

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

API NUMBER: 019 26358

Approval Date: 01/08/2020

Expiration Date: 07/08/2021

Straight Hole

Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 36 Twp: 2S Rge: 3W

County: CARTER

SPOT LOCATION: ☐ SW ☐ NW ☐ NW ☐ SW

FEET FROM QUARTER: FROM NORTH FROM WEST

SECTION LINES: 400 165

Lease Name: BRANDON

Well No: 3-36

Well will be 165 feet from nearest unit or lease boundary.

Operator Name: THUNDER OIL & GAS LLC

Telephone: 5802263800

OTC/OCC Number: 10073 0

THUNDER OIL & GAS LLC
PO BOX 1788
ARDMORE, OK 73402-1788

JAMES RICHARD TITLEY
3850 GOODFELLOW DRIVE
DALLAS TX 75229

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

	Name	Depth	Name	Depth
1	DEESE	3000	6	
2	DORNICK HILLS	4200	7	
3	WOODFORD	5400	8	
4	HUNTON	5500	9	
5	VIOLA	6250	10	

Spacing Orders: 269587
298539

Location Exception Orders: 705845

Increased Density Orders: 705449

Pending CD Numbers:

Special Orders:

Total Depth: 6700

Ground Elevation: 1028

Surface Casing: 750

Depth to base of Treatable Water-Bearing FM: 40

Deep surface casing has been approved

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: ON SITE

A. Evaporation/dewater and backfilling of reserve pit.

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

Notes:

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.

Category	Description
DEEP SURFACE CASING	12/26/2019 - 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	<p>12/26/2019 - G71 - OCC 165:10-3-10 REQUIRES:</p> <p>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;</p> <p>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: OCCWEB.COM/OG/OGFORMS.HTML; AND,</p> <p>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</p>
INCREASED DENSITY - 705449 (201904049)	<p>1/8/2020 - GB6 - SW4 36-2S-3W X269587 HNTN X298539 DKHL 1 WELL NO OP NAMED 11/21/2019</p>
LOCATION EXCEPTION - 705845 (201904050)	<p>1/8/2020 - GB6 - SW4 36-2S-3W X269587 WDFD, HNTN, VIOL, OTHERS X298539 DEESS, DKHL SHL 400' FNL, 165' FWL OF SW4 36-2S-3W NO OP NAMED 12/03/2019</p>
SPACING - 269587	<p>1/8/2020 - GB6 - (160) SW4 36-2S-3W EXT 190157 WDFD, HNTN, VIOL, OTHERS</p>
SPACING - 298539	<p>1/8/2020 - GB6 - (160) SW4 36-2S-3W EXT 190157 DEESS EXT 210617/278736 DKHL</p>