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Certified Mail - Return Receipt Requested

May 10, 2022

Stacy Boultinghouse, PG
Environmental Manager
Transwestern Pipeline Company, LLC
1300 Main Street
Houston, TX 77002

**RE: APPROVAL WITH MODIFICATIONS
REPORT OF 2021 GROUNDWATER REMEDIATION ACTIVITIES
FORMER SURFACE IMPOUNDMENTS
TRANSWESTERN COMPRESSOR STATION NO.9
ROSWELL, CHAVES COUNTY, NEW MEXICO
EPA ID NMD986676955
HWB-TWP-22-001**

Dear Ms. Boultinghouse:

The New Mexico Environment Department (NMED) has reviewed the *Report of 2021 Groundwater Remediation Activities Former Surface Impoundments Transwestern Compressor Station No.9* (Report), dated March 2022 and received on April 1, 2022, submitted by Transwestern Pipeline Company, LLC (the Respondent). NMED hereby issues this Approval with Modifications with the following comments.

Comment 1

The Executive Summary, pages iv and v, and Section 1.0 (Introduction), page 2 states, “[a] network of 30 monitoring wells (29 wells installed in the Upper Aquifer and one well installed in the deeper regional San Andres Formation Aquifer) is used to assess groundwater conditions within the Project Area.” The Respondent’s June 2021 *Report of Perched Aquifer Evaluation and Future Corrective Action Recommendations* identified a perched aquifer that was separate from the upper aquifer. Section 3.2 (Groundwater Monitoring & Chemical Analytical Data Results), page 5 also states that the water bearing unit at the site has been reported as a perched aquifer, an upper aquifer, and the deeper San Andres Formation Aquifer. Accordingly, each aquifer (i.e., the perched aquifer, upper aquifer, deeper regional San Andres Formation Aquifer) must be identified separately. Revise the statement and all applicable sections of the Report and provide replacement pages.

Comment 2

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The Executive Summary, pages v, states, “[t]he groundwater portion of the system was manually deactivated in January, February, March, November, and December of 2021 due to freezing temperatures: however, additional cold weather protection, such as heat tape and pipe insulation, have been installed throughout the process in January 2022 to improve operational times during the winter season.” Evaluate efficacy of the system operations with cold weather protection installed in January 2022 relative to the previous years’ system operations (e.g., comparison of the number of operable days in each year) and provide a discussion in the 2022 report. No response required.

Comment 3

In Section 3.0 (Semi-annual Groundwater Sampling), page 4, the Respondent states, “[f]ield parameters recorded from the May 2021, and November 2021 sampling events are presented in Table 3-3 [and c]opies of the field documentation are included in Appendix A.” According to Table 3-3 (Summary of Field Parameters), wells SVE-28, SVE-30, and RW-1 were not sampled in May 2021 due to the presence of phase separated hydrocarbons (PSH). According to Appendix A (Copies of May 2021 and November 2021 PSH Evaluation Field Notes), groundwater samples were collected from wells SVE-28, SVE-30, and RW-1; however, the field parameter readings were not measured due to a hydrocarbon odor. Resolve the discrepancy in Table 3-3 and provide a replacement table. In addition, it is not clear why hydrocarbon odor would prevent field personnel from measuring field parameters. Provide an explanation in a response letter.

Comment 4

In Section 3.1 (Groundwater Monitoring Regulatory Criteria), page 4, the Respondent states, “[i]f neither a NMWQCC standard nor a MCL has been established for a COC, then the cleanup level is identified as the screening level for tap water in Table A-1 of the 2012 NMED Risk Assessment Guidance for Site Investigation and Remediation, or the EPA Region 6 Screening Levels for tap water.” The most current update to the *Risk Assessment Guidance for Site Investigations and Remediation* (RAG) is November 2021. The most recent version must be used for all future ongoing investigations. Although it is not necessary to revise the Report, this provision must be incorporated into the 2022 report. No response required.

