



Water and Waste Department • Service des eaux et des déchets

March 6, 2015

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: FEBRUARY 2015 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 February 2015. There are no corrective action reports to be submitted for February 2015.

The February 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. We continue to have filter 8 out of service for maintenance issues and will likely remain out of service until we have determined the cause for the issues experienced during backwashing. There is currently no impact on any of the treatment process at this time.

The February 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 February 2015 in accordance with Section 4.13, Table 2 of the Operating Licence. The UV licence requirement has been met for February.

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.

Thanks for your ongoing cooperation and understanding in this matter.

Yours sincerely,

Original signed by M. Marsland for:

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

D.P. Sacher, P.Eng.

G. Patton, P.Eng.

T. Shanks, P.Eng.

A. J. Weremy, 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 AA**

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

February 2015 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
1/02/2015	0.62	0.08	0.18	OL	OL	0.14	0.25	0.08	0.17	0.06	0.13	0.06	0.13	0.06	0.11	OL	OL
2/02/2015	0.62	0.09	0.19	OL	OL	0.15	0.26	0.08	0.18	0.06	0.13	0.07	0.14	0.07	0.14	OL	OL
3/02/2015	0.62	0.09	0.18	0.02	0.17	0.15	0.26	0.06	0.18	0.07	0.15	0.06	0.15	0.07	0.16	OL	OL
4/02/2015	0.63	0.08	0.17	0.06	0.15	0.11	0.25	0.08	0.17	0.05	0.11	0.07	0.16	0.16	0.08	OL	OL
5/02/2015	0.63	0.09	0.18	0.07	0.15	0.13	0.22	0.08	0.18	0.07	0.14	0.07	0.16	OL	OL	OL	OL
6/02/2015	0.63	0.09	0.19	0.07	0.15	0.13	0.24	0.08	0.16	0.07	0.14	0.07	0.15	OL	OL	OL	OL
7/02/2015	0.63	0.09	0.19	0.07	0.15	0.12	0.53	0.07	0.17	0.07	0.15	0.07	0.16	OL	OL	OL	OL
8/02/2015	0.62	0.08	0.17	0.06	0.13	0.12	0.21	0.07	0.16	0.06	0.13	0.06	0.14	OL	OL	OL	OL
9/02/2015	0.62	0.08	0.17	0.06	0.12	0.11	0.21	0.07	0.15	0.06	0.13	0.06	0.14	OL	OL	OL	OL
10/02/2015	0.63	0.06	0.17	0.03	0.10	0.08	0.21	0.04	0.10	0.04	0.14	0.03	0.14	OL	OL	OL	OL
11/02/2015	0.63	0.09	0.19	0.07	0.13	0.08	0.47	0.08	0.15	0.06	0.12	0.06	0.11	0.02	0.15	OL	OL
12/02/2015	0.61	0.09	0.20	0.07	0.15	0.13	0.26	0.07	0.20	0.06	0.16	0.08	0.16	0.07	0.19	OL	OL
13/02/2015	0.60	0.09	0.26	0.07	0.27	0.15	0.75	0.08	0.22	0.07	0.20	0.07	0.18	0.11	0.19	OL	OL
14/02/2015	0.62	0.10	0.16	0.06	0.18	0.13	0.27	0.08	0.19	0.08	0.17	0.06	0.19	0.10	0.21	OL	OL
15/02/2015	0.63	0.12	0.21	0.07	0.19	0.13	0.74	0.08	0.15	0.07	0.14	0.06	0.17	0.08	0.18	OL	OL
16/02/2015	0.63	0.08	0.18	0.06	0.14	0.06	0.25	0.07	0.19	0.05	0.13	0.06	0.13	0.06	0.15	OL	OL
17/02/2015	0.63	0.10	0.18	0.06	0.12	OL	OL	0.08	0.17	0.05	0.12	0.06	0.12	0.07	0.15	OL	OL
18/02/2015	0.63	0.09	0.16	0.05	0.11	OL	OL	0.07	0.17	0.05	0.11	0.05	0.13	0.08	0.14	OL	OL
19/02/2015	0.62	0.08	0.18	0.05	0.12	OL	OL	0.07	0.15	0.05	0.11	0.05	0.10	0.08	0.15	OL	OL
20/02/2015	0.62	0.06	0.17	0.10	0.24	0.10	0.26	0.10	0.51	0.05	0.12	0.05	0.12	0.07	0.15	OL	OL
21/02/2015	0.62	0.08	0.21	0.07	0.22	0.14	0.27	0.07	0.22	0.05	0.11	0.06	0.13	0.08	0.14	OL	OL
22/02/2015	0.62	0.07	0.20	0.05	0.11	0.11	0.33	0.08	0.36	0.03	0.05	0.05	0.13	0.08	0.09	OL	OL
23/02/2015	0.61	0.09	0.28	0.07	0.22	0.12	0.31	0.10	0.45	0.05	0.11	0.05	0.14	0.07	0.15	OL	OL
24/02/2015	0.61	0.07	0.15	0.05	0.13	0.12	0.20	0.06	0.11	0.05	0.11	0.06	0.13	0.08	0.15	OL	OL
25/02/2015	0.62	0.07	0.15	0.06	0.14	0.11	0.20	0.07	0.18	0.03	0.11	0.06	0.12	0.08	0.16	OL	OL
26/02/2015	0.64	0.05	0.14	0.07	0.13	0.09	0.16	0.06	0.14	0.03	0.07	0.04	0.09	0.08	0.12	OL	OL
27/02/2015	0.65	0.05	0.10	0.06	0.10	0.08	0.13	0.05	0.11	0.03	0.07	0.04	0.09	0.07	0.11	OL	OL
28/02/2015	0.65	0.05	0.10	0.05	0.10	0.09	0.15	0.05	0.10	0.03	0.07	0.04	0.06	0.06	0.11	OL	OL

