

Certified Return Receipt: 7012 2920 0000 7606 4367

July 26, 2016

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



RE: Approval with Modifications, Annual Facility Wide Ground Water Monitoring
Report: Gallup Refinery - 2013
EPA ID # NMD000333211, HWB-WRG-14-006

Dear Mr. Kieling:

Western Refining, Gallup Refinery has prepared the following responses to the comments in your letter of May 18, 2016 regarding the above referenced report.

Comment 6

On Page 60 the Permittee reports that the analytical results for EP-2 inlet state that benzene was detected at 0.033 mg/L and DRO detected at 2.3 mg/L. The level of benzene reported for the EP-2 inlet should be non-detect since this water has been through both the waste water treatment plant and aerated in STP-1. There appears to be either a source for the benzene that bypasses the treatment system or the treatment system is not effectively treating the waste water. The Permittee must sample the EP-2 inlet on a quarterly basis to monitor the level of benzene being discharged from STP-1 to EP-2. In addition, the Permittee must provide NMED with information regarding any issues with the waste water treatment plant and STP-1 in the response letter. The Permittee revised Table 1 to require annual sampling of the inlet to STP-1 (previously, the pond inlets were sampled quarterly). The EP-2 inlet was sampled twice in 2013 and only one laboratory report is presented in the Report. In the response letter explain why the inlet sampling was modified to annual sampling and explain why EP-2 inlet was sampled twice but only one of the samples was sent to the analytical laboratory. No revision to the Report is required.

Response:

- *There is no indication of any RCRA listed hazardous waste or RCRA hazardous characteristics in the waste water being discharged from STP-1.*

- *The Waste Water Treatment system is in compliance with the conditions set forth in USEPA Docket No. RCRA-06-2009-0936, Compliant and Consent Agreement and Final Order (CAFO), filed September 1, 2010; Item J.*
- *Inlets to aeration lagoon 1, aeration lagoon 2 and Pond 1 were previously on a quarterly sampling schedule. In 2012 the aeration lagoons were taken out of service due to the startup of the Waste Water Treatment Plant (WWTP) and all flow was diverted into the new unit bypassing the lagoons. Pond 2 inlet at the time was receiving flow from Pond 1 and with the lagoon closure and startup of the WWTP, Pond 2 was now receiving flow from STP-1, therefore the sampling site name was changed to "STP-1 to EP-2" and sampling from this site began in August 2012. Sample frequency has always been on an annual basis*
- *There was only one sample collected on 9/5/2013 (Hall Report #1309181) from sample site STP-1 to EP-2. It is possible that two samples collected from sample site BW to EP-2 (5/28/13 and 10/15/13) were mistaken for EP-2 inlet.*

Comment 9

Appendix A, Separate Phase Hydrocarbons, "Year to Date Hydrocarbon Recovery Logs" RW-5 and RW-6 demonstrate decreasing amounts of product thickness while RW-1 demonstrated decreasing thickness in 2010 and 2011. However RW-1 now displays increasing levels of SPH (SPH level went from 0.53 ft, 0.39 ft, to 1.54 ft for the last several sampling events listed in the Appendix A table). The Permittee must address the apparent continued movement of the SPH plume and provide NMED and OCD with data regarding the tank farm and any inspections to address potential leaking tanks that may be contributing to increasing SPH levels in RW-1. The Permittee has an approved Work Plan for investigation at OW-14 that may address some issues in the tank farm area. Additionally, it appears that the reported product thicknesses for RW-1 in 2005 and 2008 are errors reported at 25.9 ft and 18 ft of measured product thickness respectively. Revise the table to address these errors.

Response: Response: *As noted by NMED, an Investigation Work Plan for the OW-14 Source Area, which includes the area near RW-1 and T-572, was recently approved by NMED. Western will address the SPH levels measured in RW-1 in the OW-14 Source Area Investigation Report, which will be prepared based on new information obtained during the upcoming investigation of the area near RW-1. Gallup implements routine inspection of tanks. Records were reviewed for tanks near RW-1. External and internal tank inspections were conducted in October 2015 for T-572 and June 2015 for T-571 and internal tank bottom inspections revealed no penetrations or potential for leaks. External and internal inspections were conducted on T-570 in March 2015 revealing no potential leaks. Six inch diameter sections from the four floor quadrants were removed and no LELs or stained soil was noted. External inspections of T-716 and T-569 were conducted in 2014 and were found in good condition.*

The Year to Date table reflects the total for each year. RW-1 (2005) YTD totals are correctly stated at 25.9 feet and 18 feet for 2008. No corrections required on this table in Appendix A.

