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Certified Mail - Return Receipt Requested

February 1, 2023

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

**RE: APPROVAL WITH MODIFICATIONS
REVISED 2022 FACILITY-WIDE GROUNDWATER MONITORING WORK PLAN
WESTERN REFINING SOUTHWEST LLC, GALLUP REFINERY
MCKINLEY COUNTY, GALLUP, NEW MEXICO
EPA ID# NMD000333211
HWB-WRG-22-001**

Dear Mr. Moore:

The New Mexico Environment Department (NMED) has received the Western Refining Southwest LLC (D/B/A Marathon Gallup Refinery (the Permittee) *Response to Approval with Modifications, 2022 Facility-Wide Groundwater Monitoring Work Plan* (Revised Work Plan) dated September 21, 2022, with revisions included, in response to NMED's *Approval with Modifications, 2022 Facility-Wide Groundwater Monitoring Work Plan* (Approval with Modifications) letter dated April 25, 2022. NMED has reviewed the Revised Work Plan, and hereby issues this Approval with Modifications with the following comments.

Comment 1

NMED Approval with Modifications Comment 1 states "Since Appendix A [Historical Overview] must be provided in future work plans, the Permittee must ensure that the information provided is current and up-to date to the extent possible." The Permittee's response "Updates from January 2022 – December 2022 will be included in the 2023 work plan." This response is acceptable.

Comment 2

NMED Disapproval Comment 2 states "[the] Revised Natural Attenuation Assessment and Proposed Workplan for the Hydrocarbon Seep Area lists analytical parameters relevant to CVOCs [chlorinated volatile organic compounds] MNA [monitored natural attenuation] (e.g.,

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total organic carbon, carbon dioxide, alkalinity, hydrogen, volatile fatty acid) that are not included in Table 3-1 (MNA Groundwater Analytical List). Explain why these analytical parameters are not evaluated for CVOCs MNA in a response letter or include all analytical parameters necessary to fully evaluate for CVOCs MNA in the revised Work Plan..." The Permittee's response to NMED Approval with Modifications Comment 3 states "NMED had not previously requested the addition of these analytes in the approval process. As such, these analytes were not included in the 2022 Work Plan. Monitoring these analytes is not considered critical to the success of the MNA program..." The analytical parameters of total organic carbon, carbon dioxide, alkalinity, hydrogen, volatile fatty acids contribute to the data which demonstrates whether or not natural processes are degrading contaminants at the site. Add these analytical parameters to the MNA program in future annual updates to the Work Plan

Comment 3

The Permittee's response to NMED Approval with Modifications Comment 3 states "The MNA [monitored natural attenuation] Work Plan was approved in email, May 5, 2022, without those analytes included." While NMED may conceptually approve proposed work in meetings, phone calls, and/or emails, NMED's final decisions are documented in formal written letter correspondence. The *Response to Approval with Modifications, Natural Attenuation Assessment and Proposed Workplan for The Hydrocarbon Seep Area* dated December 17, 2021, was approved with NMED's letter dated April 5, 2022, rather than an email. The May 5, 2022 email that the Permittee referred to was to document that further modifications required by the April 5, 2022 letter were satisfactorily met. Furthermore, the Executive Summary, and Section 1.0, Introduction, of the Work Plan both state "Although, the "Response to Approval with Modifications" (Western 2021b) has not been approved by NMED..." The response was approved, as described above, in the April 5, 2022 letter from NMED. Revise the text accordingly and send a replacement page.

Comment 4

In response to Approval with Modifications Comment 5, the Permittee states "...new wells will be sampled quarterly. After one year of quarterly sampling, the wells will be evaluated to be sampled annually, if that matches the well group sampling frequency." New wells are typically sampled for eight quarters to establish baseline contaminant concentrations. Reductions in sampling frequency of less than eight quarters of baseline sampling must be justified in annual updates to the Work Plan.

Comment 5

NMED Approval with Modifications Comment 9.a. states "[in Appendices C-1 and C-2 as well as all applicable sections of the Work Plan] laboratory results that are presented as "not detected (ND)" must be presented as a numerical value, i.e., "< RLs" [< Reporting Limits] rather than ND." The Permittee's response states, "The tables [in Appendices C-1 and C-2] report values less than the reporting limit as "ND(x)," which corresponds to "not detected at the reporting limit, where (x) denotes the reporting limit concentration.'" The tables in Appendix C do not portray this

nomenclature, instead they show “ND” in italics with separate columns that show the laboratory reporting limits, laboratory method detection limits, and the relevant screening levels for each constituent. Because the RLs for each analyte are clearly shown in both cases, either representation is acceptable. Resolve the discrepancies in revised tables and pages and provide replacement pages.