Total Number of Measurements Taken, A:	13741	12453	10683	11226	13761	14174	9351	OL
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:	13741	12453	10662	11218	13761	14174	9351	OL
Compliance with Turbidity Standard, C = B/A X 100%:	100.00%	100.00%	99.80%	99.93%	100.00%	100.00%	100.00%	OL

OL: Offline

Note: Filter 8 is offline for maintenance

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2015\02-February

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 AA									
Date	Raw Water	Filter 1	Filter 2	Filter 3	Filter 4	Filter 5	Filter 6	Filter 7	Filter 8
01-Feb-2014	NS	NS	OL	NS	NS	NS	NS	NS	OL
02-Feb-2014	1.02	0.18	OL	0.22	0.19	0.12	0.13	0.23	OL
03-Feb-2014	0.65	0.14	OL	0.21	0.21	0.14	0.11	0.14	OL
04-Feb-2014	0.61	0.20	0.21	0.24	0.19	0.26	0.21	OL	OL
05-Feb-2014	0.66	0.15	0.12	0.23	0.13	0.16	0.11	OL	OL
06-Feb-2014	0.59	0.14	0.12	0.24	0.16	0.13	0.21	OL	OL
07-Feb-2014	NS	NS	NS	NS	NS	NS	NS	OL	OL
08-Feb-2014	NS	NS	NS	NS	NS	NS	NS	OL	OL
09-Feb-2014	0.71	0.17	0.15	0.19	0.14	0.11	0.28	OL	OL
10-Feb-2014	0.64	0.10	0.09	OL	0.10	0.11	0.13	OL	OL
11-Feb-2014	0.61	0.24	0.14	0.16	0.16	0.10	0.13	OL	OL
12-Feb-2014	0.63	0.18	0.28	0.17	OL	0.29	0.28	0.21	OL
13-Feb-2014	0.55	0.19	OL	0.27	0.19	0.15	0.25	0.26	OL
14-Feb-2014	NS	NS	NS	NS	NS	NS	NS	NS	OL
15-Feb-2014	NS	NS	NS	NS	NS	NS	NS	NS	OL
16-Feb-2014	0.66	0.18	0.12	0.20	0.12	0.14	0.09	0.15	OL
17-Feb-2014	0.69	0.21	0.13	OL	0.16	0.14	0.11	0.09	OL
18-Feb-2014	0.67	0.13	0.16	OL	0.12	0.16	0.10	0.12	OL
19-Feb-2014	0.64	0.18	0.11	OL	0.12	0.14	0.12	0.13	OL
20-Feb-2014	0.56	0.26	0.11	0.18	0.14	0.11	0.15	0.08	OL
21-Feb-2014	NS	NS	NS	0.16	NS	NS	NS	NS	OL
22-Feb-2014	NS	NS	NS	NS	NS	NS	NS	NS	OL
23-Feb-2014	0.63	0.26	0.19	0.25	0.30	0.18	0.15	0.19	OL
24-Feb-2014	0.58	0.11	0.10	0.15	0.16	0.17	0.09	0.15	OL
25-Feb-2014	0.55	0.13	0.11	0.16	0.13	0.12	0.11	0.08	OL
26-Feb-2014	0.58	0.14	0.15	0.12	0.17	0.10	0.12	0.14	OL
27-Feb-2014	0.58	0.12	0.14	0.12	0.19	0.06	0.12	0.08	OL
28-Feb-2014	NS	NS	NS	NS	NS	NS	NS	NS	OL
Total number of measurements taken, A:		20	17	17	19	20	20	14	0
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:		20	17	17	19	20	20	14	0
Compliance with Turbidity Standard, C= B/A X 100%:		100%	100%	100%	100%	100%	100%	100%	NA

