



Water and Waste Department • Service des eaux et des déchets

April 7, 2016

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

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

Dear Ms. Betsill:

**RE: MARCH 2016 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 2016. There are no corrective action reports to be submitted for March 2016.

The March 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 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 met the licence requirements.

The March 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 note that the City of Winnipeg's Operating Licence for the public water system has been renewed and came into effect on March 1, 2016.

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
Attachments

c:(e-mail)

Dr. L. Richards, Winnipeg Regional Health Authority
Dr. H. Chang, Winnipeg Regional Health Authority
Dr. S. Roberecki, Manitoba Health, Healthy Living and Seniors
M. L. Geer, CPA, CA
G. Patton, P.Eng.
T. Shanks, P.Eng.
M. Szmon, P.Eng.
C. Diduck

N:\Compliance Reporting\Submittal Letters\2016\ODW - Monthly Compliance Letters\ODW Letter 2016-03.doc



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

March 2016 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
1/03/2016	0.47	0.04	0.11	0.06	0.12	0.04	0.17	0.04	0.07	0.03	0.10	0.03	0.06	0.02	0.08	0.01	0.02
2/03/2016	0.47	0.03	0.06	0.04	0.13	0.04	0.07	0.05	0.13	0.02	0.09	0.02	0.08	0.03	0.04	0.01	0.05
3/03/2016	0.46	0.05	0.11	0.05	0.07	0.04	0.15	0.03	0.13	0.04	0.07	0.02	0.04	0.02	0.10	0.01	0.06
4/03/2016	0.46	0.02	0.08	0.03	0.11	0.02	0.12	0.03	0.06	0.02	0.07	0.02	0.10	0.01	0.03	0.01	0.02
5/03/2016	0.46	0.03	0.05	0.02	0.09	0.03	0.07	0.03	0.10	0.01	0.03	0.01	0.07	0.02	0.07	0.00	0.03
6/03/2016	0.47	0.03	0.09	0.04	0.08	0.03	0.13	0.02	0.10	0.03	0.07	0.02	0.03	0.02	0.08	0.01	0.01
7/03/2016	0.47	0.02	0.09	0.03	0.09	0.02	0.05	0.04	0.06	0.02	0.07	0.02	0.08	0.02	0.03	0.01	0.04
8/03/2016	0.48	0.03	0.06	0.03	0.05	0.04	0.13	0.03	0.11	0.03	0.05	0.01	0.08	0.02	0.07	0.01	0.04
9/03/2016	0.49	0.02	0.08	0.04	0.09	0.03	0.13	0.02	0.05	0.03	0.08	0.02	0.05	0.01	0.07	0.01	0.01
