

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

API NUMBER: 073 26156

Approval Date: 07/17/2018

Expiration Date: 01/17/2019

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 21 Twp: 19N Rge: 9W

County: KINGFISHER

SPOT LOCATION:

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 210 2136

Lease Name: LUKE 1909

Well No: 21-1LOH

Well will be 210 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

VERNON BRECKENRIDGE
11165 STATE HWY 51
HENNESSEY OK 73742

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

	Name	Depth	Name	Depth
1	PENN BASAL UNCONF SAND	7200	6	
2	PENN BASAL-MISS UNCONFORMITY	7245	7	
3	MISSISSIPPIAN SOLID	7747	8	
4			9	
5			10	

Spacing Orders: 212321

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201804061
201805133

Special Orders:

Total Depth: 12366

Ground Elevation: 1092

Surface Casing: 310

Depth to base of Treatable Water-Bearing FM: 70

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 ALLUVIAL

Pit Location Formation: ALLUVIUM

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-34890
H. CLOSED SYSTEM=STEEL PITS (REQUIRED - CIMARRON RIVER)

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 21 Twp 19N Rge 9W County KINGFISHER

Spot Location of End Point: NW NW NW NE

Feet From: NORTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 2450

Depth of Deviation: 6799

Radius of Turn: 382

Direction: 357

Total Length: 4966

Measured Total Depth: 12366

True Vertical Depth: 8293

End Point Location from Lease,

Unit, or Property Line: 150

Notes:

Category

Description

HYDRAULIC FRACTURING

7/6/2018 - 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 - 201804061

7/17/2018 - G57 - (I.O.) 21-19N-9W
X212321 BPUNC, BPMSU, MSSSD
SHL NCT 0' FNL & FSL, NCT 0' FEL & FWL
COMPL. INT. NCT 150' FSL, NCT 150' FNL, NCT 1320' FWL & FEL
NO OP. NAMED
REC 6-12-2018 (FOREMAN)

PENDING CD - 201805133

7/17/2018 - G57 - (E.O.) 21-19N-9W
X212321 BPUNC, BPMSU, MSSSD
2 WELLS
NO OP. NAMED
REC 7-13-2018 (M. PORTER)

SPACING - 212321

7/16/2018 - G57 - (640) 21-19N-9W
EXT 70281 MSSSD
EXT 47656 BPMSU
EXT OTHERS
EST BPUNC, OTHERS

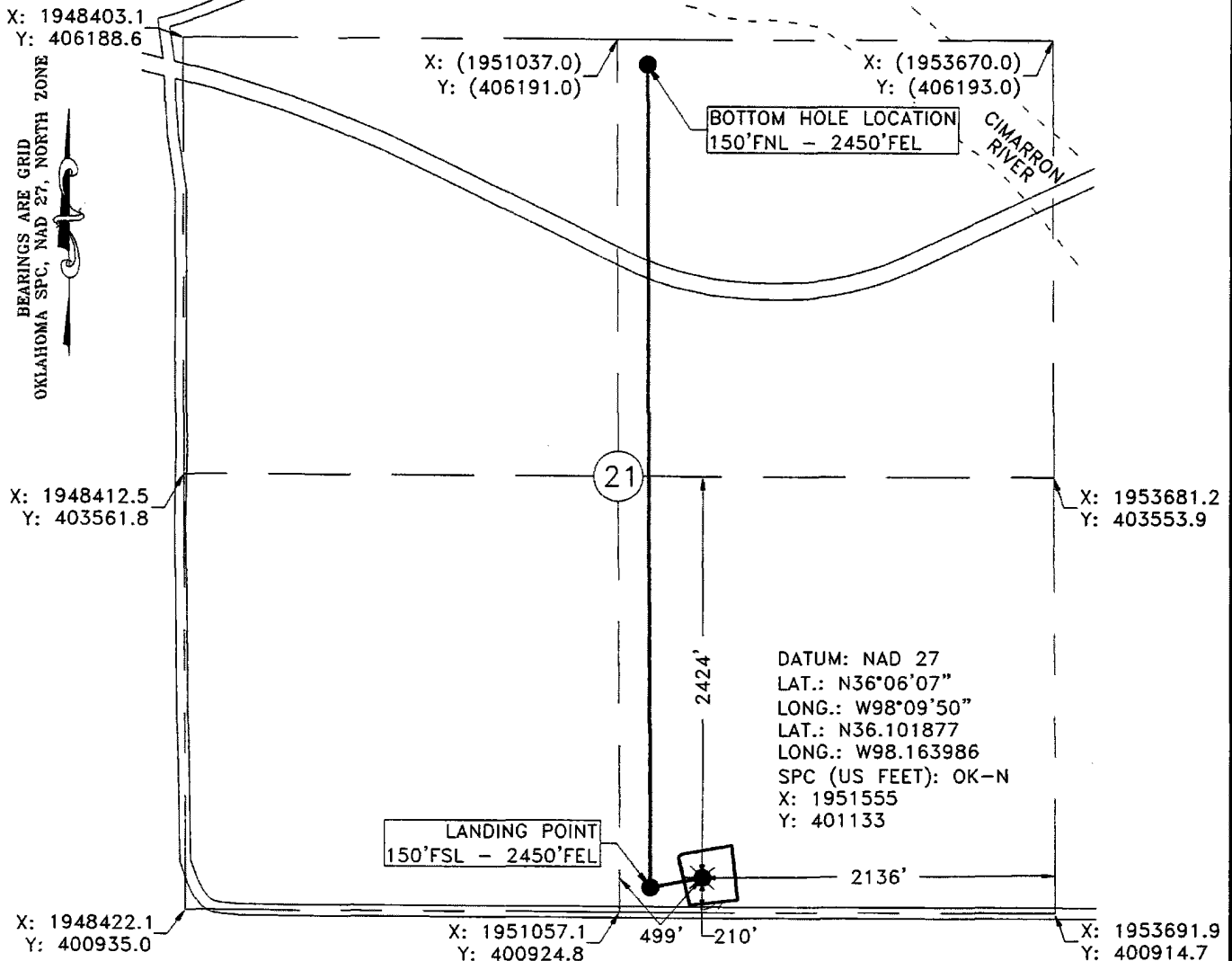
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073 26156 LUKE 1909 21-1LOH

