



**Water and Waste Department • Service des eaux et des déchets**

*Environmental Standards Division • Division des Normes Environnementales*

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August 7, 2018

Derek Clarke  
Office of Drinking Water  
Manitoba Sustainable Development  
Box 6000  
Gimli, Manitoba R0C 1B0

Our File: 040-18-18-55-00

Dear Mr. Clarke:

**RE: JULY 2018 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 July 2018. We have also included two corrective action reports for positive total coliforms in the distribution system.

The July on-line and grab sampling turbidity reports include results obtained for the Water Treatment Plant raw water and the eight filters. Please note that the maximum turbidities for Filter 3 on July 11 was greater than 0.3 NTU after completion of scheduled plant maintenance; the elevated turbidity occurred for a short period of time which did not exceed 12 consecutive hours. The turbidity results for the effluent from the filters met the licence requirements. Please note that the raw turbidity analyzer undergoes regular maintenance and additional maintenance as required, which occurs frequently during summer months due to algal growth.

The July 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.

On July 17, a positive total coliform result was reported for a routine sample at the WC05 location. On July 18 and 19, the location was resampled and results were negative. On July 25, a positive total coliform result was reported for a routine sample at the SW11 location. On July 26 and 27, the location was resampled and the results were negative. Our resampling also indicated that the chlorine levels at both locations were normal and provided adequate disinfection. Please see the attached corrective action reports for additional details.

The July 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](mailto:rgrosselle@winnipeg.ca).

Yours sincerely,

*Original signed by R. Grosselle*

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)  
C. Diduck (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**

July 2018 Turbidity (NTU)

