



Kale Black, Sr. Drinking Water Officer
Office of Drinking Water, Manitoba Conservation and Climate
309 – 25 Tupper Street North
Portage La Prairie, MB R1N 3K1

December 7, 2020

RE: NOVEMBER 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 November 2020.

The November on-line and grab sampling turbidity reports include results obtained for the Water Treatment Plant raw water and the eight filters. The turbidity results for the filter effluent met the licence requirements.

The November 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 November 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

November 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
1/11/2020	1.33	0.08	0.12	0.10	0.14	0.09	0.14	O/L	O/L	0.07	0.11	0.05	0.13	0.06	0.10	0.05	0.09
2/11/2020	1.25	0.07	0.13	0.10	0.16	0.10	0.13	O/L	O/L	0.07	0.11	0.06	0.10	0.06	0.10	0.05	0.10
3/11/2020	1.26	0.08	0.13	0.13	0.19	0.10	0.16	O/L	O/L	0.06	0.12	0.06	0.10	0.06	0.09	0.05	0.10
4/11/2020	1.34	0.08	0.12	0.09	0.18	0.10	0.17	O/L	O/L	0.07	0.14	0.07	0.12	0.07	0.11	0.05	0.12
5/11/2020	1.27	0.07	0.10	0.07	0.13	0.10	0.17	O/L	O/L	0.06	0.13	0.06	0.13	0.06	0.12	0.06	0.12
6/11/2020	1.23	0.10	0.15	0.07	0.13	0.11	0.19	O/L	O/L	0.06	0.10	0.05	0.11	0.05	0.10	0.05	0.09
7/11/2020	1.18	0.08	0.16	0.07	0.10	0.10	0.18	O/L	O/L	0.07	0.13	0.06	0.11	0.05	0.11	0.05	0.16
8/11/2020	1.17	0.07	0.14	0.07	0.11	0.10	0.14	O/L	O/L	0.06	0.12	0.05	0.11	0.06	0.11	0.04	0.09
9/11/2020	1.12	0.06	0.11	0.06	0.13	0.11	0.19	O/L	O/L	0.06	0.13	0.05	0.08	0.04	0.07	0.05	0.09
10/11/2020	1.02	0.05	0.12	0.04	0.10	0.07	0.12	O/L	O/L	0.06	0.11	0.05	0.09	0.02	0.04	0.05	0.10
11/11/2020	0.98	0.06	0.09	0.06	0.11	0.08	0.14	O/L	O/L	0.07	0.12	0.05	0.10	0.04	0.08	0.06	0.08
12/11/2020	0.97	0.07	0.13	0.05	0.12	0.07	0.14	0.04	0.16	0.07	0.10	0.05	0.10	0.03	0.07	0.05	0.10
