



DATE: November 15, 2023

WQ 0.10.14.4

TO: Oregon Health Authority, Drinking Water Services

**SUBJECT: Monthly Report for October 2023
Bilateral Compliance Agreement
Intake *Cryptosporidium* Results
PWS # 4100657**

To Whom It May Concern:

Enclosed are results of laboratory analyses for *Cryptosporidium* from the Bull Run raw water intake for October. Monitoring for *Cryptosporidium* at the Bull Run intake is done to comply with the interim measures of the Bilateral Compliance Agreement (Oregon Health Authority, December 18, 2017).

Analyses for *Cryptosporidium* and *Giardia* were performed by the PWB Laboratory (see attached report). Also attached are copies of the monthly turbidity and raw coliform reports previously submitted to OHA in compliance with the SWTR. Results for the reporting month are summarized below.

***Cryptosporidium*, *Giardia*, Turbidity and Fecal Coliforms Data Summary for the Reporting Month**

<i>Cryptosporidium</i> and <i>Giardia</i> Field Samples				<i>Cryptosporidium</i> Recoveries		Fecal Coliforms	Turbidity
No. of Samples	Total Volume (L)	Total No. <i>Cryptosporidium</i> Oocysts	Total No. <i>Giardia</i> Cysts	No. of Matrix Spikes	Average Matrix Spike Recovery (%)	Highest Count (CFU/100 mL)	Highest Reading (NTU)
26	650	2	7	2	76.8	4	3.69

If you have any questions regarding these results, please contact me at 503-545-8190.

Sincerely,



Ann Levy
Environmental Manager

Transmitted: Four pages (including this transmittal memo) emailed to dwp.dmce@odhsoha.oregon.gov on this date.



Portland Water Bureau Laboratory
2010 N Interstate Ave, Portland, OR 97227

Cryptosporidium and Giardia Laboratory Analysis Report

Water System Information				Sample Information			
PWS ID:	OR4100657			Collection Month & Year:	Oct. 2023		
PWS Name:	Portland Water Bureau 1900 N Interstate Avenue Portland, Oregon 97227			Report Date:	November 6, 2023		
County:	Multnomah			Monitoring Regime:	Bilateral Compliance Agreement		
				Source Water:	Bull Run Intake - WTP-A		

PWB Sample ID	Loc ID	Sample Collection Date	Sample Type	Sample Volume Filtered (L)	Analysis Method	Cryptosporidium			Giardia		
						No. of Oocysts Spiked	No. of Oocysts Counted	Oocyst Matrix Spike Recovery (%)	No. of Cysts Spiked	No. of Cysts Counted	Cyst Matrix Spike Recovery (%)
BD03571	Intake 2PIS	10/1/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD03572	Intake 2PIS	10/1/2023	Field	25	PWBL-SOP-61 3	0	0		0	1	
BD03573	Intake 2PIS	10/3/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD03574	Intake 2PIS	10/3/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD03881	Intake 2PIS	10/8/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD03882	Intake 2PIS	10/8/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD03885	Intake 2PIS	10/8/2023	MS	25	PWBL-SOP-61 3	99	71	71.7	100	79	79
BD03883	Intake 2PIS	10/10/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD03884	Intake 2PIS	10/10/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD04304	Intake 2PIS	10/15/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD04305	Intake 2PIS	10/15/2023	Field	25	PWBL-SOP-61 3	0	1		0	0	
BD04306	Intake 2PIS	10/17/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD04307	Intake 2PIS	10/17/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD04399	Intake 2PIS	10/22/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD04400	Intake 2PIS	10/22/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD04401	Intake 2PIS	10/23/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD04402	Intake 2PIS	10/23/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD04403	Intake 2PIS	10/24/2023	Field	25	PWBL-SOP-61 3	0	0		0	1	
BD04404	Intake 2PIS	10/24/2023	Field	25	PWBL-SOP-61 3	0	0		0	2	
BD04405	Intake 2PIS	10/25/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD04406	Intake 2PIS	10/25/2023	Field	25	PWBL-SOP-61 3	0	1		0	0	
BD04734	Intake 2PIS	10/29/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD04735	Intake 2PIS	10/29/2023	MS	25	PWBL-SOP-61 3	99	81	81.8	99	88	88.9
BD04736	Intake 2PIS	10/29/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD04737	Intake 2PIS	10/30/2023	Field	25	PWBL-SOP-61 3	0	0		0	1	
BD04738	Intake 2PIS	10/30/2023	Field	25	PWBL-SOP-61 3	0	0		0	2	
BD04739	Intake 2PIS	10/31/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	
BD04740	Intake 2PIS	10/31/2023	Field	25	PWBL-SOP-61 3	0	0		0	0	

Unless otherwise noted, all data were generated in accordance with EPA Method 1623-modified (PWBL-SOP-61 3) / 1623.1 and 100% of the filtered volume was examined for each sample.

