



**MICHELLE LUJAN GRISHAM**  
Governor

**HOWIE C. MORALES**  
Lt. Governor

**NEW MEXICO**  
**ENVIRONMENT DEPARTMENT**

***Hazardous Waste Bureau***

2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6313  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.env.nm.gov](http://www.env.nm.gov)



**JAMES C. KENNEY**  
Cabinet Secretary Designate

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

January 31, 2019

John Moore  
Environmental Superintendent  
Western Refining Southwest Inc., Gallup Refinery  
92 Giant Crossing Road  
Gallup, New Mexico 87301

**RE: DISAPPROVAL  
INVESTIGATION WORK PLAN AREA OF CONCERN 35  
WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY  
EPA ID# NMD000333211  
HWB-WRG-18-010**

Dear Mr. Moore:

The New Mexico Environment Department (NMED) has reviewed the *Investigation Work Plan Area of Concern 35* (Work Plan), dated August 2018, submitted on behalf of Western Refining Southwest Inc., Gallup Refinery (Permittee) and hereby issues this Disapproval with the following comments.

The Work Plan was submitted based on the updated schedule agreed to in the RCRA Permit Table E-2 (Corrective Action Submittal Schedule). The required submittal date was August 30, 2018. The Work Plan was received September 19, 2018. AOC 35 includes the main truck loading rack, crude slop and ethanol unloading facility, additive tank farm/loading rack, and the retail tank farm (Tanks 1 through 7, 912, 913, 1001, and 1002).

**Comment 1**

The Permittee is careful to point out several times in the Work Plan that no waste material was historically handled at these units. The facility is not permitted to handle waste materials. These units and others listed in the Permittee's RCRA Permit under corrective action are listed because there is a history of handling material that may contain listed hazardous waste or hazardous constituents which have or may have, during the unit's use, been released to the environment.

**Comment 2**

In the Background, Section 2.1 (Main Truck Loading Rack Area), the Permittee lists two recent releases and states, “[t]here have been documented releases at the loading rack that were discovered at the time of the release and addressed, including notification to the appropriate regulatory agencies.” There is a historical lack of follow up regarding cleanup of releases; therefore, it is not always clear if or when releases were fully addressed. For instance, the release notification form for the December 23, 2009 release of ultra-low sulfur diesel from the leaking underground pipe at the west end of the main loading rack indicated that the release affected an adjacent field, stating, “[i]n further cleanup actions, contaminated soils will be excavated, confirmatory environmental samples will be collected and analyzed, and all contaminated materials will be disposed off [sic] in accordance with applicable regulations.” There was no report that provided information on soil disposal or confirmation sampling related to this release. Revise this section to more accurately describe the cleanup or lack thereof of releases.

**Comment 3**

Section 2.3 (Additive Tank Farm Loading Rack) states that methyl tert butyl ether (MTBE) is not and has not been stored in these tanks. Based on Figure 5 (MTBE Concentration Map March 2015) the greatest concentration of MTBE in groundwater appears to be near the Additive Tank Farm/Loading Rack and the Main Truck Loading Rack. Since MTBE was added to fuel as an anti-knocking agent, it is likely that releases occurred at the Main Truck Loading Rack during fuel transfer. Units where fuel loading or unloading occurs can be a source of contaminants over time because of small releases or steady, but small leakage that can contaminate soils. Releases are not limited to tank leaks that may contribute to releases to the environment. No revision necessary; however, when planning investigations, the Permittee must take into account that tanks are not the only potential contaminant source.

**Comment 4**

The Permittee must revise the background section of the Work Plan to address the following:

- a) The Permittee must add a discussion regarding the state of the concrete pads at the units. Provide photographs of the concrete pads, as appropriate.
- b) The background section must include information regarding the results of the dye tracer study conducted as part of the Hydrocarbon Seep Interim Measures that included the truck rack.
- c) Additionally, the background section must reference information regarding the Sanitary Lagoon since the Permittee references this Work Plan in the Sanitary Lagoon Investigation Work Plan, dated October 2018 and states that the “Area A” referenced therein will be investigated as part of this Work Plan.
- d) The Permittee proposed to install three groundwater monitoring wells in the *Investigation Work Plan Up-gradient MKTF Wells*, dated August 2018. One of the proposed wells is located at the southern boundary of AOC 35. In the revised Work Plan, reference the

work plan to indicate that a related groundwater investigation is concurrently proposed in the vicinity of AOC 35.

**Comment 5**

In Section 4.1 (AOC 35 Investigation) the Permittee states, “[t]wo new shallow monitoring wells are proposed; one adjacent to existing monitoring well MKTF-17 and the second near MKTF-18.” The Permittee includes a similar proposal to install additional wells near MKTF-17 and MKTF-18 in the *Work Plan 2015 Annual Groundwater Report Comments*, dated October 2018; however, the proposed locations are different. Clarify if the Permittee plans to install two sets of additional borings near the MKTF-17 and MKTF-18 wells or if one set can satisfy the requirements included in NMED’s comments regarding the 2015 Groundwater Monitoring Report and for this Work Plan.