13/11/2020	0.97	0.06	0.13	0.07	0.12	0.08	0.10	0.05	0.10	0.06	0.12	0.04	0.06	0.03	0.09	0.06	0.11
14/11/2020	0.97	0.05	0.13	0.05	0.14	0.08	0.15	0.06	0.09	0.07	0.13	0.05	0.10	0.03	0.04	0.05	0.07
15/11/2020	0.96	0.05	0.07	0.04	0.11	0.06	0.13	0.05	0.09	0.07	0.09	0.05	0.12	0.04	0.09	0.07	0.12
16/11/2020	0.94	0.05	0.12	0.05	0.07	0.07	0.08	0.04	0.10	0.09	0.13	0.04	0.07	0.03	0.08	0.06	0.13
17/11/2020	0.92	0.04	0.13	0.05	0.11	0.07	0.13	0.07	0.08	0.05	0.18	0.06	0.11	0.04	0.06	0.05	0.13
18/11/2020	0.92	0.06	0.08	0.04	0.12	0.05	0.14	0.05	0.10	0.07	0.11	0.05	0.13	0.04	0.10	0.08	0.13
19/11/2020	0.92	0.06	0.13	0.06	0.08	0.06	0.10	0.04	0.10	0.11	0.17	0.04	0.13	0.04	0.10	0.06	0.14
20/11/2020	0.91	0.05	0.13	0.06	0.13	0.08	0.14	0.06	0.08	0.09	0.18	0.07	0.10	0.03	0.06	0.05	0.15
21/11/2020	0.84	0.05	0.09	0.05	0.18	0.07	0.15	0.06	0.12	0.08	0.20	0.06	0.13	0.06	0.11	0.08	0.11
22/11/2020	0.83	0.08	0.15	0.06	0.09	0.06	0.17	0.06	0.12	0.12	0.15	0.05	0.14	0.05	0.12	0.07	0.15
23/11/2020	0.83	0.06	0.15	0.07	0.15	0.09	0.14	0.05	0.12	0.11	0.21	0.06	0.09	0.04	0.11	0.06	0.16
24/11/2020	0.81	0.05	0.14	0.06	0.15	0.07	0.15	0.15	0.12	0.09	0.23	0.07	0.14	0.05	0.07	0.06	0.15
25/11/2020	0.90	0.06	0.11	0.05	0.08	0.05	0.11	0.04	0.13	0.13	0.25	0.03	0.12	0.05	0.20	0.08	0.22
26/11/2020	0.80	0.05	0.12	0.05	0.11	0.07	0.13	0.05	0.08	0.12	0.22	0.06	0.12	0.03	0.10	0.05	0.14
27/11/2020	0.78	0.04	0.13	0.05	0.11	0.06	0.13	0.07	0.11	0.12	0.23	0.06	0.12	0.04	0.07	0.06	0.10
28/11/2020	0.78	0.07	0.09	0.04	0.13	0.06	0.14	0.06	0.11	0.14	0.19	0.05	0.12	0.04	0.10	0.08	0.13
29/11/2020	0.77	0.06	0.14	0.07	0.10	0.06	0.10	0.06	0.12	0.15	0.26	0.05	0.15	0.04	0.12	0.06	0.15
30/11/2020	0.75	0.06	0.13	0.05	0.12	0.07	0.12	0.07	0.10	0.04	0.12	0.08	0.13	0.03	0.07	0.06	0.15

