Western Refining
GALLUP

Certified Return Receipt: #7010 1670 0001 3141 0187

June 12, 2012

Mr. John Kieling, Chief
NMED - Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, NM 87505-6303

RE: Third Notice of Disapproval
Requirement to Resurvey Ground Water Monitoring Wells and Recovery Wells
Western Refining Company, Southwest, Inc., Gallup Refinery
EPA ID #NMD000333211
HWB-WRG-11-003

Dear Mr. Kieling:

Western Refining Southwest, Gallup Refinery has prepared the following responses to the comments listed regarding the above referenced matter dated May 18, 2012.

Comment 1

NMED's Comments 2 and 3 from the second Notice of Disapproval (2nd NOD) dated February 12, 2012 required the Permittee to describe the accuracy and error associated with the survey method and instruments used during the survey event; however, the Permittee did not discuss this information in the response. The Permittee must discuss the accuracy and error associated with the survey method and instruments used during the survey event in the response letter to this disapproval.

Response: *The Leica 1200 GPS (Global Positioning System) Base and Rover with RTK technology is reliable at 99.99% for baselines up to 40 km. The system initializes within seconds and position updates every 0.05 second (20 Hz). Latency is rated at less than 0.03 second and has consistent cm-accuracy. The following specifications are listed for accuracies: Kinematic Horizontal: 10 mm + 1 ppm; Vertical: 20 mm + 1 ppm; Static (ISO 17123-8): Horizontal 5 mm + 0.05 ppm and vertical 10 mm + 0.05 ppm. Performance and accuracies can vary depending on number of satellites, satellite geometry, observation time, ephemeris, ionosphere, multipath, etc. (Specification sheet attached as Attachment 1).*

Comment 2

The Permittee continues to fail to provide a comprehensive and correct data table that summarizes the survey data. There are still several errors associated with *the 2011 Corrected Well Elevation Summary Table (Revision 2 – April 19, 2010) (2011 Table).* The following lists the errors associated with the table, revise the table as accordingly.

a. There are several instances where the previous stick-up length and the stick up length measurements collected during the 2011 survey (current) are significantly different. For example, BW-1B the previous measurement was 2.38 feet (ft) and the 2011 survey measurement is 0.68 ft. Explain the reason for the significant differences between the previous and current stick-up length measurements.

Response: *2011 Survey Stick-up lengths were determined by subtracting the 2011 Survey Well Casing Rim Elevation from the 2011 Ground Elevation Inside Steel Sleeve. Corrected values for the "stick-up" lengths would be subtracting the 2011 Survey Well Casing Rim Elevation from the 2011 Survey Ground Level Elevation. Column titled "2011 Ground Elevation Inside Steel Sleeve" has been removed as per Comment 2b below. Correction has been made to the table. (Attachment 2)*

b. The current stick-up length measurements do not seem to be correct. It appears that the Permittee calculated the stick up length by subtracting the "2011 Survey Well Casing Rim Elevation" from the "2011 Survey Ground Elevation inside Steel Sleeve." Revise the 2011 Table by correctly calculating the stick-up length by subtracting the "2011 Survey Well Casing Rim Elevation" from the "2011 Survey Ground Level Elevation." In addition, remove the column "2011 Survey Ground Elevation inside Steel Sleeve" from the table.

Response: *Column titled "2011 Survey Ground Elevation inside Steel Sleeve" has been removed from the table. The survey stick up length values have been revised by subtracting the "2011 Survey Well Casing Rim Elevation" from the "2011 Survey Ground Level Elevation." (Attachment 2)*

c. There appears to be a rounding error from the conversion of the previous stick-up length measurements from inches (in.) to ft. For example, the previous stick-up length measurement for BW-1A is 52.50 in. and the Permittee converted the measurement to 4.37 ft. It is actually 4.38 ft. Review all converted stick-up measurement data to ensure the calculated data are accurately reported in the 2011 Table.

