



Water and Waste Department • Service des eaux et des déchets

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December 6, 2013

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

Melanie Betsill  
Office of Drinking Water  
Manitoba Conservation and Water Stewardship  
1007 Century Street  
Winnipeg, Manitoba  
R3H 0W4

Dear Ms. Betsill:

**RE: NOVEMBER 2013 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 2013. We have also included one corrective action report for a positive total coliform in the distribution system.

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 effluent from the filters are in compliance with 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 have met the licence requirements.

As per your request in the e-mail sent on November 29, 2013, we will be submitting only the UV summary report on a monthly basis and maintain the individual UV reports for our records. This will meet the requirements of Section 5.3 of our operating licence. The UV submission for this month includes the summary report for November 2013 in accordance with Section 4.13, Table 2 of the Operating Licence. The UV licence requirement has been met for November.

On November 26, a high positive total coliform result was reported [REDACTED]. On November 27 and 28, the location was resampled and upstream and downstream locations were sampled. All results were reported to be negative. Emergency Services staff also attended the location to check for closed valves and perform flushing in the area. The incident is believed to have been caused by construction work in the area. An investigation is on-going. This is not a compliance sampling location. Per your request the attached corrective action report is being submitted.

Please let me know of any concerns or questions respecting this submission. I may be reached by telephone at 204-986-4807 or by e-mail at [kkjartanson@winnipeg.ca](mailto:kkjartanson@winnipeg.ca).

Thanks for your ongoing cooperation and understanding in this matter.

Yours sincerely,

*Original signed by:*

K.J.T. Kjartanson, P.Eng.  
Manager of Environmental Standards

KJTK:rg  
Attachments

c:(e-mail)

Dr. L. Richards, Winnipeg Regional Health Authority  
Dr. S. Roberecki, Manitoba Health  
D.P. Sacher, P.Eng.  
G. Patton, P.Eng.  
T. Josephson, P.Eng.  
A. J. Weremy, P.Eng.  
S. Fletcher

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**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 A	Free Chlorine (mg/L)	Total Chlorine (mg/L)	Free Chlorine (mg/L)	Total Chlorine (mg/L)
Date				
01-Nov-2013	1.27	1.48	1.36	1.45
02-Nov-2013	NS	NS	NS	NS
03-Nov-2013	NS	NS	NS	NS
04-Nov-2013	1.21	1.36	0.95	1.07
05-Nov-2013	1.21	1.39	1.35	1.48
06-Nov-2013	1.30	1.47	1.31	1.40
07-Nov-2013	1.23	1.42	1.28	1.42
08-Nov-2013	1.27	1.43	1.33	1.50
09-Nov-2013	NS	NS	NS	NS
10-Nov-2013	NS	NS	NS	NS
11-Nov-2013	NS	NS	NS	NS
12-Nov-2013	1.09	1.19	1.15	1.27
13-Nov-2013	1.21	1.30	1.27	1.39
14-Nov-2013	1.11	1.24	1.17	1.27
15-Nov-2013	0.99	1.12	1.10	1.16
16-Nov-2013	NS	NS	NS	NS
17-Nov-2013	NS	NS	NS	NS
18-Nov-2013	1.15	1.30	1.22	1.30
19-Nov-2013	1.32	1.53	1.32	1.39
20-Nov-2013	1.22	1.37	1.20	1.34
21-Nov-2013	1.30	1.44	1.20	1.41
22-Nov-2013	1.17	1.32	1.19	1.25
23-Nov-2013	NS	NS	NS	NS
24-Nov-2013	NS	NS	NS	NS
25-Nov-2013	1.10	1.18	0.95	1.21
26-Nov-2013	1.07	1.20	1.08	1.20
27-Nov-2013	1.03	1.16	0.99	1.13
28-Nov-2013	1.00	1.15	1.02	1.15
29-Nov-2013	1.01	1.22	1.02	1.17
30-Nov-2013	NS	NS	NS	NS
<b>Total number of measurements taken, A:</b>	20		20	
<b>Chlorine Standard for Monitoring Location (mg/L):</b>	0.50		0.50	
<b>Number of measurements meeting standard, B:</b>	20		20	
<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: A.Vanderstel/S.Fletcher



