

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

API NUMBER: 017 25286

Approval Date: 10/24/2018  
Expiration Date: 04/24/2020

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 22 Twp: 12N Rge: 8W

County: CANADIAN

SPOT LOCATION:  NW  SW  NW  NW

FEET FROM QUARTER: FROM NORTH FROM WEST

SECTION LINES: 735 230

Lease Name: LONE PINE 22-12N-8W

Well No: 1MH

Well will be 230 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

LAVERNE BRANDLEY  
7903 SMITH ROAD WEST  
EL RENO OK 73036

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

Name	Depth	Name	Depth
1	MISSISSIPPIAN	10002	6
2			7
3			8
4			9
5			10

Spacing Orders: No Spacing

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201807954  
201806636

Special Orders:

Total Depth: 16184

Ground Elevation: 1444

**Surface Casing: 1500**

Depth to base of Treatable Water-Bearing FM: 310

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: 3000 Average: 1500

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 not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: DOG CREEK

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-35665

E. Haul to Commercial pit facility: Sec. 22 Twn. 16N Rng. 9W Cnty. 73 Order No: 647741

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 not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: DOG CREEK

HORIZONTAL HOLE 1

Sec 22 Twp 12N Rge 8W County CANADIAN

Spot Location of End Point: SE SW SW SW

Feet From: SOUTH 1/4 Section Line: 65

Feet From: WEST 1/4 Section Line: 370

Depth of Deviation: 10491

Radius of Turn: 477

Direction: 175

Total Length: 4943

Measured Total Depth: 16184

True Vertical Depth: 10969

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

Notes:

Category

Description

DEEP SURFACE CASING

10/23/2018 - GA8 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING

HYDRAULIC FRACTURING

10/23/2018 - GA8 - 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](http://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](http://FRACFOCUS.ORG)

MEMO

10/23/2018 - GA8 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

PENDING CD - 201806636

10/24/2018 - G58 - (I.O.) 22-12N-8W  
X201807954 MSSP  
COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 330' FWL  
NO OP. NAMED  
REC 10/1/2018 (P. PORTER)

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

PENDING CD - 201807954

Description

10/24/2018 - G58 - (E.O.)(640)(HOR) 22-12N-8W  
EST MSSP, OTHER  
POE TO BHL NCT 660' FB  
REC 10/8/2018 (JACKSON)

