



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



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February 6, 2020

Carrie Gentry  
Oregon Health Authority  
Drinking Water Services  
PO Box 14450  
Portland, OR 97293-0450

Subject: Bilateral Compliance Agreement – Quarterly Status Report

Dear Carrie:

This letter and attachment constitutes the Portland Water Bureau's (PWB) submission of its quarterly status report for the Bilateral Compliance Agreement, Section IV.D.6 (Oregon Health Authority; December 18, 2017). This report covers the period of October – December 2019.

If you have any questions regarding this report, please feel free to contact me at (503) 823-7648 or [yone.akagi@portlandoregon.gov](mailto:yone.akagi@portlandoregon.gov).

Sincerely,

Yone Akagi, P.E.  
Water Quality Manager

Enclosure

Cc: Ann Levy, Chris Wanner, David Peters



# Status Report

Bilateral Compliance Agreement

February 6, 2020

*Reporting Period: October 1 – December 31, 2019*

As part of the Bilateral Compliance Agreement (BCA) Interim Measures, Section IV.D.6 requires that Portland Water Bureau (PWB) provide Oregon Health Authority – Drinking Water Services (OHA) a status report every quarter until *Cryptosporidium* treatment compliance is achieved. The report is intended to be a summary and must be submitted no later than 10 days after the end of the first month following the end of each calendar quarter. The following information must be included:

1. Intake monitoring results and genotyping results received the previous quarter;
2. Watershed activities conducted the previous quarter including inspections (security, sanitary facilities, landslides, diversion pool fence), significant events or changes, and tributary or scat monitoring results received the previous quarter; and
3. Status of progress towards construction of filtration facility and any milestones specific in Section III of the BCA

This status report covers the period of October – December 2019.

## 1. Intake Monitoring and Genotyping Results

Intake monitoring results for *Cryptosporidium* were submitted to OHA in monthly compliance reports on November 14, 2019, December 13, 2019, and January 16, 2020 and are provided in Appendix A.

No water samples were successfully genotyped during the reporting period. Analytical Services, Inc. (ASI) attempted genotyping on eleven PWB intake slides that tested positive for *Cryptosporidium* by Methods 1623/1623.1 between November 2018 and January 2019. The analyses were conducted in August 2019 and reported to PWB in November 2019. All 11 samples were reported as invalid due to a QA/QC failure. The results for samples received during the reporting period are presented in Table 1.

There are an additional 40 *Cryptosporidium*-positive slides from intake samples that were collected between January 2019 and December 2019. These samples are being held for genotyping while PWB continues to work with its contract labs at ASI and OHSU to troubleshoot and validate the method.

Table 1. Genotyping Results from *Cryptosporidium*-Positive Intake Samples

Sample ID Number	Collection Date	Report Date	PCR Result
BC15294	11/11/2018	11/21/2019	Invalid
BC15578	11/19/2018	11/21/2019	Invalid
BC16462	12/10/2018	11/21/2019	Invalid
BC16463	12/11/2018	11/21/2019	Invalid
BC16465	12/12/2018	11/21/2019	Invalid
BC16762	12/19/2018	11/21/2019	Invalid
BC17000	12/23/2018	11/21/2019	Invalid
BC17001	12/24/2018	11/21/2019	Invalid
BC17184	12/31/2018	11/21/2019	Invalid
BC17186	1/2/2019	11/21/2019	Invalid
BC17436	1/7/2019	11/21/2019	Invalid

## 2. Watershed Activities

The following subsections provide status updates on the inspections conducted and monitoring results received during the reporting period, as well as any significant watershed events or changes identified.

### Security

Watershed Rangers routinely conduct security inspections of the Bull Run Watershed Management Unit. On a weekly basis, rangers inspected multiple boundary access points and looked for evidence of illicit activity including trespass. During the reporting period, rangers submitted 23 security incidents or observations. None of the reported incidents occurred inside the water supply drainage boundary.

### Sanitary Facilities

Sanitary facility condition inspections covering all portable and permanent facilities within the watershed during the reporting period are summarized in Table 2. No deficiencies were observed.

A waste transport inspection of the holding tank at Bear Creek House was conducted on October 9, 2019. No deficiencies were observed.

