

**Western Refining Southwest LLC**

A subsidiary of Marathon Petroleum Corporation

I-40 Exit 39

Jamestown, NM 87347

October 31, 2023

Mr. Ricardo Maestas, Acting Chief
New Mexico Environment Department, Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg. 1
Santa Fe, NM 87505-6313

**RE: Second Response to Approval with Modifications
2021 Annual Groundwater Monitoring Report
Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery
EPA ID# NMD000333211, HWB-WRG-22-006**

Dear Mr. Maestas:

Please find enclosed the response to comments from the New Mexico Environment Department (NMED) Response to Approval with Modifications letter dated July 18, 2023. A timeline of the 2021 Annual Groundwater Monitoring Report (Report) is provided below:

- Report, submitted to NMED on March 31, 2022.
- Approval with Modifications, received from NMED dated August 23, 2022.
- First Response to Approval with Modifications, submitted to NMED on December 15, 2022.
- Second Approval with Modifications, received from NMED dated July 18, 2023.

If you have any questions or comments regarding the information contained herein, please do not hesitate to contact Ms. Kateri Luka at (714) 713-1218.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction of supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,
Western Refining Southwest LLC, Marathon Gallup Refinery

A handwritten signature in blue ink, appearing to read 'Timothy J. Peterkoski'.

Timothy J. Peterkoski
Director of Environment and Climate Strategy
Marathon Petroleum Company LP

Enclosure

cc: L. Andress, NMED HWB
M. Suzuki, NMED
H. Jones, Trihydro Corporation

L. Tsinnajinnie, NMED
K. Luka, MPC

ATTACHMENT A
RESPONSE TO COMMENTS

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter “Response to Approval with Modifications, 2021 Annual Groundwater Monitoring Report” (July 18, 2023)

| NMED Comments | Refinery Responses |
|---|---|
| Comment 1: | Response 1: |
| <p>In the response to NMED’s Approval with Modifications Comment 5, the Permittee states, “[a]s stated in Section IV.L.4.h of the 2017 RCRA Post-Closure Permit (Modified September 2017): “A table summarizing the laboratory analytical data, QA/QC data, applicable cleanup levels, and modifications to the sampling program can be substituted for this section.” The data validation reports included as Appendix D of the Report provide the data qualifiers and the reasons for the qualifications, which is summarized in the Data Qualification Summary (i.e., QA/QC data) tables provided at the end of each data validation report. No revisions to the Report were made.” The tables listing the analytes where analytical results were rejected must not be included in the appendices. These tables must be included in the main body of the Report and the results discussed in the appropriate section(s) of the Report. As stated in Approval with Modifications Comment 5, the Permittee is required to identify the analytes where analytical results were rejected and discuss the cause of rejection within the text of the Report. Include the revised tables and discussion in the main body of the revised Report and provide replacement pages.</p> | <p>This comment is acknowledged. New tables (Table 5-8 and Table 5-9) summarizing the rejected data points and the reasons for rejection have been added to the report. The new tables can be reviewed in Attachment B-1 (red-line, strike-out [RLSO] version) and Attachment B-2 (clean version). Additionally, Section 5.3.1, first paragraph has been revised to state, “[r]ejected data are listed in Table 5-8, and reasons for rejection are summarized in Table 5-9. Additionally, rejected data are presented in their respective tables and explanations of the qualifiers can be found in the data validation reports provided in the following appendices:</p> <ul style="list-style-type: none"> • Appendix D-1 – Reports 2103532, 2103142, and 2103470 • Appendix D-2 – Reports 2106B77, 2106D55, 2106B14, 2106976, 2106895, and 2106646 • Appendix D-3 – Reports 2109709, 2109D30, and 2109C62 • Appendix D-4 – Reports 2112902, 2112740, 2112658, 2112634, 2112997, and 2112B70 <p>Explanations for rejected data points are listed below:</p> <ul style="list-style-type: none"> • The sample was analyzed outside of the method holding time. • The sample was extracted outside of the method holding time. • The laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) percent recovery was |

