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Sample Analysis Report

April, 2012

Analyst Initials: JEOP
Date: 05-14-12

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
Miscellaneous Wells							
Not Determined							
Bethlehem Cemetery-04-19-12-11:50-1	nd	1.0					
Extraction Wells							
C3							
DOLPH-04-02-12-09:10-1	66	1.0					
TW-10-04-02-12-09:20-1	650	1.0					
TW-20-04-02-12-09:15-1	1021	1.0					
D2							
LB-1-04-02-12-07:53-1	636	1.0					
LB-3-04-02-12-07:54-1	544	1.0					
TW-21-04-02-12-08:57-1	154	1.0					
TW-5-04-02-12-09:05-1	895	1.0					
TW-9-04-02-12-09:25-1	844	1.0					
E							
TW-11-04-02-12-09:07-1	200	1.0					
TW-18-04-02-12-09:12-1	385	1.0					
TW-19-04-02-12-07:55-1	879	1.0					
Marshy							
PW-1-04-02-12-09:16-1	818	1.0					

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
SW							
TW-22-04-02-12-09:51-1	616	1.0					
TW-8-04-02-12-09:50-01	503	1.0					
Monitoring Wells							
C3							
MW-128s-04-09-12-14:35-1	nd	1.0					
MW-18d-04-20-12-13:50-1	162	1.0					
MW-20-04-19-12-14:40-1	nd	1.0					
MW-28-04-09-12-14:45-1	nd	1.0					
MW-32-04-20-12-14:10-1	13	1.0					
MW-34s-04-18-12-11:50-1	nd	1.0					
MW-37-04-20-12-13:25-1	307	1.0					measured several times
MW-39s-04-19-12-13:45-1	13	1.0					
D0							
A2 Cleaning Supply-04-17-12-09:30-1	76	1.0					
MW-53d-04-17-12-10:50-1	2	1.0					
MW-53i-04-17-12-11:35-1	63	1.0					
MW-53s-04-17-12-10:10-1	nd	1.0					
MW-93-04-18-12-09:15-1	3	1.0					
D2							
MW-131s-04-18-12-09:55-1	nd	1.0					
MW-133i-04-10-12-07:45-1	2	1.0					
MW-133s-04-10-12-07:10-1	2	1.0					
MW-17-04-18-12-14:30-1	421	1.0					
MW-34d-04-18-12-11:40-1	nd	1.0					
MW-38d-04-18-12-12:20-1	49	1.0					

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
MW-39d-04-19-12-14:15-1	138	1.0					
MW-56s-04-09-12-13:10-1	91	1.0					
MW-62i-04-09-12-11:50-1	nd	1.0					
MW-62s-04-09-12-12:00-1	nd	1.0					
MW-63i-04-09-12-09:15-1	nd	1.0					
MW-63s-04-09-12-09:25-1	nd	1.0					
E							
MW-100-04-02-12-14:50-1	1221	1.0					
MW-108d-04-19-12-13:10-1	2671	1.0					
MW-108s-04-19-12-12:30-1	1014	1.0					
MW-115-04-11-12-14:05-1	723	1.0					
MW-116-04-11-12-13:25-1	630	1.0					
MW-128d-04-09-12-14:20-1	nd	1.0					
MW-131d-04-18-12-10:45-1	nd	1.0					
MW-133d-04-10-12-08:35-1	3	1.0					
MW-30d-04-19-12-11:30-1	997	1.0					
MW-56d-04-09-12-12:50-1	nd	1.0					
MW-62d-04-09-12-11:05-1	nd	1.0					
MW-63d-04-09-12-10:10-1	nd	1.0					
MW-71-04-20-12-11:45-1	1874	1.0					
MW-72d-04-10-12-11:15-1	3040	1.0					
MW-72s-04-10-12-10:35-1	10	1.0					
MW-79d-04-03-12-13:45-1	24	1.0					
MW-79s-04-03-12-14:20-1	584	1.0					
MW-83s-04-20-12-10:05-1	367	1.0					
MW-84s-04-20-12-10:40-1	900	1.0					
MW-87d-04-03-12-10:50-1	683	1.0					