Table 2. Sanitary Facility Condition Inspections

<b>Date</b>	<b>Location</b>	<b>Deficiencies</b>
	Main Gate	None
	Bear Creek House – ADA	None
	Bear Creek House – Unit #1 of 2	None
	Bear Creek House – Unit #2 of 2	None
	Bear Creek House – Permanent Tank	None
10/9/2019	Bull Run Lake – Unit #1 of 2	None
	Bull Run Lake – Unit #2 of 2	None
	Road 10 MM 30.5	None
	Teardrop Area	None
	Headworks Parking Lot	None
	Road 10/Road 14 Junction Unit #1 of 1	None
10/11/2019	Road 10/Road 1027 Junction	None
	Walker Prairie Scaling Station – Unit #1 of 2	None
10/15/2019	Walker Prairie Scaling Station – Unit #2 of 2	None
	Camp Creek Microwave Tower	None
11/14/2019	Road 10/Road 14 Junction – Unit #2 of 3	None
	Road 10/Road 14 Junction – Unit #3 of 3	None

### Landslides

The last annual inspection for landslide areas was completed in June 2019. The next landslide inspection is planned for the spring or summer of 2020 when weather conditions are suitable.

### Diversion Pool Fence

Routine inspections of the Diversion Pool fence were completed daily by Water Treatment Operators. Comprehensive inspections were conducted monthly by Watershed Specialists on October 17, November 7, and December 27. Wildlife-specific inspections were conducted by Water Quality staff on October 15, November 13, and December 9. There were no contamination vulnerabilities detected during the reporting period, and no breaches of the Diversion Pool fence or wildlife barriers.

### Tributary and other Non-Intake Water Monitoring Results

Samples were collected from the four main tributaries at regular intervals in addition to during high flow events. Samples were also collected at Reservoir 1. A total of 20 samples were collected from the major tributaries and 15 from Reservoir 1. The results for samples received during the reporting period are presented in Table 3. *Cryptosporidium* was detected once from Key Stations 15 and 44, twice from Key Station 35, and three times from Key Station 18 and Reservoir 1. All ten positive samples have been held for genotyping.

Table 3. Results of Non-Intake Water Samples October 1, 2019 to December 31, 2019

Collection Date	Report Date	Location	<i>Cryptosporidium</i> (count)	<i>Giardia</i> (count)	Volume (L)	Method*
10/2/2019	10/7/2019	Bull Run Reservoir 1 - 895' & 930'	0	0	25	DAMM
10/2/2019	10/7/2019	Bull Run Reservoir 1 - 965' & 930'	0	0	25	DAMM
10/2/2019	10/7/2019	Bull Run Reservoir 1 - 895'	0	0	25	DAMM
10/19/2019	10/25/2019	Key Station 15 – North Fork	0	1	50	1623.1
10/19/2019	10/25/2019	Key Station 18 - Mainstem	0	1	50	1623.1
10/19/2019	10/25/2019	Key Station 35 – South Fork	0	3	50	1623.1
10/19/2019	10/20/2019	Key Station 44 – Fir Creek	0	1	50	1623.1
10/21/2019	10/28/2019	Key Station 15 – North Fork	2	0	50	1623.1
10/21/2019	10/28/2019	Key Station 18 - Mainstem	2	0	50	1623.1
10/21/2019	10/28/2019	Key Station 35 – South Fork	3	0	50	1623.1
10/21/2019	10/28/2019	Key Station 44 – Fir Creek	0	0	50	1623.1
10/30/2019	11/6/2019	Bull Run Reservoir 1 - 895' & 930'	2	0	50	1623.1
10/30/2019	11/6/2019	Bull Run Reservoir 1 - 965' & 1000'	1	0	50	1623.1
10/30/2019	11/6/2019	Bull Run Reservoir 1 - 1000'	1	0	50	1623.1
11/13/2019	11/18/2019	Bull Run Reservoir 1 - 895' & 930'	0	0	50	1623.1
11/13/2019	11/18/2019	Bull Run Reservoir 1 - 965' & 1000'	0	0	50	1623.1
11/13/2019	11/18/2019	Bull Run Reservoir 1 - 895'	0	0	50	1623.1
11/19/2019	12/6/2019	Key Station 15 – North Fork	0	0	50	1623.1
11/19/2019	12/9/2019	Key Station 18 - Mainstem	4	0	50	1623.1
11/19/2019	12/9/2019	Key Station 35 – South Fork	2	1	50	1623.1
11/19/2019	12/6/2019	Key Station 44 – Fir Creek	0	2	50	1623.1
12/4/2019	12/9/2019	Bull Run Reservoir 1 - 895' & 930'	0	0	50	1623.1
12/4/2019	12/9/2019	Bull Run Reservoir 1 - 965' & 1000'	0	0	50	1623.1
12/4/2019	12/9/2019	Bull Run Reservoir 1 - 895'	0	0	50	1623.1
12/9/2019	12/12/2019	Bull Run Reservoir 1 - 930' & 965'	0	0	50	1623.1
12/9/2019	12/12/2019	Bull Run Reservoir 1 - 1000'	0	0	50	1623.1
12/9/2019	12/12/2019	Bull Run Reservoir 1 - 895'	0	0	50	1623.1
12/16/2019	12/20/2019	Key Station 15 – North Fork	0	0	50	1623.1
12/16/2019	12/20/2019	Key Station 18 - Mainstem	0	0	50	1623.1
12/16/2019	12/20/2019	Key Station 35 – South Fork	0	10	50	1623.1
12/16/2019	12/20/2019	Key Station 44 – Fir Creek	1	0	50	1623.1
12/20/2019	12/26/2019	Key Station 15 – North Fork	0	0	50	1623.1
12/20/2019	12/26/2019	Key Station 18 - Mainstem	2	0	50	1623.1
12/20/2019	12/26/2019	Key Station 35 – South Fork	0	3	50	1623.1
12/20/2019	12/26/2019	Key Station 44 – Fir Creek	0	0	50	1623.1

