



Water and Waste Department • Service des eaux et des déchets

Environmental Standards Division • Division des Normes Environnementales

May 5, 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: APRIL 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 April 2017. We have included one corrective action report for a positive total coliform in the distribution system.

The April 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 April 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 April 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.

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

April 2017	Turbidity (NTU)																
	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
1/4/2017	0.78	0.01	0.03	0.00	0.09	0.03	0.12	0.01	0.10	0.01	0.03	0.01	0.10	0.01	0.03	0.01	0.01
2/04/2017	0.78	0.01	0.03	0.00	0.04	0.03	0.05	0.02	0.04	0.01	0.05	0.01	0.06	0.01	0.04	0.00	0.01
3/04/2017	0.79	0.01	0.01	0.00	0.03	0.04	0.11	0.01	0.06	0.01	0.05	0.01	0.02	0.01	0.06	0.00	0.01
4/04/2017	0.78	0.01	0.02	0.00	0.12	0.02	0.11	0.01	0.02	0.01	0.03	0.01	0.08	0.02	0.06	0.01	0.01
5/04/2017	0.79	0.01	0.01	0.00	0.00	0.04	0.06	0.02	0.08	0.01	0.06	0.01	0.02	0.01	0.07	0.00	0.01
6/04/2017	0.79	0.01	0.02	0.00	0.09	0.03	0.10	0.01	0.06	0.01	0.04	0.01	0.07	0.01	0.06	0.01	0.01
7/04/2017	0.76	0.01	0.01	0.00	0.03	0.02	0.09	0.01	0.08	0.00	0.02	0.01	0.06	0.01	0.04	0.01	0.01
8/04/2017	0.73	0.01	0.02	0.00	0.00	0.02	0.05	0.02	0.05	0.00	0.03	0.01	0.05	0.01	0.04	0.00	0.01
9/04/2017	0.73	0.01	0.01	0.00	0.02	0.02	0.07	0.01	0.03	0.00	0.03	0.01	0.02	0.01	0.03	0.00	0.01
10/04/2017	0.77	0.01	0.01	0.00	0.02	0.02	0.09	0.01	0.03	0.00	0.01	0.01	0.06	0.01	0.01	0.01	0.01
11/04/2017	0.73	0.01	0.01	0.00	0.01	0.02	0.28	0.02	0.02	0.00	0.03	0.00	0.02	0.01	0.03	0.00	0.01
12/04/2017	0.74	0.01	0.01	0.00	0.00	0.03	0.08	0.01	0.02	0.00	0.01	0.01	0.01	0.00	0.02	0.00	0.01
13/04/2017	0.73	0.01	0.02	0.00	0.01	0.02	0.08	0.01	0.02	0.00	0.01	0.01	0.02	0.01	0.02	0.01	0.01
14/04/2017	0.77	0.01	0.02	0.00	0.00	0.04	0.05	0.02	0.02	0.00	0.01	0.00	0.01	0.01	0.02	0.00	0.01
15/04/2017	0.88	0.01	0.01	0.00	0.00	0.04	0.10	0.01	0.02	0.00	0.01	0.01	0.04	0.00	0.02	0.00	0.01
16/04/2017	0.86	0.01	0.01	0.00	0.09	0.03	0.10	0.01	0.02	0.00	0.01	0.01	0.04	0.01	0.01	0.01	0.01
17/04/2017	0.90	0.01	0.01	0.00	0.00	0.05	0.06	0.02	0.02	0.00	0.01	0.01	0.02	0.01	0.02	0.00	0.01
18/04/2017	0.92	0.01	0.02	0.00	0.00	0.05	0.10	0.01	0.02	0.00	0.02	0.01	0.04	0.00	0.02	0.00	0.01
19/04/2017	0.99	0.01	0.05	0.01	0.07	0.03	0.10	0.01	0.09	0.02	0.08	0.01	0.04	0.01	0.04	0.00	0.01
20/04/2017	1.06	0.01	0.03	0.01	0.04	0.07	0.09	0.05	0.09	0.04	0.08	0.01	0.02	0.02	0.05	0.00	0.01
21/04/2017	1.04	0.01	0.04	0.01	0.04	0.06	0.12	0.04	0.13	0.04	0.08	0.01	0.04	0.02	0.05	0.01	0.01
22/04/2017	1.12	0.01	0.04	0.02	0.07	0.07	0.13	0.05	0.14	0.05	0.10	0.01	0.05	0.03	0.04	0.01	0.01
23/04/2017	1.11	0.04	0.05	0.03	0.09	0.10	0.20	0.06	0.18	0.06	0.10	0.02	0.10	0.05	0.07	0.00	0.02
24/04/2017	1.17	0.08	0.13	0.05	0.14	0.11	0.19	0.10	0.21	0.08	0.19	0.04	0.09	0.05	0.13	0.01	0.06
25/04/2017	1.26	0.05	0.16	0.05	0.10	0.08	0.15	0.04	0.13	0.04	0.11	0.05	0.14	0.03	0.10	0.00	0.02
26/04/2017	1.28	0.05	0.10	0.04	0.07	0.05	0.11	0.02	0.07	0.02	0.05	0.03	0.08	0.02	0.07	0.01	0.01
27/04/2017	1.23	0.06	0.08	0.05	0.10	0.07	0.13	0.04	0.10	O/L	O/L	0.04	0.09	0.04	0.06	0.01	0.02
28/04/2017	1.24	0.08	0.13	0.05	0.11	0.07	0.16	0.05	0.08	O/L	O/L	0.04	0.11	0.04	0.09	0.01	0.03
29/04/2017	1.18	0.07	0.14	0.05	0.13	0.08	0.10	0.05	0.11	O/L	O/L	0.05	0.15	0.04	0.10	0.01	0.03
30/04/2017	1.15	0.09	0.17	0.08	0.11	0.12	0.20	0.06	0.14	O/L	O/L	0.06	0.15	0.05	0.11	0.01	0.05

