



Water and Waste Department • Service des eaux et des déchets

April 7, 2014

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: MARCH 2014 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 March 2014. We have also included two corrective action reports for filtered water turbidity exceedences.

The March on-line and grab sampling turbidity reports include results obtained for the Water Treatment Plant raw water and the eight filters. On March 3, filter #3 and #6 reported values above 1.0 NTU. The filters were taken off-line until the results reported were acceptable. The cause for these high values was filter flow variations due to flow control valve issues. This has been corrected per the corrective action reports.

The March 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.

The UV submission includes the summary report for March 2014 in accordance with Section 4.13, Table 2 of the Operating Licence. The UV licence requirement has been met for March.

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 kjartanson@winnipeg.ca.

Thanks for your ongoing cooperation and understanding in this matter.

Yours sincerely,

Original signed by R. Grosselle for:

K.J.T. Kjartanson, P.Eng.
Manager of Environmental Standards
KJTK:rg
Attachments

c:(e-mail)

Dr. L. Richards, Winnipeg Regional Health Authority
D.P. Sacher, P.Eng.
A. J. Weremy, P.Eng.

G. Patton, P.Eng.
S. Fletcher

Dr. S. Roberecki, Manitoba Health
T. Shanks, P.Eng.

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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-Mar-2014	NA	NA	NA	NA
02-Mar-2014	NA	NA	NA	NA
03-Mar-2014	1.12	1.34	1.18	1.29
04-Mar-2014	1.09	1.29	1.08	1.29
05-Mar-2014	1.18	1.38	1.16	1.36
06-Mar-2014	1.16	1.37	1.20	1.39
07-Mar-2014	1.17	1.39	1.19	1.39
08-Mar-2014	NA	NA	NA	NA
09-Mar-2014	NA	NA	NA	NA
10-Mar-2014	1.04	1.26	1.04	1.24
11-Mar-2014	1.19	1.30	1.06	1.27
12-Mar-2014	1.12	1.25	1.17	1.27
13-Mar-2014	1.07	1.21	1.06	1.26
14-Mar-2014	1.11	1.22	1.09	1.25
15-Mar-2014	NA	NA	NA	NA
16-Mar-2014	NA	NA	NA	NA
17-Mar-2014	1.02	1.26	1.09	1.31
18-Mar-2014	1.10	1.29	1.04	1.27
19-Mar-2014	0.99	1.20	0.99	1.20
20-Mar-2014	1.00	1.16	1.01	1.25
21-Mar-2014	1.18	1.30	1.10	1.32
22-Mar-2014	NA	NA	NA	NA
23-Mar-2014	NA	NA	NA	NA
24-Mar-2014	1.07	1.31	1.24	1.34
25-Mar-2014	1.06	1.22	1.08	1.25
26-Mar-2014	1.03	1.23	1.05	1.26
27-Mar-2014	1.01	1.12	1.11	1.27
28-Mar-2014	1.07	1.20	1.01	1.21
29-Mar-2014	NA	NA	NA	NA
30-Mar-2014	NA	NA	NA	NA
31-Mar-2014	0.98	1.22	1.02	1.21
Total number of measurements taken, A:	21		21	
Chlorine Standard for Monitoring Location (mg/L):	0.50		0.50	
Number of measurements meeting standard, B:	21		21	
Compliance with Chlorine Standard, C= B/A X 100%:	100%		100%	

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

Comments:

Report Compiled By: K. Wazny

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



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 April 2014

Report Period: March 2014

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/03/2014	1.09	0.86	1.13	1.07
02/03/2014	1.12	0.97	1.17	1.11
03/03/2014	1.05	0.87	1.06	0.96
04/03/2014	1.01	0.81	0.99	0.93
05/03/2014	1.01	0.75	1.06	0.98
06/03/2014	1.11	0.91	1.13	1.03
07/03/2014	1.14	0.97	1.14	1.08
08/03/2014	1.11	1.00	1.10	1.04
09/03/2014	1.07	0.91	1.06	1.02
10/03/2014	1.00	0.84	1.04	0.96
11/03/2014	1.00	0.85	1.05	0.99
12/03/2014	1.07	0.94	1.04	1.00
13/03/2014	1.16	0.98	1.01	0.93
14/03/2014	1.10	0.96	1.04	0.97
15/03/2014	1.19	1.07	1.07	1.01
16/03/2014	1.09	0.93	1.08	0.99
17/03/2014	1.04	0.87	1.02	0.97
18/03/2014	1.04	0.79	1.16	0.94
19/03/2014	1.02	0.77	1.03	0.84
20/03/2014	0.75	0.60	0.87	0.76
21/03/2014	1.06	0.81	1.07	0.92
22/03/2014	0.96	0.87	1.02	0.94
23/03/2014	1.01	0.90	1.05	0.96
24/03/2014	1.06	0.92	1.08	0.99
25/03/2014	1.00	0.86	1.04	0.93
26/03/2014	0.95	0.82	1.02	0.94
27/03/2014	0.84	0.76	0.93	0.85
28/03/2014	0.82	0.71	0.90	0.79
29/03/2014	0.97	0.77	1.04	0.87
30/03/2014	1.01	0.86	1.05	0.89
31/03/2014	1.08	0.92	1.08	0.96

Total Number of Measurements, A:	21528	21526
Minimum Free Chlorine Standard:	0.50	0.50
Number of Measurements Meeting Standard, B:	21528	21526
COMPLIANCE, C = B/A X 100%:	100	100

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2014\03-March

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-Mar-2014	NA	NA	NA	NA	NA	NA	NA	OL	NA
02-Mar-2014	NA	NA	NA	NA	NA	NA	NA	OL	NA
03-Mar-2014	0.22	0.12	0.15	0.11	0.10	0.13	0.07	OL	0.17
04-Mar-2014	0.30	0.14	0.13	0.19	0.19	0.09	0.12	OL	0.14
05-Mar-2014	0.25	0.14	0.18	0.14	0.15	0.13	0.13	OL	0.16
06-Mar-2014	0.23	0.09	0.11	0.18	0.18	0.12	0.12	OL	0.13
07-Mar-2014	0.22	0.09	0.13	0.11	0.10	0.12	0.10	OL	0.17
08-Mar-2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
09-Mar-2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
10-Mar-2014	0.33	0.11	0.13	0.16	0.12	0.12	0.14	0.12	0.18
11-Mar-2014	0.34	0.14	0.12	0.16	0.18	0.26	0.13	0.17	0.17
12-Mar-2014	0.29	0.26	0.16	0.17	0.13	0.13	0.14	0.12	0.10
13-Mar-2014	0.24	0.11	0.09	0.13	0.09	0.11	0.17	0.13	0.16
14-Mar-2014	0.24	0.10	0.10	0.23	0.18	0.13	0.10	0.14	0.13
15-Mar-2014	NA	NA	NA	NA	NA	NA	NA	NA	OL
16-Mar-2014	NA	NA	NA	NA	NA	NA	NA	NA	OL
17-Mar-2014	0.30	0.12	0.15	0.13	0.13	0.13	0.14	0.15	0.11
18-Mar-2014	0.37	0.10	0.11	0.11	0.13	0.17	0.14	0.09	0.15
19-Mar-2014	0.45	0.09	0.09	0.16	0.11	0.13	0.09	0.11	0.14
20-Mar-2014	0.49	0.13	0.11	OL	0.17	0.09	0.13	0.14	0.17
21-Mar-2014	0.66	0.18	0.21	0.21	0.21	0.16	0.19	0.15	0.17
22-Mar-2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
23-Mar-2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-Mar-2014	0.76	0.08	0.11	0.12	0.14	0.13	0.09	0.17	0.18
25-Mar-2014	0.44	0.20	0.16	0.09	0.10	0.11	0.11	0.10	0.18
26-Mar-2014	0.38	0.09	0.09	0.12	0.10	0.13	0.11	0.12	0.16
27-Mar-2014	0.35	0.09	0.09	0.13	0.14	0.11	0.09	0.14	0.12
28-Mar-2014	0.34	0.16	0.09	0.12	0.12	0.14	0.14	0.13	0.19
29-Mar-2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
30-Mar-2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
31-Mar-2014	0.35	0.12	0.06	0.14	0.11	0.07	0.08	0.11	0.14
Total number of measurements taken, A:	21	21	20	21	21	21	21	16	21
Turbidity Standard for Monitoring Location (NTU):	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Number of measurements meeting standard, B:	21	21	20	21	21	21	21	16	21
Compliance with Turbidity Standard, C= B/A X 100%:	100%	100%	100%	100%	100%	100%	100%	100%	100%