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
MW-87s-04-03-12-11:00-1	1382	1.0					
MW-88-04-03-12-12:10-1	490	1.0					
MW-91-04-02-12-13:50-1	122	1.0					
MW-96-04-17-12-13:50-1	202	1.0					
SW							
MW-50-04-18-12-13:55-1	1192	1.0					
MW-58d-04-18-12-13:10-1	13	1.0					
MW-58s-04-18-12-13:30-1	177	1.0					
Surface Water							
Not Applicable							
HC/HR-04-02-12-08:15-1			nd	2.0			
HC/HR-04-03-12-08:05-1			nd	2.0			
HC/HR-04-04-12-07:40-1			nd	2.0			
HC/HR-04-05-12-08:20-1			nd	2.0			
HC/HR-04-06-12-07:50-1			nd	2.0			
HC/HR-04-09-12-08:15-1			nd	2.0			
HC/HR-04-10-12-09:10-1			nd	2.0			
HC/HR-04-11-12-09:00-1			nd	2.0			
HC/HR-04-12-12-08:10-1			nd	2.0			
HC/HR-04-13-12-09:00-1			nd	2.0			
HC/HR-04-16-12-07:40-1			nd	2.0			
HC/HR-04-17-12-07:40-1			nd	2.0			
HC/HR-04-18-12-07:55-1			nd	2.0			
HC/HR-04-19-12-07:30-1			nd	2.0			
HC/HR-04-20-12-08:50-1			nd	2.0			
HC/HR-04-23-12-09:40-1			nd	2.0			

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
HC/HR-04-24-12-08:15-1			nd	2.0			
HC/HR-04-25-12-09:55-1			nd	2.0			
HC/HR-04-26-12-08:30-1			nd	2.0			
HC/HR-04-27-12-10:00-1			nd	2.0			
HC/HR-04-30-12-10:00-1			nd	2.0			
Treatment System							
OUTFALL-04-01-12-1	6	1.0					
OUTFALL-04-01-12-2			nd	5.0			
OUTFALL-04-02-12-1	7	1.0					
OUTFALL-04-02-12-2			nd	5.0			
OUTFALL-04-03-12-1	7	1.0					
OUTFALL-04-03-12-02			nd	5.0			
OUTFALL-04-04-12-1	7	1.0					
OUTFALL-04-04-12-2			nd	5.0			
OUTFALL-04-05-12-1	7	1.0					
OUTFALL-04-05-12-2			nd	5.0			
OUTFALL-04-08-12-1	7	1.0					
OUTFALL-04-08-12-2			nd	5.0			
OUTFALL-04-09-12-1	7	1.0					
OUTFALL-04-09-12-2			nd	5.0			
OUTFALL-04-10-12-1	7	1.0					
OUTFALL-04-10-12-2			8	5.0			
OUTFALL-04-11-12-1	8	1.0					
OUTFALL-04-11-12-2			5	5.0			
OUTFALL-04-12-12-1	7	1.0					
OUTFALL-04-12-12-2			5	5.0			
OUTFALL-04-15-12-1	6	1.0					

