



Amanda Fritz, Commissioner  
Michael Stuhr, P.E., Administrator

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Information: 503-823-7404  
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**DATE:** October 15, 2019

WQ 0.10.14.4

**TO:** Oregon Health Authority, Drinking Water Services

**SUBJECT: Monthly Report for September 2019  
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 September. 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**

<b><i>Cryptosporidium</i> and <i>Giardia</i> Field Samples</b>				<b><i>Cryptosporidium</i> Recoveries</b>		<b>Fecal Coliforms</b>	<b>Turbidity</b>
<b>No. of Samples</b>	<b>Total Volume (L)</b>	<b>Total No. <i>Cryptosporidium</i> Oocysts</b>	<b>Total No. <i>Giardia</i> Cysts</b>	<b>No. of Matrix Spikes</b>	<b>Average Matrix Spike Recovery (%)</b>	<b>Highest Count (CFU/100 mL)</b>	<b>Highest Reading (NTU)</b>
12	450	0	13	2	56.2	6	0.76

If you have any questions regarding these results, please contact me at 503-823-6135.

Sincerely,

Ann Levy  
Senior Environmental Program Manager

**Transmitted:** Four pages (including this transmittal memo) emailed to [dwp.dmce@state.or.us](mailto:dwp.dmce@state.or.us) on this date.



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

**Cryptosporidium and Giardia Laboratory Analysis Report**

<u>Water System Information</u>				<u>Sample Information</u>			
<b>PWS ID:</b>	OR4100657			<b>Collection Month &amp; Year:</b>	Sep. 2019		
<b>PWS Name:</b>	Portland Water Bureau 1900 N Interstate Avenue Portland, Oregon 97227			<b>Report Date:</b>	October 8, 2019		
<b>County:</b>	Multnomah			<b>Monitoring Regime:</b>	Bilateral Compliance Agreement		
				<b>Source Water:</b>	Bull Run Intake - WTP-A		

PWB Sample ID	Loc ID	Sample Collection Date	Sample Type	Sample Volume Filtered (L)	Analysis Method	<u>Cryptosporidium</u>			<u>Giardia</u>		
						No. of Oocysts Spiked	No. of Oocysts Counted	Oocyst Matrix Spike Recovery (%)	No. of Cysts Spiked	No. of Cysts Counted	Cyst Matrix Spike Recovery (%)
BC27478	Intake 2PIS	9/1/2019	Field	50	1623.1	0	0		0	0	
BC27479	Intake 2PIS	9/3/2019	Field	50	1623.1	0	0		0	4	
BC27825	Intake 2PIS	9/8/2019	Field	50	1623.1	0	0		0	0	
BC27826	Intake 2PIS	9/10/2019	Field	50	1623.1	0	0		0	0	
BC27827	Intake 2PIS	9/10/2019	MS	51	1623.1	98	23	23.5	98	75	76.5
BC28195	Intake 2PIS	9/15/2019	Field	50	1623.1	0	0		0	3	
BC28196	Intake 2PIS	9/17/2019	Field	50	1623.1	0	0		0	1	
BC28554	Intake 2PIS	9/22/2019	Field	25	PWBL-SOP-61 3	0	0		0	0	
BC28555	Intake 2PIS	9/22/2019	MS	25	PWBL-SOP-61 3	98	87	88.8	98	81	82.6
BC28556	Intake 2PIS	9/22/2019	Field	25	PWBL-SOP-61 3	0	0		0	0	
BC28772	Intake 2PIS	9/25/2019	Field	25	PWBL-SOP-61 3	0	0		0	2	
BC28773	Intake 2PIS	9/25/2019	Field	25	PWBL-SOP-61 3	0	0		0	0	
BC28849	Intake 2PIS	9/29/2019	Field	25	PWBL-SOP-61 3	0	0		0	2	
BC28850	Intake 2PIS	9/29/2019	Field	25	PWBL-SOP-61 3	0	0		0	1	