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| NMED Comments | Refinery Responses |
|---------------|--|
| | <p>less than the lower acceptable limit, indicating a possible low bias.</p> <ul style="list-style-type: none"> • The surrogate percent recovery was less than the lower acceptable limit, indicating a possible low bias. • The percent difference between the initial calibration relative response factor (RRF) and the opening continuing calibration verification RRF was outside the acceptable limits. <p>Table 5-9 summarizes the tally of rejected data points by location, analyte, sampling event, and reason for rejection. The majority of the data points (126 of 192 data points) were rejected due to extremely low surrogate recoveries for Method 8270 analyses and primarily affected the acid extractable surrogates. The related target compounds are the phenolic compounds. There are many factors that can affect the surrogate recoveries, including:</p> <ul style="list-style-type: none"> • Sample matrices may affect the surrogates negatively. • High pH in the sample may result in loss of some phenols, including the surrogates. • The acid fraction surrogates are known to be more temperature sensitive. Early during the extraction process for Method 8270, if the temperature of the concentrator is too high, decomposition (losses) of those surrogates and the related target compounds can occur. • Contaminated glassware may be used that actively chemically bonds to the phenol compounds and inhibits the recoveries.” |

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| NMED Comments | Refinery Responses |
|--|---|
| Comment 2: | Response 2: |
| In the response to NMED’s Approval with Modifications Comment 6, the Permittee states, “[t]he discussion regarding fluid recovery events via vacuum truck is referencing MKTF, OW, and RW wells listed in Table 6-3, in addition to recovery in standpipe and retention ditch and borrow pit sumps. This information is also provided quarterly in the Hydrocarbon Interim Measures Seep Reports. No revisions were made to the Report.” Table 6-3 only lists fluid recovery data for MKTF and RW wells. To clarify, NMED’s Approval with Modifications Comment 6 requires the Permittee to state that fluid recovery events were no longer conducted for the OW wells in the Report. Revise the Report accordingly and provide replacement pages. | This comment is acknowledged. OW wells OW-61 and OW-65 are included on page 3 of Table 6-3, as there is fluid recovery data for these wells. Therefore, no revisions were made to Table 6-3, or the Report text based on NMED Comment 2. Table 6-3 can be reviewed in Attachment B-2 (clean version). |

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| NMED Comments | Refinery Responses |
|--|---|
| Comment 3: | Response 3: |
| <p>In the response to NMED’s Approval with Modifications Comment 9a, the Permittee states, “[b]ecause the cleanup levels are not dependent on the analytical method used, they are not necessary to display on Table 3-2 (Cleanup Levels). The analytical methods used can be viewed in Appendix C (Lab Reports) and are also outlined in the 2021 groundwater work plan. No revisions to the Report were made.” Although the analytical methods are identified in Appendix C, NMED requires a table that presents the analytical methods used to conduct analyses for analytes in the main body of the Report rather than in the appendices (see Comment 1 above).</p> <p>In addition, although the Permittee references the 2021 groundwater work plan, citing analytical methods from the work plan is not appropriate. It is important to present the analytical methods because the Permittee is required to demonstrate that the NMED’s previous directions and approved work plan were followed during the sampling period. Modify Table 3-2 to include the information regarding the analytical methods, as directed or include a separate table that provides the required information in the revised Report and provide replacement pages.</p> | <p>This comment is acknowledged. Table 3-2 has been revised to include a column that lists the analytical methods used to conduct analyses for each analyte. Revisions made to Table 3-2 are shown in red text in Attachment B-1.</p> |

