

API NUMBER: 017 25568 A

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

Approval Date: 12/03/2019

Expiration Date: 06/03/2021

Multi Unit Oil & Gas

Amend reason: UPDATE SHL, BHL, AND ORDERS

**AMEND PERMIT TO DRILL**

WELL LOCATION: Section: 22 Township: 12N Range: 8W County: CANADIAN

SPOT LOCATION: N2 SW SW SE FEET FROM QUARTER: FROM SOUTH FROM EAST  
SECTION LINES: 335 2310

Lease Name: CROOKED PINE 22\_15-12N-8W Well No: 4MHX Well will be 335 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

PATRICIA HARTWIG  
3305 WINDSOR BOULEVARD  
OKLAHOMA CITY OK 73122

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

	Name	Code	Depth
1	MISSISSIPPI	351MISS	10553
2	MISSISSIPPIAN	359MSSP	10670

Spacing Orders: 143998 Location Exception Orders: 705401 Increased Density Orders: 704470  
688916 706279  
704467

Pending CD Numbers: No Pending

Special Orders: No Special Orders

Total Depth: 20959 Ground Elevation: 1437 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 340

Deep surface casing has been approved

Under Federal Jurisdiction: No  
Fresh Water Supply Well Drilled: No  
Surface Water used to Drill: No

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 19-37074  
F. Haul to Commercial soil farming facility: Sec. 27 Twn. 17N Rng. 9W Cnty. 73 Order No: 659856

**PIT 1 INFORMATION**

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 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

**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

This permit does not address the right of entry or settlement of surface damages.  
The duration of this permit is 18 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.

MULTI UNIT HOLE 1				
Section: 15	Township: 12N	Range: 8W	Total Length: 10155	
County: CANADIAN			Measured Total Depth: 20959	
Spot Location of End Point: NW	NE	NW	NE	True Vertical Depth: 10670
Feet From: <b>NORTH</b>	1/4 Section Line: 65		End Point Location from	
Feet From: <b>EAST</b>	1/4 Section Line: 1900		Lease,Unit, or Property Line: 65	

NOTES:	
Category	Description
DEEP SURFACE CASING	11/12/2019 - 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	11/12/2019 - 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: <a href="http://OCCWEB.COM/OG/OGFORMS.HTML">OCCWEB.COM/OG/OGFORMS.HTML</a> ; 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: <a href="http://FRACFOCUS.ORG">FRACFOCUS.ORG</a>
INCREASED DENSITY - 704470 (201904574)	12/3/2019 - GC2 - 15-12N-8W X143998 MISS 4 WELLS PALOMA PARTNERS IV, LLC 10-30-2019
INCREASED DENSITY - 706279 (201904575)	2/26/2019 - GC2 - 22-12N-8W X688916 MSSP 4 WELLS NO OP. NAMED 12-12-2019
LOCATION EXCEPTION - 705401 (201904571)	12/3/2019 - GC2 - (I.O.) 15 & 22-12N-8W X143998 MISS 15-12N-8W X688916 MSSP 22-12N-8W COMPL. INT. (22-12N-8W) NCT 165' FSL, NCT 0' FNL, NCT 650' FEL COMPL. INT. (15-12N-8W) NCT 0' FSL, NCT 165' FNL, NCT 650' FEL PALOMA PARTNERS IV, LLC 11-20-2019
MEMO	11/12/2019 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
SPACING - 143998	12/3/2019 - GC2 - (640) 15-12N-8W EXT 122864/137298 MISS EXT OTHER
SPACING - 688916	12/3/2019 - GC2 - (640)(HOR) 22-12N-8W EST MSSP, OTHER COMPL. INT. (MSSP) NCT 660' FB
SPACING - 704467 (201904567)	12/3/2019 - GC2 - (I.O.) 15 & 22-12N-8W EST MULTIUNIT HORIZONTAL WELL X143998 MISS 15-12N-8W X688916 MSSP 22-12N-8W 50% 15-12N-8W 50% 22-12N-8W PALOMA PARTNERS IV, LLC 10-30-2019

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017 25568 CROOKED PINE 22\_15-12N-8W 4MHX