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

Comments:

Filters 2,3,4, and 7 were offline for inspection. Effective, December 22, 2014, filter 8 has been put offline for maintenance issues.

Report Compiled By: H.Demchenko

Approved in LIMS By: C.Diduck

Date Approved: 5-Mar-15



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

Water System Code: 252.00
Licence Number: PWS-09-412 AA
Report Created: 01 March 2015

Report Period: February 2015

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
1/02/2015	1.08	1.01	1.09	1.03
2/02/2015	1.01	0.95	1.07	1.03
3/02/2015	1.01	0.93	1.04	0.99
4/02/2015	1.03	0.99	1.01	0.97
5/02/2015	1.01	0.97	0.98	0.96
6/02/2015	1.02	0.99	0.99	0.96
7/02/2015	0.99	0.94	0.99	0.95
8/02/2015	0.96	0.92	0.97	0.94
9/02/2015	0.99	0.91	1.09	0.96
10/02/2015	1.07	0.93	1.24	1.12
11/02/2015	1.04	0.95	1.15	1.03
12/02/2015	1.01	0.91	1.15	1.05
13/02/2015	0.98	0.86	1.11	0.98
14/02/2015	1.00	0.87	1.05	1.00
15/02/2015	0.99	0.92	1.02	0.94
16/02/2015	1.06	0.96	1.06	1.00
17/02/2015	1.08	0.98	1.03	0.90
18/02/2015	1.05	0.97	1.04	0.93
19/02/2015	1.05	0.96	0.97	0.90
20/02/2015	1.05	0.92	0.94	0.90
21/02/2015	1.02	0.96	0.97	0.88
22/02/2015	1.03	0.94	0.98	0.92
23/02/2015	1.06	0.99	0.99	0.92
24/02/2015	1.04	0.97	0.96	0.90
25/02/2015	1.03	0.93	1.00	0.93
26/02/2015	1.02	0.93	1.00	0.94
27/02/2015	1.00	0.94	0.96	0.91
28/02/2015	1.04	0.95	0.99	0.92

Total Number of Measurements, A:	19386	19251
Minimum Free Chlorine Standard:	0.50	0.50
Number of Measurements Meeting Standard, B:	19386	19251
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 AA	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				
01-Feb-2015	NS	NS	NS	NS
02-Feb-2015	1.15	1.26	1.06	1.30
03-Feb-2015	1.16	1.29	1.23	1.36
04-Feb-2015	1.08	1.17	1.17	1.26
05-Feb-2015	1.08	1.19	1.12	1.24
06-Feb-2015	1.08	1.19	1.10	1.24
07-Feb-2015	NS	NS	NS	NS
08-Feb-2015	NS	NS	NS	NS
09-Feb-2015	1.03	1.17	1.08	1.23
10-Feb-2015	1.30	1.42	1.45	1.60
11-Feb-2015	1.06	1.22	1.16	1.30
12-Feb-2015	1.11	1.27	1.10	1.32
13-Feb-2015	1.01	1.21	1.11	1.30
14-Feb-2015	NS	NS	NS	NS
15-Feb-2015	NS	NS	NS	NS
16-Feb-2015	1.15	1.30	1.20	1.35
17-Feb-2015	1.12	1.29	1.06	1.23
18-Feb-2015	1.02	1.22	1.13	1.34
19-Feb-2015	1.04	1.22	1.06	1.17
20-Feb-2015	1.10	1.29	1.01	1.18
21-Feb-2015	NS	NS	NS	NS
22-Feb-2015	NS	NS	NS	NS
23-Feb-2015	1.07	1.28	0.93	1.15
24-Feb-2015	1.06	1.19	1.02	1.18
25-Feb-2015	1.10	1.24	1.03	1.19
26-Feb-2015	1.05	1.23	1.12	1.32
27-Feb-2015	1.07	1.21	1.03	1.21
28-Feb-2015	NS	NS	NS	NS
Total number of measurements taken, A:	20		20	
Chlorine Standard for Monitoring Location (mg/L):	0.50		0.50	
Number of measurements meeting standard, B:	20		20	
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-Mar-15