# City of Winnipeg

Water and Waste Department  
Water Services Division

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

Water System Code: **252.00**

Licence Number: **PWS-09-412 A**

Report Created: 01 December 2013

Report Period:

November 2013

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/11/2013	1.33	1.08	1.18	1.09
02/11/2013	1.16	1.02	1.08	0.98
03/11/2013	1.10	1.03	1.16	1.08
04/11/2013	1.27	1.10	1.17	1.10
05/11/2013	1.26	1.08	1.17	1.01
06/11/2013	1.19	1.03	1.23	1.15
07/11/2013	1.13	0.97	1.32	1.21
08/11/2013	1.14	0.98	1.16	0.98
09/11/2013	1.15	0.95	1.06	0.98
10/11/2013	1.26	1.09	1.12	0.87
11/11/2013	1.15	1.00	1.21	1.11
12/11/2013	1.09	1.03	1.26	1.21
13/11/2013	1.06	0.96	1.17	1.11
14/11/2013	1.05	1.00	1.14	1.08
15/11/2013	1.09	1.02	1.09	1.05
16/11/2013	1.11	1.04	1.08	1.02
17/11/2013	1.17	0.98	1.11	0.99
18/11/2013	1.30	1.26	1.20	1.13
19/11/2013	1.22	1.12	1.24	1.18
20/11/2013	1.12	1.00	1.19	1.07
21/11/2013	1.09	1.01	1.09	1.03
22/11/2013	1.07	1.02	1.01	0.94
23/11/2013	1.04	0.99	1.06	1.00
24/11/2013	1.05	1.02	1.07	1.02
25/11/2013	1.02	0.93	1.02	0.92
26/11/2013	0.94	0.89	0.95	0.89
27/11/2013	0.95	0.90	0.97	0.87
28/11/2013	0.97	0.90	1.01	0.93
29/11/2013	1.00	0.94	1.06	1.01
30/11/2013	0.98	0.96	1.05	1.04

Total Number of Measurements, A:	20889	20890
Minimum Free Chlorine Standard:	0.50	0.50
Number of Measurements Meeting Standard, B:	20889	20890
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2013\11-November

