



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

*Environmental Standards Division • Division des Normes Environnementales*

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June 7, 2017

Marc Balcaen  
Office of Drinking Water  
Manitoba Sustainable Development  
1007 Century Street  
Winnipeg, Manitoba R3H 0W4

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

Dear Mr. Balcaen:

**RE: MAY 2017 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 May 2017. We have included one corrective action report for a positive total coliform in the distribution system.

The May 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 effluent from the filters met the licence requirements.

The May 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 May 31, a positive total coliform result was reported for a routine sample at the NE05 location. On June 1 and 2, the location was resampled and results were reported negative. Our resampling also indicated that the chlorine levels at the location were normal and provided adequate disinfection. Please see the attached corrective action report for additional details.

The May 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 may 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  
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**

May 2017 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
1/05/2017	1.17	0.00	0.04	0.00	0.09	0.00	0.10	OL	OL	OL	OL	0.05	0.11	0.04	0.08	0.01	0.04
2/05/2017	1.22	0.00	0.02	0.00	0.07	OL	OL	0.00	0.04	OL	OL	0.03	0.07	0.04	0.07	0.01	0.01
3/05/2017	1.23	0.02	0.05	0.02	0.10	0.02	0.11	0.02	0.04	OL	OL	0.04	0.05	0.03	0.07	0.01	0.02
4/05/2017	1.25	0.03	0.09	0.04	0.10	0.06	0.09	0.04	0.09	OL	OL	0.04	0.09	0.03	0.07	0.01	0.02
5/05/2017	1.35	0.05	0.13	0.07	0.10	0.08	0.13	0.05	0.14	OL	OL	0.05	0.09	0.04	0.13	0.01	0.01
6/05/2017	1.26	0.07	0.15	0.09	0.18	0.11	0.20	0.07	0.15	OL	OL	0.06	0.13	0.06	0.09	0.02	0.08
7/05/2017	1.18	0.05	0.12	0.08	0.17	0.08	0.23	0.06	0.10	0.03	0.13	0.05	0.16	0.06	0.12	0.01	0.07
8/05/2017	1.27	0.04	0.07	0.04	0.12	0.06	0.16	0.04	0.13	0.03	0.08	0.04	0.07	0.03	0.10	0.01	0.08
9/05/2017	1.30	0.02	0.16	0.03	0.11	0.06	0.16	0.02	0.11	0.03	0.09	0.04	0.12	0.01	0.14	0.00	0.02
