

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

API NUMBER: 045 23329

Approval Date: 04/03/2013
Expiration Date: 10/03/2013

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 18 Twp: 16N Rge: 23W County: ELLIS
SPOT LOCATION: SW SE SE SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 125 600

Lease Name: ODWC Well No: 1-18H Well will be 125 feet from nearest unit or lease boundary.
Operator Name: APACHE CORPORATION Telephone: 9184914900 OTC/OCC Number: 6778 0

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

OKLAHOMA DEPARTMENT OF WILDLIFE
CONSERVATION
P.O. BOX 53465
OKLAHOMA CITY OK 73105

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

Name	Depth	Name	Depth
1 TONKAWA	8250	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 66170 Location Exception Orders: Increased Density Orders: 607370
62838

Pending CD Numbers: 201208185 Special Orders:
201301403

Total Depth: 13000 Ground Elevation: 2036 Surface Casing: 650 Depth to base of Treatable Water-Bearing FM: 440

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

PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

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: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: RUSH SPRINGS

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 13-22554
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: RUSH SPRINGS

HORIZONTAL HOLE 1

Sec 18 Twp 16N Rge 23W County ELLIS

Spot Location of End Point: NW NE NE NE

Feet From: NORTH 1/4 Section Line: 300

Feet From: EAST 1/4 Section Line: 600

Depth of Deviation: 7835

Radius of Turn: 573

Direction: 5

Total Length: 4860

Measured Total Depth: 13000

True Vertical Depth: 8286

End Point Location from Lease,
Unit, or Property Line: 300

Notes:

Category	Description
INCREASED DENSITY - 607370	2/15/2013 - G30 - 18-16N-23W X66170 TNKW 1 WELL APACHE CORPORATION 2/4/13
MEMO	2/15/2013 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS REQUIRED - SOUTH CANADIAN RIVER, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
PENDING CD - 201208185	2/15/2013 - G30 - 18-16N-23W X66170 TNKW SHL NCT 125 FSL, NCT 500 FEL 1ST PERF NCT 300 FSL, NCT 500 FEL LAST PERF NCT 300 FNL, NCT 500 FEL NO OP. NAMED REC 1/22/13 (JOHNSON)
PENDING CD - 201301403	2/28/2013 - G30 - 18-16N-23W AMEND 95344 DGLTK REC 4/2/13 (MCKEOWN)
SPACING - 62838	2/15/2013 - G30 - (640) 18-16N-23W EXT 61184/62327 TNKW
SPACING - 66170	2/15/2013 - G30 - (640) 18-16N-23W EXT 61184/65421 TNKW

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