The genotyping results from *Cryptosporidium*-positive samples collected from Key Station 44 and Reservoir 1 in December 2018 were received this quarter and are shown in Table 4. All four samples were reported as invalid due to a QA/QC failure. There are an additional 19 *Cryptosporidium*-positive slides from Key Station samples and 20 *Cryptosporidium*-positive slides from reservoir samples that were

collected between January 2019 and October 2019. These samples are being held for genotyping while PWB continues to work with its contract labs at ASI and OHSU to troubleshoot and validate the method.

Table 4. Genotyping Results for Non-Intake Water Samples

Sample ID Number	Location	Collection Date	Report Date	PCR Result
BC16659	Key Station 44	12/11/2018	11/21/2019	Invalid
BC17112	Bull Run Reservoir 1 - 930', 965', 1000' & 1030'	12/26/2018	11/21/2019	Invalid
BC17113	Bull Run Reservoir 1 - 895', 930' & 1030'	12/26/2018	11/21/2019	Invalid
BC17114	Bull Run Reservoir 1 - 930', 965', 1000' & 1030'	12/26/2018	11/21/2019	Invalid

### Scat Monitoring Results

The *Cryptosporidium* PCR and genotyping results received during the reporting period for wildlife scat samples are presented in Table 5. Out of a total of 32 samples, eight were *Cryptosporidium*-positive. Genotyping results will be discussed in the annual Bull Run Interim Measures Watershed Report for Water Year 2020 that will be submitted to OHA by the end of calendar year 2020.

Table 5. Wildlife Scat *Cryptosporidium* Results October 1, 2019 to December 31, 2019

Sample ID	Wildlife	Collection Date	Report Date	PCR Result	Genotyping Result
191002-1128	Bobcat	10/2/2019	12/30/2019	Positive	<i>Cryptosporidium felis</i>
191004-1115	Coyote	10/4/2019	12/13/2019	Negative	
191004-1126	Bobcat	10/4/2019	12/13/2019	Positive	<i>Cryptosporidium ubiquitum</i>
191004-1201	Bobcat	10/4/2019	12/13/2019	Negative	
191004-1219	Bobcat	10/4/2019	12/13/2019	Negative	
191007-1055	Grouse	10/7/2019	12/13/2019	Negative	
191007-1111	Grouse	10/7/2019	12/13/2019	Negative	
191007-1126	Grouse	10/7/2019	12/13/2019	Negative	
191007-1139	Bear	10/7/2019	12/13/2019	Positive	PNW19a
191007-1201	Grouse	10/7/2019	12/13/2019	Negative	
191009-1126	Coyote	10/9/2019	12/13/2019	Negative	
191009-1152	Grouse	10/9/2019	12/13/2019	Negative	
191009-1224	Deer	10/9/2019	12/13/2019	Negative	
191015-1145	Deer	10/15/2019	12/13/2019	Negative	
191015-1151	Deer	10/15/2019	12/13/2019	Negative	
191016-1208	Bobcat	10/16/2019	12/13/2019	Positive	<i>Cryptosporidium</i> spp. (unnamed)
191112-1028	Bobcat	11/12/2019	12/13/2019	Negative	
191112-1048	Grouse	11/12/2019	12/13/2019	Negative	
191112-1057	Bobcat	11/12/2019	12/13/2019	Negative	
191112-1140	Bobcat	11/12/2019	12/13/2019	Negative	