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
OUTFALL-04-15-12-2			nd	5.0			
OUTFALL-04-16-12-1	7	1.0					
OUTFALL-04-16-12-2			nd	5.0			
OUTFALL-04-17-12-1	6	1.0					
OUTFALL-04-17-12-2			nd	5.0			
OUTFALL-04-18-12-1	6	1.0					
OUTFALL-04-18-12-2			nd	5.0			
OUTFALL-04-19-12-1	6	1.0					
OUTFALL-04-19-12-2			6	5.0			
OUTFALL-04-22-12-1	5	1.0					
OUTFALL-04-22-12-2			nd	5.0			
OUTFALL-04-23-12-1	5	1.0					
OUTFALL-04-23-12-2			6	5.0			
OUTFALL-04-24-12-1	5	1.0					
OUTFALL-04-24-12-2			7	5.0			
OUTFALL-04-25-12-1	5	1.0					
OUTFALL-04-25-12-2			6	5.0			
OUTFALL-04-26-12-1	4	1.0					
OUTFALL-04-26-12-2			nd	5.0			
OUTFALL-04-29-12-1	5	1.0					
OUTFALL-04-29-12-2			6	5.0			
OUTFALL-04-30-12-1	4	1.0					
OUTFALL-04-30-12-2			8	5.0			
Red Pond-04-02-12-09:16-1	595	1.0					
Red Pond-04-09-12-07:30-1	551	1.0					
Red Pond-04-16-12-08:30-1	575	1.0					
Red Pond-04-23-12-07:50-1	528	1.0					

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
Red Pond-04-30-12-08:00-1	482	1.0					

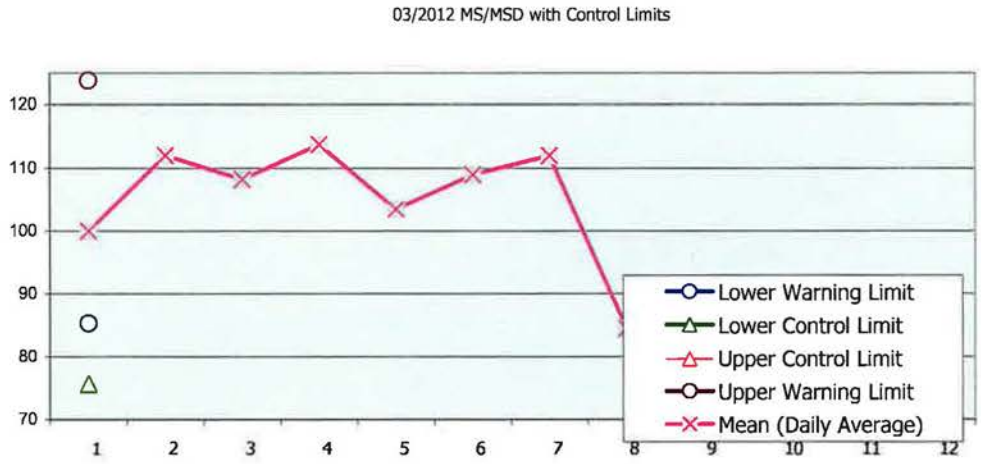
Control Chart for 04/2012 MS/MSD %Recoveries

Analyst: Susan E.O. Peters 05-14-12

GC/MS Data: #2
Report Date: 5/6/2012
Chemist: Susan E.O. Peters
Dept: Environmental
Analyte: 1,4-dioxane
Start date: 4/1/2012
End date: 4/31/2012
Desired level: 100%

EPA LIMITS +/-20%

Date	Matrix Spike % Recovery Values							Mean (Daily Average)	Sample Mean (All Individual Data)	Daily Standard Deviation	Daily Average Sample Standard Deviation	Lower Control Limit	Upper Control Limit	Lower Warning Limit	Upper Warning Limit
	MS 1	MSD 1	MS 2	MSD 2	MS 3	MSD 3									
4/5/2012	103	97						100.00	104.56	12.79	9.62	75.70	133.41	85.32	123.79
4/10/2012	94	130						112.00							
4/11/2012	105	111	108	109	119	101	115	108.25							
4/12/2012	110	118	98	129				113.75							
4/16/2012	108	99						103.50							
4/17/2012	104	114						109.00							
4/19/2012	106	118						112.00							
4/30/2012	83	87	81	87	98	91		84.50							

