

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

API NUMBER: 051 24411

Approval Date: 07/17/2018

Expiration Date: 01/17/2019

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 24 Twp: 10N Rge: 5W

County: GRADY

SPOT LOCATION: ☐ SW ☐ SE ☐ SE ☐ SE

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 180 395

Lease Name: NEEDLES 24-13-10-5

Well No: 1XH

Well will be 180 feet from nearest unit or lease boundary.

Operator Name: ROAN RESOURCES LLC

Telephone: 4052412237

OTC/OCC Number: 24127 0

ROAN RESOURCES LLC
14701 HERTZ QUAIL SPRINGS PKWY
OKLAHOMA CITY, OK 73134-2641

JIMMIE LEE WASHBURN
470 COUNTY STREET 2990
TUTTLE OK 73089

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

Name	Depth	Name	Depth
1 WOODFORD	8680	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: No Spacing

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201805317
201805320
201805323
201805324

Special Orders:

Total Depth: 19141

Ground Elevation: 1181

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 1010

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

PIT 1 INFORMATION

Type of Pit System: ON SITE

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: 1A

Liner required for Category: 1A

Pit Location is ALLUVIAL

Pit Location Formation: ALLUVIUM

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

B. Solidification of pit contents.

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

PERMIT NO: 18-34720

H. SEE MEMO

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.

PIT 2 INFORMATION

Type of Pit System: ON SITE

Type of Mud System: OIL BASED

Chlorides Max: 300000 Average: 200000

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: 3

Liner required for Category: 3

Pit Location is ALLUVIAL

Pit Location Formation: ALLUVIUM

HORIZONTAL HOLE 1

Sec 13 Twp 10N Rge 5W County CANADIAN

Spot Location of End Point: NW NE NE NE

Feet From: NORTH 1/4 Section Line: 65

Feet From: EAST 1/4 Section Line: 400

Depth of Deviation: 8262

Radius of Turn: 573

Direction: 359

Total Length: 9979

Measured Total Depth: 19141

True Vertical Depth: 8680

End Point Location from Lease,
Unit, or Property Line: 65

Additional Surface Owner	Address	City, State, Zip
TERRY S. WASHBURN	1116 RIVERCREST DRIVE	LITTLE ROCK, AR 72212

Notes:

Category

Description

DEEP SURFACE CASING

7/12/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING

HYDRAULIC FRACTURING

7/12/2018 - 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: OCCWEB.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

MEMO

7/12/2018 - G71 - PITS 1 & 2 - CONCRETE LINED PIT PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

PENDING CD - 201805317

7/13/2018 - G57 - (E.O.)(640)(HOR) 13-10N-5W
VAC 230323 WDFD, OTHER
EXT 663709 WDFD, OTHER
POE TO BHL NCT 165' FNL & FSL, NCT 330' FEL & FWL
REC 7-13-2018 (M. PORTER)