The Year to Date table reflects the total for each year. RW-1 (2005) YTD totals are correctly stated at 25.9 feet and 18 feet for 2008. No corrections required on this table in Appendix A.

Comment 12

In Section 9 (Well Data DTW/DTB Measurements) there appear to be errors in the table presented in this section. See below:

- a. OW-1 is reported with DTW of 0.0ft on 11/11/2013.
- b. OW-10 is reported with DTW of 0.0ft on 11/11/2013. OW-10 also appears to have greatly fluctuating ground water measurements per quarter: 3.8 ft, 8.0 ft, 0.92 ft, 0 ft, respectively.
- c. The table reports GWM-3 as “dry” for all quarters of 2013, but the log in Appendix C indicated the 1Q depth to ground water measurement was 4.85 ft.
- d. The MKTF wells have fairly large fluctuations in reported DTW and ground water elevations. For example MKTF-01 from 2nd to 3rd quarter ground water elevation reported as 6913.23 ft and 6909.09 ft, respectively.

Revise the Section 9 table to accurately report field measurements. Also, explain any discrepancies in the response letter.

Response:

- a) *Reported level of “0.0 ft” in OW-1 for depth to water indicates that the casing was full and no measurement was attainable. In future reports, an explanation of “0.0ft” is included in the definitions.*
- b) *OW-10 fluctuating levels in the aquifer may be affected by seasonal precipitation.*
- c) *This was a typo error, as technician used a pre-populated sheet and did not delete previous entry. (Section 9 Table – attached)*
- d) *Fluctuating levels may be attributed to seasonal precipitation affecting the water table.*

Comment 13

There appears to be an error in Section 10, Table 1, where the last row reads “[a]ll wells including Recovery Wells.” As per a discussion related to financial assurance, it is not clear where this requirement came from; therefore, remove the statement from Table 1 in future work plans and reports.

Response: *The statement will be removed from all future tables and this item was addressed in Western’s response to NMED on April 21, 2016.*

Comment 14

Figure 8(S-N Section Westerly Plant Area) does not correlate to the information provided in Figure 6. For example, wells OW-05 and OW-03 and OW-24 are not shown on Figure 6. Provide updated figures that show the locations of all ground water monitoring wells. If the wells have been abandoned, note this on the figures. Where appropriate, provide replacement figures with the response letter.

***Response:** Figure 6 and Figure 8 have been revised with an explanation that wells OW-05, OW-03 and OW-24 are abandoned/closed wells and were only used for cross section lithology reference points only. (Revised Figures 6 and 8 attached)*

Comment 15

The Permittee must provide NMED and OCD with documentation of repairs to the NAPIS to demonstrate that the leaks evident from the sampling of the east and west LDUs have been addressed. Provide this information with the response letter. No revision to the Report is required.

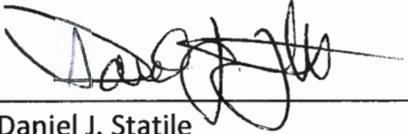
Response:

- *Repairs to the NAPIS unit was addressed in Western's response to NMED on August 8, 2014, Disapproval, 2011 Facility Wide Ground water Monitoring Report and 2012 Facility Wide Ground Water Monitoring Report (attached). Repairs were made to the west bay with a plate installation in June 2014. The east bay was taken out of service in July 2014 and repairs were made. Both bays were hydro-tested before being placed back in service and showed no signs of leakage.*
- *Other repairs over the last two years have included calibration of bay level indicators and skimmer repair.*
- *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 past year. Plans are to inspect the east bay, place it back into service and then take the west bay out of service for inspection. The LDUs are pumped out every few months and the maximum recharge to the LDUs takes place over a few weeks following water removal.*
- *The oil sump LDU continues to show no signs of leakage.*

If there are any questions regarding Western's response, please contact Mr. Ed Riege (505) 722-0217.

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.