Date	Raw		Filter #1		Filter #2		Filter #3		Filter #4		Filter #5		Filter #6		Filter #7		Filter #8	
	Avg	Avg	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
1/07/2018	2.03	0.04	0.05		0.03	0.08	0.09	0.14	0.03	0.06	0.07	0.13	0.04	0.06	0.04	0.05	0.01	0.03
2/07/2018	2.70	0.05	0.09		0.05	0.06	0.07	0.17	0.03	0.07	0.08	0.13	0.04	0.08	0.04	0.09	0.01	0.01
3/07/2018	4.29	0.04	0.09		0.04	0.07	0.10	0.16	0.04	0.16	0.07	0.12	0.04	0.08	0.05	0.09	0.01	0.04
4/07/2018	3.53	0.04	0.05		0.04	0.10	0.07	0.13	0.04	0.11	0.03	0.06	0.05	0.06	0.06	0.06	0.01	0.04
5/07/2018	3.97	0.05	0.13		0.06	0.14	0.08	0.16	0.03	0.08	0.03	0.06	0.04	0.08	0.04	0.11	0.01	0.01
6/07/2018	3.85	0.05	0.10		0.06	0.11	0.09	0.14	0.05	0.09	0.04	0.07	0.04	0.06	0.04	0.10	0.01	0.03
7/07/2018	3.18	0.05	0.08		0.07	0.12	0.09	0.23	0.05	0.14	0.04	0.08	0.06	0.11	0.05	0.06	0.01	0.05
8/07/2018	3.43	0.06	0.10		0.08	0.10	0.10	0.16	0.05	0.09	0.05	0.09	0.06	0.10	0.06	0.09	0.02	0.07
9/07/2018	2.75	0.05	0.09		0.08	0.11	0.11	0.13	0.05	0.11	0.05	0.12	0.07	0.12	0.06	0.18	0.04	0.06
10/07/2018	3.32	0.07	0.10		0.09	0.16	0.11	0.19	0.06	0.12	0.07	0.11	0.08	0.13	0.08	0.14	0.05	0.12
11/07/2018	4.14	0.05	0.11		0.08	0.14	0.09	0.60	0.06	0.11	0.05	0.10	0.08	0.11	0.08	0.10	0.04	0.09
12/07/2018	2.19	0.06	0.09		0.10	0.11	0.09	0.17	0.06	0.11	0.05	0.10	0.06	0.17	0.09	0.14	0.04	0.10
13/07/2018	3.20	0.05	0.11		0.10	0.15	0.10	0.13	0.06	0.11	0.05	0.10	0.07	0.12	0.08	0.14	0.05	0.07
14/07/2018	2.46	0.06	0.11		0.11	0.16	0.11	0.17	0.07	0.12	0.06	0.08	0.07	0.15	0.09	0.15	0.05	0.11
15/07/2018	1.80	0.05	0.10		0.11	0.18	0.10	0.17	0.07	0.17	0.05	0.10	0.09	0.14	0.08	0.15	0.05	0.11
16/07/2018	1.66	0.05	0.08		0.11	0.19	0.10	0.16	0.06	0.26	0.06	0.09	0.09	0.16	0.10	0.13	0.05	0.11
17/07/2018	1.95	0.06	0.10		0.14	0.16	0.08	0.16	0.06	0.10	0.06	0.10	0.10	0.16	0.10	0.16	0.06	0.08
18/07/2018	1.60	0.05	0.10		0.13	0.18	0.10	0.12	0.06	0.11	0.06	0.11	0.11	0.17	0.10	0.15	0.07	0.12
19/07/2018	1.86	0.05	0.10		0.13	0.19	0.09	0.16	0.07	0.10	0.07	0.11	0.11	0.18	0.10	0.16	0.07	0.13
20/07/2018	1.78	0.05	0.12		0.11	0.23	0.08	0.20	0.06	0.16	0.04	0.16	0.11	0.22	0.10	0.21	0.05	0.16
21/07/2018	1.87	0.06	0.10		0.17	0.20	0.09	0.12	0.06	0.16	0.04	0.13	0.12	0.18	0.10	0.15	0.07	0.10
22/07/2018	1.50	0.06	0.12		0.17	0.23	0.12	0.16	0.08	0.16	0.05	0.08	0.13	0.21	0.10	0.17	0.07	0.11
23/07/2018	1.80	0.07	0.13		0.18	0.25	0.10	0.18	0.09	0.16	0.05	0.12	0.11	0.20	0.10	0.17	0.05	0.11
24/07/2018	1.74	0.07	0.10		0.14	0.24	0.10	0.19	0.07	0.12	0.04	0.07	0.05	0.10	0.05	0.10	0.01	0.04
25/07/2018	1.83	0.06	0.12		0.11	0.14	0.08	0.15	0.05	0.09	0.02	0.05	0.03	0.08	0.03	0.09	0.01	0.01
26/07/2018	2.05	0.05	0.10		0.08	0.14	0.09	0.13	0.05	0.06	0.02	0.04	0.02	0.04	0.02	0.08	0.01	0.01
27/07/2018	2.09	0.06	0.07		0.09	0.11	0.08	0.15	0.05	0.10	0.02	0.05	0.03	0.06	0.03	0.04	0.01	0.01
28/07/2018	2.49	0.06	0.13		0.10	0.17	0.10	0.11	0.05	0.11	0.02	0.04	0.03	0.06	0.03	0.07	0.01	0.01
29/07/2018	2.47	0.05	0.10		0.08	0.13	0.08	0.14	0.05	0.08	0.02	0.05	0.03	0.04	0.02	0.03	0.01	0.01
30/07/2018	2.94	0.06	0.08		0.08	0.11	0.08	0.13	0.04	0.08	0.02	0.04	0.03	0.06	0.03	0.06	0.01	0.01
31/07/2018	2.82	0.05	0.11		0.10	0.14	0.08	0.10	0.04	0.09	0.02	0.05	0.04	0.10	0.03	0.08	0.01	0.01

Total Number of Measurements Taken, A: 16453      14979      16262      15345      17136      15914      15674      16744  
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: 16453      14979      16259      15345      17136      15914      15674      16744  
Compliance with Turbidity Standard, C = B/A X 100%: 100.000%      100.000%      99.982%      100.000%      100.000%      100.000%      100.000%      100.000%