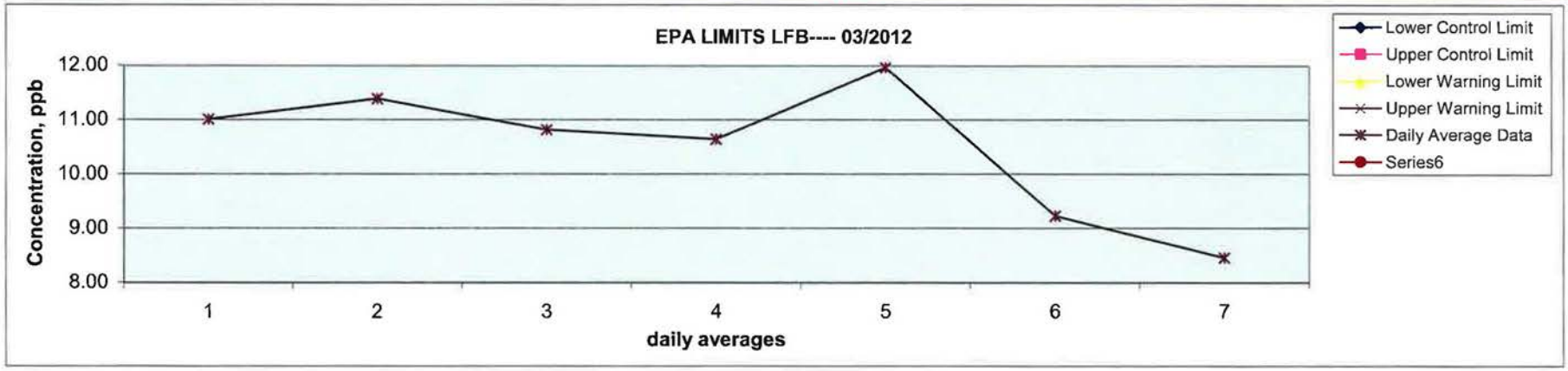


Control Chart for 04/2012 LFB

Analyst: Susan E.O. Peters 05-14-12

GC/MS Data: #2
Report Date: 5/6/2012
Chemist: Susan E.O. Peters
Dept: Environmental
Analyte: 1,4-dioxane
Start date: 4/1/2012
End date: 4/31/2012
Desired level: 100%

Date	LFB Values							Mean (Daily Average)	Sample Mean (All Individual Data)	Daily Standard Deviation	Daily Average Sample Standard Deviation	Lower Control Limit	Upper Control Limit	Lower Warning Limit	Upper Warning Limit
	LFB 1	LFB 2	LFB 3	LFB 4	LFB 5	LFB 6	LFB 7								
4/5/2012	11.43	10.59						11.01	10.38	0.59	1.23	6.68	14.08	7.92	12.85
4/10/2012	11.93	11.84	10.73	11.61	10.83			11.39	10.38	0.57					
4/11/2012	9.78	10.93	10.56	11.99				10.82	10.38	0.92					
4/16/2012	11.04	10.42	10.47					10.64	10.38	0.34					
4/17/2012	12.00	11.93						11.97	10.38	0.05					
4/19/2012	9.16	9.29						9.23	10.38	0.09					
4/30/2012	8.20	8.41	8.03	8.93	8.70			8.45	10.38	0.37					

