



Derek Clarke, Drinking Water Officer
Office of Drinking Water, Manitoba Conservation and Climate
Box 6000, 75-7th Avenue
Gimli, MB R0C 1B0

September 4, 2020

RE: AUGUST 2020 WATER QUALITY COMPLIANCE SUBMISSION FOR THE CITY OF WINNIPEG WATER SUPPLY SYSTEM

Please find attached on-line and grab turbidity summary reports, on-line and grab chlorine summary reports and the UV summary report for the Water Treatment Plant for August 2020.

The August on-line and grab sampling turbidity reports include results obtained for the Water Treatment Plant raw water and the eight filters. The daily maximum turbidities were greater than 0.30 NTU on several occasions; the elevated turbidities occurred for less than 12 consecutive hours. On August 7th (Filter 6), August 28th (Filter 1), and August 30th (Filter 4) the turbidity exceeded 1.00 NTU, additional information for the exceedances is provided separately in Corrective Action Reports. With the exception of these three exceedances, the turbidity results for the filter effluent met the licence requirements.

The August on-line and grab sampling chlorine reports include results obtained for the Deacon Booster Pumping Station at the Water Treatment Plant. The free chlorine results at the Water Treatment Plant met the licence requirements.

The August UV summary report includes results obtained for the six UV reactors at the Water Treatment Plant. The UV disinfection results met the licence requirements.

Please let me know of any concerns or questions respecting this submission. I can be reached by telephone at 204-986-8359 or by e-mail at rgrosselle@winnipeg.ca.

Yours sincerely,

*Original signed by R. Grosselle
(Signed original available upon request)*

R. Grosselle
Manager of Environmental Standards

Enclosures

cc: Dr. L. Richards, Winnipeg Regional Health Authority (email)
Dr. H. Chang, Winnipeg Regional Health Authority (email)
Dr. S. Roberecki, Manitoba Health, Seniors and Active Living (email)
M. L. Geer, CPA, CA (email)
G. Patton, P.Eng. (email)
T. Shanks, P.Eng. (email)
M. Szmon, P.Eng. (email)
B. Bradford (email)



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: 252.00
 Licence Number: PWS-09-412-01

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

August 2020 Turbidity (NTU)