Total Number of Measurements Taken, A:	11327	11785	12159	6948	13638	14040	13670	15017
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:	11327	11785	12159	6948	13638	14040	13670	15017
Compliance with Turbidity Standard, C = B/A X 100%:	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%

O/L -Offline

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2020\11-November

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-Nov-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
02-Nov-2020	1.07	1.22	0.12	0.11	0.11	0.12	0.10	0.10	OL	OL	0.10	0.08	0.11	0.08	0.09	0.06	0.12	0.07
03-Nov-2020	1.07	1.21	0.15	0.14	0.11	0.13	0.12	0.12	OL	OL	0.13	0.12	0.09	0.07	0.09	0.06	0.09	0.05
04-Nov-2020	1.17	1.30	0.11	0.10	0.13	0.08	0.14	0.15	OL	OL	0.10	0.08	0.10	0.08	0.09	0.06	0.09	0.04
05-Nov-2020	1.05	1.24	0.12	0.09	0.12	0.07	OL	OL	OL	OL	0.13	0.08	0.15	0.11	0.12	0.08	0.11	0.06
06-Nov-2020	1.06	1.23	0.13	0.11	0.12	0.08	0.11	0.12	OL	OL	0.09	0.07	0.09	0.06	OL	OL	0.10	0.06
07-Nov-2020	NS	NS	NS	NS	NS	NS	NS	NS	OL	OL	NS	NS	NS	NS	NS	NS	NS	NS
08-Nov-2020	NS	NS	NS	NS	NS	NS	NS	NS	OL	OL	NS	NS	NS	NS	NS	NS	NS	NS
09-Nov-2020	0.95	1.14	0.11	0.10	0.14	0.10	0.12	0.14	OL	OL	0.12	0.09	0.09	0.06	0.08	0.05	0.08	0.04
10-Nov-2020	0.94	1.00	0.11	0.05	0.13	0.07	0.13	0.10	OL	OL	0.10	0.07	0.11	0.06	0.10	0.02	0.08	0.05
11-Nov-2020	NS	NS	NS	NS	NS	NS	NS	NS	OL	OL	NS	NS	NS	NS	NS	NS	NS	NS
12-Nov-2020	0.85	0.93	0.13	0.09	0.12	0.06	0.10	0.09	0.12	0.09	0.09	0.08	0.09	0.05	0.10	0.03	0.10	0.06
13-Nov-2020	0.88	0.92	OL	OL	0.15	0.07	0.13	0.09	0.11	0.06	0.11	0.09	0.10	0.05	0.09	0.02	0.09	0.05
14-Nov-2020	NS	NS	NS	NS	NS	NS	NS	NS	0.13	0.08	NS	NS	NS	NS	NS	NS	NS	NS
15-Nov-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
16-Nov-2020	0.87	0.91	0.17	0.10	0.13	0.06	0.12	0.08	0.10	0.06	0.13	0.10	0.14	0.06	0.11	0.03	OL	OL
17-Nov-2020	0.72	0.88	0.13	0.06	0.15	0.08	0.15	0.10	0.12	0.07	OL	OL	0.13	0.07	0.13	0.03	0.12	0.06
18-Nov-2020	0.79	0.90	0.13	0.07	0.11	0.05	OL	OL	0.14	0.09	0.11	0.10	0.17	0.11	0.13	0.05	0.11	0.07
19-Nov-2020	0.83	0.89	0.16	0.10	0.13	0.07	0.12	0.08	0.09	0.06	0.11	0.11	0.12	0.07	OL	OL	0.13	0.08
20-Nov-2020	0.80	0.90	OL	OL	0.16	0.09	0.14	0.10	0.10	0.06	OL	OL	0.13	0.08	0.11	0.04	0.10	0.06
21-Nov-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
22-Nov-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
23-Nov-2020	0.75	0.80	0.16	0.09	0.16	0.09	0.14	0.10	0.12	0.07	0.14	0.16	0.13	0.08	0.12	0.04	0.16	0.11
24-Nov-2020	0.72	0.81	0.15	0.08	0.15	0.09	0.14	0.13	0.14	0.09	OL	OL	0.15	0.09	0.13	0.05	0.12	0.08
25-Nov-2020	0.69	0.77	0.13	0.08	0.12	0.07	0.11	0.09	OL	OL	0.09	0.15	OL	OL	0.12	0.05	0.11	0.07
26-Nov-2020	0.70	0.80	OL	OL	0.15	0.07	0.12	0.08	0.10	0.07	0.13	0.18	0.12	0.07	0.11	0.02	OL	OL
27-Nov-2020	0.70	0.77	0.12	0.06	OL	OL	OL	OL	0.11	0.08	0.10	0.17	0.15	0.09	0.12	0.04	0.11	0.07
28-Nov-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
29-Nov-2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
30-Nov-2020	0.68	0.72	OL	OL	0.17	0.11	0.13	0.09	0.10	0.09	OL	OL	0.14	0.09	0.12	0.04	0.11	0.07
Total number of measurements taken, A:			16		19		17		13		16		19		18		18	
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:			16		19		17		13		16		19		18		18	
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:

Filter 4 was offline from September 30th until November 12th for maintenance work. The Filter was brought back online on November 12th at 10:35.

