API NUMBER: 093 25115

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: 12/28/2017
Expiration Date: 06/28/2018

PERMIT TO DRILL

WELL LOCATION:	Sec:	22	Twp:	23N	Rge:	10W	County:	MAJOR
		1	$\neg \vdash$	$\overline{}$				

SPOT LOCATION: NE NE NW NW FEET FROM QUARTER: FROM NORTH FROM WEST SECTION LINES: 270 1222

Lease Name: SWORDSPEAR Well No: 15-23-10 1MH Well will be 270 feet from nearest unit or lease boundary.

Operator ARMOR ENERGY LLC Telephone: 9189869459 OTC/OCC Number: 23921 0

ARMOR ENERGY LLC 4500 S GARNETT RD STE 250

TULSA, OK 74146-5203

RUSSELL UNRUH 1224 BRAYHILL ROAD

EDMOND OK 73003

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	7200	6	
2			7	
3			8	
4			9	
5			10	
pacing Orders:	613917	Location Exception Orders: 6	370267	Increased Density Orders:

Pending CD Numbers: Special Orders:

Total Depth: 13500 Ground Elevation: 1368 Surface Casing: 1050 Depth to base of Treatable Water-Bearing FM: 420

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

Chlorides Max: 80000 Average: 8000

Is depth to top of ground water greater than 10ft below base of pit? Y

Within 1 mile of municipal water well?

Wellhead Protection Area?

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: C

Spa

Liner not required for Category: C
Pit Location is BED AQUIFER

Pit Location Formation: CEDAR HILLS

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 17-33606
H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

## **HORIZONTAL HOLE 1**

Sec 15 Twp 23N Rge 10W County ALFALFA

Spot Location of End Point: N2 N2 NW NW Feet From: NORTH 1/4 Section Line: 165
Feet From: WEST 1/4 Section Line: 660

Depth of Deviation: 6782 Radius of Turn: 1125

Direction: 355
Total Length: 4951

Measured Total Depth: 13500

True Vertical Depth: 7200

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

Notes:

Category Description

DEEP SURFACE CASING 12/13/2017 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS

OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR

SURFACE CASING

HYDRAULIC FRACTURING 12/13/2017 - 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

LOCATION EXCEPTION - 670267 12/27/2017 - G75 - (I.O.) 15-23N-10W

X613917 MSSP

COMPL. INT. NCT 150' FSL, NCT 150' FNL, NCT 330' FWL

ARMOR ENERGY LLC

11-20-2017

SPACING - 613917 12/27/2017 - G75 - (640)(HOR) 15-23N-10W

EXT 603949/604760 MSSP COMPL. INT. NLT 660' FB

(COEXIST SP. ORDER # 54686 MSSLM E2, E2 SW4 & ORDER # 82649 MNNG W2 E2; SUPERSEDE ORDER # 54686 MSSLM NW4, W2 SW4 & ORDER # 82649 MNNG W2, E2 E2)

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. 1293 LS MAJOR MAJOR County, Oklahoma
Section 22 Township 23N Range 10W I.M. API 093-25115 270'FNL - 1222'FWL X=1924730 Y=538045 X=1922099 Y=538047 X=1927361 Y=538044 660 1971 BOTTOM HOLE 165'FNL-660'FWL NAD-27 (US Feet) 36'28'38.5" N 98'15'45.8" W 36.47'353935' N 98.262716513' W X=1922758 Y=537881 2486 Y=537881 63 X=1927346 Y=535404 for X=1922092 Y=535394 15 PROPOSED NOTE: information shown herein is construction purposes ONLY. LANDING POINT 165'FSL-1176'FWL NAD-27 (US Feet) 36:27'49,5" N 98'15'39.6" W 36.463753000' N 98.261001904' W X=1923249 Y=532929 LANDING POINT X=1927333 Y=532761 X=1924703 Y=532761 County Line **Alfalfa Co.** Major Co. >270 1409 2361' OGR40' N-5-GRID NAD-27 OK NORTH US Feet X=1927322 Y=530124 X=1922058 Y=530135 500 1000 LANDING POINT, BOTTOM HOLE AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. Operator: ARMOR ENERGY **ELEVATION:** Lease Name: SWORDSPEAR 15-23-10 Well No.: 1MH 1368' Gr. at Stake Topography & Vegetation Loc. fell in sloped terraced wheat field, ±256' NE of NW-SE pipeline Reference Stakes or Alternate Location Good Drill Site? \_ Stakes Set \_\_ None From South off county road Best Accessibility to Location \_ Distance & Direction From Jct. St. Hwy. 58 N-S and US Hwy. 412 E-W, go ±5.0 mi. North on St. Hwy. 58, from Hwy Jct or Town then ±1.0 mi. West to the NW Cor. of Sec. 22-T23N-R10W Revision X A Date of Drawing: Dec. 27, 2017 ESSIONAL Invoice # 283689 Date Staked: Nov. 13, 2017 DATUM: NAD-27 LAT: 36°27'45.2" N LONG: 98°15'39.1" W AC **CERTIFICATE:** a information of with a GPS foot Horiz./Vert. LAT: 36.462558203° N LONG: 98.260851310° W STATE PLANE THOMAS L I, Thomas L. Howell \_\_an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land HOWELL Surveyors of Oklahoma, do hereby certify to the 1433 COORDINATES: (US Feet) information shown herein 12-27 ZONE: OK NORTH \*LAHOMA Thoma I Navel X: 1923292 532494

Oklahoma Lic. No. \_