10/03/2016	0.49	0.02	0.04	0.03	0.10	0.04	0.09	0.04	0.11	0.03	0.10	0.02	0.09	0.03	0.06	0.01	0.05
11/03/2016	0.48	0.07	0.10	0.05	0.08	0.07	0.23	0.04	0.17	0.07	0.08	0.02	0.13	0.04	0.11	0.01	0.08
12/03/2016	0.48	0.04	0.12	0.06	0.13	0.05	0.19	0.05	0.08	0.05	0.12	0.05	0.12	0.02	0.11	0.01	0.03
13/03/2016	0.50	0.04	0.06	0.04	0.13	0.06	0.11	0.06	0.17	0.04	0.12	0.03	0.13	0.05	0.08	0.02	0.08
14/03/2016	0.51	0.05	0.13	0.05	0.08	0.06	0.20	0.04	0.15	0.07	0.16	0.03	0.05	0.04	0.11	0.01	0.13
15/03/2016	0.45	0.01	0.09	0.01	0.12	0.01	0.06	0.02	0.08	0.02	0.08	0.01	0.13	0.01	0.05	0.01	0.04
16/03/2016	0.52	0.06	0.10	0.06	0.07	0.05	0.15	0.03	0.13	0.05	0.08	0.03	0.05	0.04	0.11	0.01	0.08
17/03/2016	0.52	0.05	0.13	0.05	0.13	0.04	0.26	0.06	0.08	0.03	0.09	0.04	0.11	0.04	0.06	0.02	0.05
18/03/2016	0.52	0.04	0.08	0.04	0.09	0.04	0.11	0.03	0.15	0.02	0.05	0.02	0.08	0.04	0.12	0.01	0.07
19/03/2016	0.51	0.04	0.08	0.05	0.06	0.03	0.09	0.02	0.11	0.03	0.08	0.01	0.03	0.03	0.08	0.00	0.01
20/03/2016	0.52	0.05	0.15	0.05	0.13	0.04	0.06	0.07	0.09	0.03	0.11	0.04	0.10	0.05	0.07	0.02	0.06
21/03/2016	0.51	0.08	0.12	0.05	0.16	0.08	0.19	0.06	0.17	0.04	0.07	0.04	0.15	0.07	0.15	0.02	0.11
22/03/2016	0.56	0.06	0.17	0.09	0.13	0.08	0.21	0.06	0.20	0.05	0.11	0.05	0.07	0.05	0.16	0.01	0.03
23/03/2016	0.60	0.04	0.14	0.06	0.16	0.07	0.13	0.08	0.10	0.03	0.10	0.06	0.19	0.03	0.07	0.02	0.12
24/03/2016	0.60	0.05	0.08	0.04	0.08	0.12	0.25	0.06	0.17	0.02	0.04	0.04	0.18	0.04	0.13	0.01	0.09
25/03/2016	0.61	0.01	0.11	0.04	0.17	0.04	0.12	0.03	0.10	0.01	0.08	0.04	0.08	0.02	0.07	0.01	0.01
26/03/2016	0.62	0.02	0.11	0.04	0.12	0.04	0.07	0.06	0.08	0.02	0.08	0.04	0.12	0.03	0.04	0.01	0.04
27/03/2016	0.62	0.04	0.07	0.04	0.07	0.08	0.19	0.05	0.15	0.02	0.04	0.04	0.15	0.04	0.11	0.01	0.07
28/03/2016	0.60	0.03	0.12	0.06	0.13	0.06	0.20	0.04	0.07	0.03	0.12	0.06	0.08	0.03	0.12	0.01	0.02
29/03/2016	0.60	0.02	0.05	0.05	0.15	0.07	0.10	0.08	0.16	0.02	0.10	0.04	0.15	0.04	0.06	0.01	0.08
30/03/2016	0.60	0.04	0.12	0.04	0.07	0.07	0.21	0.05	0.16	0.03	0.07	0.03	0.06	0.03	0.12	0.01	0.07
31/03/2016	0.60	0.00	0.03	0.01	0.12	0.02	0.07	0.02	0.07	0.00	0.03	0.02	0.15	0.01	0.05	0.00	0.03