Reviewed by Marsha Farooqui

Date Reviewed: 11/09/2023

OHA - Drinking Water Services - Turbidity Monitoring Report Form

County: Multnomah

Slow Sand, Membrane, Diatomaceous Earth Filtration, or Unfiltered Systems

Portland Water Bureau

ID #: OR 4100657

WTP-A

Month/Year: 10/2023

DAY	12 AM (NTU)	4 AM (NTU)	8 AM (NTU)	NOON (NTU)	4 PM (NTU)	8 PM (NTU)	Highest Reading (NTU)
1	0.44	0.43	0.43	0.41	0.43	0.41	0.44
2	0.42	0.42	0.42	0.43	0.41	0.40	0.43
3	0.41	0.41	0.44	0.44	0.44	0.46	0.46
4	0.46	0.45	0.46	0.45	0.43	0.43	0.46
5	0.45	0.45	0.48	0.45	0.46	0.48	0.48
6	0.53	0.54	0.55	0.54	0.48	0.49	0.55
7	0.49	0.50	0.52	0.51	0.53	0.56	0.56
8	0.59	0.58	0.59	0.57	0.55	0.58	0.59
9	0.58	0.56	0.58	0.56	0.55	0.56	0.58
10	0.58	0.58	0.58	0.53	0.55	0.56	0.58
11	0.58	0.60	0.60	0.61	0.61	0.64	0.64
12	0.66	0.66	0.67	0.62	0.59	0.60	0.67
13	0.61	0.56	0.49	0.44	0.42	0.50	0.61
14	0.58	0.59	0.59	0.58	0.59	0.59	0.59
15	0.60	0.60	0.58	0.55	0.50	0.53	0.60
16	0.55	0.54	0.54	0.83	0.70	0.65	0.83
17	0.64	0.64	0.64	0.61	3.69	1.96	3.69
18	1.06	0.78	0.69	0.60	0.56	0.58	1.06
19	0.59	0.59	0.61	0.59	0.59	0.61	0.61
20	0.62	0.61	0.61	0.59	0.58	0.61	0.62
21	0.62	0.64	0.61	0.60	0.61	0.62	0.64
22	0.64	0.64	0.64	0.61	0.61	0.64	0.64
23	0.64	0.64	0.64	0.62	0.61	0.66	0.66
24	0.64	0.64	0.62	0.59	0.56	0.59	0.64
25	0.60	0.60	0.60	0.61	0.62	0.65	0.65
26	0.65	0.61	0.61	0.58	0.55	0.61	0.65
27	0.60	0.58	0.54	0.50	0.49	0.50	0.60
28	0.51	0.51	0.51	0.50	0.49	0.48	0.51
29	0.49	0.49	0.49	0.48	0.48	0.48	0.49
30	0.49	0.50	0.53	0.50	0.51	0.53	0.53
31	0.50	0.52	0.53	0.53	0.53	0.53	0.53

Slow Sand/Membrane/DE Filtration/Unfiltered			Monthly summary	
95% of daily turbidity readings ≤ 1 NTU? ¹	N/A	CT's met everyday?	Chlorine residual at entry point always ≥ 0.2 mg/L?	Chlorine residual measured in 95% of distribution samples?
All daily turbidity readings ≤ 5 NTU?	Yes	Yes	Yes	Yes

¹Filtered systems only

Signature: *Anna Vosa*
 Anna Vosa, P.E.

Date: 11/9/2023

OHA Drinking Water Services - Raw Coliform Data (Unfiltered)

Portland Water Bureau

ID#: OR 4100657

Month/Year: 10/2023

Date	Fecal Coliform (CFU/100mL)	Comments
10/1/2023	2	
10/2/2023	1	
10/3/2023	1	
10/4/2023	4	
10/5/2023	4	
10/6/2023	2	
10/7/2023	1	
10/8/2023	1	
10/9/2023	1	
10/10/2023	1	
10/11/2023	2	
10/12/2023	2	
10/13/2023	2	
10/14/2023	4	
10/15/2023	3	
10/16/2023	2	
10/17/2023	2	
10/18/2023	1	
10/19/2023	2	
10/20/2023	2	
10/21/2023	1	
10/22/2023	<1	
10/23/2023	<1	
10/24/2023	1	
10/25/2023	2	
10/26/2023	2	
10/27/2023	1	
10/28/2023	2	
10/29/2023	1	
10/30/2023	2	
10/31/2023	1	

Note: Fecal Coliform sampled at active Headworks Raw Water Intake (either 2P or 2PIS)

Six Month Summary:

# of Samples For Fecal Coliform:	184
# of Samples > 20 CFU/100mL:	0
Percent:	0.0%