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

Comments:

From February 4 to March 8, filter 7 was taken out of service pending repair.
 On February 15 and 16, filter 8 was offline due to flow valve maintenance and repair issues on the filter.

Report Compiled By: K. Wazny

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

Date Approved: 7-Apr-14



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

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

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

March 2014 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
1/03/2014	0.29	0.04	0.07	0.00	0.02	0.01	0.22	0.03	0.18	0.01	0.05	0.01	0.04	OL	OL	0.02	0.40
2/03/2014	0.28	0.05	0.08	0.01	0.03	0.01	0.05	0.03	0.09	0.02	0.04	0.02	0.08	OL	OL	0.02	0.19
3/03/2014	0.28	0.05	0.12	0.02	0.07	0.04	1.28	0.05	0.17	0.03	0.14	0.04	1.16	OL	OL	0.04	0.29
4/03/2014	0.28	0.07	0.15	0.04	0.09	0.02	0.11	0.05	0.12	0.04	0.10	0.04	0.08	OL	OL	0.02	0.10
5/03/2014	0.28	0.07	0.15	0.04	0.11	0.03	0.05	0.05	0.13	0.04	0.09	0.04	0.11	OL	OL	0.01	0.03
6/03/2014	0.27	0.06	0.14	0.04	0.11	0.03	0.12	0.04	0.07	0.05	0.07	0.04	0.12	OL	OL	0.02	0.15
7/03/2014	0.27	0.06	0.19	0.04	0.06	0.03	0.13	0.06	0.12	0.04	0.12	0.04	0.12	OL	OL	0.03	0.12
8/03/2014	0.27	0.07	0.10	0.05	0.12	0.03	0.05	0.03	0.13	0.03	0.10	0.04	0.06	0.04	0.10	0.02	0.26
9/03/2014	0.27	0.05	0.15	0.03	0.12	0.05	0.14	0.04	0.08	0.03	0.04	0.04	0.12	0.03	0.11	0.03	0.07
10/03/2014	0.27	0.04	0.11	0.03	0.07	0.03	0.17	0.05	0.13	0.03	0.09	0.03	0.10	0.03	0.06	0.02	0.26
11/03/2014	0.27	0.06	0.08	0.05	0.11	0.02	0.16	0.05	0.11	0.03	0.13	0.03	0.07	0.04	0.09	0.03	0.21
12/03/2014	0.27	0.06	0.17	0.04	0.15	0.06	0.16	0.06	0.17	0.03	0.12	0.04	0.12	0.03	0.14	0.02	0.40
13/03/2014	0.27	0.04	0.13	0.03	0.11	0.03	0.13	0.05	0.09	0.03	0.10	0.04	0.11	0.02	0.05	0.01	0.30
14/03/2014	0.27	0.04	0.09	0.03	0.06	0.05	0.31	0.03	0.17	0.02	0.08	0.05	0.28	0.04	0.21	0.07	0.26