Total Number of Measurements Taken, A:	224987	69577	236442	187895	218615	257048	243508	256307
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:	224987	69577	236442	187895	218615	257048	243508	256307
Compliance with Turbidity Standard, C = B/A X 100%:	100%	100%	100.00%	100%	100%	100%	100%	100%

Note: OL-Offline

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2017\04-April

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-Apr-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
02-Apr-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
03-Apr-2017	0.62	0.76	0.08	<0.02	0.08	<0.02	0.09	0.04	0.10	<0.02	OL	OL	0.07	<0.02	OL	OL	0.06	<0.02	
04-Apr-2017	0.69	0.74	0.08	<0.02	OL	OL	OL	OL	0.09	<0.02	0.08	<0.02	0.11	<0.02	0.07	<0.02	0.07	<0.02	
05-Apr-2017	0.59	0.78	0.07	<0.02	0.08	<0.02	0.09	0.05	0.09	<0.02	0.09	0.02	0.08	<0.02	OL	OL	OL	OL	
06-Apr-2017	0.56	0.79	0.08	<0.02	0.09	<0.02	OL	OL	OL	OL	0.07	<0.02	0.08	<0.02	0.06	<0.02	0.06	<0.02	
07-Apr-2017	0.60	0.72	0.08	<0.02	OL	OL	0.06	0.03	0.06	<0.02	0.07	<0.02	OL	OL	0.09	<0.02	0.06	<0.02	
08-Apr-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
09-Apr-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
10-Apr-2017	0.59	0.76	0.05	<0.02	0.07	<0.02	OL	OL	OL	OL	<0.05	<0.02	0.07	<0.02	0.05	<0.02	0.05	<0.02	
11-Apr-2017	0.55	0.70	OL	OL	<0.05	<0.02	<0.05	0.03	<0.05	<0.02	<0.05	<0.02	OL	OL	0.05	<0.02	0.06	<0.02	
12-Apr-2017	0.58	0.70	<0.05	<0.02	<0.05	<0.02	0.05	0.03	0.06	<0.02	OL	OL	<0.05	<0.02	OL	OL	<0.05	<0.02	
13-Apr-2017	0.55	0.76	0.06	<0.02	OL	OL	OL	OL	<0.05	<0.02	<0.05	<0.02	0.06	<0.02	0.05	<0.02	<0.05	<0.02	
14-Apr-2017	NS	NS	NS	NS	NS	NS	0.05	0.04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
15-Apr-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
16-Apr-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
17-Apr-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.08	0.01	NS	NS	
18-Apr-2017	0.72	0.88	0.09	<0.02	0.06	<0.02	0.09	0.07	0.08	<0.02	OL	OL	0.08	<0.02	OL	OL	0.05	<0.02	
19-Apr-2017	0.87	1.07	0.06	<0.02	0.06	0.02	<0.05	0.06	0.06	0.06	<0.05	0.05	OL	OL	0.05	0.02	0.05	<0.02	
20-Apr-2017	0.68	0.97	OL	OL	<0.05	<0.02	0.05	0.07	0.05	0.06	0.06	0.06	0.05	<0.02	0.06	0.03	OL	OL	
21-Apr-2017	0.66	1.00	0.05	<0.02	<0.05	<0.02	0.06	0.08	0.07	0.08	OL	OL	0.05	0.02	OL	OL	<0.05	<0.02	
