



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO **ENTERED**
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone (505) 476-6000 Fax (505) 476-6030
www.nmenv.state.nm.us



DAVE MARTIN
Secretary

BUTCH TONGATE
Deputy Secretary

JAMES H. DAVIS, Ph.D.
Director
Resource Protection Division

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 27, 2012

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

**RE: APPROVAL WITH MODIFICATIONS
REVISED INVESTIGATION WORK PLAN
SOLID WASTE MANAGEMENT UNIT (SWMU) No. 1
AERATION BASIN
WESTERN REFINING COMPANY SOUTHWEST INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-WRG-12-001**

Dear Mr. Riege:

The New Mexico Environment Department (NMED) has reviewed the *Revised Investigation Work Plan Solid Waste Management Unit (SWMU) No. 1 Aeration Basin* (Work Plan), dated June 2012, submitted on behalf of Western Refining Company Southwest Inc., Gallup Refinery (Permittee) and hereby issues this Approval with the following modifications.

Comment 1

The Permittee notes in the cover letter that “[t]he Corrective Measures Evaluation (CME) Report will be revised to include the results of the investigation. Because we have not yet received approval to implement the investigation work plan, it is unlikely that it will be possible to complete the investigation and submit the revised CME Report on the original due date of July 30, 2012.” First, the Permittee must submit an investigation report to NMED for review. Once NMED approves the investigation report, the Permittee will incorporate a summary of the

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investigation into the CME Report to be submitted at a date to be determined based on completion of field work. The investigation report must be submitted within 120 days of field work completion. NMED will establish a submittal date for the CME Report upon approval of the investigation report.

Comment 2

The Permittee states in their response to Comment 10 of NMED's May 15, 2012 Notice of Disapproval (NOD), "NMED indicates that Western has 'determined that the water detected in GWM-2 and GWM-3 is naturally fluctuating groundwater.' We have not been able to locate any discussion in the work plan where Western makes any such determination, but rather the information that will be collected under the work plan should help to determine the source of the water in these wells. There is no information indicating that the water levels have been measured and recorded improperly." In the Work Plan, the Permittee stated "the occurrence of shallow groundwater in the area is sporadic and temporal, as displayed with the recent absence of groundwater in GWM-2 and GWM-3..." which indicates fluctuating groundwater levels. Furthermore, in the Permittee's submittal for the Facility-Wide Groundwater Monitoring Work Plan (submitted March 29, 2012), Section 2.4, page 15, the Permittee states, "[t]he continued presence of water in GWM-2 and GWM-3 may be attributed to the fluctuation of groundwater levels due to the increase in moisture this year." Regardless of whether or not there is sporadic or fluctuating groundwater, the Permittee will determine the source of water in GWM-2 and GWM-3 through the work conducted as outlined in this Work Plan. Additionally, the Permittee has a history of measuring and recording water levels improperly. See NMED's May 16, 2011 NOD Annual Groundwater Monitoring Report: Gallup Refinery 2009 for summaries and examples. See also Work Plan Appendix A, Quarterly Water Level Measurements, where a water level for GWM-2 is listed as deeper than the total depth of the well and where total well depth is listed as shallower than the screened interval for several wells. Ensure that all measurements are based on the approved re-survey of the groundwater wells, ensure that all groundwater levels are measured properly, ensure that the correct analytical methods are used, and ensure that the results are reported accurately.

Comment 3

NMED commented on the Permittee's description of the groundwater monitoring wells in Section 2.1.3 (Historical Site Investigations) in the May 2012 NOD for the Work Plan; the description is still not accurate. To clarify: out of concern for using unlined ponds for waste water, GWM-1 was installed in 2004 to investigate whether or not the aeration basin leaked. However, the well was screened across a water-bearing sand layer at 21.5-22.5 feet below ground surface (bgs) rendering the well unusable for the purpose of leak detection. Consequently, GWM-2 and GWM-3 were installed in 2005 to determine whether or not the aeration basin leaked; the wells were installed above the water table (GWM-2 screened from 3.2-16.2 feet bgs, GWM-3 screened from 3.0-15.0 feet bgs). GWM-2 and GWM-3 are inspected quarterly as part of the Facility-Wide Groundwater Monitoring Plan to observe if water is

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present. The wells were dry until 2008 when water was observed in GWM-2. Both wells have been sampled regularly since 2010, because of the continual presence of water. No revision is necessary.

Comment 4

In the response to NMED's May 15, 2012 NOD Comment 12, the Permittee states, "NMED requested additional deep soil borings near GWM-2 and GWM-3. As GWM-1, which is a "deep soil boring," is already present near GWM-2, Western does not believe that any additional information will be gained to installing yet another deep soil boring at this same location. One additional deep soil boring has been added near GWM-3." NMED concurs.

Comment 5

In Section 2.1.3 the Permittee states, "[t]he lagoons were found to be placed in an appropriate geologic setting in which the underlying bentonitic soils exhibited a very low hydraulic conductivity of 10^{-7} cm/sec, effectively serving as an aquitard." It is not clear where this hydraulic conductivity number came from; NMED assumes either literature or geotechnical testing. Discuss the hydraulic conductivity of the clay in the investigation report and clarify the source of the conductivity number presented. In addition, the native soils beneath the refinery and lagoons are not bentonitic, but generally contain a high clay content with interbedded, relatively coarse-grained layers, lenses, and stringers. Provide a description of the soils in the investigation report.

Comment 6

In Section 2.1.3 (Historical Site Investigations), the Permittee states, "[i]n 2008 GWM-1 was sampled on July 10 and results are submitted to NMED annually." It is not clear why the Permittee points to the specific date of July 10, 2008 and discusses the results; no other sampling dates are singled out. Elevated levels of constituents of concern were detected during sampling events prior to and after that date. No revision is necessary.

Comment 7

In Section 4.1.1 (Soil Sample Field Screening and Logging), page 12, the Permittee discusses discrete samples that will be retained for laboratory analysis of gasoline-, diesel-, and oil- range organics (GRO, DRO and ORO respectively), benzene, ethylbenzene, toluene, and total xylenes (BTEX). Include sampling of the sand layer (assumed to be approximately 21.5-22.5 feet below ground elevation in the aeration basin). If other sand or sandy layers are encountered, collect a sample from each layer for laboratory analysis as specified above. Additionally, collect a sample from any interval where elevated moisture is observed for laboratory analysis. Ensure that these sampling requirements are incorporated in the field work.

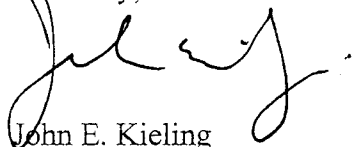
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Comment 8

The Permittee does not discuss the size of the samplers and other details of their sampling plan. In the investigation report, provide details of the investigation including the types of equipment used. In future work plans, ensure that details of the sampling procedures and methods for sample collection and measurement of field parameters are included in the submittal.

The investigation report must be submitted within 120 days of the completion of field work. The new submittal date for the CME Report will be based on the approval of the investigation report. If you have questions regarding this Approval with Modifications, 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
A. Haines WRG
A. Allen WRG
J. Dougherty EPA

File: Reading File and WRG 2012 File
WRG-12-001