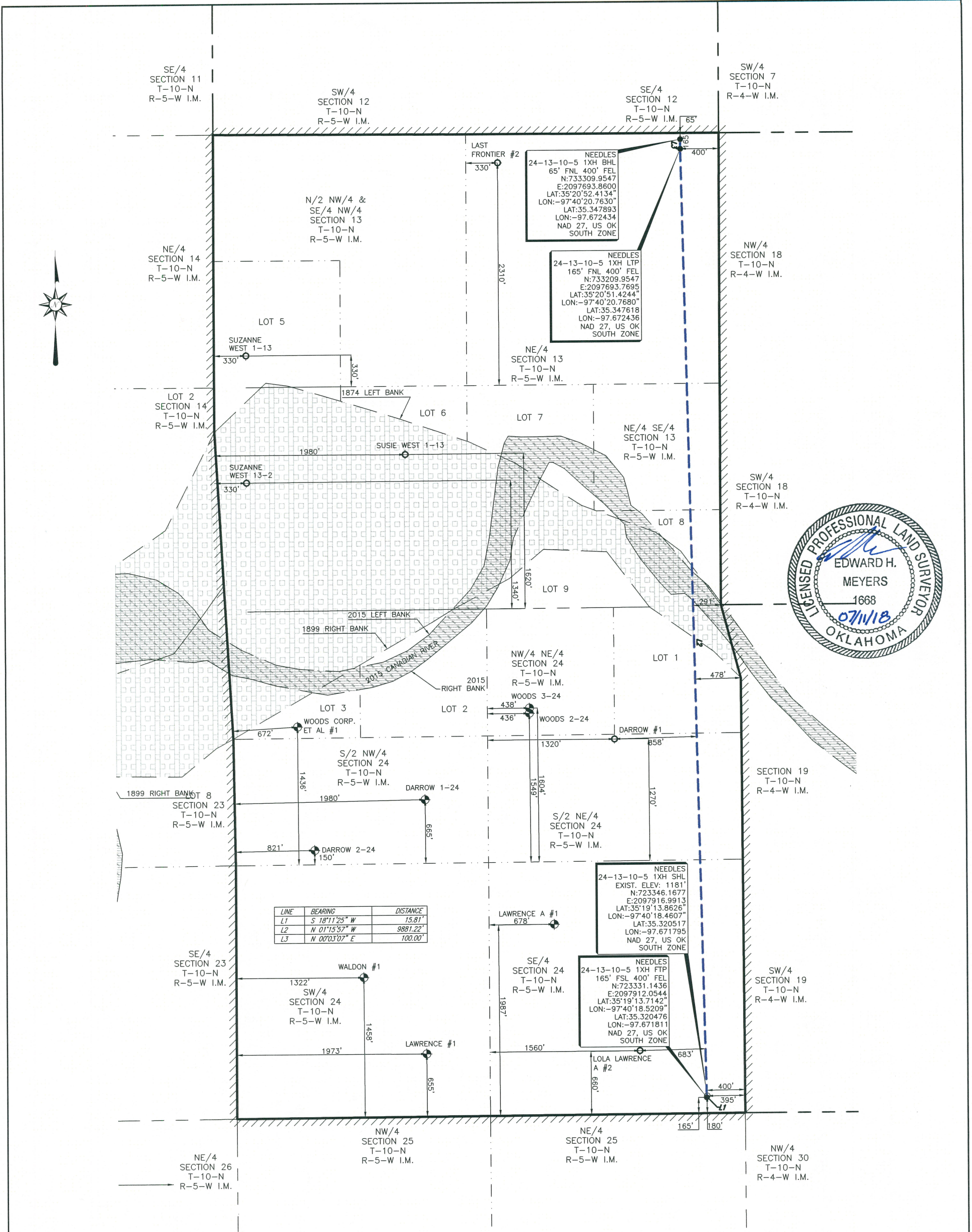
This permit does not address the right of entry or settlement of surface damages.

051 24411 NEEDLES 24-13-10-5 1XH

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
PENDING CD - 201805320	7/13/2018 - G57 - (E.O.)(640)(HOR) 24-10N-5W VAC OTHER EXT 663709 WDFD, OTHER POE TO BHL NCT 165' FNL & FSL, NCT 330' FEL & FWL REC 7-13-2018 (M. PORTER)
PENDING CD - 201805323	7/13/2018 - G57 - (E.O.) 24 & 13-10N-5W EST MULTIUNIT HORIZONTAL WELL X201805320 WDFD 24-10N-5W X201805317 WDFD 13-10N-5W 50% 24-10N-5W 50% 13-10N-5W ROAN RESOURCES, LLC. REC 7-13-2018 (M. PORTER)
PENDING CD - 201805324	7/13/2018 - G57 - (E.O.) 24 & 13-10N-5W X201805320 WDFD 24-10N-5W X201805317 WDFD 13-10N-5W X165:10-3-28(C)(2)(B) WDFD (NEEDLES 24-13-10-5 1HX) MAY BE CLOSER THAN 600' FROM ANOTHER WELLBORE COMPL. INT. (24-10N-5W) NCT 165' FSL, NCT 0' FNL, NCT 330' FEL COMPL. INT. (13-10N-5W) NCT 0' FSL, NCT 165' FNL, NCT 330' FEL NO OP. NAMED REC 7-13-2018 (M. PORTER)

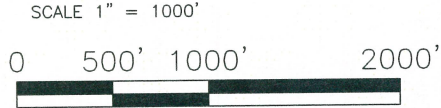


LINE	BEARING	DISTANCE
L1	S 18°11'25" W	15.81'
L2	N 01°15'57" W	9881.22'
L3	N 00°03'07" E	100.00'