Date	Raw	Filter #1		Filter #2		Filter #3		Filter #4		Filter #5		Filter #6		Filter #7		Filter #8	
	Avg	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
1/08/2020	4.38	0.05	0.13	0.06	0.14	0.11	0.17	0.13	0.23	0.03	0.07	0.04	0.12	0.06	0.12	0.05	0.11
2/08/2020	3.56	0.06	0.14	0.07	0.15	0.12	0.20	0.13	0.22	0.02	0.07	0.04	0.11	0.05	0.13	0.05	0.11
3/08/2020	4.08	0.04	0.12	0.05	0.12	0.11	0.17	0.11	0.19	0.01	0.04	0.04	0.13	0.04	0.13	0.03	0.08
4/08/2020	4.85	0.04	0.10	0.05	0.11	0.10	0.17	0.11	0.19	0.01	0.04	0.05	0.11	0.04	0.11	0.03	0.08
5/08/2020	4.17	0.05	0.13	0.06	0.13	0.10	0.16	0.12	0.20	0.01	0.05	0.07	0.13	0.05	0.11	0.03	0.09
6/08/2020	4.12	0.07	0.42	0.06	0.33	0.11	0.37	0.12	0.29	0.03	0.11	0.09	0.17	0.06	0.14	0.05	0.15
7/08/2020	4.37	0.10	0.33	0.07	0.26	0.13	0.30	0.13	0.25	0.06	0.15	0.08	1.18	0.08	0.13	0.09	0.17
8/08/2020	4.01	0.13	0.23	0.10	0.19	0.16	0.26	0.17	0.28	0.06	0.13	0.08	0.15	0.09	0.13	0.09	0.13
9/08/2020	4.19	0.15	0.24	0.11	0.20	0.16	0.25	0.17	0.28	0.07	0.14	0.08	0.37	0.09	0.13	0.09	0.13
10/08/2020	4.42	0.14	0.29	0.09	0.23	0.15	0.42	0.16	0.37	0.07	0.12	0.07	0.14	0.08	0.13	0.08	0.12
11/08/2020	4.55	0.12	0.18	0.07	0.13	0.13	0.19	0.13	0.22	0.06	0.11	0.07	0.38	0.08	0.12	0.08	0.11
12/08/2020	4.04	0.11	0.18	0.05	0.14	0.12	0.26	0.12	0.24	0.06	0.12	0.07	0.15	0.08	0.14	0.08	0.13
13/08/2020	4.11	0.10	0.20	0.04	0.12	0.11	0.21	0.11	0.21	0.07	0.10	0.07	0.15	0.08	0.14	0.08	0.13
14/08/2020	4.21	0.11	0.20	0.04	0.12	0.11	0.20	0.11	0.21	0.07	0.13	0.08	0.16	0.08	0.14	0.08	0.14
15/08/2020	4.12	0.12	0.20	0.03	0.07	0.09	0.17	0.10	0.18	0.07	0.12	0.07	0.15	0.08	0.14	0.08	0.14
16/08/2020	4.05	0.11	0.19	0.04	0.09	0.10	0.13	0.09	0.18	0.06	0.11	0.07	0.22	0.07	0.12	0.07	0.12
17/08/2020	4.67	0.14	0.27	0.04	0.15	0.10	0.20	0.11	0.26	0.08	0.51	0.10	0.53	0.07	0.16	0.08	0.52
18/08/2020	4.77	0.14	0.21	0.03	0.09	0.09	0.16	0.09	0.16	0.08	0.12	0.08	0.12	0.07	0.12	0.06	0.10
19/08/2020	3.87	0.15	0.22	0.02	0.07	0.09	0.15	0.09	0.14	0.07	0.10	0.08	0.14	0.06	0.09	0.05	0.09
20/08/2020	3.07	0.16	0.24	0.02	0.08	0.09	0.14	0.09	0.12	0.06	0.10	0.07	0.12	0.05	0.11	0.05	0.10
21/08/2020	2.88	0.13	0.19	0.02	0.08	0.09	0.16	0.10	0.15	0.07	0.10	0.07	0.14	0.05	0.11	0.05	0.11
22/08/2020	2.82	0.09	0.16	0.03	0.08	0.10	0.18	0.12	0.18	0.07	0.11	0.08	0.14	0.06	0.08	0.05	0.12
23/08/2020	3.01	0.09	0.17	0.03	0.09	0.10	0.18	0.13	0.21	0.07	0.11	0.08	0.16	0.07	0.12	0.07	0.11
24/08/2020	2.73	0.11	0.14	0.03	0.11	0.11	0.20	0.15	0.26	0.09	0.16	0.09	0.16	0.07	0.17	0.07	0.17
25/08/2020	3.02	0.12	0.20	0.05	0.10	0.13	0.16	0.17	0.29	0.09	0.13	0.09	0.19	0.08	0.14	0.07	0.14
26/08/2020	2.44	0.12	0.21	0.04	0.11	0.14	0.23	0.17	0.22	0.08	0.16	0.10	0.16	0.07	0.15	0.07	0.13
27/08/2020	2.99	0.13	0.22	0.04	0.12	0.15	0.24	0.19	0.28	0.08	0.14	0.10	0.18	0.09	0.11	0.07	0.10
28/08/2020	3.38	0.14	1.89	0.06	0.14	0.15	0.42	0.18	0.28	0.09	0.14	0.09	0.19	0.08	0.14	0.08	0.14
29/08/2020	3.31	0.08	0.12	0.05	0.14	0.09	0.18	0.14	0.26	0.10	0.19	0.08	0.16	0.08	0.14	0.07	0.14
30/08/2020	3.27	0.07	0.16	0.06	0.11	0.08	0.13	0.13	1.02	0.09	0.15	0.08	0.15	0.07	0.15	0.07	0.13
31/08/2020	3.14	0.05	0.12	0.04	0.11	0.07	0.24	0.11	0.15	0.09	0.15	0.08	0.11	0.06	0.14	0.06	0.14