Comment 6

The Permittee response to NMED Approval with Modifications Comment 9.a. states “Laboratory method detection limits (MDLs) are not reported in the tables [in Appendix C].” The Permittee response shows that Tables C-1a, C-1b, C-1c, C-1d all include a column showing MDLs for each analyte. Resolve the discrepancies in in revised tables and pages and provide replacement pages. See Comment 5 above.

Comment 7

NMED Approval with Modifications Comment 9.b. states “Include the applicable SL for each analyte in a revised Appendix C-1.” The Permittee’s response states “The 2021 screening levels have been added to the Appendix C-1 tables.” The footnote to Tables C-1a, C-1b, C-1c, C-1d, states, “[t]he screening levels shown are the same as selected in the 2021 Annual Groundwater Report.” Reference the source and date of the specific screening levels in foot note (e.g., EPA Regional Screening levels, November 2021).

Comment 8

Tables C-2a, C-2b, C-2c and C-2d, do not include units for the highest and lowest contaminant concentration detections. Add relevant units to corresponding tables and provide replacement pages.

Comment 9

The Permittee’s response to NMED Approval with Modifications Comment 10 states “In addition, the basis for the inclusion or exclusion was discussed and approved by NMED prior to work plan submittal.” While NMED may conceptually approve proposed work in meetings, phone calls, and/or emails, NMED’s final decisions are documented in written letter correspondence. See Comment 3 above.

Comment 10

In the Executive Summary the Permittee states “[t]he Refinery annually evaluates the facility-wide monitoring program. Annual revisions to the work plan are presented to New Mexico Environment Department (NMED) for review.” Revise the text to state what time of year the annual revisions will be submitted to NMED and provide a replacement page.

Comment 11

In the Executive Summary the Permittee states “...the “Response to Approval with Modifications” (Western 2021b) has not been approved by NMED...” The response was

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approved, as described above, in the April 5, 2022 letter from NMED. Revise the text accordingly and provide a replacement page. See Comment 3 above.

Comment 12

In Section 3.1, Facility-wide Groundwater Monitoring Program, the Permittee states “[g]roundwater samples will not be collected from monitoring wells that have measurable SPH of 0.01 ft or more. If an SPH recovery system is present in a well, recovery system operation will be halted to allow groundwater to equilibrate, and the fluid level will be measured.” And in Appendix B, Section 2.1, Well Gauging, the Permittee states “If an SPH recovery system is present in a well, recovery system operation will be halted to allow groundwater to equilibrate, and the fluid level will be measured.” State how long the groundwater will be allowed to equilibrate before sampling and provide replacement pages as necessary.

Comment 13

In Table Attachment A-5, Well Information - Survey Data, Screened Interval, Stratigraphic Unit, Artesian Water Wells, Gallup Refinery, Gallup, New Mexico, it is unclear if the column for Total Well Depth is presented as an elevation or feet below ground surface. Clarify what this column is representing and provide a replacement table.

Comment 14

In Table Attachment A-5, Well Information - Survey Data, Screened Interval, Stratigraphic Unit, Artesian Water Wells, Gallup Refinery, Gallup, New Mexico, the footnotes are not noted on the table itself to signify which footnote applies to what part of the table. For example, footnote 2 states “Actual well casing diameter is 12 inches. The 176 ft of 24 in steel casing is the actual cemented support for development of the well.” As the footnote is not noted on the table, it is not clear which well this applies to. The Permittee must clearly identify the portion(s) of the table that the individual footnotes apply to and provide a replacement table.

The Permittee must address all comments in this Approval with Modifications and submit the required response letter and replacement pages to NMED no later than **April 1, 2023**.

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.

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If you have questions regarding this letter, please contact Lane Andress of my staff at 505-690-5286.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dave Cobrain', written in a cursive style.

Dave Cobrain
Program Manager
Hazardous Waste Bureau

cc: L. Tsinnajinnie, NMED HWB
L. Andress, NMED HWB
H. Jones, Trihydro
L. King, EPA Region 6 (6LCRRC)

File: Reading File and WRG 2023 file