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CERTIFIED MAIL – RETURN RECEIPT REQUESTED

June 4, 2018

Jessica O'Brien
Environmental Supervisor
Western Refining, Southwest Inc., Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

**RE: DISAPPROVAL
ANNUAL GROUNDWATER MONITORING REPORT
GALLUP REFINERY – 2016
WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-WRG-17-008**

Dear Ms. O'Brien:

The New Mexico Environment Department (NMED) has reviewed Western Refining Southwest Inc., Gallup Refinery's (Permittee) August 31, 2017 *Annual Groundwater Monitoring Report: Gallup Refinery - 2016* (Report). Based on the insufficient information provided in the Report, NMED hereby issues this Disapproval. The Permittee must address the following comments provided by both NMED and the New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division Oil Conservation Division (OCD):

Comment 1

The Report was written and submitted before receipt of NMED's comments dated January 31, 2018 regarding the 2015 *Annual Groundwater Monitoring Report*. The Permittee must revise the Report to address NMED's comments regarding the 2015 Report, as many of the comments from the 2015 Report carry over to the 2016 Report. Revise the Report to address all previous comments in the 2015 *Disapproval* letter, where applicable as well as comments in this letter.

Comment 2

In the Executive Summary, pages 5 and 6, the Permittee states, “[h]ydrocarbon recovery from RW-1 has shown a steady decrease from 2005 through 2016. It is common for hydrocarbon recovery to decline over time, as the readily recoverable hydrocarbons [are] removed from the formation.” However, in the Executive Summary, page 5, the Permittee also states, “[t]he SPH column thickness in RW-1 has increased during 2016.” According to Table 9.1, *Groundwater Measurements*, SPH column thickness was measured as 2.50 feet on March 4, 2016 while it was measured as 4.14 feet on September 13, 2016. Although the volume of recoverable hydrocarbons is decreasing, separate phase hydrocarbon (SPH) may still be present as adsorbed phase near residual saturation levels in the soil matrix. Therefore, adsorbed SPH may be migrating through voids in the soil matrix. As a result, SPH column thickness in well RW-1 remains relatively constant with minor fluctuations and does not correlate with a decreasing trend in hydrocarbon recovery. Corrective measures implemented by the Permittee (a combination of hand-bailing and skimming with a bladder pump) is not likely to eliminate adsorbed SPH. As SPH is only observed in well RW-1 among all Group C wells, the SPH plume may be localized and limited to this area. NMED’s *2014 Groundwater Monitoring Report Disapproval Comment 18*, dated June 20, 2016 required the Permittee to conduct an investigation of the OW-14 contaminant source and groundwater flow direction by installing a groundwater monitoring well north of well RW-1. The investigation has been completed; however, a report has not been submitted or reviewed by NMED. Further and more advanced remediation techniques may be required to address SPH in the soil matrix. No revisions to the Report are required.

Comment 3

In Section 2.2, *Sampling Methods and Procedures*, page 20, the Permittee states, “[d]econtamination water from field work was caught in an appropriate container and drained into the sewer system upstream of the NAPIS.” In Section 6.3.3, *Recovery Wells: RW-1, RW-2, RW-5, RW-6*, page 38, the Permittee also states, “[p]urge water is collected and disposed upstream of the NAPIS.” Although one of the sewer leaks was repaired in October 23, 2013, unidentified sewer leaks were still present in the sewer system according to the results of the September 2013 and May 2016 dye tests. Unless the Permittee has already implemented interim measures (immediate corrective actions) to address the leaks, the Permittee must not discharge wastewater into the sewer system upstream of the New American Petroleum Institute Separator (NAPIS). In addition, various organic and metal constituent concentrations in the samples collected from the leak detection units (LDU) exceeded their respective standards in 2016 according to Section 6.2.3, *Leak Detection Units (LDU): East LDU, Oil Sump LDU, West LDU*. These results indicate that the NAPIS has on-going leakage; therefore, the source of the leaks must be identified and repaired in the NAPIS. The Permittee must not dispose any investigation-derived waste (IDW) into the refinery sewer system until the issues are resolved.

Comment 4

In Appendix A, *Separate Phase Hydrocarbon Recovery Logs*, the volume of recovered hydrocarbons from the six recovery sumps (stand pipes) is tabulated. The volume of recovered hydrocarbons is notably higher between July 6 and December 29, 2016 when compared to the recorded volumes prior to July 6, 2016. For example, the volume of recovered hydrocarbons

was recorded as 60 gallons in June 30, 2016 while the volume was recorded as 232 gallons in July 6, 2016. The only volumes exceeding 232 gallons prior to July 6, 2016 was recorded in September 3, 2013 when the recovery was initiated (682 and 367 gallons). A variance in field measurement or collection techniques after July 6, 2016 may have resulted in the sudden increase in the volume of recovered hydrocarbons. Provide an explanation regarding a variance in field measurement or collection techniques, if any, in the revised Report.

Comment 5

In Section 3, *Groundwater DTW/DTP Elevation*, the Permittee states, “[g]roundwater elevation data were collected from the wells listed in Table 1, Section 10.0.” Table 1 in Section 10 reports the approved groundwater monitoring schedule, not groundwater elevation data. Revise the Report to cite the correct references (Tables 9.1 and 9.2, Section 9).

Comment 6

There are three issues in Section 6.1.1, *Boundary Wells: BW-1A/1B/1C, BW-2A/2B/2C, BW-3A/3B/3C*, page 28:

1. The Permittee states, “[f]luoride was detected above the WQCC standard of 1.6 mg/L in BW-1C (2.4 mg/L), BW-2B (1.5 mg/L) and BW-2C (1.9 mg/L).” The fluoride concentration in the groundwater sample collected from well BW-2B was 1.5 mg/L, which was below the WQCC standard of 1.6 mg/L. Revise the Report accordingly.
2. The Permittee states, “[t]he constituent [bis(2-ethylhexyl) phthalate] was not detected in any of the BW wells sampled in 2016.” Even if bis(2-ethylhexyl) phthalate was not detected in any of the BW wells sampled in 2016, the sampling date and 2016 analytical results for bis(2-ethylhexyl) phthalate must be included in Table 8.1.4, *BW-1C, BW-3B; BW-3C Semi Volatile Organic Compound Analytical Result Summary*. Revise Table 8.1.4 in the Report accordingly. In addition, Appendix G, *Hall Laboratory Analytical Data*, includes a chain of custody (COC) form listing the requested analyses for BW wells on page 1,136; however, SVOC analysis (analysis for bis(2-ethylhexyl) phthalate) was not requested in the COC. Provide the laboratory reports that contain the analytical results for SVOC concentrations in the groundwater samples collected from the BW wells in 2016.
3. The Permittee states, “[a]s of 2016, SVOCs were removed from analytical requirement (Table 8.1.4).” Such a change must be proposed in the upcoming Facility-Wide Groundwater Monitoring Work Plan. The Permittee must continue to conduct all required analyses including SVOC analysis until the change is approved by the NMED. Therefore, remove the statement from the revised Report. Note that failure to follow the approved Facility -Wide Groundwater Work Plan or making unapproved changes to sampling requirements is a violation of the Permit.

