API NUMBER: 051 24311

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: 03/29/2018
Expiration Date: 09/29/2018

PERMIT TO DRILL

							SECTION LINES:		306		2462
SPOT LOCATION:	NW	NW	N'	W	NE		FEET FROM QUARTER:	FROM	NORTH	FROM	EAST
WELL LOCATION:	Sec:	24	Twp:	7N	Rge:	7W	County	: GRA	DY		

Lease Name: KASHMIR Well No: 3-13H Well will be 306 feet from nearest unit or lease boundary.

 Operator
 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

NATHAN S COE REVOCABLE TRUST 408 WEST COUNTRY CLUB ROAD

CHICKASHA OK 73018

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	12900 6		
2		7		
3		8		
4		9		
5		10		
Spacing Orders:	671190	Location Exception Orders:		Increased Density Orders:

Pending CD Numbers: 201801526 Special Orders:

201801525

Total Depth: 19500 Ground Elevation: 1141 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 530

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 D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-34073

Chlorides Max: 5000 Average: 3000 H. SEE MEMO

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

 $\mbox{Pit} \quad \mbox{is not} \quad \mbox{located in a Hydrologically Sensitive Area}.$

Category of Pit: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: CHICKASHA

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 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

Rge 7W Sec. 13 Twp 7N County **GRADY** Spot Location of End Point: ΝE NW NW NF Feet From: NORTH 1/4 Section Line: 165 EAST Feet From: 1/4 Section Line: 2063

Depth of Deviation: 12644
Radius of Turn: 900

Direction: 4

Total Length: 5442

Measured Total Depth: 19500

True Vertical Depth: 13975

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

Notes:

MEMO

Category Description

DEEP SURFACE CASING 3/7/2018 - 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 3/7/2018 - 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; 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

3/7/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 -

OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

PENDING CD - 201801525 3/23/2018 - G56 - (I.O.) 13-7N-7W

X671190 MSSP 1 WELL

ECHO E & P, LLC

REC. 3/26/18 (P. PORTER)

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.

Category Description

PENDING CD - 201801526 3/23/2018 - G56 - (I.O.) 13-7N-7W

X671190 MSSP

COMPL. INT. NCT 165' FNL, NCT 165' FSL, NCT 330' FEL

ECHO E & P, LLC

REC. 3/26/18 (P. PORTER)

PENDING CD - 201802473 3/28/2018 - G56 - 13-7N-7W

X165:10-3-28(C)(2)(B)

MAY BE CLOSER THAN 600' FROM THE KASHMIR 1-13H WELL

NO OP. NAMED HEARING 4/23/18

SPACING - 671190 3/23/2018 - G56 - (640) (HOR) 13-7N-7W

EST. MSSP, OTHERS

COMPL. INT. (MSSP) NLT 660' FB

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Location

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TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

13800 WIRELESS WAY., OKLA. CITY, OKLA. 73134 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1293 LS County, Oklahoma /N Range 165' 306'FNL - 2462'FEL 7Ň __7W__1.M+ Section Township X 2030138 Y 638403 X 203278 Y 638407 BOTTOM HOLE GRID NAD-27 OK SOUTH U.S. FEET 1000 500 NOTE:
The information shown herein is construction purposes <u>ONLY.</u> X 2030 Y 6357 Lease Operator: Topography Drill Name: Site? æ **ECHO** KASHMIR Vegetation E&P Location ANDING POINT fe] 9 Reference Stakes Set level pad Set Stakes or with drilling 9 WeⅡ Alternate И 0. Location 13H ELEVATION: Pad LANDING POINT, BOTTOM HOLE AND DRILL, PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. Revision X A Date of Drawing: March 2, SSIONAL Invoice # 289633 Date Staked: February 23, 2018 CERTIFICATE:

DATUM: NAU-Z,
1AT. 35°04'19.9"N was receiver accuracy. LONG: 97°53'23.2"W s information v d with a GPS foot Horiz./Vert. o 35.072180604°N LAT: _ LONG: 97.889789551°W STATE PLANE

COORDINATES: (US Feet) OK SOUTH ZONE: 2032978

632816

J, Mornas L. Mowell an Oklahoma Licensed Lai Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein Thomas L. . Howell _an Oklohoma Licensed Land

1. Nave Thomas Oklahoma Lic. No. __



TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA
13800 WIRELESS WAY., OKLA. CITY, OKLA. 73134 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1293 LS GRADY County, Oklahoma 306'FNL - 2462'FEL 24 7W_I.M. 7N Section _ Township Range 165 2063 X 2030138 Y 638403 X 2032787 Y 638407 BOTTOM HOLE 587 BOTTOM HOLE 165'FNL-2063'FEL NAD-27 (US Feet) 35'05'13.5"N 97'53'18.4"W 35.087087862'N 97.888444802'W X 2033375 Y 638243 GRID NAD-27 OK SOUTH U.S. FEET 1000 500 NOTE:
The information shown herein is for construction purposes ONLY. X 2030144 Y 635764 X 2035438 Y 635767 Operator: Lease Topography t Accessibility to I ance & Direction In Hwy Jct or Tow Hwy. 92 to the Drill Name: 80 ECHO KASHMIR Vegetation ANDING POINT 165'FSL-2063'FEL NAD-27 (US Feet) 35'04'24.5"N 97"53'18.4"W the Town E&P Location k .073472610°N .888454787°W 2033377 633287 Corner From LANDING POINT Location X 2032795 Y 633123 X 2035441 Y 633121 잋 Jct Section U.S. fell 306 CALCULATED CORNER X 2030150 Y 633124 on Hwy. EXISTING PAD Reference S Stakes Set 24 level 183 off T7N 92 pad and Stakes or with R7W ş 2333 RZW 9 WeⅡ Alternate 92 No.: 1 East Location 으 (24)13H X 2030157 Y 630486 X 2035441 Y 630482 Chickasha ELEVATION: 1141' Gr. at L 웃 = = go Level ±2.0 Pad ∄. North X 2035441 Y 627843 X 2032802 Y 627843 9 LANDING POINT, BOTTOM HOLE AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. Revision X A Date of Drawing: March 2, 2018 SSIONAL Invoice # 289633 Date Staked: February 23, 2018 DATUM: NAD-27 LAT: 35°04'19.9"N RKM was receiver accuracy. LONG: 97°53'23.2"W **CERTIFICATE:** s information v d with a GPS foot Horiz./Vert. a THOMAS L. SUR 35.072180604°N LAT: __ j, Thomas L. Howell an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Thomas L. Howell LONG: 97.889789551°W HOWELL Surveyors of Oklahoma, do hereby certify to the information shown herein 1433 STATE PLANE COORDINATES: (US Feet) 3-5-18 This ered ±1 f OK SOUTH 2032978 ZONE: OKLAHOMP Tomu 2. Nave LAHOM

632816

Oklahoma Lic. No. ___