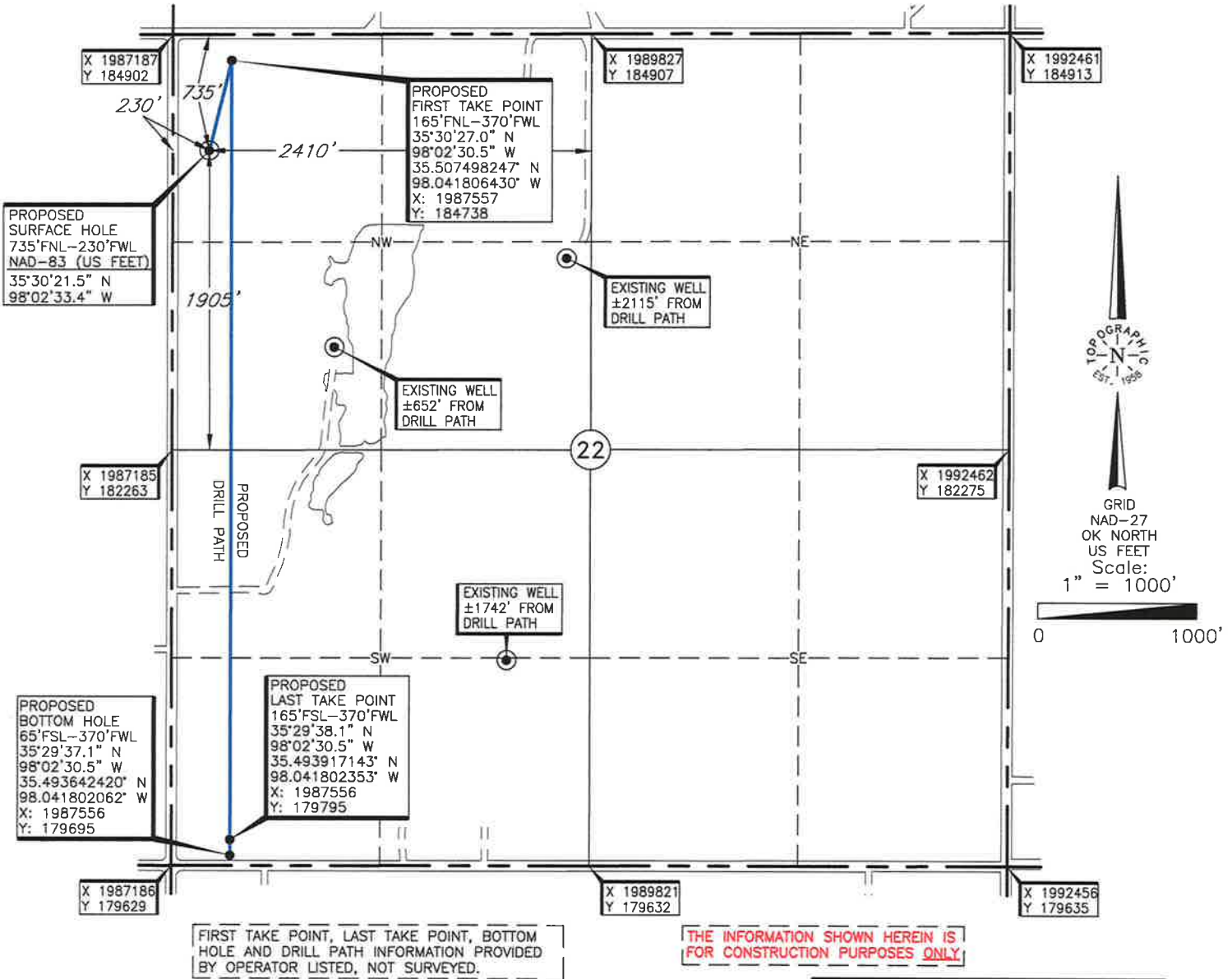
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The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.  
Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

CANADIAN

County, Oklahoma

017-25286

735'FNL-230'FWL Section 22 Township 12N Range 8W 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.

**ELEVATION:**  
 1445' Gr. at Stake (NAVD 88)  
 1444' Gr. at Stake (NGVD 29)

Operator: PALOMA OPERATING COMPANY, INC.

Lease Name: LONE PINE 22-12N-8W

Well No.: 1MH

Topography & Vegetation Location fell in pasture

Good Drill Site? Yes Reference Stakes or Alternate Location  
 Stakes Set None

Best Accessibility to Location From West off county road

Distance & Direction  
 From Hwy Jct or Town From the junction of US Hwy 270 N. & I-40, go ± 3 miles East on I-40, then ± 1.5 miles South, then ± 1 mile East to the Northwest Corner of Section 22, T12N-R8W.

DATUM: NAD-27  
 LAT: 35°30'21.4" N  
 LONG: 98°02'32.2" W  
 LAT: 35.505931153° N  
 LONG: 98.042277733° W  
 STATE PLANE  
 COORDINATES (US FEET):  
 ZONE: OK NORTH  
 X: 1987416  
 Y: 184168

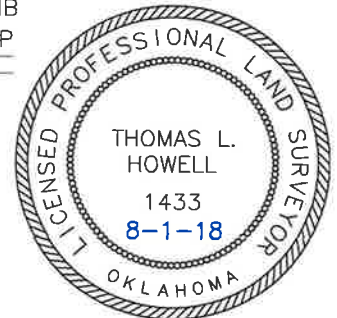
Revision  A Date of Drawing: Aug. 1, 2018 NB  
 Invoice # 292493 Date Staked: April 27, 2018 JP

**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

**TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA**

13800 WIRELESS WAY, OKLA. CITY, OKLA. 73134 \* LOCAL (405) 843-4847 \* OUT OF STATE (800) 654-3219  
 Certificate of Authorization No. 1293 LS

CANADIAN

County, Oklahoma

735'FNL-230'FWL Section 22 Township 12N Range 8W I.M.