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 A	Raw Water	Filter 1	Filter 2	Filter 3	Filter 4	Filter 5	Filter 6	Filter 7	Filter 8
Date	Raw Water	Filter 1	Filter 2	Filter 3	Filter 4	Filter 5	Filter 6	Filter 7	Filter 8
01-Nov-2013	1.94	0.09	0.08	0.10	0.09	0.08	0.11	0.09	0.07
02-Nov-2013	NS	NS	NS	NS	NS	NS	NS	NS	NS
03-Nov-2013	NS	NS	NS	NS	NS	NS	NS	NS	NS
04-Nov-2013	1.55	0.08	0.07	0.10	0.09	0.11	0.13	0.11	0.09
05-Nov-2013	1.90	0.08	0.08	0.08	0.08	0.09	0.07	0.09	0.10
06-Nov-2013	1.80	0.08	0.06	0.08	0.07	0.10	0.08	0.07	0.08
07-Nov-2013	1.61	0.06	0.06	0.11	0.09	0.07	0.13	0.09	0.07
08-Nov-2013	1.87	0.07	0.19	0.07	0.13	0.09	0.15	OL	0.09
09-Nov-2013	NS	NS	NS	NS	NS	NS	NS	NS	NS
10-Nov-2013	NS	NS	NS	NS	NS	NS	NS	NS	NS
11-Nov-2013	1.31	0.10	0.07	0.13	0.07	0.11	0.11	0.08	0.10
12-Nov-2013	1.24	0.10	0.07	0.12	0.09	0.10	0.12	OL	0.07
13-Nov-2013	1.31	0.08	0.09	0.21	0.10	0.08	0.07	0.08	0.09
14-Nov-2013	1.07	0.09	0.07	0.08	0.07	0.08	0.10	0.07	0.10
15-Nov-2013	1.22	0.10	0.07	0.09	0.11	0.08	0.07	0.11	0.08
16-Nov-2013	NS	NS	NS	NS	NS	NS	NS	NS	NS
17-Nov-2013	NS	NS	NS	NS	NS	NS	NS	NS	NS
18-Nov-2013	1.07	0.11	0.11	0.13	0.10	0.10	0.10	0.11	0.24
19-Nov-2013	0.97	0.13	0.09	0.13	0.10	0.14	0.15	0.11	0.09
20-Nov-2013	0.99	0.13	0.15	0.12	0.13	0.10	0.11	0.13	0.16
21-Nov-2013	0.95	0.13	0.18	0.12	0.10	0.16	0.14	0.10	0.10
22-Nov-2013	1.01	0.11	0.11	0.15	0.13	0.12	0.20	0.16	0.19
23-Nov-2013	NS	NS	NS	NS	NS	NS	NS	NS	NS
24-Nov-2013	NS	NS	NS	NS	NS	NS	NS	NS	NS
25-Nov-2013	0.90	0.08	0.07	0.14	0.10	0.09	0.09	0.11	0.10
26-Nov-2013	1.76	0.09	0.13	0.11	0.09	0.10	0.07	0.08	0.09
27-Nov-2013	0.80	0.07	0.08	0.10	0.07	0.06	0.11	0.10	0.11
28-Nov-2013	0.81	0.08	0.08	0.11	0.10	0.13	0.08	0.10	0.13
29-Nov-2013	0.84	0.08	0.11	0.12	0.14	0.09	0.09	0.08	0.08
30-Nov-2013	NS	NS	NS	NS	NS	NS	NS	NS	NS
<b>Total number of measurements taken, A:</b>	21	21	21	21	21	21	21	19	21
<b>Turbidity Standard for Monitoring Location (NTU):</b>	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
<b>Number of measurements meeting standard, B:</b>	21	21	21	21	21	21	21	19	21
<b>Compliance with Turbidity Standard, C= B/A X 100%:</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%

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

Comments:

