API NUMBER: 003 23313

Oil & Gas

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

Approval Date: 05/01/2018

Expiration Date: 11/01/2018

PERMIT TO DRILL

WELL LOCATION:	Sec:	30	Twp:	27N	Rge:	11W	Cou	unty:	ALFALFA
		_	——	$\overline{}$		_			

SPOT LOCATION: SE SE SE SW FEET FROM QUARTER: FROM SOUTH FROM WEST SECTION LINES: 263 2468

Lease Name: JOY 30-27-11 Well No: 1H Well will be 263 feet from nearest unit or lease boundary.

Operator BCE-MACH LLC Telephone: 4052528151 OTC/OCC Number: 24174 0

BCE-MACH LLC

Horizontal Hole

14201 WIRELESS WAY STE 300

OKLAHOMA CITY, OK 73134-2512

JOY HADWIGER

1923 SOUTH FLORENCE PLACE

TULSA OK 74104

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	5389 6		
2		7		
3		8		
4		9		
5		1	0	
Spacing Orders:	614499	Location Exception Orders:		Increased Density Orders:

Pending CD Numbers: 201803076 Special Orders:

201803077

Total Depth: 10087 Ground Elevation: 1226 Surface Casing: 340 Depth to base of Treatable Water-Bearing FM: 90

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 D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-34322 Chlorides Max: 25000 Average: 8000 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: C

Liner not required for Category: C

Pit Location is ALLUVIAL

Pit Location Formation: ALLUVIUM

HORIZONTAL HOLE 1

Sec 30 Twp 27N Rge 11W County ALFALFA

Spot Location of End Point: N2 N2 N2 N2 N2 Feet From: NORTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 2640

Depth of Deviation: 4788 Radius of Turn: 573

Direction: 5

Total Length: 4398

Measured Total Depth: 10087

True Vertical Depth: 5414

End Point Location from Lease,
Unit. or Property Line: 150

Notes:

Category Description

HYDRAULIC FRACTURING 4/26/2018 - 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

PENDING CD - 201803076 4/30/2018 - G57 - 30-27N-11W

X614499 MSSP 1 WELL NO OP. NAMED HEARING 5-14-2018

PENDING CD - 201803077 4/30/2018 - G57 - (E.O.) 30-27N-11W

X614499 MSSP

COMPL. INT. NCT 150' FSL, NCT 150' FNL, NCT 1320' FEL & FWL

BCE-MACH LLC.

REC 4-24-2018 (NORRIS)

SPACING - 614499 4/30/2018 - G57 - (640) 30-27-11W

VAC 100063 MSSCT, MSSLM, OTHER

EXT 593207 MSSP, OTHERS

SURFACE CASING 4/26/2018 - G71 - MIN. 250' PER ORDER 37123

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

13800 Wireless Way, Okla. City, OK. 73134 (405) 843-4847 * OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1293 LS API: 003 23313 ALFALFA _____ County, Oklahoma __ Township ___27N __ Range __11W _I.M. - 2468'FWL Section X=1878804 Y=654452 X=1876157 Y=654475 -2575 64 X=1873589 Y=654498 for BOTTOM HOLE 150'FNL-2640'FEL NAD-27 (US Feet) 36'47'48.3" N 98'25'22.5" W 36.7967'47553" N 98.422919145" W ±7' East of 1/4 Sec. Line 2640 S > LOT 1 воттом NOTE: information shown herein construction purposes ONL HOLE X-1876163 Y=654325 2495' E/2-NW/4 PATH DRILL LOT 2 X=1873573 Y=651851 X=1878784 Y=651810 OGR40 LOT 3 E/2-SW/4 557 GA LANDING POINT 2382 740'FSL-2478'FWL NAD-27 (US Feet) 36'47'04.8" N 98'25'23.8" W GRID LOT: 4 36.784664767' N 98.423276910' W OK NORTH X=1876039 1000 X=1878764 Y=649168 263 97 X=1873556 Y=649204 SURFACE HOLE X=1876121 Y=649186 263'FSL-2468'FWL NAD-83 CANDING POINT, BOTTOM HOLE AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. 98*25'25.2" **ELEVATION:** Operator: MACH RESOURCES 226' Gr. at level pad NAVD88 Lease Name: JOY 30-27-11 111 Well No .: _ 1225' Gr. at level pad NGVD29 Tapography & Vegetation Loc. fell on level pad, SE of existing well, ±256' East of N-S pipeline, ±224' North of power line Reference Stakes or Alternate Location Stakes Set None Good Drill Site? ____ Best Accessibility to Location From West off county road Distance & Direction From Cherokee, OK, go ±3.0 mi. North, then ±4.0 mi. West, from Hwy Jct or Town then ±1.0 m. South to the SW Cor. of Sec. 30-T27N-R11W Apr. 24, 2018 Date of Drawing: _ DATUM: NAD-27 Invoice # 292266 Date Staked: Apr. 20, 2018 AC LAT: 36'47'00.1"N LONG: 98'25'23.9"W CERTIFICATE: LAT: _ 36.783354981* N THOMAS L Thomas L. Hawell

LONG: 98.423315685° W

STATE PLANE COORDINATES: (US Feet)

ZONE: OK NORTH X:__1876026 649450

I, Thomas L. Hawell on Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein

Oklahoma Lic. No. __

