API NUMBER: 015 23313

Oil & Gas

Horizontal Hole

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

Approval Date: 06/26/2019
Expiration Date: 12/26/2020

PERMIT TO DRILL

WELL LOCATION: Sec: 9N Rge: 11W County: CADDO Twp: FEET FROM QUARTER: SPOT LOCATION: FROM SOUTH FROM EAST Isw sw II SE SE SECTION LINES: 265 1100

Lease Name: DOROTHA 33-9N-11W Well No: 1H Well will be 265 feet from nearest unit or lease boundary.

Operator KAISER-FRANCIS OIL COMPANY Telephone: 9184940000 OTC/OCC Number: 6390 0

KAISER-FRANCIS OIL COMPANY 6733 S YALE AVE

TULSA, OK 74121-1468

ARTHUR D. HALL 1989 REVOC. LIVING TRUST 8228 WILSHIRE RIDGE DR

OKLAHOMA CITY OK 73132

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

Name Depth Name Depth MARCHAND 10132 1 6 2 7 3 8 4 9 10 204540 Spacing Orders: Location Exception Orders: 695269 Increased Density Orders: 690214

Pending CD Numbers: Special Orders:

Total Depth: 15624 Ground Elevation: 1408 Surface Casing: 1000 Depth to base of Treatable Water-Bearing FM: 340

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: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 19-36704
Chlorides Max: 8000 Average: 5000 H. SEE MEMO
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: CPit Location is BED AQUIFER

Pit Location Formation: RUSH SPRINGS

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 33 Twp 9N Rge 11W County CADDO

Spot Location of End Point: SW SW SE SE
Feet From: SOUTH 1/4 Section Line: 165
Feet From: EAST 1/4 Section Line: 1230

Depth of Deviation: 9627 Radius of Turn: 666 Direction: 181

Total Length: 4950

Measured Total Depth: 15624

True Vertical Depth: 10150

End Point Location from Lease,
Unit, or Property Line: 165

Notes:

Category Description

DEEP SURFACE CASING 6/20/2019 - 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 6/20/2019 - 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:

OCCEWEB.COM/OG/OGFORMS.HTML; 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: FRACFOCUS.ORG

INCREASED DENSITY - 690214 6/26/2019 - GB1 - 33-9N-11W

X204540 MRCD

1 WELL

KAISER-FRANCIS OIL COMPANY

1/23/2019

LOCATION EXCEPTION - 695269 6/26/2019 - GB1 - (I.O.) 33-9N-11W

X204540 MRCH

COMPL. INT. NCT 165' FNL, NCT 165' FSL, NCT 1000' FEL

KAISER-FRANCIS OIL COMPANY

4/29/19

Description Category

 $6/\!20/\!2019$ - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT MEMO

SPACING - 204540 6/26/2019 - GB1 - (640) 33-9N-11W

EXT OTHERS

EXT 95691/187860 MRCD

API 015-23313 TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA
13800 Wireless Way, Okla. City, Ok. 73134 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1293 LS County, Oklahoma

<u>9N</u> Range 265'FSL - 1100'FEL 28 _11W_I.M. Section _ _ Township _ Range GRID
NAD-27
OK SOUTH
US FEET
Scale:
= 1000' 1000 X 1887569 Y 688865 Best Accessibility to Location Distance & Direction from Hwy Jct or Town From Topography & Vegetation mile West to the NE corner of Section 28, Drill Site? Dorotha 33-9N-1 Dorotha 2363 Yes Location From the Jct. East fell X 1887563 Y 686234 1890192 686222 으 265 T9N -1st PERF 165 FNL - 2170 FEL NAD - 27 (US FEET 35 13 04.6" N 98:21 57.8" W 35:217956408 N 98:366064540" W X 1890652 V 686055 3. MI U.S. off Reference Stakes (
Stakes Set None
ff county road. Stakes S scattered cedar Hwy. R11W. 281 and PROPOSED DRILL ₩ell 35 trees 9 Hwy. No. Alternate 152 1H PATH 2. Binger, Location 33 X 1887551 Y 683617 è. 1408 Gr. at go ±5.2 miles Stake South, BOTTCM HOLE 165 FSL - 1230 FEL NAD - 27 (US FEET 35 12 16.0" N 98 21 46.5" W 35.204451471 N

FIRST PERF, BOTTOM HOLE AND DRILL PATH INFORMATION INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED

35.219134536° N

Date of Drawing: March 25, 2019 Project # 125069 Date Staked: March 21, 2019

CERTIFICATE:

X 1888928 Y 680990

X 1887538 Y 681000

Township

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

Y 680981

2nd STANDARD PARALLEL NORTH

19N - R11W

78N - R11W

1433 Oklahoma Lic. No.

DATUM: NAD-27 LAT: 35'13'08.9" N LONG: 98'21'45.0" W LAT: LONG: 98.362492849° W

then

STATE PLANE COORDINATES (US FEET) ZONE: OK SOUTH 1891721 686480



X 189280 Y 680962