

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

API NUMBER: 093 25062

Approval Date: 03/29/2017
Expiration Date: 09/29/2017

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 22 Twp: 20N Rge: 10W County: MAJOR
SPOT LOCATION: FEET FROM QUARTER: FROM SOUTH FROM WEST
SECTION LINES: 160 1320

Lease Name: OSMUS 22&15-20-10 Well No: 1H Well will be 160 feet from nearest unit or lease boundary.

Operator Name: CHESAPEAKE OPERATING LLC Telephone: 4059353425; 4059358 OTC/OCC Number: 17441 0

CHESAPEAKE OPERATING LLC
PO BOX 18496
OKLAHOMA CITY, OK 73154-0496

JOYCE E. OSMUS
55493 S. COUNTY RD. 247
FAIRVIEW OK 73737

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

Name	Depth	Name	Depth
1 MISSISSIPPI LIME	7100	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 79030
80480
551937

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201700783
201700784
201700785
201700786
201700787
201700437

Special Orders:

Total Depth: 18000 Ground Elevation: 1144 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 360

Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: No

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

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

PERMIT NO: 17-32123

H. SEE MEMO

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 1 INFORMATION

Type of Pit System: ON SITE
Type of Mud System: WATER BASED
Chlorides Max: 25000 Average: 8000
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: 1A
Liner required for Category: 1A
Pit Location is ALLUVIAL
Pit Location Formation: ALLUVIUM

PIT 2 INFORMATION

Type of Pit System: ON SITE
Type of Mud System: OIL BASED
Chlorides Max: 300000 Average: 160000
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 ALLUVIAL
Pit Location Formation: ALLUVIUM

HORIZONTAL HOLE 1

Sec 15 Twp 20N Rge 10W County MAJOR
Spot Location of End Point: NE NW NW NW
Feet From: NORTH 1/4 Section Line: 50
Feet From: WEST 1/4 Section Line: 430
Depth of Deviation: 7215
Radius of Turn: 600
Direction: 351
Total Length: 9842
Measured Total Depth: 18000
True Vertical Depth: 7576
End Point Location from Lease,
Unit, or Property Line: 50

Notes:

Table with 2 columns: Category, Description. Rows include DEEP SURFACE CASING and HYDRAULIC FRACTURING with detailed descriptions of regulatory requirements.

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Category	Description
MEMO	2/23/2017 - G71 - PIT 1 & 2 - CONCRETE-LINED PIT PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT
PENDING CD - 201700437	3/13/2017 - G75 - (640) 15-20N-10W AMD 79030 CHANGING MSSP TO MSSLM CONFIRM 35526 UNCCR HEARING 4-3-2017 (OK'D PER MCCOY)
PENDING CD - 201700783	2/28/2017 - G75 - (E.O.) 22 & 15-20N-10W EST MULTIUNIT HORIZONTAL WELL X79030/201700437 MSSLM 15-20N-10W X80480/551937 MSSLM 22-20N-10W 50% 15-20N-10W 50% 22-20N-10W NO OP. NAMED REC 3-28-2017 (DECKER)
PENDING CD - 201700784	2/28/2017 - G75 - (E.O.) 15-20N-10W X79030/201700437 MSSLM 1 WELL NO OP. NAMED REC 3-28-2017 (DECKER)
PENDING CD - 201700785	2/28/2017 - G75 - (E.O.) 15-20N-10W X79030/201700437 MSSLM COMPL. INT. NCT 0' FSL, NCT 150' FNL, NCT 330' FWL NO OP. NAMED REC 3-28-2017 (DECKER)
PENDING CD - 201700786	2/28/2017 - G75 - (E.O.) 22-20N-10W X80480/551937 MSSLM 1 WELL NO OP. NAMED REC 3-28-2017 (DECKER)
PENDING CD - 201700787	2/28/2017 - G75 - (E.O.) 22-20N-10W X80480/551937 MSSLM COMPL. INT. NCT 150' FSL, NCT 0' FNL, NCT 330' FWL NO OP. NAMED REC 3-28-2017 (DECKER)
SPACING - 551937	2/28/2017 - G75 - (640) 22-20N-10W VAC OTHER EXT OTHER AMD 80480 CHANGING MSSP TO MSSLM CONFIRM 35526 UNCCR VAC 97626 MNNG
SPACING - 79030	2/28/2017 - G75 - (640) 15-20N-10W EXT OTHER EXT 68437 MSSP (AMD TO MSSLM BY 201700437)
SPACING - 80480	2/28/2017 - G75 - (640) 22-20N-10W EXT 68437 MSSP (AMD TO MSSLM BY 551937) EST OTHERS