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

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

WATER TREATMENT PLANT UV REPORT

Report Created: Sunday, March 01, 2015

Report Period: February 2015

Date	Transmittance %	UVR-D100A			UVR-D200A			UVR-D300A			UVR-D400A			UVR-D500A			UVR-D600A			Total			% Volume Treated To Dose			
		Untreated	Below	Total	Untreated	Below	Total	Untreated	Below	Total	Untreated	Below	Total	Untreated	Below	Total	Untreated	Below	Total	Untreated	Below	Total				
1/02/2015	93.87	0.00	0.00	59.99	59.99	0.00	0.00	42.56	42.56	0.00	0.00	68.52	68.52	0.00	0.00	66.51	66.51	0.00	0.00	0.00	0.00	195.02	195.02	100.00		
2/02/2015	93.74	0.00	0.00	53.82	53.82	0.00	0.00	42.56	42.56	0.00	0.00	22.37	22.37	0.00	0.00	21.70	21.70	0.00	0.00	0.00	0.00	0.04	54.53	54.57	99.98	
3/02/2015	93.70	0.00	0.00	51.81	51.81	0.00	0.00	64.40	64.40	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	197.90	197.90	100.00	
4/02/2015	93.83	0.00	0.00	52.27	52.27	0.00	0.00	64.99	64.99	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	198.99	198.99	100.00	
5/02/2015	93.84	0.00	0.00	52.28	52.28	0.00	0.00	65.09	65.09	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	199.85	199.85	100.00	
6/02/2015	93.77	0.00	0.00	53.05	53.05	0.00	0.00	65.91	65.91	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	202.98	202.98	100.00	
7/02/2015	93.83	0.00	0.00	51.11	51.11	0.00	0.00	63.59	63.59	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	195.94	195.94	100.00	
8/02/2015	94.25	0.00	0.00	50.00	50.00	0.00	0.00	62.40	62.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	192.70	192.70	99.83	
9/02/2015	94.27	0.00	0.00	37.18	37.18	0.00	0.00	45.79	45.79	0.00	0.00	0.04	42.88	42.88	0.00	0.00	41.42	41.42	0.00	0.00	0.00	0.00	194.79	194.79	99.89	
10/02/2015	93.26	0.00	0.15	11.97	12.28	0.00	0.00	37.19	37.19	0.00	0.00	21.81	21.81	0.77	0.77	20.79	22.33	0.03	0.03	0.03	0.03	0.16	27.52	27.68	98.33	
11/02/2015	93.82	0.00	0.00	56.38	56.38	0.00	0.00	16.40	16.40	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	192.69	192.69	100.00	
12/02/2015	93.76	0.00	0.00	60.55	60.55	0.00	0.00	0.00	0.00	0.00	0.00	68.49	68.49	0.00	0.00	66.22	66.22	0.00	0.00	0.00	0.00	0.00	195.25	195.25	100.00	
13/02/2015	93.51	0.00	0.42	59.76	60.18	0.00	0.00	0.00	0.00	0.00	0.00	68.04	68.04	0.00	0.00	65.78	65.78	0.00	0.00	0.00	0.00	0.42	193.59	194.01	99.78	
14/02/2015	93.42	0.00	0.38	59.80	60.17	0.00	0.00	0.00	0.00	0.00	0.00	68.06	68.06	0.00	0.00	66.77	66.77	0.00	0.00	0.00	0.00	0.00	193.62	193.99	99.81	
