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Title 18 U.S.C. Section 1001 and Title 43 U States any false, fictitious or fraudulent sta		time for any person knowingly and any matter within its jurisdiction.	willfully to make to any department of	r agency of the United
(Instructions on page 2) <b>** OPERATO</b>	S.C. Section 1212, make it a cr		OPERATOR-SUBMITTED	**

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May 9, 2018

Mr. James Amos Supervisory Environmental Protection Specialist Bureau of Land Management 620 E. Greene St. Carlsbad, New Mexico 88220

## Re: Marathon Oil Company- Interim Reclamation for the Battle Federal #4H Located in Section 27, Township 21 South, Range 33 East, Unit M, Lea County, New Mexico.

Mr. Amos:

Tetra Tech, Inc (Tetra Tech) was contacted by Marathon Oil Company (Marathon) to prepare a scope for the proposed Interim Reclamation for the Battle Federal #4H, located in Section 27, Township 21 South, Range 33 East, Lea County, New Mexico. The spill site coordinates are N 32.4430715°, W 103.565825°. The site location is shown on Figures 1 and 2.

#### **Proposed Interim Reclamation - Facility Pad Downsizing**

The Battle Federal #4H pad area measures approximately 360' x 400'. The production well has been completed and Marathon proposes an interim reclamation to downsize the caliche pad. Marathon proposes to downsize the pad approximately 20-25' from the north and the east edges of the pad, as shown in Figure 3.

Any production equipment or material used for the installation of the production well located in the downsized areas will be removed from the area. The caliche material from pad will be removed and reused to construct the well pad berm, another pad site, or for road repairs within the lease. Prior to re-use, the caliche material removed from the pad will be stockpiled onsite and field screened for chlorides evaluation. After removal of the caliche material, the reclaimed areas will be re-contoured to as close to its original state as possible and the surface be left rough to prevent wind and rain erosion.

> Tetra Tech 910 North Eld Spring, Midland TX T9705 1659 Fax 131 681, 3940 - www.tetratech.com

Tel 432 (350 4559



#### Soils and Seeding

The site soils consist of the 85 % Pyote loamy fine sands and have a 3% slope and well-drained soils. The loamy fine sands are at depths of approximately 0 to 25 inches, and 25 to 60 inches consists of fine sandy loam. The soil description and classification is shown in Appendix A.

The reclaimed areas will be seeded in June 2018 in order to coincide with the rainy season in Southeastern New Mexico to aid in revegetation. Based on the soils at the site, the area will be seeded with a BLM Seed Mixture 1 Sandy Loamy, unless BLM requires a different seed blend. The seed mixture will be planted in the specific amount per acre, as required. The seed mixture will be spread by a drill equipped with a depth regulator or a hand-held broadcaster and raked.

If you have any questions or comments concerning the proposed reclamation activities for this site, please call me at (432) 682-4559.

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Tetra Tech, Inc.