Comment 7

In Section 6.1.2, *Land Treatment Unit: MW-1, MW-2, MW-4, MW-5, SMW-2, SMW-4*, page 29, the Permittee states, “[i]n 2016, five organic constituents were detected at concentration levels below the applicable standard (benzoic acid, bis(2-ethylhexyl) phthalate, di-n-octylphthalate, diethylphthalate, dimethylphthalate, phenol and pyrene) (Table 8.3.4).” There are seven detected compounds in the parenthesis although the Permittee states there were only five organic constituents. According to Tables 8.2.4 and 8.3.4, diethylphthalate was not detected in the groundwater samples collected from the Land Treatment Unit (LTU) wells. Revise the Report to address the discrepancy. In addition, Table 8.2.4, *MW-1, MW-2, MW-4, MW-5 Volatile and Semi-Volatile Organic Compound Analytical Result Summary*, does not contain a column for phenol as an analyte. Revise the table to include phenol, if phenol is one of the detected compounds.

Comment 8

The chloride and sulfate concentrations in the groundwater sample collected from well SMW-2 were recorded as 2,500 and 1,300 mg/L, respectively according to Table 8.3.1, *SMW-2, SMW-4 General Chemistry and DRO/GRO Analytical Result Summary*. According to Table 8.15, *Evaporation Ponds (EP-1 thru EP-12B) BTEX and General Chemistry Analytical Result Summary*, the chloride and sulfate concentrations in the water sample collected from pond EP-2 were recorded as 3,000 and 1,600 mg/L, respectively in the August 2016 sampling event. According to Figure 10, *2016 Alluvium/Chinle Group Interface Water Elevation Map*, the shortest distance between well SMW-2 and the northern perimeter of pond EP-2 is approximately 600 feet and the shallow groundwater flow direction indicates that well SMW-2 is directly positioned downgradient from pond EP-2. The comparable concentrations of chloride and sulfate and the groundwater flow direction suggest that pond EP-2 may be leaking along its northern perimeter or bottom and leaching into the shallow aquifer. The Permittee conducted an investigation of the chloride levels in well SWM-2 based on the approved work plan and indicated that the LTU was the potential source and there may be additional sources. The SMW-2 Investigation Report has not been submitted to NMED for review. Potential leakage(s) from pond EP-2 may be one of the additional sources. Propose to investigate whether wastewater is leaking from the northern perimeter or bottom of pond EP-2 through a work plan. Installation of piezometers along the northern perimeter of pond EP-2 may help to determine whether leakage is occurring. No revision to the Report is required.

Comment 9

In Section 6.2.1, *Groundwater Monitoring Wells (GWM-1, GWM-2, GWM-3)*, page 30, the Permittee states, “[i]n fourth quarter 2015, an SPH level was detected in GWM-1 and in all of 2016 and no groundwater samples were collected. Discussion for detected constituents will be for year 2015.” Discussion for detected constituents for year 2015 was included in the 2015 Report; therefore, it is not necessary to discuss them again in the 2016 Report. Remove the discussion regarding the 2015 analytical results from the 2016 Report. Instead, discuss the fact that SPH was present in well GWM-1 throughout 2016. Since it is possible that the source of

SPH may be aeration lagoons AL-1 and AL-2, the Permittee must propose to install a monitoring well downgradient from well GWM-1 to evaluate the extent of SPH in the shallow aquifer. The monitoring well could also serve as a sentinel well for the eastern perimeter of pond EP-2. Propose to install a monitoring well halfway between the eastern perimeter of pond EP-2 and well GWM-1 in a work plan.

Comment 10

There are multiple issues in Section 6.2.2, *Groundwater Monitoring Wells: NAPIS-1, NAPIS-2, and NAPIS-3*, pages 32-33:

1. The Permittee states, "BTEX constituents were not detected in NAPIS-3 with the exception of MTBE detected at 0.16 mg/L in the first quarter." The benzene concentration was recorded as 0.013 mg/L during the first quarter of 2016 and exceeded the standard of 0.005 mg/L. Toluene and ethylbenzene were detected below the standards for the groundwater sample collected from well NAPIS-3 during the first quarter of 2016. In addition, according to Table 8.8, *NAPIS-1, NAPIS-2, NAPIS-3, KA-3 BTEX Analytical Result Summary*, toluene was detected below the standard during the fourth quarter of 2016. Revise the Report accordingly.
2. The Permittee states, "[i]n KA-3, benzene was detected in the first, second and third quarter of 2016 and low concentrations of ethylbenzene and MTBE have been detected in all of 2016 below applicable standards (Table 8.8)." According to Table 8.8, benzene was detected above the standard in the first, second and third quarters of 2016 and below the standard in the fourth quarter of 2016. Revise the Report to correct the statement.
3. The Permittee states, "DRO has been detected in the first and second quarter in NAPIS-2 and in the fourth quarter in NAPIS-3." However, DRO was not detected in the first or second quarter of 2016 in well NAPIS-2. Rather, according to Table 8.8.1, *NAPIS-1, NAPIS-2, NAPIS-3, KA-3 General Chemistry and DRO/GRO Analytical Result Summary*, DRO was detected in the third and fourth quarters of 2016. Revise the Report accordingly.
4. The Permittee states, "[l]ow concentrations of fluoride, chloride, and sulfate have been detected in NAPIS-1 in 2016 (Table 8.8.1)." Although the statement is true, the Permittee failed to discuss the exceedance of the nitrate concentration standard in NAPIS-1 throughout 2016. Revise the Report to address the exceedance of the nitrate concentration standard.
5. The Permittee states, "[f]luoride and chloride concentrations in NAPIS-3 also exceeded applicable standards in most of 2016 (Table 8.8.1)." Although the statement is true, the Report failed to discuss the exceedance of the nitrate concentration standard in NAPIS-3 during the first and second quarters of 2016. Revise the Report to address the exceedance of the nitrate cleanup level. Additionally, phosphorus was detected in the groundwater samples collected from well NAPIS-3 during the third and last quarters of 2016. Phosphorus had not been detected previously. Provide a discussion regarding the presence and cause of the phosphorous detection in the revised Report.