22-Apr-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.05	0.07	NS	NS	NS	NS	NS	NS	
23-Apr-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.10	0.07	NS	NS	NS	NS	NS	NS	
24-Apr-2017	1.03	1.13	0.13	0.10	OL	OL	0.12	0.09	0.12	0.07	0.11	0.06	0.10	0.07	0.13	0.07	OL	OL	
25-Apr-2017	0.72	1.24	OL	OL	0.12	0.07	0.13	0.09	0.14	0.08	0.11	0.07	0.11	0.07	OL	OL	0.09	<0.02	
26-Apr-2017	0.74	1.28	OL	OL	0.07	0.04	0.08	0.06	0.10	0.06	OL	OL	0.08	0.05	0.07	0.02	0.07	<0.02	
27-Apr-2017	0.68	1.20	0.09	0.06	0.10	0.05	0.13	0.09	0.08	0.04	OL	OL	OL	OL	0.08	0.02	0.07	<0.02	
28-Apr-2017	0.78	1.25	0.10	0.07	OL	OL	0.09	0.07	0.09	0.06	OL	OL	0.07	0.05	0.08	0.03	0.09	0.02	
29-Apr-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	OL	OL	NS	NS	NS	NS	NS	NS	
30-Apr-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Total number of measurements taken, A:			13		9		13		14		8		13		13		12		
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:			13		9		13		14		8		13		13		12		
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

Comments:

There was an increased requirement for filter maintenance due to thermal turnover at Shoal Lake.
 Filter 5 was offline for maintenance April 26-29/17.

Report Compiled By: H.Demchenko

Approved in LIMS By: C.Diduck

Date Approved: 5-May-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 May 2017**

Report Period: April 2017

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
1/04/2017	1.05	1.00	1.07	0.99
2/04/2017	0.99	0.93	0.97	0.91
3/04/2017	0.95	0.89	0.91	0.85
4/04/2017	0.90	0.86	0.89	0.81
5/04/2017	0.99	0.88	0.94	0.84
6/04/2017	1.01	0.91	1.02	0.87
7/04/2017	1.07	0.99	1.21	1.13
8/04/2017	1.03	0.92	1.15	1.04
9/04/2017	0.95	0.89	1.08	1.03
10/04/2017	0.94	0.90	1.02	0.94
11/04/2017	0.96	0.85	0.99	0.87
12/04/2017	0.98	0.90	1.04	0.98
13/04/2017	1.01	0.86	1.02	0.69
14/04/2017	1.00	0.94	0.98	0.93
15/04/2017	1.01	0.94	1.01	0.89
16/04/2017	1.04	0.97	1.06	1.00
17/04/2017	1.03	0.94	1.05	0.99
18/04/2017	1.02	0.97	1.07	1.02
19/04/2017	1.26	0.83	1.33	1.09
20/04/2017	1.07	0.96	1.00	0.86
21/04/2017	1.08	0.94	0.97	0.85
22/04/2017	1.14	1.08	1.00	0.95
23/04/2017	1.05	0.95	0.92	0.85
24/04/2017	0.96	0.86	0.92	0.80
25/04/2017	0.98	0.93	1.03	0.93
26/04/2017	1.07	0.94	1.12	1.00
27/04/2017	1.09	0.99	1.05	0.95
28/04/2017	1.06	1.00	0.98	0.91
29/04/2017	1.01	0.91	0.99	0.92
30/04/2017	1.01	0.95	1.01	0.96