Report Compiled By: H.Demchenko

Approved in LIMS By: A.Vanderstel/ S.Fletcher

Date Approved: 3-Dec-13



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

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

**WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT**

November 2013 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
1/11/2013	2.17	0.04	0.10	0.00	0.03	0.05	0.06	0.05	0.06	0.04	0.09	0.02	0.06	0.02	0.06	0.01	0.01
2/11/2013	2.12	0.05	0.06	0.00	0.01	0.04	0.11	0.05	0.11	0.05	0.06	0.01	0.09	0.02	0.08	0.01	0.05
3/11/2013	3.06	0.05	0.13	0.00	0.05	0.04	0.06	0.05	0.14	0.05	0.12	0.02	0.06	0.02	0.03	0.01	0.07
4/11/2013	2.58	0.03	0.05	0.00	0.00	0.05	0.15	0.06	0.07	0.03	0.11	0.02	0.09	0.02	0.08	0.01	0.01
5/11/2013	2.49	0.05	0.12	0.00	0.05	0.03	0.13	0.04	0.14	0.05	0.07	0.01	0.03	0.01	0.09	0.01	0.06
6/11/2013	2.26	0.03	0.12	0.00	0.04	0.04	0.06	0.04	0.07	0.05	0.09	0.02	0.09	0.02	0.04	0.01	0.06
7/11/2013	2.09	0.03	0.11	0.00	0.00	0.05	0.12	0.06	0.13	0.03	0.08	0.01	0.08	0.01	0.08	0.01	0.02
8/11/2013	1.85	0.05	0.08	0.00	0.03	0.02	0.12	0.04	0.11	0.04	0.05	0.01	0.02	0.01	0.04	0.01	0.06
9/11/2013	1.79	0.03	0.10	0.00	0.02	0.04	0.07	0.04	0.06	0.05	0.09	0.01	0.07	0.01	0.03	0.00	0.04
10/11/2013	1.77	0.04	0.05	0.00	0.00	0.03	0.11	0.05	0.11	0.03	0.05	0.01	0.05	0.01	0.06	0.01	0.02
11/11/2013	1.66	0.05	0.07	0.00	0.01	0.04	0.05	0.03	0.06	0.04	0.07	0.01	0.03	0.02	0.05	0.00	0.02
12/11/2013	1.48	0.03	0.05	0.00	0.00	0.05	0.11	0.06	0.11	0.03	0.28	0.01	0.05	0.02	0.04	0.01	0.01
13/11/2013	1.46	0.07	0.10	0.02	0.08	0.03	0.22	0.04	0.13	0.06	0.11	0.03	0.11	0.02	0.10	0.00	0.02
14/11/2013	1.36	0.04	0.12	0.02	0.09	0.05	0.08	0.05	0.13	0.04	0.13	0.04	0.08	0.02	0.05	0.01	0.06
15/11/2013	1.30	0.06	0.10	0.04	0.05	0.03	0.11	0.06	0.10	0.04	0.24	0.04	0.12	0.02	0.09	0.01	0.05
16/11/2013	1.24	0.09	0.13	0.04	0.09	0.03	0.07	0.04	0.14	0.07	0.10	0.05	0.06	0.02	0.03	0.02	0.08
17/11/2013	1.22	0.08	0.19	0.05	0.07	0.08	0.16	0.08	0.10	0.05	0.15	0.04	0.15	0.05	0.11	0.02	0.04
18/11/2013	1.22	0.10	0.12	0.07	0.14	0.04	0.07	0.05	0.19	0.08	0.10	0.06	0.08	0.03	0.04	0.06	0.13
19/11/2013	1.11	0.07	0.20	0.04	0.07	0.09	0.19	0.09	0.11	0.06	0.17	0.05	0.17	0.05	0.13	0.03	0.05
20/11/2013	1.14	0.11	0.14	0.07	0.17	0.05	0.24	0.06	0.23	0.07	0.10	0.05	0.08	0.03	0.13	0.05	0.16
21/11/2013	1.13	0.08	0.21	0.04	0.14	0.06	0.08	0.06	0.20	0.08	0.14	0.07	0.13	0.04	0.06	0.03	0.16
22/11/2013	1.09	0.07	0.23	0.04	0.07	0.09	0.21	0.09	0.13	0.05	0.19	0.05	0.18	0.06	0.15	0.04	0.06
23/11/2013	1.06	0.10	0.13	0.06	0.16	0.05	0.22	0.06	0.22	0.06	0.09	0.05	0.08	0.03	0.16	0.06	0.17
24/11/2013	1.04	0.06	0.23	0.03	0.16	0.06	0.09	0.06	0.09	0.08	0.19	0.07	0.19	0.04	0.07	0.03	0.15
25/11/2013	1.01	0.07	0.10	0.04	0.05	0.07	0.19	0.08	0.19	0.04	0.16	0.04	0.16	0.03	0.18	0.04	0.05
26/11/2013	0.99	0.10	0.19	0.03	0.12	0.03	0.07	0.05	0.18	0.06	0.10	0.05	0.07	0.03	0.04	0.03	0.15
27/11/2013	0.97	0.06	0.18	0.03	0.04	0.07	0.20	0.08	0.17	0.03	0.07	0.05	0.20	0.05	0.12	0.05	0.09
28/11/2013	0.99	0.08	0.10	0.04	0.11	0.04	0.16	0.06	0.18	0.05	0.16	0.06	0.08	0.02	0.04	0.09	0.19
29/11/2013	0.92	0.05	0.15	0.03	0.08	0.06	0.08	0.05	0.09	0.06	0.08	0.08	0.14	0.04	0.09	0.05	0.16
30/11/2013	0.88	0.06	0.09	0.04	0.05	0.05	0.14	0.09	0.13	0.09	0.11	0.05	0.14	0.03	0.09	0.09	0.10