6. The Permittee states, “[f]luoride, chloride and sulfate concentrations in KA-3 have remained below the WQCC standard since June of 2013 (Table 8.8.1).” The chloride concentration in the groundwater sample collected from well KA-3 exceeded the standard during the September 2014 sampling event. Revise the Report accordingly.
7. The Permittee states, “[i]n NAPIS-3, arsenic, barium, chromium, iron and manganese were detected in the fourth quarter of 2016 at concentration levels above the applicable standards. Copper, lead, selenium, mercury and zinc were also detected at levels below the applicable standards in 2016 (Tables 8.8.2).” According to Table 8.8.2, *NAPIS-1, NAPIS-2, NAPIS-3, KA-3 Total Metals Analytical Result Summary*, the lead concentrations in the groundwater samples collected from well NAPIS-3 during the third and fourth quarters of 2016 exceeded the standard. Revise the Report accordingly.
8. The Permittee states, “[n]o VOCs have been detected in NAPIS-1 and NAPIS-3 with the exception of low concentrations of 1,2,4-trimethylbenzene and 1,2-dichloroethane (EDC) detected in the fourth quarter.” The 1-methylnaphthalene concentration in the groundwater sample collected from well NAPIS-3 during the first quarter of 2016 exceeded the standard. According to Table 8.8.4, *NAPIS-1, NAPIS-2, NAPIS-3, KA-3 Volatile and Semi-Volatile Organic Compound Analytical Result Summary*, naphthalene, 1,1-dichloroethane, 1,1-dichloroethene, isopropyl benzene, n-butyl benzene, sec-butyl benzene, and cis-dichloroethylene (cis-DCE) were also detected below their respective standards in the groundwater sample collected from NAPIS-3 during the first quarter of 2016. Revise the Report accordingly.
9. According to Section 10, *Monitoring Schedule 2016*, SVOCs analysis is required for the groundwater samples collected from wells NAPIS-1, 2, 3 and KA-3; however, SVOCs analysis was not conducted in 2016. Explain why the Permittee failed to conduct SVOCs analysis in 2016 in the revised Report. Additionally, resume SVOCs analyses for groundwater samples collected from the aforementioned wells during the next sampling event. Before any changes in the sampling schedule are implemented, the changes must be approved by NMED and OCD. Propose changes in the Facility-Wide Groundwater Monitoring Work Plan.
10. The Permittee states, “[i]n KA-3, trace amounts of ten VOCs were detected, all at concentrations below the applicable standards.” According to Table 8.8.4, the 1-methylnaphthalene concentration in the groundwater sample collected from well KA-3 exceeded the standard during the third quarter of 2016. Revise the Report accordingly.

Comment 11

There are two issues in Section 6.2.3, *Leak Detection Units (LDU): East LDU, Oil Sump LDU, West LDU*, page 34:

1. The Permittee states, “[t]he following metals (total and dissolved) have been detected at concentration levels above the applicable standard in 2016: Chromium, iron, and manganese. Low concentrations of arsenic, barium, copper, lead, selenium, mercury and zinc was also detected in the East LDU (Table 8.10.1 and 8.10.2).” Although the

statement is accurate, the Permittee failed to include a discussion pertaining to metal detections in wastewater samples collected from West LDU. Include the discussion in the revised Report.

2. The Permittee states, “[c]oncentrations of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene exceeded the EPA RSL and NMED standards in the East LDU in the first, second and third quarter of 2016.” The analytical results of VOCs for the third quarter of 2016 are not included in Table 8.10.3, *LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU) Volatile Organic Compound Analytical Result Summary*. Include the results for the third quarter of 2016 sampling in Table 8.10.3. In addition, the 2017 *Risk Assessment Guidance for Investigations and Remediation* (Guidance) does not list screening levels of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene. Revise the statement and all applicable tables in the Report.

Comment 12

In Section 6.2.4, *Groundwater Monitoring Well: OAPIS-1*, page 35, the Permittee states, “[n]aphthalene, and 1-methylnaphthalene was also detected above the applicable standards in all of 2016. Low concentrations of 13 organic compounds were detected throughout 2016 all at levels below applicable standards.” The naphthalene concentration in the groundwater sample collected from well OAPIS-1 during the first quarter of 2016 did not exceed the standard. The bis(2-ethylhexyl) phthalate concentrations detected in the groundwater samples collected from well OAPIS-1 were above the standard in 2016. Finally, according to Table 8.9.4, *OAPIS-1 Volatile and Semi-Volatile Organic Compound Analytical Result Summary*, a total of 14 (not 13) organic compounds were detected below the standard. Revise the Report accordingly.

Comment 13

There are three issues in Section 6.2.5, *STP1-NW and STP1-SW*, page 35:

1. The Permittee states, “[c]hloride was detected above the applicable standard of 250 mg/L in the second, third and fourth quarter of 2016.” Although the statement is accurate, the Permittee failed to discuss the exceedance for nitrate in the groundwater samples collected from well STP1-NW during the second, third and fourth quarters of 2016. Revise the Report to discuss the exceedances.
2. The Permittee states, “[b]arium, chromium, copper, selenium, mercury and zinc were also detected at concentration levels below the applicable standards [in STP1-NW].” According to Table 8.14.1, *STP1-NW Total Metals Analytical Result Summary*, silver was also detected at a concentration level below the standard in the groundwater sample collected from well STP1-NW. Revise the Report for accuracy.
3. The Permittee states, “[n]o VOCs or SVOCs have been detected [in STP1-NW].” Methyl tert-butyl ether (MTBE) was detected in the groundwater samples collected from well STP1-NW in 2016. Remove the statement from the revised Report.

Comment 14

In Section 6.2.5, *STP1-NW and STP1-SW*, page 35, the Permittee states, “[l]ow concentrations of MTBE were detected in all of 2016 below the applicable standard of 0.143 mg/L [in well STP1-NW].” MTBE was not detected in well STP1-NW previously and these detections may indicate that untreated wastewater is leaking from the sanitary treatment pond (STP-1). To NMED’s knowledge, MTBE hasn’t been used at the refinery since 2006. The source of the MTBE may be leaks in the wastewater system or a groundwater MTBE plume that has reached well STP1-NW. Collect untreated wastewater samples from STP-1 for MTBE analysis to compare with concentrations detected in well STP1-NW.

