-3131 **R&E FAMILY TRUST**

16294 EAST PRENTICE PLACE

Well will be

CENTENNIAL

CO 80015

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

Depth

Depth

MISSISSIPPIAN WOODFORD

6838 7590

Spacing Orders:

1

2

3

No Spacing

Location Exception Orders:

Increased Density Orders:

Special Orders:

Pending CD Numbers:

Total Depth: 12465

201801104

201801218

Ground Elevation: 1103

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

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?

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location Formation: TERRACE

Pit Location is AP/TE DEPOSIT

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

Approved Method for disposal of Drilling Fluids:

PERMIT NO: 18-33979

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

HORIZONTAL HOLE 1

Sec 22 Twp 19N Rge 7W KINGFISHER County

Spot Location of End Point: NE NE NW

Feet From:

NORTH 1/4 Section Line:

150

Feet From:

WEST

1/4 Section Line:

1000

Depth of Deviation: 6600 Radius of Turn: 573

Direction: 355

Total Length: 4965

Measured Total Depth: 12465

True Vertical Depth: 7620

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

PENDING CD - 201801104

3/1/2018 - G58 - (560) N2 & SW4 & W2 SE4 22-19N-7W

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

COMPL. INT. (WDFD) NCT 165' FNL & FSL, NCT 330' FEL & FWL (HORIZONTAL WELL UNITS SHALL EXIST CONCURRENTLY WITH NON-HORIZONTAL DRILLING

AND SPACING UNITS) REC 2/27/2018 (MILLER)

PENDING CD - 201801218

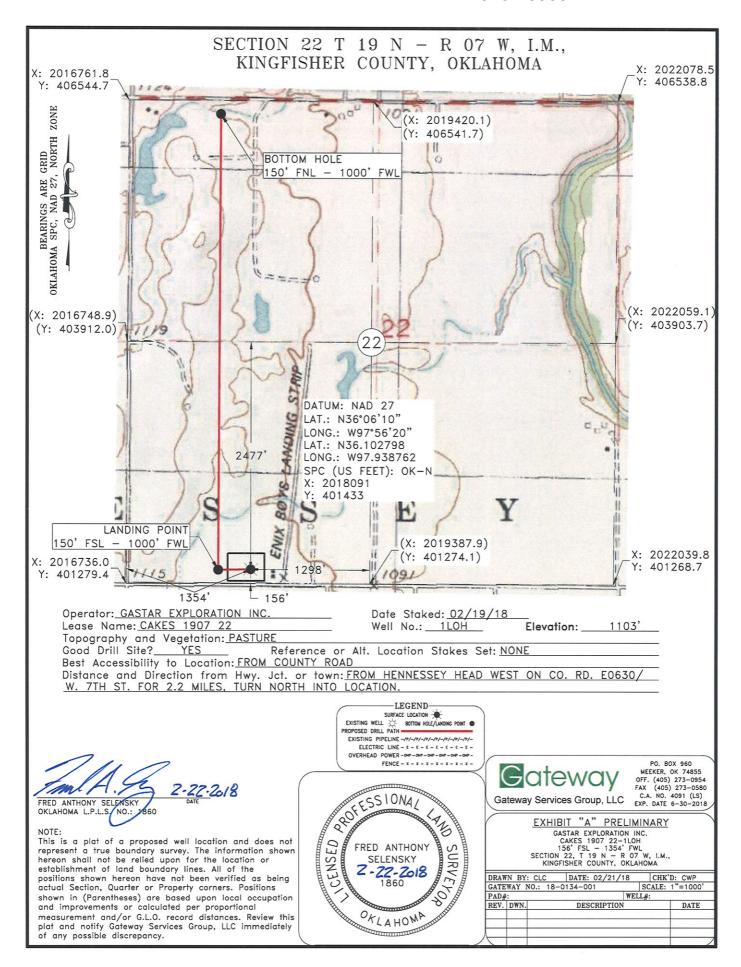
3/2/2018 - G58 - (E.O.) N2 & SW4 & W2 SE4 22-19N-7W