Comment 5

In Section 3.2 (Groundwater Monitoring & Chemical Analytical Data Results), page 5, the Respondent states, “[t]o date, the deeper San Andres Formation Aquifer has not been impacted by the release associated with the Former Surface Impoundments. Well locations are illustrated in Figure 3-1 and a summary of well construction information is provided in Table 3-6.” According to Table 3-6 (Summary of Well Construction Detail), well MW-24D is the only well advanced to the San Andres Formation Aquifer. According to Figure 3-1 (Well Locations), well MW-24D is located northeastern corner of the site where groundwater contamination in the upper aquifer is absent. The location of well MW-24D may be too far from the plumes to evaluate potential vertical migration of dissolved contaminants from the upper aquifer to the deeper San Andres Formation Aquifer. Wells MW-23D and MW25D were also advanced to the

San Andres Formation Aquifer and were located close to the area where the plumes in the upper aquifer were present; however, these wells were previously abandoned and not currently available to evaluate such possibility. Well MW-24D may not be appropriately located to monitor presence/absence of contamination in the San Andres Formation Aquifer. Propose to install an additional well screened within the San Andres Formation Aquifer to evaluate potential vertical migration of dissolved contaminants in the revised Report or explain why well MW-24D is appropriate to monitor potential vertical migration of dissolved phase contaminants in the San Andres Formation Aquifer in the response letter.

Comment 6

In Section 3.3 (PSH Thickness), page 6, and Section 3.3.2 (Upper Aquifer), page 7, the Respondent states, “[d]ue to recovery efforts, PSH thickness has decreased in certain wells despite fluctuations in the water table. PSH thickness has decreased or has not been measurable for multiple consecutive years in MW-2, MW-12, MPE-20, MPE-21, MPE-23, MPE-24, MPE-28, and MPE-31 [and t]here has been an overall decreasing trend in PSH thickness in the Upper Aquifer.” The statement is not supported by the data presented in the Report and may not be representative of overall site conditions. According to Table 3-2 (Summary of Groundwater Surface Elevations), PSH thickness in well MPE-20 increased from 0.03 to 1.48 feet between May and November 2021. A notable PSH thickness increase between May and November 2021 is similarly observed in wells MPE-12 (0 to 1.06 feet), MPE-14 (0.30 to 2.46 feet), and MPE-32 (0.11 to 1.00 feet). The PSH column thickness does not exhibit either decreasing or stable trends; rather it is fluctuating and persistent in multiple wells. Remove the statement, as appropriate, or provide additional data to support the assertion. Provide replacement pages for all applicable sections of the revised Report accordingly.

Comment 7

In Section 3.4.1 (Perched Aquifer), page 8, the Respondent states, “[a]nalytical data indicates that 1,4-dioxane was not detected in SVE-28 or RW-1. It should be noted that the laboratory detection limit [for 1,4-dioxane] was above the GCL for the May 2021 results. The laboratory was contacted about the detection limit and was lowered for the November 2021 results.” NMED acknowledges that the analytical issue associated with 1,4-dioxane was corrected in the November 2021 results. However, the naphthalene concentration in the groundwater sample collected from SVE-31 during the November 2021 sampling event is recorded as <2.0 µg/L according to Table 3-5a (Summary of Groundwater Analytical Results – Other Constituents Detected). The Groundwater Cleanup Level (GCL) for naphthalene is recorded as 1.43 µg/L and the reporting limit (<2.0 µg/L) exceeds the GCL (1.43 µg/L). Similarly, according to Table 3-5 (Summary of Groundwater Analytical Results), the reporting limits of vinyl chloride in the groundwater samples collected from wells SVE-30 and RW-1 (<5.0 µg/L) exceeded the GCL (1 µg/L) in 2021. Furthermore, the laboratory reports included in Appendix B indicate that other constituents (e.g., 1,2,3-trichloropropane) in multiple groundwater samples exceeded the screening levels listed in the 2021 NMED RAG. Therefore, it is not known whether these constituent concentrations exceeded the applicable screening levels in 2021. As specified in

Section VII.D of the 2013 Stipulated Final Order, the reporting limits for analytes must be lower than the applicable screening levels; otherwise, address the concentrations of all analytes where the reporting limits are higher than the corresponding GCLs as data quality exceptions and identify them as such in all related text, tables, and figures. Revise the appropriate sections in the revised Report and provide replacement pages.