Total Number of Measurements, A:	20876	20826
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	20876	20826
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2017\04-April

Submitted By (Print): D.Minor

Signature: Original Signed by D.Minor



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	Grab
01-Apr-2017	NS	NS	NS	NS	NS	NS
02-Apr-2017	NS	NS	NS	NS	NS	NS
03-Apr-2017	0.94	1.05	1.21	0.92	1.05	1.19
04-Apr-2017	0.90	0.94	1.15	0.91	0.99	1.13
05-Apr-2017	0.92	1.02	1.07	0.91	0.98	1.16
06-Apr-2017	0.98	1.05	1.22	1.05	1.12	1.31
07-Apr-2017	1.07	1.14	1.35	1.20	1.26	1.46
08-Apr-2017	NS	NS	NS	NS	NS	NS
09-Apr-2017	NS	NS	NS	NS	NS	NS
10-Apr-2017	0.98	1.08	1.20	1.10	1.19	1.29
11-Apr-2017	0.96	1.01	1.16	0.94	0.95	1.17
12-Apr-2017	1.04	1.09	1.26	1.07	1.11	1.27
13-Apr-2017	0.92	1.02	1.15	1.01	1.11	1.22
14-Apr-2017	NS	NS	NS	NS	NS	NS
15-Apr-2017	NS	NS	NS	NS	NS	NS
16-Apr-2017	NS	NS	NS	NS	NS	NS
17-Apr-2017	NS	NS	NS	NS	NS	NS
18-Apr-2017	1.03	1.05	1.18	1.07	1.10	1.29
19-Apr-2017	1.69	1.61	1.89	1.66	1.71	1.95
20-Apr-2017	1.12	1.09	1.27	0.95	1.03	1.19
21-Apr-2017	1.09	1.10	1.28	0.96	1.02	1.17
22-Apr-2017	NS	NS	NS	NS	NS	NS
23-Apr-2017	NS	NS	NS	NS	NS	NS
24-Apr-2017	0.97	1.09	1.23	0.93	1.05	1.19
25-Apr-2017	0.95	1.02	1.21	0.98	0.99	1.17
26-Apr-2017	1.10	1.15	1.33	1.07	1.10	1.28
27-Apr-2017	1.09	1.16	1.33	1.00	1.14	1.27
28-Apr-2017	1.09	1.10	1.25	0.99	1.05	1.23
29-Apr-2017	NS	NS	NS	NS	NS	NS
30-Apr-2017	NS	NS	NS	NS	NS	NS
Total number of measurements taken, A:		18			18	
Chlorine Standard for Monitoring Location (mg/L):		0.50			0.50	
Number of measurements meeting standard, B:		18			18	
Compliance with Chlorine Standard, C= B/A X 100%:		100%			100%	

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

Comments:

Report Compiled By: H.Demchenko

Approved in LIMS By: C.Diduck

Date Approved: 5-May-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: April 2017

