

**m** DEPARTMENT  
OF HEALTH

PROTECTING, MAINTAINING & IMPROVING THE HEALTH OF ALL MINNESOTANS

December 21, 2018

RECEIVED  
DEC 27 2018  
CITY OF DULUTH  
CITY CLERK OFFICE

Duluth City Council  
c/o Mr. Jeffrey Cox, Clerk  
Duluth City Hall  
411 West First Street, Room 330  
Duluth, Minnesota 55802

Dear Council Members:

Subject: Quarterly Report, TOC/Alkalinity Monitoring for the Control of Disinfection Byproduct (DBP) Precursors, Duluth, St. Louis County, PWSID 1690011

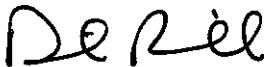
Your water system has been collecting total organic carbon (TOC) and alkalinity samples to determine compliance with the precursor removal requirement of the Stage 1 Disinfectant/Disinfection Byproduct (D/DBPs) Rule. The Stage 1 D/DBPs Rule requires surface water systems that use conventional filtration treatment to achieve specified TOC removal levels or meet one of the alternative compliance criteria specified in the rule.

The attached table contains your TOC and alkalinity results for the last four quarters. The C/E value on the last column of the report is a ratio of the achieved and the required TOC removal. An average C/E value of 1.0 or greater, i.e.,  $C/E \geq 1.0$ , indicates that the TOC removal requirement has been met.

Your water system must submit TOC/alkalinity samples as required by rule. Failure to submit these samples will result in a monitoring violation, to be determined quarterly. Compliance for TOC removal will be determined quarterly, based on the running average of the most recent 12 months monitoring results.

If you have any questions regarding the monitoring, results, or the alternative compliance criteria, please contact me at 651/201-4660.

Sincerely,



David Rindal, Compliance Engineer  
Community Public Water Supply Unit  
Environmental Health Division  
P.O. Box 64975  
St. Paul, Minnesota 55164-0975

DR:bs

Enclosure

cc: Water Superintendent  
Michael Luhrsen, District Engineer





625 North Robert Street St. Paul MN 55155-2538  
P.O. Box 64975 St. Paul MN 55164 - 0975

# MINNESOTA DEPARTMENT OF HEALTH SECTION OF DRINKING WATER PROTECTION

## Results Summary

Results from: 10/01/2018 - 12/31/2018

1690011 Duluth

### Collection

Date	Inventory Sample Point	Sample Point Description
11/06/2018	E01 TREATMENT PLANT #1	TREATMENT PLANT #1
11/06/2018	S04 RAW WATER	RAW WATER

Sample Type	Result	Units	Contaminant	Sample ID
Base	1.2	mg/L	Total Organic Carbon	18K0353-01
Base	44	mg/L	Alkalinity, Total	18K0353-02
Base	1.5	mg/L	Total Organic Carbon	