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2018\07-July

Submitted By (Print): D. Merredew

Signature: Original Signed by D. Merredew



CITY OF WINNIPEG  
WATER AND WASTE DEPARTMENT  
ENVIRONMENTAL STANDARDS DIVISION

WATER TREATMENT PLANT TURBIDITY GRAB MONITORING REPORT																		
Water System Code: 252.00		Turbidity (NTU)																
Licence No. PWS-09-412-01																		
Date	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-Jul-2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
02-Jul-2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
03-Jul-2018	1.55	NR	OL	OL	0.11	0.07	0.10	0.08	0.10	0.04	0.08	0.04	0.07	0.05	0.08	0.04	0.08	0.02
04-Jul-2018	1.03	1.25	0.09	0.03	0.08	0.04	OL	OL	0.10	0.05	0.09	0.04	0.08	0.05	0.08	0.05	0.08	<0.02
05-Jul-2018	1.14	1.47	0.11	0.04	0.10	0.06	0.10	0.08	0.09	0.04	0.07	0.03	OL	OL	0.09	0.04	0.07	0.02
06-Jul-2018	1.04	NR	0.09	0.03	OL	OL	0.12	0.09	0.12	0.05	0.08	0.04	0.08	0.05	0.07	0.02	0.08	0.03
07-Jul-2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
08-Jul-2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
09-Jul-2018	1.12	1.30	0.13	0.05	0.11	0.09	0.11	0.11	0.12	0.05	0.10	0.04	0.11	0.07	OL	OL	0.13	0.05
10-Jul-2018	1.16	1.17	0.12	0.05	OL	OL	0.16	0.15	0.14	0.07	0.13	0.07	0.14	0.09	0.14	0.08	0.16	0.10
11-Jul-2018	1.16	NR	0.12	0.05	0.11	0.10	OL	OL	0.13	0.07	0.13	0.07	0.13	0.09	0.12	0.08	0.12	0.06
12-Jul-2018	1.44	2.17	0.12	0.05	0.12	0.10	0.12	0.10	OL	OL	0.10	0.04	0.13	0.10	0.13	0.08	0.11	0.06
13-Jul-2018	1.27	1.48	0.14	0.06	0.12	0.11	0.13	0.10	0.11	0.06	0.11	0.04	OL	OL	0.14	0.11	0.11	0.07
14-Jul-2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Jul-2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
16-Jul-2018	1.51	1.98	0.10	0.04	0.10	0.12	OL	OL	0.11	0.07	0.11	0.06	0.12	0.10	0.11	0.09	0.10	0.07
17-Jul-2018	1.70	1.70	0.12	0.04	0.11	0.13	0.10	0.09	OL	OL	0.10	0.05	0.15	0.14	0.13	0.11	0.11	0.08
18-Jul-2018	1.79	0.95	0.18	0.08	0.13	0.16	0.13	0.10	0.12	0.06	0.12	0.06	0.15	0.12	0.15	0.10	0.14	0.10
19-Jul-2018	1.65	1.58	0.11	0.04	OL	OL	0.14	0.11	0.12	0.08	0.12	0.06	0.13	0.13	0.11	0.10	0.15	0.12
20-Jul-2018	1.40	1.94	0.14	0.07	0.14	0.18	OL	OL	0.16	0.11	0.15	0.09	0.13	0.15	0.12	0.12	0.11	0.09
21-Jul-2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
22-Jul-2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
23-Jul-2018	2.10	1.03	0.11	0.07	OL	OL	0.14	0.12	0.11	0.09	0.10	0.05	0.11	0.16	0.11	0.11	0.13	0.12
24-Jul-2018	1.94	2.29	0.14	0.06	0.13	0.12	0.13	0.10	0.15	0.09	0.13	0.05	0.12	0.06	0.11	0.04	0.11	<0.02
25-Jul-2018	2.04	1.95	0.13	0.06	0.11	0.11	0.11	0.09	0.11	0.05	0.08	0.02	OL	OL	0.10	0.04	0.08	<0.02
26-Jul-2018	2.24	2.17	0.09	0.04	0.11	0.11	0.12	0.09	0.13	0.06	0.10	0.02	0.09	0.03	0.07	0.02	0.09	<0.02
27-Jul-2018	1.92	2.68	0.11	0.05	0.11	0.11	0.12	0.09	0.12	0.07	OL	OL	0.09	0.04	0.08	0.02	0.08	<0.02
28-Jul-2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
29-Jul-2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
30-Jul-2018	1.99	2.40	0.10	0.04	0.10	0.09	0.12	0.08	0.12	0.06	OL	OL	0.09	0.04	0.08	0.02	0.09	<0.02
31-Jul-2018	1.85	2.23	0.10	0.05	0.10	0.10	0.10	0.09	0.09	0.05	0.07	0.02	OL	OL	0.09	0.04	0.07	<0.02
<b>Total number of measurements taken, A:</b>			20			17			17			19			19			17
<b>Turbidity Standard for Monitoring Location (NTU):</b>			0.30			0.30			0.30			0.30			0.30			21
<b>Number of measurements meeting standard, B:</b>			20			17			17			19			19			20
<b>Compliance with Turbidity Standard, C= B/A X 100%:</b>			100%			100%			100%			100%			100%			100%

