

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

API NUMBER: 019 26248

Approval Date: 11/30/2016
Expiration Date: 05/30/2017

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 30 Twp: 3S Rge: 2W County: CARTER
SPOT LOCATION: NE NE NE SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 2350 210

Lease Name: DOC BROWN Well No: 1-30-19XH Well will be 210 feet from nearest unit or lease boundary.
Operator Name: AVALON OPERATING LLC Telephone: 9185230600 OTC/OCC Number: 23929 0

AVALON OPERATING LLC
15 W 6TH ST STE 2300
TULSA, OK 74119

GARY BROWN
495 COUNTY ROAD 1570
RUSH SPRINGS OK 73082

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

	Name	Depth	Name	Depth
1	WOODFORD	7750	6	
2	HUNTON (LS CHIMNEY HILL)	8150	7	
3			8	
4			9	
5			10	

Spacing Orders: 643868
655180
647308
658345

Location Exception Orders: 654640
658345

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 17000

Ground Elevation: 959

Surface Casing: 1170

Depth to base of Treatable Water-Bearing FM: 920

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

PIT 1 INFORMATION

Type of Pit System: ON SITE
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 located in a Hydrologically Sensitive Area.

Category of Pit: 2

Liner not required for Category: 2

Pit Location is BED AQUIFER

Pit Location Formation: WELLINGTON

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

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

H. SEE MEMO

PERMIT NO: 16-31835

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: WELLINGTON

HORIZONTAL HOLE 1

Sec 19 Twp 3S Rge 2W County CARTER

Spot Location of End Point: NE NE NW NW

Feet From: NORTH 1/4 Section Line: 1

Feet From: WEST 1/4 Section Line: 1059

Depth of Deviation: 7300

Radius of Turn: 573

Direction: 334

Total Length: 8800

Measured Total Depth: 17000

True Vertical Depth: 8150

End Point Location from Lease,
Unit, or Property Line: 1

Notes:

Category

Description

BOTTOM-HOLE LOCATION

11/29/2016 - G75 - 1' FNL, 1059' FWL NW4 19-3S-2W PER STAKING PLAT

HYDRAULIC FRACTURING

11/28/2016 - G71 - OCC 165:10-3-10 REQUIRES: 1) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS BE REPORTED TO FRACFOCUS USING THE FOLLOWING LINK [HTTP://FRACFOCUS.ORG/](http://fracfocus.org/) WITH NOTICE GIVEN 48 HOURS IN ADVANCE OF FRACTURING TO THE LOCAL OCC DISTRICT OFFICE; AND, 2) PRIOR TO COMMENCEMENT OF FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE ALSO GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE.

LOCATION EXCEPTION - 654640

11/30/2016 - G75 - (I.O.) 30 & 19-3S-2W
X643868 WDFD, HTLCH 30-3S-2W
X647308 WDFD, HTLCH 19-3S-2W
SHL (30-3S-2W) NCT 2350' FSL, NCT 210' FEL
COMPL. INT (30-3S-2W) NCT 2600' FSL, NCT 0' FNL, NCT 300' FEL
COMPL. INT. (19-3S-2W) NCT 0' FSL, NCT 165' FNL, NCT 1140' FWL
AVALON EXPLOR. INC.
7-25-2016

LOCATION EXCEPTION - 658345

11/30/2016 - G75 - X654640 CHANGING OPERATOR TO AVALON OP., LLC

MEMO

11/28/2016 - G71 - PIT 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

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	Description
SPACING - 643868	11/30/2016 - G75 - (640)(HOR) 30-3S-2W EST WDFD, HTLCH COMPL. INT. (HTLCH) NLT 660' FB COMPL. INT. (WDFD) NLT 330' FB (COEXIST SP. ORDER # 572480 WDFD, HNTN SW4)
SPACING - 647308	11/30/2016 - G75 - (640)(HOR) 19-3S-2W EST WDFD, HTLCH COMPL. INT. (HTLCH) NLT 660' FB COMPL. INT. (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL (COEXIST SP. ORDER # 155194 HNTN N2 & SE4, ORDER # 172434 HNTN SW4, ORDER # 228699 WDFD)
SPACING - 655180	11/30/2016 - G75 - (I.O.) 30 & 19-3S-2W EST MULTIUNIT HORIZONTAL WELL X643868 WDFD, HTLCH 30-3S-2W X647308 WDFD, HTLCH 19-3S-2W 34.38% 30-3S-2W 65.62% 19-3S-2W AVALON EXPLOR. INC. 8-12-2016
SPACING - 658345	11/30/2016 - G75 - X655180 CHANGING OPERATOR TO AVALON OP., LLC

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