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2014

State of New Mexico
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

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CERTIFIED MAIL – RETURN RECEIPT REQUESTED

September 29, 2017

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

RE: APPROVAL WITH MODIFICATIONS
ANNUAL GROUNDWATER MONITORING REPORT: GALLUP REFINERY – 2014, REVISION 2
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 *Annual Groundwater Monitoring Report: Gallup Refinery – 2014, Revision 2* (Report), submitted September 2017, on behalf of Western Refining Southwest Inc., Gallup Refinery (Permittee) and hereby issues this *Approval with Modifications* with the following comments.

Comment 1

In the Permittee's response to NMED's *Disapproval* (dated June 1, 2017) Comment 2, the Permittee states, "[t]he numbering in the Table of Contents has been corrected…" The Table of Contents still contains errors. For example, although the page number for Section 1.1, *Facility Ownership, Operation and Location* is indicated as 12 in Table of Contents, the page number is 11 in the Report. No revisions to this Report are necessary.

Comment 2

In the Permittee's response to NMED's *Disapproval* Comment 3, the Permittee states, "[i]t is apparent that the New API Separator is a likely source of these elevated [chloride and nitrate] concentrations," and "Old API Separator was a likely source of elevated chlorides to groundwater in the area." NMED concurs that releases from NAPIS and OAPIS may be sources of chloride in the groundwater sample collected from well STP1-NW; however, the potential source(s) may not be limited to the releases from NAPIS and OAPIS. Well STP1-NW is located on the perimeter of Sanitary Treatment Pond 1 (STP1); STP1 may be a source of chloride in well STP1-NW. The chloride concentration in the sample collected from outfall STP1 is recorded as 4,100 mg/L in the November 2014 sampling event, which is comparable to the chloride concentration in well STP1-NW. Evaluate whether STP1 liner remains intact. Submit a work plan to evaluate whether STP1 is leaking. In addition, the chloride concentration in the sample collected from Pond EP-2 is recorded as 2,400 mg/L during the November 2014 sampling event. Leaking from the eastern perimeter or bottom of Pond EP-2 may cause wastewater to overcome the natural gradient and affect the chloride concentrations in upgradient wells (STP1-NW and GMW-1). The chloride concentrations in the samples from wells STP1-NW and GMW-1 are recorded as 1,800 and 1,000 mg/L, respectively. Evaluate whether water in Pond EP-2 is infiltrating to the water table beneath the eastern portion of Pond EP-2. Propose a work plan to investigate leakage from Pond EP-2 for NMED review.

Comment 3

In the Permittee's response to NMED's *Disapproval* Comment 5, the Permittee states, "[a] new product sample was collected during the second quarterly sampling event and the results are attached on Hall Report 31706C54, dated July 21, 2017 (pages 7-8) and included as Attachment 1 to this response." The analytical results of the product collected from well RW-1 indicates that the fractions of GRO, DRO and MRO are 61, 9.7 and 0%, respectively. Explain the fraction of remaining 29% in the product in a response letter.

Comment 4

In the Permittee's response to NMED's *Disapproval* Comment 9, the Permittee states, "[a] separate shallow well would be necessary to appropriately screen across the upper saturated interval present above the confining layer and allow hydrocarbons to enter the well from this upper interval." Evaluate the construction of each monitoring well to determine whether the installation of separate shallow well is necessary to screen across the upper saturated interval. Submit a work plan to install separate shallow wells to monitor the aquifer above the confining layer for applicable wells. Well MKTF-18 may require a separate shallow well as stated by the Permittee; however, other wells (e.g., MKTF-1) with submerged screened intervals may need to be replaced because the screens are inappropriately installed without crossing the confining layer. Evaluate the construction of each monitoring well to determine whether the well screen is appropriately installed across the upper saturated intervals. Propose a work plan to evaluate and replace wells having inappropriate screened intervals that are pertinent to delineating SPH plume as necessary.

Submit work plans to address Comments 2 and 4 for NMED review no later than **January 26, 2018** and **March 1, 2018**, respectively. Also, submit a response letter regarding Comment 3 no later than **November 6, 2017.**

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

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