



Water and Waste Department • Service des eaux et des déchets

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August 5, 2016

Melanie Betsill  
Office of Drinking Water  
Manitoba Sustainable Development  
1007 Century Street  
Winnipeg, Manitoba R3H 0W4

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

Dear Ms. Betsill:

**RE: JULY 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 July 2016. There are no corrective action reports to be submitted for July 2016.

The July on-line and grab sampling turbidity reports include results obtained for the Water Treatment Plant raw water and the eight filters. Please note that on July 15<sup>th</sup>, the maximum turbidities for Filters 1 and 2 were greater than 0.3 NTU; the elevated turbidities occurred for a short period of time which did not exceed 12 consecutive hours. The turbidity results for the effluent from the filters met the licence requirements.

The July 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 July 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  
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

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**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**

July 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
1/07/2016	1.28	0.02	0.10	0.07	0.12	0.05	0.17	0.05	0.14	0.06	0.11	0.03	0.12	0.02	0.08	0.01	0.09
2/07/2016	1.36	0.02	0.11	0.09	0.17	0.04	0.15	0.04	0.15	0.08	0.17	0.04	0.06	0.02	0.09	0.00	0.01
3/07/2016	1.41	0.02	0.09	0.08	0.14	0.05	0.08	0.04	0.11	0.07	0.11	0.04	0.10	0.01	0.07	0.01	0.07
4/07/2016	1.40	0.02	0.04	0.06	0.18	0.06	0.16	0.03	0.06	0.05	0.14	0.03	0.14	0.03	0.04	0.00	0.07
5/07/2016	1.47	0.02	0.12	0.09	0.12	0.02	0.07	0.05	0.17	0.09	0.13	0.04	0.07	0.02	0.08	0.01	0.05
6/07/2016	1.53	0.06	0.27	0.13	0.22	OL	OL	0.10	0.23	0.10	0.21	0.06	0.10	0.03	0.11	0.01	0.05
7/07/2016	1.53	0.02	0.08	0.08	0.15	OL	OL	0.04	0.11	0.08	0.13	0.05	0.10	0.03	0.06	0.01	0.05
8/07/2016	1.40	0.02	0.06	0.05	0.12	0.02	0.20	0.04	0.08	0.06	0.10	0.03	0.22	0.03	0.08	0.01	0.06
9/07/2016	1.58	0.02	0.11	0.08	0.16	0.07	0.14	0.04	0.13	0.06	0.13	0.05	0.09	0.02	0.08	0.01	0.06
10/07/2016	1.43	0.03	0.05	0.07	0.19	0.09	0.19	0.04	0.16	0.06	0.27	0.05	0.13	0.04	0.06	0.02	0.08
11/07/2016	1.50	0.02	0.09	0.05	0.16	0.06	0.16	0.04	0.05	0.05	0.09	0.03	0.14	0.03	0.07	0.01	0.07
12/07/2016	1.51	0.02	0.10	0.07	0.10	0.05	0.18	0.04	0.13	0.08	0.13	0.04	0.08	0.02	0.07	0.01	0.07
13/07/2016	2.44	0.02	0.10	0.06	0.18	0.08	0.14	0.03	0.13	0.05	0.15	0.05	0.08	0.01	0.04	0.01	0.02
14/07/2016	1.58	0.02	0.09	0.06	0.17	0.05	0.18	0.03	0.05	0.04	0.13	0.03	0.13	0.02	0.07	0.01	0.07
15/07/2016	1.60	0.04	0.34	0.09	0.37	0.05	0.16	0.05	0.26	0.07	0.10	0.03	0.06	0.01	0.07	0.00	0.08
16/07/2016	2.82	0.02	0.10	0.07	0.17	0.07	0.09	0.03	0.13	0.05	0.12	0.05	0.14	0.01	0.07	0.00	0.01
17/07/2016	3.25	0.02	0.07	0.06	0.17	0.07	0.17	0.03	0.14	0.05	0.13	0.04	0.12	0.02	0.04	0.01	0.07
18/07/2016	2.68	0.04	0.11	0.06	0.11	0.06	0.18	0.06	0.09	0.06	0.10	0.04	0.14	0.02	0.08	0.01	0.08
19/07/2016	1.92	0.02	0.12	0.09	0.18	0.06	0.09	0.04	0.16	0.06	0.12	0.05	0.06	0.02	0.10	0.01	0.08
20/07/2016	1.76	0.02	0.10	0.06	0.16	0.08	0.17	0.04	0.14	0.05	0.12	0.04	0.12	0.02	0.04	0.01	0.02
21/07/2016	1.74	0.03	0.06	0.06	0.16	0.06	0.17	0.05	0.07	0.04	0.12	0.04	0.13	0.02	0.10	0.01	0.08
22/07/2016	1.94	0.02	0.09	0.07	0.16	0.05	0.16	0.04	0.13	0.06	0.11	0.04	0.06	0.02	0.11	0.01	0.10
23/07/2016	2.53	0.02	0.11	0.06	0.15	0.07	0.09	0.04	0.13	0.04	0.11	0.05	0.12	0.02	0.11	0.00	0.01
24/07/2016	1.86	0.02	0.04	0.05	0.15	0.07	0.19	0.04	0.13	0.04	0.11	0.04	0.16	0.03	0.05	0.01	0.11
25/07/2016	1.88	0.03	0.12	0.05	0.15	0.06	0.18	0.05	0.11	0.05	0.08	0.04	0.16	0.03	0.10	0.01	0.12
26/07/2016	2.10	0.03	0.12	0.07	0.09	0.05	0.20	0.04	0.14	0.05	0.10	0.04	0.06	0.02	0.10	0.01	0.10
27/07/2016	1.99	0.04	0.12	0.08	0.16	0.10	0.13	0.06	0.13	0.05	0.10	0.05	0.12	0.02	0.08	0.01	0.02
28/07/2016	1.93	0.05	0.06	0.08	0.16	0.09	0.18	0.07	0.08	0.05	0.11	0.06	0.13	0.04	0.05	0.02	0.05
29/07/2016	2.03	0.05	0.14	0.09	0.11	0.09	0.20	0.07	0.15	0.07	0.11	0.07	0.08	0.03	0.09	0.02	0.06
30/07/2016	2.07	0.04	0.14	0.09	0.16	0.12	0.15	0.07	0.16	0.06	0.13	0.07	0.13	0.04	0.04	0.02	0.03
31/07/2016	2.30	0.07	0.10	0.08	0.17	0.10	0.19	0.08	0.10	0.06	0.09	0.06	0.13	0.03	0.10	0.02	0.05