NS: No Sample NA: Not Analyzed OL: Off-Line

Comments:  
NR: Not representative at time of sample.

Report Compiled By: H.Demchenko

Approved in LIMS By: C.Diduck



**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 August 2018

Report Period: July 2018

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/07/2018	0.93	0.86	0.97	0.90
02/07/2018	1.01	0.93	1.03	0.96
03/07/2018	1.07	0.95	1.04	0.95
04/07/2018	0.99	0.85	0.98	0.87
05/07/2018	0.95	0.86	0.93	0.86
06/07/2018	1.04	0.91	1.04	0.91
07/07/2018	1.08	0.96	1.22	1.10
08/07/2018	1.05	0.92	1.21	0.97
09/07/2018	1.15	1.03	1.13	1.04
10/07/2018	1.23	0.97	1.24	1.04
11/07/2018	1.01	0.92	1.07	0.97
12/07/2018	1.12	0.87	1.15	0.96
13/07/2018	1.06	0.90	1.11	0.99
14/07/2018	1.05	0.85	1.16	0.93
15/07/2018	1.25	1.04	1.30	0.99
16/07/2018	1.21	1.02	1.20	1.01
17/07/2018	1.32	1.03	1.33	1.03
18/07/2018	1.34	1.11	1.35	1.09
19/07/2018	1.31	1.14	1.30	1.13
20/07/2018	1.21	0.74	1.19	0.70
21/07/2018	1.37	1.15	1.42	1.13
22/07/2018	1.14	0.82	1.17	0.85
23/07/2018	1.20	1.07	1.27	1.16
24/07/2018	1.15	0.93	1.17	1.03
25/07/2018	1.15	0.99	1.20	1.10
26/07/2018	1.11	0.94	1.21	1.06
27/07/2018	1.23	1.09	1.25	1.17
28/07/2018	1.20	0.99	1.22	1.00
29/07/2018	1.32	1.15	1.31	1.25
30/07/2018	1.22	0.87	1.17	0.96
31/07/2018	1.21	1.02	1.25	1.05

Total Number of Measurements, A: 21593 21596

Minimum Free Chlorine Standard: 0.5 0.5

Number of Measurements Meeting Standard, B: 21593 21596

COMPLIANCE, C = B/A X 100%: 100.00 100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2018\07-July