**Comment 6**

In Section 4.1 (AOC 35 Investigation) the Permittee states, “[e]ach well will be screened in the upper-most saturated interval, which based on the borings logs from MKTF-17 and MKTF-18 should be encountered within 8 feet and 10 feet below ground level (bgl), respectively.” Section 4.2.1 (Drilling Activities) also states that slotted (0.01 inch) PVC well screen will be placed at the bottom of the borings at the two permanent wells and will extend for a maximum of 10 feet. The 2017 depth-to-water (DTW) measurements indicate that the groundwater depths are deeper than nine feet below ground surface (bgs) in well MKTF-17. The well placed next to MKTF-17 must be installed deeper than ten feet bgs. Revise the Work Plan accordingly. In addition, all proposed wells must be installed to accommodate the decreasing trend in groundwater elevations in recent years (e.g., deeper total depths, longer screened intervals).

**Comment 7**

In Section 4.2 (Soil Sample Field Screening and Logging) the Permittee states, “[d]iscrete soil samples will be retained for laboratory analyses from within the following intervals: 0.0-0.5 feet (at soil borings with evidence of impacts near the land surface);” The Permittee must collect surface soil samples even if there is no evidence of impacts. If the surface is covered with gravel, the Permittee must move the gravel and collect a sample from the surface directly below the gravel and note that gravel was removed to collect a surface soil sample.

**Comment 8**

The Permittee discusses drilling methods in Section 4 (Scope of Services), but does not include methods and procedures used for sample collection. For example, describe how soil samples obtained for laboratory analysis will be collected from the hand auger and from the macrocore or dual tube used for geoprobe sampling. Include this information in the revised Work Plan.

**Comment 9**

In Section 4.3 (Groundwater Sample Collection) the Permittee states, “[g]roundwater samples will be collected from the new monitoring wells within 24 hours of the completion of well purging using disposal bailers... Sample collection methods will be documented in the field monitoring reports.” Prior to collection of groundwater samples for laboratory analyses, the Permittee must measure DTW and the total depths of each well, and collect field groundwater

quality data (e.g., dissolved oxygen, pH, temperature, conductivity, redox potential, turbidity) during well purging. Include descriptions of the field procedures in the revised Work Plan.

**Comment 10**

In Section 4.6 (Chemical Analyses), the Permittee states, “[g]roundwater samples will also be analyzed for major anions (e.g., carbonate, bicarbonate, sulfate, fluoride and chloride).” The groundwater samples must also be analyzed for nitrate and nitrite because of potential wastewater discharges at the site. Include the nitrate and nitrite analyses for groundwater samples in the revised Work Plan.

**Comment 11**

So many of the MKTF wells contain separate phase hydrocarbons (SPH) that the representation of benzene and MTBE concentrations in Figure 4 (Benzene Concentration Map March 2015) and Figure 5 (MTBE Concentration Map March 2015) may not be accurate. The Permittee recently indicated the SPH in wells has significantly decreased over time. Present concentration maps with updated SPH thickness and groundwater concentrations of benzene and MTBE in the revised Report for comparison.

**Comment 12**

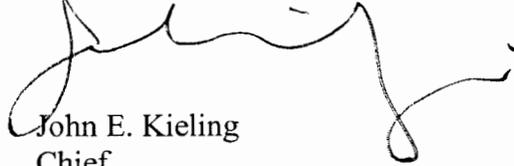
In Figure 6 (Proposed Sampling Locations), many of the proposed soil boring locations are placed along an oily water drain line from the laboratory, what appears to be a drain line along the marketing tank farm tanks, and the sanitary sewer line. The Permittee must move some of the proposed borings to locations where transfers of materials occur. While leaks from the sewer system are a concern, releases from the units can occur from other points as well. For instance, at the Retail Tank Farm, the pipe rack to the east of the tanks could be a potential contaminant source, boring SB32/MKTF-16 exhibits a concentration of 19 mg/L of benzene, which appears to be one of the highest concentrations of benzene in groundwater and is located to the east of those racks. Revise the Work Plan to add or adjust proposed boring locations to account for sources other than the sewer system.

The Permittee must address all comments in this Disapproval letter and submit a revised Work Plan. Provide NMED with two hard copies with labeled electronic versions of the revised Work Plan. Include a red-line strikeout version, in electronic format, showing where all the revisions to the Work Plan have been made. The revised Work Plan must be accompanied with a response letter that details where all the revisions to the Work Plan have been made, cross-referencing NMED's numbered comments. The revised Work Plan must be submitted to NMED by no later than **July 27, 2019**.

Mr. Moore  
January 31, 2019  
Page 5

If you have any questions regarding this letter, please contact Kristen Van Horn at (505) 476-6046.

Sincerely,

A handwritten signature in black ink, appearing to read "John E. Kieling". The signature is fluid and cursive, with a large initial "J" and a long, sweeping underline.

John E. Kieling  
Chief  
Hazardous Waste Bureau

cc: D. Cobrainm NMED HWB  
K. Van Horn, NMED HWB  
M. Suzuki, NMED HWB  
C. Chavez, EMNRD OCD  
B. Moore, Marathon  
L. King, EPA

File: WRG 2019 and Reading  
HWB-WRG-18-010