Total Number of Measurements Taken, A:	13870	12451	13947	11059	14492	14359	12894	14003
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:	13870	12451	13947	11059	14492	14359	12894	14003
Compliance with Turbidity Standard, C = B/A X 100%:	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

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Submitted By (Print): D.Merredew Signature: Original signed by D.Merredew



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

Water System Code: **252.00**  
 Licence Number: **PWS-09-412 A**

**WATER TREATMENT PLANT UV REPORT**

Report Period: **November 2013**

Report Created: **Sunday, December 01, 2013**

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	
1/11/2013	96.65	0.00	0.05	34.55	34.60	0.00	0.06	13.99	14.05	0.00	0.00	21.83	21.83	0.00	0.00	54.99	54.99	0.00	0.00	29.93	29.93	0.01	0.01	42.45	42.48	0.01	0.12	197.75	197.88	99.93
2/11/2013	96.62	0.00	0.17	0.20	0.37	0.00	0.06	39.28	39.34	0.00	0.04	50.88	50.92	0.00	0.04	55.20	55.24	0.00	0.00	25.32	25.32	0.00	0.12	25.43	25.55	0.00	0.42	196.32	196.74	99.79
3/11/2013	96.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.96	53.96	0.00	0.00	58.41	58.41	0.00	0.00	84.63	84.63	0.00	0.00	0.00	0.00	0.00	0.00	196.99	196.99	100.00
4/11/2013	96.36	0.00	0.05	21.20	21.25	0.00	0.00	1.35	1.35	0.00	0.02	37.22	37.24	0.00	0.00	55.93	55.93	0.00	0.00	77.57	77.57	0.00	0.03	2.98	3.00	0.00	0.10	196.25	196.35	99.95
5/11/2013	96.54	0.00	0.00	1.28	1.28	0.00	0.00	43.86	43.86	0.00	0.00	29.12	29.12	0.00	0.00	48.67	48.67	0.00	0.00	71.09	71.09	0.00	0.00	0.00	0.00	0.00	0.00	194.03	194.03	100.00
6/11/2013	96.40	0.00	0.00	47.60	47.60	0.00	0.00	26.18	26.18	0.00	0.00	1.68	1.68	0.00	0.00	54.13	54.13	0.00	0.00	64.38	64.38	0.00	0.00	0.00	0.00	0.00	0.00	193.95	193.96	100.00
7/11/2013	96.57	0.00	0.00	0.00	0.00	0.00	0.00	32.13	32.13	0.00	0.00	29.59	29.59	0.00	0.00	55.01	55.01	0.00	0.00	75.84	75.84	0.00	0.00	0.00	0.00	0.00	0.00	192.56	192.56	100.00
8/11/2013	96.80	0.00	0.00	5.70	5.70	0.00	0.00	0.00	0.00	0.00	0.35	47.48	47.83	0.00	0.00	55.34	55.34	0.00	0.00	82.76	82.76	0.00	0.04	0.24	0.27	0.00	0.39	191.52	191.91	99.80
9/11/2013	96.96	0.00	0.28	58.01	58.29	0.00	0.00	24.20	24.20	0.00	0.00	0.00	0.00	0.00	0.00	63.26	63.26	0.00	0.00	45.35	45.35	0.00	0.04	0.81	0.85	0.00	0.32	191.63	191.95	99.83
10/11/2013	96.97	0.00	0.00	62.61	62.61	0.00	0.75	3.39	4.13	0.00	0.00	0.00	0.00	0.00	0.00	52.34	52.34	0.00	0.00	27.45	27.45	0.00	0.00	31.86	31.86	0.00	0.75	177.64	178.39	99.58
11/11/2013	96.99	0.00	0.28	57.43	57.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.40	54.40	0.00	0.00	2.52	2.52	0.00	0.00	60.36	60.36	0.00	0.28	174.71	174.99	99.84
12/11/2013	97.03	0.00	0.00	49.99	49.99	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	0.00	42.62	42.62	0.00	0.00	30.16	30.16	0.00	0.00	181.40	181.40	100.00
13/11/2013	97.01	0.00	0.00	47.74	47.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.01	53.01	0.00	0.00	73.00	73.00	0.00	0.00	0.00	0.00	0.00	0.00	173.75	173.75	100.00