SECTION 21, T 19 N - R 09 W, I.M., KINGFISHER COUNTY, OKLAHOMA



Operator: GASTAR EXPLORATION INC. Date Staked: 07/02/18
 Lease Name: LUKE Well No.: 1909 21-1LOH Elevation: 1092.4'
 Topography and Vegetation: PASTURE
 Good Drill Site? YES Reference or Alt. Location Stakes Set: NONE
 Best Accessibility to Location: FROM COUNTY ROAD
 Distance and Direction from Hwy. Jct. or town: FROM OKEENE, HEAD WEST 8.0 MILES ON ST HWY. 51, THEN SOUTH 1.0 MILE ON CO. RD. N2710, THEN EAST 0.5 MILE ON CO. RD. E0630, TURN NORTH INTO LOCATION.

LEGEND
 SURFACE LOCATION *
 EXISTING WELL * BOTTOM HOLE/LANDING POINT ●
 PROPOSED DRILL PATH ———
 EXISTING PIPELINE ———
 ELECTRIC LINE ———
 OVERHEAD POWER ———
 FENCE ———

Fred A. Selensky
 FRED ANTHONY SELENSKY
 OKLAHOMA L.P.L.S. NO.: 1860
 DATE 7-5-2018

NOTE:
 This is a plat of a proposed well location and does not represent a true boundary survey. The information shown hereon shall not be relied upon for the location or establishment of land boundary lines. All of the positions shown hereon have not been verified as being actual Section, Quarter or Property corners. Positions shown in (Parentheses) are based upon local occupation and improvements or calculated per proportional measurement and/or G.L.O. record distances. Review this plat and notify Gateway Services Group, LLC immediately of any possible discrepancy.



Gateway
 Gateway Services Group, LLC

P.O. BOX 960
 MEEKER, OK 74855
 OFF. (405) 273-0954
 FAX (405) 273-0580
 C.A. NO. 4091 (LS)
 EXP. DATE 6-30-2020

EXHIBIT "A" PRELIMINARY

GASTAR EXPLORATION INC.
 LUKE 1909 21-1LOH
 210' FSL - 2136' FEL
 SECTION 21, T 19 N - R 09 W, I.M.,
 KINGFISHER COUNTY, OKLAHOMA

DRAWN BY: JE		DATE: 07/03/18	CHK'D: CWP
GATEWAY NO.: 18-0476-003		SCALE: 1"=1000'	
PAD#:		WELL#:	
REV.	DWN.	DESCRIPTION	DATE