Analytical Sequence

Method : Cu_CHEM212_Hayes13

Spencer

Seq.	Loc.	Sample ID
1	8	Blank
2	1	1
3	2	2
4	3	3
5	4	4
6	5	5
7	6	6
8	7	7
9	9	92
10	10	88
11	11	85
12	12	87
13	13	83
14	14	unk2
15	15	86
16	16	91
17	17	92dup
18	18	83dup
19	19	unk1
20	20	84
21	21	90
22	22	89

Analysis Begun

Logged In Analyst: Brian Technique: AA Flame
Spectrometer Model: AA800, S/N No information available Autosampler Model: S10

Sample Information File: C:\data-AA\Chem212_Hayes\Fall2013\Group Spencer\CHEM 212.sif
Batch ID:
Results Data Set: Group spencer
Results Library: C:\data-AA\Chem212_Hayes\Fall2013\Group Spencer\Results.mdb

Method Loaded
Method Name: Cu_CHEM212_Hayes13 Method Last Saved: 10/10/2013 3:10:34 PM
Method Description: Cu_CHEM212_Hayes

Sequence No.: 1 Autosampler Location: 8
Sample ID: Blank Date Collected: 10/10/2013 3:40:07 PM
Analyst: Data Type: Original

Replicate Data: Blank

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1		[0.00]	0.361	15:40:34	Yes
2		[0.00]	0.361	15:40:38	Yes
Mean:		[0.00]	0.361		
SD:		0.00	0.0003		
%RSD:		0.00	0.08		

Auto-zero performed.

Sequence No.: 2 Autosampler Location: 1
Sample ID: 0ppm Date Collected: 10/10/2013 3:41:00 PM
Analyst: Data Type: Original

Replicate Data: 0ppm

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1		[0]	-0.000	15:41:25	Yes
2		[0]	-0.000	15:41:30	Yes
Mean:		[0]	-0.000		
SD:		0	0.0000		
%RSD:		0	0.29		

Standard number 1 not applied. [0]
No calibration curve because standard absorbance and concentration values are not in the same order.

Sequence No.: 3 Autosampler Location: 2
Sample ID: 1ppm Date Collected: 10/10/2013 3:41:51 PM
Analyst: Data Type: Original

Replicate Data: 1ppm

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1		[1]	0.004	15:42:17	Yes
2		[1]	0.005	15:42:22	Yes
Mean:		[1]	0.004		
SD:		0	0.0001		
%RSD:		0	3.03		

Standard number 2 not applied. [1]
No calibration curve because standard absorbance and concentration values are not in the same order.

Sequence No.: 4 Autosampler Location: 3
Sample ID: 2ppm Date Collected: 10/10/2013 3:42:43 PM
Analyst: Data Type: Original

Replicate Data: 2ppm

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1		[2]	0.011	15:43:10	Yes
2		[2]	0.011	15:43:15	Yes
Mean:		[2]	0.011		
SD:		0	0.0000		
%RSD:		0	0.33		

Standard number 3 not applied. [2]
No calibration curve because standard absorbance and concentration values are not in the same order.

Sequence No.: 5 **Autosampler Location: 4**
Sample ID: 3ppm **Date Collected: 10/10/2013 3:43:36 PM**
Analyst: **Data Type: Original**

Replicate Data: 3ppm

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1		[3]	0.018	15:44:03	Yes
2		[3]	0.019	15:44:08	Yes
Mean:		[3]	0.018		
SD:		0	0.0004		
%RSD:		0	2.33		

Standard number 4 not applied. [3]
No calibration curve because standard absorbance and concentration values are not in the same order.

Sequence No.: 6 **Autosampler Location: 5**
Sample ID: 4ppm **Date Collected: 10/10/2013 3:44:30 PM**
Analyst: **Data Type: Original**

Replicate Data: 4ppm

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1		[4]	0.027	15:44:57	Yes
2		[4]	0.027	15:45:02	Yes
Mean:		[4]	0.027		
SD:		0	0.0001		
%RSD:		0	0.51		

Standard number 5 not applied. [4]
No calibration curve because standard absorbance and concentration values are not in the same order.

Sequence No.: 7 **Autosampler Location: 6**
Sample ID: 5ppm **Date Collected: 10/10/2013 3:45:25 PM**
Analyst: **Data Type: Original**

Replicate Data: 5ppm

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1		[5]	0.033	15:45:50	Yes
2		[5]	0.033	15:45:55	Yes
Mean:		[5]	0.033		
SD:		0	0.0000		
%RSD:		0	0.09		

Standard number 6 not applied. [5]
No calibration curve because standard absorbance and concentration values are not in the same order.

Sequence No.: 8 **Autosampler Location: 7**
Sample ID: 6ppm **Date Collected: 10/10/2013 3:46:16 PM**
Analyst: **Data Type: Original**

Replicate Data: 6ppm

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1		[6]	0.037	15:46:42	Yes
2		[6]	0.038	15:46:47	Yes

Mean:	[6]	0.038
SD:	0	0.0001
%RSD:	0	0.31

Standard number 7 not applied. [6]
No calibration curve because standard absorbance and concentration values are not in the same order.