Comment 15

In Section 6.3.1, *Observation Wells: OW-13, OW-14, OW-29 and OW-30*, pages 36-37, the Permittee states, “[i]n OW-13, a low concentration of benzene was detected in the third quarter 2016 below the applicable standard (0.005 mg/L) and low concentrations of MTBE continues to be detected at concentrations below the applicable standard of 0.143 mg/L.” Well OW-13 is screened between 78 and 92 feet below ground surface (bgs) and installed in the Sonsela Sandstone. It should be noted that benzene has never been detected in well OW-13 prior to the third quarter of 2016. The benzene detection may indicate that the benzene plume is expanding from the shallow aquifer to the Sonsela. Additionally, the MTBE concentrations are steadily increasing in OW-13; for example, while the MTBE concentration was recorded as 0.004 mg/L in February 24, 2011, it increased to 0.044 mg/L in November 15, 2015. Although the MTBE concentration is still below the standard, the MTBE plume also appears to be expanding from the shallow aquifer to the Sonsela. Groundwater samples must be collected from the shallow aquifer in the vicinity of well OW-13 for the analysis of benzene and MTBE; these data will provide vital information to delineate the contaminant plumes and to develop corrective measures for the plumes. Comment 18.4 in the 2015 *Disapproval* letter has directed the Permittee to submit a work plan proposing to install a monitoring well screened across the Chinle-Alluvium interface in the vicinity of well OW-13 in order to investigate the extent of contamination.

Comment 16

There are three issues in Section 6.3.1, *Observation Wells: OW-13, OW-14, OW-29, and OW-30*, page 37:

1. The Permittee states, “[i]n OW-14, benzene and MTBE were above the applicable standard[s] of 0.005 mg/L and 0.143 mg/L with the highest level of benzene (8.7 mg/L) in the fourth quarter and 0.068 mg/L of MTBE in the first quarter 2016.” According to Table 8.13, *OW-13, OW-14, OW-29, OW-30, BTEX Analytical Result Summary*, the MTBE concentration in the first quarter of 2016 is recorded as 0.68 mg/L. Revise the Report accordingly.
2. The Permittee states, “[a] low concentration of benzene was detected in the second quarter at 1.2E-03 mg/L [in OW-30].” The higher benzene concentration was observed in the first quarter of 2016; according to Table 8.13, the concentration was recorded as

0.0031 mg/L (which is higher than 1.2E-03 mg/L). Revise the Report to include the higher concentration of benzene.

3. The Permittee states, "1-methylnaphthalene and naphthalene was detected in OW-14 in all of 2016 at concentrations above the EPA RSL for tap water standard of 0.0011 mg/L and 0.00165 mg/L (NMED Tap Water) for naphthalene. Nine other organic compounds were also detected at concentration levels below the applicable standards." According to Table 8.13.4, *OW-13, OW-14, OW-29, OW-30 Volatile Organic Compound Analytical Result Summary*, the methylene chloride concentration in the groundwater sample collected from well OW-14 during the first quarter of 2016 is recorded as 0.011 mg/L, exceeding the standard of 0.005 mg/L. Include the methylene chloride exceedance in the revised Report.

Comment 17

In Section 6.3.2, *Observation Wells: OW-50 and OW-52*, page 37, the Permittee states, "[o]bservation wells OW-50 and OW-52 were installed upgradient from OW-13 and OW-29 in 2009 to monitor possible migration of MTBE." Although the initial purpose of wells OW-50 and OW-52 was to monitor groundwater upgradient from OW-13 and OW-29, these wells may be located cross-gradient relative to the piezometric groundwater flow direction. A change of flow direction from north to west may be occurring between well OW-13 (screened in the Sonsela formation) and well OW-29 or there are insufficient data points to accurately determine flow direction. Comment 18.3 in the 2015 *Disapproval* letter required the submittal of a work plan to install a monitoring well, screened across the Chinle-Alluvium interface, between well OW-13 and well OW-29 to verify the groundwater flow direction.

Comment 18

In Section 6.3.2, *Observation Wells: OW-50 and OW-52*, page 38, the Permittee states, "BTEX, DRO, GRO, and MRO constituents have not been detected in either OW-50 or OW-52 since 2010 through 2016, however a low concentration of MTBE was detected in both wells in 2016 in the fourth quarter. (Tables 8.5 and 8.5.1)." Current sampling frequency for wells OW-50 and OW-52 is on an annual basis and the sampling date is indicated as September 9, 2016 (third quarter), not the fourth quarter. Revise the Report accordingly. A breakthrough of MTBE is observed in both wells OW-50 and OW-52 in 2016. Future groundwater sampling for wells OW-50 and OW-52 must be conducted on a quarterly basis due to the breakthrough of MTBE and 1,2-dichloroethane (EDC). The contaminant plume may be migrating in a north, northwest direction with slower than anticipated mass transport velocity. Increase the sampling frequency in Section 10, *Sampling Schedule* for these wells in all future plans and reports. The change must also be proposed to the Facility-Wide Groundwater Monitoring Work Plan.

Comment 19

The designation of "NL" is used for the mercury concentrations in groundwater samples collected from wells PW-2 and PW-3 during the 2016 sampling according to Table 8.6.1, *PW-2, PW-3, PW-4, Total Metals Analytical Result Summary*. No definition of "NL" is provided in the table. Provide a definition for "NL" in the revised Report.

Comment 20

In Section 6.4.1, *Process Wells: PW-2, PW-3, PW-4*, page 40, the Report states, "PW-2, PW-3, and PW-4 are all process/production wells which supply water to the refinery and domestic water to the company housing and Travel Center," and "[t]here were a total of five organic constituents detected in PW-3 all at concentration below the applicable standards in 2016... 10 organic compounds were detected at concentration levels below the applicable standards in PW-4." Although the concentrations of organic constituents have not exceeded the standards, the number of constituent detections is increasing. The Permittee must contact the Drinking Water Bureau to discuss the issue. Meanwhile, the groundwater collected from the wells should not be used for human consumption unless the water is appropriately treated. Provide a documentation pertaining to the water treatment in the revised Report. Otherwise, suspend use of the groundwater for human consumption.

Comment 21

There are two issues in Section 6.4.2, *Observation Wells: OW-1 and OW-10*, page 41:

1. The Permittee states, "[l]ow concentrations of cations were detected in OW-1 throughout 2016 at concentration levels below the applicable standard and no DRO/GRO/MRO were detected... (Table 8.12.1)." Table 8.12.1, *OW-1, OW-10 General Chemistry Analytical Result Summary* reports the analytical results of anions, not cations. Revise the Report accordingly.
2. The Permittee states, "[l]ow concentrations of the following metals were detected in both OW-1 and OW-10 in 2016 at concentration levels below applicable standards: Arsenic, barium, chromium, iron, leak, manganese, selenium, silver, mercury and zinc." There is a typographical error in the statement (leak). It should state "lead". Revise the Report to correct the error.