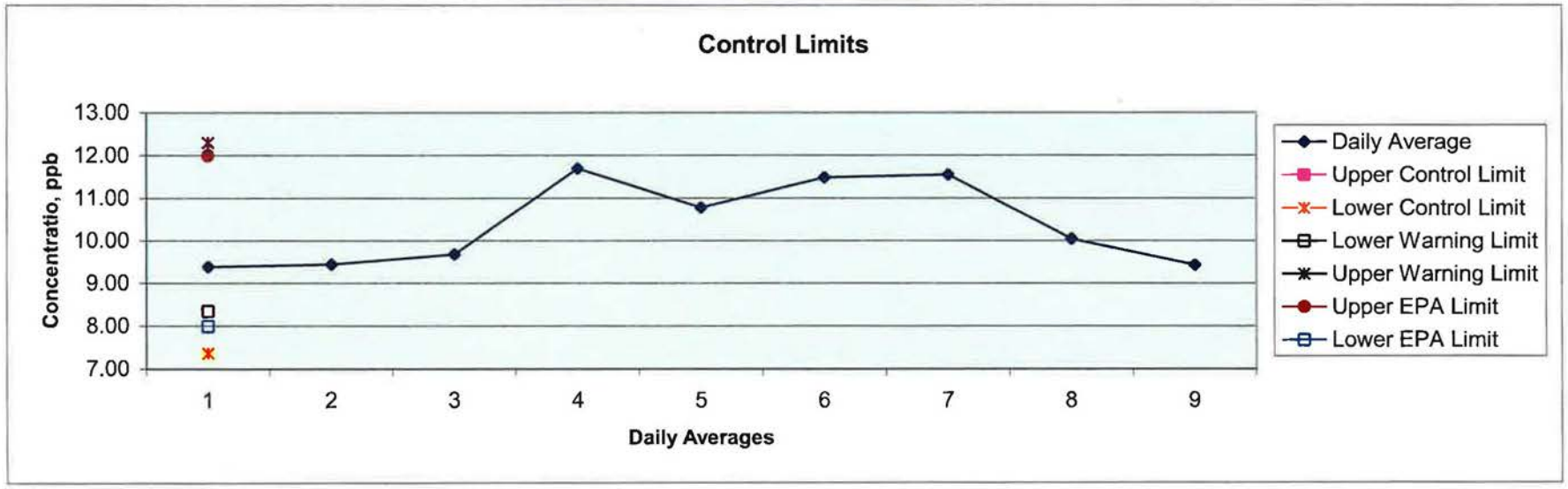


Susan E.O. Peters 05-14-12

Control Chart for 04/2012 CVS

GC/MS Data: #2
Report Date: 5/14/2012
Chemist: Susan E.O. Peters
Dept: Environmental
Analyte: 1,4-dioxane
Start date: 4/1/2012
End date: 4/30/2012
Desired level: 100%

Date	CVS Values				Mean (Daily Average)	Sample Mean (All Individual Data)	Daily Standard Deviation	Daily Average Sample Standard Deviation	Lower Control Limit	Upper Control Limit	Lower Warning Limit	Upper Warning Limit
	CVS 1	CVS 2	CVS 3	CVS 4								
	9.40	9.38			9.39	10.32	0.01	0.99	7.36	13.29	8.35	12.30
4/5/2012	9.45				9.45	10.32	na					
	9.34	10.04			9.69	10.32	0.49					
4/10/2012	11.53	11.86			11.70	10.32	0.23					
4/11/2012	11.25	10.32			10.79	10.32	0.66					
4/16/2012	11.49				11.49	10.32	na					
4/17/2012	11.55				11.55	10.32	na					
4/19/2012	10.05				10.05	10.32	na					
4/30/2012	9.57	9.31			9.44	10.32	0.18					