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 LAT: 35.505931153° N  
 LONG: 98.042277733° W  
 STATE PLANE COORDINATES (US FEET):  
 ZONE: OK NORTH  
 X: 1987416  
 Y: 184168

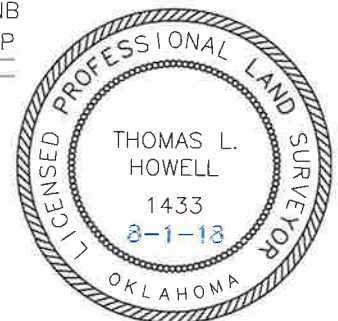
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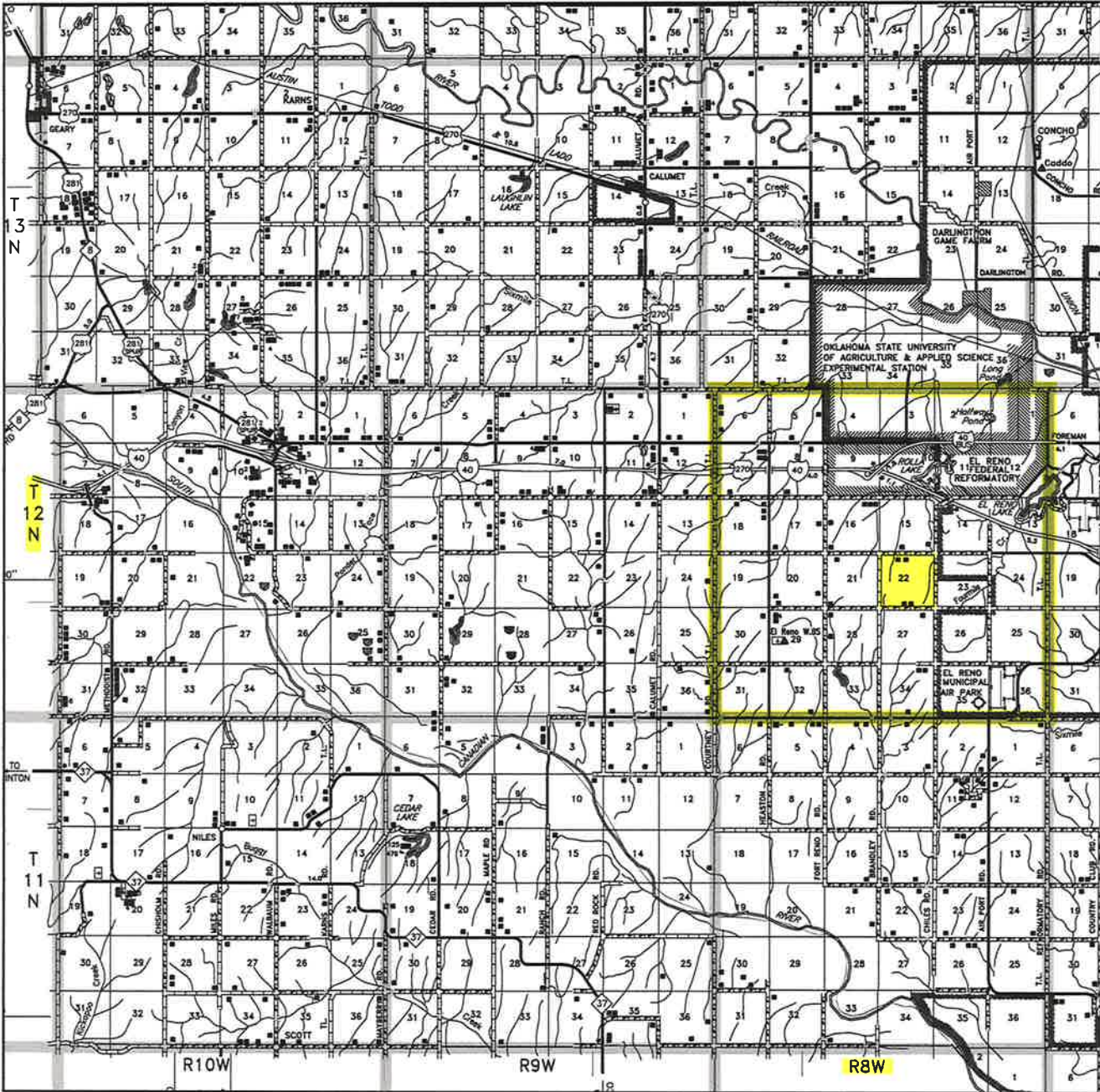


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# TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

Surveying and Mapping for the Energy Industry  
 13800 Wireless Way Oklahoma City, OK 73134 www.topographic.com  
 Telephone Numbers: Local (405) 843-4847 Toll Free (800) 654-3219

## VICINITY MAP



Scale: 1" = 3 Miles

Sec. 22 Twp. 12N Rng. 8W I.M.

