

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

API NUMBER: 051 24729 A

Approval Date: 10/22/2019
Expiration Date: 04/22/2021

Horizontal Hole Oil & Gas
Multi Unit

Amend reason: MOVE SHL, TOTAL DEPTH, WOODFORD TARGET
DEPTH, RADIUS, TOTAL LENGTH, BTW & MSC AND MEASURED
TD & TVD DEPTH, BHL, UPDATE ORDERS

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 09 Twp: 7N Rge: 5W County: GRADY
SPOT LOCATION: ☐ SE ☐ NE ☐ SW ☐ NW FEET FROM QUARTER: FROM NORTH FROM WEST
SECTION LINES: 1955 1000

Lease Name: EMERY Well No: 2-9-16XHW Well will be 1000 feet from nearest unit or lease boundary.
Operator Name: CONTINENTAL RESOURCES INC Telephone: 4052349020; 4052349 OTC/OCC Number: 3186 0

CONTINENTAL RESOURCES INC
PO BOX 269000
OKLAHOMA CITY, OK 73126-9000

MELVIN R. AND ALMA J. RICKS
1515 SILVER OAK DRIVE
BLANCHARD OK 73010

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

Name	Depth	Name	Depth
1 WOODFORD	11640	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 644200 Location Exception Orders: Increased Density Orders: 704973
653269 704972

Pending CD Numbers: 201904914 Special Orders:
201904915

Total Depth: 19990 Ground Elevation: 1249 Surface Casing: 430 Depth to base of Treatable Water-Bearing FM: 380

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

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? Y

Wellhead Protection Area? Y

Pit is not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: CHICKASHA

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 19-37022
H. SEE MEMO

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.

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? Y

Wellhead Protection Area? Y

Pit is not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: CHICKASHA

HORIZONTAL HOLE 1

Sec 16 Twp 7N Rge 5W County GRADY

Spot Location of End Point: S2 SE SW SW

Feet From: SOUTH 1/4 Section Line: 50

Feet From: WEST 1/4 Section Line: 990

Depth of Deviation: 11163

Radius of Turn: 488

Direction: 185

Total Length: 8061

Measured Total Depth: 19990

True Vertical Depth: 11640

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

Notes:

Category

Description

HYDRAULIC FRACTURING

10/17/2019 - 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 - 704972

10/21/2019 - GC2 - 16-7N-5W
X644200 WDFD
6 WELLS
NO OP. NAMED
REC. 10-21-2019 (P. PORTER)

INCREASED DENSITY - 704973

10/21/2019 - GC2 - 9-7N-5W
X653269 WDFD
3 WELLS
NO OP. NAMED
REC. 10-21-2019 (P. PORTER)

MEMO

10/17/2019 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2
- OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

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.

051 24729 EMERY 2-9-16XHW

PENDING CD - 201904914	10/21/2019 - GC2 - (I.O.) 16 & 9-7N-5W EST MULTIUNIT HORIZONTAL WELL X644200 WDFD 16-7N-5W X653269 WDFD 9-7N-5W 50% 16-7N-5W 50% 9-7N-5W CONTINENTAL RESOURCES, INC REC. 10-21-2019 (P. PORTER)
PENDING CD - 201904915	10/21/2019 - GC2 - (I.O.) 16 & 9-7N-5W X644200 WDFD 16-7N-5W X653269 WDFD 9-7N-5W X165:10-3-28(C)(2)(B) WDFD MAY BE CLOSER THAN 600' TO EXISTING AND/OR PROPOSED WELL COMPL. INT. (16-7N-5W) NCT 150' FSL, NCT 0' FNL, NCT 330' FWL COMPL. INT. (9-7N-5W) NCT 0' FSL, NCT 150' FNL, NCT 330' FWL CONTINENTAL RESOURCES, INC REC. 10-21-2019 (P. PORTER)
PUBLIC WATER SUPPLY WELLS	10/17/2019 - G71 - MIDDLEBERG SCHOOL - 2 PWS/WPA, SW/4 4-7N-5W
SPACING - 644200	10/21/2019 - GC2 - (640)(HOR) 16-7N-5W EXT (VER) OTHERS EST (VER) OTHERS EST (HOR) WDFD, OTHER VAC OTHERS COMPL. INT. NCT 330' FB
SPACING - 653269	10/21/2019 - GC2 - (640)(HOR) 9-7N-5W EXT 643068 WDFD, OTHERS EXT OTHER COMPL. INT. NCT 165' FNL/FSL, NCT 330' FEL/FWL