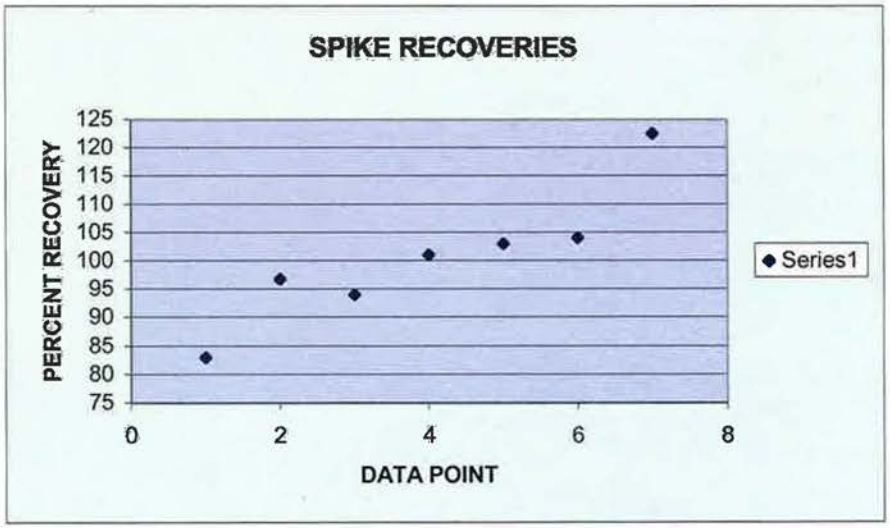


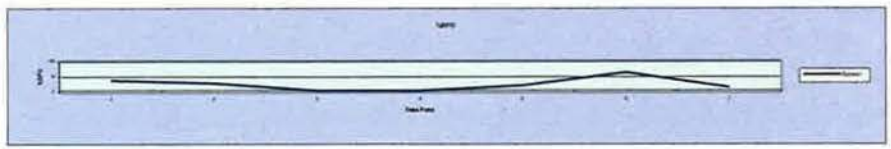
Control Chart for 04/2012 MS/MSD & Repeat %Recoveries

Analyst: Susan E.O. Peters 05-14-12

IC: Metrohm
Report Date: 3/14/2012
Chemist: Susan E.O. Peters
Dept: Environmental
Analyte: Bromate
Start date: 4/1/2012
End date: 4/30/2012
Desired level: 100%

	MS Recoveries and Replicate Recoveries							
Analysis Date	**Spike 1 ---- % Rec**	**Spike 2 ----- % Rec**	**Ave. Spike Recovery (75-125%)**	**%RPD Spike Recovery (0-20%)**	**Std. Dev. Spikes**	**Ave. Sample Replicates**	**Std. Dev. Sample Replicates**	**n=**
4/3/2012	79	87	83	7	5.6	na	na	na
4/3/2012	94	100	97	5.0	1.8	na	na	na
4/10/2012	94		94	na	na	na	na	na
4/10/2012	101		101	na	6.4	na	na	na
4/10/2012	105	101	103	3.5	2.8	na	na	na
4/18/2012	94	114	104	12.2	14.1	3.49	0.55	3
4/18/2012	120	125	123	2.1	3.5	na	na	na



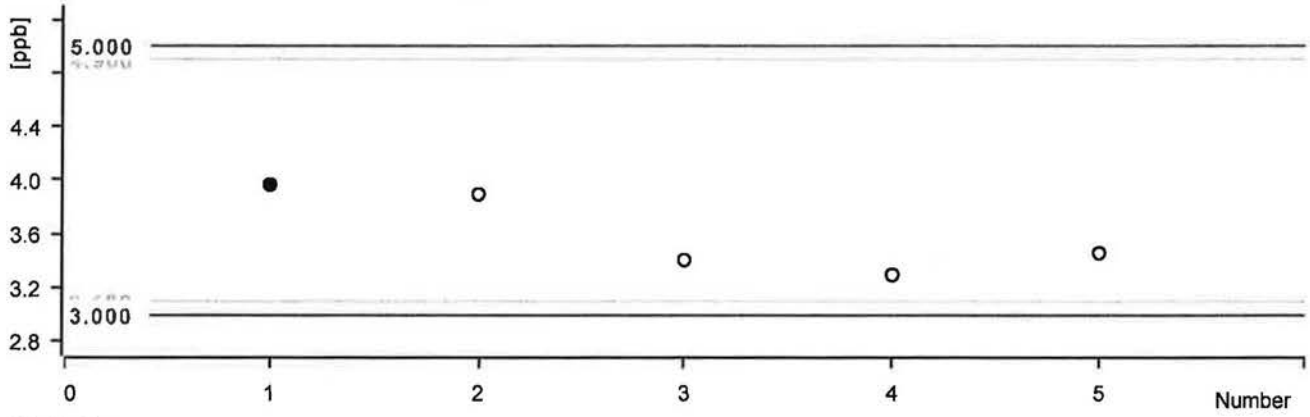


Control chart

Susan E. Peters 05-14-12

Comment

ECCS. CCCS Bromate std 4ppb



Statistics

Mean value:	3.604 ppb	Absolute standard deviation:	0.304 ppb
Minimum:	3.297 ppb	Relative standard deviation:	8.431 %
Maximum:	3.966 ppb	Number of determinations:	5