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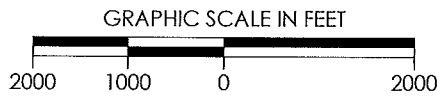
CHESAPEAKE ENERGY

OPERATOR: CHESAPEAKE OPERATING, LLC
 LEASE NAME: OSMUS 22&15-20-10
 WELL NO. 1H
 STAKED DATE: 1/26/17
 GROUND ELEVATION: 1143.71 GR. AT STAKE
 SURFACE HOLE FOOTAGE: 160' FSL - 1320' FWL
 SECTION: 22 TOWNSHIP: T20N RANGE: R10W
 MAJOR COUNTY, STATE: OK
 BOTTOM HOLE: 15-T20N-R10W-L.M.
 BOTTOM HOLE FOOTAGE: 50' FNL - 430' FWL
 LANDING POINT FOOTAGE: 500' FSL - 430' FWL
 ACCESSIBILITY TO LOCATION: FROM SOUTH LINE
 TOPOGRAPHY & VEGETATION: LOCATION FELL ON THE SOUTH EDGE OF A CULTIVATED FIELD.

API 093-25062



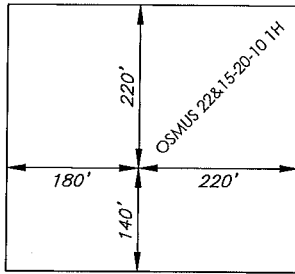
DISTANCE & DIRECTION FROM HWY JCT OR TOWN:
 FROM THE TOWN OF AMES, HEAD WEST ON AMES RD,
 FOLLOW THE BLACKTOP 5MI. TO N2660RD, HEAD
 SOUTH 2MI TO E570RD HEAD EAST 0.25 MI, SITE IS ON N
 SIDE OF ROAD



SURFACE HOLE DATA

STATE PLANE COORDINATES:
 ZONE: OK-NORTH NAD27
 X: 1923470.5
 Y: 432861.5
 GPS DATUM: NAD27
 LAT: 36.18887105
 LONG: -98.25923785
 STATE PLANE COORDINATES:
 ZONE: OK-NORTH NAD83
 X: 1891869.9
 Y: 432886.1
 GPS DATUM: NAD83
 LAT: 36.18890682
 LONG: -98.25968529

PAD DIAGRAM (NOT TO SCALE)



BOTTOM HOLE DATA

STATE PLANE COORDINATES:
 ZONE: OK-NORTH NAD27
 X: 1922578.9
 Y: 443193.1
 GPS DATUM: NAD27
 LAT: 36.21724632
 LONG: -98.26245386
 STATE PLANE COORDINATES:
 ZONE: OK-NORTH NAD83
 X: 1890978.3
 Y: 443217.9
 GPS DATUM: NAD83
 LAT: 36.21728182
 LONG: -98.26280145