10/05/2017	1.39	0.03	0.27	0.05	0.11	0.06	0.19	0.03	0.12	0.03	0.07	0.04	0.21	0.02	0.04	0.01	0.05
11/05/2017	1.33	0.05	0.09	0.05	0.10	0.09	0.18	0.07	0.13	0.04	0.08	0.04	0.13	0.04	0.11	0.01	0.05
12/05/2017	1.55	0.08	0.14	0.05	0.12	0.08	0.18	0.08	0.16	0.04	0.06	0.05	0.07	0.05	0.09	0.01	0.05
13/05/2017	1.67	0.07	0.16	0.06	0.07	0.10	0.12	0.08	0.17	0.07	0.12	0.08	0.13	0.07	0.14	0.03	0.11
14/05/2017	1.30	0.05	0.13	0.06	0.14	0.09	0.19	0.09	0.11	0.06	0.12	0.06	0.16	0.08	0.10	0.04	0.09
15/05/2017	1.27	0.07	0.13	0.04	0.11	0.07	0.17	0.07	0.16	0.05	0.08	0.06	0.09	0.06	0.12	0.03	0.10
16/05/2017	1.25	0.04	0.12	0.04	0.06	0.08	0.11	0.06	0.13	0.05	0.10	0.05	0.14	0.05	0.12	0.02	0.04
17/05/2017	1.21	0.03	0.08	0.03	0.09	0.06	0.15	0.06	0.09	0.04	0.09	0.04	0.10	0.05	0.07	0.02	0.08
18/05/2017	1.25	0.05	0.10	0.03	0.08	0.06	0.08	0.06	0.14	0.04	0.06	0.05	0.08	0.04	0.12	0.02	0.10
19/05/2017	1.07	0.02	0.13	0.03	0.11	0.06	0.18	0.04	0.16	0.03	0.18	0.02	0.14	0.03	0.15	0.01	0.12
20/05/2017	1.07	0.05	0.07	0.03	0.08	0.06	0.14	0.06	0.12	0.03	0.06	0.04	0.06	0.04	0.09	0.02	0.07
21/05/2017	1.04	0.04	0.12	0.03	0.05	0.08	0.11	0.05	0.14	0.03	0.07	0.04	0.10	0.03	0.05	0.02	0.03
22/05/2017	1.06	0.03	0.05	0.03	0.09	0.06	0.15	0.06	0.08	0.03	0.08	0.04	0.05	0.05	0.10	0.03	0.09
23/05/2017	1.07	0.03	0.10	0.02	0.04	0.07	0.08	0.05	0.12	0.04	0.06	0.04	0.09	0.04	0.10	0.03	0.07
24/05/2017	1.05	0.03	0.10	0.03	0.07	0.06	0.14	0.05	0.07	0.03	0.09	0.04	0.09	0.04	0.06	0.04	0.05
25/05/2017	1.16	0.03	0.05	0.02	0.08	0.06	0.13	0.06	0.13	0.03	0.07	0.04	0.05	0.04	0.09	0.03	0.10
26/05/2017	1.20	0.02	0.09	0.02	0.04	0.06	0.08	0.04	0.15	0.03	0.06	0.04	0.09	0.03	0.08	0.03	0.07
27/05/2017	1.19	0.02	0.09	0.02	0.07	0.06	0.12	0.04	0.10	0.02	0.08	0.03	0.09	0.03	0.05	0.04	0.05
28/05/2017	1.32	0.02	0.03	0.01	0.05	0.05	0.12	0.05	0.06	0.02	0.06	0.02	0.04	0.03	0.07	0.04	0.08
29/05/2017	1.35	0.02	0.08	0.01	0.05	0.05	0.07	0.04	0.10	0.02	0.08	0.03	0.07	0.03	0.07	0.04	0.07
30/05/2017	1.80	0.01	0.06	0.01	0.03	0.05	0.12	0.03	0.07	0.02	0.06	0.03	0.08	0.03	0.04	0.05	0.06
31/05/2017	1.60	0.01	0.02	0.01	0.03	0.05	0.10	0.04	0.06	0.02	0.05	0.02	0.04	0.03	0.07	0.05	0.10