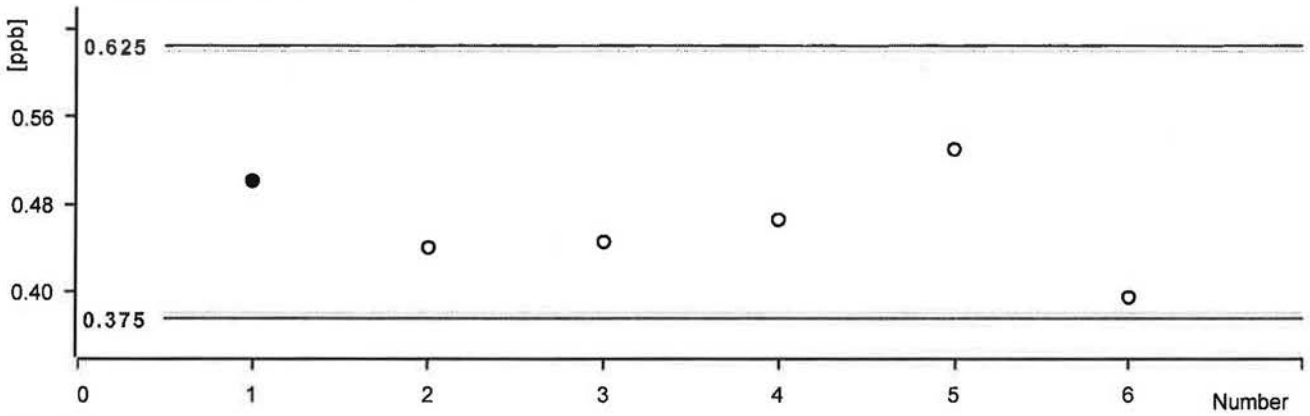
	Date	Number	Ident	Sample type	Method	ECCS. CCCS Bromate std 4ppb	Statistics
1	2012-04-03 06:03:23 UTC-4	1	ECCS/CCCS	Sample	300.1 03232012	3.966 ppb	on
2	2012-04-03 21:41:36 UTC-4	2	ECCS/CCCS	Sample	300.1 03232012	3.894 ppb	on
3	2012-04-11 03:05:50 UTC-4	3	ECCS/CCCS	Sample	300.1 03232012	3.407 ppb	on
4	2012-04-19 00:23:01 UTC-4	4	CCCS	Sample	300.1 03232012	3.297 ppb	on
5	2012-04-19 07:17:50 UTC-4	5	ECCS	Sample	300.1 03232012	3.458 ppb	on

Control chart

Susan SOP Files 05-14-12

Comment

ICCS/LFB concentration, ppb



Statistics

Mean value:	0.463 ppb	Absolute standard deviation:	0.048 ppb
Minimum:	0.395 ppb	Relative standard deviation:	10.377 %
Maximum:	0.530 ppb	Number of determinations:	6

