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May 31, 2018

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



New Mexico Oil Conservation Division (OCD)
Energy Minerals and Natural Resources Department
Attn: Carl Chavez
1220 South St Francis Drive
Santa Fe, New Mexico 87505
Ph. (505) 476-3490

RE: SECOND RESPONSE TO NMED DISAPPROVAL SANITARY LAGOON INVESTIGATION
WESTERN REFINING SOUTHWEST INC, GALLUP REFINERY
EPA ID# NMD000333211
HWB-WRG-15-006

Dear Sir:

On April 30, 2018, Western Refining Southwest – Gallup Refinery (Permittee) submitted a response to the above referenced NMED Disapproval dated February 2, 2018. In accordance with Permittee’s response and related requests received from NMED and OCD, Permittee is pleased to submit additional responses to Comment 9 and 10:

NMED Comment 9:

NMED was under the impression that most effluent, both sanitary and process-related, were discharged, historically, to the Aeration Basin or, currently, to pond STP-1. NMED was previously aware of the sewage lagoon, because in 2005, a letter dated August 31, 2005 stated that the sewage lagoon “still receives small amounts of sewage from the refinery.” Notwithstanding, the Permittee did not present the flow rate or other information regarding the pond or effluent, and it was not clear whether it was raw sewage. Raw sewage is not regulated under the hazardous waste regulations. However, 20.6.2.3104 NMAC (Discharge Permit Required) of the ground and surface water protection regulations requires that, “[u]nless otherwise provided by this Part, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless he is discharging pursuant to a discharge permit issued by the Secretary.” Regulations require a permit for domestic wastewater discharges of greater than 5,000 gallons per day (gpd) from septage disposal through the NMED’s Groundwater Quality Bureau. Domestic wastewater discharges of less than 5,000 gpd are permitted through the NMED’s Environmental Health Bureau Liquid Waste Program. NMED is not aware of a permit issued by either Bureau to the Permittee to discharge effluent to the sanitary lagoon. Even though the Permittee proposes that “Western will begin to develop plans for this project and intends to communicate the proposed plan for re-routing the sanitary discharge to you no later than March 1, 2018,” the Permittee must contact the appropriate Bureau to report the discharge and obtain any required permits. Additionally, the Permittee communicated to OCD in an email dated March 2, 2018 that due to a turnaround at the facility, the plan to re-route discharge will now be submitted no later than May 31, 2018.

Permittee Response: As previously indicated, the Permittee has reviewed several drawings of the site's sanitary sewer and has included such for reference in Attachment A. According to the Master Plan drawing, the site appeared to have sewer discharge connections associated with the lab, change house, and warehouse that were routed to discharge into the Sanitary Lagoon. While Permittee had already conducted dye testing to help identify sources of sanitary sewer discharges, additional dye testing was conducted to validate sources from within the lab, change house, and warehouse. The Master Plan indicate sewer connections from areas labeled "MKT OFF", "WHSE", and "LUBRICATION" that discharge into the Sanitary Lagoon. Dye testing was conducted in all areas of our current site operations that would be associated with those buildings and such sanitary sources were determined not to be discharging to the Sanitary Lagoon. In addition, dye testing was conducted at all of the sinks located within the lab and confirmed information illustrated by the attached drawings in that the sinks are not routed to discharge into the Sanitary Lagoon. Based upon the aforementioned information, it appears that Area A shown on an enlarged version of the Master Plan is the only location that is currently discharging to the Sanitary Lagoon. Permittee reviewed a second map with updated sewer connection information, also provided in Attachment A for reference (See color map). After reviewing both maps, it appears that sewer connections are illustrated in similar locations, with the exception of the second map depicting the sanitary sewer line ending well before the Sanitary Lagoon, no connection coming from Area A, and a sewer connection at the truck drivers' lounge. Contrary to initial dye testing results previously reported, a second dye test was performed at the truck drivers' lounge and was determined not to be discharging to the Sanitary Lagoon. In effort to eliminate all discharges to the Sanitary Lagoon based upon the above information, Permittee proposes the following:

- Hydroexcavate sewer connection at Area A
- Install piping to connect Area A discharge into sewer connection at Lab/Office (formerly "MKT OFF") which is routed through a series of lift stations that ultimately discharge into Sanitary Treatment Pond 1 (STP-1)
- Hydroexcavate sewer connection at Area B in effort to determine presence of a plug that has failed; complete necessary repairs to ensure no future discharge into the Sanitary Lagoon
- Evaluate conditions at the Sanitary Lagoon a period of time sufficient to determine that no sources of sanitary discharge are present

The aforementioned excavation and sewer piping work is currently awaiting contractor bidding and will be scheduled as soon as possible.

NMED Comment 10:

The analytical results for the sanitary effluent identified the following constituents:

Constituent	Analytical Result	MDL	Tap water standard	EPA Max Toxicity	WQCC standard
1,1-dichloroethane (DCA)	1.1 ug/L	0.40	27.5 ug/L (c)		25 ug/L
vinyl chloride	0.81 ug/L	0.18	0.324 ug/L(c)	200 ug/L	1 ug/L
DRO	1.8 mg/L	0.36			
GRO	4.8 mg/L	0.25			
benzene	310 ug/L	1.2	4.22 ug/L(c)	500 ug/L	10 ug/L
naphthalene	33 ug/L	29	1.65 ug/L(c)		
ethylbenzene	52 ug/L	0.093	15 ug/L(c)		750 ug/L
toluene	960 ug/L	1.3	1090 ug/L (nc)		750 ug/L
Methyl tert-butyl ether (MTBE)	26 ug/L	0.24	143 ug/L(c)		
Xylenes	210 ug/L	0.32	193 ug/L (nc)		620 ug/L

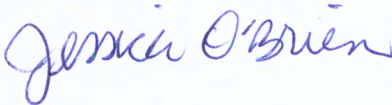
The table above includes the constituent, analytical results, the laboratory's method detection limits, and comparisons to standards in Risk Assessment Guidance for Investigations and Remediation Volume I, March 2017 Table A-1 for NM Tap Water standards (both for cancer (c) and non-cancer (nc)), the EPA Maximum Concentration of Contaminants for Toxicity Characteristic, and the NM Water Quality Control Commission's standards for protection of groundwater. Several constituents exceed one or more of the standards as highlighted in the table (yellow highlight indicating the constituent was detected over a standard and orange indicating which

standard). Over time, the effluent may have affected groundwater and soils in the vicinity of the sanitary lagoon. The Permittee must propose to collect soil samples from within the sanitary lagoon and along the pipe where the holes were discovered. Samples must be analyzed for TPH-DRO, TPH-GRO, VOCs, and SVOCs. At least one sample must be collected from directly below the sewage outfall. Please submit a work plan to propose such soil sampling.

Permittee Response: Permittee hereby submits an Investigative Work plan provided in Attachment B.

Should you have any questions regarding this information, please do not hesitate to contact me by telephone at (505) 722-0287 or by email at Jessica.L.Obrien@andeavor.com.

Sincerely,



Jessica L O'Brien
Western Refining Southwest, Inc. – Gallup Refinery

Enclosure

cc: K. VanHorn, NMED (via e-mail)
C. Chavez, OCD (via e-mail)
D. Pruner, Gallup Refinery (via e-mail)

ATTACHMENT A

ATTACHMENT B