EXHIBIT: A (1 of 2)
 SHEET: 8.5x11
 SHL: 9-7N-5W
 BHL-2 16-7N-5W



COVER SHEET

CONTINENTAL RESOURCES, INC.

P.O. BOX 26900 OKLAHOMA CITY, OK 73126 * (T) 1-800-256-8955 (F) 405-234-9253

Section 9 Township 7N Range 5W I.M. Well: EMERY 2-9-16XHW
 County GRADY State OK Well: --
 Operator CONTINENTAL RESOURCES, INC.

NAD-83								
POINT	WELL NAME	NORTHING	EASTING	LATITUDE LONGITUDE	LATITUDE LONGITUDE		EXISTING ELEVATION	DESIGN ELEVATION
W2	EMERY 2-9-16XHW	641905	2046936	35° 05' 48.74" -97° 44' 16.06"	35.096872 -97.737794	1955' FNL / 1000' FWL (NW/4 SEC 9)	1248.90'	1249.41'
LP-2	LANDING POINT	641904	2046597	35° 05' 48.74" -97° 44' 20.14"	35.096871 -97.738929	1955' FNL / 660' FWL (NW/4 SEC 9)	--	--
PI-2	POINT OF INTERSECT	638579	2046614	35° 05' 15.85" -97° 44' 20.05"	35.087736 -97.738902	0' FSL / 660' FWL (SW/4 SEC 9)	--	--
BHL-2	BOTTOM HOLE LOCATION	633348	2046950	35° 04' 24.11" -97° 44' 16.16"	35.073363 -97.737823	50' FSL / 990' FWL (SW/4 SEC 16)	--	--
X-1	VIERSEN #1-9	642356	2049899	35° 05' 53.13" -97° 43' 42.80"	35.098092 -97.728556	9-7N-5W: TD: 12,285' 1,509' FNL / 1,509' FEL	--	--
X-2	EMERY #1-9-16XH	643483	2050824	35° 06' 04.24" -97° 43' 29.22"	35.101179 -97.724783	9-7N-5W: TD: 6,759' 385' FNL / 382' FEL	--	--
X-3	MIDDLEBERG SWD #1	640333	2047785	35° 05' 33.17" -97° 44' 05.90"	35.092547 -97.734972	9-7N-5W: TD: 8,050' 1,752' FSL / 1,840' FWL	--	--
X-4	RICKS #7-5-4-1H	642901	2047802	35° 05' 58.57" -97° 44' 05.61"	35.099603 -97.734892	9-7N-5W: TD: 17,012' 960' FNL / 1,870' FWL	--	--
X-7	EMERY #1R-9-16XH	643450	2050794	35° 06' 03.92" -97° 43' 29.58"	35.101088 -97.724883	9-7N-5W: TD: 21,281' 418' FNL / 412' FEL	--	--