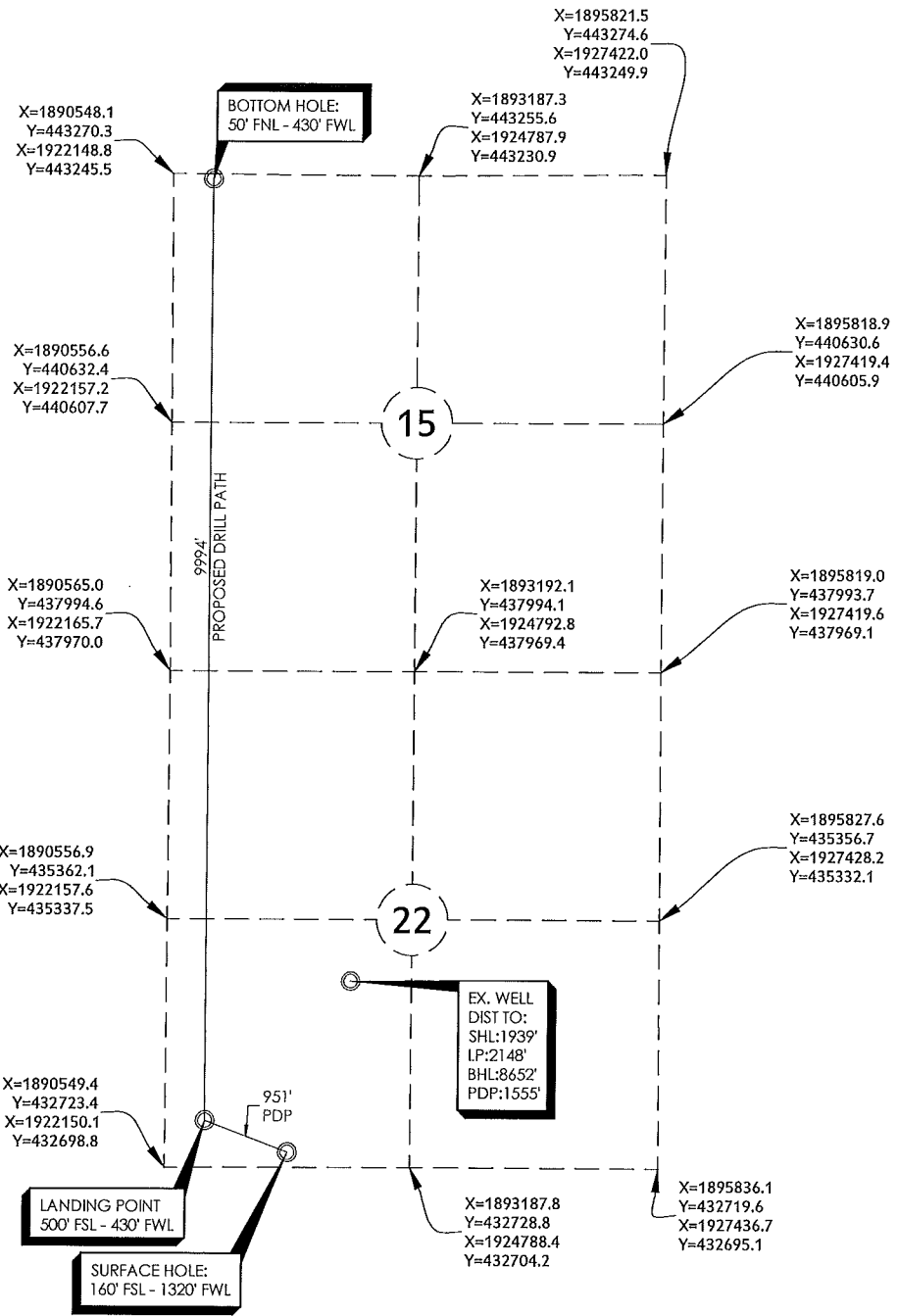
LANDING POINT DATA

STATE PLANE COORDINATES:
 ZONE: OK-NORTH NAD27
 X: 1922581.5
 Y: 433199.7
 GPS DATUM: NAD27
 LAT: 36.18979355
 LONG: -98.26235365
 STATE PLANE COORDINATES:
 ZONE: OK-NORTH NAD83
 X: 1890980.8
 Y: 433224.3
 GPS DATUM: NAD83
 LAT: 36.18982933
 LONG: -98.26270121

PLEASE NOTE THAT THIS LOCATION WAS STAKED ON THE GROUND UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL LAND SURVEYOR, BUT ACCURACY OF THIS EXHIBIT IS NOT GUARANTEED. PLEASE CONTACT CRAFTON TULL PROMPTLY IF ANY INCONSISTENCY IS DETERMINED. GPS DATA IS OBSERVED FROM RIK-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. LANDING POINT, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED.

CERTIFICATION:
 THIS IS TO CERTIFY THAT THIS WELL LOCATION EXHIBIT WAS COMPILED AND PREPARED UNDER MY SUPERVISION.

[Signature]
 DENVER WINCHESTER PLS 1952



Osmus 22&15-20-10 1H

REVISION DATE:	
-	-

PART OF THE SW/4 OF SECTION 22, T20N, R10W
 WELL LOCATION EXHIBIT
 MAJOR COUNTY, OKLAHOMA

SCALE: 1" = 2000'
 PLOT DATE: 02-02-2017

DRAWING: 17601102-WELL-P
 DRAWN BY: DW

300 Pointe Parkway Blvd
 Yukon, OK 73099
 405.787.6270 t 405.787.6276 f
 www.craftontull.com

Crafton Tull
 SURVEYING
 CERTIFICATE OF AUTHORIZATION:
 CA 973 (PE/LS) EXPIRES 6/30/2018

G:\17601102_OSMUS1H\ENERGY\DWG\CIPS\CHESAPEAKE-WELL\DWG 2/2/2017 8:51:54 AM DW2295