



DATE: July 15, 2019 WQ 0.10.14.4

TO: Oregon Health Authority, Drinking Water Services

**SUBJECT: Monthly Report for June 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 June. 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).

All 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)
11	550	0	0	1	67.0	4	0.59

If you have any questions regarding these results, please contact me at 503-823-7168.

Sincerely,



Ann Levy
Senior Environmental Program Manager

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



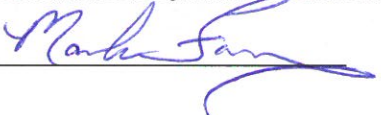
Portland Water Bureau Laboratory
2010 N Interstate Ave, Portland, OR 97227

Cryptosporidium and Giardia Laboratory Analysis Report

Water System Information				Sample Information			
PWS ID:	OR4100657			Collection Month & Year:	June 2019		
PWS Name:	Portland Water Bureau 1900 N Interstate Avenue Portland, Oregon 97227			Report Date:	July 5, 2019		
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 (%)
BC23517	Intake 2PIS	6/2/2019	Field	50	1623.1	0	0		0	0	
BC23518	Intake 2PIS	6/3/2019	Field	50	1623.1	0	0		0	0	
BC23519	Intake 2PIS	6/4/2019	Field	50	1623.1	0	0		0	0	
BC23520	Intake 2PIS	6/5/2019	Field	50	1623.1	0	0		0	0	
BC23896	Intake 2PIS	6/9/2019	Field	50	1623.1	0	0		0	0	
BC23897	Intake 2PIS	6/11/2019	Field	50	1623.1	0	0		0	0	
BC23898	Intake 2PIS	6/11/2019	MS	50.75	1623.1	100	67	67.0	100	63	63.0
BC24130	Intake 2PIS	6/16/2019	Field	50	1623.1	0	0		0	0	
BC24131	Intake 2PIS	6/18/2019	Field	50	1623.1	0	0		0	0	
BC24283	Intake 2PIS	6/23/2019	Field	50	1623.1	0	0		0	0	
BC24284	Intake 2PIS	6/25/2019	Field	50	1623.1	0	0		0	0	
BC24565	Intake 2PIS	6/30/2019	Field	50	1623.1	0	0		0	0	

Unless otherwise noted, all data were generated in accordance with EPA Method 1623 and 100% of the filtered volume was examined for each sample.

Reviewed by 

Date Reviewed: 7/5/19

OHA - Drinking Water Services - Turbidity Monitoring Report Form

County: Multnomah

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

System Name: Portland Water Bureau

ID #: OR 4100657

WTP: WTP- A

Month/Year: 06/2019

DAY	12 AM (NTU)	4 AM (NTU)	8 AM (NTU)	NOON (NTU)	4 PM (NTU)	8 PM (NTU)	Highest Reading (NTU)	Peak Hourly Flow (GPM)		
								Cond 2	Cond 3	Cond 4
1	0.24	0.23	0.24	0.24	0.59	0.29	0.59	24552	31128	26115
2	0.28	0.25	0.25	0.26	0.24	0.25	0.28	22847	29128	24307
3	0.26	0.25	0.24	0.25	0.24	0.25	0.26	22750	33326	24432
4	0.26	0.26	0.25	0.23	0.24	0.24	0.26	23187	32771	24646
5	0.25	0.24	0.24	0.23	0.23	0.23	0.25	28583	33507	29151
6	0.23	0.23	0.24	0.23	0.23	0.23	0.24	17351	32931	26203
7	0.23	0.23	0.24	0.24	0.24	0.24	0.24	17493	29132	26151
8	0.23	0.24	0.24	0.24	0.23	0.24	0.24	17274	28660	26130
9	0.23	0.24	0.23	0.24	0.23	0.24	0.24	20274	28691	31542
10	0.25	0.24	0.24	0.23	0.23	0.24	0.25	20361	36521	35089
11	0.24	0.25	0.24	0.23	0.23	0.23	0.25	20382	36601	34292
12	0.24	0.25	0.25	0.23	0.24	0.25	0.25	20399	36628	34318
13	0.24	0.24	0.24	0.23	0.24	0.25	0.25	20552	36670	34120
14	0.24	0.24	0.25	0.24	0.24	0.24	0.25	20615	32740	34135
15	0.24	0.25	0.24	0.24	0.24	0.25	0.25	20406	29083	30266
16	0.25	0.24	0.24	0.23	0.24	0.24	0.25	20344	28653	30141
17	0.24	0.24	0.25	0.24	0.25	0.25	0.25	20563	32903	30391
18	0.29	0.25	0.25	0.24	0.24	0.25	0.29	20448	32503	30234
19	0.25	0.24	0.24	0.25	0.28	0.25	0.28	21049	33396	30984
20	0.26	0.25	0.25	0.28	0.25	0.25	0.28	20639	32413	30141
21	0.26	0.25	0.25	0.25	0.25	0.25	0.26	20500	25729	30802
22	0.26	0.25	0.26	0.27	0.26	0.25	0.27	20549	25274	30099
23	0.27	0.27	0.25	0.25	0.25	0.25	0.27	20628	29115	34990
24	0.25	0.25	0.26	0.28	0.25	0.26	0.28	20611	28733	34323
25	0.28	0.25	0.27	0.25	0.28	0.25	0.28	27667	28642	39021
26	0.25	0.25	0.25	0.25	0.28	0.25	0.28	27566	15545	50542
27	0.26	0.27	0.28	0.25	0.26	0.25	0.28	27403	14378	40052
28	0.25	0.28	0.24	0.25	0.26	0.25	0.28	23726	14410	33505
29	0.25	0.25	0.24	0.24	0.25	0.25	0.25	23719	14479	33812
30	0.27	0.26	0.25	0.25	0.24	0.26	0.27	23660	22229	33667

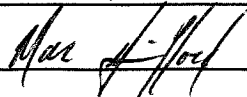
Slow Sand/Membrane/DE Filtration/Unfiltered		Monthly summary	
95% of daily turbidity readings ≤ 1 NTU? ¹	CT's met everyday?	Chlorine residual at entry point always ≥ 0.2 mg/L?	Chlorine residual measured in 95% of distribution samples?
N/A	Yes	Yes	Yes
All daily turb readings ≤ 5 NTU?	Yes	Yes	Yes

¹Filtered systems only

Printed Name: Mac Gifford, P.E.

Phone: (503) 823-1507

Signature: _____



Date: 7-9-19

OHA Drinking Water Services - Raw Coliform Data (Unfiltered)

PWS Name: Portland Water Bureau

PWS ID#: OR 4100657

Month/Year: 6/2019

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

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

Six Month Summary:

# of Samples For Fecal Coliform:	179
# of Samples > 20 CFU/100mL:	0
Percent:	0.0%