

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

API NUMBER: 011 23993

Approval Date: 04/17/2018

Expiration Date: 10/17/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 11 Twp: 16N Rge: 11W

County: BLAINE

SPOT LOCATION: ☐ SE ☐ SE ☐ SW ☐ SW

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 260 1255

Lease Name: BLACKBIRD

Well No: 1-14H

Well will be 165 feet from nearest unit or lease boundary.

Operator Name: ECHO E & P LLC

Telephone: 4057534232

OTC/OCC Number: 23925 0

ECHO E & P LLC  
3817 NW EXPRESSWAY STE 840  
OKLAHOMA CITY, OK 73112-1400

WILLIAM K. & BRENDA J. ROSER  
78000 NORTH 2600 ROAD  
WATONGA OK 73772

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN	10050	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 673566

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201801744

Special Orders:

Total Depth: 15210

Ground Elevation: 1576

**Surface Casing: 1500**

Depth to base of Treatable Water-Bearing FM: 40

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

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: 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: C

Liner not required for Category: C

Pit Location is AP/TE DEPOSIT

Pit Location Formation: TERRACE

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

PERMIT NO: 18-34206

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 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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

## HORIZONTAL HOLE 1

Sec 14 Twp 16N Rge 11W County BLAINE

Spot Location of End Point: S2 S2 SW SW

Feet From: SOUTH 1/4 Section Line: 165

Feet From: WEST 1/4 Section Line: 660

Depth of Deviation: 9478

Radius of Turn: 573

Direction: 185

Total Length: 4831

Measured Total Depth: 15210

True Vertical Depth: 10050

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

### Notes:

#### Category

#### Description

#### DEEP SURFACE CASING

3/27/2018 - 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

3/27/2018 - 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](http://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](http://FRACFOCUS.ORG)

#### INTERMEDIATE CASING

3/27/2018 - 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

#### MEMO

3/27/2018 - 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.

011 23993 BLACKBIRD 1-14H

The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.

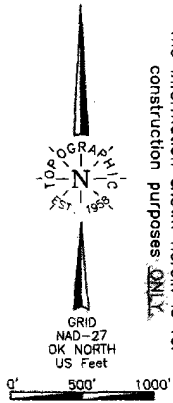
Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

Category	Description
PENDING - 201801744	4/11/2018 - G57 - (I.O.) 14-16N-11W X673566 MSSP COMPL. INT. NCT 165' FNL, NCT 165' FSL, NCT 330' FWL NO OP. NAMED REC 4-16-2018 (NORRIS)
SPACING - 673566	4/4/2018 - G57 - (640)(HOR) 14-16N-11W EXT 656049/657082 MSSP, OTHERS NLT 660' FB

BLAINE

County, Oklahoma

260' FSL-1255' FWL Section 11 Township 16N Range 11W I.M.



NOTE:  
The information shown herein is for construction purposes ONLY.

Operator: ECHO E&P LLC.  
Lease Name: BLACKBIRD  
Topography & Vegetation Loc. fell in wheat field

