

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

API NUMBER: 073 25507

Approval Date: 02/02/2017  
Expiration Date: 08/02/2017

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 31 Twp: 18N Rge: 6W

County: KINGFISHER

SPOT LOCATION:  SE  SW  SE  SW

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 288 1824

Lease Name: HELEN 6-17-6

Well No: 2H

Well will be 288 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

SAMPSON EMERY LIVING TRUST  
C/O DR. CARLA EMERY-CULBERSON  
3303 NORTHLAND DRIVE, SUITE 308  
AUSTIN TX 78731

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

Name	Depth	Name	Depth
1 OSWEGO	6467	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 649484

Location Exception Orders: 658510

Increased Density Orders: 658589

660071

Pending CD Numbers:

Special Orders:

Total Depth: 11800

Ground Elevation: 1095

**Surface Casing: 1500**

Depth to base of Treatable Water-Bearing FM: 240

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

**PIT 1 INFORMATION**

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? 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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

Approved Method for disposal of Drilling Fluids:

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

PERMIT NO: 17-32035

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

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.

HORIZONTAL HOLE 1

Sec 06 Twp 17N Rge 6W County KINGFISHER

Spot Location of End Point: C S2 S2 S2

Feet From: SOUTH 1/4 Section Line: 330

Feet From: WEST 1/4 Section Line: 2640

Depth of Deviation: 6269

Radius of Turn: 341

Direction: 172

Total Length: 4995

Measured Total Depth: 11800

True Vertical Depth: 6630

End Point Location from Lease,  
Unit, or Property Line: 330

Notes:

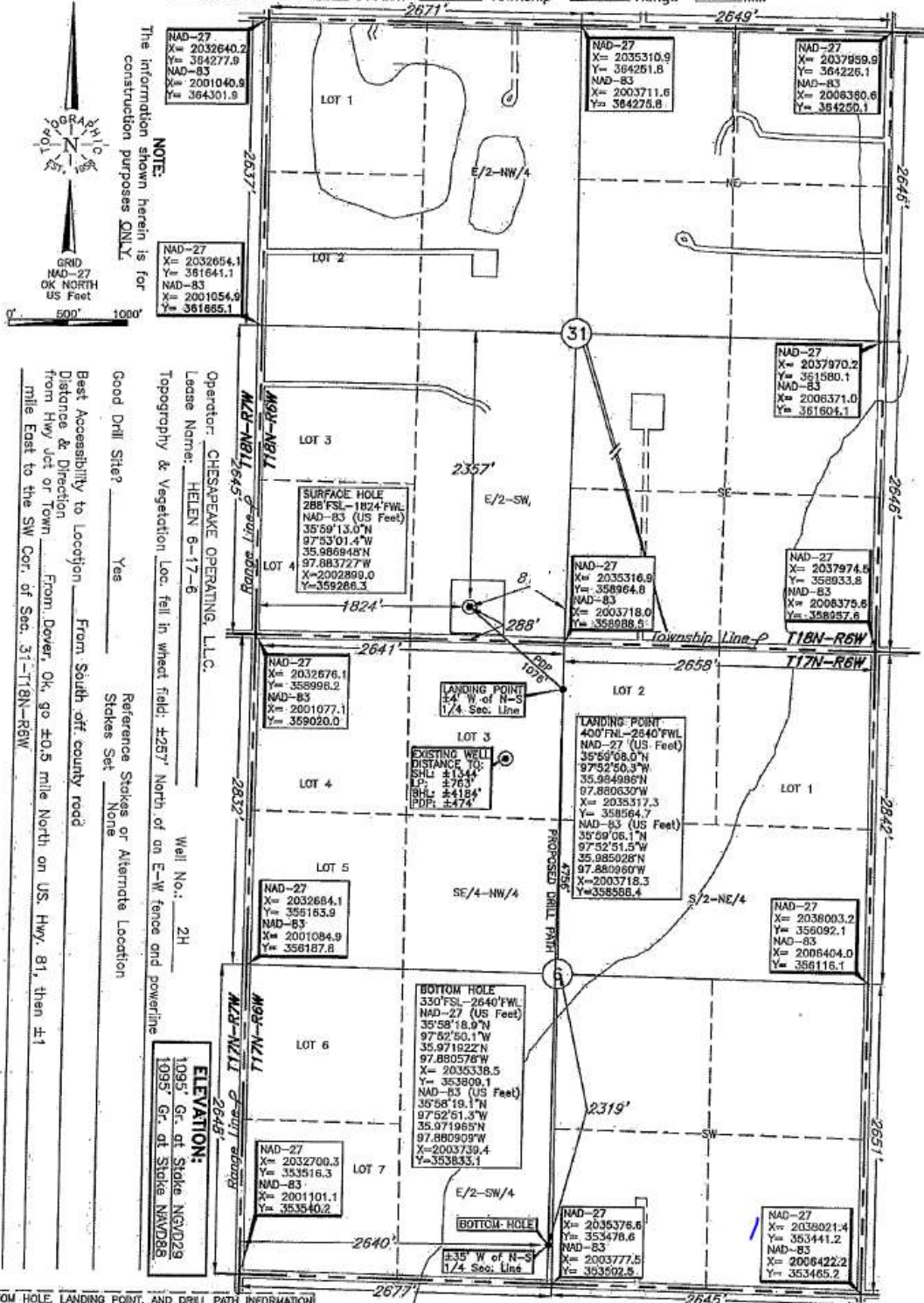
Category	Description
DEEP SURFACE CASING	1/19/2017 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING
EXCEPTION TO RULE - 660071	1/30/2017 - G60 - 6-17N-6W X165:10-3-28 HELEN 6-17-6 2H MAY BE CLOSER THAN 600' TO MACKEY 1 WELL CHESAPEAKE OPERATING, LLC. 1/20/17
HYDRAULIC FRACTURING	1/19/2017 - 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 <a href="http://fracfocus.org/">HTTP://FRACFOCUS.ORG/</a> 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
INCREASED DENSITY - 658589	1/30/2017 - G60 - 6-17N-6W X649484 OSWG 2 WELLS CHESAPEAKE OPERATING, LLC. 12/5/16
LOCATION EXCEPTION - 658510	1/30/2017 - G60 - (I.O.) 6-17N-6W X649484 OSWG COMPL. INT. NCT 330' FNL, NCT 330' FSL, NCT 1320' FEL OR FWL CHESAPEAKE OPERATING, LLC. 12/1/16
SPACING - 649484	1/30/2017 - G60 - (640)(HOR) 6-17N-6W EXT 644968 OSWG POE TO BHL NCT 660' FB (COEXIST WITH SP. ORDER 56829 OSWG, SP. ORDER 57462/57687 OSWG)
SURFACE CASING	1/19/2017 - G71 - MIN. 300' PER ORDERS 23720/41036/42410

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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.

073 25507 HELEN 6-17-6 2H

**TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA**  
 6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 • LOCAL (405) 843-4847 • OUT OF STATE (800) 654-3219  
 Certificate of Authorization No. 1283 LS

KINGFISHER County, Oklahoma  
 288' FSL-1824' FWL Section 31 Township 18N Range 6W 1.M.



**BOTTOM HOLE, LANDING POINT, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED.**

Date of Drawing: Dec. 7, 2016

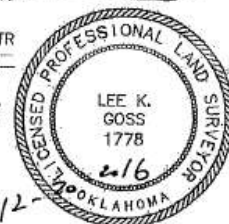
Invoice # 268188A Date Staked: Dec. 2, 2016 TR

DATUM: NAD-27  
 LAT: 35°59'12.9"N  
 LONG: 97°53'00.2"W  
 LAT: 35.986906°N  
 LONG: 97.883396°W  
 STATE PLANE  
 COORDINATES: (US Feet)  
 ZONE: OK NORTH  
 X: 2034498.2  
 Y: 359262.4

**CERTIFICATE:**

I, Lee K. Goss, an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein

*Lee K. Goss*  
 Oklahoma Lic. No. 1778



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