Total Number of Measurements Taken, A:	13483	10063	13826	10898	14111	14113	12904	13596
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:	13483	10063	13826	10898	14111	14113	12904	13596
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%

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2016\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 Licence No. PWS-09-412-01	Turbidity (NTU)																	
	Raw Water		Filter 1		Filter 2		Filter 3		Filter 4		Filter 5		Filter 6		Filter 7		Filter 8	
Date	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser
01-Mar-2016	0.54	0.46	0.20	0.08	0.16	0.08	0.16	0.04	0.15	0.04	0.19	0.08	0.13	0.03	0.10	0.02	0.11	0.02
02-Mar-2016	0.48	0.45	0.12	0.03	OL	OL	0.17	0.05	0.14	0.04	0.07	0.02	0.12	0.04	0.09	0.02	0.12	0.04
03-Mar-2016	0.49	0.45	0.14	0.05	0.23	0.09	0.17	0.17	OL	OL	0.10	0.03	0.11	0.02	0.14	0.05	0.09	0.02
04-Mar-2016	0.50	0.45	OL	OL	0.14	0.07	0.11	0.02	0.11	0.02	0.10	0.03	0.10	0.02	0.07	<0.02	0.07	<0.02
05-Mar-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
06-Mar-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
07-Mar-2016	0.44	0.45	0.10	<0.02	0.14	0.06	0.15	0.03	0.14	0.02	OL	OL	0.16	0.04	0.10	<0.02	0.11	0.02
08-Mar-2016	0.53	0.47	0.10	0.02	0.09	0.03	0.15	0.05	0.14	0.03	0.08	0.02	0.07	<0.02	0.12	0.04	OL	OL
09-Mar-2016	0.56	0.47	0.14	0.05	0.11	0.05	OL	OL	0.11	<0.02	0.14	0.07	0.10	0.02	0.08	<0.02	0.08	<0.02
10-Mar-2016	0.52	0.47	0.10	0.02	OL	OL	0.14	0.04	0.14	0.03	0.08	0.03	0.13	0.04	0.11	0.02	0.13	0.04
11-Mar-2016	0.53	0.47	0.17	0.06	0.14	0.07	0.26	0.12	0.27	0.12	0.12	0.06	0.13	0.03	0.17	0.06	0.11	0.02
12-Mar-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
13-Mar-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
14-Mar-2016	0.53	0.50	0.16	0.06	0.13	0.06	0.25	0.09	0.14	0.03	0.11	0.06	0.12	0.03	0.11	0.02	OL	OL
15-Mar-2016	0.49	0.49	0.09	<0.02	OL	OL	0.11	0.02	0.10	<0.02	OL	OL	0.11	<0.02	0.08	<0.02	0.10	<0.02
16-Mar-2016	0.54	0.50	0.14	0.04	0.13	0.05	0.24	0.11	OL	OL	0.11	0.06	0.11	0.03	0.17	0.08	0.10	0.02
17-Mar-2016	0.65	0.51	OL	OL	0.23	0.13	0.18	0.05	0.14	0.04	0.19	0.07	0.16	0.04	0.10	0.04	0.11	0.03
18-Mar-2016	0.58	0.53	0.10	0.03	0.09	0.05	0.14	0.03	0.16	0.06	0.09	0.02	OL	OL	0.10	0.07	0.10	0.03
19-Mar-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
20-Mar-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
21-Mar-2016	0.50	0.49	0.17	0.06	0.13	0.07	0.22	0.08	0.18	0.07	0.12	0.05	0.13	0.04	0.18	0.09	0.20	0.09
22-Mar-2016	0.54	0.51	0.18	0.07	0.16	0.09	0.29	0.18	0.16	0.06	0.18	0.08	0.14	0.04	0.17	0.05	0.11	0.03
23-Mar-2016	0.51	0.59	0.12	0.02	0.18	0.11	0.17	0.10	0.15	0.06	OL	OL	0.16	0.09	0.10	0.03	0.11	0.03
24-Mar-2016	0.54	0.59	0.15	0.04	0.13	0.06	0.22	0.13	0.17	0.07	0.09	<0.02	0.09	0.04	0.15	0.06	0.20	0.10
25-Mar-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
26-Mar-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
27-Mar-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
28-Mar-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
29-Mar-2016	0.52	0.59	0.12	0.03	0.17	0.10	0.17	0.08	0.17	0.07	0.12	<0.02	0.11	0.06	0.12	0.04	0.13	0.05
30-Mar-2016	0.53	0.58	0.12	0.03	0.11	0.05	0.19	0.11	0.17	0.07	0.10	0.02	0.11	0.04	0.12	0.05	0.08	0.02
31-Mar-2016	0.53	0.58	OL	OL	0.14	0.08	0.09	0.03	0.08	<0.02	OL	OL	0.08	0.04	0.07	<0.02	0.07	<0.02
Total number of measurements taken, A:			18		18		20		19		17		20		21		19	
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:			18		18		20		19		17		20		21		19	
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:

Report Compiled By: H.Demchenko

Approved in LIMS By: C.Diduck

Date Approved: 4-Apr-16



City of Winnipeg

Water and Waste Department
Water Services

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 April 2016

Report Period: March 2016

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
1/03/2016	1.07	0.99	1.07	1.03
2/03/2016	1.05	0.98	1.08	1.04
3/03/2016	1.10	1.02	1.10	1.03
4/03/2016	1.13	1.06	1.09	1.00
5/03/2016	1.18	1.10	1.09	1.03
6/03/2016	1.22	1.16	1.12	1.06
7/03/2016	1.24	1.18	1.12	1.09
8/03/2016	1.20	1.09	1.09	0.98
9/03/2016	1.12	1.07	1.03	0.98
10/03/2016	1.11	1.06	1.05	1.00
11/03/2016	1.10	1.04	1.07	1.01
12/03/2016	1.19	1.04	1.11	1.01
13/03/2016	1.15	1.08	1.05	1.00
14/03/2016	1.03	0.91	1.03	1.00
15/03/2016	1.19	0.87	1.37	0.96
16/03/2016	1.09	0.96	1.09	1.01
17/03/2016	1.11	0.99	1.12	1.02
18/03/2016	1.10	1.00	1.14	1.04
19/03/2016	1.05	1.00	1.10	1.04
20/03/2016	1.00	0.98	1.04	1.01
21/03/2016	0.99	0.94	1.02	0.98
22/03/2016	0.98	0.96	1.03	0.98
23/03/2016	0.98	0.98	1.05	1.00
24/03/2016	0.98	0.98	1.04	1.02
25/03/2016	0.98	0.98	1.06	1.04
26/03/2016	0.98	0.98	1.07	0.99
27/03/2016	0.98	0.98	1.14	1.09
28/03/2016	1.02	0.98	1.08	0.99
29/03/2016	1.01	0.95	1.07	0.97
30/03/2016	1.01	0.96	1.16	1.07
31/03/2016	1.23	0.91	1.38	1.01

Total Number of Measurements, A:	21571	21571
Minimum Free Chlorine Standard:	0.50	0.50
Number of Measurements Meeting Standard, B:	21571	21571
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2016\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 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	Analysers	Grab	Grab	Analysers	Grab	Grab	
01-Mar-2016	1.07	1.05	1.26	1.07	1.07	1.21	
02-Mar-2016	1.06	1.16	1.26	1.11	1.12	1.13	
03-Mar-2016	1.11	1.20	1.34	1.11	1.11	1.29	
04-Mar-2016	1.13	1.12	1.33	1.09	1.08	1.26	
05-Mar-2016	NS	NS	NS	NS	NS	NS	
06-Mar-2016	NS	NS	NS	NS	NS	NS	
07-Mar-2016	1.28	1.29	1.42	1.13	1.19	1.28	
08-Mar-2016	1.22	1.27	1.45	1.13	1.09	1.29	
09-Mar-2016	1.10	1.14	1.26	1.03	1.06	1.20	
10-Mar-2016	1.11	1.19	1.35	1.06	1.07	1.24	
11-Mar-2016	1.10	1.24	1.40	1.07	1.15	1.31	
12-Mar-2016	NS	NS	NS	NS	NS	NS	
13-Mar-2016	NS	NS	NS	NS	NS	NS	
14-Mar-2016	1.01	1.17	1.34	1.02	1.06	1.24	
15-Mar-2016	1.47	1.75	1.91	1.58	1.62	1.82	
16-Mar-2016	1.16	1.11	1.25	1.14	1.12	1.28	
17-Mar-2016	1.05	1.10	1.24	1.16	1.12	1.26	
18-Mar-2016	1.11	1.16	1.33	1.16	1.22	1.37	
19-Mar-2016	NS	NS	NS	NS	NS	NS	
20-Mar-2016	NS	NS	NS	NS	NS	NS	
21-Mar-2016	1.00	1.10	1.23	1.01	1.07	1.17	
22-Mar-2016	0.98	1.05	1.22	1.02	1.04	1.22	
23-Mar-2016	1.04	1.10	1.25	1.11	1.13	1.26	
24-Mar-2016	0.98	1.04	1.23	1.03	0.98	1.19	
25-Mar-2016	NS	NS	NS	NS	NS	NS	
26-Mar-2016	NS	NS	NS	NS	NS	NS	
27-Mar-2016	NS	NS	NS	NS	NS	NS	
28-Mar-2016	NS	NS	NS	NS	NS	NS	
29-Mar-2016	1.00	1.06	1.21	1.03	1.02	1.21	
30-Mar-2016	0.98	0.97	1.11	1.16	1.09	1.23	
31-Mar-2016	1.37	1.38	1.54	1.52	1.55	1.76	
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: H.Demchenko