Total Number of Measurements Taken, A:	14670	15789	15027	16013	16024	16751	16374	17396
Turbidity Standard for Monitoring Location (NTU):	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of Measurements Meeting Standard, B:	14641	15781	14994	15997	16009	16718	16374	17381
Compliance with Turbidity Standard, C = B/A X 100%:	99.802%	99.949%	99.780%	99.900%	99.906%	99.803%	100.000%	99.914%

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2020\08-August

Submitted By (Print): D.Merredew

Signature: Original signed by D.Merredew

WATER TREATMENT PLANT TURBIDITY GRAB MONITORING REPORT

Water System Code: 252.00 Licence No. PWS-09-412-01	Turbidity (NTU)																	
	Raw Water		Filter 1		Filter 2		Filter 3		Filter 4		Filter 5		Filter 6		Filter 7		Filter 8	
	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser
01-Aug-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
02-Aug-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
03-Aug-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
04-Aug-2020	2.20	3.34	0.18	0.08	0.15	0.07	0.14	0.11	0.12	0.11	0.11	0.02	0.11	0.06	0.09	0.03	0.10	<0.02
05-Aug-2020	2.40	3.64	0.23	0.12	0.19	0.09	0.18	0.13	0.16	0.13	0.11	<0.02	0.13	0.08	0.12	0.04	0.11	0.02
06-Aug-2020	2.31	3.19	0.14	0.06	0.14	0.05	0.12	0.09	0.13	0.10	0.10	<0.02	0.13	0.11	0.12	0.05	0.12	0.03
07-Aug-2020	2.30	NR	0.16	0.07	OL	OL	0.20	0.15	0.20	0.15	0.16	0.08	0.16	0.11	0.15	0.08	0.12	0.08
08-Aug-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
09-Aug-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
10-Aug-2020	2.40	NR	0.17	0.14	0.19	0.09	0.16	0.16	0.22	0.20	0.12	0.10	0.12	0.10	0.11	0.08	0.10	0.08
11-Aug-2020	3.21	3.78	0.17	0.14	0.16	0.09	0.16	0.15	0.20	0.18	0.10	0.08	0.11	0.09	0.10	0.08	0.10	0.08
12-Aug-2020	2.49	NR	0.16	0.11	0.15	<0.02	0.14	0.11	0.21	0.16	0.10	0.07	0.12	0.08	0.12	0.08	0.11	0.08
13-Aug-2020	2.14	3.74	0.16	0.11	0.14	0.04	0.14	0.12	0.21	0.16	0.13	0.09	OL	OL	0.14	0.10	0.13	0.10
14-Aug-2020	2.80	NR	0.17	0.12	0.16	0.05	0.15	0.12	OL	OL	0.11	0.08	0.13	0.08	0.14	0.10	0.13	0.09
15-Aug-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
16-Aug-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
17-Aug-2020	3.00	NR	0.21	0.20	0.17	0.07	0.15	0.12	0.13	0.11	0.08	0.07	0.12	0.09	0.10	0.07	0.10	0.07
18-Aug-2020	2.16	NR	0.15	0.17	0.13	0.04	0.12	0.10	0.11	0.10	0.09	0.09	0.10	0.11	0.10	0.07	0.11	0.07
19-Aug-2020	1.99	2.63	0.17	0.21	0.14	0.04	0.13	0.11	0.12	0.09	0.08	0.08	0.12	0.09	0.11	0.06	0.09	0.05
20-Aug-2020	1.85	2.42	0.16	0.22	0.14	0.04	0.13	0.11	0.11	0.10	OL	OL	0.10	0.08	0.09	0.04	0.10	0.04
21-Aug-2020	1.90	2.68	0.11	0.19	OL	OL	0.14	0.12	0.13	0.11	0.09	0.07	0.12	0.09	0.09	0.05	0.09	0.05
22-Aug-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
23-Aug-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
24-Aug-2020	2.08	2.61	0.14	0.12	0.13	0.03	0.12	0.12	0.19	0.21	0.11	0.11	0.11	0.09	0.17	0.13	0.12	0.07
25-Aug-2020	2.08	2.73	0.18	0.14	0.16	0.05	0.17	0.13	0.13	0.17	0.16	0.12	0.12	0.10	0.11	0.06	0.14	0.09
26-Aug-2020	2.29	2.79	0.14	0.15	0.17	0.07	0.15	0.17	0.15	0.19	0.10	0.08	0.13	0.11	0.11	0.07	0.11	0.06
27-Aug-2020	2.40	3.03	0.13	0.14	0.12	0.04	0.18	0.19	0.16	0.21	0.12	0.10	0.16	0.13	0.14	0.08	0.13	0.07
28-Aug-2020	2.30	2.99	0.15	0.17	0.15	0.06	0.14	0.18	0.20	0.23	0.11	0.09	OL	OL	0.14	0.08	0.13	0.07
29-Aug-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
30-Aug-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
31-Aug-2020	2.33	2.96	0.16	0.11	0.11	0.04	0.11	0.07	0.11	0.12	0.10	0.11	0.11	0.09	0.11	0.06	0.09	0.06
Total number of measurements taken, A:			20		18		20		19		17		18		20		19	
Turbidity Standard for Monitoring Location (NTU):			0.30		0.30		0.30		0.30		0.30		0.30		0.30		0.30	
Number of measurements meeting standard, B:			20		18		20		19		17		18		20		19	
Compliance with Turbidity Standard, C= B/A X 100%:			100%		100%		100%		100%		100%		100%		100%		100%	

