



OCTOBER, NOVEMBER, DECEMBER 2024

TREATED GROUNDWATER REPORT

PREPARED FOR TESORO ALASKA COMPANY, LLC

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January 6, 2025

Project #: TESAL-025-0004

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

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**PREPARED BY:** Trihydro Corporation

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**CERTIFICATION STATEMENT  
OCTOBER, NOVEMBER, DECEMBER 2024**

**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.

*Brianna Force*

Date: 1/6/2025

Brianna Force, P.G.

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



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# 1.0 INTRODUCTION

This report, required by the approved Treated Groundwater Injection Plan (Trihydro 2017), summarizes the treated groundwater activities for the fourth quarter of 2024 (October, November, December) at the Marathon Kenai Refinery.

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

## 1.1 RESULTS SUMMARY

The PM system is currently inactive; therefore, extracted groundwater is diverted to the Calgon treatment system. Effluent samples were collected monthly from the Calgon treatment system and analyzed for the constituents listed on Table 1. The Calgon effluent samples were non-detect for the listed constituents. The fourth quarter 2024 Calgon system volume flow and effluent concentrations were below ADEC Permit criteria. The most recent GAC replacement occurred on October 1, 2024.

Table 1 summarizes the flow volume totals and analytical results for the Calgon treatment system.

## 2.0 REFERENCES

Trihydro. 2017. *Treated Groundwater Injection Plan*. Prepared for Tesoro Alaska Company.

**TABLE**

**TABLE 1. TREATED WATER FLOW AND EFFLUENT ANALYTICAL RESULTS  
MARATHON KENAI REFINERY  
OCTOBER, NOVEMBER, DECEMBER 2024**

<u>Calgon Unit</u>		OCTOBER	NOVEMBER	DECEMBER
	<b>Permit Limits</b>			
Total Flow (gpd)*	<b>1,000,000</b>	266,400	309,600	328,608
Sample Collection Date		10/14/2024	11/5/2024	12/2/2024
Effluent Parameters (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