Comment 22

There are four issues in Section 6.4.3, *Observation Wells: OW-11 and OW-12*, page 42:

1. The Permittee states, "[f]luoride and sulfate concentrations continue to exceed the applicable standards (1.6 mg/L and 600 mg/L, respectively) in OW-11." The fluoride concentration in the groundwater sample collected from well OW-11 is recorded as 1.6 mg/L and did not exceed the standard of 1.6 mg/L during the 2016 sampling event. Revise the Report accordingly.
2. Although the phosphorous concentration in the groundwater sample collected from well OW-12 exceeded the standard in 2016 according to Table 8.4.1, *OW-11, OW-12 General Chemistry Analytical Result Summary*, the exceedance is not mentioned. Include a statement noting the phosphorous exceedance in the revised Report.
3. The Permittee states, "[t]he following metals (total and dissolved) were detected at concentrations below the applicable standards in OW-11 and OW-12 in 2016: Arsenic, barium, chromium, iron, lead, manganese, selenium, and mercury." According to Table 8.4.3, *OW-11, OW-12 Dissolved Metals Analytical Result Summary*, the dissolved zinc concentrations in the groundwater samples collected from wells OW-11 and OW-12 were also detected during the 2016 sampling event. Revise the Report accordingly.

4. The Permittee states, “[n]o organic compounds were detected in OW-11 or OW-10 in 2016 (table 8.4.4).” This section discusses analytical results for wells OW-11 and OW-12, not OW-10. Revise the Report accordingly.

Comment 23

There are multiple issues in Section 6.6, *Constituent Levels for MKTF Wells*, pages 43 and 44:

1. The observation of SPH in MKTF wells must be included in the list of bullet points. Revise the Report accordingly.
2. The Permittee states, “[b]enzene concentrations exceeded the standard of 0.005 mg/L in the following wells: MKTF-1, MKTF-2, MKTF-4, MKTF-9, MKTF-10, MKTF-11, MKTF-15 through MKTF-26.” According to Table 8.17, *MKTF Wells BTEX Analytical Results*, the benzene concentrations also exceeded the standard in the samples collected from wells MKTF-35 through MKTF-37, and MKTF-39 during the 2016 sampling events. Revise the Report for accuracy.
3. The Permittee states, “[t]he greatest benzene concentration (23 mg/L) during 2016 occurred in well MKTF-16 during quarter four (Table 8.17).” The benzene concentration of 23 mg/L was detected in the groundwater sample collected from well MKTF-16 in the third quarter of 2016, not the fourth quarter of 2016. In addition, the highest benzene concentration (24 mg/L) detected during 2016 was found in a sample collected from well MKTF-15 during the third quarter of 2016, not MKTF-16. Revise the Report accordingly.
4. The Permittee states, “[e]thylbenzene concentrations exceeded the standard of 0.7 mg/L in the following wells: MKTF-1, MKTF-4, MKTF-10, MKTF-11, MKTF-15, MKTF-16, MKTF-19 and MKTF-20.” The ethylbenzene concentration also exceeded the standard of 0.7 mg/L in the samples collected from well MKTF-36 during the 2016 sampling events. According to Table 8.17, the ethylbenzene concentrations did not exceed the standard in the samples collected from well MKTF-11 in 2016. Revise the Report accordingly.
5. The Permittee states, “[t]he highest [ethylbenzene] concentration (1.7 mg/L) occurred in MKTF-10 during the first, third, and fourth quarters of 2016.” The highest ethylbenzene concentration (2.1 mg/L) occurred in well MKTF-15 during the fourth quarter of 2016 according to Table 8.17. Revise the Report accordingly.
6. The Permittee states, “[t]he highest [total xylenes] concentration (9.2 mg/L) occurred in well MKTF-20 in the fourth quarter 2016.” According to Table 8.17, the highest total xylenes concentration occurred in well MKTF-20 in the first and fourth quarters of 2016. Revise the Report accordingly.
7. The Permittee states, “MTBE concentrations exceeded the standard of 0.143 mg/L in the following wells: MKTF-1, MKTF-4, MKTF-9, MKTF-16, MKTF-17, and MKTF-19 through MKTF-25, MKTF-32, MKTF-33, and MKTF-36.” According to Table 8.17, The MTBE concentration in the groundwater sample collected from well MKTF-2 also exceeded the standard during the fourth quarter of 2016. Revise the Report accordingly.
8. The Permittee states, “[t]he constituent DRO and GRO was detected in MKTF-1 through MKTF-25, MKTF-36, MKTF-37, MKTF-39 and MKTF-42.” According to Table 8.17.1, *MKTF WELLS General Chemistry Analytical Results*, the constituent DRO and GRO

were also detected in well MKTF-35 during the first quarter of 2016. Revise the Report accordingly.