Total Number of Measurements Taken, A:	14981	12782	12980	12653	15488	15110	13659	14674
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:	14962	12757	12980	12653	15488	15110	13659	14674
Compliance with Turbidity Standard, C = B/A X 100%:	99.87%	99.80%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

OL: Offline

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2016\07-July

Submitted By (Print): D.Merredew

Signature: Original signed by D.Merredew



**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-Jul-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
02-Jul-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
03-Jul-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
04-Jul-2016	1.38	1.38	0.12	<0.02	0.10	0.08	0.13	0.07	0.11	<0.02	0.07	0.07	0.11	0.05	0.10	0.02	0.08	<0.02	
05-Jul-2016	1.33	1.42	0.17	0.05	0.11	0.09	O/L	O/L	0.14	0.05	0.08	0.07	0.07	0.03	0.09	0.03	0.07	<0.02	
06-Jul-2016	1.31	1.39	0.10	<0.02	0.12	0.10	O/L	O/L	0.18	0.08	0.13	0.11	0.08	0.04	0.08	0.02	0.07	<0.02	
07-Jul-2016	1.27	1.53	0.12	<0.02	0.16	0.11	O/L	O/L	0.11	0.03	0.08	0.08	0.10	0.05	0.07	0.03	0.08	0.02	
08-Jul-2016	1.38	1.45	0.13	0.02	0.12	0.09	0.13	0.11	0.13	0.04	0.08	0.08	0.09	0.05	0.11	0.04	O/L	O/L	
09-Jul-2016	NS	NS	NS	NS	NS	NS	0.11	0.09	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
10-Jul-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
11-Jul-2016	1.27	1.30	0.11	<0.02	0.09	0.08	0.16	0.10	0.10	0.03	0.13	0.07	0.22	0.10	0.09	0.03	0.11	0.04	
12-Jul-2016	1.37	1.26	0.15	0.05	0.10	0.08	0.09	0.07	0.12	0.04	0.10	0.07	0.07	0.04	0.09	0.03	0.06	<0.02	
13-Jul-2016	1.23	1.39	0.10	<0.02	0.13	0.10	0.11	0.08	O/L	O/L	0.14	0.09	0.07	0.04	0.06	<0.02	0.07	<0.02	
14-Jul-2016	1.58	1.54	0.11	<0.02	0.10	0.08	0.13	0.09	0.09	0.03	0.06	0.06	0.09	0.05	0.07	<0.02	0.09	<0.02	
15-Jul-2016	1.37	1.69	0.13	0.03	0.13	0.08	0.09	0.07	0.08	<0.02	0.06	0.06	0.08	0.04	0.09	0.04	O/L	O/L	
16-Jul-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
17-Jul-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
18-Jul-2016	1.45	NR	0.14	0.03	0.13	0.10	0.20	0.14	0.13	0.05	0.11	0.06	0.09	0.04	0.09	0.03	0.11	0.02	
19-Jul-2016	1.77	NR	0.20	0.10	0.13	0.10	0.13	0.07	0.15	0.06	0.13	0.09	0.08	0.04	0.08	0.02	0.07	<0.02	
20-Jul-2016	1.52	1.48	0.13	0.02	0.17	0.11	0.14	0.09	0.11	0.04	O/L	O/L	0.08	0.06	0.07	0.02	0.08	0.02	
21-Jul-2016	1.69	1.61	0.12	0.02	0.11	0.08	0.15	0.09	0.14	0.05	0.07	0.05	O/L	O/L	0.07	0.03	0.08	0.03	
