

April 16, 2010

New Mexico Environmental Department (NMED)
Hazardous Waste Bureau (HWB)
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505
✓ Attention: James P. Bearzi

New Mexico Energy Minerals and Natural Resources Department
New Mexico Oil Conservation Division (NMOCD)
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505
Attn: Mr. Carl J. Chavez

**Reference: RESPONSE LETTER- "NOTICE OF DISAPPROVAL",
"CLEANUP STATUS FOR API SEPARATOR OVERFLOWS"
(SEPTEMBER 5, 2009 and DECEMBER 8, 2009)
WESTERN REFINING SOUTHWEST INC, GALLUP REFINERY
EPA ID NO. NMD000333211
HWB-GRCC-MISC**



Dear Mr. Bearzi and Mr. Chavez;

Please accept the following letter in response to a letter from Mr. James Bearzi of the New Mexico Environmental Department (NMED) (Hazardous Waste Bureau (HWB) (March 4, 2010) that references API overflows that occurred on September 5, 2009 and December 8, 2009.

The following shall address the comments as identified by the New Mexico Environmental Department (NMED)/Hazardous Waste Bureau. Enclosed is the Interim Measures Work Plan for the control and prevention of overflows from the API that is due on April 19, 2010 as required according to the letter of March 4, 2010.

I. COMMENT 1-"Permittee must describe in detail the sampling collection methods and procedures that were used to collect the confirmation samples (eg., how were the samples collected, were they discrete or composite samples, how were any composite samples collected, what equipment was used (shovel, encore sampler) to collect the samples). The Permittee must also describe the decontamination process of the sampling equipment (eg., equipment was cleaned in a non-phosphate solution followed by a rinse using de-ionized water."

RESPONSE:

- a. Sample Collection- Six inches of soil was removed at each of the fourteen (14) sample locations using a stainless steel (6") garden spade. Fourteen (14) discrete samples were

- collected in individual 8 oz glass jars at the indicated sample collection point locations as indicated on the initial Sampling Plan. (Figure 1)
- b. Sampling Equipment-A clean stainless steel (6 inch) garden spade was used to collect each sample. The sampler used clean latex gloves in order to minimize any cross contamination that may occur during the sampling event. After collecting an individual sample and before collecting the next sample, the latex gloves were replaced with a new pair of latex gloves.
 - c. Decontamination Process or Procedures- The spade was decontaminated before and after each sample collection using an Alconox solution or Simple Green cleaner followed by a de-ionized water rinse.

II. COMMENT 2-“Permittee states “Gallup is proceeding to excavate contaminated soil based on the analysis received from Hall Environmental Laboratories.” The Permittee must provide a schedule for when the additional sampling and clean up activities will be conducted and be completed.

RESPONSE: This project will be separated into two phases in order to assure the agency that an overflow condition will not occur.

Phase 1 is the installation of four (4) additional Baker Tanks as described in the Interim Measures Work Plan. The importance of this as the first step is to be able to handle any API overflows in order to assure that this will not occur. Tank installation has to be the first step because any API overflow will cause additional contamination in this same area that we are trying to remediate. Dirt Work has to be done to insure a solid foundation for the baker tanks. The dirt work and frac tank installation will be on a non-contaminated area north of the existing baker tank. Next, piping has to be fabricated. The four (4) frac tanks have to be delivered and placed at this location. Piping will then have to be connected to each frac tank. This phase should take up to two and one-half weeks to complete. (Refer to Attachment)

Phase 2 is the clean up activities around the API and other contaminated areas. All contaminated material including around the API is to be remediated. This soil will be put in roll-off boxes to be shipped off-site as Hazardous Waste. The clean up activities will take about two to two and one-half weeks to complete. Next, sampling will be conducted for the same sample locations as described in a previous location plot of December 8 Sampling Plan. It will take up to four weeks to receive analysis from Hall Environmental Laboratory with a normal turn-around. (Figure 1)

III. COMMENT 3-The Permittee must address the following regarding the “Confirmation Samples” figure that identifies the areas requiring additional excavation and confirmation sampling.

- a. **The figure shows two hatched areas: the blue hatch identifies the “Area of Possible Contamination” and the red hatch identifies that the “Area is Contaminated.” The report indicates that the red hatch area is where additional excavation and confirmation sampling will occur. The Permittee must explain the difference between the red and blue hatch areas, and specifically why the “Area of Possible Contamination” does not require additional sampling.”**

RESPONSE: The “Red” hatch (Area is Contaminated) and the BLUE hatch (area of Possible Contamination) was based on the Total Petroleum Hydrocarbon (TPH) values greater than 200 mg/kg as determined from 2006 (2009) Soil Screening Levels (SSL). Areas that were greater than 200 mg/kg were considered to be a “HOT ZONE”, i.e., shaded in “RED” hatch or “Area is Contaminated”. Areas that were less than 200 mg/kg was considered to be “BLUE” hatch or “Area of Possible Contamination” Clean up efforts will be made for both “RED” and “BLUE” hatch areas. These areas do not determine if excavation is required, only which areas are more contaminated than others.