NAD-27								
POINT	WELL NAME	NORTHING	EASTING	LATITUDE LONGITUDE	LATITUDE LONGITUDE	EXISTING ELEVATION	DESIGN ELEVATION	
W2	EMERY 2-9-16XHW	641863	2078533	35° 05' 48.50" -97° 44' 14.91"	35.096805 -97.737476	1955' FNL / 1000' FWL (NW/4 SEC 9)	1248.90'	1249.41'
LP-2	LANDING POINT	641862	2078194	35° 05' 48.50" -97° 44' 19.00"	35.096805 -97.738611	1955' FNL / 660' FWL (NW/4 SEC 9)	--	--
PI-2	POINT OF INTERSECT	638537	2078210	35° 05' 15.61" -97° 44' 18.90"	35.087670 -97.738584	0' FSL / 660' FWL (SW/4 SEC 9)	--	--
BHL-2	BOTTOM HOLE LOCATION	633306	2078547	35° 04' 23.87" -97° 44' 15.02"	35.073296 -97.737505	50' FSL / 990' FWL (SW/4 SEC 16)	--	--
X-1	VIERSEN #1-9	642314	2081295	35° 05' 52.89" -97° 43' 41.66"	35.098026 -97.728239	9-7N-5W: TD: 12,285' 1,509' FNL / 1,509' FEL	--	--
X-2	EMERY #1-9-16XH	643441	2082421	35° 06' 04.00" -97° 43' 28.08"	35.101112 -97.724466	9-7N-5W: TD: 6,759' 385' FNL / 382' FEL	--	--
X-3	MIDDLEBERG SWD #1	640291	2079382	35° 05' 32.93" -97° 44' 04.76"	35.092481 -97.734654	9-7N-5W: TD: 8,050' 1,752' FSL / 1,840' FWL	--	--
X-4	RICKS #7-5-4-1H	642859	2079399	35° 05' 58.33" -97° 44' 04.47"	35.099537 -97.734574	9-7N-5W: TD: 17,012' 960' FNL / 1,870' FWL	--	--
X-7	EMERY #1R-9-16XH	643407	2082391	35° 06' 03.68" -97° 43' 28.44"	35.101022 -97.724566	9-7N-5W: TD: 21,281' 418' FNL / 412' FEL	--	--

REVISIONS

No.	DATE	STAKED	BY	DESCRIPTION	COMMENTS
00	7-12-19	**--**	HOG	ISSUED FOR APPROVAL	--
01	10-8-19	10-15-19	HOG	PAD LOCATION MOVED	REV'D ALL EXHIBITS
02	10-31-19	11-01-19	HOG	PAD LOCATION MOVED	REV'D ALL EXHIBITS
03	11-13-19	11-01-19	HOG	REV'D BHL/ADDED PI-2	REV'D EXHIBITS A1 & A2

Certificate of Authorization No. 7318



Prepared By:
 Petro Land Services South
 10400 Vineyard Blvd.
 Suite C
 Oklahoma City, OK 73120

EXHIBIT: A (2 of 2)