22-Jul-2016	1.63	NR	0.14	0.04	0.10	0.06	0.10	0.06	0.10	0.03	0.14	0.05	0.17	0.04	0.13	0.03	0.14	<0.02	
23-Jul-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
24-Jul-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
25-Jul-2016	1.66	1.69	0.11	0.02	0.10	0.07	0.16	0.11	0.12	0.03	0.10	0.06	0.10	0.06	0.11	0.05	0.13	0.04	
26-Jul-2016	1.51	1.82	0.16	0.04	0.11	0.08	0.11	0.08	0.14	0.06	0.08	0.05	0.08	0.04	0.08	0.03	0.07	<0.02	
27-Jul-2016	1.71	1.86	0.11	0.03	0.14	0.09	0.12	0.10	0.09	0.03	0.11	0.07	0.07	0.05	0.06	<0.02	0.07	0.02	
28-Jul-2016	1.73	1.96	0.13	0.04	0.12	0.09	0.22	0.18	0.15	0.06	0.11	0.07	0.09	0.05	0.08	0.03	0.08	0.03	
29-Jul-2016	1.54	2.02	0.18	0.08	0.13	0.10	0.13	0.10	0.14	0.07	0.14	0.06	0.08	0.06	0.12	0.04	0.07	0.03	
30-Jul-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
31-Jul-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
<b>Total number of measurements taken, A:</b>			20		20		18		19		19		19		20		18		
<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>			20		20		18		19		19		19		20		18		
<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 no result for the raw analyser on July 18th, 19th and 22nd due to instrument error.

Report Compiled By: H.Demchenko

Approved in LIMS By: C.Diduck

Date Approved: 29-Jul-16



**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 August 2016

Report Period: July 2016

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/07/2016	0.93	0.86	0.92	0.88
02/07/2016	0.94	0.88	0.93	0.84
03/07/2016	0.98	0.93	1.01	0.94
04/07/2016	1.09	1.01	1.08	0.98
05/07/2016	1.11	1.01	1.06	0.99
06/07/2016	1.11	0.82	1.06	0.85
07/07/2016	1.20	1.11	1.14	1.06
08/07/2016	1.04	0.58	1.00	0.59
09/07/2016	1.21	0.95	1.15	0.96
10/07/2016	1.23	1.12	1.21	1.07
11/07/2016	1.29	1.15	1.18	1.04
12/07/2016	1.17	0.90	1.06	0.82
13/07/2016	1.39	1.02	1.19	0.91
14/07/2016	1.17	1.06	1.10	1.00
15/07/2016	1.09	0.86	1.09	0.79
16/07/2016	1.12	1.01	1.10	0.92
17/07/2016	1.17	1.02	1.15	1.01
18/07/2016	1.18	1.06	1.17	1.05
19/07/2016	1.22	1.02	1.25	1.04
20/07/2016	1.12	1.01	1.15	1.05
21/07/2016	1.08	0.93	1.12	1.04
22/07/2016	1.07	1.01	1.12	1.05
23/07/2016	1.13	1.02	1.16	1.05
24/07/2016	1.18	1.08	1.22	1.11
25/07/2016	1.14	0.91	1.08	0.89
26/07/2016	1.11	0.97	0.91	0.82
27/07/2016	1.17	1.04	1.05	0.92
28/07/2016	1.23	1.10	1.19	1.10
29/07/2016	1.27	1.15	1.18	1.06
30/07/2016	1.25	1.18	1.18	1.05
31/07/2016	1.29	1.19	1.22	1.12