Approved in LIMS By: C.Diduck

Date Approved: 4-Apr-16



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: **March 2016**

Report Created: **Friday, April 01, 2016**

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		
01/03/2016	95.71	0.00	0.00	53.86	53.86	0.00	0.00	67.03	67.03	0.00	0.00	0.31	0.31	0.00	0.00	0.00	0.00	0.00	0.00	60.09	60.09	0.00	0.00	0.00	0.00	0.00	0.00	181.29	181.29	100.00	
02/03/2016	95.68	0.00	0.00	44.80	44.80	0.00	0.00	59.64	59.64	0.00	0.00	0.00	0.00	0.00	0.00	26.34	26.34	0.00	0.00	51.10	51.10	0.00	0.00	0.00	0.00	0.00	0.00	181.88	181.88	100.00	
03/03/2016	96.04	0.00	0.00	14.90	14.90	0.00	0.00	67.04	67.04	0.00	0.00	0.00	0.00	0.00	0.00	45.61	45.61	0.00	0.00	54.47	54.47	0.00	0.00	0.00	0.00	0.00	0.00	182.02	182.02	100.00	
04/03/2016	96.72	0.00	0.00	0.00	0.00	0.00	0.00	74.51	74.51	0.00	0.00	0.00	0.00	0.00	0.00	47.48	47.48	0.00	0.00	60.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	181.99	181.99	100.00	
05/03/2016	96.79	0.00	0.00	0.00	0.00	0.00	0.00	74.39	74.39	0.00	0.00	0.00	0.00	0.00	0.00	48.71	48.71	0.00	0.00	57.45	57.45	0.00	0.00	0.00	0.00	0.00	0.00	180.55	180.55	100.00	
06/03/2016	96.69	0.00	0.00	0.00	0.00	0.00	0.00	75.67	75.67	0.00	0.00	0.00	0.00	0.00	0.00	52.97	52.97	0.00	0.00	51.35	51.35	0.00	0.00	0.00	0.00	0.00	0.00	179.99	179.99	100.00	
07/03/2016	96.68	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	49.41	49.41	0.00	0.00	49.98	49.98	0.00	0.00	0.00	0.00	0.00	0.00	179.92	179.92	100.00	
08/03/2016	96.70	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	45.55	45.55	0.00	0.00	50.01	50.01	0.00	0.00	0.00	0.00	0.00	0.00	180.01	180.01	100.00	
09/03/2016	96.62	0.00	0.00	0.00	0.00	0.00	0.00	84.82	84.82	0.00	0.00	0.00	0.00	0.00	0.00	51.45	51.45	0.00	0.00	50.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	186.26	186.26	100.00	
10/03/2016	96.34	0.00	0.00	0.00	0.00	0.00	0.00	85.03	85.03	0.00	0.00	0.00	0.00	0.00	0.00	55.00	55.00	0.00	0.00	49.98	49.98	0.00	0.00	0.00	0.00	0.00	0.00	190.01	190.01	100.00	
11/03/2016	95.67	0.00	0.00	0.00	0.00	0.00	0.00	82.97	82.97	0.00	0.00	0.00	0.00	0.00	0.00	57.04	57.04	0.00	0.00	50.02	50.02	0.00	0.00	0.00	0.00	0.00	0.00	190.04	190.04	100.00	
12/03/2016	95.80	0.00	0.33	0.37	0.70	1.06	1.25	17.93	20.24	0.00	0.00	45.84	45.84	0.00	0.07	65.40	65.47	0.08	0.11	25.42	25.61	0.00	0.44	32.51	32.95	1.15	2.19	187.47	190.80	98.25	
13/03/2016	95.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56.90	56.90	0.00	0.00	68.04	68.04	0.00	0.00	0.00	0.00	0.00	0.00	65.06	65.06	0.00	0.00	190.00	190.00	100.00	
14/03/2016	95.91	0.00	0.00	0.00	0.00	0.00	0.00	31.19	31.19	0.00	0.00	51.88	51.88	0.00	0.00	65.55	65.55	0.00	0.00	0.00	0.00	0.00	0.09	41.26	41.36	0.00	0.09	189.88	189.97	99.95	
15/03/2016	95.38	0.00	0.00	0.00	0.00	0.00	0.04	40.21	40.25	0.00	0.00	23.45	23.45	0.01	0.03	35.03	35.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.08	98.69	98.78	99.91
16/03/2016	96.10	0.00	0.00	0.00	0.00	0.00	0.13	63.31	63.44	0.00	0.00	42.28	42.28	0.00	0.00	70.61	70.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	176.20	176.33	99.93
