

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

API NUMBER: 071 24888

Approval Date: 04/24/2018
Expiration Date: 10/24/2018

Straight Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 23 Twp: 25N Rge: 2E

County: KAY

SPOT LOCATION: SW SW NW NE

FEET FROM QUARTER: FROM NORTH FROM WEST

SECTION LINES: 1230 85

Lease Name: GILLHAM

Well No: 7-23

Well will be 85 feet from nearest unit or lease boundary.

Operator Name: TWISTED OAK OPERATING LLC

Telephone: 4056067481

OTC/OCC Number: 22261 0

TWISTED OAK OPERATING LLC
11218 TWISTED OAK RD
OKLAHOMA CITY, OK 73120-5330

DEAN LARAY GILLHAM, LIFE ESTATE
141 SPUNKY CREEK DRIVE
CATOOSA OK 74105

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

	Name	Depth	Name	Depth	
1	NEWKIRK	1322	6	AVANT	2473
2	PAWHUSKA	1476	7	PERRY	2704
3	OREAD	1809	8	LAYTON	2765
4	LOVELL	2040	9	HOGSHOOTER	2940
5	TONKAWA	2154	10		

Spacing Orders: No Spacing

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 3100

Ground Elevation: 909

Surface Casing: 330

Depth to base of Treatable Water-Bearing FM: 280

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

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: OSCAR

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-34332
H. CLOSED SYSTEM=STEEL PITS (REQUIRED - ARKANSAS RIVER)

Notes:

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.

Category

Description

HYDRAULIC FRACTURING

4/20/2018 - 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

SPACING

4/23/2018 - G57 - FORMATIONS UNSPACED; LEASE OUTLINE 26-ACRES NW4 NE4 (LOT 8) 23-25N-2E PER OPERATOR

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.

071 24888 GILLHAM 7-23

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

13800 Wireless Way, Okla. City, OK, 73134 (405) 843-4847 * OUT OF STATE (800) 654-3219
 Certificate of Authorization No. 1293 LS

API: 071 24888

KAY County, Oklahoma

1230'FNL - 2725'FWL Section 23 Township 25N Range 2E I.M.

X= 2273784
Y= 597317

X= 2276424
Y= 597361

X= 2277784
Y= 597383

X= 2278589
Y= 597309

X= 2278990
Y= 597317

X= 2273808
Y= 594581

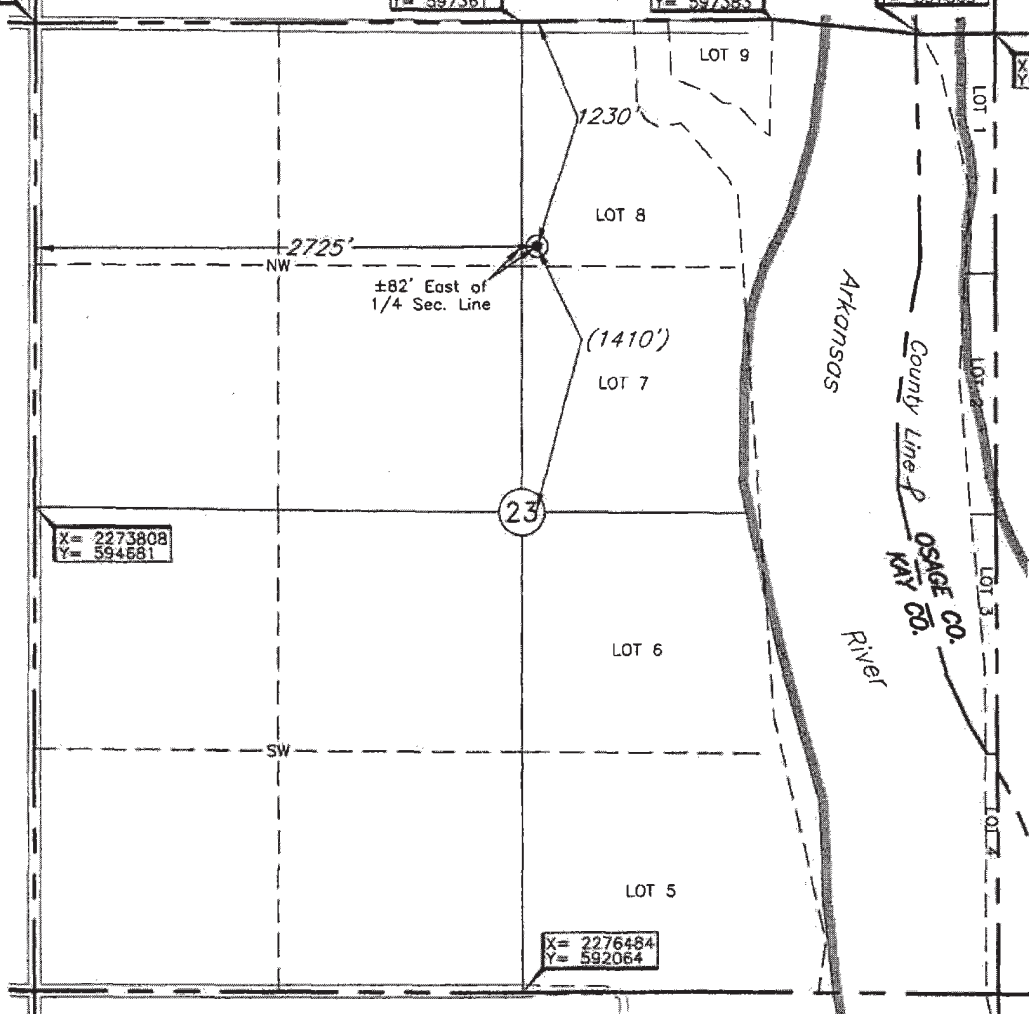
X= 2276484
Y= 592064

NOTE:
The information shown herein is for construction purposes ONLY.



GRID
NAD-27
OK NORTH
US Feet

0' 500' 1000'



Distances shown in (parenthesis) are calculated based upon the Quarter Section being 2640 feet, those shown in [brackets] are based on GLO (General Land Office) distances and have NOT been measured on the ground.

Operator: CARDINAL RIVER ENERGY I, LLC

Lease Name: GILLHAM

Well No.: 7-23

ELEVATION:

909' Gr. at Stake

Topography & Vegetation Loc. fell in wheat field, ±100' East of tree line

Good Drill Site? Yes

Reference Stakes or Alternate Location
Stakes Set None

Best Accessibility to Location From North off county road

Distance & Direction
from Hwy Jct or Town From Jct. US Hwy. 60 and US Hwy. 177 S, go ±3.0 mi. South on US Hwy. 177 S, then ±0.5 mi. East to the NW Cor. of Sec. 23-25N-2E

Date of Drawing: Apr. 13, 2018

Invoice # 291991 Date Staked: Apr. 12, 2018

AC

This information was gathered with a GPS receiver with ±1 foot horiz./vert. accuracy

DATUM: NAD-27
 LAT: 36°38'02.3"N
 LONG: 97°03'27.4"W
 LAT: 36.633961502° N
 LONG: 97.057605648° W
 STATE PLANE
 COORDINATES: (US Feet)
 ZONE: OK NORTH
 X: 2276520
 Y: 596132

CERTIFICATE:

I, Thomas L. Howell an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein

Thomas L. Howell
 Oklahoma Lic. No. 1433