14/11/2013	96.98	0.00	0.00	50.02	50.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.80	52.80	0.00	0.00	73.61	73.61	0.00	0.00	0.00	0.00	0.00	0.00	176.43	176.43	100.00
15/11/2013	96.92	0.00	0.00	50.03	50.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.23	54.23	0.00	0.00	75.21	75.21	0.00	0.00	0.00	0.00	0.00	0.00	179.47	179.47	100.00
16/11/2013	96.51	0.00	0.00	56.60	56.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	51.57	51.57	0.00	0.00	73.41	73.41	0.00	0.00	0.00	0.00	0.00	0.00	181.58	181.58	100.00
17/11/2013	96.03	0.00	0.00	59.99	59.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.61	49.61	0.00	0.00	71.69	71.69	0.00	0.00	0.00	0.00	0.00	0.00	181.29	181.29	100.00
18/11/2013	96.03	0.00	0.01	20.56	20.57	0.00	0.46	26.70	27.16	0.00	0.00	0.00	0.00	0.00	0.00	53.01	53.01	0.00	0.00	36.72	36.72	0.00	0.09	48.69	48.78	0.00	0.56	185.68	186.24	99.70
19/11/2013	95.84	0.00	0.00	0.00	0.00	0.00	0.00	75.94	75.94	0.00	0.00	0.00	0.00	0.00	0.00	44.59	44.59	0.00	0.00	0.00	0.00	0.00	0.05	68.44	68.49	0.00	0.05	188.97	189.02	99.98
20/11/2013	95.82	0.00	0.00	42.86	42.86	0.00	0.00	28.12	28.12	0.00	0.00	0.00	0.00	0.00	0.00	46.72	46.72	0.00	0.00	42.90	42.90	0.00	0.00	28.40	28.40	0.00	0.00	189.00	189.00	100.00
21/11/2013	96.07	0.00	0.00	72.50	72.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.60	46.60	0.00	0.00	69.89	69.89	0.00	0.00	0.00	0.00	0.00	0.00	189.00	189.00	100.00
22/11/2013	96.07	0.00	0.00	72.35	72.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.68	46.68	0.00	0.00	69.97	69.97	0.00	0.00	0.00	0.00	0.00	0.00	189.00	189.00	100.00
23/11/2013	97.10	0.00	0.00	71.95	71.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.75	46.75	0.00	0.00	70.16	70.16	0.00	0.00	0.00	0.00	0.00	0.00	188.87	188.87	100.00
24/11/2013	97.06	0.00	0.00	71.96	71.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.99	46.99	0.00	0.00	71.05	71.05	0.00	0.00	0.00	0.00	0.00	0.00	190.00	190.00	100.00
25/11/2013	97.39	0.00	0.00	71.83	71.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47.00	47.00	0.00	0.00	71.18	71.18	0.00	0.00	0.00	0.00	0.00	0.00	190.01	190.01	100.00
26/11/2013	97.28	0.00	0.00	24.23	24.23	0.00	0.00	50.98	50.98	0.00	0.00	0.00	0.00	0.00	0.00	45.67	45.67	0.00	0.00	69.13	69.13	0.00	0.00	0.00	0.00	0.00	0.00	190.00	190.00	100.00
27/11/2013	97.34	0.00	0.00	0.00	0.00	0.00	0.00	77.08	77.08	0.00	0.00	0.00	0.00	0.00	0.00	45.10	45.10	0.00	0.00	68.15	68.15	0.00	0.00	0.00	0.00	0.00	0.00	190.32	190.32	100.00
28/11/2013	97.39	0.00	0.00	0.00	0.00	0.00	0.00	78.62	78.62	0.00	0.00	0.00	0.00	0.00	0.00	46.00	46.00	0.00	0.00	70.38	70.38	0.00	0.00	0.00	0.00	0.00	0.00	195.00	195.00	100.00
29/11/2013	97.36	0.00	0.00	0.00	0.00	0.00	0.00	78.31	78.31	0.00	0.00	0.00	0.00	0.00	0.00	45.73	45.73	0.00	0.00	70.10	70.10	0.00	0.00	0.00	0.00	0.00	0.00	194.15	194.15	100.00
30/11/2013	97.26	0.00	0.00	0.00	0.00	0.00	0.00	79.37	79.37	0.00	0.00	0.00	0.00	0.00	0.00	46.35	46.35	0.00	0.00	71.31	71.31	0.00	0.00	0.00	0.00	0.00	0.00	197.03	197.03	100.00
		0.00	0.85	1051.18	1052.03	0.00	1.33	679.49	680.82	0.00	0.41	271.74	272.16	0.00	0.04	1534.76	1534.79	0.00	0.00	1777.32	1777.32	0.01	0.37	339.83	340.21	0.02	3.00	5654.33	5657.34	