Total Number of Measurements, A:	21599	21596
Minimum Free Chlorine Standard:	0.50	0.50
Number of Measurements Meeting Standard, B:	21599	21596

COMPLIANCE, C = B/A X 100%:	100	100
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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	Grab
01-Jul-2016	NS	NS	NS	NS	NS	NS
02-Jul-2016	NS	NS	NS	NS	NS	NS
03-Jul-2016	NS	NS	NS	NS	NS	NS
04-Jul-2016	1.08	1.09	1.26	1.08	1.08	1.22
05-Jul-2016	1.09	1.10	1.22	1.07	1.04	1.19
06-Jul-2016	1.05	1.11	1.29	0.96	0.98	1.19
07-Jul-2016	1.27	1.30	1.50	1.25	1.26	1.39
08-Jul-2016	1.21	1.23	1.42	1.11	1.18	1.32
09-Jul-2016	NS	NS	NS	NS	NS	NS
10-Jul-2016	NS	NS	NS	NS	NS	NS
11-Jul-2016	1.46	1.39	1.59	1.39	1.32	1.54
12-Jul-2016	1.18	1.20	1.38	1.04	1.09	1.22
13-Jul-2016	1.61	1.41	1.59	1.26	1.16	1.32
14-Jul-2016	1.22	1.21	1.43	1.08	1.10	1.28
15-Jul-2016	1.20	1.25	1.40	1.23	1.16	1.32
16-Jul-2016	NS	NS	NS	NS	NS	NS
17-Jul-2016	NS	NS	NS	NS	NS	NS
18-Jul-2016	1.15	1.16	1.33	1.12	1.10	1.30
19-Jul-2016	1.47	1.54	1.68	1.51	1.58	1.72
20-Jul-2016	1.15	1.28	1.50	1.18	1.32	1.55
21-Jul-2016	1.07	1.29	1.43	1.11	1.23	1.40
22-Jul-2016	1.11	1.31	1.52	1.14	1.33	1.52
23-Jul-2016	NS	NS	NS	NS	NS	NS
24-Jul-2016	NS	NS	NS	NS	NS	NS
25-Jul-2016	1.15	1.25	1.43	1.14	1.20	1.33
26-Jul-2016	1.02	1.03	1.25	0.84	0.95	1.15
27-Jul-2016	1.14	1.22	1.40	0.92	1.07	1.23
28-Jul-2016	1.22	1.30	1.42	1.21	1.21	1.42
29-Jul-2016	1.28	1.28	1.45	1.22	1.28	1.49
30-Jul-2016	NS	NS	NS	NS	NS	NS
31-Jul-2016	NS	NS	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: C.Diduck

Date Approved: 29-Jul-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: **July 2016**