Total Number of Measurements Taken, A:	14581	11797	14585	12710	12878	15107	14827	16265
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:	14581	11797	14585	12710	12878	15107	14827	16265
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%

OL - Off Line

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2017\05-May

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-May-2017	0.88	1.22	0.11	0.04	0.13	0.09	0.15	0.10	OL	OL	OL	OL	0.14	0.09	0.10	0.04	0.10	<0.02	
02-May-2017	0.67	1.19	0.09	0.02	0.12	0.07	OL	OL	0.09	0.04	OL	OL	0.07	0.04	0.08	0.03	0.09	<0.02	
03-May-2017	0.89	1.19	0.10	0.03	0.09	0.05	0.10	0.05	0.08	0.04	OL	OL	0.08	0.04	0.10	0.04	0.15	0.03	
04-May-2017	0.91	1.25	OL	OL	0.11	0.05	0.11	0.06	0.13	0.06	OL	OL	0.09	0.05	OL	OL	0.07	<0.02	
05-May-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	OL	OL	NS	NS	NS	NS	NS	NS	
06-May-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
07-May-2017	0.80	1.13	0.15	0.06	0.18	0.11	OL	OL	0.16	0.09	0.17	0.08	OL	OL	0.14	0.05	0.14	0.03	
08-May-2017	0.86	1.22	0.10	0.03	OL	OL	OL	OL	0.11	0.05	0.08	0.03	0.08	0.05	0.10	0.03	0.11	0.02	
09-May-2017	0.87	1.32	0.12	0.05	0.09	0.05	0.11	0.08	OL	OL	0.07	0.03	0.07	0.05	OL	OL	0.07	<0.02	
10-May-2017	0.85	1.31	OL	OL	0.10	0.06	0.13	0.09	0.09	0.05	0.09	0.04	OL	OL	0.08	0.02	0.07	<0.02	
11-May-2017	1.09	1.24	0.12	0.06	0.13	0.07	0.18	0.15	0.12	0.10	OL	OL	0.08	0.04	0.10	0.03	0.08	<0.02	
12-May-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
13-May-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
14-May-2017	0.91	1.24	0.12	0.05	0.15	0.08	0.21	0.15	0.13	0.09	OL	OL	0.12	0.07	0.13	0.07	0.13	0.04	
15-May-2017	1.12	1.25	0.11	0.04	0.10	0.04	0.11	0.07	0.12	0.08	0.11	0.04	0.14	0.06	0.14	0.07	0.19	0.10	
16-May-2017	0.86	1.20	OL	OL	0.11	0.04	0.12	0.08	0.10	0.07	0.11	0.06	0.15	0.09	0.11	0.05	0.13	0.05	
17-May-2017	0.88	1.17	0.09	0.03	0.11	0.05	OL	OL	0.09	0.07	0.08	0.03	0.09	0.05	0.10	0.04	0.10	0.05	
18-May-2017	0.93	1.21	0.10	0.04	0.09	0.03	0.10	0.07	0.12	0.08	0.09	0.04	0.11	0.06	OL	OL	0.08	0.04	
19-May-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
20-May-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
21-May-2017	0.78	0.95	OL	OL	0.11	0.04	0.15	0.08	0.09	0.06	0.09	0.03	0.12	0.08	0.08	0.03	0.08	0.04	
22-May-2017	0.83	1.04	0.10	0.02	OL	OL	0.09	0.06	0.10	0.07	0.08	0.03	0.10	0.04	0.11	0.04	0.11	0.06	
23-May-2017	0.80	1.02	0.12	0.04	0.09	0.02	0.09	0.07	OL	OL	0.08	0.03	0.10	0.06	0.08	0.03	0.08	0.05	
24-May-2017	0.75	1.04	0.09	0.02	0.10	0.04	0.12	0.09	0.08	0.06	OL	OL	0.11	0.04	0.09	0.03	0.09	0.05	
25-May-2017	0.88	1.12	0.08	0.02	0.08	0.02	0.08	0.06	0.09	0.07	0.07	0.02	0.08	0.05	0.11	0.04	OL	OL	
26-May-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
27-May-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
28-May-2017	0.90	1.33	0.07	<0.02	OL	OL	0.07	0.05	0.08	0.05	0.06	<0.02	0.07	0.03	0.07	0.02	0.08	0.07	
29-May-2017	1.01	1.33	0.09	<0.02	0.07	<0.02	0.07	0.05	0.10	0.06	0.06	<0.02	0.07	0.04	OL	OL	0.08	0.07	
30-May-2017	1.41	2.10	0.07	<0.02	0.07	<0.02	0.08	0.06	0.07	0.05	0.09	0.03	OL	OL	0.07	0.02	0.07	0.07	
31-May-2017	1.22	1.41	0.07	<0.02	OL	OL	0.08	0.04	0.08	0.05	0.06	<0.02	0.06	0.03	0.08	0.02	0.08	0.09	
<b>Total number of measurements taken, A:</b>			19		19		19		20		16		20		19		22		
<b>Turbidity Standard for Monitoring Location (NTU):</b>			0.30		0.30		0.30		0.30		0.30		0.30		0.30		0.30		
<b>Number of measurements meeting standard, B:</b>			19		19		19		20		16		20		19		22		
<b>Compliance with Turbidity Standard, C= B/A X 100%:</b>			100%		100%		100%		100%		100%		100%		100%		100%		

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

**Comments:**

There was an increased requirement for filter maintenance due to thermal turnover at Shoal Lake.  
 Filter 5 was offline for maintenance May 1-5/17.