**Water Volume [%]:**  
 Untreated: 0.00 %  
 Below Dose: 0.05 %  
 To Dose: 99.95 %

Submitted By (Print): D.Merredew

Signature: Original signed by D.Merredew



Water and Waste Department • Service des eaux et des déchets

Tuesday, November 26, 2013

**Our Incident/Report No: 10-2013**

**LIMS Reference No: 37605**

Ms. Melanie Betsill  
Drinking Water Officer  
Manitoba Water Stewardship, Office of Drinking Water  
1007 Century Street  
Winnipeg MB R3H 0W4

## **RE: CORRECTIVE ACTION REPORT**

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<b>WATER SYSTEM</b>	Winnipeg Public Water System
<b>WATER SYSTEM CODE</b>	252.00
<b>LOCATION OF NON-COMPLIANT INCIDENT</b>	<b>Winnipeg 3-Dist WC05</b>
<b>OPERATOR IN CHARGE</b>	NA
<b>INCIDENT REPORTED BY</b>	Steve Fletcher, Supervisor of Analytical Services Branch
<b>TYPE OF NON-COMPLIANT INCIDENT</b>	Low disinfection residual in the distribution system, 22(1) MR 40/2007
<b>INCIDENT DATE</b>	November 12, 2013
<b>DESCRIPTION OF CORRECTIVE ACTIONS</b>	IMMEDIATELY: Re-sampled original location tested additional samples for free/total chlorine, temperature and contacted the ODW. Water Services Division was contacted and Emergency Services attended the location to check for closed valves. They found a section of main on reduced pressure as a result of some pending hydrant work. All valves were opened and the main was thoroughly flushed until free chlorine measured from the hydrant at 2750 Saskatchewan was recorded at 0.51 mg/L.
<b>TEST RESULTS</b>	See Attached

### NOTES/COMMENTS:

1. All microbiological tests performed by contract laboratory.
2. 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
3. INITIAL chlorine, turbidity and temperature only tested at the required 39 sample locations.
4. NR-No Result due to laboratory/analyst error.
5. NA-Not Analyzed.

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

### **DISTRIBUTION**

FORWARD THE ORIGINAL TO THE DRINKING WATER OFFICER WITH THE MONTHLY COMPLIANCE SUBMISSIONS.