Report Created: **Wednesday, August 03, 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	
01/07/2016	94.30	0.00	0.00	0.00	0.00	0.00	0.00	84.91	84.91	0.00	0.00	48.10	48.10	0.00	0.00	74.03	74.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	207.04	207.04	100.00
02/07/2016	94.28	0.00	0.00	0.00	0.00	0.00	0.00	85.01	85.01	0.00	0.00	48.19	48.19	0.00	0.00	74.17	74.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	207.37	207.37	100.00
03/07/2016	94.31	0.00	0.00	0.00	0.00	0.00	0.00	85.01	85.01	0.00	0.00	46.22	46.22	0.00	0.00	71.04	71.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	202.28	202.28	100.00
04/07/2016	94.36	0.00	0.00	0.00	0.00	0.00	0.00	81.95	81.95	0.00	0.00	43.02	43.02	0.00	0.00	67.13	67.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	192.10	192.10	100.00
05/07/2016	94.21	0.00	0.00	43.81	43.81	0.00	0.05	36.34	36.39	0.00	0.00	11.36	11.36	0.00	0.00	60.55	60.55	0.00	0.00	0.00	0.01	0.00	0.00	41.04	41.04	0.00	0.06	193.11	193.16	99.97
06/07/2016	93.75	0.04	0.04	80.25	80.34	0.00	0.00	0.00	0.00	0.00	0.00	23.36	23.36	0.00	0.00	40.60	40.60	0.00	0.00	0.00	0.00	0.00	0.00	50.11	50.11	0.04	0.04	194.33	194.42	99.95
07/07/2016	94.34	0.00	0.00	82.78	82.78	0.00	0.00	0.00	0.00	0.00	0.00	65.84	65.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.98	49.98	0.00	0.00	198.60	198.60	100.00
08/07/2016	94.04	0.03	0.03	66.50	66.55	0.00	0.00	0.00	0.00	0.00	0.04	54.06	54.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.37	39.37	0.03	0.06	159.94	160.02	99.94
09/07/2016	93.50	0.00	0.00	77.32	77.32	0.00	0.00	0.00	0.00	0.00	0.00	72.49	72.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47.14	47.14	0.00	0.00	196.95	196.95	100.00
10/07/2016	93.74	0.00	0.00	85.00	85.00	0.00	0.00	0.00	0.00	0.00	0.00	79.00	79.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.99	54.99	0.00	0.00	219.00	219.00	100.00
11/07/2016	94.16	0.00	0.00	84.98	84.98	0.00	0.00	0.00	0.00	0.00	0.00	75.81	75.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.98	54.98	0.00	0.00	215.77	215.77	100.00
12/07/2016	94.25	0.00	0.00	79.79	79.79	0.00	0.00	0.00	0.00	0.00	0.00	21.58	21.58	0.00	0.03	42.70	42.73	0.00	0.00	0.00	0.00	0.00	0.00	52.54	52.54	0.00	0.03	196.61	196.64	99.98
13/07/2016	94.10	0.00	0.00	82.10	82.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.28	65.28	0.00	0.00	0.00	0.00	0.00	0.00	54.98	54.98	0.00	0.00	202.35	202.35	100.00
14/07/2016	94.38	0.00	0.00	79.52	79.52	0.00	0.00	0.00	0.00	0.00	0.00	37.25	37.25	0.00	0.00	20.81	20.81	0.00	0.00	34.08	34.08	0.00	0.00	31.26	31.26	0.00	0.00	202.92	202.92	100.00
15/07/2016	94.07	0.06	0.06	73.68	73.79	0.00	0.00	0.00	0.00	0.11	0.11	41.95	42.17	0.04	0.04	11.39	11.48	0.00	0.00	68.12	68.12	0.00	0.00	0.00	0.00	0.21	0.21	195.15	195.56	99.79
16/07/2016	94.46	0.00	0.00	76.03	76.03	0.00	0.00	0.00	0.00	0.00	0.00	48.88	48.88	0.00	0.00	0.00	0.00	0.00	0.00	79.14	79.14	0.00	0.00	0.00	0.00	0.00	0.00	204.06	204.06	100.00