9. The Permittee states, “[c]hloride concentration exceedances above the standard (250 mg/L) were found in the following wells: MKTF-1, MKTF-2, MKTF-4, MKTF-10, MKTF-11, MKTF-16, MKTF-20, MKTF-27, MKTF-28, MKTF-30, MKTF-31, MKTF-32, MKTF-34, MKTF-39, MKTF-40, MKTF-41, MKTF-42 and MKTF-43.” The chloride concentrations in the groundwater samples collected from well MKTF-4 did not exceed the standard in 2016. According to Table 8.17.1, the chloride concentrations in groundwater samples collected from wells MKTF-15, MKTF-24, MKTF-25, MKTF-26, MKTF-38, and MKTF-44 exceeded the standard during the 2016 sampling events. Revise the Report accordingly.
10. According to Table 8.17.1, the fluoride concentrations in the groundwater samples collected from wells MKTF-2 and MKTF-20 exceeded the standard in 2016. Include and discuss the exceedance in the revised Report.
11. According to Table 8.17.1, the sulfate concentrations in the groundwater samples collected from wells MKTF-29 and MKTF-43 exceeded the standard in 2016. Include and discuss the exceedance in the revised Report.
12. According to Table 8.17.1 The nitrate concentrations in the groundwater samples collected from wells MKTF-34 and MKTF-43 exceeded the standard in 2016. Include and discuss the exceedance in the revised Report.
13. The Permittee states, “[t]otal metals above applicable standards were detected in the following wells: Barium (1.0 mg/L): MKTF-2, MKTF-4, MKTF-10, MKTF-11, MKTF-15, MKTF-16, MKTF-24, MKTF-25, MKTF-33, MKTF-35, MKTF-36, MKTF-39.” According to Table 8.17.2, *MKTF WELLS Total Metals Analytical Result Summary*, the total barium concentrations in the groundwater samples collected from wells MKTF-18 through MKTF-22 also exceeded the standard in 2016. Revise the Report accordingly.
14. The Permittee states, “[t]otal metals above applicable standards were detected in the following wells: Lead (0.015 mg/L): MKTF-19, MKTF-22, MKTF-24, MKTF-25, MKTF-30, and MKTF-35.” According to Table 8.17.2, the total lead concentrations in the groundwater samples collected from wells MKTF-26, MKTF-40 and MKTF-44 also exceeded the standard in 2016. Revise the Report accordingly.
15. The Permittee states, “[d]issolved metals concentrations above applicable standards were noted in the following wells (Table 8.17.3): Iron: MKTF-1, MKTF-4, MKTF-9, MKTF-10, MKTF-11, MKTF-15, MKTF-16, MKTF-18, MKTF-19, MKTF-20, MKTF-21, MKTF-22, MKTF-23, MKTF-35, MKTF-36, MKTF-37 and MKTF-39.” According to Table 8.17.3, *MKTF WELLS Dissolved Metals Analytical Result Summary*, the dissolved iron concentrations in the groundwater samples collected from well MKTF-37 did not exceed the standard in 2016. Revise the Report accordingly.
16. According to Table 8.17.3, the dissolved selenium concentrations in the groundwater samples collected from wells MKTF-41 and MKTF-43 exceeded the standard in 2016. Include and discuss the exceedance in the revised Report.
17. The Permittee states, “[f]ourteen semi volatile organic compounds were detected that exceeded applicable standards in 2016 and are listed as follows: Aniline, Benz(a)anthracene, Bis(2-ethylhexyl) phthalate, Butylbenzene, 2,4 dimethylphenol, Fluorene, 1-methyl naphthalene, 2-methylnaphthalene, 2-methylphenol, 3+4-

methylphenol, Naphthalene, Pentachlorophenol, Phenanthrene, Phenol.” Butylbenzene is not listed in Table 8.17.4, *MKTF WELLS Semi-Volatile Organic Compound Analytical Result Summary*. Include the compound on the table in the revised Report. Additionally, according to Table 8.17.4, the butyl benzyl phthalate concentrations in the groundwater samples collected from many MKTF wells exceeded the standard in 2016. Revise the Report accordingly.

18. The Permittee states, “[f]ifteen volatile organic compounds were detected in the MKTF wells in 2016 at concentration levels above the applicable standards and are listed as follows: 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,2-dichloroethane (EDC), 1-methylnaphthalene, Bromomethane, Cis1,2-DCE, 1,1-Dichloroethane, 1,1-Dichloroethene, Methylene chloride, Tetrachloroethene (PCE), 1,1,1-Trichloroethane, Trichloroethene (TCE), Vinyl Chloride.” According to Table 8.17.5, *MKTF WELLS Volatile Organic Compounds Analytical Results*, the naphthalene, methylnaphthalene, and 2-hexanone concentrations in the groundwater samples collected from the MKTF wells also exceeded the standards in 2016. Revise the Report accordingly. In addition, the Guidance does not list screening levels for 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene. Revise the statement and all applicable tables in the Report.

Comment 24

Since all of the wastewater generated at the facility, including the small flow from the Pilot Travel Center, is directed to the STP-1 and the treated water from the STP-1 is discharged to evaporation pond EP-2, all waters stored in pond EP-2 and subsequent ponds (EP-3, EP-4, etc.) should only contain treated water from the STP-1. Additionally, the reverse osmosis water no longer discharges to pond EP-2. Therefore, constituents related to petroleum products should not be present in the evaporation ponds. However, the benzene concentrations in the water samples collected from ponds EP-2 and EP-3 were recorded as 0.024 and 0.0084 mg/L, respectively, exceeding the standard of 0.005 mg/L in the 2016 sampling events. Further, according to Table 8.15, *EVAPORATION PONDS (EP-1 thru EP-12B) BTEX and General Chemistry Analytical Result Summary*, one or more benzene, toluene, ethylbenzene, xylenes (BTEX) constituents were detected at concentrations below the standards in ponds EP-2, EP-3, EP-4, EP-5, and EP-12B in 2016. Despite these constituent exceedances and detections in evaporation ponds, according to Table 8.16, *STP-1 TO EP-2 (EP-2 INLET) BTEX, DRO/GRO, TDS Analytical Result Summary*, the BTEX and MTBE concentrations in effluent samples collected from the STP-1 remained below detection limits in 2016. Based on the effluent sample results, the constituents must have entered into the ponds from somewhere other than STP-1. Provide an explanation for the exceedances and detections of BTEX constituents in the revised Report. If there are any discharges to the evaporation ponds from sources other than STP-1, cease the discharges immediately, direct all wastewater flows to STP-1, and provide the information pertaining to the discharges to OCD and NMED.

Comment 25

There are multiple issues in Section 6.7.1, *Evaporation Ponds 1 through 12B*, pages 45 and 46:

1. The Permittee states, “[t]oluene, ethylbenzene, total xylenes and MTBE have been detected at concentration levels below applicable standards in the following evaporation

- ponds: EP-2, EP-3, EP-4 and EP-12B.” The MTBE concentration was not detected in any evaporation ponds in 2016. Revise the Report accordingly. Additionally, according to Table 8.15, detections of benzene at concentrations below the standard were observed in ponds EP-4, EP-5 and EP-12B during the 2016 sampling events. Include these detections in the revised Report.
2. The Permittee states, “[i]n 2016, BOD concentrations exceeded the general requirement of the 20 NMAC 6.2.3103 (<30 mg/L) in each of the evaporation ponds except for EP-7 and EP-9.” According to Table 8.15.1, *EVAPORATION PONDS (EP-1 thru EP-12B) BOD/COD/E-COLI Analytical Result Summary*, the biological oxygen demand (BOD) concentrations in water samples collected from ponds EP-7 and EP-9 were recorded as 41 and 37 mg/L, respectively exceeding the standard of 30 mg/L in 2016. However, the BOD concentrations in the water samples collected from ponds EP-8 and EP-11 did not exceed the standard in 2016. Revise the Report accordingly.
 3. According to Table 8.15.1, the e-coli bacteria concentrations in the water samples collected from ponds EP-2, EP-3, EP-4, EP-12A, and EP-12B exceeded the standard in 2016. Address the exceedances in the revised Report.
 4. The Permittee states, “[m]etals (total and dissolved): Arsenic, iron and manganese have been detected in the several of the evaporation ponds in 2016 above the WQCC and EPA MCL listed standards.” According to Table 8.15.2, *EVAPORATION PONDS (EP-1 thru EP-12B) Total Metals Analytical Result Summary*, the total selenium concentrations in the water samples collected from ponds EP-7, EP-8, EP-9 and EP-11 exceeded the standard in 2016. The dissolved selenium concentrations in the water samples collected from ponds EP-2, EP-7, EP-8, EP-9 and EP-11 exceeded the standard in 2016 according to Table 8.15.3, *EVAPORATION PONDS (EP-1 thru EP-12B) Dissolved Metals Analytical Result Summary*. Include a statement describing these exceedances in the revised Report.
 5. The Permittee states, “[s]ee table 8.15.5 for a complete list of VOCs.” Table 8.15.5, *EVAPORATION PONDS (EP-1 thru EP-12B) Semi Volatile Organic Compound Analytical Result Summary* lists analytical results for SVOCs. Revise the Report accordingly.