Table 5. Wildlife Scat *Cryptosporidium* Results October 1, 2019 to December 31, 2019

Sample ID	Wildlife	Collection Date	Report Date	PCR Result	Genotyping Result
191112-1241	Coyote	11/12/2019	12/13/2019	Positive	<i>Cryptosporidium</i> spp. (novel)*
191112-1251	Coyote	11/12/2019	12/13/2019	Positive	<i>Cryptosporidium canis</i>
191113-1217	Deer	11/13/2019	12/13/2019	Negative	
191113-1224	Deer	11/13/2019	12/13/2019	Negative	
191113-1227	Deer	11/13/2019	12/13/2019	Negative	
191118-1205	Coyote	11/18/2019	12/13/2019	Negative	
191118-1221	Bobcat	11/18/2019	12/13/2019	Negative	
191118-1255	Bobcat	11/18/2019	12/13/2019	Negative	
191118-1304	Bobcat	11/18/2019	12/13/2019	Negative	
191118-1318	Coyote	11/18/2019	12/13/2019	Positive	<i>Cryptosporidium canis</i>
191118-1324	Bobcat	11/18/2019	12/13/2019	Negative	
191127-1158	Bobcat	11/27/2019	12/30/2019	Positive	<i>Cryptosporidium felis</i>

\*A genotype is labeled as novel if the closest match to GenBank or other PWB sequences is less than 99.5%.

### Significant Watershed Events or Changes

No significant events or changes in the watershed were identified during the reporting period. Examples of events or changes in the watershed that may be included in this report include wildfire, flooding or other extreme weather event, a landslide and/or major turbidity event, major changes in operations, or a significant wildlife or domestic animal incident or incursion related to *Cryptosporidium* risk.

## 3. Filtration Facility Construction Update

Progress on the Bull Run Filtration Project continued on schedule. In the past quarter, the project team continued pilot plant operations, developing project controls and standards, developing and implementing the Program Management Information System (PMIS), and building the project team. The team began finalizing Project Definition and is preparing to transition to design.

To wrap up Project Definition, the project team continued to hold meetings and workshops to facilitate information sharing and decision making during this phase. The project team presented treatment packages that were capable of meeting compliance requirements and community values to Council and met with Council and the Portland Utility Board to respond to questions. The team received Council adoption of priority values and project direction. Adoption of the Council Resolution on November 27, 2019 allows the project team to finalize the Project Definition phase and begin work to finalize Project Definition Report (PDR). A draft PDR was sent out for review in December and will be used to develop a preliminary design.

The team also received Council authorization for the filtration design contract on November 27, 2019 and will issue a Notice to Proceed to Stantec. Design is anticipated to start in January 2020.

The Project's Construction Manager/General Contractor (CM/GC) RFP is being finalized and will be advertised in January 2020. Similarly, the RFP for pipeline design is being finalized and will be advertised in January 2020.

The pilot plant continued testing various treatment processes including coagulants and ozone. The team has begun drafting an Interim Pilot Study Report based on the piloted treatment processes.

The project team continues to meet with the geotechnical technical advisory committee (TAC), as needed. The geotechnical TAC will continue to provide insight and advice on soils and potential geologic concerns that may impact the filtration site and/or pipeline construction.

In October the EPA announced that it was inviting PWB to apply for a low-interest loan under the Water Infrastructure Finance and Innovation Act (WIFIA). The project team continued drafting a WIFIA application and anticipates submitting the application in spring 2020. If approved, the project team anticipates closing on a loan in late summer to fall.

