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State of New Mexico  
ENVIRONMENT DEPARTMENT



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CERTIFIED MAIL – RETURN RECEIPT REQUESTED

June 1, 2017

Mr. William Bailey  
Environmental Supervisor  
Western Refining Southwest Inc., Gallup Refinery  
92 Giant Crossing Road  
Gallup, New Mexico 87301

**RE: DISAPPROVAL  
REVISED ANNUAL GROUNDWATER MONITORING REPORT:  
GALLUP REFINERY – 2014  
WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY  
EPA ID # NMD000333211  
HWB-WRG-15-004**

Dear Mr. Bailey:

The New Mexico Environment Department (NMED) has reviewed the *Revised Annual Groundwater Monitoring Report: Gallup Refinery – 2014* (Report), dated November 2016 submitted on behalf of Western Refining Southwest, Inc. Gallup Refinery (the Permittee). NMED hereby issues this Disapproval. The Permittee must address the following comments in a revised Report.

**Comment 1**

In the Permittee’s response to comments, the Permittee discusses changes, but does not identify where the changes have been made. The Permittee is required to submit responses to NMED’s comments that identify where changes have been made, “[t]he revised Report must be accompanied with a response letter that details where all revisions have been made, cross-referencing NMED’s numbered comments.” The Permittee did not identify where changes were made, for example in the Permittee’s response to NMED’s Comment 3, the Permittee states, “[t]he report has been revised as requested above and now includes the Boring/Well logs for STP-1NW and STP-1SW located in Appendix E of the disc.” The Permittee did not mention

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which section or page number the changes to the Report were made. Submittals that do not fulfill NMED's requirements may result in delays regarding other actions that concern the Permittee. In future responses to comments, always include the required information with responses.

**Comment 2**

The page numbers in the Table of Contents do not match the page numbers in the Report. No revision necessary; however, in future submittals ensure that the Table of Contents is accurate.

**Comment 3**

The Permittee's response to NMED's Comment 3 did not fully address NMED's concerns regarding the monitoring wells installed at the sewage treatment pond (STP)-1. The Permittee calls monitoring wells STP-1NW and STP-1SW "geotechnical wells" installed to assess the "presence or absence of [a] continuous groundwater regime as seen during construction." Issues associated with the operation of STP-1 were not addressed; however, the Permittee noted that "similar concentrations of chloride and/or nitrate have been detected in groundwater samples collected from nearby (up-gradient) wells NAPIS-1, NAPIS-2, NAPIS-3, GWM-1, GWM-2, and GWM-3, which may indicate an upgradient source." NMED notes that well NAPIS-3 and well OAPIS-1 (which the Permittee did not mention) are the only wells with close to equivalent chloride concentrations to well STP-1NW. Viewing the groundwater monitoring well figures and the location of these wells, it is not apparent what the upgradient source could be. Discuss potential upgradient sources in the revised Report and address the issues raised in NMED's NOD Comment 3 as required.

**Comment 4**

NMED's Comment 4(c), stated that the SPH recovered versus the measured thickness in RW-1 do not correlate and required the Permittee to discuss the discrepancy. The Permittee's response states that RW-1 was never completely purged dry due to the length of the bladder pump used which left approximately 2 feet of product/water remaining in the well. This partially explains why there is a discrepancy between the volume of recovered SPH and the estimated volume in the well during the recent measurements; however, the opposite trend was true in 2005 although the collection method appears to be identical. It appears that there may be other factors involved; discuss other potential reasons for the discrepancy in the measurements in the revised Report.

**Comment 5**

The Permittee's response to NMED's Comment 4(f) in Attachment 2 did not include the fingerprint analysis of the product recovered from RW-1. Attachment 2 included analytic results for recovery wells RW-2, RW-5, and RW-6. Provide a fingerprint analysis for the RW-1 product in the revised Report. If fingerprint analysis was not conducted for the RW-1 product, submit a sample for off-site laboratory fuel fingerprint analysis with the Fall 2017 sampling event.

**Comment 6**

The Permittee did not include the MTKF recovery logs in Appendix A as stated in the response to comments. Provide the recovery logs for the MKTF wells and the hydrocarbon seep in the revised Report.

**Comment 7**

NMED's Comment 9 required the Permittee to revise the descriptions of the process wastewater and stormwater collection systems in Section 1.2 (Background Information). In the response to comments, the Permittee states "[t]he description of the process wastewater and stormwater collection system have been revised in the Report." The redline strikeout version of the Report shows changes that have been made, but the description remains the same in the revised Report. The changes to the description did not address NMED's comment. Revise the description of SWMU 12 to accurately describe the system in all future submittals and in the revised Report.

**Comment 8**

The Permittee's response to NMED's Comment 10 discusses changes made to the construction of the NAPIS wells, raising the flush mount well casings and adding concrete bases to prevent stormwater runoff from entering the wells. The Permittee resurveyed the wells and included the survey data in Attachment 3. Ensure that the new survey information is also transferred to the monitoring well tables so that groundwater elevation measurements are accurate in all future submittals.

**Comment 9**

Based on the Report and the Permittee's response to NMED's Comment 20(b), it appears that some of the wells installed for product recovery, for example MKTF-18, have screened intervals that are submerged. Submerged screened intervals will not accurately detect the presence of SPH. Wells constructed with submerged screened intervals cannot be used to characterize the hydrocarbon seep.

**Comment 10**

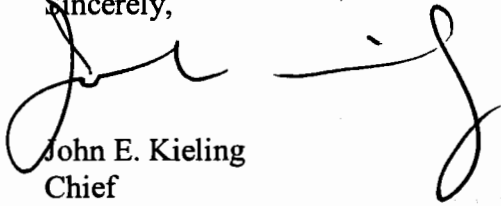
The Permittee's response to NMED's Comment 20(f) discusses the recovery well standpipes rather than the MKTF wells that were the subject of NMED's comment. Discuss how often the recovery wells are used to recover product and whether or not any of the recovery actions coincide with groundwater monitoring. In addition, the recovery trench standpipes were not clearly explained in the Report, provide additional information regarding the recovery trench standpipes and explain the table titled "2014 Pumping Records for Release Stand Pipes" in APPENDIX A in the text of the revised Report.

The Permittee must address all comments in this Disapproval and submit a revised Report. Two bound hard copies and an electronic version of the revised Report must be submitted to NMED. The revised Report must be accompanied with a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments and a red-line strikeout version of the Report that shows where all changes have been made. The revised Report must be submitted to NMED no later than **August 14, 2017**.

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If you have questions regarding this Disapproval, please contact Kristen Van Horn of my staff at 505-476-6046.

Sincerely,



John E. Kieling  
Chief  
Hazardous Waste Bureau

cc: K. Van Horn NMED HWB  
C. Chavez OCD  
A. Hains WRG  
C. Johnson WRG  
L. King EPA Region 6

File: Reading File and WRG 2017 File  
HWB-WRG-15-004