15/03/2014	0.27	0.05	0.07	0.03	0.10	0.03	0.13	0.04	0.11	0.02	0.08	0.03	0.05	0.04	0.26	OL	OL
16/03/2014	0.27	0.05	0.11	0.03	0.09	0.02	0.05	0.04	0.11	0.02	0.10	0.04	0.12	0.03	0.11	OL	OL
17/03/2014	0.30	0.05	0.11	0.04	0.10	0.03	0.22	0.04	0.13	0.03	0.06	0.04	0.11	0.03	0.12	0.01	0.09
18/03/2014	0.41	0.05	0.10	0.03	0.09	0.03	0.13	0.05	0.07	0.03	0.11	0.03	0.13	0.03	0.05	0.02	0.16
19/03/2014	0.52	0.05	0.13	0.03	0.11	0.03	0.11	0.04	0.11	0.03	0.10	0.03	0.11	0.04	0.09	0.02	0.11
20/03/2014	0.74	0.05	0.16	0.05	0.16	0.01	0.04	0.03	0.12	0.03	0.21	0.05	0.42	0.08	0.55	0.04	0.26
21/03/2014	0.51	0.05	0.15	0.04	0.14	0.06	0.35	0.06	0.08	0.03	0.18	0.03	0.13	0.04	0.06	0.04	0.66
22/03/2014	0.49	0.05	0.13	0.02	0.14	0.04	0.21	0.04	0.11	0.03	0.08	0.03	0.08	0.04	0.12	0.02	0.18
23/03/2014	0.47	0.05	0.09	0.04	0.13	0.05	0.42	0.04	0.13	0.02	0.08	0.02	0.07	0.03	0.13	0.04	0.26
24/03/2014	0.45	0.05	0.12	0.03	0.09	0.02	0.10	0.04	0.10	0.02	0.08	0.03	0.06	0.05	0.11	0.05	0.30
25/03/2014	0.44	0.06	0.12	0.04	0.10	0.03	0.06	0.04	0.11	0.03	0.06	0.03	0.08	0.04	0.11	0.06	0.85
26/03/2014	0.42	0.06	0.21	0.04	0.19	0.04	0.25	0.06	0.22	0.03	0.23	0.03	0.20	0.05	0.19	0.05	0.47
27/03/2014	0.41	0.05	0.19	0.01	0.04	0.02	0.33	0.03	0.10	0.02	0.07	0.03	0.11	0.03	0.11	0.05	0.23
28/03/2014	0.40	0.05	0.08	0.00	0.05	0.02	0.14	0.02	0.09	0.01	0.02	0.04	0.05	0.03	0.08	0.05	0.17
29/03/2014	0.39	0.05	0.11	0.01	0.07	0.02	0.50	0.02	0.03	0.02	0.07	0.04	0.11	0.02	0.09	0.05	0.15
30/03/2014	0.38	0.05	0.13	0.00	0.01	0.02	0.17	0.03	0.09	0.02	0.07	0.02	0.11	0.03	0.05	0.04	0.06
31/03/2014	0.37	0.05	0.06	0.01	0.05	0.01	0.05	0.02	0.09	0.01	0.02	0.04	0.07	0.02	0.09	0.04	0.22

Total Number of Measurements Taken, A	15199	14181	15192	11578	15747	15910	10623	13843
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	15199	14181	15176	11578	15747	15884	10599	13834
Compliance with Turbidity Standard, C = B/A X 100%	100.00%	100.00%	99.90%	100.00%	100.00%	99.84%	99.77%	99.94%