Report Compiled By: H.Demchenko

Approved in LIMS By: C.Diduck

Date Approved: 7-Jun-17



**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 June 2017**

Report Period: May 2017

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/05/2017	1.00	0.93	1.00	0.93
02/05/2017	0.96	0.90	0.97	0.90
03/05/2017	0.94	0.86	0.93	0.85
04/05/2017	0.97	0.86	1.00	0.81
05/05/2017	1.12	1.06	1.22	1.07
06/05/2017	1.14	1.06	1.24	1.09
07/05/2017	1.13	1.06	1.24	1.12
08/05/2017	1.09	1.01	1.20	1.04
09/05/2017	1.13	1.00	1.17	0.96
10/05/2017	1.19	1.02	1.15	1.07
11/05/2017	1.08	1.00	1.11	1.02
12/05/2017	1.17	1.06	1.16	1.06
13/05/2017	1.24	1.12	1.15	1.06
14/05/2017	1.13	1.07	1.06	0.99
15/05/2017	1.07	0.97	0.99	0.90
16/05/2017	1.03	0.98	0.98	0.92
17/05/2017	1.08	0.97	1.10	1.06
18/05/2017	1.07	0.98	1.10	1.05
19/05/2017	1.11	0.74	1.09	0.74
20/05/2017	1.34	1.22	1.42	1.24
21/05/2017	1.33	1.16	1.32	1.07
22/05/2017	1.19	1.12	1.13	1.06
23/05/2017	1.20	1.09	1.19	1.10
24/05/2017	1.17	1.03	1.12	1.02
25/05/2017	1.18	1.12	1.13	1.08
26/05/2017	1.23	1.17	1.19	1.09
27/05/2017	1.35	1.25	1.31	1.25
28/05/2017	1.20	1.03	1.21	1.02
29/05/2017	1.14	1.06	1.11	1.04
30/05/2017	1.20	1.09	1.14	1.07
31/05/2017	1.13	1.05	1.11	1.04

Total Number of Measurements, A:	21603	21600
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	21603	21600
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2017\05-May

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 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-May-2017	0.99	1.07	1.22	1.00	1.07	1.19
02-May-2017	0.97	1.05	1.21	0.97	1.06	1.20
03-May-2017	0.94	0.94	1.18	0.92	1.01	1.15
04-May-2017	0.94	0.99	1.16	0.91	0.87	1.11
05-May-2017	NS	NS	NS	NS	NS	NS
06-May-2017	NS	NS	NS	NS	NS	NS
07-May-2017	1.15	1.23	1.39	1.26	1.26	1.45
08-May-2017	1.10	1.18	1.40	1.14	1.23	1.38
09-May-2017	1.05	1.15	1.38	1.26	1.33	1.52
10-May-2017	1.28	1.22	1.37	1.15	1.24	1.36
11-May-2017	1.02	1.12	1.32	1.06	1.12	1.29
12-May-2017	NS	NS	NS	NS	NS	NS
13-May-2017	NS	NS	NS	NS	NS	NS
14-May-2017	1.14	1.18	1.39	1.07	1.16	1.32
15-May-2017	0.98	1.12	1.29	0.93	1.04	1.24
16-May-2017	1.03	1.14	1.31	1.01	1.04	1.27
17-May-2017	1.13	1.06	1.41	1.08	1.14	1.39
18-May-2017	1.09	1.17	1.29	1.10	1.19	1.40
19-May-2017	NS	NS	NS	NS	NS	NS
20-May-2017	NS	NS	NS	NS	NS	NS
21-May-2017	NR	1.25	1.46	NR	1.08	1.35
22-May-2017	1.21	1.26	1.45	1.14	1.15	1.36
23-May-2017	1.22	1.26	1.46	1.23	1.28	1.47
24-May-2017	1.17	1.20	1.38	1.13	1.21	1.40
25-May-2017	1.20	1.28	1.47	1.11	1.24	1.43
26-May-2017	NS	NS	NS	NS	NS	NS
27-May-2017	NS	NS	NS	NS	NS	NS
28-May-2017	1.17	1.25	1.39	1.18	1.28	1.41
29-May-2017	1.12	1.22	1.37	1.09	1.21	1.33
30-May-2017	1.22	1.25	1.48	1.18	1.23	1.39
31-May-2017	1.16	1.23	1.39	1.11	1.21	1.38
<b>Total number of measurements taken, A:</b>		23			23	
<b>Chlorine Standard for Monitoring Location (mg/L):</b>		0.50			0.50	
<b>Number of measurements meeting standard, B:</b>		23			23	
<b>Compliance with Chlorine Standard, C= B/A X 100%:</b>		100%			100%	