Submitted By (Print): D. Merredew

Signature: Original Signed by D. Merredew



CITY OF WINNIPEG  
WATER AND WASTE DEPARTMENT  
ENVIRONMENTAL STANDARDS DIVISION

**WATER TREATMENT PLANT CHLORINE GRAB MONITORING REPORT**

Water System Code: 252.00	Deacon Booster Pumping Station Branch 1			Deacon Booster Pumping Station Branch 2		
Licence No. PWS-09-412-01	Free Chlorine (mg/L)		Total Chlorine (mg/L)	Free Chlorine (mg/L)		Total Chlorine (mg/L)
Date	Analyser	Grab	Grab	Analyser	Grab	Grab
01-Jul-2018	NA	NA	NA	NA	NA	NA
02-Jul-2018	NA	NA	NA	NA	NA	NA
03-Jul-2018	1.04	1.15	1.33	1.02	1.13	1.36
04-Jul-2018	1.01	1.12	1.32	0.98	1.10	1.29
05-Jul-2018	0.87	1.04	1.25	0.89	1.03	1.22
06-Jul-2018	1.00	1.09	1.30	0.92	1.11	1.27
07-Jul-2018	NA	NA	NA	NA	NA	NA
08-Jul-2018	NA	NA	NA	NA	NA	NA
09-Jul-2018	1.16	1.15	1.38	1.13	1.22	1.39
10-Jul-2018	1.24	1.30	1.49	1.22	1.29	1.52
11-Jul-2018	1.01	1.14	1.33	1.05	1.21	1.35
12-Jul-2018	0.99	1.17	1.36	1.03	1.16	1.34
13-Jul-2018	1.10	1.12	1.33	1.17	1.09	1.33
14-Jul-2018	NA	NA	NA	NA	NA	NA
15-Jul-2018	NA	NA	NA	NA	NA	NA
16-Jul-2018	1.22	1.24	1.47	1.22	1.32	1.49
17-Jul-2018	1.28	1.30	1.48	1.24	1.32	1.54
18-Jul-2018	1.51	1.28	1.49	1.55	1.33	1.57
19-Jul-2018	1.45	1.39	1.59	1.42	1.46	1.62
20-Jul-2018	0.90	1.30	1.47	0.84	1.26	1.47
21-Jul-2018	NA	NA	NA	NA	NA	NA
22-Jul-2018	NA	NA	NA	NA	NA	NA
23-Jul-2018	1.14	1.05	1.34	1.24	1.15	1.37
24-Jul-2018	1.15	1.13	1.34	1.13	1.14	1.37
25-Jul-2018	1.18	1.19	1.45	1.20	1.32	1.51
26-Jul-2018	1.06	1.16	1.34	1.17	1.17	1.40
27-Jul-2018	1.22	1.29	1.50	1.25	1.18	1.44
28-Jul-2018	NA	NA	NA	NA	NA	NA
29-Jul-2018	NA	NA	NA	NA	NA	NA
30-Jul-2018	1.31	1.32	1.58	1.27	1.31	1.48
31-Jul-2018	1.16	1.39	1.53	1.27	1.29	1.52
<b>Total number of measurements taken, A:</b>		21			21	
<b>Chlorine Standard for Monitoring Location (mg/L):</b>		0.50			0.50	
<b>Number of measurements meeting standard, B:</b>		21			21	
<b>Compliance with Chlorine Standard, C= B/A X 100%:</b>		100%			100%	

NS: No Sample    NA: Not Analyzed    OL: Off-Line

Comments:

Report Compiled By: \_\_\_\_\_ H.Demchenko

Approved in LIMS By: \_\_\_\_\_ C.Diduck



**CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT  
WATER SERVICES

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

**WATER TREATMENT PLANT UV REPORT**

Report Period: July 2018

Report Created: Wednesday, August 01, 2018

Date	Transmittance %	UVR-D100A				UVR-D200A				UVR-D300A				UVR-D400A				UVR-D500A				UVR-D600A				Total				% Volume Treated To Dose		
		Water Volume [ML]				Water Volume [ML]				Water Volume [ML]				Water Volume [ML]				Water Volume [ML]				Water Volume [ML]				Water Volume [ML]						
		Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total			
01/07/2018	95.62	0.00	0.00	83.14	83.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.54	39.54	0.00	0.00	71.56	71.56	0.00	0.00	194.24	194.24	100.00				
02/07/2018	95.64	0.00	0.00	75.21	75.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.94	39.94	0.00	0.00	72.24	72.24	0.00	0.00	187.39	187.39	100.00				
03/07/2018	95.63	0.00	0.00	70.01	70.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	42.58	42.58	0.00	0.00	79.80	79.80	0.00	0.00	192.39	192.39	100.00				
04/07/2018	95.70	0.00	0.00	70.01	70.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.27	43.27	0.00	0.00	81.77	81.77	0.00	0.00	195.05	195.05	100.00				
05/07/2018	95.63	0.00	0.00	70.00	70.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.94	43.94	0.00	0.00	83.44	83.44	0.00	0.00	197.38	197.38	100.00				
06/07/2018	95.50	0.00	0.00	70.00	70.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.87	44.87	0.00	0.00	83.98	83.98	0.00	0.00	198.84	198.84	100.00				
07/07/2018	95.19	0.00	0.00	70.01	70.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.36	64.36	0.00	0.00	85.03	85.03	0.00	0.00	219.39	219.39	100.00				
08/07/2018	95.08	0.00	0.28	59.33	59.61	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.09	0.00	0.00	0.00	0.00	11.96	11.96	0.00	0.00	70.19	70.19	0.00	0.00	225.64	226.01	99.84				
09/07/2018	94.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12	0.00	0.00	79.92	79.92	0.00	0.00	71.65	71.65	0.00	0.00	79.87	79.87	0.00	0.00	231.56	231.56	100.00			
10/07/2018	94.60	0.00	0.00	20.91	20.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.48	75.48	0.00	0.00	56.21	56.21	0.00	0.00	231.37	231.37	100.00				
11/07/2018	94.81	0.00	0.00	70.00	70.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	84.03	84.03	0.00	0.00	0.00	0.00	0.00	0.00	230.01	230.01	100.00				
12/07/2018	94.88	0.00	0.00	70.00	70.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	76.17	76.17	0.00	0.00	83.86	83.86	0.00	0.00	230.03	230.03	100.00				
13/07/2018	94.97	0.00	0.00	70.03	70.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	76.15	76.15	0.00	0.00	83.83	83.83	0.00	0.00	230.00	230.00	100.00				
14/07/2018	94.84	0.00	0.00	70.37	70.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	76.55	76.55	0.00	0.00	83.84	83.84	0.00	0.00	230.76	230.76	100.00				
15/07/2018	94.85	0.00	0.00	75.01	75.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	79.18	79.18	0.00	0.00	84.82	84.82	0.00	0.00	239.01	239.01	100.00				
16/07/2018	94.97	0.00	0.00	73.88	73.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.12	77.12	0.00	0.00	83.99	83.99	0.00	0.00	234.99	234.99	100.00				
17/07/2018	94.93	0.00	0.00	73.78	73.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.32	77.32	0.00	0.00	83.90	83.90	0.00	0.00	235.01	235.01	100.00				
18/07/2018	94.89	0.00	0.00	73.78	73.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.37	77.37	0.00	0.00	83.87	83.87	0.00	0.00	235.02	235.02	100.00				
19/07/2018	94.94	0.00	0.00	73.73	73.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.39	77.39	0.00	0.00	83.87	83.87	0.00	0.00	234.99	234.99	100.00				
20/07/2018	94.96	0.00	0.05	61.27	61.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	58.64	58.64	0.00	0.12	19.45	19.57	0.00	0.00	43.96	43.96	0.00	0.17	183.32	183.49	99.91
21/07/2018	95.25	0.00	0.00	79.97	79.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	74.98	74.98	0.00	0.00	0.00	0.00	0.00	0.00	80.00	80.00	0.00	0.00	234.95	234.95	100.00
22/07/2018	95.07	0.00	0.00	79.93	79.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.06	75.06	0.00	0.00	0.00	0.00	0.00	0.00	80.02	80.02	0.00	0.00	235.01	235.01	100.00
23/07/2018	95.13	0.00	0.00	80.00	80.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.23	67.23	0.00	0.00	0.00	0.00	0.00	0.00	79.98	79.98	0.00	0.00	227.21	227.21	100.00
24/07/2018	94.84	0.00	0.00	80.00	80.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	59.53	59.53	0.00	0.00	0.00	0.00	0.00	0.00	79.91	79.91	0.00	0.00	219.44	219.44	100.00
25/07/2018	95.05	0.00	0.00	79.14	79.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.30	54.30	0.00	0.00	0.00	0.00	0.00	0.00	79.16	79.16	0.00	0.00	212.60	212.60	100.00
26/07/2018	95.43	0.00	0.00	64.50	64.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.18	5.18	0.00	0.00	0.00	0.00	0.00	0.00	71.08	71.08	0.00	0.00	186.93	186.93	100.00
27/07/2018	95.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.61	48.61	0.00	0.00	51.31	51.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	80.02	80.02	0.00	0.00	179.94	179.94	100.00	
28/07/2018	95.30	0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.00	0.00	48.63	48.63	0.00	0.00	51.41	51.41	0.00	0.00	0.09	0.09	0.00	0.00	0.00	0.00	79.94	79.94	0.00	0.00	180.17	180.17	100.00	
29/07/2018	95.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.94	54.94	0.00	0.00	60.05	60.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	79.98	79.98	0.00	0.00	194.97	194.97	100.00	
30/07/2018	95.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	61.45	61.49	0.00	0.00	75.21	75.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	79.96	79.96	0.00	0.04	216.62	216.65	99.98	
31/07/2018	95.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.27	63.27	0.00	0.00	83.62	83.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	80.05	80.05	0.00	0.00	226.93	226.93	100.00	