In addition, although 1,4-dioxane was detected below the GCL in the groundwater sample collected from well SVE-30 during the November 2021 sampling event, the detection was not discussed. Since the Respondent discusses non-detection of 1,4-dioxane for other wells, it would be misleading to omit discussion regarding the detection of 1,4-dioxane. Include a discussion regarding the detection of 1,4-dioxane in the groundwater sample collected from well SVE-30 in the revised Report and provide replacement pages.

Comment 8

In Section 4.0 (Remediation System Operation, Maintenance, and Monitoring), page 10, the Respondent states, “[b]ased on the results, a pulsing sequence of one hour per day operation appears appropriate for MPE-16 to efficiently recover PSH. The pulsing evaluation was planned to continue on MPE-32, MPE-38, MPE-40, and MPE-41; however, due to semi-sampling event, air compressor repairs, and personnel field schedules, continuation of the pulse pump evaluation was delayed and is anticipated to be restarted in early Spring 2022.” NMED acknowledges that the proposed pulse pumping operation must be further evaluated in 2022. It took less than one hour of pumping to remove apparent PSH from well MPE-16; however, note that the duration required to clear discharge water from other MPE wells may take longer and must be adjusted; a sufficient pumping duration specific to each well must be applied. In addition, evaluate the effectiveness of pulse pumping operation for wells MPE-10, MPE-12, MPE-14, and MPE-20 where PSH was detected in 2021 as well as proposed wells MPE-16, MPE-32, MPE-38, MPE-40, and MPE-41. Present the results of the evaluation and provide a recommendation regarding pulse pumping operation in the 2022 report. No response required.

Comment 9

In Section 4.0 (Remediation System Operation, Maintenance, and Monitoring), page 11, the Respondent states, “[b]ased on historical documents, sulfate and chloride appears to naturally exist in the subsurface at the site, however a discussion with the NMOCD has been scheduled for March 31, 2022 and details of the discussion will be forthcoming in a memorandum.” The referenced memorandum that summarizes the OCD directives regarding the issue associated with sulfate and chloride must be submitted to NMED no later than **June 17, 2022**.

Comment 10

In Section 4.2 (Groundwater Treatment System Monitoring Results), page 12, the Respondent states, “[o]peration records for the irrigation system presented in Table 4-2 indicate that the volume of groundwater recovered, treated, and discharged in 2021 was approximately 129,200 gallons.” According to Table 4.2 (Summary of Treated Water Irrigation Rates), the total volume

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of irrigated water in 2021 is recorded as 144,900 gallons. Section 5.0 (Summary of Findings and Conclusions), page 14, bullet 4, also states that the groundwater/PSH recovery system recovered, treated, and discharged 144,900 gallons of groundwater in 2021. Resolve the discrepancy in the revised Report and provide replacement pages.

Comment 11

The laboratory reports included in Appendix B indicate that some volatile organic compounds (VOCs) are not listed as analytes. For example, 1,2-dichloroethane (EDC) is not included as an analyte under EPA Method 8260B. Explain whether the selected contaminants of concern (COCs) were previously approved by NMED in the response letter or include the current selection of COCs in the Operation, Maintenance, and Monitoring (OM&M) Plan update to be approved by NMED.

The Respondent must address all comments in this letter and submit a response letter, replacement pages, tables and figures and redline-strikeout and clean electronic versions of the revised Report no later than **October 15, 2022**. In addition, the memorandum required by Comment 9 must be submitted to NMED no later than **June 17, 2022**.

This approval is based on the information presented in the document as it relates to the objectives of the work identified by NMED at the time of review. Approval of this document does not constitute agreement with all information or every statement presented in the document.

If you have questions regarding this Approval with Modifications, please contact Michiya Suzuki of my staff at 505-690-6930.

Sincerely,

**Rick
Shean**

Digitally signed by
Rick Shean
Date: 2022.05.10
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Rick Shean
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
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File: TWP-22-001 and Reading 2022
NMOCD Administration Record, AP-125