OL = Offline

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2014\03-March

Submitted By (Print): D.Merredew

Signature: Original signed by D.Merredew



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

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

WATER TREATMENT PLANT UV REPORT

Report Period: **March 2014**

Report Created: **Tuesday, April 01, 2014**

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	
1/03/2014	93.78	0.00	0.00	36.06	36.06	0.00	0.00	58.44	58.44	0.00	0.00	63.08	63.08	0.00	0.00	0.00	0.00	0.00	0.00	68.33	68.33	0.00	0.00	0.00	0.00	0.00	0.00	225.91	225.91	100.00
2/03/2014	93.87	0.00	0.00	35.40	35.40	0.00	0.00	57.18	57.18	0.00	0.00	61.82	61.82	0.00	0.00	0.00	0.00	0.00	0.00	66.56	66.56	0.00	0.00	0.00	0.00	0.00	0.00	220.96	220.96	100.00
3/03/2014	94.45	0.00	0.00	14.14	14.14	0.00	0.00	59.97	59.97	0.00	0.00	62.43	62.43	0.00	0.00	0.00	0.00	0.00	0.00	47.39	47.39	0.03	0.10	27.81	27.93	0.03	0.10	211.73	211.86	99.94
4/03/2014	94.13	0.00	0.00	0.00	0.00	0.00	0.00	21.63	21.63	0.00	0.00	77.50	77.50	0.00	0.00	0.00	0.00	0.00	0.00	40.70	40.70	0.00	0.00	68.15	68.15	0.00	0.00	207.97	207.97	100.00
5/03/2014	93.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	84.98	85.04	0.00	0.00	0.00	0.00	0.00	0.00	43.35	43.35	0.00	0.00	79.60	79.60	0.00	0.06	207.93	207.98	99.97
6/03/2014	93.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.00	85.00	0.00	0.00	0.00	0.00	0.00	0.00	42.91	42.91	0.00	0.00	79.48	79.48	0.00	0.00	207.40	207.40	100.00
7/03/2014	94.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.00	85.00	0.00	0.00	0.00	0.00	0.00	0.00	42.58	42.58	0.00	0.00	77.14	77.14	0.00	0.00	204.72	204.72	100.00
8/03/2014	93.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	84.98	84.98	0.00	0.00	0.00	0.00	0.00	0.00	43.63	43.63	0.00	0.00	79.38	79.38	0.00	0.00	207.99	207.99	100.00
9/03/2014	93.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.00	85.00	0.00	0.00	0.00	0.00	0.00	0.00	44.27	44.27	0.00	0.00	80.62	80.62	0.00	0.00	209.89	209.89	100.00
10/03/2014	93.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.00	85.00	0.00	0.00	0.00	0.00	0.00	0.00	44.27	44.27	0.00	0.00	81.22	81.22	0.00	0.00	210.48	210.48	100.00
11/03/2014	93.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.00	85.00	0.00	0.00	0.00	0.00	0.00	0.00	43.34	43.34	0.00	0.00	79.67	79.67	0.00	0.00	208.01	208.01	100.00
12/03/2014	92.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.04	85.04	0.00	0.00	0.00	0.00	0.00	0.00	43.27	43.27	0.00	0.00	79.69	79.69	0.00	0.00	208.00	208.00	100.00
13/03/2014	92.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	82.38	82.38	0.00	0.00	0.00	0.00	0.00	0.00	44.84	44.84	0.00	0.00	80.68	80.68	0.00	0.00	207.90	207.90	100.00
14/03/2014	91.99	0.00	0.00	17.35	17.35	0.00	0.00	0.00	0.00	0.00	0.00	48.79	48.79	0.00	0.00	0.00	0.00	0.00	0.00	60.35	60.35	0.00	0.00	84.45	84.45	0.00	0.00	210.94	210.94	100.00
15/03/2014	91.99	0.00	0.00	82.60	82.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.01	50.01	0.00	0.00	81.19	81.19	0.00	0.00	213.79	213.79	100.00