County CANADIAN State OK

Operator PALOMA OPERATING COMPANY, INC.

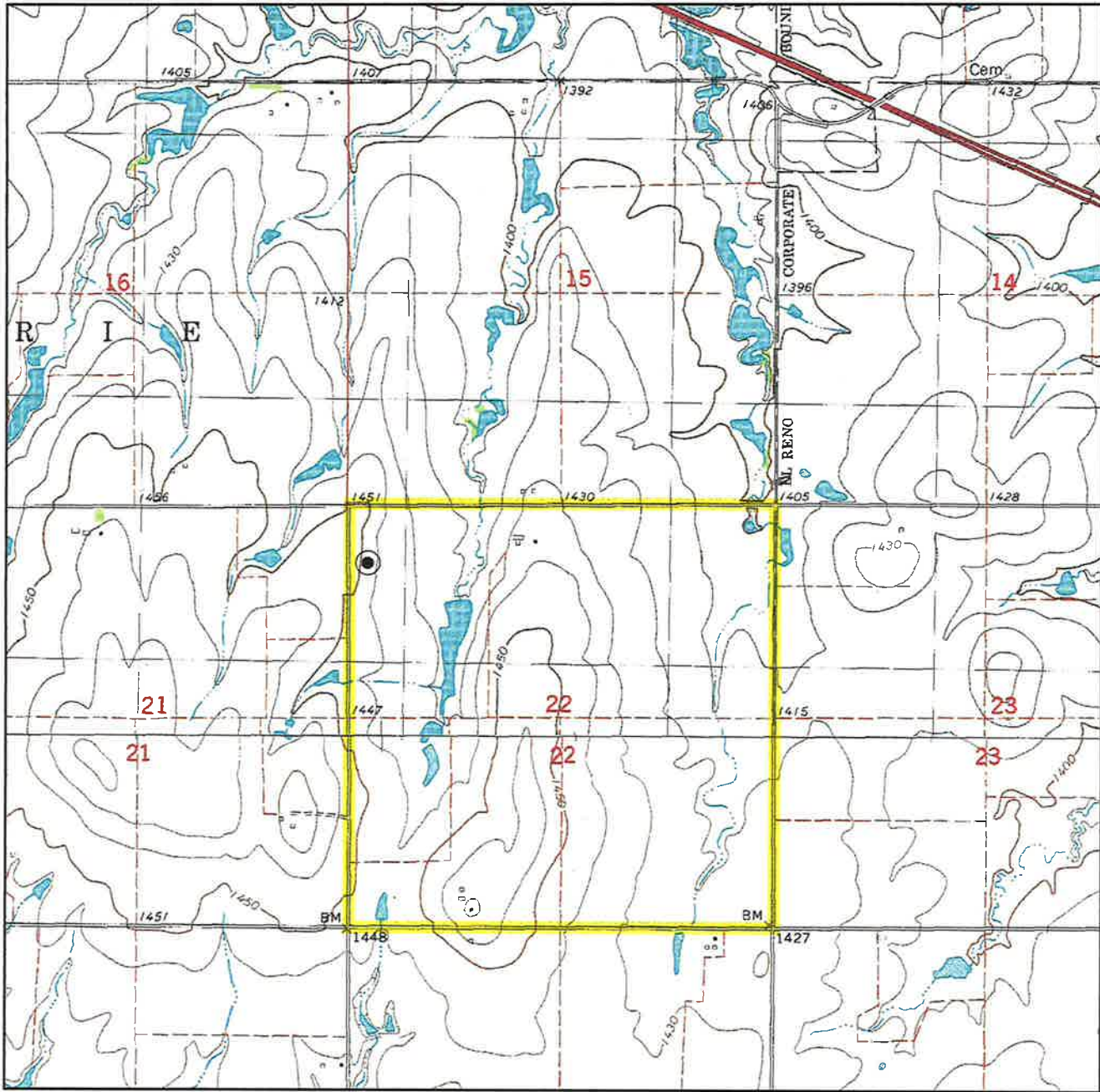


LAND SURVEYORS OF OKLAHOMA

# TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

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## LOCATION & ELEVATION VERIFICATION MAP



Sec. 22 Twp. 12N Rng. 8W I.M.