Water Volume [%]:

Untreated: 0.00 %

Below Dose: 0.01 %

To Dose: 99.99 %

Submitted By (Print): D. Merredew

Signature: Original Signed by D. Merredew



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Friday, August 3, 2018

**Our Incident/Report No: 02-2018**

LIMS Reference No: 9940

Incident Date: **July 17, 2018**

Mr. Derek Clarke  
Drinking Water Officer  
Manitoba Sustainable Development, Office of Drinking Water  
Box 6000  
Gimli, MB R0C 1B0

## RE: CORRECTIVE ACTION REPORT

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<b>WATER SYSTEM, CODE</b>	Winnipeg Public Water System, 252.00
<b>LOCATION OF NON-COMPLIANT INCIDENT</b>	<b>Winnipeg 3-Dist WC05</b>
<b>INCIDENT REPORTED BY</b>	Renée Grosselle, Manager of Environmental Standards
<b>TYPE OF NON-COMPLIANT INCIDENT</b>	Low positive Total Coliform (<10 per100mL), 3 MR 41/2007
<b>DESCRIPTION OF CORRECTIVE ACTIONS</b>	<u>Environmental Standards:</u> AS SOON AS POSSIBLE: Re-sampled original location until two consecutive negative results were reported. Also tested for turbidity, free/total chlorine, temperature and contacted the ODW.
<b>TEST RESULTS</b>	See Attached

NOTES/COMMENTS:

1. UP/DOWN STREAM testing performed when EC is >0 /100mL, TC is >10 /100mL or when resample/consecutive sample is positive for EC or TC or as directed by the Manager of Environmental Standards Division and/or the Office of Drinking Water

