

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

API NUMBER: 011 23876

Approval Date: 11/08/2017

Expiration Date: 05/08/2018

Straight Hole

Stratigraphic Test

PERMIT TO DRILL

WELL LOCATION: Sec: 20 Twp: 15N Rge: 10W

County: BLAINE

SPOT LOCATION: ☐ SE ☐ SW ☐ SE ☐ SW

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 245 1906

Lease Name: HAMMERHEAD 20-15N-10W

Well No: 1H

Well will be 245 feet from nearest unit or lease boundary.

Operator Name: PALOMA OPERATING CO INC

Telephone: 7136508509

OTC/OCC Number: 23932 0

PALOMA OPERATING CO INC
1100 LOUISIANA ST STE 5100
HOUSTON, TX 77002-5220

KENNETH KENNEDY
23918 E960 RD
WEATHERFORD OK 73096

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN	11137	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: No Spacing

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 12500

Ground Elevation: 1516

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 120

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: 9000 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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

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

PERMIT NO: 17-33190

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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

Notes:

Category

Description

DEEP SURFACE CASING

10/3/2017 - 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

INTERMEDIATE CASING

10/3/2017 - G71 - DUE TO THE KNOWN POTENTIAL RISK OF ENCOUNTERING AN OVER-PRESSURED ZONE IN THE MORROW SERIES IN THIS AREA, THE TECHNICAL MANAGER RECOMMENDS SETTING AN INTERMEDIATE STRING OF CASING IMMEDIATELY ABOVE THE MORROW SERIES

MEMO

10/3/2017 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

SPACING

11/7/2017 - G60 - N/A - STRAT TEST

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.

011 23876 HAMMERHEAD 20-15N-10W 1H

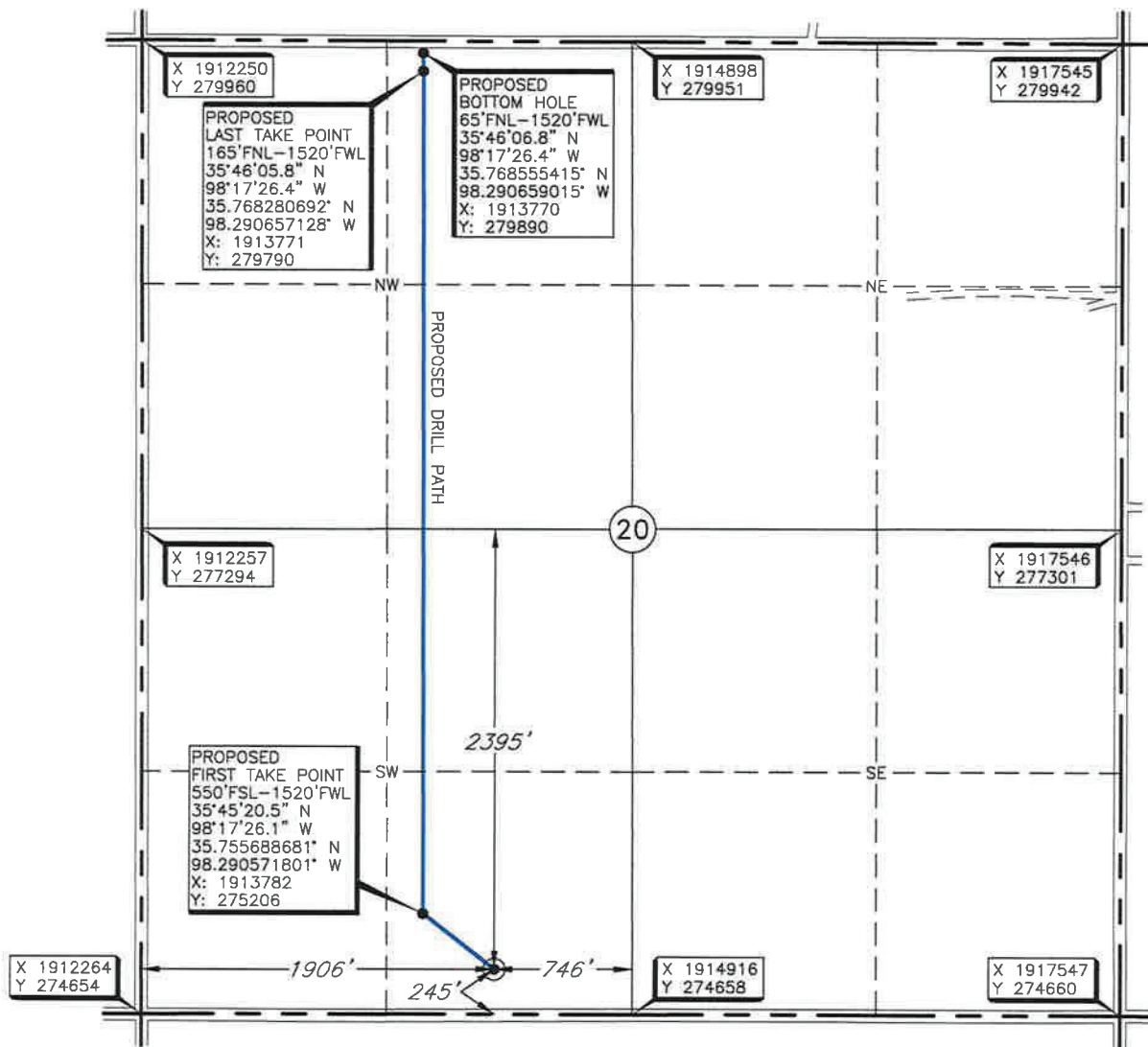
TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219
Certificate of Authorization No. 1293 LS

BLAINE

County, Oklahoma

245'FSL-1906'FWL Section 20 Township 15N Range 10W I.M.



FIRST TAKE POINT, LAST TAKE POINT, BOTTOM HOLE AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED.

THE INFORMATION SHOWN HEREIN IS FOR CONSTRUCTION PURPOSES ONLY

Operator: PALOMA OPERATING COMPANY, INC.

Lease Name: HAMMERHEAD 20-15N-10W

Well No.: 1H

ELEVATION:

1516' Gr. at Stake

Topography & Vegetation Loc. fell in terraced bean field

Good Drill Site? Yes

Reference Stakes or Alternate Location
Stakes Set None

Best Accessibility to Location From South off county road

Distance & Direction

from Hwy Jct or Town From US Hwy 281/St. Hwy 8 in Greenfield, Oklahoma, go ± 5.5 miles East, then ± 1 mile North to the Southwest Corner of Section 20, T15N-R10W.

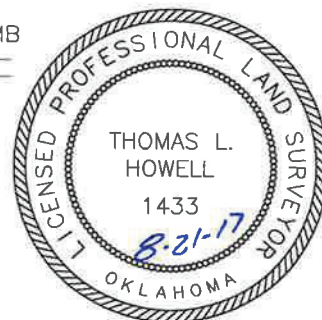
DATUM: NAD-27
LAT: 35°45'17.5" N
LONG: 98°17'21.4" W
LAT: 35.754854995° N
LONG: 98.289265565° W
STATE PLANE
COORDINATES (US FEET):
ZONE: OK NORTH
X: 1914169
Y: 274902

Invoice # 279233 Date of Drawing: Aug. 18, 2017
Date Staked: Aug. 17, 2017 NMB

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 Reg. No. 1433



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