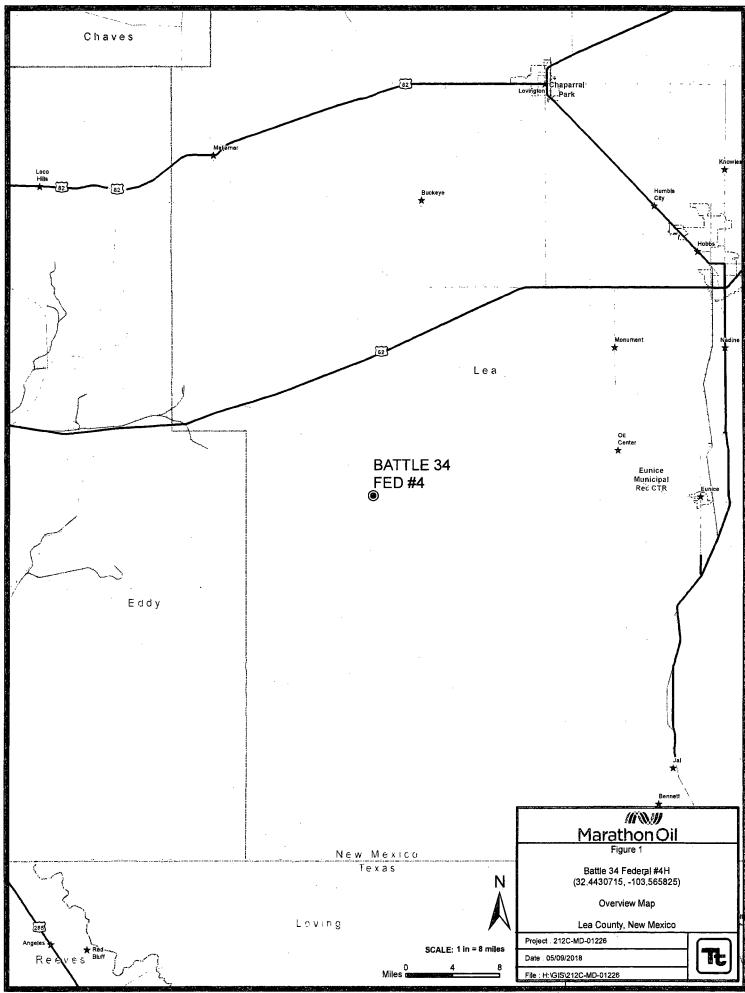
473

Ike Tavarez, P.G. Project Manager

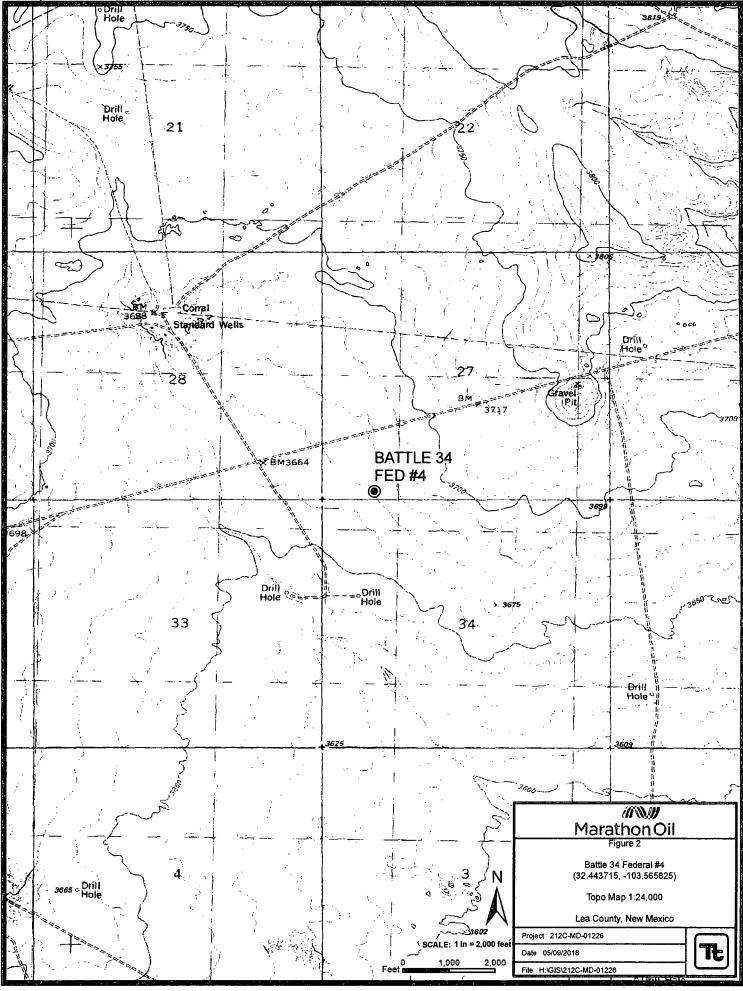
cc: Callie Karrigan - Marathon

# Figures

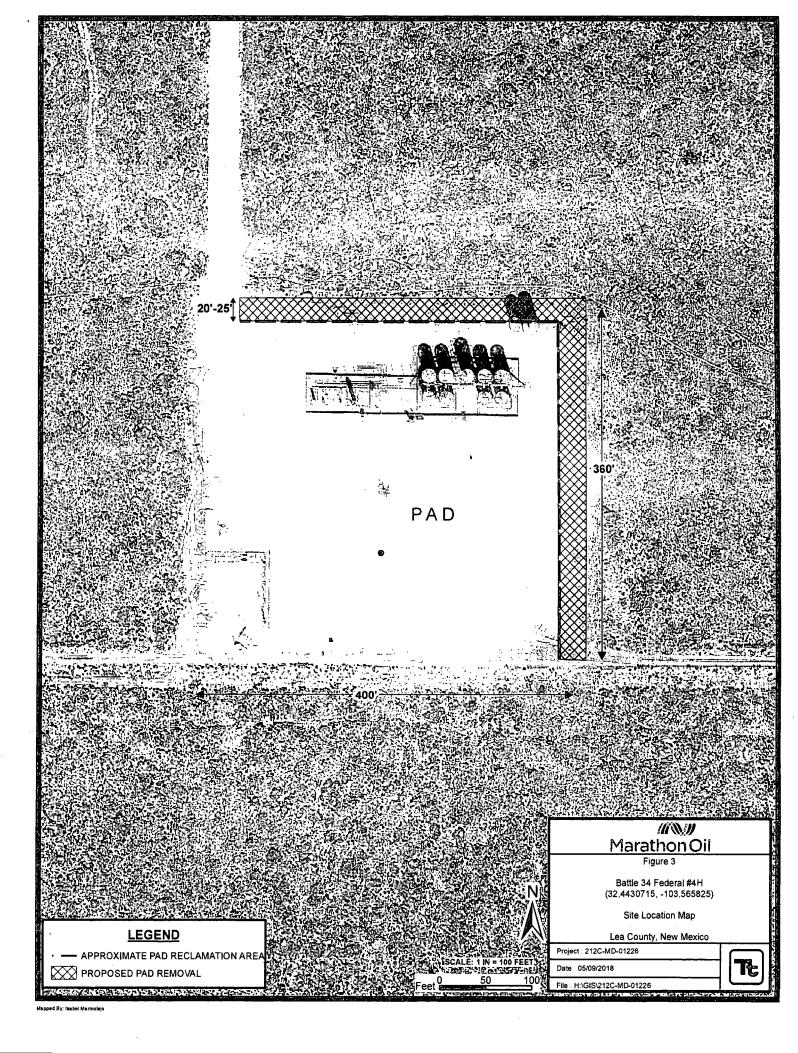
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Mapped By: Isabel Marmolejo



Mapped By: Isabel Marmolejo



# Appendix A

### Lea County, New Mexico

#### PT---Pyote loamy fine sand

#### Map Unit Setting

National map unit symbol: dmqp Elevation: 3,000 to 3,900 feet Mean annual precipitation: 10 to 12 inches Mean annual air temperature: 60 to 62 degrees F Frost-free period: 190 to 200 days Farmland classification: Farmland of statewide importance

#### **Map Unit Composition**

Pyote and similar soils: 85 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Pyote**

#### Setting

Landform: Plains Landform position (three-dimensional): Rise Down-slope shape: Linear Across-slope shape: Linear Parent material: Sandy eolian deposits derived from sedimentary rock

#### Typical profile

A - 0 to 25 inches: loamy fine sand Bt - 25 to 60 inches: fine sandy loam

#### **Properties and qualities**

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Gypsum, maximum in profile: 1 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0

to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 2.0 Available water storage in profile: Low (about 5.3 inches)

#### Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 7s Hydrologic Soil Group: A Ecological site: Loamy Sand (R042XC003NM) Hydric soil rating: No

#### **Minor Components**

#### Maljamar

Percent of map unit: 8 percent Ecological site: Loamy Sand (R042XC003NM) Hydric soil rating: No

#### Palomas

Percent of map unit: 7 percent Ecological site: Loamy Sand (R042XC003NM) Hydric soil rating: No

### **Data Source Information**

Soil Survey Area: Lea County, New Mexico Survey Area Data: Version 14, Sep 10, 2017