API NUMBER: 047 25161

Disposal

Directional Hole

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

Approval Date: 07/19/2018
Expiration Date: 01/19/2019

200 feet from nearest unit or lease boundary.

19118 0

OTC/OCC Number:

PERMIT TO DRILL

			I LIGHTI TO	DIXILL
WELL LOCATION	: Sec: 18 Twp: 22N Rge: 3W	County: GAR	RFIELD	
SPOT LOCATION	SE SE SW SE	FEET FROM QUARTER: FROM	SOUTH FROM	WEST
		SECTION LINES:	200	1240
Lease Name:	SHAFFER	Well No:	2 SWD	
Operator Name:	M M ENERGY INC		Telephone:	4054633355

M M ENERGY INC PO BOX 21904

OKLAHOMA CITY, OK 73156-1904

LONNIE & LINDA CINNAMON 24620 E. BRECKENRIDGE RD.

Well will be

GARBER OK 73738

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

	Name	Depth		Name		Depth
1	ELGIN	2790	6	WILCOX		5620
2	ENDICOTT	3210	7			
3	TONKAWA	3620	8			
4	LAYTON	4220	9			
5	MISSISSIPPI	5120	10			
Spacing Orders:	No Spacing	Location Exception Orders:			Increased Density Orc	ders:

Pending CD Numbers:

Total Depth: 6046

Ground Elevation: 1088 Surface Casing: 310 Depth to base of Treatable Water-Bearing FM: 260

Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: No

PIT 1 INFORMATION

Type of Pit System: ON SITE

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? Nellhead Protection Area? N

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: 2

Liner not required for Category: 2
Pit Location is BED AQUIFER
Pit Location Formation: GARBER

E. Haul to Commercial pit facility: Sec. 15 Twn. 24N Rng. 7W Cnty. 47 Order No: 623842

Special Orders:

DIRECTIONAL HOLE 1

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

Sec 18 Twp 22N Rge 3W County GARFIELD

Spot Location of End Point: SE SW SE SE

Feet From: SOUTH 1/4 Section Line: 200
Feet From: WEST 1/4 Section Line: 1840

Measured Total Depth: 6046

True Vertical Depth: 6000

End Point Location from Lease,

Unit, or Property Line: 200

Notes:

Category Description

HYDRAULIC FRACTURING 7/12/2018 - 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

SPACING 7/12/2018 - G71 - N/A - DISPOSAL WELL