Daniel J. Statile
Vice President - Refining



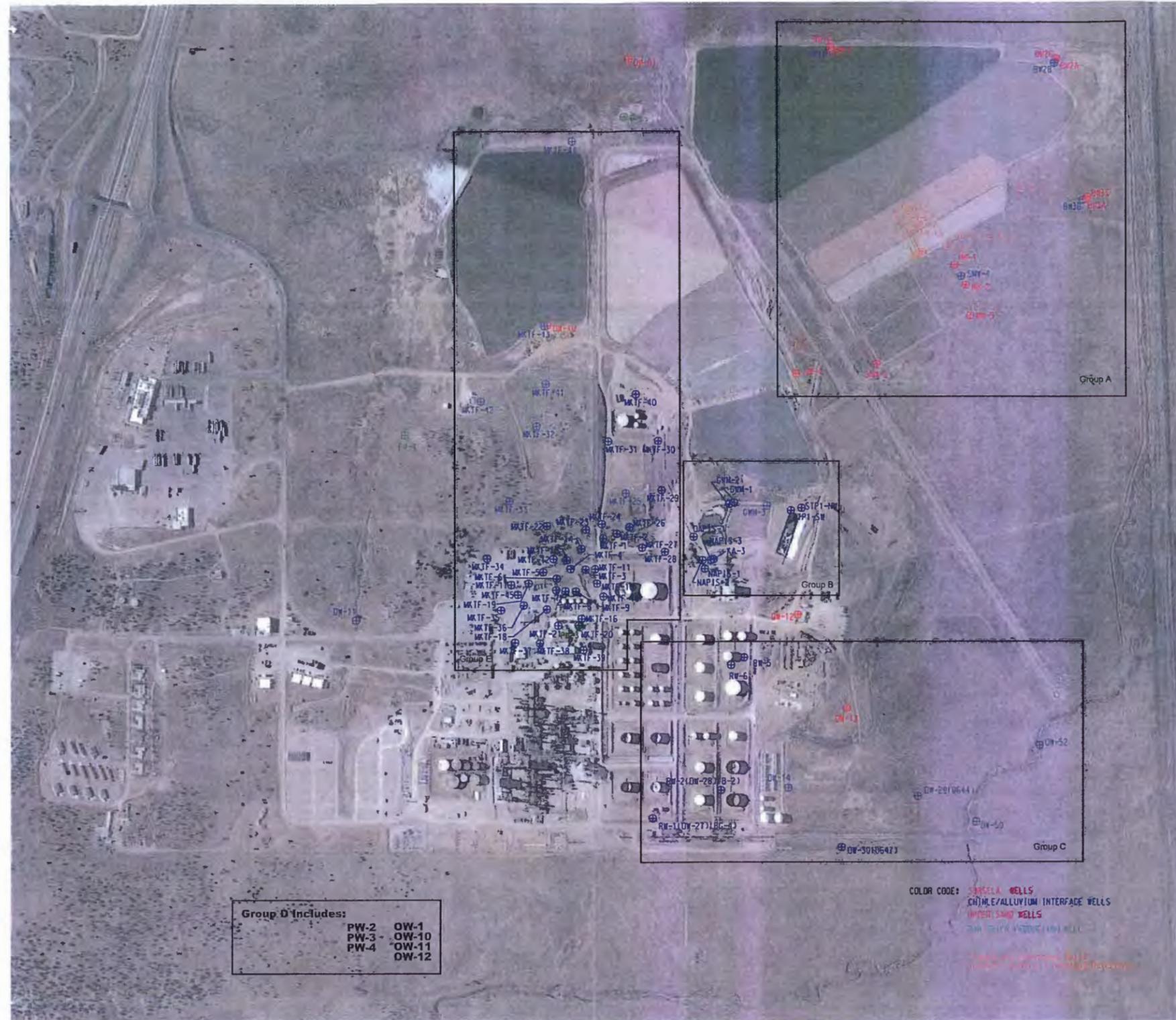
Ed Riegé, Remediation Manager

cc: K. Van Horn, NMED HWB w/attachment
C. Chavez, NM-OCD w/attachment
E Riege, Western