County CANADIAN State OK

Operator PALOMA OPERATING COMPANY, INC.

Description 735'FNL-230'FWL

Lease LONE PINE 22-12N-8W 1MH

Elevation 1445' Gr. at Stake (NAVD 88)  
1444' Gr. at Stake (NGVD 29)

Above Background Data from  
U.S.G.S. Topographic Map  
Scale: 1"=2000'

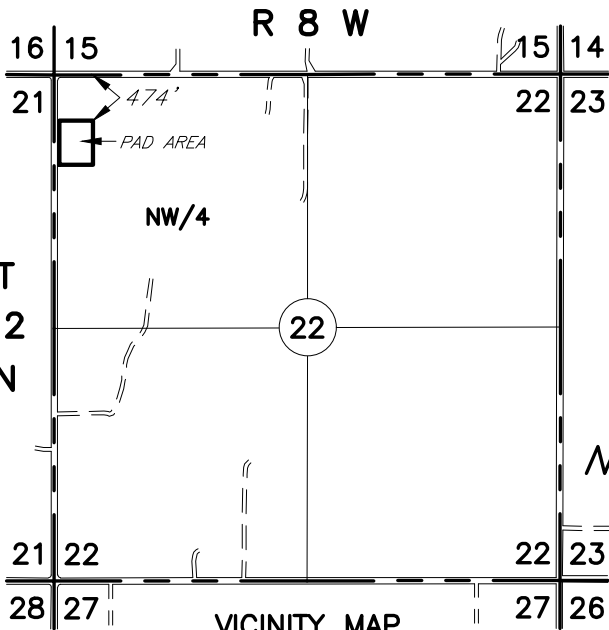
Contour Interval 10'

When elevation is shown hereon it is the ground elevation of the location stake.  
Review this plat and inform us immediately of any possible discrepancy.



LAND SURVEYORS OF OKLAHOMA

April 27, 2018



VICINITY MAP  
(Scale: 1" = 2000')