Comment 26

According to Table 8.15.4, *EVAPORATION PONDS (EP-1 thru EP-12B) Volatile Organic Compound Analytical Result Summary*, the bromomethane concentrations in the water samples collected from ponds EP-3, EP-12A and EP-12B are recorded as 0.016, 0.04 and 0.038 mg/L, respectively exceeding the standard of 0.00754 mg/L in 2016. Since bromomethane is highly volatile, nearly all environmental releases of bromomethane partition into the air. When bromomethane is detected in surface water bodies, pesticides may have been used extensively nearby. Collect water samples from ponds EP-3, EP-12A and EP-12B for pesticides analysis using EPA Method 8081A during the 2018 sampling events. Unless pesticide constituents are detected, the pesticides analysis may be discontinued in 2019. The change must be proposed to the Facility-Wide Groundwater Monitoring Work Plan.

Comment 27

There are two issues in Section 6.7.5, *Outfall STP1 to EP-2 Inlet*, page 47:

1. The Permittee states, "DRO was detected in all of 2016 and no GRO or MRO was detected." According to Table 8.16, *STP-1 TO EP-2 (EP-2 INLET) BTEX, DRO/GRO, TDS Analytical Result Summary*, the GRO concentration in the water sample collected from the outfall of STP-1 was detected at 0.22 mg/L during the August 2016 sampling event. Revise the Report accordingly.
2. The Permittee states, "[t]he TDS concentration of 5100 mg/L exceeded the standard of 1,000 mg/L in the third quarter of 2016." The TDS concentrations also exceeded the standards during the second and fourth quarters of 2016. Revise the Report accordingly.

Comment 28

Table 8.16.3, *STP-1 TO EP-2 (EP-2 INLET) TOTAL METALS ANALYSIS* and Table 8.16.4, *STP-1 TO EP-2 (EP-2 INLET) DISSOLVED METALS ANALYSIS* only depict analytical results for 2014. Since 2014, the concentrations of total and dissolved metals have not been measured in samples collected from the outfall of STP-1. Since several metals concentrations exceed the standards in evaporation ponds, effluent from STP-1 may contain metals. Resume analyses for total and dissolved metals for samples collected from the outfall of STP-1. The change must be proposed in the Facility-Wide Groundwater Monitoring Work Plan.

Comment 29

In Section 7.1, *Group A*, page 49, the Permittee states, "[f]ive organic constituents were detected [from the SMW wells] at concentration levels below the applicable standards in 2016. (Benzoic acid, bis(2-ethylhexyl) phthalate, di-n-octylphthalate, diethylphthalate, dimethylphthalate, phenol and pyrene)." According to Table 8.3.4, diethylphthalate and phenol were not detected from the SMW wells in 2016. Revise the Report accordingly.

Comment 30

In Section 7.2, *Group B – Groundwater Monitoring*, page 49, the Permittee states, "[b]enzene concentrations from all 2016 sampling events at GWM-1 have exceed applicable standards." Since SPH was present in well GWM-1 during all of the 2016 sampling events, groundwater samples were not collected for constituent analysis; thus, benzene concentrations were not evaluated in 2016. Revise the Report accordingly.

Comment 31

In Section 7.2, *Group B – Groundwater Monitoring*, page 49, the Permittee states, "[i]n the fourth quarter 2016, an SPH level was detected in GWM-1 and in all of 2016 and no ground water samples were collected." SPH appeared in well GMW-1 for the first time during the last quarter of 2015. Revise the Report accordingly.

Comment 32

In Section 7.2, *Group B – Groundwater Monitoring*, page 50, the Permittee states, "NAPIS-1 continues to indicate detections of MTBE at concentrations below applicable standards, fluctuating from 0.002 mg/L to a low of 0.00032 mg/L [in 2016]." According to Table 8.8, a breakthrough of MTBE was observed in well NAPIS-1 in the first quarter of 2016. Revise the Report to indicate that MTBE had not been detected in well NAPIS-1 prior to 2016.

Comment 33

In Section 7.2, *Group B – Groundwater Monitoring*, page 50, the Permittee states, “[f]luoride & chloride continue to be detected in NAPIS-2 and NAPIS-3.” The fluoride and chloride concentrations in wells NAPIS-2 and NAPIS-3 continue to be detected in wells NAPIS-1, NAPIS-2, NAPIS-3 and KA-3 in 2016. However, according to Table 8.8.1, only groundwater samples collected from wells NAPIS-2 and NAPIS-3 had concentrations that exceeded standards. Revise the Report accordingly.

Comment 34

In Section 7.2, *Group B – Groundwater Monitoring*, page 50, the Permittee states, “[m]etals (total and dissolved) continue to be detected in all of the wells through 2016 with barium, iron and manganese detected in all wells [NAPIS-1, 2, 3 and KA-3].” According to Table 8.8.3, the dissolved iron concentrations were not detected in the groundwater samples collected from well NAPIS-1 in 2016 while other metals (e.g., arsenic, selenium) were detected. Revise the Report accordingly. In addition, a column listing barium concentration is missing from Table 8.8.3. Include the column for barium concentrations on Table 8.8.3 in the revised Report.

Comment 35

According to Table 8.8.4, *NAPIS-1, NAPIS-2, NAPIS-3, KA-3 Volatile and Semi-Volatile Organic Compound Analytical Result Summary*, SVOC analysis was not conducted for groundwater samples collected from wells NAPIS-1, 2, 3 and KA-3 in 2016. Section 10, *Monitoring Schedule*, requires SVOC analysis for groundwater samples collected from the aforementioned wells. The Permittee must resume SVOC analysis for groundwater samples collected from these wells in 2018. In the revised Report, discuss this and any other deviations from the Facility-Wide Groundwater Monitoring Work Plan.

