Table S3: Comparison of concentration and extraction methods using targeted sequencing for SARS-CoV-2 across raw and spiked wastewater samples. This table provides a comparative evaluation of sequencing results and includes the RT-ddPCR results for the ORF1a and RdRp gene targets, as well as genome coverage and median depth from the sequencing results. The tested methods include Innovaprep (INNOV), Nanotrap (NANO), ultracentrifugation (UltraC), PEG precipitation (Prec) paired with either the QIAamp RNeasy PowerFecal Pro Kit (RN) or the QIAamp Viral RNA Mini Kit (QIA), and the ZymoPURE Water DNA/RNA Kit. Low median depths for spiked wastewater samples are highlighted in red.

	Date	Concentration method	Extraction Method	ORF1a (cp/µL)	RdRp (cp/µL)	Median depth	Genome coverage
Raw wastewater	T2	INNOV	RN	5.06	3.52	0.00	39.78%
		NANO	RN	9.02	4.84	1.00	58.22%
		Prec	QIA	0.00	0.00	2.00	64.60%
		Prec	RN	6.16	6.16	4.00	78.01%
		UltraC	RN	8.80	6.38	83.50	72.73%
		Zymo	Zymo	10.78	11.00	1 324.00	95.20%
	T5	INNOV	RN	3.74	8.58	194.00	87.56%
		NANO	RN	3.96	4.18	1 913.50	82.95%
		Prec	QIA	2.42	2.64	1.00	55.03%
		Prec	RN	3.08	3.96	1 253.00	96.39%
		UltraC	RN	2.64	2.42	1 079.00	83.27%
		Zymo	Zymo	7.26	10.56	2 721.00	98.13%
Spiked wastewater	T2	INNOV	RN	554.40	1 243.00	8 289.50	99.91%
		NANO	RN	2 805.00	2 651.00	10 045.00	99.98%
		Prec	QIA	1 826.00	2 508.00	557.00	95.37%
		Prec	RN	1 002.10	1 430.00	9 904.00	99.70%
		UltraC	RN	2 134.00	2 310.00	9 849.00	99.71%
		Zymo	Zymo	4 444.00	4 400.00	10 012.50	99.87%
	T5	INNOV	RN	1 973.40	1 870.00	10 023.00	99.71%
		NANO	RN	2 301.20	2 235.20	7 740.50	99.73%
		Prec	QIA	4 967.60	6 292.00	7.00	89.84%
		Prec	RN	1 036.20	1 282.60	4 318.00	99.81%
		UltraC	RN	2 728.00	2 820.40	10 013.00	99.98%
		Zymo	Zymo	3 256.00	3 410.00	10 032.00	99.81%