The project team continues to hold public outreach and community engagement events. The team has been working with various county and community groups, including land use and permitting staff with both Multnomah and Clackamas Counties. The team continues to collaborate with neighbors. A Site Advisory Group composed of neighbors continues to provide ongoing communication opportunities between neighbors and project staff.

# Appendix A: Intake Monitoring Results

A-1



**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>	Oct. 2019		
<b>PWS Name:</b>	Portland Water Bureau 1900 N Interstate Avenue Portland, Oregon 97227			<b>Report Date:</b>	November 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	<i>Cryptosporidium</i>			<i>Giardia</i>		
						No. of Oocysts Spiked	No. of Oocysts Counted	Oocyst Matrix Spike Recovery (%)	No. of Cysts Spiked	No. of Cysts Counted	Cyst Matrix Spike Recovery (%)
BC28851	Intake 2PIS	10/1/2019	Field	25	PWBL-SOP-61.3	0	0		0.0	1	
BC28852	Intake 2PIS	10/1/2019	Field	25	PWBL-SOP-61.3	0	0		0.0	1	
BC29156	Intake 2PIS	10/6/2019	Field	25	PWBL-SOP-61.3	0	0		0.0	0	
BC29157	Intake 2PIS	10/6/2019	MS	25	PWBL-SOP-61.3	98	91	92.8	99	85	85.8
BC29158	Intake 2PIS	10/6/2019	Field	25	PWBL-SOP-61.3	0	0		0.0	1	
BC29159	Intake 2PIS	10/8/2019	Field	25	PWBL-SOP-61.3	0	0		0.0	0	
BC29160	Intake 2PIS	10/8/2019	Field	25	PWBL-SOP-61.3	0	0		0.0	0	
BC29462	Intake 2PIS	10/13/2019	Field	25	PWBL-SOP-61.3	0	0		0.0	0	
BC29463	Intake 2PIS	10/13/2019	Field	25	PWBL-SOP-61.3	0	0		0.0	0	
BC29464	Intake 2PIS	10/15/2019	Field	25	PWBL-SOP-61.3	0	0		0.0	1	
BC29465	Intake 2PIS	10/15/2019	Field	25	PWBL-SOP-61.3	0	0		0.0	0	
BC29763	Intake 2PIS	10/20/2019	Field	25	PWBL-SOP-61.3	0	0		0.0	1	
BC29764	Intake 2PIS	10/20/2019	Field	25	PWBL-SOP-61.3	0	0		0.0	1	
BC29765	Intake 2PIS	10/22/2019	Field	25	PWBL-SOP-61.3	0	1		0.0	1	
BC29766	Intake 2PIS	10/22/2019	Field	25	PWBL-SOP-61.3	0	1		0.0	1	
BC30130	Intake 2PIS	10/29/2019	Field	50	1623.1	0	1		0.0	2	
BC30131	Intake 2PIS	10/30/2019	Field	50	1623.1	0	1		0.0	0	
BC30391	Intake 2PIS	10/31/2019	Field	50	1623.1	0	0		0.0	0	
BC30392	Intake 2PIS	10/31/2019	MS	51	1623.1	98	70	71.4	99	75	75.8