16/03/2014	91.99	0.00	0.00	72.00	72.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72.99	72.99	0.00	0.10	71.90	72.00	0.00	0.10	216.88	216.98	99.95
17/03/2014	92.00	0.00	0.00	72.00	72.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.83	16.83	0.00	0.34	59.01	59.34	0.00	0.45	70.67	71.12	0.00	0.78	218.52	219.30	99.84	
18/03/2014	91.99	0.00	0.00	71.61	71.61	0.00	0.00	0.00	0.00	0.00	0.00	38.79	38.79	0.00	0.00	36.66	36.66	0.00	0.00	43.33	43.33	0.00	0.36	32.95	33.30	0.00	0.36	223.35	223.71	99.84
19/03/2014	91.99	0.00	0.00	73.06	73.06	0.00	0.00	0.00	0.00	0.00	0.00	38.98	38.98	0.00	0.00	39.42	39.42	0.00	0.00	78.28	78.28	0.00	0.00	0.00	0.00	0.00	0.00	229.73	229.73	100.00
20/03/2014	91.99	0.31	0.31	39.83	40.45	0.00	0.00	0.00	0.00	0.00	0.00	44.07	44.07	0.00	0.00	0.00	0.00	0.00	0.00	45.86	45.86	0.00	0.00	0.00	0.00	0.31	0.31	129.76	130.37	99.53
21/03/2014	91.99	0.00	0.00	71.67	71.67	0.00	0.00	0.00	0.00	0.00	0.00	78.90	78.90	0.00	0.00	0.00	0.00	0.00	0.00	80.74	80.74	0.00	0.00	0.00	0.00	0.00	0.00	231.31	231.31	100.00
22/03/2014	91.99	0.00	0.00	72.46	72.46	0.00	0.00	0.00	0.00	0.00	0.00	79.44	79.44	0.00	0.00	0.00	0.00	0.00	0.00	81.34	81.34	0.00	0.00	0.00	0.00	0.00	0.00	233.24	233.24	100.00
23/03/2014	91.99	0.00	0.00	73.70	73.70	0.00	0.00	0.00	0.00	0.00	0.00	80.53	80.53	0.00	0.00	0.00	0.00	0.00	0.00	82.86	82.86	0.00	0.00	0.00	0.00	0.00	0.00	237.09	237.09	100.00
24/03/2014	91.99	0.00	0.00	73.89	73.89	0.00	0.00	0.00	0.00	0.00	0.00	80.66	80.66	0.00	0.00	0.00	0.00	0.00	0.00	83.44	83.44	0.00	0.00	0.00	0.00	0.00	0.00	237.99	237.99	100.00
25/03/2014	91.99	0.00	0.00	74.64	74.64	0.00	0.00	0.00	0.00	0.00	0.00	83.18	83.18	0.00	0.00	0.00	0.00	0.00	0.00	83.88	83.88	0.00	0.00	0.00	0.00	0.00	0.00	241.70	241.70	100.00
26/03/2014	91.99	0.00	0.00	75.26	75.26	0.00	0.00	0.00	0.00	0.00	0.00	84.44	84.44	0.00	0.00	0.00	0.00	0.00	0.00	83.34	83.34	0.00	0.00	0.00	0.00	0.00	0.00	243.05	243.05	100.00
27/03/2014	91.99	0.00	0.00	24.95	24.95	0.00	0.00	56.73	56.73	0.00	0.00	32.39	32.39	0.00	0.05	49.42	49.47	0.00	0.00	79.31	79.31	0.00	0.00	0.00	0.00	0.00	0.05	242.80	242.84	99.98
28/03/2014	91.99	0.00	0.00	37.16	37.16	0.00	0.00	44.97	44.97	0.00	0.00	0.00	0.00	0.00	0.00	80.96	80.96	0.00	0.00	79.64	79.64	0.00	0.00	0.00	0.00	0.00	0.00	242.73	242.73	100.00
29/03/2014	87.22	0.00	0.00	79.03	79.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81.37	81.37	0.00	0.00	79.00	79.00	0.00	0.00	0.00	0.00	0.00	0.00	239.40	239.40	100.00
30/03/2014	93.59	0.00	0.05	71.29	71.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	73.55	73.55	0.00	0.00	70.92	70.92	0.00	0.00	0.00	0.00	0.00	0.05	215.76	215.82	99.98
31/03/2014	91.90	0.00	0.00	68.14	68.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	70.34	70.34	0.00	0.00	66.51	66.51	0.00	0.00	0.00	0.00	0.00	0.00	204.99	204.99	100.00
		0.31	0.36	1236.24	1236.91	0.00	0.00	298.92	298.92	0.00	0.06	1717.37	1717.43	0.00	0.05	448.55	448.60	0.00	0.34	1896.26	1896.59	0.03	1.00	1154.58	1155.61	0.34	1.80	6751.92	6754.06	

