

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

API NUMBER: 073 25401

Approval Date: 10/19/2016  
Expiration Date: 04/19/2017

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 20 Twp: 18N Rge: 6W

County: KINGFISHER

SPOT LOCATION:  SE  SE  SE  SW

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 191 2495

Lease Name: MOTT

Well No: 20-2H

Well will be 191 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

KEVIN MOTT  
2417 ASHLEY DRIVE  
THE VILLAGE OK 73120

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN	6950	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 631223

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201603735  
201604510

Special Orders:

Total Depth: 11904

Ground Elevation: 1108

**Surface Casing: 410**

Depth to base of Treatable Water-Bearing FM: 160

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: 16-31645  
H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

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 20 Twp 18N Rge 6W County KINGFISHER

Spot Location of End Point: NW NE NE NW

Feet From: SOUTH 1/4 Section Line: 2477

Feet From: WEST 1/4 Section Line: 2175

Depth of Deviation: 6587

Radius of Turn: 824

Direction: 358

Total Length: 4928

Measured Total Depth: 11904

True Vertical Depth: 7160

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

Notes:

Category	Description
HYDRAULIC FRACTURING	9/28/2016 - 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 <a href="http://fracfocus.org/">HTTP://FRACFOCUS.ORG/</a> 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 - 201603735	9/28/2016 - G64 - (I.O.) 20-18N-6W X631223 MSSP, OTHER COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 660' FEL OR NCT 330' FWL NO OP. NAMED REC. 9-20-2016 (NORRIS)
PENDING CD - 201604510	10/19/2016 - G64 - (E.O.) 20-18N-6W AMD 631223 TO COEXIST MSSLM, MNNG PERRY #20-1 (API 3507321832) CONFIRM 631223 MSSP REC. 10-18-2016 (LEAVITT)
SPACING - 631223	9/28/2016 - G64 - (640)(HOR) 20-18N-6W EST MSSP, OTHERS POE TO BHL NLT 660' FB

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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.