Report Created: Monday, May 01, 2017

Date	Transmittance %	UVR-D100A			UVR-D200A			UVR-D300A			UVR-D400A			UVR-D500A			UVR-D600A			Total			% Volume Treated To Dose						
		Untreated	Below	To	Untreated	Below	To	Untreated	Below	To	Untreated	Below	To	Untreated	Below	To	Untreated	Below	To	Untreated	Below	To							
01/04/2017	94.90	0.00	0.00	71.75	0.00	0.00	0.00	0.00	48.11	48.11	0.00	0.00	0.00	0.00	0.00	0.00	60.14	60.14	0.00	0.00	180.00	180.00	100.00						
02/04/2017	94.61	0.00	0.00	71.61	0.00	0.00	0.00	0.00	48.03	48.03	0.00	0.00	0.00	0.00	0.00	0.00	60.38	60.38	0.00	0.00	180.02	180.02	100.00						
03/04/2017	95.12	0.00	0.00	69.17	0.00	0.00	0.00	0.00	46.25	46.25	0.00	0.00	0.00	0.00	0.00	0.00	54.84	54.84	0.00	0.00	170.26	170.26	100.00						
04/04/2017	95.32	0.00	0.00	26.47	0.00	0.00	43.21	43.21	44.38	44.38	0.00	0.00	0.00	0.32	0.32	0.26	51.07	51.15	0.36	0.36	165.39	166.12	99.57						
05/04/2017	95.14	0.00	0.00	26.72	0.00	0.00	43.83	43.83	44.81	44.81	0.00	0.00	0.00	0.00	0.00	39.62	16.67	16.67	0.00	0.00	171.66	171.66	100.00						
06/04/2017	95.42	0.00	0.00	52.41	0.00	0.00	41.56	41.56	57.74	57.74	0.00	0.00	0.00	1.86	1.86	20.13	23.86	0.00	0.00	1.86	1.86	175.57	175.57	97.88					
07/04/2017	95.52	0.00	0.00	49.94	0.00	0.00	70.70	70.70	72.96	72.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	193.60	193.60	100.00						
08/04/2017	96.54	0.00	0.00	51.21	0.00	0.00	72.41	72.41	74.40	74.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	198.02	198.02	100.00						
09/04/2017	96.54	0.00	0.00	51.08	0.00	0.00	72.58	72.58	74.38	74.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	198.04	198.04	100.00						
10/04/2017	96.54	0.00	0.00	51.61	0.00	0.00	72.75	72.75	38.70	38.70	0.00	0.00	0.00	0.00	0.00	34.72	34.72	0.00	0.00	0.00	197.78	197.78	100.00						
11/04/2017	96.68	0.00	0.00	49.70	0.00	0.00	68.61	68.61	3.85	4.03	0.09	0.09	0.00	0.16	0.16	36.54	36.86	0.00	0.00	29.03	29.03	99.73							
12/04/2017	96.63	0.00	0.19	13.68	13.87	0.00	0.00	47.61	39.53	39.53	0.00	0.00	0.00	0.00	0.00	0.00	72.91	72.91	0.00	0.00	173.74	173.92	99.89						
13/04/2017	96.79	0.00	0.00	0.00	0.00	0.00	39.83	39.83	3.62	3.87	0.00	0.00	0.00	0.00	0.00	46.28	46.28	0.00	0.00	83.72	83.72	99.86							
14/04/2017	96.74	0.00	0.00	0.00	0.00	0.00	50.40	50.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.10	44.10	0.00	0.00	76.17	76.17	100.00							
15/04/2017	96.78	0.00	0.00	23.15	23.15	0.00	45.35	45.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.90	28.90	0.00	0.00	74.32	74.32	100.00							
16/04/2017	96.81	0.00	0.00	66.41	66.41	0.00	31.64	31.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	73.80	73.80	0.00	0.00	173.85	173.85	100.00						
17/04/2017	96.94	0.00	0.00	59.46	59.46	0.00	44.17	44.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	73.34	73.34	0.00	0.00	176.98	176.98	100.00						
18/04/2017	96.02	0.00	0.00	43.73	43.73	0.00	39.40	39.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.61	54.61	0.00	0.00	137.74	137.74	100.00						
20/04/2017	96.90	0.00	0.00	42.91	42.91	0.00	54.82	54.82	0.00	0.00	0.00	0.15	19.78	19.93	0.00	13.14	13.17	0.00	0.00	72.15	72.15	99.91							
21/04/2017	96.75	0.00	0.00	57.71	57.71	0.00	24.84	24.84	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.79	0.86	0.00	0.00	64.43	64.43	99.97							
22/04/2017	96.79	0.00	0.00	81.72	81.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55.44	55.44	0.00	0.00	65.81	65.81	100.00							
23/04/2017	96.02	0.00	0.00	77.68	77.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.74	52.74	0.00	0.00	62.06	62.06	100.00							
24/04/2017	95.40	0.00	0.00	18.90	18.90	0.00	59.43	59.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.58	50.58	0.00	0.00	59.22	59.22	100.00							
25/04/2017	95.77	0.00	0.00	0.00	0.00	0.00	77.26	77.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.66	48.66	0.00	0.00	57.12	57.12	100.00							
26/04/2017	96.06	0.00	0.00	0.00	0.00	0.00	77.19	77.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.56	48.56	0.00	0.00	57.22	57.22	100.00							
27/04/2017	95.95	0.00	0.00	0.00	0.00	0.00	77.25	77.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.64	48.64	0.00	0.00	57.11	57.11	100.00							
28/04/2017	95.92	0.00	0.00	0.00	0.00	0.00	77.67	77.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.87	48.87	0.00	0.00	56.50	56.50	100.00							
29/04/2017	95.90	0.00	0.00	0.00	0.00	0.00	76.07	76.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.02	48.02	0.00	0.00	55.02	55.02	100.00							
30/04/2017	95.48	0.00	0.00	0.00	0.00	0.00	74.17	74.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47.82	47.82	0.00	0.00	52.88	52.88	99.97							
Total [ML]:		0.00	0.19	1120.80	1120.88	0.00	0.05	1436.52	1436.57	0.22	0.22	596.77	597.20	0.00	0.15	524.31	524.46	2.35	2.43	264.48	269.27	0.04	0.04	1519.97	1520.04	2.61	3.08	5462.83	5468.52

