API NUMBER: 011 23685

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: 11/17/2016
Expiration Date: 05/17/2017

PERMIT TO DRILL

WELL LOCATION:	Sec:	20	Twp:	15N	Rge:	12W	County:	BLAINE
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SPOT LOCATION: SW SW SW FEET FROM QUARTER: FROM SOUTH FROM WEST SECTION LINES: 230 255

Lease Name: IKE Well No: 1-20-17XH Well will be 230 feet from nearest unit or lease boundary.

Operator CONTINENTAL RESOURCES INC Telephone: 4052349020; 4052349 OTC/OCC Number: 3186 0

CONTINENTAL RESOURCES INC

PO BOX 269000

OKLAHOMA CITY, OK 73126-9000

CHRIS DIDIER RT. 1, BOX 550

FAY OK 73646

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	10800	6	
2	MISSISSIPPI LIME	11500	7	
3			8	
4			9	
5			10	
Spacing Orders:	582206	Location Exception Orders: 6	649601	Increased Density Orders:
	650472	•		,
	587886			

Pending CD Numbers: Special Orders:

Total Depth: 22393 Ground Elevation: 1745 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 290

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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

Approved Method for disposal of Drilling Fluids:

 $\hbox{A. Evaporation/dewater and backfilling of reserve pit.}\\$ 

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 16-31834

H. SEE MEMO

E. Haul to Commercial pit facility: Sec. 31 Twn. 12N Rng. 8W Cnty. 17 Order No: 587498

PIT 2 INFORMATION

Type of Pit System: ON SITE

Type of Mud System: OIL BASED

Chlorides Max: 300000 Average: 250000

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 AP/TE DEPOSIT
Pit Location Formation: TERRACE

## **HORIZONTAL HOLE 1**

Sec 17 Twp 15N Rge 12W County **BLAINE** NW Spot Location of End Point: N2 NW NW Feet From: NORTH 1/4 Section Line: 50 Feet From: WEST 1/4 Section Line: 330

Depth of Deviation: 11841 Radius of Turn: 477

Direction: 1

Total Length: 9803

Measured Total Depth: 22393

True Vertical Depth: 12500

End Point Location from Lease,
Unit, or Property Line: 50

Notes:

Category Description

DEEP SURFACE CASING 11/15/2016 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS

OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR

SURFACE CASING

HYDRAULIC FRACTURING 11/15/2016 - 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/ 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.

INTERMEDIATE CASING 11/15/2016 - G71 - DUE TO THE KNOWN POTENTIAL RISK OF ENCOUNTERING AN OVER-

PRESSURED ZONE IN THE MORROW SERIES IN THIS AREA, THE TECHNICAL MANAGER RECOMMENDS SETTING AN INTERMEDIATE STRING OF CASING IMMEDIATELY ABOVE THE

MORROW SERIES

LOCATION EXCEPTION - 649601 11/15/2016 - G75 - (I.O.) 20 & 17-15N-12W

X582206 MSSLM, OTHERS 17-15N-12W X587886 MSSP, OTHER 20-15N-12W

SHL (20-15N-12W) NCT 0' FSL, NCT 330' FWL \*\*

COMPL. INT. (20-15N-12W) NCT 150' FSL, NCT 0' FNL, NCT 330' FWL COMPL. INT. (17-15N-12W) NCT 0' FSL, NCT 150' FNL, NCT 330' FWL

CONTINENTAL RESOURCES, INC.

2-8-2016

\*\* ITD HAS SHL AS 255' FWL 20-15N-12W; TO BE CORRECTED AT HEARING FOR FINAL ORDER

LOCATION EXCEPTION PER OPERATOR

Category Description

MEMO 11/15/2016 - G71 - PIT 1 & 2 - CONCRETE-LINED PIT PER OPERATOR REQUEST; PIT 2 - OBM TO

VENDOR, OBM CUTTINGS PER DISTRICT

SPACING - 582206 11/15/2016 - G75 - (640) 17-15N-12W

EXT 576904 MSSLM, OTHERS

SPACING - 587886 11/15/2016 - G75 - (640) 20-15N-12W

VAC OTHERS EXT OTHERS

EXT 580301 MSSP, OTHERS

**EST OTHERS** 

SPACING - 650472 11/15/2016 - G75 - (I.O.) 20 & 17-15N-12W

EST MULTIUNIT HORIZONTAL WELL X582206 MSSLM, OTHERS 17-15N-12W X587886 MSSP, OTHER 20-15N-12W

50% 20-15N-12W 50% 17-15N-12W

CONTINENTAL RESOURCES, INC.

3-3-2016



## Well Location Plat

S.H.L. Sec. 20-15N-12W I.M. B.H.L. Sec. 17-15N-12W I.M.

API 011-23685

Operator: CONTINENTAL RESOURCES, INC.

Lease Name and No.: IKE #1-20-17XH

Footage: 230' FSL - 255' FWL GR. ELEVATION: 1745' Good Site? YES

Section: 20 Township: 15N Range: 12W

50' FNL - 330' FWL

State of Oklahoma County: Blaine

Alternate Loc.: N/A

X:1849351

Quarter Section distances may be assumed from a Government Survey Plat or assumed at a proportionate distance from opposing sectior

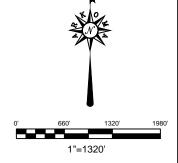
corners, or occupation thereof, and may not have been measured on-the-ground, and further, does not represent a true boundary survey

Terrain at Loc.: Location fell in rolling hills with scrub oaks and tall grass.

Accessibility: From the South.

Directions: From the intersection of US Highway 270 and "EW 88 RD." due West of the town of Greenfield, OK, go 1.5 miles West on "EW 88 RD.", 0.5 miles South on "NS 257 RD.", 5.0 miles West on "EW 89 RD.", and 2.0 miles North on "NS 252 RD." to the

Southwest Corner of Section 20-15N-12W.



**GPS DATUM** NAD - 27 OK NORTH ZONE

Surface Hole Loc.: Lat: 35°45'17.15"N Lon: 98°30'25.21"W X: 1849561 Y: 275132

Heel Slot:

Lat: 35°45'17.15"N Lon: 98°30'24.31"W X: 1849635 Y: 275132

Bottom Hole Loc.: Lat: 35°46'58.56"N Lon: 98°30'24.41"W

X: 1849681 Y: 285386

represent a true Boundary Survey on-the-ground, and further, does NOT NOTE: X and Y data shown hereon for Section GPS data is observed from RTK - GPS Corners may NOT have been surveyed

17 253 RD. X:1854601 Y:280123 100°15'E (Grid Br. - NAD 20 X:1849304 Y:274905 :1854586 :274861

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

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, 2016

Invoice #6044-A Date Staked : 12/14/15 Date Drawn : 12/17/15 By : H.N. By : J.H.

## 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

LANCE G. MATHIS

12/21/15 **OK LPLS 1664** 