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

**Comments:**

There were no results for DBPS Branch I and II analyzers on May 21 due to maintenance requirements.

Report Compiled By: H.Demchenko

Approved in LIMS By: C.Diduck

Date Approved: 7-Jun-17



**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: **May 2017**

Report Created: **Thursday, June 01, 2017**

Date	Transmittance %	UVR-D100A Water Volume [ML]				UVR-D200A Water Volume [ML]				UVR-D300A Water Volume [ML]				UVR-D400A Water Volume [ML]				UVR-D500A Water Volume [ML]				UVR-D600A Water Volume [ML]				Total Water Volume [ML]				% Volume Treated To Dose
		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	
		01/05/2017	95.46	0.00	0.00	0.00	0.00	0.00	74.86	74.86	0.00	0.00	0.00	0.00	0.00	0.00	47.53	47.53	0.00	0.00	0.00	0.00	0.00	0.00	52.63	52.63	0.00	0.00	175.02	
02/05/2017	95.62	0.00	0.00	0.00	0.00	0.00	74.76	74.76	0.00	0.00	0.00	0.00	0.00	0.00	47.65	47.65	0.00	0.00	0.00	0.00	0.00	0.00	52.60	52.60	0.00	0.00	175.00	175.00	100.00	
03/05/2017	95.58	0.00	0.00	0.00	0.00	0.00	76.48	76.48	0.00	0.00	0.00	0.00	0.00	0.00	48.36	48.36	0.00	0.00	0.00	0.00	0.00	0.00	53.85	53.85	0.00	0.00	178.69	178.69	100.00	
04/05/2017	95.59	0.00	0.00	0.00	0.00	0.00	77.01	77.01	0.00	0.00	0.00	0.00	0.00	0.00	48.44	48.44	0.00	0.00	28.18	28.18	0.00	0.00	26.35	26.35	0.00	0.00	179.98	179.98	100.00	
05/05/2017	95.31	0.00	0.00	0.00	0.00	0.00	82.33	82.33	0.00	0.00	21.30	21.30	0.00	0.00	57.73	57.73	0.00	0.00	32.55	32.55	0.00	0.00	0.00	0.00	0.00	0.00	193.91	193.91	100.00	
06/05/2017	94.82	0.00	0.00	0.00	0.00	0.00	85.02	85.02	0.00	0.00	52.88	52.88	0.00	0.00	69.25	69.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	207.15	207.15	100.00	
07/05/2017	94.93	0.00	0.00	0.00	0.00	0.00	85.00	85.00	0.00	0.00	54.98	54.98	0.00	0.00	69.99	69.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	209.97	209.97	100.00	
08/05/2017	95.38	0.00	0.00	22.74	22.74	0.00	80.44	80.44	0.00	0.00	33.73	33.73	0.00	0.00	41.56	41.56	0.00	0.00	32.47	32.47	0.00	0.00	0.00	0.00	0.00	0.00	210.95	210.95	100.00	
09/05/2017	94.08	0.00	0.00	42.63	42.63	0.01	52.85	52.87	0.00	0.00	0.00	0.00	0.00	0.00	8.87	8.87	0.00	0.34	46.25	46.59	0.00	0.00	0.00	0.00	0.01	0.35	150.59	150.95	99.76	
10/05/2017	93.79	0.00	0.00	63.33	63.33	0.00	86.28	86.28	0.00	0.00	0.00	0.00	0.00	0.00	61.91	61.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	211.52	211.52	100.00	
11/05/2017	94.15	0.00	0.00	61.12	61.12	0.00	83.74	83.74	0.00	0.00	0.00	0.00	0.00	0.00	61.51	61.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	206.36	206.36	100.00	
12/05/2017	94.88	0.00	0.00	61.56	61.56	0.00	30.12	30.12	0.00	0.10	5.76	5.85	0.15	0.31	58.53	58.99	0.00	0.00	0.00	0.00	0.00	0.00	47.07	47.07	0.15	0.40	203.04	203.60	99.73	
13/05/2017	94.24	0.00	0.00	62.34	62.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.45	64.45	0.00	0.00	0.00	0.00	0.00	0.00	64.14	64.14	0.00	0.00	190.93	190.93	100.00		
14/05/2017	94.24	0.00	0.00	62.09	62.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.27	64.27	0.00	0.00	0.00	0.00	0.00	0.00	62.72	62.72	0.00	0.00	189.08	189.08	100.00		