- b. The area west of the Baker Tank is hatched, red indicating that additional excavation and confirmation sampling will occur; however, there are two small areas within the red hatch that are blue (west edge of the excavation and the southwest corner edge of the excavation), an area which indicates no further sampling will be conducted. It is not clear how the Permittee determined that these “blue” areas do not need additional excavation and sampling. Additionally, it is unclear how the Permittee determined the areas north and south of the sample location API-W-6 do not need additional excavation. The Permittee must explain how the borders between the “Area of Possible Contamination” and the “Area is Contaminated” were determined.**

RESPONSE: The two small areas of concern are due to a drawing error. These two areas are all considered as contaminated, should have been identified as a red hatch area, and will also be excavated. Excavation and sampling of the areas north and south of the sample location API-W-6 will also be performed. A detailed description of the red and blue hatch areas was previously identified under comment (3 a) above.

- c. Additional sampling is necessary to define the horizontal and vertical extent of contamination in areas where contaminants are still present. The Permittee must revise the Confirmation Sampling figure to address items a and b and propose additional sampling. The Permittee must be able to demonstrate that clean up of contamination surrounding the API separator and Baker Tank has been completed.**

RESPONSE: The facility is in process of addressing the API overflow issue which is the cause of the contamination. An “Interim Measures Work Plan” is being submitted along with this report. This plan addresses the API overflow issues in more detail. Additional excavation and sampling will be conducted around the API and Baker Tanks both under the “BLUE” and “RED” hatch areas. (Figure 2)

IV. COMMENT 4- In NMED’s September 15, 2009 letter regarding the Formal Report submittal to the September 5, 2009 API Separator Overflow, NMED directed the Permittee to provide steps that would be implemented to ensure overflow to the API separator do not continue to occur. On page 5 of the Report, the Permittee states “both of the API overflows were the direct result of inclement weather conditions that were beyond the control of the refinery. Gallup is in the design phase of a new “Stormwater Diversion Project” in order to eliminate overflows from the new API due to unexpected or inundated

stormwater discharges. This project will be composed of two (2) Stormwater diversion Tanks (T-27 and T-28) and additional diversionary tank. The new system will connect directly into the current stormwater system. A new twenty-four inch (24" pipe will connect the old system to the Stormwater Diversion Tanks (T-27 and T-28). The stormwater will be pumped from the diversion tanks (T-27 and T-28) to the new API."

The overflows were a direct result of the weather, which cannot be controlled by the Permittee; however, the Permittee can control how the overflows are handled so that the wastewater will not flow to the ground surface. The Stormwater diversion Project is not yet installed. Until it is, the API separator must prevent releases from the API separator to the ground surface. The Permittee must propose an interim measures in accordance with Section IV.B.6 (Interim Measure (IM)) of the Post-Closure Care Permit that will control and prevent all overflow from the API separator to the ground surface until the Stormwater diversion Project is installed and operational. The Interim Measures Work Plan is due to NMED on or before April 19, 2010.

RESPONSE: An "Interim Measures Work Plan for control and prevention of Overflow from the API Separator" has been prepared. The plan discusses the amendments to the API area through the use of four (4) additional frac tanks in conjunction with an existing frac tank. The Interim Measures Work Plan is being submitted in conjunction with this report. (Attachment)

V. COMMENT 5- The following comments address the "Hall Environmental Laboratory Data Summary" Table.

- a. **NMED updated their Soil Screening Levels (NMED SSLs), (December 2009). The updated NMED SSLs must be applied to all future comparisons. The change in the December 2009 version of the NMED SSLs do not affect the information provided in this table with the exception of xylenes, for which the reported detection is below the NM SSL industrial value of 3,610 mg/kg. No revision to the Table is necessary.**

RESPONSE: Changes have been adopted to use the December 2009 NMED Soil Screening Levels (SSL) for future comparisons. The 2006 SSL for Xylene was 82 mg/kg. The December 2009 SSL of 3610 mg/kg has been adopted. The table has been modified to reflect these changes. (Figure 3)

- b. **In the Table, the Permittee presents the chromium III value of 100,000 mg/kg. In the future, the Permittee must apply the chromium VI values unless chromium has been speciated or the Permittee can otherwise demonstrate the chromium present in the sample is chromium III. No revision is necessary as the chromium detections are below the industrial chromium VI value.**