X 1987187  
Y 190186

X 1989826  
Y 190184

PROPOSED  
BOTTOM HOLE  
65'FNL-1900'FEL  
35°31'20.2" N  
98°01'54.0" W  
35.522282041' N  
98.031667770' W  
X 1990576  
Y 190118

PROPOSED  
LAST TAKE POINT  
165'FNL-1900'FEL  
35°31'19.2" N  
98°01'54.0" W  
35.522007318' N  
98.031668667' W  
X 1990576  
Y 190018

X 1987187  
Y 187544

X 1992469  
Y 187550

15

EXISTING WELL  
±2391' W. OF  
DRILL PATH

EXISTING WELL  
±585' W. OF  
DRILL PATH

X 1987187  
Y 184902

X 1989827  
Y 184907

X 1992461  
Y 184913

PROPOSED DRILL PATH

EXISTING WELL  
±2354' W. OF  
DRILL PATH

EXISTING WELL  
±892' W. OF  
DRILL PATH

X 1987185  
Y 182263

X 1992462  
Y 182275

22

EXISTING WELL  
±1260' W. OF  
DRILL PATH

PROPOSED  
KICKOFF POINT  
330'FNL-1900'FEL  
(SECTION 27)  
35°29'33.2" N  
98°01'54.2" W  
35.492569019' N  
98.031723164' W  
X 1990556  
Y 179303

PROPOSED  
FIRST TAKE POINT  
165'FSL-1900'FEL  
35°29'38.1" N  
98°01'54.2" W  
35.493928900' N  
98.031723170' W  
X 1990557  
Y 179798

X 1987186  
Y 179629

X 1989821  
Y 179632

X 1992456  
Y 179635

SECTION 27  
NW/4

KICKOFF  
POINT

Revision ☒ 3

Date of Drawing: Feb. 6, 2020

Project # 128279

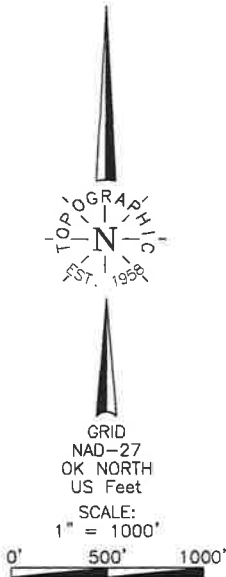
Date Staked: Oct. 21, 2019

KH

CERTIFICATE:

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

*Thomas L. Howell*  
Oklahoma Lic. No. 1433



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

THE INFORMATION SHOWN HEREIN IS FOR CONSULTATION PURPOSES ONLY

Operator: PALOMA OPERATING COMPANY, INC.  
Lease Name: CROOKED PINE 22-15-12N-8W  
Topography & Vegetation Location fell on existing pad  
Good Drill Site? Yes  
Reference Stakes or Alternate Location Stakes Set None

Well No.: 4MHX

ELEVATION:  
1437' Gr. on Existing Pad

Best Accessibility to Location From South off county road.  
Distance & Direction From the junction of US Hwy 270/-40 and US Hwy 81 go ±0.5 miles South on US Hwy 81, Then ±5.0 miles West to the SE Corner of Section 22, T12N-R8W.

DATUM: NAD-27  
LAT: 35°29'39.8" N  
LONG: 98°01'59.2" W  
LAT: 35.494394456° N  
LONG: 98.033098849° W  
STATE PLANE  
COORDINATES: (US Feet)  
ZONE: OK NORTH  
X: 1990147  
Y: 179967



# TOPOGRAPHIC LAND SURVEYORS

13800 Wireless Way, Okla. City, OK. 73134 \* LOCAL (405) 843-4847 \* OUT OF STATE (800) 654-3219  
Certificate of Authorization No. 1292 LS

CANADIAN

County, Oklahoma

335'FSL-2310'FEL Section 22 Township 12N Range 8W I.M.