17/03/2016	95.97	0.00	0.00	0.00	0.00	0.00	0.00	63.96	63.96	0.00	0.00	54.34	54.34	0.00	0.00	34.69	34.69	0.00	0.00	0.00	0.00	0.01	0.01	32.03	32.04	0.01	0.01	185.03	185.04	99.99	
18/03/2016	96.39	0.00	0.00	0.00	0.00	0.00	0.04	59.98	60.02	0.00	0.00	64.61	64.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.35	60.35	0.00	0.04	184.94	184.98	99.98	
19/03/2016	96.71	0.00	0.00	0.00	0.00	0.00	0.04	59.96	60.00	0.00	0.00	64.59	64.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.37	60.37	0.00	0.04	184.92	184.96	99.98	
20/03/2016	96.01	0.00	0.00	0.00	0.00	0.00	0.04	59.91	59.95	0.00	0.00	64.63	64.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.44	60.44	0.00	0.04	184.98	185.02	99.98	
21/03/2016	95.47	0.00	0.00	0.00	0.00	0.00	0.00	59.93	59.93	0.00	0.00	64.56	64.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.52	60.52	0.00	0.00	185.00	185.00	100.00	
22/03/2016	95.56	0.00	0.00	0.00	0.00	0.00	0.00	60.33	60.33	0.00	0.00	63.95	63.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.70	60.70	0.00	0.00	184.97	184.97	100.00	
23/03/2016	95.82	0.00	0.00	0.00	0.00	0.00	0.04	67.27	67.31	0.00	0.00	55.35	55.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.71	62.71	0.00	0.04	185.33	185.38	99.98	
24/03/2016	95.84	0.00	0.04	13.67	13.71	0.00	0.00	62.14	62.14	0.00	0.00	47.81	47.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.02	65.02	0.00	0.04	188.64	188.69	99.98	
25/03/2016	96.62	0.00	0.00	0.00	0.00	0.00	0.00	76.87	76.87	0.00	0.00	47.29	47.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.84	68.84	0.00	0.00	193.00	193.00	100.00	
26/03/2016	96.19	0.00	0.00	0.00	0.00	0.00	0.00	77.03	77.03	0.00	0.00	47.96	47.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.98	67.98	0.00	0.00	192.97	192.97	100.00	
27/03/2016	95.94	0.00	0.00	0.00	0.00	0.00	0.00	78.82	78.82	0.00	0.00	53.27	53.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	58.14	58.14	0.00	0.00	190.23	190.23	100.00	
28/03/2016	95.90	0.00	0.00	0.00	0.00	0.00	0.00	76.40	76.40	0.00	0.00	51.03	51.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55.01	55.01	0.00	0.00	182.44	182.44	100.00	
29/03/2016	95.81	0.00	0.00	0.00	0.00	0.00	0.00	75.27	75.27	0.00	0.00	33.42	33.42	0.00	0.00	15.21	15.21	0.00	0.00	23.50	23.50	0.00	0.00	32.62	32.62	0.00	0.00	180.02	180.02	100.00	
30/03/2016	96.00	0.00	0.09	1.06	1.14	0.00	0.00	72.21	72.21	0.00	0.00	0.00	0.00	0.00	0.00	43.49	43.49	0.00	0.00	63.14	63.14	0.00	0.00	0.00	0.00	0.00	0.09	179.89	179.98	99.95	
31/03/2016	95.67	0.00	0.00	0.00	0.00	0.00	0.03	33.77	33.80	0.00	0.00	0.00	0.00	0.00	0.00	16.68	16.68	0.00	0.00	22.19	22.19	0.00	0.00	0.00	0.00	0.00	0.03	72.65	72.68	99.95	
		0.00	0.46	128.65	129.11	1.06	1.62	1972.54	1975.22	0.00	0.00	933.48	933.48	0.01	0.10	894.26	894.37	0.08	0.11	718.70	718.89	0.01	0.53	883.57	884.10	1.16	2.82	5531.20	5535.18		

Water Volume [%]:
 Untreated: 0.02 %
 Below Dose: 0.05 %
 To Dose: 99.93 %

Submitted By (Print): D.Merredew

Signature: Original signed by D.Merredew