Water Volume [%]:
Untreated: 0.05 %
Below Dose: 0.06 %
To Dose: 99.90 %

Submitted By (Print): D.Merredew

Signature: Original signed by D.Merredew



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Thursday, April 20, 2017

Our Incident/Report No: 01-2017
LIMS Reference No: **49139**
Incident Date: **April 4, 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

WATER SYSTEM, CODE	Winnipeg Public Water System, 252.00
LOCATION OF NON-COMPLIANT INCIDENT	Winnipeg 3-Dist WC05
INCIDENT REPORTED BY	Courtney Diduck, Analytical Services Branch Head
TYPE OF NON-COMPLIANT INCIDENT	High Positive Total Coliform (>10 per100mL), 3 MR 41/2007
DESCRIPTION OF CORRECTIVE ACTIONS	<u>Environmental Standards:</u> IMMEDIATELY: Re-sampled original locations, tested additional samples upstream/downstream until two consecutive negative results were reported. Also tested for turbidity, free/total chlorine, temperature and contacted the ODW.
TEST RESULTS	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)
WC05	504826	4-Apr-17	<1	14	<1	0.91	1.12	6.0	0.33	10:16
WC05_Resample	505371	5-Apr-17	<1	<1	2	0.83	1.10	7.3	0.26	15:14
WC05_Resample Duplicate	505372	5-Apr-17	<1	<1	2	NA	NA	NA	NA	NA
WC05_Upstream	505373	5-Apr-17	<1	<1	1	0.82	1.04	7.7	0.25	15:43
WC05_Downstream	505376	5-Apr-17	<1	<1	<1	0.37	0.57	9.1	0.27	16:04
WC05_Resample 2	505377	6-Apr-17	<1	<1	<1	0.90	1.13	6.8	0.41	15:13
WC05_Resample 2 Duplicate	505378	6-Apr-17	<1	<1	<1	NA	NA	NA	NA	NA
WC05_Upstream 2	505379	6-Apr-17	<1	<1	<1	0.88	1.10	7.1	0.41	15:35
WC05_Downstream 2	505380	6-Apr-17	<1	<1	<1	0.66	0.86	6.7	0.29	15:56

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.