Water Volume [%]:
 Untreated: 0.00 %
 Below Dose 0.03 %
 To Dose 99.97 %

Submitted By (Print): D.Merredew

Signature: Original signed by D.Merredew

CORRECTIVE ACTION REPORT



WATER SYSTEM City of Winnipeg

WATER SYSTEM CODE: 252.00

LOCATION OF NON-COMPLIANCE INCIDENT (ex. Water Plant): Deacon Water Treatment Plant

OPERATOR: Roberta Cameron for Hailey Harris

Signature:

TYPE OF NON-COMPLIANCE INCIDENT:

- Low disinfectant residual entering the distribution system, 21(1) MR 40/2007
 - Low disinfectant residual in the distribution system, 22 MR 40/2007
 - Filtered water turbidity exceeding the turbidity standard, 6(1) MR 41/2007
 - Low positive total coliform (<10 CFU/100mL), 3 MR 41/2007
 - Other
- See below **DATE** March 03, 2014

INITIAL TEST RESULTS:

DESCRIPTION OF CORRECTIVE ACTIONS TAKEN (attach additional sheets if required):

March 03, 2014 at 10:25 the flow control valve on filter 3 did not follow the PID loop when control was switched from Manual to Remote. This caused a fast increase inflow, causing the turbidity to spike as high as 1.28 ntu for 1-2 minutes. The corrective action taken was to allow water to flow into the backwash supply tank and shut off flow to filtered water chamber until the turbidity came down to acceptable limits before putting filter 3 back online. Running filter 3 with the flow control valve in Manual setting prevents future turbidity spikes until the flow control valve control systems are corrected.

TEST RESULTS AFTER CORRECTIVE ACTIONS:

< 0.10 ntu measured online

DATE: March 03, 2014

(attach laboratory results if applicable)

Approved By Operator-In-Charge: **Original signed by:**

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 YOUR DRINKING WATER OFFICER WITH YOUR MONTHLY DISINFECTION OR TURBIDITY MONITORING REPORT

RETAIN A COPY FOR YOUR RECORDS

Contact your Drinking Water Officer with any comments, questions or concerns.

CORRECTIVE ACTION REPORT



WATER SYSTEM City of Winnipeg

WATER SYSTEM CODE: 252.00

LOCATION OF NON-COMPLIANCE INCIDENT (ex. Water Plant): Deacon Water Treatment Plant

OPERATOR: Roberta Cameron for Carson Ikonen

Signature:

TYPE OF NON-COMPLIANCE INCIDENT:

- Low disinfectant residual entering the distribution system, 21(1) MR 40/2007
 - Low disinfectant residual in the distribution system, 22 MR 40/2007
 - Filtered water turbidity exceeding the turbidity standard, 6(1) MR 41/2007
 - Low positive total coliform (<10 CFU/100mL), 3 MR 41/2007
 - Other
- See below DATE **March 03, 2014**

INITIAL TEST RESULTS:

DESCRIPTION OF CORRECTIVE ACTIONS TAKEN (attach additional sheets if required):

Filter 6 turbidity measured above 0.30 ntu for 7-8 minutes and measured a peak at 1.16 ntu. The filter was slow stopping for backwash when this occurred. Filters needed more polymer after turning on ozone, and so the increase was made. This corrective action of polymer increase was needed due to ozone precipitating soluble particles into settleable particles.

TEST RESULTS AFTER CORRECTIVE ACTIONS:

N/A, filter into backwash

DATE: March 03, 2014

(attach laboratory results if applicable)

Approved By Operator-In-Charge: Original signed by:

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