NS: No Sample NA: Not Analyzed OL: Off-Line NR: No Result IM: Instrument Maintenance

Comments:

NR - not representative. The raw water analyser is cleaned daily during warm water months because it is susceptible to frequent fouling.

Report Compiled By: H. Demchenko
Authorized in Sample Manager By: B. Bradford
Date Authorized: 4-Sep-20



WATER TREATMENT PLANT FREE CHLORINE ON-LINE MONITORING REPORT
Deacon Booster Pumping Station

Water System Code: **252.00**
Licence Number: **PWS-09-412-01**
Report Created: 01 September 2020

Report Period: August 2020

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/08/2020	1.28	1.15	1.34	1.20
02/08/2020	1.28	1.06	1.30	1.21
03/08/2020	1.21	0.98	1.25	1.02
04/08/2020	1.24	1.09	1.33	1.14
05/08/2020	1.25	1.08	1.31	1.16
06/08/2020	1.36	1.16	1.39	1.18
07/08/2020	1.49	1.26	1.44	1.12
08/08/2020	1.23	1.02	1.15	0.95
09/08/2020	1.50	1.30	1.47	1.25
10/08/2020	1.55	1.28	1.54	1.29
11/08/2020	1.34	1.06	1.34	1.05
12/08/2020	1.14	1.02	1.13	1.02
13/08/2020	1.32	1.10	1.33	1.13
14/08/2020	1.36	1.22	1.41	1.29
15/08/2020	1.27	1.15	1.33	1.25
16/08/2020	1.38	1.27	1.44	1.33
17/08/2020	1.51	0.97	1.56	1.32
18/08/2020	1.42	1.28	1.48	1.36
19/08/2020	1.44	1.25	1.45	1.23
20/08/2020	1.28	1.16	1.29	1.16
21/08/2020	1.31	1.13	1.36	1.17
22/08/2020	1.34	1.17	1.38	1.20
23/08/2020	1.35	1.06	1.38	1.15
24/08/2020	1.56	1.32	1.57	1.33
25/08/2020	1.43	1.28	1.47	1.28
26/08/2020	1.45	1.29	1.51	1.33
27/08/2020	1.61	1.29	1.65	1.32
28/08/2020	1.37	1.19	1.42	1.22
29/08/2020	1.42	1.30	1.40	1.24
30/08/2020	1.46	1.22	1.42	1.26
31/08/2020	1.51	1.26	1.54	1.43