**Contact the Drinking Water Officer for any comments, questions or concerns**

REFERENCE: ODW-RF-016

*Embrace the spirit • Vivez l'esprit*

Environmental Standards Division • Division des normes environnementales  
2230 Main Street. • 2230, rue Main • Winnipeg • Manitoba R2V 4T8  
fax/téléc. (204) 339-2147 • www.winnipeg.ca



Sample Name	Sample Number	Date Sampled	TimeSpeld (hrs)	E. Coli-QT (MPNU/100 mL)	Total Coliform-QT (MPNU/100 mL)	Chlorine, Free (mg/L)	Chlorine, Total (mg/L)	Temperature (°C)	Turbidity (ntu)
WC05_	378583	12-Nov-13	10:30	<1	<1	0.05	0.12	12.3	0.31
WC05_	379115	12-Nov-13	10:45			0.05	0.11	11.2	
WC05_	379114	12-Nov-13	11:00			0.05	0.10	10.1	
WC05_	379116	14-Nov-13	14:00			0.53	0.72	12.9	
WC05_	379144	15-Nov-13	9:30	<1	<1	0.45	0.60	13.3	0.13



Water and Waste Department • Service des eaux et des déchets

Tuesday, December 3, 2013

**Our Incident/Report No: 11-2013**

LIMS Reference No: **37720**

Ms. Melanie Betsill  
Drinking Water Officer  
Manitoba Water Stewardship, Office of Drinking Water  
1007 Century Street  
Winnipeg MB R3H 0W4

## **RE: CORRECTIVE ACTION REPORT**

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<b>WATER SYSTEM</b>	Winnipeg Public Water System
<b>WATER SYSTEM CODE</b>	252.00
<b>LOCATION OF NON-COMPLIANT INCIDENT</b>	<b>Winnipeg 3-Dist SW15</b>
<b>OPERATOR IN CHARGE</b>	NA
<b>INCIDENT REPORTED BY</b>	Steve Fletcher, Supervisor of Analytical Services Branch
<b>TYPE OF NON-COMPLIANT INCIDENT</b>	High positive Total Coliform (>10 per100mL), 3 MR 41/2007
<b>INCIDENT DATE</b>	November 26, 2013
<b>DESCRIPTION OF CORRECTIVE ACTIONS</b>	IMMEDIATELY: Re-sampled original location, also tested additional samples upstream/downstream where Total Coliform >10 per 100 mL was reported. All additional samples were tested for EC/TC, Heterotrophic Plate Count, turbidity, free/total chlorine and temperature. The ODW was contacted. Water Services Division was contacted and Emergency Services attended the location to check for closed valves and perform additional flushing. The incident is believed to have been caused by contractor "tie-in" on Argue, i.e. closed valve, flow reversal and improper flushing. A review of the work performed by the contractor is ongoing.
<b>TEST RESULTS</b>	See Attached

### NOTES/COMMENTS:

1. All microbiological tests performed by contract laboratory.
2. 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
3. INITIAL chlorine, turbidity and temperature only tested at the required 39 sample locations.
4. NR-No Result due to laboratory/analyst error.
5. NA-Not Analyzed.

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REFERENCE: ODW-RF-016

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Sample Name	Sample Number	Date Sampled	TimeSpeld (hrs)	E. Coli-QT (MPNU/100 mL)	Total Coliform-QT (MPNU/100 mL)	HPC (cfu/mL)	Chlorine, Free (mg/L)	Chlorine, Total (mg/L)	Temperature (°C)	Turbidity (ntu)
SW15	379863	26-Nov-13	13:00	<1	70	>3000	0.27	0.35	10.7	28.0
SW15	380438	27-Nov-13	10:50	<1	<1	20	0.23	0.39	13.0	1.47
SW15	380466	28-Nov-13	9:52	<1	<1	630	0.02	0.23	9.6	3.54
SW15	380467	28-Nov-13	10:05	<1	<1	<10	0.84	0.98	6.9	0.21
SW15	380468	28-Nov-13	10:18	<1	<1	40	0.19	0.41	9.7	1.51
SW15	380607	29-Nov-13	9:20	<1	<1	<10	0.18	0.24	10.3	2.34