ATTACHMENTS

SECTION 9.1 2013 WELL DATA DTB/DTW MEASUREMENTS - Continued

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	2011 Survey ¹ Ground Level Elevations (ft)	2011 Survey ¹ Well Casing Rim Elevations (ft)	2011 Survey ¹ Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	2011 Survey ¹ Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH ² Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation ³ (ft)	Corrected Water Table ⁴ Elevation (factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	2012 Stratigraphic unit in which screen exists	Purge Volume = 3 Well Vol (gal)
11/10/2003	BW-1A	9/3/2013	2.00	6,874.10	6,876.68	6,872.30	2.58	6,839.06	37.62	N/A	N/A	DRY	DRY	N/A	30 - 35	Upper Sand	N/A
10/28/2003	BW-1B	9/3/2013	2.00	6,874.13	6,876.94	6,876.26	2.81	6,809.49	67.45	N/A	N/A	DRY	DRY	N/A	54.6 - 64.6	Chinle/Alluvium Interface	N/A
11/10/2003	BW-1C	9/3/2013	2.00	6,873.95	6,876.78	6,872.28	2.83	6,740.39	136.39	N/A	N/A	6.69	6,867.26	N/A	125 - 135	Sonsela	63.37
11/10/2003	BW-2A	9/3/2013	2.00	6,871.88	6,874.69	6,870.45	2.81	6,807.12	67.57	N/A	N/A	32.09	6,839.79	N/A	55 - 65	Upper Sand	17.35
10/28/2003	BW-2B	9/3/2013	2.00	6,871.66	6,874.50	6,870.06	2.84	6,782.24	92.26	N/A	N/A	27.92	6,843.74	N/A	80 - 90	Chinle/Alluvium Interface	45.12
10/28/2003	BW-2C	9/3/2013	2.00	6,872.90	6,875.30	6,872.02	2.40	6,722.46	152.84	N/A	N/A	20.39	6,852.51	N/A	139.5 - 149.5	Sonsela	64.77
6/15/2004	BW-3A	9/3/2013	2.00	6,875.94	6,878.39	6,875.08	2.45	6,826.04	52.35	N/A	N/A	DRY	DRY	N/A	39.5 - 49.5	Upper Sand	N/A
10/15/2003	BW-3B	9/3/2013	2.00	6,876.16	6,878.59	6,875.41	2.43	6,809.19	69.40	N/A	N/A	33.01	6,843.15	N/A	63 - 73	Chinle/Alluvium Interface	17.79
7/20/2004	BW-3C	9/3/2013	2.00	6,875.72	6,877.95	6,875.27	2.23	6,723.40	154.55	N/A	N/A	8.15	6,867.57	N/A	144.5 - 154.5	Sonsela	71.59
9/25/1981	OW-11	9/3/2013	4.00	6,922.05	6,923.51	6,921.80	1.46	6,857.72	65.79	N/A	N/A	20.68	6,901.37	N/A	43 - 65	Sonsela	100.14
12/15/1980	OW-12	9/3/2013	4.00	6,939.57	6,940.69	6,939.04	1.12	6,811.84	128.85	N/A	N/A	47.80	6,891.77	N/A	117.8 - 137.8	Sonsela	179.93
10/14/1981	MW-1	9/3/2013	5.00	6,876.63	6,878.12	6,876.79	1.49	6,747.29	130.83	N/A	N/A	7.13	6,869.50	N/A	117.72 - 127.72	Sonsela	378.52
10/15/1981	MW-2	9/3/2013	5.00	6,878.39	6,880.30	6,878.41	1.91	6,742.82	137.48	N/A	N/A	9.44	6,868.95	N/A	112 - 122	Sonsela	391.8
10/16/1981	MW-4	9/3/2013	5.00	6,879.89	6,881.63	6,879.34	1.74	6,759.91	121.72	N/A	N/A	7.70	6,872.19	N/A	101 - 121	Sonsela	348.9
7/21/1986	MW-5	9/3/2013	4.00	6,880.20	6,882.83	6,881.77	2.63	6,752.00	130.83	N/A	N/A	11.49	6,868.71	N/A	115 - 125	Sonsela	365.18
9/26/1985	SMW-2	9/3/2013	2.00	6,881.63	6,883.97	6,879.07	2.34	6,831.17	52.80	N/A	N/A	25.34	6,856.29	N/A	34.31 - 54.31	Chinle/Alluvium and Upper Sand	13.43
9/25/1985	SMW-4	9/3/2013	2.00	6,877.63	6,879.52	6,875.72	1.89	6,809.84	69.68	N/A	N/A	29.24	6,848.39	N/A	51.7 - 71.7	Chinle/Alluvium Interface	19.78
10/5/2009	OW-50	9/3/2013	2.00	6,912.63	6,914.21	6,911.46	1.58	6,850.21	64.00	N/A	N/A	15.97	6,896.66	N/A	48 - 63	Chinle/Alluvium Interface	23.49
10/5/2009	OW-52	9/3/2013	2.00	6,906.53	6,907.68	6,905.31	1.15	6,829.94	77.74	N/A	N/A	17.02	6,889.51	N/A	64 - 79	Chinle/Alluvium Interface	29.69
1/5/1981	OW-1	3/19/2013	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	1.40	6,864.92	N/A	89.3 - 99.3	Sonsela	177.7
		6/12/2013	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	2.13	6,864.19	N/A	89.3 - 99.3	Sonsela	177.7
		9/3/2013	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	0.92	6,865.40	N/A	89.3 - 99.3	Sonsela	182.58
		11/11/2013	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	0.00	6,866.32	N/A	89.3 - 99.3	Sonsela	184.37
11/25/1980	OW-10	3/19/2013	4.00	6,873.67	6,874.91	6,872.59	1.24	6,814.58	60.33	N/A	N/A	3.80	6,869.87	N/A	40 - 60	Sonslea	125.5
		6/13/2013	4.00	6,873.67	6,874.91	6,872.59	1.24	6,814.58	60.33	N/A	N/A	8.00	6,865.67	N/A	40 - 60	Sonsela	116.7
		9/3/2013	4.00	6,873.67	6,874.91	6,872.59	1.24	6,814.58	60.33	N/A	N/A	0.92	6,872.75	N/A	40 - 60	Sonsela	131.89