SHEET: 8.5x14

SHL: 9-7N-5W

BHL-2 16-7N-5W

PETRO LAND SERVICES SOUTH, LLC

10400 VINEYARD BLVD, SUITE C, OKLA. CITY, OKLA. 73120 * OFFICE (405) 212-3108
Certificate of Authorization No. 7318

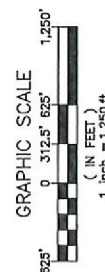
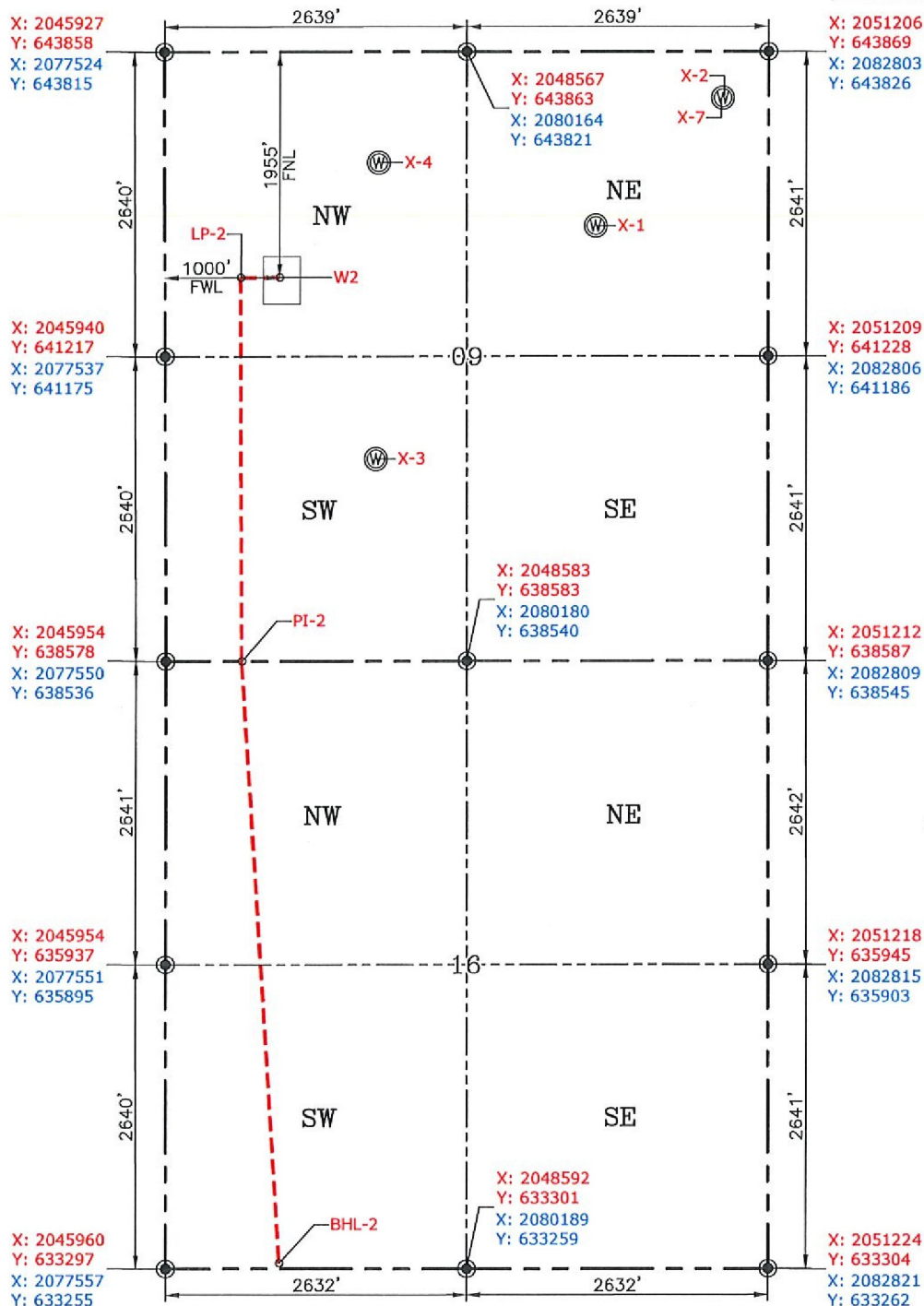
GRADY

County Oklahoma

1955' FNL-1000' FWL Section 9 Township 7N Range 5W I.M.

CONTINENTAL
RESOURCES, INC.
(OPERATOR)

WELL: EMERY 2-9-16XHW

GPS DATUM
NAD-83
NAD-27
OK SOUTH ZONE
US FEET
SCALE:
1" = 1250'

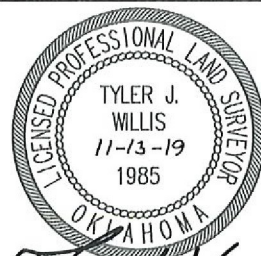
CURRENT REV.: 3

Date Drawn: 11-13-19

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 PLS promptly if any inconsistency is determined. GPS data is observed from RTK-GPS. NOTE: X and Y data shown hereon for Section Corners may NOT have been surveyed on-the-ground, and further, does NOT represent a true Boundary Survey. Quarter Section distances may be assumed from a Government Survey Plat or assumed at a proportionate distance from opposing section corners, or occupation thereof, and may not have been measured on-the-ground, and further, does not represent a true Boundary Survey.

CERTIFICATE:

I, TYLER J. WILLIS an Oklahoma Licensed Land Surveyor and an authorized agent of Petro Land Services South, LLC, do hereby certify to the information shown herein.



Oklahoma PLS No.1985 DATE