RESPONSE: According to the table, the 2006 SSL value for Cr(+3) is 100,000 mg/kg. This is the Soil Screening Level (SSL) not the Cr(+3) value. This value has been changed in accordance with the December 2009 SSL value of 1,570,000 mg/kg. The

maximum Cr(+3) value of 73 mg/kg is below either SSL versions (2006 or 2009). (Figure 3)

The 2006 SSL value for Cr(+6) is 3400 mg/kg. The 2009 SSL value for Cr(+6) is 2900 mg/kg. This value will be used in future comparisons. A maximum Cr(+3) value is well below either 2006 or the 2009 SSL values. (Figure 3)

- c. **The benzene standard in the table states “258 mg/kg”. The standard in the NMED SSLs June 2006 is 25.8 mg/kg. No revisions to the Table us necessary since the benzene detection are below the NMED SSLs December 2009 industrial standard of 85.4 mg/kg.**

RESPONSE: A decimal error was made in the original submittal reporting a SSL (2006 version) of 258 mg/kg for Benzene. This value should have been designated as 25.8 mg/kg as a SSL. This value has been changed to reflect a new SSL of 85.4 mg/kg. The new 2009 SSL will be applied in future comparisons. No revision to table is required. (Figure 3)

- d. **The “DRO” row under the brown shaded column titled “Cleanup Status” states “ok”, indicating no additional cleanup is necessary. However, listed detection exceed the cleanup standard and additional cleanup activities are required. No revision is necessary as the locations that have detections above the cleanup standard are designated as requiring additional cleanup in the Report. The Permittee must ensure the text, tables, and figures are consistent with one another. No revisions are necessary.**

RESPONSE: The SSL detection for TPH for both 2006 and 2009 is 200 mg/kg. According to the NMED tables, there are no SSL values for DRO, MRO, and GRO. However, the comparison will reflect a DRO, MRO, and GRO change based on the TPH values in the future. (Figure 3)

- e. **According to the laboratory reports, gasoline range organics (GRO) were not detected at the following sample locations: API-N-1, API-E-2, API-S-4, API-W-5, API-W-6, CHN-C-10, CHN-C-11, NBT-W-12, and NBT-E-14; however, the Table includes detections for these locations. The detections provided in the Table are the PQL values found in the laboratory reports. Since there were no detections, no revision is necessary. In the future, the Permittee must ensure the tables are consistent with the laboratory reports.**

RESPONSE: The comparison chart submitted was based on an actual value to reflect any “Clean Up Status” as indicated in “Brown”. Therefore, the lowest value that could be put in the table was a PQL. For future comparisons, if the value is a “non-detect, ND”, the letters of “ND” will be put in table.

VI. SUMMARY- The comments as identified by the New Mexico Environmental Department (NMED)/Hazardous Waste Bureau were addressed in detail as indicated above. Enclosed is the Interim Measures Work Plan for the control and prevention of overflows from the API that is due on April 19, 2010 as required according to the letter of March 4, 2010.

VI. DOCUMENT ENCLOSURES/ATTACHMENTS:

The following enclosures or attachments have been included in order to provide the Agency with a visual reference in order to aid in a better understanding of the event surrounding the API overflows that include sampling. These enclosures include the following:

NMED correspondence letter of March, 2010 "Notice of Disapproval, Clean up Status for API Separator Overflows",

Figure 1- Sampling / Clean Up Plan

Figure 2- Drawing of the API area indicating the extent of overflow contamination,

Figure 3- Hall Environmental Laboratory Data Summary Spreadsheet (Corrected),

Attachment- Interim Measures Work Plan for Control and Prevention of Overflows from the API Separator- Installation of four (4) additional frac tanks, letter from NMED "Notice of Disapproval Cleanup Status for API Separator Overflows"

If you require additional information concerning this matter, please contact me at (505) 722-0258.

Sincerely,



Beck Larsen-CHMM, REM

Environmental Engineer

Western Refining (Southwest) (Gallup Refinery)

Enc: NMED correspondence letter of March 4, 2010

Figure 1- Sampling / Clean Up Plan

Figure 2- Drawing of the API area indicating extent of contamination

Figure 3- Hall Environmental Laboratory Data Summary Spreadsheet (Corrected)

Attachment- Interim Measures Work Plan for Control and Prevention of Overflows from the API Separator- Installation of four (4) Additional Frac Tanks

Cc: Mr. Mark Turri, Gallup (Southwest), Refinery Manager

Mr. Ed Riege, Gallup (Southwest), Environmental Manager)

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NMED (HWB)- Ms Hope Monzeglio