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: Mark San

Date Reviewed: 10/08/19

# 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: 09/2019

DAY	12 AM (NTU)	4 AM (NTU)	8 AM (NTU)	NOON (NTU)	4 PM (NTU)	8 PM (NTU)	Highest Reading (NTU)
1	0.34	0.36	0.34	0.35	0.35	0.35	<b>0.36</b>
2	0.36	0.35	0.34	0.34	0.34	0.34	<b>0.36</b>
3	0.34	0.34	0.35	0.33	0.35	0.34	<b>0.35</b>
4	0.34	0.34	0.34	0.33	0.35	0.34	<b>0.35</b>
5	0.36	0.35	0.34	0.35	0.34	0.37	<b>0.37</b>
6	0.37	0.37	0.36	0.35	0.35	0.39	<b>0.39</b>
7	0.40	0.39	0.39	0.39	0.39	0.38	<b>0.40</b>
8	0.39	0.39	0.38	0.36	0.38	0.38	<b>0.39</b>
9	0.38	0.39	0.38	0.38	0.39	0.38	<b>0.39</b>
10	0.40	0.40	0.41	0.39	0.38	0.40	<b>0.41</b>
11	0.40	0.40	0.41	0.39	0.38	0.40	<b>0.41</b>
12	0.43	0.43	0.41	0.39	0.38	0.41	<b>0.43</b>
13	0.43	0.43	0.42	0.42	0.40	0.43	<b>0.43</b>
14	0.43	0.43	0.44	0.42	0.42	0.44	<b>0.44</b>
15	0.45	0.45	0.76	0.44	0.45	0.44	<b>0.76</b>
16	0.45	0.46	0.44	0.44	0.44	0.45	<b>0.46</b>
17	0.44	0.46	0.44	0.45	0.44	0.45	<b>0.46</b>
18	0.45	0.44	0.44	0.43	0.44	0.44	<b>0.45</b>
19	0.44	0.44	0.45	0.42	0.45	0.45	<b>0.45</b>
20	0.49	0.47	0.45	0.44	0.44	0.45	<b>0.49</b>
21	0.48	0.48	0.47	0.45	0.44	0.44	<b>0.48</b>
22	0.47	0.47	0.45	0.45	0.44	0.45	<b>0.47</b>
23	0.48	0.46	0.46	0.43	0.45	0.45	<b>0.48</b>
24	0.48	0.48	0.47	0.44	0.45	0.46	<b>0.48</b>
25	0.48	0.48	0.45	0.42	0.44	0.44	<b>0.48</b>
26	0.46	0.46	0.45	0.44	0.43	0.43	<b>0.46</b>
27	0.45	0.45	0.44	0.42	0.42	0.44	<b>0.45</b>
28	0.45	0.45	0.45	0.42	0.40	0.40	<b>0.45</b>
29	0.43	0.43	0.43	0.43	0.44	0.44	<b>0.44</b>
30	0.45	0.46	0.45	0.45	0.45	0.46	<b>0.46</b>

Slow Sand/Membrane/DE Filtration/Unfiltered			Monthly summary	
95% of daily turbidity readings ≤ 1 NTU? <sup>1</sup>	<b>N/A</b>	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?	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>

<sup>1</sup>Filtered systems only

Signature:   
 Anna Vosa, P.E.

Date: 10/7/19

## OHA Drinking Water Services - Raw Coliform Data (Unfiltered)

Portland Water Bureau

ID#: OR 4100657

Month/Year: 09/2019

Date	Fecal Coliform (CFU/100mL)	Comments
9/1/2019	1	
9/2/2019	<1	
9/3/2019	<1	
9/4/2019	1	
9/5/2019	<1	
9/6/2019	<1	
9/7/2019	<1	
9/8/2019	<1	
9/9/2019	<1	
9/10/2019	2	
9/11/2019	<1	
9/12/2019	6	
9/13/2019	1	
9/14/2019	1	
9/15/2019	<1	
9/16/2019	1	
9/17/2019	<1	
9/18/2019	<1	
9/19/2019	<1	
9/20/2019	<1	
9/21/2019	<1	
9/22/2019	<1	
9/23/2019	<1	
9/24/2019	1	
9/25/2019	<1	
9/26/2019	<1	
9/27/2019	<1	
9/28/2019	2	
9/29/2019	1	
9/30/2019	1	

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

### Six Month Summary:

# of Samples For Fecal Coliform:	182
# of Samples > 20 CFU/100mL:	0
Percent:	0.0%