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## Tesoro Alaska Company LLC

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

January 9, 2023

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, 2022. 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 31<sup>st</sup> 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 2022**  
**TREATED GROUNDWATER REPORT**  
**PREPARED FOR TESORO ALASKA COMPANY, LLC**

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**January 4, 2023**

**Project #: 39B-003-009**

**SUBMITTED BY:** Tesoro Alaska Company, LLC

54741 Tesoro Road, Kenai, AK 99611

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**PREPARED BY:** Trihydro Corporation

312 Tyee Street, Soldotna, AK 99669

ENGINEERING SOLUTIONS. ADVANCING BUSINESS.

**CERTIFICATION STATEMENT**  
**OCTOBER, NOVEMBER, DECEMBER 2022**  
**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.



Date: 01/04/2023

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 non-detect for the regulated constituents. The Calgon system flow limits and effluent concentrations were below ADEC criteria for the quarter. The latest carbon replacement occurred on September 27, 2022.

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 2022**

<b><u>Calgon Unit</u></b>		<b>OCTOBER</b>	<b>NOVEMBER</b>	<b>DECEMBER</b>
	<b>Limit</b>			
Total Flow (gpd)*	<b>1,000,000</b>	285,264	275,040	288,000
Sample Collection Date		10/3/2022	11/1/2022	12/5/2022
Effluent Limits (µg/L)				
Benzene	<b>4.6</b>	U (0.4)	U (0.4)	U (0.4)
Toluene	<b>1,100</b>	U (1.0)	U (1.0)	U (1.0)
Ethylbenzene	<b>15</b>	U (1.0)	U (1.0)	U (1.0)
Total Xylenes	<b>190</b>	U (3.0)	U (3.0)	U (3.0)
n-Butylbenzene	<b>1,000</b>	U (1.0)	U (1.0)	U (1.0)
sec-Butylbenzene	<b>2,000</b>	U (1.0)	U (1.0)	U (1.0)
tert-Butylbenzene	<b>690</b>	U (1.0)	U (1.0)	U (1.0)
Isopropylbenzene(cumene)	<b>450</b>	U (1.0)	U (1.0)	U (1.0)
Napthalene	<b>1.7</b>	U (1.0)	U (1.0)	U (1.0)
1,2,4-Trimethylbenzene	<b>15</b>	U (1.0)	U (1.0)	U (1.0)
1,3,5-Trimethylbenzene	<b>120</b>	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