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| NMED Comments | Refinery Responses |
|---|--|
| <p>Comment 4:</p> <p>In the response to NMED’s Approval with Modifications Comment 9b, the Permittee states, “GRO and TPH (C6-C10) as well as Motor oil, ORO, and TPH (C28-40) are all included on Table 3-2 and Table 5-5 (General Chemistry and Total Petroleum Hydrocarbon Analytical Data) because they represent different historical analytical methods even though they can be viewed as repetitive. They were all included separately for clarity when referencing the tables.” The presentation of the data is confusing. It is unnecessary to present GRO and TPH (C6-C10) separately in the tables. GRO and TPH (C6-C10) must be regarded as the same analyte in the tables. Similarly, it is unnecessary to present motor oil, ORO, and TPH (C28-C40) separately in the tables. Motor oil, ORO, and TPH (C28-C40) must be regarded as the same analyte in the tables. Revise all applicable sections and tables of the Report and provide replacement pages.</p> | <p>Response 4:</p> <p>This comment is acknowledged. Table 5-5 has been revised with the following changes:</p> <ul style="list-style-type: none"> • The previous two columns labeled “Gasoline Range Organics (µg/L)” and “TPH (C6-C10) (µg/L)” have been combined under one column labeled “Gasoline Range Organics (µg/L)”. • The previous three columns labeled “Motor oil,” “Oil Range Organics (µg/L)”, and “TPH (C28-40) (µg/L)” have been combined under one column labeled “Oil Range Organics (µg/L)”. <p>Revisions made to Table 5-5 are shown in red text in Attachment B-1.</p> <p>Additionally, the same changes were applied to Table 3-2; revisions made to Table 3-2 are shown in red text in Attachment B-1.</p> |
| <p>Comment 5:</p> <p>In the response to NMED’s Approval with Modifications Comment 9b, the Permittee states, “[h]owever, this also means that TPH (C28-C40) and TPH (C6-C10) have incorrect screening levels as “NA”. The screening levels for these compounds have been corrected on both Table 3-2 and Table 5-5.” Attachment B containing the electronic redline strikeout (RLSO) version of the Report does not provide any tables or figures; therefore, it is not clear which information in the tables was corrected. The RLSO version of the Report must identify all revisions made to the Report, including the tables, figures, and the text. Provide an electronic RLSO version of the Report showing all revisions.</p> | <p>Response 5:</p> <p>This comment is acknowledged. Revisions made to Tables 3-2 and 5-5, as requested by NMED in Comment 9b of the “Approval with Modifications, 2021 Annual Groundwater Monitoring Report” letter dated August 23, 2022, have been identified by red text in Attachment B-1.</p> |

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| NMED Comments | Refinery Responses |
|--|---|
| Comment 6: | Response 6: |
| <p>In the response to NMED’s Approval with Modifications Comment 10a, the Permittee states, “[f]or the 2021 reporting period, 1,4-dioxane was analyzed using EPA Method 8270SIM. For future reference, the methods used for all analyte analyses can be viewed on the lab reports which are included in as Appendix C.” Although NMED is aware that the lab reports included in Appendix C identify the analytical methods for analytes, NMED requires a table that depicts the analytical methods used to conduct analyses (see Comments 1 and 3 above). Revise the Report accordingly.</p> | <p>This comment is acknowledged. Table 3-2 has been revised to include a column that lists the analytical methods used to conduct analyses for each analyte. Revisions made to Table 3-2 are shown in red text in Attachment B-1.</p> |
| Comment 7: | Response 7: |
| <p>In the response to NMED’s Approval with Modifications Comment 12, the Permittee states, “[t]he health advisory level is for the total of three PFAS compounds, not all PFAS. The correction is included on updated Table 5-7.” NMED’s October 2022 Risk Assessment Guidance for Investigations and Remediation (RAG) provides screening levels for per- and polyfluorinated substances (PFAS) species. Incorporate the screening levels of the PFAS species provided in the RAG in future groundwater monitoring reports. No revision is required to the Report.</p> | <p>This comment is acknowledged. The Refinery will incorporate the screening levels of the PFAS species provided in the RAG beginning with the 2023 Annual Groundwater Monitoring Report, due to NMED by March 31, 2024. This edit will not apply to the 2022 Annual Groundwater Monitoring Report, as it has already been submitted to NMED, dated March 31, 2023.</p> |

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 279492

CONDITIONS

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|---|---|
| Operator: Western Refining Southwest LLC 539 South Main Street Findlay, OH 45840 | OGRID: 267595 |
| | Action Number: 279492 |
| | Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT) |

CONDITIONS

| Created By | Condition | Condition Date |
|------------|---|----------------|
| joel.stone | Approved for OCD record retention purposes. | 2/21/2025 |