Group D includes:
 PW-2 OW-1
 PW-3 OW-10
 PW-4 OW-11
 OW-12

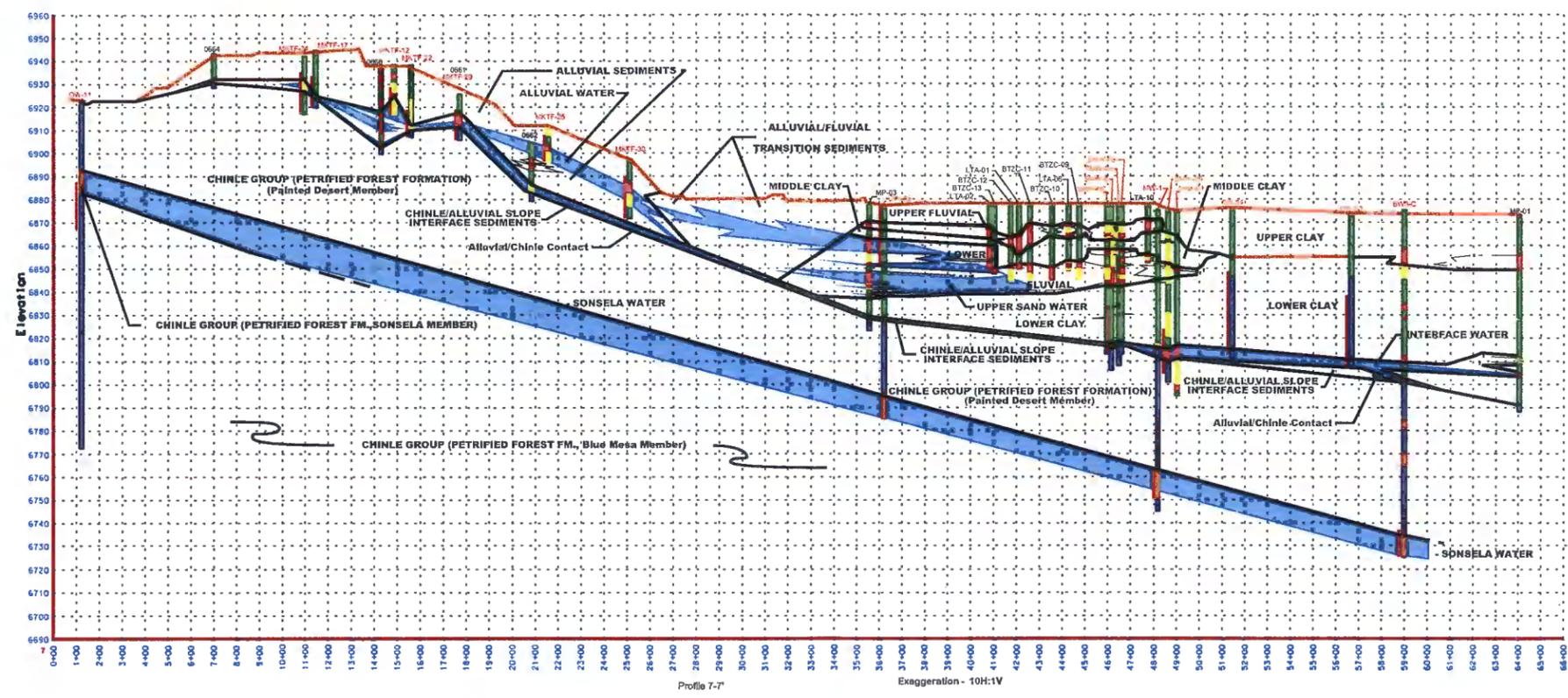
COLOR CODE:
 SAND WELLS
 CHALK/ALLUVIUM INTERFACE WELLS
 UPPER SAND WELLS
 LOWER SAND WELLS