15/02/2015	93.05	0.00	0.00	60.53	60.53	0.00	0.00	0.00	0.00	0.00	0.00	68.72	68.72	0.00	0.00	66.38	66.38	0.00	0.00	0.00	0.00	0.00	195.63	195.63	100.00	
16/02/2015	93.83	0.00	0.00	61.05	61.05	0.00	0.00	50.04	50.04	0.00	0.00	69.14	69.14	0.00	0.00	66.81	66.81	0.00	0.00	0.00	0.00	0.00	197.00	197.00	100.00	
17/02/2015	94.02	0.00	0.00	18.70	18.70	0.00	0.00	0.00	0.00	0.00	0.00	52.97	52.97	0.00	0.04	54.13	54.13	0.00	0.00	0.00	0.00	0.04	196.98	197.07	99.96	
18/02/2015	94.21	0.00	0.00	16.00	16.00	0.00	0.00	66.62	66.62	0.00	0.00	41.23	41.23	0.00	0.00	51.23	51.23	0.00	0.00	0.00	0.00	0.04	196.91	196.95	99.98	
19/02/2015	94.10	0.00	0.00	59.11	59.11	0.00	0.00	37.49	37.49	0.00	0.00	52.79	52.79	0.00	0.00	22.75	23.12	0.19	0.19	0.19	0.19	0.15	24.27	24.42	99.73	
20/02/2015	93.61	0.00	0.00	64.53	64.53	0.00	0.00	0.00	0.00	0.00	0.00	61.02	61.02	0.00	0.00	60.66	60.66	0.00	0.00	0.00	0.00	0.00	197.02	197.02	100.00	
21/02/2015	93.58	0.00	0.00	64.76	64.76	0.00	0.00	0.00	0.00	0.00	0.00	60.66	60.66	0.00	0.00	60.66	60.66	0.00	0.00	0.00	0.00	0.00	197.00	197.00	100.00	
22/02/2015	94.25	0.00	0.00	64.76	64.76	0.00	0.00	0.00	0.00	0.00	0.00	60.63	60.63	0.00	0.00	60.63	60.63	0.00	0.00	0.00	0.00	0.05	196.94	196.99	99.97	
23/02/2015	93.75	0.00	0.00	65.01	65.01	0.00	0.00	0.00	0.00	0.00	0.00	59.98	59.98	0.00	0.25	59.98	60.23	0.00	0.00	0.00	0.00	0.00	197.00	197.00	99.87	
24/02/2015	94.28	0.00	0.00	65.45	65.45	0.00	0.00	0.00	0.00	0.00	0.00	46.69	47.40	0.00	0.71	46.69	47.40	0.00	0.00	0.00	0.00	0.00	196.76	197.01	99.64	
25/02/2015	94.18	0.00	0.00	65.44	65.44	0.00	0.00	0.00	0.00	0.00	0.00	13.37	13.37	0.00	0.00	12.96	12.96	0.00	0.00	0.00	0.00	0.00	196.29	197.00	99.64	
26/02/2015	93.52	0.00	0.00	62.39	62.39	0.00	0.00	3.00	3.00	0.00	0.00	61.01	61.01	0.00	0.00	46.70	46.70	0.00	0.00	0.00	0.00	0.10	194.05	194.15	99.95	
27/02/2015	92.88	0.00	0.00	63.14	63.14	0.00	0.00	0.00	0.00	0.00	0.00	59.92	59.92	0.00	0.00	10.41	10.69	0.14	0.14	0.14	0.14	0.19	192.48	192.96	99.75	
28/02/2015	93.05	0.00	0.00	63.20	63.20	0.00	0.00	0.00	0.00	0.00	0.00	59.79	59.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	193.01	193.01	100.00	
		0.15	0.85	1504.02	1505.12	0.00	0.00	685.47	685.47	0.00	0.96	1157.07	1158.03	0.77	0.85	198.62	200.24	0.36	0.36	0.36	0.36	1.11	1220.21	1221.32	100.00	
		0.02 %	0.08 %																			4.23	5399.18	5404.70		
		99.90 %																								

Water Volume [%]:
Untreated:
Below Dose
To Dose

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