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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 24, 2012

Mr. Ed Riege
Environmental Manager
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

**RE: DISAPPROVAL
FACILITY-WIDE GROUND WATER MONITORING
WORK PLAN, 2011 UPDATES
WESTERN REFINING COMPANY SOUTHWEST INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-WRG-12-002**

Dear Mr. Riege:

The New Mexico Environment Department (NMED) has reviewed the *Facility-Wide Ground Water Monitoring Work Plan, 2011 Updates* (Work Plan), dated March 2012, submitted on behalf of Western Refining Company Southwest Inc., Gallup Refinery (Permittee) and hereby issues this notice of disapproval.

Comment 1

There are several issues regarding the figures included in the Work Plan. Figure 3, Figure 5 and 5b are difficult to read. Remove the hatching over the SWMUs in Figure 3. Increase the font size or do not bold the groundwater monitoring well labels so that they are legible. On Figure 5 remove the closed (abandoned) wells. The NAPIS wells are mis-labeled as KA-wells on all three figures; re-label them appropriately. Ensure that the figures include all of the groundwater monitoring and recovery wells. Use the same base map showing all groundwater and recovery wells for all of the figures. On Figures 5 and 5b, include the groundwater elevations along with

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the groundwater monitoring well designation labels so that the elevations and groundwater contours can be verified. Report the dates that the groundwater data were collected in the map legend. Revise the figures as needed.

Comment 2

The page numbering in the Table of Contents is incorrect. Appendix E is listed as page 50 and Appendix F and the Figures are listed as having page numbers in the 500s. Adjust the page numbers and revise the Table of Contents to reflect the correct numbering.

Comment 3

Do not include the February 9, 2009 letter *Facility Wide Groundwater Monitoring Work Plan* (Appendix A: Letter from NMED/HWB February 9). Remove Appendix A from the revised Work Plan. Delete all associated references in the text and, if the Appendix designations are changed, correct the text reference to other appendices and the Table of Contents, as necessary.

Comment 4

Appendix F contains a document titled *Stratigraphic Interpretation Report* from Peregrine GeoConnect dated March 2012. It is not clear why the report was included in the Work Plan. Remove Appendix F from the Work Plan and submit the stratigraphic report separately, if appropriate.

Comment 5

The Permittee proposes to change the sampling frequency and analytes for well OW-1; checking only for artesian conditions quarterly. The purpose of OW-1 is to act as an observation well to evaluate whether or not any constituents from the refinery are migrating from the refinery property. The Permittee must continue to check OW-1 for artesian flow conditions and sample for major cations, major anions, VOCs, DRO extended, WQCC metals, pH, EC, DO, ORP, temperature and TDS on quarterly basis. OW-1 is listed twice in Table 1 (Appendix D). Revise the table to delete the duplicate listing.

Comment 6

The Permittee proposes to change the sampling frequency of OW-50 and OW-52 from quarterly monitoring to annual monitoring. NMED concurs. Continue to sample for water quality parameters and the analytical suites listed in Table 1 (Appendix D). Modify Table 1 as necessary.

Comment 7

In Section 2.0 (Background Information), page 9, paragraph 3, the Permittee states, "Western is working with OCD and PTSB to place this line back in service." As noted in Comment 4 of NMED's September 2011 *Notice of Disapproval Facility Wide Groundwater Monitoring Work Plan*, Comment 4, OCD has determined that the pipe is not within its jurisdiction. Remove the

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reference to OCD from the revised Work Plan.

Comment 8

NMED's Comments 4 and 5 from the February 16, 2012 Second Notice of Disapproval Requirement to Resurvey Groundwater Monitoring Wells and Recovery Wells as well as Comment 2 from the May 18, 2012 Third Disapproval Requirement to Resurvey Groundwater Monitoring Wells and Recovery Wells required further edits to the Permittee's Well Elevation Summary Table. The Permittee included an unapproved Well Elevation Table as Appendix C in the Work Plan. Once the Well Elevation Summary Table has been approved, include it in the revised Work Plan. In addition, include the updated and corrected version of the Artesian Water Well table. NMED will not approve the Work Plan until the corrected tables have been approved and are included in the revised Work Plan. Additionally, base the groundwater elevation maps off of the correct groundwater elevation data in the revised Work Plan. Update Section 4.1 (Ground water Sampling Methodology), which references the tables, in the revised Work Plan.

Comment 9

Section 2.4 (Summary of contaminant releases that could contribute to possible ground water contamination), page 14, paragraph 3 contains a typographical error citing the year as 2021, instead of 2012. Revise the Work Plan to reflect the correct date.

Comment 10

In Section 2.4 (Summary of contaminant releases that could contribute to possible ground water contamination), page 15, paragraph 1, the Permittee states, "[t]he continued presence of water in GWM-2 and GWM-3 may be attributed to the fluctuation of ground water levels due to the increase in moisture this year." GWM-2 and GWM-3 were installed in fall 2005; the wells were deliberately installed as dry wells to observe whether or not the aeration basin leaks. Water was detected during the first quarter of groundwater sampling in 2008; water has been detected continuously since 2010. The past two years have experienced below normal precipitation. Either the groundwater levels have not been measured and recorded properly, or there is an increase in the elevation of the water table, or the aeration basin is leaking. The Permittee must base statements made in work plans and reports on data that can be substantiated, not based on conjecture. The Permittee is required to investigate the source of water for GWM-2 and GWM-3 as part of the Aeration Basin corrective action work plan.

Comment 11

There seems to be an issue between previously reported groundwater elevation data and the data presented in the Work Plan. For example, the Permittee previously reported the groundwater level for GWM-2 on 2/16/2011 (reported in an email on 2/17/2011) as having a total well depth of 18.97 feet and 17.94 feet as the depth of water. In Appendix C-1, page 41, table entitled "Well Data 2011 Annual/Quarterly Sampling 2011 DTB/DTW Measurements", for 2/16/2011,

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GWM-2 is recorded as total depth of 18.81 feet with depth to groundwater 15.08 feet. The listed measurements do not correspond; if the measurements were corrected to account for the new survey data, the water column height should be the same. Ensure that the groundwater level measurements are accurate; revise the table as necessary. Include a footnote to the table stating that the depth to groundwater was adjusted using the new survey data.

Comment 12

In Section 4.4.6.2 (Field Duplicates), the Permittee states, “[f]ield duplicates will not be collected on a routine basis, as there is sufficient data to establish outliers or suspect results through a trend analysis.” Field duplicate groundwater samples must be obtained at a frequency of ten percent. At a minimum, one duplicate sample per sampling day must always be obtained. Revise the Work Plan accordingly.

Comment 13

In Appendix B (Gallup Field Sampling Collection and Handling Standard Procedures), describe the location along the well where the measurements will be taken. Revise the Work Plan to include this detail.

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The Permittee must address all comments contained in this disapproval and submit a revised Work Plan to NMED and OCD on or before **November 14, 2012**. The revised Work Plan must be accompanied by a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. Also, include an electronic version of the Work Plan that shows where all revisions have been made in redline-strikeout format.

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: D. Cobrain NMED HWB
K. Van Horn NMED HWB
C. Chavez OCD
C. Johnson WRG

File: Reading File and WRG 2012 File
WRG-12-002