RIVER SURVEY NOTE:
THE SECTION BOUNDARY SHOWN HEREON REPRESENTS THE CORRELATION BETWEEN THE SECTION CORNERS FOUND OF RECORD AND THE ORIGINAL GLO SURVEYS OF 1873 & 1874 "NORTH BANK OF THE RIVER" AND 1899 "SOUTH BANK OF THE RIVER." DUE TO THE MOVEMENT OF THE CANADIAN RIVER AND THE INSTABILITY OF ITS BANKS THE EXACT BOUNDARY OF THE GOVERNMENT LOTS IS NOT REPRESENTED HEREON. THERE MAY BE ERRORS TO TITLE THAT ARE SUBSTANTIALLY AFFECTED BY RIPARIAN LAW RELATED TO THE CHANGE IN THE COURSE OF THE RIVER. LEGAL COUNSEL SHOULD BE SOUGHT BEFORE RELYING ON THE INFORMATION SHOWN HEREON RELATING TO THE DIVISION OF ACTUAL PROPERTY RIGHTS. ADDITIONALLY THE ORIGINAL GLO SURVEYS STATED ABOVE NEVER CROSSED SAID RIVER.

NOTE:
1. COMBINED SCALE FACTOR: 0.999947069
2. SHL IS APPROXIMATELY 5.73 MILES S 31°19'14" E OF MUSTANG OKLAHOMA.

PERMIT PLAT OF
ROAN RESOURCES, LLC
NEEDLES 24-13-10-5 1XH
180' FSL 395' FEL OF SECTION 24
MINCO FIELD
SECTION 24, TOWNSHIP 10 NORTH, RANGE 5 WEST I.M. &
SECTION 13, TOWNSHIP 10 NORTH, RANGE 5 WEST I.M.
LEASE LINES
SHL: 180' FSL 395' FEL
GRADY COUNTY, OKLAHOMA



FILE: S:\OK\GRADY\PROJECTS\T10N-R05W\DWG\

LEGEND	
SHL	SURFACE HOLE LOCATION
PP	PENETRATION POINT
FTP	FIRST TAKE POINT
LTP	LAST TAKE POINT
BHL	BOTTOM HOLE LOCATION
OCC	OKLAHOMA CORPORATION COMMISSION
●	POINT
○	EXISTING WELLHEAD
○	PROPOSED WELL LOCATION SET
○	SURFACE LOCATION OBTAINED FROM OCC

John F. Watson & Company

LAND & DEVELOPMENT SERVICES
PROFESSIONAL LAND SURVEYORS
200 N. Loraine, Ste. 220
Midland, Texas 79701
OFF: (432) 520-2400
FAX: (432) 520-2404

CA#5957 EXPIRATION 6-30-2019
200 N LORAIN #220
MIDLAND, TX 79701
(432) 520-2400

ORIGINAL STAKE DATE: 03/23/18
ADDED LATERAL: 06/06/18
MOVED SHL LOCATION: 07/11/18

REV: 1 AFE NO.: - JOB NO.: 18-0071
FIELD BOOK: SERVER VER: 1 DRAWN BY: LLF

NOTE:
1. BEARINGS, DISTANCES & ACREAGE ARE GRID, NAD 27 US OK SOUTH ZONE AND ARE OBTAINED BY NORMAL GPS TECHNIQUES.
2. ELEVATIONS ARE BASED ON NAVD 88 COMPUTED USING GEOID 12B.
3. THIS SURVEY IS FOR AN OIL & GAS SUB-SURFACE LEASE AND IS NOT A BOUNDARY SURVEY.
4. LOCATION OF ADJOINING WELLS OUTSIDE LEASE BOUNDARY ARE APPROXIMATED FROM OKLAHOMA CORPORATION COMMISSION DATA.
5. DOWNHOLE INFORMATION PROVIDED BY THE CLIENT.
6. THIS SURVEY COMPLIES WITH THE US PUBLIC LAND SURVEY SYSTEM AND MEETS THE OKLAHOMA MINIMUM STANDARDS FOR THE PRACTICE OF LAND SURVEYING AS ADOPTED BY THE OKLAHOMA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS, EFFECTIVE JULY 25, 2013.
7. THIS IS NOT A BOUNDARY SURVEY.
8. THIS PERMIT PLAT HAS BEEN PREPARED FROM A SURVEY PLAT ON FILE IN THE OFFICE OF JOHN F. WATSON & COMPANY, MIDLAND TEXAS.
I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PLAT WAS DERIVED FROM ACTUAL FIELD NOTES OF ON-THE-GROUND SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

PROFESSIONAL LAND SURVEYOR

07/11/18

SHEET 1 OF 1