Sequence No.: 9 **Autosampler Location: 8**
Sample ID: blank **Date Collected: 10/10/2013 3:47:08 PM**
Analyst: **Data Type: Original**

Replicate Data: blank

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.004	15:47:35	Yes
2			0.004	15:47:39	Yes
Mean:			0.004		
SD:			0.0002		
%RSD:			4.11		

Sequence No.: 10 **Autosampler Location: 9**
Sample ID: 92 **Date Collected: 10/10/2013 3:48:01 PM**
Analyst: **Data Type: Original**

Replicate Data: 92

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.033	15:48:27	Yes
2			0.032	15:48:32	Yes
Mean:			0.032		
SD:			0.0004		
%RSD:			1.28		

Sequence No.: 11 **Autosampler Location: 10**
Sample ID: 88 **Date Collected: 10/10/2013 3:48:54 PM**
Analyst: **Data Type: Original**

Replicate Data: 88

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.037	15:49:21	Yes
2			0.037	15:49:25	Yes
Mean:			0.037		
SD:			0.0001		
%RSD:			0.33		

Sequence No.: 12 **Autosampler Location: 11**
Sample ID: 85 **Date Collected: 10/10/2013 3:49:47 PM**
Analyst: **Data Type: Original**

Replicate Data: 85

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.024	15:50:14	Yes
2			0.023	15:50:19	Yes
Mean:			0.023		
SD:			0.0001		
%RSD:			0.40		

Sequence No.: 13 **Autosampler Location: 12**
Sample ID: 87 **Date Collected: 10/10/2013 3:50:41 PM**
Analyst: **Data Type: Original**

Replicate Data: 87

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.032	15:51:08	Yes
2			0.032	15:51:14	Yes
Mean:			0.032		
SD:			0.0002		
%RSD:			0.57		

Sequence No.: 14 **Autosampler Location: 13**
Sample ID: 83 **Date Collected: 10/10/2013 3:51:36 PM**
Analyst: **Data Type: Original**

Replicate Data: 83

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.030	15:52:03	Yes
2			0.030	15:52:08	Yes
Mean:			0.030		
SD:			0.0004		
%RSD:			1.40		

Sequence No.: 15 **Autosampler Location: 14**
Sample ID: unk2 **Date Collected: 10/10/2013 3:52:31 PM**
Analyst: **Data Type: Original**

Replicate Data: unk2

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.023	15:52:57	Yes
2			0.023	15:53:02	Yes
Mean:			0.023		
SD:			0.0004		
%RSD:			1.79		

Sequence No.: 16 **Autosampler Location: 15**
Sample ID: 86 **Date Collected: 10/10/2013 3:53:23 PM**
Analyst: **Data Type: Original**

Replicate Data: 86

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.026	15:53:49	Yes
2			0.025	15:53:53	Yes
Mean:			0.025		
SD:			0.0003		
%RSD:			1.05		

Sequence No.: 17 **Autosampler Location: 16**
Sample ID: 91 **Date Collected: 10/10/2013 3:54:14 PM**
Analyst: **Data Type: Original**

Replicate Data: 91

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.036	15:54:40	Yes
2			0.037	15:54:45	Yes
Mean:			0.037		
SD:			0.0000		
%RSD:			0.08		

Sequence No.: 18 **Autosampler Location: 17**
Sample ID: 92dup **Date Collected: 10/10/2013 3:55:06 PM**
Analyst: **Data Type: Original**

Replicate Data: 92dup

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.030	15:55:32	Yes
2			0.029	15:55:37	Yes
Mean:			0.029		
SD:			0.0001		
%RSD:			0.25		

Sequence No.: 19 **Autosampler Location: 18**
Sample ID: 83dup **Date Collected: 10/10/2013 3:55:58 PM**
Analyst: **Data Type: Original**

Replicate Data: 83dup

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.026	15:56:24	Yes
2			0.026	15:56:29	Yes
Mean:			0.026		
SD:			0.0002		
%RSD:			0.93		

Sequence No.: 20 **Autosampler Location: 19**
Sample ID: unk1 **Date Collected: 10/10/2013 3:56:50 PM**
Analyst: **Data Type: Original**

Replicate Data: unk1

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.024	15:57:16	Yes
2			0.025	15:57:21	Yes
Mean:			0.024		
SD:			0.0004		
%RSD:			1.66		

Sequence No.: 21 **Autosampler Location: 20**
Sample ID: 84 **Date Collected: 10/10/2013 3:57:43 PM**
Analyst: **Data Type: Original**

Replicate Data: 84

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.030	15:58:09	Yes
2			0.030	15:58:14	Yes
Mean:			0.030		
SD:			0.0004		
%RSD:			1.47		

