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CERTIFIED MAIL - RETURN RECEIPT REQUESTED



James C. Kenney
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Deputy Secretary

January 29, 2020

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

**RE: APPROVAL WITH MODIFICATIONS
OW-61 THROUGH OW-65 WELL INSTALLATION REPORT
WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-WRG-19-020**

Dear Mr. Moore:

The New Mexico Environment Department (NMED) has reviewed the *OW-61 through OW-65 Well Installation Report* (Report), dated November 2019, submitted on behalf of Marathon Petroleum Company dba Western Refining Southwest Inc., Gallup Refinery (the Permittee). NMED hereby issues this Approval with Modifications. The Permittee must address the following comments.

Comment 1

In the Executive Summary, the Permittee states, "[t]hese wells [OW-61, OW-62, OW-63, OW-64, and OW-65] were installed in March 2018 on a voluntary basis after hydrocarbons were observed in the French drain near the pond STP-1." These wells were advanced within and in close vicinity of the Tank Farm (SWMU 6); however, based on the results of shallow excavation near pond STP-1 hydrocarbons were also observed in soils above the water table near pond STP-1. The observation of SPH in shallow soils suggests that a source may also be present near pond STP-1 in addition to potential leaky tanks in the Tank Farm. Unless a source closer to STP-

1 was identified through the Laser Induced Fluorescence (LIF) study or other investigations, the source of shallow soil contamination near pond STP-1 must be investigated.

Comment 2

In Section 2, *Background*, the Permittee states, “[s]ix locations were selected as shown on Figure 1 for the installation of soil borings to search for the presence of SPH.” There is a typographical error in the statement. Figure 1 depicts the location of the site. The pertinent figure is Figure 2, *Well Location Map*. No revision required.

Comment 3

In Section 4.3.1, *Well Installation*, the Permittee states that discrete soil samples were not retained for laboratory analysis. NMED requires soil sampling from every soil boring for laboratory analysis. A minimum of three soil samples should have been collected from each boring at the vadose zone with the highest PID reading, at the water table, and the boring termination depth. Include the provision for all future soil investigations conducted at the Facility. No revision required.

Comment 4

In Section 4.3.1, *Well Installation, OW-61*, the Permittee states that a strong chemical odor was detected at 10 – 12 feet below ground surface (bgs). There was no data to evaluate presence or absence of contamination above 10 feet bgs, because hydro-excavation was used during the installation of the soil boring. Since soil contamination was present in the soils at the depth of 10 feet bgs (PID reading = 1,563 ppm), the Permittee must assume soil contamination above 10 feet bgs in the vicinity of well OW-61. The transport mechanism of soil contamination may be limited to groundwater flow in the vicinity of well OW-61; however, the shallow soils were contaminated. Evaluate and explain potential causes of the shallow soil contamination (e.g., potential leaks from nearby tanks, volatilization of chemicals from smear zone) in a response letter.

Comment 5

In Section 4.3.1, *Well Installation, OW-65*, hydro-excavation was not used at the location of boring OW-65. The investigation method was appropriate at this location. It was confirmed that there was no soil contamination present above 10 feet bgs. This is the only location where hydro-excavation was not used during the installation of borings. Explain why this location did not require use of hydro-excavation for clearance in the response letter.

Comment 6

In Section 5, *Site Impacts*, the Permittee states, “[t]he measured SPH thickness increased in OW-61 from the first through the third quarter of 2018, with a decrease in the last quarter of 2018. The measured SPH thickness in OW-65 increased from the first quarter to the second quarter of 2018, but decreased in the third quarter, only to increase to an even greater thickness in the fourth quarter of 2018.” The SPH thicknesses measured in wells OW-61 and

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OW-65 are recorded as 4.05 feet and 7.75 feet, respectively, during November 2018 according to Table 2, *2018 Quarterly Fluid Level Measurements*. The increase may indicate that the hydrocarbon release is potentially on-going. In the response letter, provide a table that shows the SPH thicknesses in wells OW-61 and OW-65 measured during the 2019 quarterly monitoring events.

Comment 7

In Section 5, *Site Impacts*, the Permittee states, “[t]he laboratory interpreted the results to show that the product collected at OW-61 was “mostly fresh [to] fairly fresh gasoline with a small amount of diesel range hydrocarbons present as well.” The laboratory interpreted the results to show that the product collected at OW-65 was “fairly fresh gasoline mixed with diesel range hydrocarbons.”” It appears SPH collected from wells OW-61 and OW-65 is similar. SPH observed in the wells likely originates from the same source. Include a discussion regarding the potential source of SPH detected in wells OW-61 and OW-65 in the response letter.

The Permittee must address all comments in this letter and submit a response letter no later than **April 30, 2020**.

This approval is based on the information presented in the document as it relates to the objectives of the work identified by NMED at the time of review. Approval of this document does not constitute agreement with all information or every statement presented in the document.

If you have questions regarding this Approval with Modifications, please contact Michiya Suzuki of my staff at 505-476-6059.

Sincerely,



Kevin Pierard
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
M. Suzuki, NMED HWB
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B. Moore, WRG

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