X 1992477  
Y 190182

X 1987187  
Y 190180

X 1989826  
Y 190184

PROPOSED  
BOTTOM HOLE  
65'FNL-1900'FEL  
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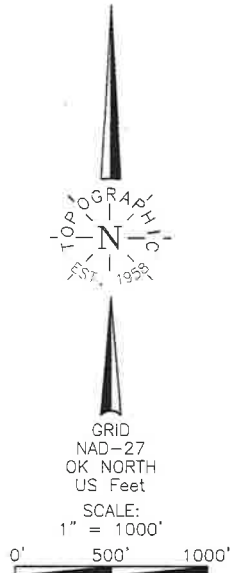
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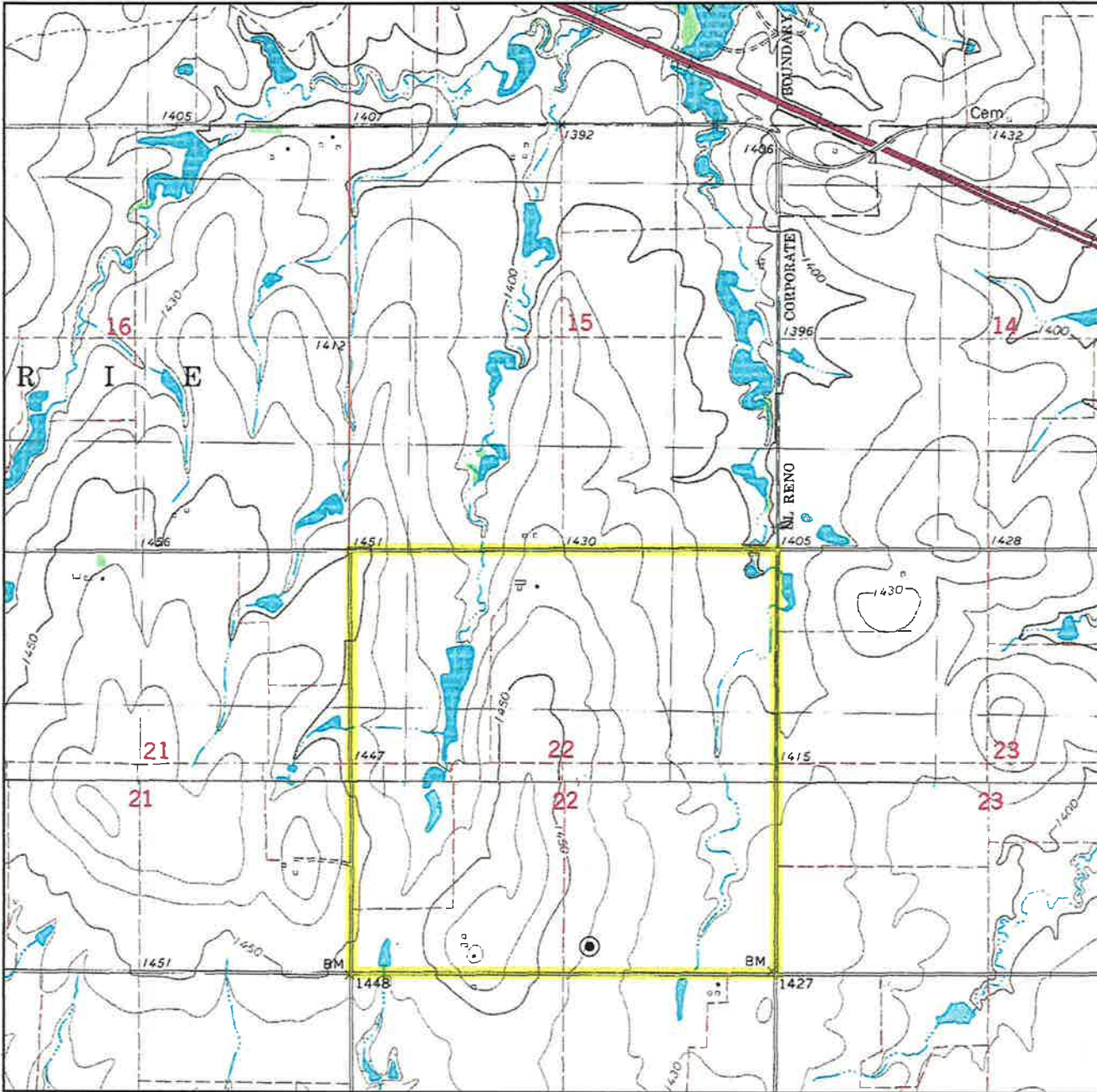
# TOPOGRAPHIC LAND SURVEYORS

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

## LOCATION & ELEVATION VERIFICATION MAP



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

County CANADIAN State OK

Operator PALOMA OPERATING COMPANY, INC.