Comment 36

In Section 7.2, *Group B – Groundwater Monitoring*, page 50, the Permittee states, “13 VOCs were detected in NAPIS-2 all at concentration levels below applicable standards, except 1-methylnaphthalene and naphthalene.” According to Table 8.8.4, 14 VOCs were detected in the groundwater samples collected from well NAPIS-2 in 2016. Revise the Report accordingly.

Comment 37

In Section 7.2, *Group B – Groundwater Monitoring*, page 50, the Permittee states, “[n]ine VOCs were detected in NAPIS-3 at concentration levels below applicable standards and only 1-methylnaphthalene was detected above screening levels.” According to Table 8.8.4, 12 VOCs were detected in the groundwater samples collected from well NAPIS-3 in 2016. Revise the Report accordingly.

Comment 38

In Section 7.2, *Group B – Groundwater Monitoring*, page 50, the Permittee states, “[i]n KA-3 ten VOCs were detected at concentration levels below applicable standards.” According to Table 8.8.4, the 1-methylnaphthalene and naphthalene concentrations in the groundwater samples collected from well KA-3 exceeded the standards in 2016. Include a statement noting the exceedances in the revised Report.

Comment 39

In Section 7.2, *Group B – Groundwater Monitoring*, page 50, the Permittee states, “[i]n the third quarter 2016, there was not enough water for sample collection. Recent water column measurements on the West LDU indicate that the bay is leaking into the LDU. The East LDU also contains water but it has been out of service for the last year.” Water samples were collected from both East and West LDUs in the third quarter of 2016. Correct the discrepancy in the revised Report. In addition, the East LDU was out of service for the last year (2015). Clarify that East Bay of the NAPIS was empty in 2015. If so, explain why water was present in the East LDU in 2015. The presence of water in the LDU indicates that leakage may be occurring from the NAPIS; therefore, the source of the leaks must be identified and repaired in timely manner. See Comment 3.

Comment 40

In Section 7.2, *Group B – Groundwater Monitoring*, page 50, the Permittee states, “[n]o significant deviations from past analytical with the exception of cyanide detected in the fourth quarter at a concentration level above the WQCC standard of 0.2 mg/L reading 0.504 mg/L [in OAPIS-1].” Provide information regarding the uses of cyanide at the facility and an explanation for the increase in cyanide concentrations in the fourth quarter groundwater sample collected from well OAPIS-1 in the revised Report.

Comment 41

In Section 7.3, *Group C – Groundwater Monitoring*, page 51, the Permittee states, “[a]n investigation work plan was initiated concerning OW-14 contaminant plume migration.” Incorporate Comments 18 and 39 in the 2015 *Disapproval* letter and Comments 15, 17 and 18 in this letter in an investigation work plan to address contaminant plume migration in the vicinity of well OW-14.

Comment 42

In Section 7.3, *Group C – Groundwater Monitoring*, page 51, the Permittee states, “[c]ontinue with current sampling requirements. No changes required [for OW-50 and OW-52].” Although groundwater samples have been collected annually, future sampling must be conducted on a quarterly basis due to the detections of MTBE and EDC in these wells. Additionally, the Permittee must add analysis for 1,2-dibromoethane (EDB) in all monitoring wells where ECD has been detected. The analytical method used must be capable of detecting EDB at concentrations less than 0.004 micrograms per liter (e.g., EPA Method 8011). Update the sampling frequency and analytical suites in Section 10, *Sampling Schedule* for these wells in all future plans and reports. The change also must be incorporated into the Facility-Wide Groundwater Monitoring Work Plan. See Comment 18.

Comment 43

In Section 7.5, *Group E – Groundwater Monitoring*, page 53, the Permittee states, “[o]f the 44 wells installed, eleven MKTF wells have been identified having an SPH level.” According to Table 9.1, *Groundwater Measurements*, SPH was identified in wells MKTF-1, MKTF-3, MKTF-5, MKTF-6, MKTF-7, MKTF-8, MKTF-12, MKTF-13, MKTF-14, MKTF-15, MKTF-13,

MKTF-26, MKTF-36, and MKTF-37 in 2016. Therefore, 14 MKTF wells have been identified having an SPH level. Revise the Report accordingly.

Comment 44

In Section 8, *Data Tables*, some values are expressed with scientific notation while others are expressed with decimal notation. All values must be expressed consistently; when decimal notation is used to indicate an applicable standard value, use the same decimal notation to express all analytical values in the tables. Also, some values may be more appropriate to be reported in parts per billion (micrograms per liter) rather than parts per million (milligrams per liter). Use the same units to report both detected concentrations and screening levels. Revise the Report accordingly.

Comment 45

In Appendix E, *Summary of All Leaks, Spills and Releases*, the last record is dated October 5, 2016. Clarify whether no leaks, spills or releases have occurred between October 5, 2016 and December 31, 2016, and update Appendix E in the revised Report, as necessary. Additionally, it appears that most releases that occurred at the facility in 2016 were not reported to NMED. In the event of a release, the Permittee is required to submit a copy of the initial release notification to NMED and OCD in accordance with Part IV.B.4.a of the Permit.

Comment 46

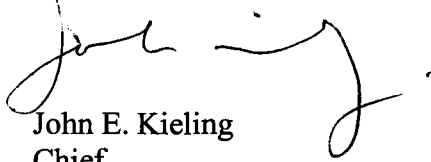
The Permittee included Section 8, *Data Tables*, in the electronic version; however, data tables must also be included in the paper copies. The hard copy and electronic copy must be the same with the exception of providing analytical reports in electronic format only. In the revised Report and all future reports and plans, provide data tables in the paper copies.

The Permittee must address all comments in this Disapproval and submit a revised Report. Two hard copies and an electronic version must be submitted to NMED. Include a red-line strikeout version in electronic format showing where all revisions to the Report have been made. The revised Report must be accompanied with a response letter that details where revisions have been made, cross-referencing NMED's numbered comments. The revised Report must be submitted to NMED by no later than **June 30, 2018**. Additionally, submit a work plan to address Comments 2, 8, and 9 for NMED's review by no later than **August 30, 2018**.

Ms. O'Brien
June 4, 2018
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If you have questions regarding this Disapproval, please contact Kristen Van Horn of my staff at 505-476-6046.

Sincerely,

A handwritten signature in black ink, appearing to read "John E. Kieling". The signature is fluid and cursive, with a large initial "J" and "K".

John E. Kieling
Chief
Hazardous Waste Bureau

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

File: Reading File and WRG 2018 File
HWB-WRG-17-008