**EMERGENCY REPORTING IS REQUIRED WHERE A POTENTIAL HEALTH RISK IS INVOLVED. FOLLOW THE INSTRUCTIONS OF YOUR DRINKING WATER OFFICER ON SITUATIONS REQUIRING IMMEDIATE REPORTING**

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Sample Name	Sample Number	Date Sampled	bacColiEsch-QT (MPNU/100mL)	bacColiTotal-QT (MPNU/100mL)	bacHPC (cfu/mL)	Chlorine, Free (mg/L)	Chlorine, Total (mg/L)	Turbidity-field (ntu)	Temperature (°C)	Time Sampled (hrs)
WC05	9940	17-Jul-18	<1	2	<1	0.72	0.96	0.38	15.2	10:30
WC05_Resample	11912	18-Jul-18	<1	<1	2	0.62	0.79	0.18	13.4	15:45
WC05_Resample 2	11913	19-Jul-18	<1	<1	<1	0.66	0.91	0.21	15.7	15:55

NOTES/COMMENTS:

1. All microbiological tests performed by contract laboratory.
2. N/R-No Result due to laboratory/analyst error.
3. N/A-Not Analyzed.



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Friday, August 3, 2018

**Our Incident/Report No: 03-2018**

LIMS Reference No: 12128

Incident Date: **July 25, 2018**

Mr. Derek Clarke  
Drinking Water Officer  
Manitoba Sustainable Development, Office of Drinking Water  
Box 6000  
Gimli, MB R0C 1B0

## RE: CORRECTIVE ACTION REPORT

<b>WATER SYSTEM, CODE</b>	Winnipeg Public Water System, 252.00
<b>LOCATION OF NON-COMPLIANT INCIDENT</b>	<b>Winnipeg 3-Dist SW11</b>
<b>INCIDENT REPORTED BY</b>	Courtney Diduck, Analytical Services Branch Head
<b>TYPE OF NON-COMPLIANT INCIDENT</b>	Low positive Total Coliform (<10 per100mL), 3 MR 41/2007
<b>DESCRIPTION OF CORRECTIVE ACTIONS</b>	<u>Environmental Standards:</u> AS SOON AS POSSIBLE: Re-sampled original location until two consecutive negative results were reported. Also tested for turbidity, free/total chlorine, temperature and contacted the ODW.
<b>TEST RESULTS</b>	See Attached

NOTES/COMMENTS:

1. UP/DOWN STREAM testing performed when EC is >0 /100mL, TC is >10 /100mL or when resample/consecutive sample is positive for EC or TC or as directed by the Manager of Environmental Standards Division and/or the Office of Drinking Water

**EMERGENCY REPORTING IS REQUIRED WHERE A POTENTIAL HEALTH RISK IS INVOLVED. FOLLOW THE INSTRUCTIONS OF YOUR DRINKING WATER OFFICER ON SITUATIONS REQUIRING IMMEDIATE REPORTING**

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Sample Name	Sample Number	Date Sampled	bacColiEsch-QT (MPNU/100mL)	bacColiTotal-QT (MPNU/100mL)	bacHPC (cfu/mL)	Chlorine, Free (mg/L)	Chlorine, Total (mg/L)	Turbidity-field (ntu)	Temperature (°C)	Time Sampled (hrs)
SW11	12128	25-Jul-18	<1	1	<1	1.05	1.20	0.27	21.2	11:33
SW11_Resample	14424	26-Jul-18	<1	<1	<1	0.93	1.16	0.20	20.4	15:15
SW11_Resample Duplicate	14425	26-Jul-18	<1	<1	<1	NA	NA	NA	NA	15:15
SW11_Resample 2	14426	27-Jul-18	<1	<1	<1	0.92	1.15	0.19	21.8	15:21
SW11_Resample Duplicate 2	14427	27-Jul-18	<1	<1	<1	NA	NA	NA	NA	15:22

NOTES/COMMENTS:

1. All microbiological tests performed by contract laboratory.
2. N/R-No Result due to laboratory/analyst error.
3. N/A-Not Analyzed.