



**TESORO**

Tesoro Alaska Company  
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January 9, 2020

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

emailed:  
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, 2020. This data is to be submitted on a quarterly basis required by the Treated Groundwater Injection Plan.

The Treated Groundwater Injection Plan (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 2019  
TREATED GROUNDWATER REPORT  
PREPARED FOR TESORO ALASKA COMPANY, LLC

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January 8, 2020

Project #: 39B-003-004

**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, NOVMEBER, DECEMBER 2019**  
**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: 01/08/2020

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 2019 (October, November, and December) at the Tesoro Kenai Refinery; as required by Treated Groundwater Injection Plan.

## **Results Summary**

All groundwater continues to be diverted to the Calgon treatment system, the PM system is inactive. 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 October 8, 2019.

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

**TABLE 1. TREATED WATER FLOW AND EFFLUENT ANALYTICAL RESULTS**  
**TESORO KENAI REFINERY**  
**OCTOBER, NOVEMBER, DECEMBER 2019**

<b><u>Calgon Unit</u></b>		<b>OCT</b>	<b>NOV</b>	<b>DEC</b>
	<b>Limit</b>			
Total Flow (gpd)*	<b>1,000,000</b>	226,083	226,085	226,087
Sample Collection Date		10/1/2019	11/14/2019	12/4/2019
Effluent Limits (µg/L)				
Benzene	<b>4.6</b>	3.58	0.817	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