

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

API NUMBER: 129 24011

Approval Date: 10/06/2014

Expiration Date: 04/06/2015

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 13 Twp: 15N Rge: 26W

County: ROGER MILLS

SPOT LOCATION:

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 250 1525

Lease Name: THORAL 24-15-26

Well No: 1H

Well will be 250 feet from nearest unit or lease boundary.

Operator Name: APACHE CORPORATION

Telephone: 9184914900; 9184914

OTC/OCC Number: 6778 0

APACHE CORPORATION  
6120 S YALE AVE STE 1500  
TULSA, OK 74136-4224

THORAL & LINDA SHAW  
8522 HWY 30  
DURHAM OK 73642

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

Name	Depth	Name	Depth
1 CLEVELAND	10115	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 142515

Location Exception Orders: 630268

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 15500

Ground Elevation: 2310

**Surface Casing: 700**

Depth to base of Treatable Water-Bearing FM: 650

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: 8000 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: 1B

Liner required for Category: 1B

Pit Location is BED AQUIFER

Pit Location Formation: OAGALLALA

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

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

PERMIT NO: 14-28466

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 BED AQUIFER

Pit Location Formation: OGALLALA

HORIZONTAL HOLE 1

Sec 24 Twp 15N Rge 26W County ROGER MILLS

Spot Location of End Point: E2 SW SE SW

Feet From: SOUTH 1/4 Section Line: 330

Feet From: WEST 1/4 Section Line: 1500

Depth of Deviation: 9594

Radius of Turn: 573

Direction: 359

Total Length: 5193

Measured Total Depth: 15500

True Vertical Depth: 10224

End Point Location from Lease,  
Unit, or Property Line: 330

Notes:

Category

Description

LOCATION EXCEPTION - 630268

10/6/2014 - G72 - 24-15N-26W (I.O.)  
X 142515 CLVD  
SHL NCT 250 FSL NCT 1500 FWL 13-15N-26W,  
COMP INT. NCT 300 FNL NCT 300 FSL NCT 1000 FWL,  
APACHE CORPORATION,  
9/8/2014

MEMO

9/25/2014 - G76 - PITS 1 & 2 - CONCRETE LINED PIT PER OPERATOR REQUEST, PIT 2 - OBM  
RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

SPACING - 142515

10/6/2014 - G72 - (640) 24-15N-26W  
EXT 100037 CLVD  
EST OTHERS

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.

129 24011 THORAL 24-15-26 1H

# Well Location Plat

S.H.L. Sec. 13-15N-26W I.M.  
B.H.L. Sec. 24-15N-26W I.M.

129-24011

Operator: APACHE CORPORATION

Lease Name and No. : THORAL 24-15-26 1H

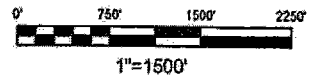
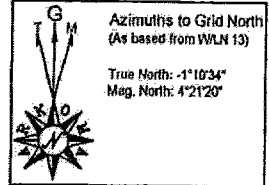
Footage : 250' FSL - 1525' FWL GR. ELEVATION : 2310' Good Site? YES

Section: 13 Township: 15N Range: 26W I.M.

County : Roger Mills State of Oklahoma

Alternate Loc. : N/A

Terrain at Loc. : Stake fell in brushy, flat pasture, 25' E. of the Shaw #13-25-26 1H



Accessibility : From the North.

Directions : From the junction of State Highway 30 & State Highway 33 in Northwest Roger Mills County, go 2 miles South on Hwy 30 to the Northwest Corner of Section 13-15N-26W.

60D W/WASHER  
X: 1428991  
Y: 281085  
LAT: 35°47'02.81"N  
LON: 99°55'30.80"W  
LAT: 35.784115  
LON: 99.925221

X: 1429544  
Y: 290746

MEWBOURNE OIL CO.  
SHAW #2  
291' FSL - 1321' FWL  
LAT: 35°46'53.03"N  
LON: 99°55'14.77"W  
X: 1430291  
Y: 290071

MEWBOURNE OIL CO.  
SHAW #1  
857' FSL - 1873' FWL  
LAT: 35°48'56.38"N  
LON: 99°54'30.27"W  
X: 1432317  
Y: 290368

IRON ROD  
X: 1434309  
Y: 290090  
LAT: 35°47'02.91"N  
LON: 99°54'26.23"W  
LAT: 35.784142  
LON: 99.907287

GPS DATUM

NAD - 27

OK NORTH ZONE

Surface Hole Loc.:

Lat: 35°46'13.65"N

Lon: 99°55'12.33"W

Lat: 35.770460

Lon: 99.920092

X: 1430413

Y: 286086

Bottom Hole Loc.:

Lat: 35°45'22.29"N

Lon: 99°55'13.63"W

Lat: 35.756190

Lon: 99.920453

X: 1430204

Y: 280895

Please note that this location was staked on the ground under the supervision of a Licensed Professional Land Surveyor, but the accuracy of this survey is not guaranteed. Please contact Arkoma Surveying and Mapping promptly if any inconsistency is determined. GPS data is observed from RTK - GPS.

IRON ROD  
X: 1428884  
Y: 285876  
LAT: 35°46'11.28"N  
LON: 99°55'30.84"W  
LAT: 35.769800  
LON: 99.925233

X: 1429450  
Y: 286191

APACHE  
SHAW 13-15-26 1H  
250' FSL - 1500' FWL  
LAT: 35°46'13.66"N  
LON: 99°55'12.64"W  
X: 1430388  
Y: 290086

APACHE  
CHURCHILL 13-15-26 1H  
250' FSL - 1500' FWL  
LAT: 35°46'13.51"N  
LON: 99°54'45.08"W  
X: 1432317  
Y: 290368

X: 1433501  
Y: 286092

IR W/CAP 1293  
X: 1434151  
Y: 285738  
LAT: 35°46'10.94"N  
LON: 99°54'26.91"W  
LAT: 35.769706  
LON: 99.907474

X: 1429432  
Y: 285531

X: 1433581  
Y: 285423

CALC.-DBL. PROP.  
X: 1428592  
Y: 280556  
LAT: 35°45'19.04"N  
LON: 99°55'31.90"W  
LAT: 35.753288  
LON: 99.925527

X: 1429284  
Y: 280514

BOTTOM HOLE LOC.  
330' FSL - 1500' FWL

X: 1433442  
Y: 280827

ALUMINUM CAP  
X: 1433992  
Y: 280485  
LAT: 35°45'18.98"N  
LON: 99°54'27.58"W  
LAT: 35.755271  
LON: 99.907660

survey and plat by,

Arkoma Surveying and Mapping, PLLC

P.O. Box 238 Wilburton, OK 74578

Ph. 918-465-5711 Fax 918-465-5030

Certificate of Authorization No. 5348

Expires June 30, 2014

Invoice #4346

Date Staked : 02/12/14

By : C.K.

Date Drawn : 02/17/14

By : E.D.

Certification:

This is to certify that this Well Location Plat represents the results of a survey made on the ground performed under the supervision of the undersigned.

*Stan Drannon* 2/19/14  
STAN DRANNON OK LPLS 1672