17/07/2016	94.40	0.00	0.00	72.01	72.01	0.00	0.00	0.00	0.00	0.00	0.00	46.26	46.26	0.00	0.00	0.00	0.00	0.00	0.00	75.15	75.15	0.00	0.00	0.00	0.00	0.00	0.00	193.41	193.41	100.00
18/07/2016	94.17	0.00	0.00	71.92	71.92	0.00	0.00	0.00	0.00	0.00	0.00	45.98	45.98	0.00	0.00	0.00	0.00	0.00	0.00	75.08	75.08	0.00	0.00	0.00	0.00	0.00	0.00	192.98	192.98	100.00
19/07/2016	94.25	0.00	0.00	73.91	73.91	0.00	0.00	0.83	0.83	0.00	0.00	47.42	47.42	0.00	0.00	0.00	0.00	0.00	0.00	77.20	77.20	0.00	0.00	0.00	0.00	0.00	0.00	199.36	199.36	100.00
20/07/2016	94.20	0.00	0.00	74.95	74.95	0.00	0.12	0.01	0.13	0.00	0.00	52.32	52.32	0.00	0.00	0.00	0.00	0.00	0.00	78.05	78.05	0.00	0.00	0.00	0.00	0.00	0.12	205.32	205.44	99.94
21/07/2016	94.16	0.00	0.00	69.22	69.22	0.00	0.05	0.33	0.38	0.00	0.00	59.59	59.59	0.00	0.00	0.00	0.00	0.00	0.00	74.85	74.85	0.00	0.00	0.00	0.00	0.00	0.05	203.99	204.04	99.98
22/07/2016	94.15	0.00	0.00	70.51	70.51	0.00	0.00	0.00	0.00	0.00	0.00	60.45	60.45	0.00	0.00	0.00	0.00	0.00	0.00	76.29	76.29	0.00	0.00	0.00	0.00	0.00	0.00	207.25	207.25	100.00
23/07/2016	94.02	0.00	0.00	72.85	72.85	0.00	0.00	0.00	0.00	0.00	0.00	61.80	61.80	0.00	0.00	0.00	0.00	0.00	0.00	78.75	78.75	0.00	0.00	0.00	0.00	0.00	0.00	213.41	213.41	100.00
24/07/2016	93.90	0.00	0.00	74.16	74.16	0.00	0.00	0.00	0.00	0.00	0.00	61.82	61.82	0.00	0.00	0.00	0.00	0.00	0.00	80.03	80.03	0.00	0.00	0.00	0.00	0.00	0.00	216.02	216.02	100.00
25/07/2016	94.00	0.02	0.02	75.94	75.98	0.00	0.00	0.00	0.00	0.02	0.02	31.99	32.04	0.00	0.04	53.74	53.77	0.16	0.53	6.63	7.32	0.04	0.04	39.60	39.68	0.25	0.65	207.90	208.80	99.57
26/07/2016	94.07	0.00	0.00	79.20	79.20	0.00	0.00	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	49.69	49.69	0.00	0.00	0.00	0.00	0.00	0.00	80.50	80.50	0.00	0.00	209.56	209.56	100.00
27/07/2016	93.79	0.00	0.00	79.66	79.66	0.03	0.03	0.22	0.28	0.00	0.00	0.00	0.00	0.00	0.00	50.31	50.31	0.00	0.00	27.44	27.44	0.00	0.06	53.30	53.36	0.03	0.09	210.93	211.05	99.94
28/07/2016	93.60	0.00	0.00	80.31	80.31	0.05	0.05	0.24	0.33	0.00	0.00	0.00	0.00	0.00	0.00	50.97	50.97	0.00	0.00	80.40	80.40	0.00	0.00	0.00	0.00	0.05	0.05	211.93	212.02	99.96
29/07/2016	93.49	0.00	0.00	76.76	76.76	0.00	0.00	0.32	0.32	0.00	0.00	18.54	18.54	0.00	0.00	30.28	30.28	0.00	0.00	78.26	78.26	0.00	0.00	0.00	0.00	0.00	0.00	204.16	204.16	100.00
30/07/2016	93.48	0.00	0.00	75.22	75.22	0.00	0.00	0.00	0.00	0.00	0.00	48.32	48.32	0.00	0.00	0.00	0.00	0.00	0.00	78.44	78.44	0.00	0.00	0.00	0.00	0.00	0.00	201.98	201.98	100.00
31/07/2016	93.38	0.00	0.00	75.37	75.37	0.00	0.00	0.00	0.00	0.00	0.00	48.24	48.24	0.00	0.00	0.00	0.00	0.00	0.00	78.41	78.41	0.00	0.00	0.00	0.00	0.00	0.00	202.01	202.01	100.00

0.15 0.15 2033.78 2034.08 0.08 0.31 375.33 375.72 0.13 0.17 1299.86 1300.16 0.04 0.11 762.70 762.86 0.16 0.53 1146.31 1147.01 0.04 0.10 649.78 649.92 0.61 1.36 6267.76 6269.74

Water Volume [%]:  
 Untreated: 0.01 %  
 Below Dose: 0.02 %  
 To Dose: 99.97 %

Submitted By (Print): D.Merredew

Signature: Original signed by D.Merredew