

Tesoro Alaska Company LLC

Kenai Refinery 54741 Tesoro Road Kenai, AK 99611 Tel: 907-776-8191

January 4, 2021

Pete Campbell Environmental Specialist. Alaska Department of Environmental Conservation 43335 K-Beach Road, Suite 11 Soldotna, Alaska 99669

Submitted via email: Peter.Campbell@alaska.gov

Re: Treated Groundwater Injection Permit Quarterly Report

Dear Mr. Campbell:

Enclosed is the report for Tesoro's Kenai Refinery groundwater remediation system for October 1 through December 31, 2021. This data is to be submitted on a quarterly basis required by the Treated Groundwater Injection Plan.

The Treated Groundwater Injection Plan was revised and approved by the Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC), on October 31st 2017. As per the revised plan, Trihydro Corporation supplied a Qualified Environmental Professional (QEP) to collect and report the required data.

If you have any questions, please contact me at (907) 776-2090.

Sincerely,

Stephanie Plate, PE Environmental Engineer

Enclosure (1)



OCTOBER, NOVEMBER, DECEMBER 2021 TREATED GROUNDWATER REPORT PREPARED FOR TESORO ALASKA COMPANY, LLC

January 3, 2022

Project #: 39B-003-007

SUBMITTED BY: Tesoro Alaska Company, LLC

54741 Tesoro Road, Kenai, AK 99611

PREPARED BY: Trihydro Corporation 312 Tyee Street, Soldotna, AK 99669

ENGINEERING SOLUTIONS. ADVANCING BUSINESS.

CERTIFICATION STATEMENT OCTOBER, NOVEMBER, DECEMBER 2021 TREATED GROUNDWATER REPORT PREPARED FOR TESORO ALASKA COMPANY, LLC

I certify that the work presented in this report was performed by me or under my supervision. To the best of my knowledge, the data contained herein are true and accurate and the work was performed in accordance with professional standards.

Bianna Sorce

Date: 1/03/2022

Brianna Force, Project Manager Qualified Environmental Professional in accordance with 18 AAC 75.333



Introduction

This report summarizes the treated groundwater activities for the fourth quarter of 2022 (October, November, and December) at the Marathon Kenai Refinery as required by Treated Groundwater Injection Plan.

Marathon Kenai Refinery is permitted to inject treated water from two treatment systems including: 1) the PM Tray Strippers (inactive) injected to a trench injection system (PM), and 2) the Calgon Granular Activated Carbon (GAC) Treatment injected into a series of injection wells (Calgon).

Results Summary

The PM system is inactive; therefore, all groundwater continues to be diverted to the Calgon treatment system. Samples were collected monthly from the Calgon treatment system effluent and analyzed for the constituents listed on Table 1. The Calgon effluent samples were all below criteria for benzene and non-detect for all other constituents. All Calgon system flow limits and effluent concentrations were below ADEC criteria for the quarter. The latest carbon replacement occurred on September 29, 2021.

Table 1 summarizes flow and sample results for the Calgon treatment system



TABLE 1. TREATED WATER FLOW AND EFFLUENT ANALYTICAL RESULTS MARATHON KENAI REFINERY OCTOBER, NOVEMBER, DECEMBER 2021

| Calgon Unit OCTOBER NOVEMBER | DECEMBER |
|---|-----------|
| Limit | |
| Total Flow (gpd)* 1,000,000 240,480237,600 | 236,160 |
| Sample Collection Date 10/6/2021 11/2/2021 | 12/6/2021 |
| Effluent Limits (μg/L) | |
| Benzene 4.6 4.21 1.61 | 1.05 |
| Toluene 1,100 U (1.0) U (1.0) | U (1.0) |
| Ethylbenzene 15 U (1.0) U (1.0) | U (1.0) |
| Total Xylenes 190 U (3.0) U (3.0) | U (3.0) |
| n-Butylbenzene 1,000 U (1.0) U (1.0) | U (1.0) |
| sec-Butylbenzene 2,000 U (1.0) U (1.0) | U (1.0) |
| tert-Butylbenzene 690 U (1.0) U (1.0) | U (1.0) |
| Isopropylbenzene(cumene) 450 U (1.0) U (1.0) | U (1.0) |
| Napthalene 1.7 U (1.0) U (1.0) | U (1.0) |
| 1,2,4-Trimethylbenzene 15 U (1.0) U (1.0) | U (1.0) |
| 1,3,5-Trimethylbenzene 120 U (1.0) U (1.0) | U (1.0) |

µg/L - micrograms per liter

U - Non-Detectable at (detection limit)

gpd- gallons per day

*Flow at time of sample collection

Bolded results are above ADEC standards