

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

API NUMBER: 093 25127

Approval Date: 02/07/2018

Expiration Date: 08/07/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 12 Twp: 21N Rge: 16W

County: MAJOR

SPOT LOCATION: ☐ NW ☐ NW ☐ NE ☐ NE FEET FROM QUARTER: FROM NORTH FROM EAST

SECTION LINES: 200 1100

Lease Name: PANNELL 2116

Well No: 1-12H

Well will be 200 feet from nearest unit or lease boundary.

Operator SANDRIDGE EXPLORATION & PRODUCTION LLC
Name:

Telephone: 4054295610

OTC/OCC Number: 22281 0

SANDRIDGE EXPLORATION & PRODUCTION LLC
123 ROBERT S KERR AVE STE 1702
OKLAHOMA CITY, OK 73102-6406

PITTMAN RANCH, LLC
P.O. BOX 10
SEILING OK 73663

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

Name	Depth	Name	Depth
1 MISSISSIPPI LIME	8310	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 145279

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201708275
201708276

Special Orders:

Total Depth: 13252

Ground Elevation: 1676

Surface Casing: 760

Depth to base of Treatable Water-Bearing FM: 510

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: 10000 Average: 5000

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: MARLOW

E. Haul to Commercial pit facility: Sec. 33 Twn. 26N Rng. 15W Cnty. 151 Order No: 627651

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: CLOSED Closed System Means Steel Pits

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: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: MARLOW

HORIZONTAL HOLE 1

Sec 12 Twp 21N Rge 16W County MAJOR

Spot Location of End Point: SW SE SE SE

Feet From: SOUTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 430

Depth of Deviation: 7975

Radius of Turn: 750

Direction: 175

Total Length: 4099

Measured Total Depth: 13252

True Vertical Depth: 8439

End Point Location from Lease,
Unit, or Property Line: 150

Notes:

Category

Description

HYDRAULIC FRACTURING

2/1/2018 - 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

MEMO

2/1/2018 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

PENDING CD - 201708275

2/7/2018 - G75 - (I.O.) 12-21N-16W
X145279 MSSLM
COMPL. INT. NCT 150' FNL, NCT 150' FSL, NCT 330' FEL
NO OP. NAMED
REC 1-30-2018 (MILLER)

PENDING CD - 201708276

2/7/2018 - G75 - 12-21N-16W
X145279 MSSLM
2 WELLS
NO OP. NAMED
REC 1-30-2018 (MILLER)

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.

093 25127 PANNELL 2116 1-12H

Category	Description
SPACING - 145279	2/7/2018 - G75 - (640) 12-21N-16W EST OTHER EXT OTHERS EXT 110453/135596 MSSLM

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1293 LS

MAJOR

County, Oklahoma

API 093-25127

200' FNL - 1100' FEL Section 12 Township 21N Range 16W I.M.

5219'

X= 1743463
Y= 481122

X= 1748682
Y= 481088

(A) EXISTING WELL
PITTMAN 1-12
3468' TO PROPOSED
PANNELL 2116 1-12H

(B) EXISTING WELL
PITTMAN 2116 1-12H
2720' TO PROPOSED
PANNELL 2116 1-12H

(C) EXISTING WELL
PITTMAN 2116 2-12H
2701' TO PROPOSED
PANNELL 2116 1-12H

LANDING POINT
1000' FNL-430' FEL
NAD-27 (US Feet)
36°18'57.1" N
98°51'16.3" W
36.315847970° N
98.854531792° W
X=1748242
Y=480091

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

BOTTOM HOLE
150' FSL-430' FEL
NAD-27 (US Feet)
36°18'16.5" N
98°51'16.4" W
36.304588993° N
98.854549520° W
X=1748200
Y=475992

X= 1748629
Y= 475839

X= 1743393
Y= 475881

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

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: SANDRIDGE EXPLORATION & PRODUCTION, LLC

Lease Name: PANNELL 2116

Well No.: 1-12H

ELEVATION:

1676' Gr. at Stake

Topography & Vegetation Loc. fell in sloped pasture, NW Cor. of work limits is 567' SE of garage

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 Seiling, OK, go ±8.5 mi. North on US Hwy. 281, then ±2.0 mi. East,
then ±4.0 mi. NE, then ±0.5 mi. East to NE Cor. of Sec. 12-T21N-R16W

Revision ☒ B

Date of Drawing: Dec. 05, 2017

Invoice # 284965

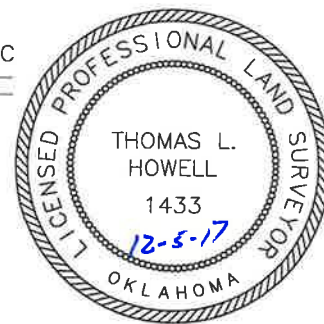
Date Staked: Nov. 29, 2017

AC

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



This information was
gathered with a GPS receiver
with ±1 foot Horiz./Vert. accuracy.

DATUM: NAD-27
LAT: 36°19'04.9"N
LONG: 98°51'24.5"W
LAT: 36.318040948° N
LONG: 98.856802067° W
STATE PLANE
COORDINATES: (US Feet)
ZONE: OK NORTH
X: 1747580
Y: 480895