Response: *Previous stick up length conversions have been corrected by converting the reported values in inches to feet (dividing by 12). (Attachment 2)*

d. Incorrect elevations are reported for the previous well casing bottom elevations for wells OW-50 and OW-52. Table 9.0 (Annual Well Data Summary Table) from the 2009 Annual Ground Water Monitoring Report reports well casing bottom elevations for wells OW-50 as 6977.37 ft and OW-52 as 6985.26 ft, respectively. The 2011 Table reports wells OW-50 as 6847.63 ft and OW-52 as 6828.53 ft, respectively. Review all elevation data from Table 9.0 and ensure all data are correctly reported in the 2011 Table.

Response: *Corrections have been made. (Attachment 2)*

e. Incorrect elevations are reported for the previous total well depths for wells MW-2 and SMW-4. Table 9.0 reports the total well depths for wells MW-2 as 138.94 ft below ground surface (bgs) and SMW-4 as 122.14 ft bgs. The 2011 Table reports the depths of the wells MW-2 as 140.24 ft bgs and SMW-4 as 72.20 ft bgs. Review all total well depth data from Table 9.0 and ensure all data are accurately reported in the 2011 Table.

Response: *All values reported in the 2011Corrected Well Elevation Summary Table has been cross checked with the 2009 Summary Table.*

f. There are significant differences between the previous and current well casing rim elevations. For example, OW-29 has a difference of 3.5 ft between the previous and current elevations. In Addition RW-6 has a 28.69 ft difference. Review the 2011 Table and explain why there are significant differences between the previous and current elevations and correct all errors.

Response: *It was determined in 2009 that ground level elevations were incorrectly reported as well casing rim elevations. Information was corrected using well logs available at the time and if there was no "rim casing elevation data" recorded the ground level elevation was entered as rim casing which accounts for the discrepancies noted. Discrepancies in rim casing elevations can also be attributed to type of instruments used, and where the measurement was taken with regard to rim casing at the time wells were installed. RW-6 elevation data was entered incorrectly. The previous elevation should read 6942.60 feet instead of 6972.60 feet. Corrections have been made to both the "Previous Ground Level Elevation (feet)" and the "Previous Well Casing Rim Elevation (feet)" to read as 6942.60 feet with a note explaining the change.*

g. Revise the 2011 Table to define all calculations performed in the table in the Notes section of the table. For example, the 2011 Survey Stick-up length was determined by subtracting the "2011 Survey Well Casing Rim Elevation" from the "2011 Survey Ground Level Elevation."

Response: *Notes section has been revised accordingly.*

Comment 3

There are significant errors associated with the reported location data in the 2009 Ground water Monitoring Report. Therefore, the Permittee must verify that all horizontal data provided (Northing and Easting) are correct and represent the actual locations of the monitoring wells surveyed.

Response: *"Significant errors" refers to elevation data as clarified by Ms. Leona Tsinnajinnie of NMED (e-mail dated May 23, 2012). The physical locations of all the active wells were field verified when survey was performed by DePauli Engineering on June 7, 2011. Several wells were cross referenced using the Corpscon v6.0.1, U.S. Army Corps of Engineers Coordinate Conversion Software to a common coordinate system by comparing survey information dated May 13, 1991 from Sterling & Mataya Engineers – Surveyors; Lynn Engineering & Surveying, Inc., dated June 21, 2007 and comparing this information to the survey conducted by DePauli Engineering on June 7, 2011. The survey information from 1991 used the North American Datum of 1927 (NAD 27) and the survey conducted by DePauli Engineering used the NAD 83 to collect coordinates. A cross reference is attached on several of the wells to confirm location points, conversions from NAD 27 to NAD 83 data and also technical data concerning grid shift and datum shift factors. Coordinate points do vary from 1991 to 2011 and that is a result of the type of survey instrument used, methodology and reference points used to gather measurements. Based on this information, requirement has been met to verify locations of the wells. (See Attachment 3 for supporting documents)*

Comment 4

In accordance with 40 CFR 270.11(d)(1), the Permittee must submit a statement indicating that the information provided was properly gathered and evaluated by qualified personnel. This statement must accompany all future reports. Submit this statement with the required information in the response to this disapproval.

Response: *Certification has been added to this response letter.*

If you have any questions regarding Western's responses, please do not hesitate to contact Cheryl Johnson of my staff at (505) 722-0231.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Ed Riege
Environmental Manager

cc: K. Van Horn, NMED HWB w/attach
C. Chavez, OCD w/attach
C. Johnson, Western-Gallup

Attachment 1