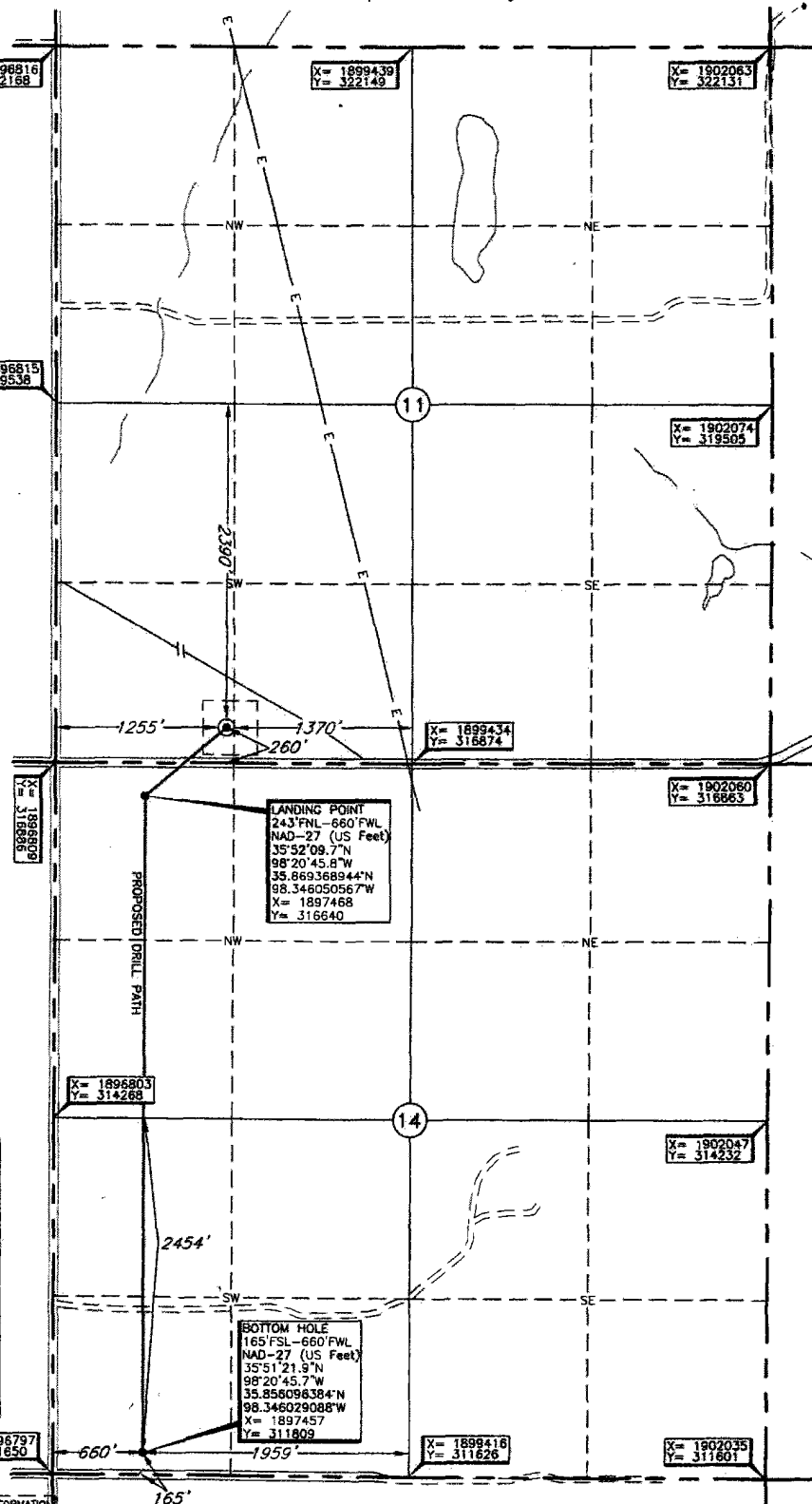
Good Drill Site? Yes  
Reference Stakes or Alternate Location Stakes Set None

Best Accessibility to Location From South off county road.

Distance & Direction from Hwy Jct or Town From the junction of St. Hwy. 33 and US Hwy. 270 at Watonga, OK, go East on St. Hwy. 33 4.4 miles, go North 4.2 miles to the SW Cor. of Sec. 11-16N-R11W.

Well No.: 1-14H

ELEVATION:  
1576' Gr. at Stake



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

DATUM: NAD-27  
LAT: 35°52'14.7"N  
LONG: 98°20'38.6"W  
LAT: 35.870748361°N  
LONG: 98.344044399°W  
STATE PLANE  
COORDINATES: (US Feet)  
ZONE: OK NORTH  
X: 1898064  
Y: 317140

Invoice # 290734 Date of Drawing: Mar. 20, 2018  
Date Staked: Mar. 19, 2018

CERTIFICATE:

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

Thomas L. Howell  
Oklahoma Lic. No. 1433