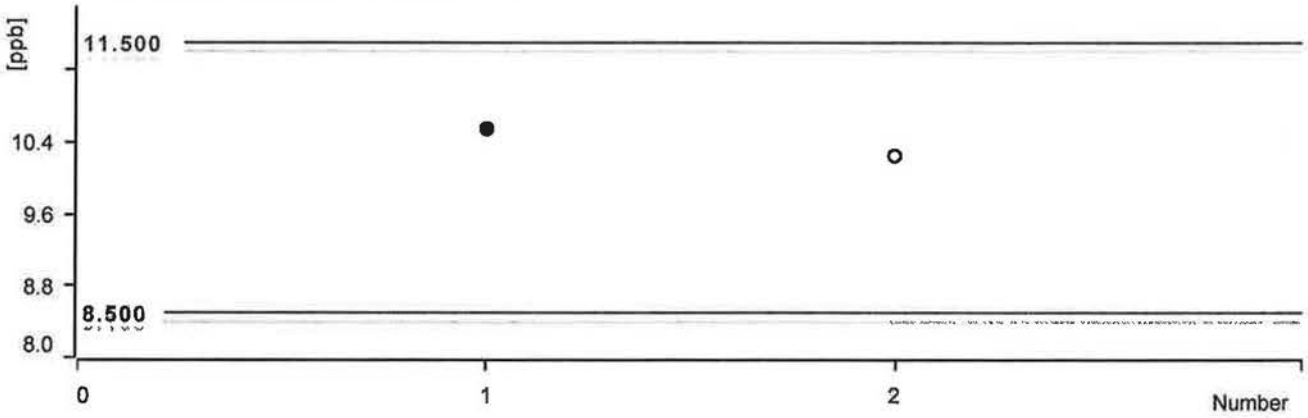
	Date	Number	Ident	Sample type	Method	ICCS/LFB concentration, ppb	Statistics
1	2012-04-02 17:29:10 UTC-4	1	ICCS/LFB	Sample	300.1 03232012	0.501 ppb	on
2	2012-04-03 11:00:23 UTC-4	2	ICCS/LFB	Sample	300.1 03232012	0.440 ppb	on
3	2012-04-03 11:38:06 UTC-4	3	ICCS/LFB	Sample	300.1 03232012	0.445 ppb	on
4	2012-04-10 10:45:12 UTC-4	4	ICCS/LFB	Sample	300.1 03232012	0.465 ppb	on
5	2012-04-18 15:34:56 UTC-4	5	ICCS/LFB	Sample	300.1 03232012	0.530 ppb	on
6	2012-04-18 16:12:39 UTC-4	6	ICCS/LFB	Sample	300.1 03232012	0.395 ppb	on

Control chart

Susan 5-14-12

Comment

Bromate QCS concentration, ppb



Statistics

Mean value:	10.393 ppb	Absolute standard deviation:	0.213 ppb
Minimum:	10.243 ppb	Relative standard deviation:	2.047 %
Maximum:	10.544 ppb	Number of determinations:	2

	Date	Number	Ident	Sample type	Method	Bromate QCS concentration, ppb	Statistics
1	2012-04-03 22:19:19 UTC-4	1	QCS	Sample	300.1 03232012	10.544 ppb	on
2	2012-04-11 03:43:33 UTC-4	2	QCS	Sample	300.1 03232012	10.243 ppb	on

Control Chart for 04/2012 MS/MSD & Repeat %Recoveries

Analyst: Susan E.O. Peters 05-14-12

IC: Metrohm
Report Date: 3/14/2012
Chemist: Susan E.O. Peters
Dept: Environmental
Analyte: Bromate
Start date: 4/1/2012
End date: 4/30/2012
Desired level: 100%

MS Recoveries and Replicate Recoveries

Analysis Date	Spike 1 ---- % Rec	Spike 2 ----- % Rec	Ave. Spike Recovery (75-125%)	%RPD Spike Recovery (0-20%)	Std. Dev. Spikes	Ave. Sample Replicates	Std. Dev. Sample Replicates	n=
4/3/2012	79	87	83	7	5.6	na	na	na
4/3/2012	94	100	97	5.0	1.8	na	na	na
4/10/2012	94		94	na	na	na	na	na
4/10/2012	101		101	na	6.4	na	na	na
4/10/2012	105	101	103	3.5	2.8	na	na	na
4/18/2012	94	114	104	12.2	14.1	3.49	0.55	3
4/18/2012	120	125	123	2.1	3.5	na	na	na