Report Compiled By: H. Demchenko

Authorized By: B. Bradford

Date Authorized: 7-Dec-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 December 2020**

Report Period: November 2020

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/11/2020	1.34	1.21	1.14	1.03
02/11/2020	1.31	1.14	1.25	1.12
03/11/2020	1.24	1.04	1.27	1.05
04/11/2020	1.19	1.14	1.22	1.15
05/11/2020	1.24	1.19	1.25	1.21
06/11/2020	1.20	1.17	1.22	1.16
07/11/2020	1.17	1.13	1.27	1.14
08/11/2020	1.19	1.10	1.27	0.98
09/11/2020	1.10	1.00	1.06	0.89
10/11/2020	1.22	1.11	1.17	1.05
11/11/2020	1.15	1.05	1.07	0.95
12/11/2020	1.30	1.18	1.12	1.00
13/11/2020	1.26	1.16	1.10	0.97
14/11/2020	1.23	1.16	1.14	1.05
15/11/2020	1.18	1.10	1.11	1.00
16/11/2020	1.19	1.12	1.08	0.96
17/11/2020	1.21	1.11	1.14	1.00
18/11/2020	1.20	1.15	1.19	1.11
19/11/2020	1.17	1.07	1.16	1.05
20/11/2020	1.14	1.06	1.15	1.06
21/11/2020	1.13	1.06	1.18	1.07
22/11/2020	1.07	1.02	1.24	1.10
23/11/2020	1.08	0.91	1.29	1.13
24/11/2020	1.12	0.88	1.22	1.12
25/11/2020	2.71	1.25	2.66	1.19
26/11/2020	1.27	1.03	1.32	1.17
27/11/2020	1.25	1.02	1.24	1.15
28/11/2020	1.41	1.26	1.34	1.17
29/11/2020	1.30	1.15	1.25	1.12
30/11/2020	1.20	1.07	1.14	1.03

Total Number of Measurements, A:	20583	20568
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	20583	20568
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2020\11-November

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-Nov-2020	NS	NS	NS	NS	NS	NS
02-Nov-2020	1.34	1.38	1.63	1.26	1.29	1.51
03-Nov-2020	1.26	1.28	1.53	1.29	1.34	1.52
04-Nov-2020	1.18	1.21	1.40	1.26	1.24	1.36
05-Nov-2020	1.25	1.32	1.52	1.28	1.29	1.49
06-Nov-2020	1.19	1.21	1.39	1.23	1.22	1.44
07-Nov-2020	NS	NS	NS	NS	NS	NS
08-Nov-2020	NS	NS	NS	NS	NS	NS
09-Nov-2020	1.03	1.09	1.27	0.96	0.98	1.15
10-Nov-2020	1.30	1.26	1.52	1.19	1.29	1.51
11-Nov-2020	NS	NS	NS	NS	NS	NS
12-Nov-2020	1.25	1.24	1.49	1.07	1.16	1.41
13-Nov-2020	1.28	1.24	1.44	1.08	1.16	1.32
14-Nov-2020	NS	NS	NS	NS	NS	NS
15-Nov-2020	NS	NS	NS	NS	NS	NS
16-Nov-2020	1.20	1.24	1.43	1.09	1.13	1.32
17-Nov-2020	1.22	1.22	1.43	1.08	1.14	1.32
18-Nov-2020	1.19	1.20	1.37	1.17	1.20	1.41
19-Nov-2020	1.21	1.20	1.40	1.19	1.24	1.43
20-Nov-2020	1.15	1.13	1.30	1.17	1.22	1.39
21-Nov-2020	NS	NS	NS	NS	NS	NS
22-Nov-2020	NS	NS	NS	NS	NS	NS
23-Nov-2020	1.15	1.20	1.37	1.31	1.35	1.55
24-Nov-2020	0.94	0.97	1.17	1.24	1.22	1.46
25-Nov-2020	1.64	1.66	1.84	1.39	1.55	1.75
26-Nov-2020	1.16	1.21	1.39	1.25	1.30	1.49
27-Nov-2020	1.17	1.24	1.42	1.24	1.30	1.47
28-Nov-2020	NS	NS	NS	NS	NS	NS
29-Nov-2020	NS	NS	NS	NS	NS	NS
30-Nov-2020	1.17	1.16	1.34	1.11	1.15	1.36
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: 7-Dec-20