Total Number of Measurements, A:	21599	21600
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	21599	21600
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2020\08-August

Submitted By (Print): D.Merredew

Signature: Original signed by D.Merredew



WATER TREATMENT PLANT CHLORINE GRAB MONITORING REPORT

Water System Code: 252.00 Licence No. PWS-09-412-01	Deacon Booster Pumping Station Branch 1			Deacon Booster Pumping Station Branch 2		
	Free Chlorine (mg/L)		Total Chlorine (mg/L)	Free Chlorine (mg/L)		Total Chlorine (mg/L)
	Date	Analyser	Grab	Grab	Analyser	Grab
01-Aug-2020	ns	ns	ns	ns	ns	ns
02-Aug-2020	ns	ns	ns	ns	ns	ns
03-Aug-2020	ns	ns	ns	ns	ns	ns
04-Aug-2020	1.32	1.29	1.55	1.40	1.38	1.54
05-Aug-2020	1.21	1.38	1.56	1.30	1.37	1.56
06-Aug-2020	1.43	1.47	1.66	1.38	1.47	1.61
07-Aug-2020	1.55	1.56	1.79	1.56	1.49	1.66
08-Aug-2020	ns	ns	ns	ns	ns	ns
09-Aug-2020	ns	ns	ns	ns	ns	ns
10-Aug-2020	1.65	1.50	1.74	1.59	1.47	1.69
11-Aug-2020	1.39	1.46	1.68	1.38	1.46	1.66
12-Aug-2020	1.19	1.20	1.44	1.12	1.24	1.40
13-Aug-2020	1.45	1.36	1.63	1.42	1.36	1.64
14-Aug-2020	1.34	1.35	1.61	1.35	1.40	1.67
15-Aug-2020	ns	ns	ns	ns	ns	ns
16-Aug-2020	ns	ns	ns	ns	ns	ns
17-Aug-2020	1.58	1.30	1.64	1.58	1.51	1.73
18-Aug-2020	1.39	1.39	1.60	1.51	1.43	1.65
19-Aug-2020	1.51	1.46	1.66	1.43	1.37	1.59
20-Aug-2020	1.20	1.25	1.52	1.19	1.29	1.54
21-Aug-2020	1.44	1.45	1.60	1.38	1.37	1.63
22-Aug-2020	ns	ns	ns	ns	ns	ns
23-Aug-2020	ns	ns	ns	ns	ns	ns
24-Aug-2020	1.55	1.59	1.81	1.51	1.50	1.85
25-Aug-2020	1.50	1.50	1.70	1.55	1.58	1.74
26-Aug-2020	1.37	1.42	1.63	1.44	1.49	1.69
27-Aug-2020	1.59	1.50	1.76	1.61	1.53	1.77
28-Aug-2020	1.34	1.36	1.61	1.37	1.41	1.62
29-Aug-2020	ns	ns	ns	ns	ns	ns
30-Aug-2020	ns	ns	ns	ns	ns	ns
31-Aug-2020	1.54	1.49	1.70	1.56	1.50	1.76
Total number of measurements taken, A:		20			20	
Chlorine Standard for Monitoring Location (mg/L):		0.50			0.50	
Number of measurements meeting standard, B:		20			20	
Compliance with Chlorine Standard, C= B/A X 100%:		100%			100%	

NS: No Sample NA: Not Analyzed OL: Off-Line NR: No Result IM: Instrument Maintenance

Comments:

Report Compiled By: H. Demchenko

Authorized By: B. Bradford

Date Authorized: 4-Sep-20