PETRO LAND SERVICES SOUTH, LLC

10404 VINEYARD BLVD. SUITE D, OKLA. CITY, OKLA. 73120 \* OFFICE (405) 212-3108  
 Certificate of Authorization No. 7318

API: 073 25401

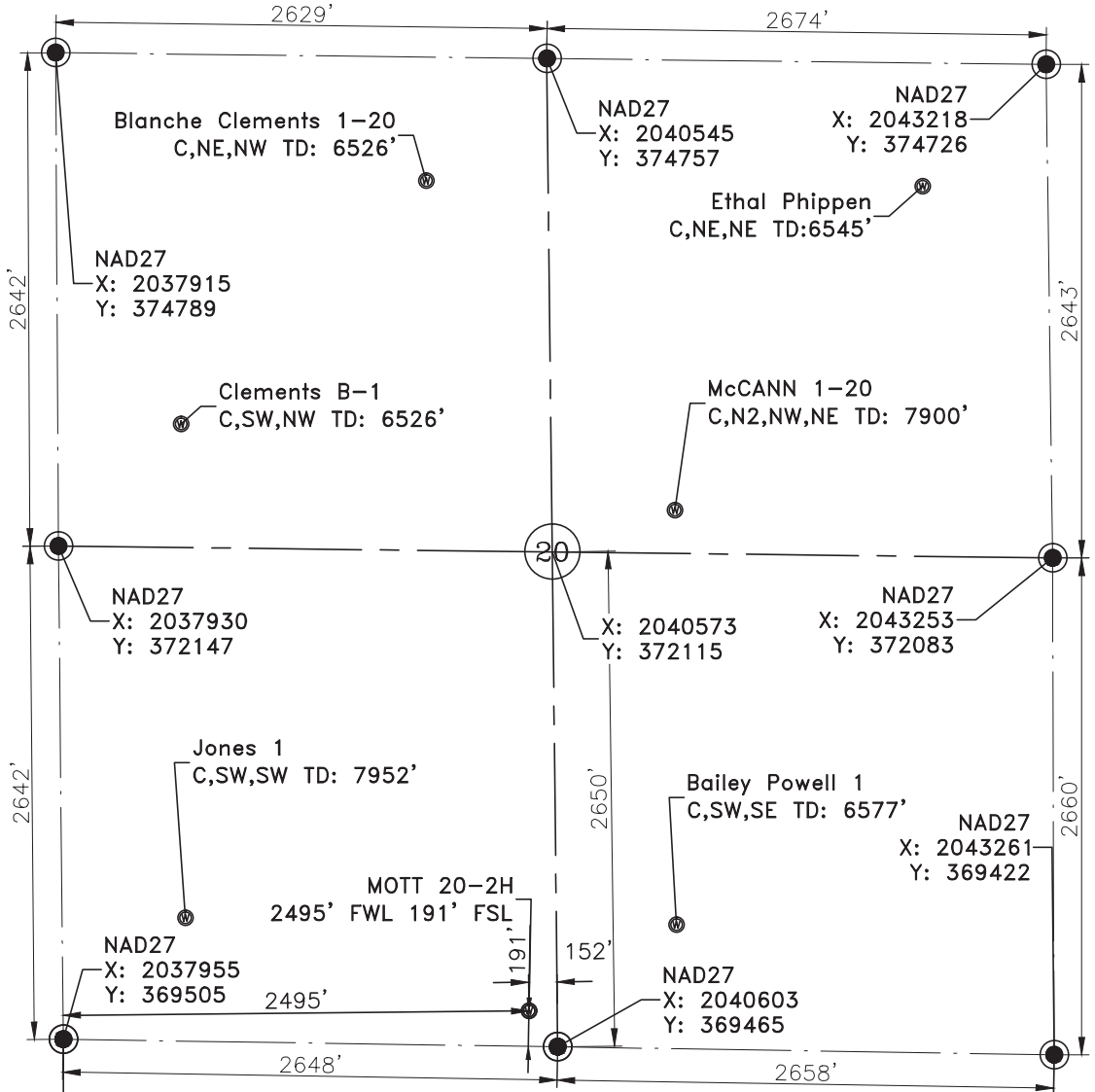
KINGFISHER

County Oklahoma

191'FSL 2495'FWL Section 20 Township 18N Range 6W I.M.

EXHIBIT

GRID  
 NAD27  
 OK NORTH  
 US FEET  
 SCALE:  
 1" = 1000'



LANDING POINT, BOTTOM HOLE AND DRILL  
 PATH INFORMATION PROVIDED BY  
 OPERATOR LISTED, NOT SURVEYED.

THE INFORMATION SHOWN HEREIN IS FOR  
 CONSTRUCTION PURPOSES ONLY

Operator: GASTAR EXPLORATION INC.  
 Lease Name: MOTT 20-2H  
 Topography & Vegetation: OPEN FIELD  
 Reference Stakes or Alternate Location: NO  
 Good Drill Site? YES Stakes Set: 191'FSL 2495'FWL  
 Distance & Direction FROM DOVER, OK, HEAD NORTH ON HWY. 81 FOR 2  
 MILES TO E 0690 RD, TURN RIGHT AND HEAD EAST ON  
 E 0690 RD FOR 2 MILES TO THE SOUTHWEST CORNER  
 OF SECTION 20.

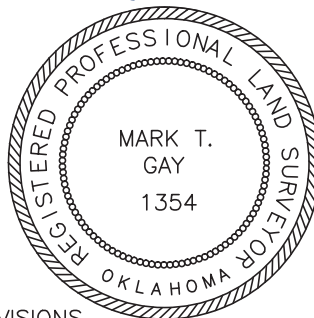
DATUM: NAD27  
 LAT: N36°00'55.60"  
 LONG: W97°51'47.63"  
 LAT: N36.015444°  
 LONG: W97.863231°  
 STATE PLANE COORDINATES  
 (US FEET): OK NORTH  
 X: 2040448.9  
 Y: 369657.6

CERTIFICATE:

This exhibit represents a proposed well location and does not represent a true boundary survey. The footages and ties shown are from lines of occupation, not from actual property corners.

*Mark T. Gay*

Oklahoma RPLS No. 1354 Date: 9/09/16



ELEVATION:  
 GROUND EL=1107.7

REVISIONS

NO.	DATE	REV BY	DESCRIPTION	CHK BY
1	9/9/16	MTG	CHANGE TO SE,SW	MA
			DESCRIPTION	CHK BY