15/05/2017	94.54	0.00	0.00	62.99	62.99	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	65.17	65.17	0.00	0.00	0.00	0.00	0.00	0.00	65.32	65.32	0.01	0.01	193.48	193.50	99.99		
16/05/2017	94.81	0.00	0.00	64.95	64.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.92	67.92	0.00	0.00	0.00	0.00	0.00	0.00	68.40	68.40	0.00	0.00	201.27	201.27	100.00		
17/05/2017	95.09	0.00	0.00	30.50	30.50	0.00	39.62	39.62	0.00	0.00	0.00	0.00	0.00	0.00	67.74	67.74	0.00	0.00	0.00	0.00	0.00	0.00	69.72	69.72	0.00	0.00	207.58	207.58	100.00	
18/05/2017	95.10	0.00	0.00	0.00	0.00	0.00	72.33	72.33	0.00	0.00	0.00	0.00	0.00	0.00	65.65	65.65	0.00	0.00	0.00	0.00	0.00	0.00	68.61	68.61	0.00	0.00	206.60	206.60	100.00	
19/05/2017	94.53	0.00	0.00	0.00	0.00	0.00	53.78	53.78	0.00	0.00	0.00	0.00	0.00	0.44	22.03	22.47	0.00	0.00	14.59	14.59	0.00	0.00	45.31	45.31	0.00	0.44	135.70	136.14	99.68	
20/05/2017	95.25	0.00	0.00	0.00	0.00	0.00	70.16	70.16	0.00	0.00	14.83	14.83	0.00	0.00	0.00	0.00	0.00	0.00	40.89	40.89	0.00	0.00	64.04	64.04	0.00	0.00	189.93	189.93	100.00	
21/05/2017	95.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	83.08	83.08	0.00	0.00	0.00	0.00	0.00	0.00	37.59	37.59	0.00	0.00	61.95	61.95	0.00	0.00	182.62	182.62	100.00	
22/05/2017	95.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	82.44	82.44	0.00	0.00	0.00	0.00	0.00	0.00	37.17	37.17	0.00	0.00	60.43	60.43	0.00	0.00	180.04	180.04	100.00	
23/05/2017	95.35	0.00	0.11	41.08	41.19	0.00	0.00	0.00	0.00	0.00	47.92	47.92	0.00	0.00	21.15	21.15	0.00	0.04	56.01	56.05	0.00	0.00	17.32	17.32	0.00	0.15	183.48	183.63	99.92	
24/05/2017	95.37	0.00	0.00	61.15	61.15	0.00	0.00	0.70	0.70	0.00	0.00	0.00	0.00	62.53	62.53	0.00	0.04	62.80	62.84	0.00	0.00	0.00	0.00	0.00	0.04	187.17	187.21	99.98		
25/05/2017	95.33	0.00	0.00	64.58	64.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	66.18	66.18	0.00	0.14	67.11	67.25	0.00	0.00	0.00	0.00	0.00	0.14	197.87	198.01	99.93		
26/05/2017	95.49	0.00	0.00	66.41	66.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.89	68.89	0.00	0.28	68.20	68.48	0.00	0.00	0.00	0.00	0.00	0.28	203.49	203.77	99.86		
27/05/2017	95.56	0.00	0.00	66.91	66.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	69.36	69.36	0.00	0.29	68.43	68.72	0.00	0.00	0.00	0.00	0.00	0.29	204.71	204.99	99.86		
28/05/2017	95.62	0.00	0.00	63.78	63.78	0.00	0.00	0.00	0.00	0.04	0.09	22.91	23.04	0.00	0.00	45.47	45.47	0.00	0.18	44.76	44.95	0.00	0.00	22.83	22.83	0.04	0.27	199.75	200.06	99.84
29/05/2017	95.66	0.00	0.00	60.43	60.43	0.00	0.00	0.00	0.00	0.00	68.00	68.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.26	68.26	0.00	0.00	196.68	196.68	100.00	
30/05/2017	95.73	0.22	0.22	65.65	66.10	0.00	0.00	0.00	0.00	0.00	47.91	47.91	0.00	0.00	5.95	5.95	0.00	0.00	0.00	0.00	0.00	0.00	77.41	77.41	0.22	0.22	196.92	197.36	99.77	
31/05/2017	95.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55.15	55.15	0.00	0.00	59.83	59.83	0.00	0.00	0.00	0.00	0.00	0.00	85.00	85.00	0.00	0.00	199.99	199.99	100.00	
<b>Total [ML]:</b>		0.22	0.33	1024.24	1024.80	0.01	0.01	1125.48	1125.50	0.05	0.19	590.89	591.13	0.15	0.75	1437.93	1438.83	0.00	1.32	637.01	638.33	0.00	0.00	1133.94	1133.94	0.44	2.60	5949.48	5952.52	