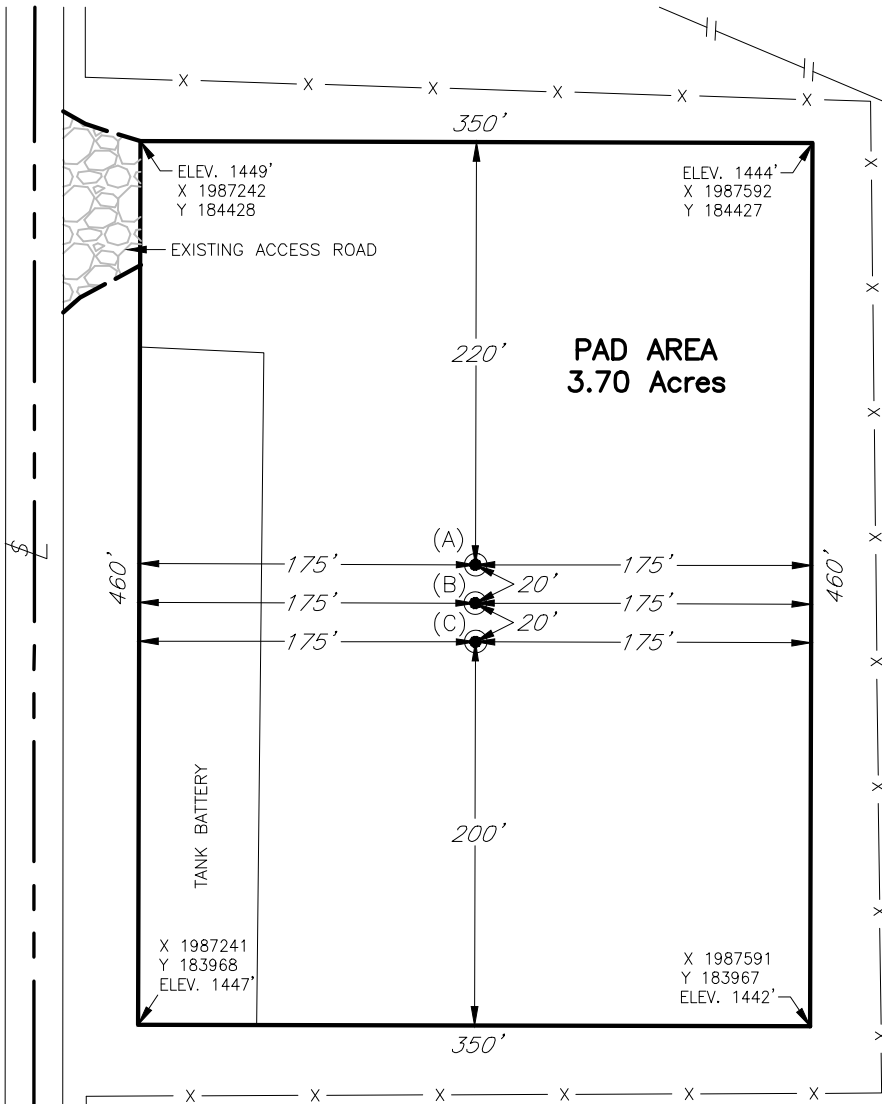
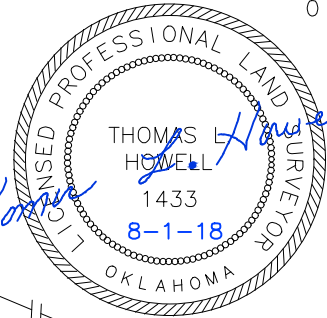
**T 12 N - R 8 W**  
(INDIAN MERIDIAN)

TOTAL ACREAGE WITHIN  
PAD AND ROAD CONSTRUCTION  
**3.78 ACRES**

PLAT SHOWING  
PAD & ROAD AREA IN THE  
NW/4 OF SECTION 22, T12N-R8W  
CANADIAN COUNTY, OKLAHOMA



GRID  
NAD-27  
OK NORTH  
US FEET



- (A) CROOKED NOSE (LOCATION STAKE)  
15-12N-8W 1WH  
NAD-27  
695'FNL-230'FWL  
ELEV: 1444' (PAD)  
X= 1987416  
Y= 184208  
LAT: 35.506041513° N  
LONG: 98.042277852° W
- (B) CROOKED NOSE (LOCATION STAKE)  
15-12N-8W 2MH  
NAD-27  
715'FNL-230'FWL  
ELEV: 1444' (PAD)  
X= 1987416  
Y= 184188  
LAT: 35.505986563° N  
LONG: 98.042278010° W
- (C) LONE PINE (LOCATION STAKE)  
22-12N-8W 1MH  
NAD-27  
735'FNL-230'FWL  
ELEV: 1444' (PAD)  
X= 1987416  
Y= 184168  
LAT: 35.505931153° N  
LONG: 98.042277733° W

**SECTION 22**  
**NW/4**

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

4	REMOVED WELL D	8-1-18	NB
3	AS-BUILT LOCATION	6-6-18	NB
NO.	REVISION	DATE	BY
SURV. BY: JF		3-7-18	
DRAWN BY: NB			
APPROVED BY: TH			

This plat was prepared exclusively for  
**PALOMA OPERATING COMPANY, INC.**  
and may not be relied upon by any other entity without the written consent of Topographic Land Surveyors of Oklahoma.

SURVEYING AND MAPPING BY  
**TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA**  
13800 Wireless Way, Okla. City, OK. 73134 (405) 843-4847  
Certificate of Authorization No. 1293 LS

SCALE:	1" = 100'
DATE:	3-14-18
INVOICE NO.:	292493/295640
FILE NAME:	L2025A.DWG
DRAWING NO.:	116008-L2-025-A
SHEET	1 OF 1