psi
 4601 Ripley
 El Paso, Texas
 79922
 915-584-1317


 1"=500'
 Project #: 0625859

Figure 6
FACILITIES AND WELL GROUPS
 WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
 92 Giant Crossing Road
 Gallup, New Mexico 87301
 Date: February 26, 2015
 Rev 2: May 19, 2016



LEGEND

- CLAY	- SHALE (CHINLE GROUP)	- Closed and Abandoned Wells Logs Used for Lithology Reference
- SANDY CLAY OR CLAYEY SAND	- SANDSTONE (NOT PART OF THE SONSELA)	- WATER BEARING ZONE
- SAND	- SONSELA SANDSTONE MEMBER (CHINLE GROUP)	- SCREENED INTERVAL
- SILT	- PROFILE LINE	- OW-XX - MW-XX - MKTF-XX - BW3-C } ACTIVE MONITORING WELL
		- LTA-10 - BORING REFERENCE

psi
4601 Ripley
El Paso, Texas
79922
915-594-1317



Project #: 0625859

Figure 8
S - N Section - Westerly Plant Area
WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301
Date: March 24, 2015
Rev 1: April 2, 2015
Rev 2: May 19, 2016

GALLUP

Certified Mail #7013 0600 0001 0294 8436

August 8, 2014

Mr. John E. Kieling, Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, New Mexico 87505-6303

RE: DISAPPROVAL, 2011 FACILITY WIDE GROUNDWATER MONITORING REPORT
AND 2012 FACILITY WIDE GROUNDWATER MONITORING REPORT
WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-WRG-12-003 and HWB-WRG-13-003

Dear Mr. Kieling:

This letter was prepared pursuant to your letter dated May 12, 2014, specifically regarding comment 14 below.

NMED Comment 14

Section 6.3.4 (Leak Detection Units (LDU): East LDU, West LDU, Oil Sump LDU). In Section 7.2 (West Side Ground Water Monitoring) the permittee states, "[a]lso located at the NAPIS are three leak detection units which are inspected and if fluids are detected, samples are collected on a quarterly basis. All three leak detection units continue to have a fluid level." The paragraph goes on, "[q]uarterly analysis of fluid collected from these units and the continued presence of fluid indicate the potential that the fluid may be coming from the NAPIS." The permittee addressed this issue in a letter to NMED dated August 5, 2013 and are using a vacuum truck to remove water which is still present in the LDUs. The permittee must repair the leaks in the NAPIS unit within 90 days of receipt of this letter.

Response

The west bay was repaired with a plate installation in June. The bay was hydro-tested with florescent dye and no leaks were observed. The west LDU and Oil sump LDU were checked and showed no signs of leakage. The west bay was placed back into service on July 8, 2014. The west LDU and oil sump LDU were again checked on August 6, 2014 and continue to show no signs of leakage.

The east bay was taken out of service on July 22, 2014. Cleaning and repair of this unit are underway which could take another couple weeks. After repairs are made, the east bay will be hydro-tested and the east LDU checked to assure there are no leaks before placing this bay back into service.

If there are any questions regarding this response, please contact Mr. Ed Riege at (505) 722-0217.

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, *JR McDONNELL for Billy McClain*

Mr. Billy McClain
Refinery Manager
Western Refining Southwest, Inc. – Gallup Refinery

cc D. Cobrain NMED HWB email
N. Dhawan, NMED email
K. Van Horn, NMED email
C. Chavez, OCD email