**Water Volume [%]:**  
 Untreated: 0.01 %  
 Below Dose 0.04 %  
 To Dose 99.95 %

Submitted By (Print):  D.Merredew

Signature:  \_Original Signed by D.Merredew



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Monday, June 5, 2017

**Our Incident/Report No: 02-2017**

LIMS Reference No: **49651**

Incident Date: **May 31, 2017**

Mr. Marc Balcaen  
Drinking Water Officer  
Manitoba Sustainable Development, Office of Drinking Water  
1007 Century Street  
Winnipeg MB R3H 0W4

## **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 NE05</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**

N:\Environmental Standards\Analytical Services\Government Agencies\Office of Drinking Water\Corrective Action Reports



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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)	Temperature (°C)	Turbidity-field (ntu)	Time Sampled (hrs)
NE05	511048	31-May-17	0	4	4	0.86	1.12	11.6	0.17	10:00
NE05_Resample	511851	01-Jun-17	0	0	<1	0.96	1.18	11.7	0.30	15:46
NE05_Resample Duplicate	511852	01-Jun-17	0	0	<1					
NE05_Resample 2	512051	02-Jun-17	0	0	1	0.89	1.15	12.4	0.52	15:28
NE05_Resample 2 Duplicate	512052	02-Jun-17	0	0	<1					

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.