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 Son

Date Reviewed: 11/08/19

# Appendix A: Intake Monitoring Results



**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>	Nov. 2019		
<b>PWS Name:</b>	Portland Water Bureau 1900 N Interstate Avenue Portland, Oregon 97227			<b>Report Date:</b>	December 5, 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	<i>Cryptosporidium</i>			<i>Giardia</i>		
						No. of Oocysts Spiked	No. of Oocysts Counted	Oocyst Matrix Spike Recovery (%)	No. of Cysts Spiked	No. of Cysts Counted	Cyst Matrix Spike Recovery (%)
BC30393	Intake 2PIS	11/1/2019	Field	50	1623.1	0	1		0.0	2	
BC30512	Intake 2PIS	11/3/2019	Field	50	1623.1	0	0		0.0	0	
BC30513	Intake 2PIS	11/4/2019	Field	50	1623.1	0	0		0.0	0	
BC30514	Intake 2PIS	11/5/2019	Field	50	1623.1	0	0		0.0	0	
BC30515	Intake 2PIS	11/6/2019	Field	50	1623.1	0	0		0.0	1	
BC30776	Intake 2PIS	11/10/2019	Field	50	1623.1	0	1		0.0	0	
BC30777	Intake 2PIS	11/11/2019	Field	50	1623.1	0	0		0.0	1	
BC30778	Intake 2PIS	11/12/2019	Field	50	1623.1	0	0		0.0	1	
BC30779	Intake 2PIS	11/13/2019	Field	50	1623.1	0	0		0.0	1	
BC31116	Intake 2PIS	11/17/2019	Field	50	1623.1	0	1		0.0	0	
BC31117	Intake 2PIS	11/18/2019	Field	50	1623.1	0	0		0.0	1	
BC31118	Intake 2PIS	11/18/2019	MS	50.5	1623.1	98	71	72.4	99	80	79.8
BC31119	Intake 2PIS	11/19/2019	Field	50	1623.1	0	1		0.0	0	
BC31120	Intake 2PIS	11/20/2019	Field	50	1623.1	0	0		0.0	0	
BC31427	Intake 2PIS	11/24/2019	Field	50	1623.1	0	0		0.0	0	
BC31428	Intake 2PIS	11/25/2019	Field	50	1623.1	0	0		0.0	0	
BC31429	Intake 2PIS	11/26/2019	Field	50	1623.1	0	0		0.0	0	
BC31430	Intake 2PIS	11/27/2019	Field	50	1623.1	0	0		0.0	0	

Unless otherwise noted, all data were generated in accordance with EPA Method 1623/1623.1 and 100% of the filtered volume was examined for each sample.

Reviewed by Marla Fung

Date Reviewed: 12/05/19



**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>	Dec. 2019		
<b>PWS Name:</b>	Portland Water Bureau 1900 N Interstate Avenue Portland, Oregon 97227			<b>Report Date:</b>	January 9, 2020		
<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	<i>Cryptosporidium</i>			<i>Giardia</i>		
						No. of Oocysts Spiked	No. of Oocysts Counted	Oocyst Matrix Spike Recovery (%)	No. of Cysts Spiked	No. of Cysts Counted	Cyst Matrix Spike Recovery (%)
BC31741	Intake 2PIS	12/1/2019	Field	50	1623.1	0	1		0.0	0	
BC31742	Intake 2PIS	12/2/2019	Field	50	1623.1	0	0		0.0	0	
BC31743	Intake 2PIS	12/3/2019	Field	50	1623.1	0	0		0.0	0	
BC31744	Intake 2PIS	12/4/2019	Field	50	1623.1	0	1		0.0	0	
BC31889	Intake 2PIS	12/8/2019	Field	50	1623.1	0	1		0.0	0	
BC31890	Intake 2PIS	12/9/2019	Field	50	1623.1	0	1		0.0	0	
BC31891	Intake 2PIS	12/10/2019	Field	50	1623.1	0	0		0.0	0	
BC31892	Intake 2PIS	12/10/2019	MS	51	1623.1	98	68	69.4	100	81	81.0
BC31893	Intake 2PIS	12/11/2019	Field	50	1623.1	0	0		0.0	0	
BC32236	Intake 2PIS	12/15/2019	Field	50	1623.1	0	0		0.0	0	
BC32237	Intake 2PIS	12/16/2019	Field	50	1623.1	0	1		0.0	0	
BC32238	Intake 2PIS	12/17/2019	Field	50	1623.1	0	0		0.0	0	
BC32239	Intake 2PIS	12/18/2019	Field	50	1623.1	0	0		0.0	0	
BC32492	Intake 2PIS	12/22/2019	Field	50	1623.1	0	0		0.0	0	
BC32493	Intake 2PIS	12/23/2019	Field	50	1623.1	0	0		0.0	0	
BC32494	Intake 2PIS	12/24/2019	Field	50	1623.1	0	0		0.0	0	
BC32495	Intake 2PIS	12/25/2019	Field	50	1623.1	0	0		0.0	0	
BC32584	Intake 2PIS	12/29/2019	Field	50	1623.1	0	0		0.0	0	
BC32585	Intake 2PIS	12/30/2019	Field	50	1623.1	0	0		0.0	0	
BC32586	Intake 2PIS	12/31/2019	Field	50	1623.1	0	0		0.0	0	

Unless otherwise noted, all data were generated in accordance with EPA Method 1623/1623.1 and 100% of the filtered volume was examined for each sample.

Reviewed by: Mark Fong

Date Reviewed: 01/10/2020