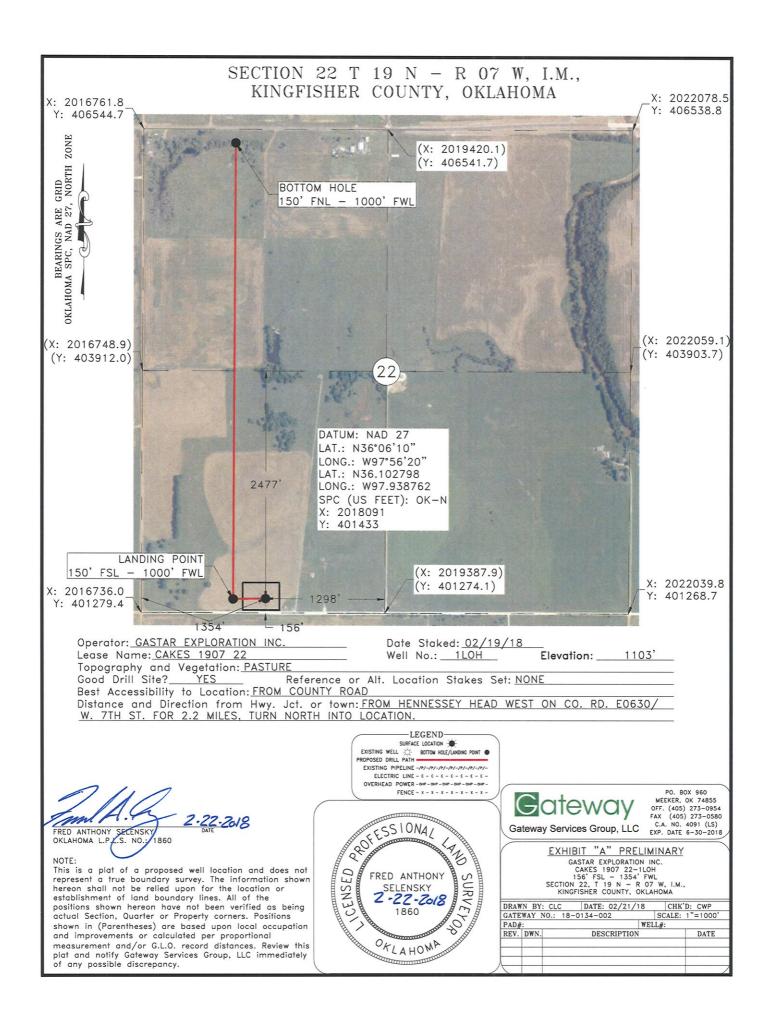
X201801104 MSSP, WDFD

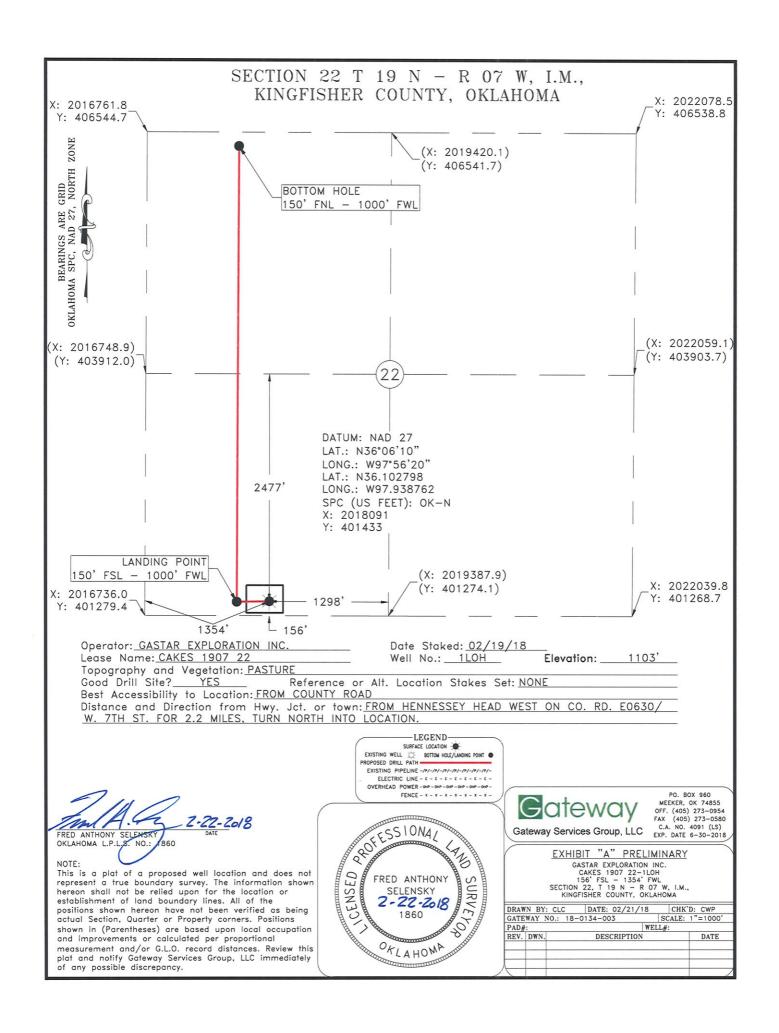
COMPL. INT. NCT 150' FSL, NCT 150' FNL, NCT 660' FWL

NO OP. NAMED

REC 2/27/2018 (JACKSON)







SECTION 22, T 19 N - R 07 W, I.M., KINGFISHER COUNTY, OKLAHOMA ZONE NS281 BEARINGS ARE GRID OKLAHOMA SPC, NAD 27, NORTH D R8W Ser Per 10 TREATY HENNESSEY POP 1,902 16 23 22 000 000 -28 B 27 30 26 Locey 33 320 G 36 33 34 Corenado 16/ 1000 19 21 PO. BOX 960 MEEKER, OK 74855 OFF. (405) 273-0580 FAX (405) 273-0580 C.A. NO. 4091 (LS) EXP. DATE 6-30-2018



EXHIBIT "A" PRELIMINARY GASTAR EXPLORATION INC. CAKES 1907 22-1LOH 156 FSL - 1354 FWL SECTION 22, T 19 N - R 07 W, I.M., KINGFISHER COUNTY, OKLAHOMA

	N BY:		DATE: 02/21		CHK'D: CWP		
PAD#		0.: 18-0	134-004	SCALE: N.T.S.			
	DWN.	OWN. DESCRIPTION			CLL#.	DATE	