Description 335'FSL-2310'FEL

Lease CROOKED PINE 22-15-12N-8W 4MHX

Elevation 1437' Gr. on Existing Pad

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.



Oct. 21, 2019



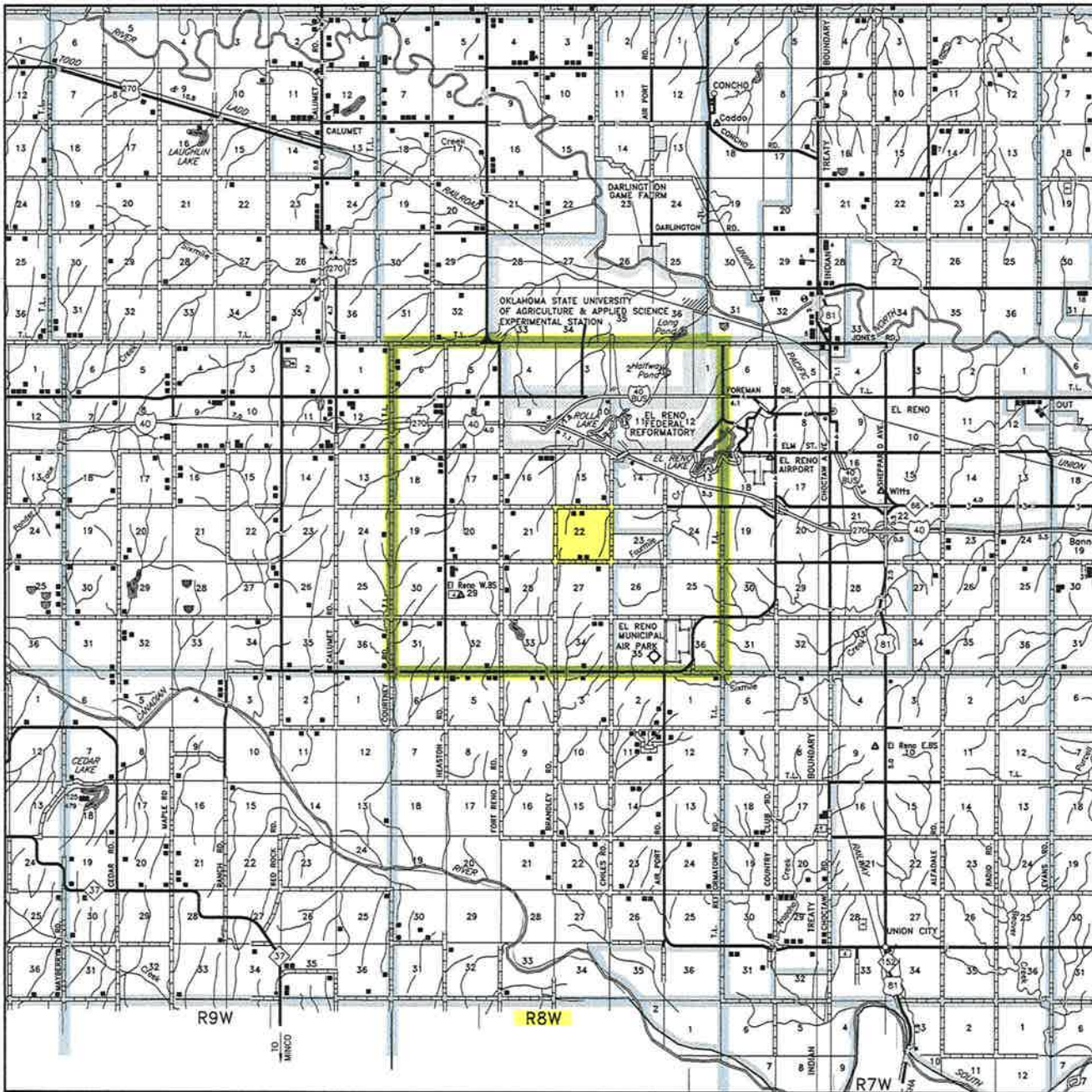
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## VICINITY MAP



Scale: 1" = 3 Miles

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

County CANADIAN State OK

Operator PALOMA OPERATING COMPANY, INC.

