

Pease Wastewater Treatment Facility SARS-CoV-2 Biomarker Results Summary

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Dates Sampled for this Monitoring Period:

Wednesday, July 27, 2022*
Wednesday, July 20, 2022
Wednesday, July 13, 2022
Wednesday, July 6, 2022
Wednesday, June 29, 2022
Wednesday, June 22, 2022
Wednesday, June 15, 2022

*New samples since last report

Method: A 24-hour composite sample was taken from July 26-27, 2022. This sample was preprocessed and extracted using a solids separation, Ceres Nanoscience viral concentration, and Kingfisher extraction approach. Two viral markers (N1 and N2) were quantified via Bio-Rad QX200 ddPCR.

Results: Both N1 and N2 viral biomarkers were detected in the composite sample taken July 26-27, 2022 (Table 1). The viral biomarker signal decreased by about half, and represented the lowest biomarker values measured at facilities participating in the statewide surveillance program this week (Figure 1).

Table 1: Sample date and biomarker results. "BDL" represents values below the quantified limits of instrument detection of 172 copies/100 mL wastewater.

Sample Date	SARS-CoV-2 Biomarkers	
	N1 copies/100mL	N2 copies/100mL
07/27/2022*	311	407
07/20/2022	652	711
07/13/2022	BDL	201
07/06/2022	214	205
06/29/2022	1,049	1,045
06/22/2022	238	295
06/15/2022	2,031	2,199

*New samples since last report

For more detailed information regarding local, county, and statewide COVID-19 infections, please refer to the data reported through the New Hampshire Division of Health and Human Services website <https://www.covid19.nh.gov/dashboard>.

Since June 6, 2022, the minimum values for SARS-CoV-2 measured in New Hampshire were below analytical detection limits (BDL) while the maximum reported N1 and N2 values across 12 reporting facilities have been 4,651 and 4,939 copies/100 ml wastewater, respectively. For the week of July 25, the maximum values measured at twelve reporting facilities are 2,377 and 2,265 copies/100 ml wastewater for N1 and N2, respectively.



Figure 1. Range of SARS-CoV-2 biomarker values measured at up to 13 wastewater facilities since the NH wastewater surveillance program began in early June 2022.