Sequence No.: 22 **Autosampler Location: 21**
Sample ID: 90 **Date Collected: 10/10/2013 3:58:36 PM**
Analyst: **Data Type: Original**

Replicate Data: 90

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.030	15:59:02	Yes
2			0.029	15:59:07	Yes
Mean:			0.030		
SD:			0.0005		
%RSD:			1.57		

Sequence No.: 23 **Autosampler Location: 22**
Sample ID: 89 **Date Collected: 10/10/2013 3:59:29 PM**

Analyst: Data Type: Original

Replicate Data: 89

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.028	15:59:55	Yes
2			0.028	16:00:00	Yes
Mean:			0.028		
SD:			0.0001		
%RSD:			0.36		

Sequence No.: 24 Autosampler Location: 8
Sample ID: blank Date Collected: 10/10/2013 4:00:22 PM
Analyst: Data Type: Original

Replicate Data: blank

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.003	16:00:48	Yes
2			0.003	16:00:53	Yes
Mean:			0.003		
SD:			0.0000		
%RSD:			1.60		

Sequence No.: 25 Autosampler Location: 4
Sample ID: 3ppm Date Collected: 10/10/2013 4:01:15 PM
Analyst: Data Type: Original

Replicate Data: 3ppm

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.020	16:01:42	Yes
2			0.020	16:01:46	Yes
Mean:			0.020		
SD:			0.0002		
%RSD:			0.83		

Sequence No.: 26 Autosampler Location: 9
Sample ID: 92 Date Collected: 10/10/2013 4:02:08 PM
Analyst: Data Type: Original

Replicate Data: 92

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.030	16:02:35	Yes
2			0.029	16:02:40	Yes
Mean:			0.029		
SD:			0.0004		
%RSD:			1.23		

Sequence No.: 27 Autosampler Location: 10
Sample ID: 88 Date Collected: 10/10/2013 4:03:02 PM
Analyst: Data Type: Original

Replicate Data: 88

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.036	16:03:28	Yes
2			0.036	16:03:33	Yes
Mean:			0.036		
SD:			0.0001		
%RSD:			0.21		

Sequence No.: 28 **Autosampler Location: 11**
Sample ID: 85 **Date Collected: 10/10/2013 4:03:55 PM**
Analyst: **Data Type: Original**

Replicate Data: 85

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.023	16:04:22	Yes
2			0.022	16:04:27	Yes
Mean:			0.023		
SD:			0.0003		
%RSD:			1.22		

Sequence No.: 29 **Autosampler Location: 12**
Sample ID: 87 **Date Collected: 10/10/2013 4:04:49 PM**
Analyst: **Data Type: Original**

Replicate Data: 87

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.031	16:05:16	Yes
2			0.031	16:05:21	Yes
Mean:			0.031		
SD:			0.0000		
%RSD:			0.05		

Sequence No.: 30 **Autosampler Location: 13**
Sample ID: 83 **Date Collected: 10/10/2013 4:05:44 PM**
Analyst: **Data Type: Original**

Replicate Data: 83

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.029	16:06:11	Yes
2			0.029	16:06:16	Yes
Mean:			0.029		
SD:			0.0002		
%RSD:			0.51		

Sequence No.: 31 **Autosampler Location: 14**
Sample ID: unk2 **Date Collected: 10/10/2013 4:06:38 PM**
Analyst: **Data Type: Original**

Replicate Data: unk2

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.022	16:07:04	Yes
2			0.023	16:07:09	Yes
Mean:			0.022		
SD:			0.0006		
%RSD:			2.73		

Sequence No.: 32 **Autosampler Location: 15**
Sample ID: 86 **Date Collected: 10/10/2013 4:07:30 PM**
Analyst: **Data Type: Original**

Replicate Data: 86

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.025	16:07:56	Yes
2			0.024	16:08:01	Yes
Mean:			0.024		
SD:			0.0008		
%RSD:			3.32		

Sequence No.: 33 **Autosampler Location: 16**
Sample ID: 91 **Date Collected: 10/10/2013 4:08:22 PM**
Analyst: **Data Type: Original**

Replicate Data: 91

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.036	16:08:48	Yes
2			0.035	16:08:53	Yes
Mean:			0.035		
SD:			0.0003		
%RSD:			0.78		

Sequence No.: 34 **Autosampler Location: 17**
Sample ID: 92dup **Date Collected: 10/10/2013 4:09:14 PM**
Analyst: **Data Type: Original**

Replicate Data: 92dup

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.029	16:09:40	Yes
2			0.029	16:09:45	Yes
Mean:			0.029		
SD:			0.0001		
%RSD:			0.38		

Sequence No.: 35 **Autosampler Location: 18**
Sample ID: 83dup **Date Collected: 10/10/2013 4:10:06 PM**
Analyst: **Data Type: Original**

Replicate Data: 83dup

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.025	16:10:32	Yes
2			0.026	16:10:37	Yes
Mean:			0.025		
SD:			0.0004		
%RSD:			1.53		

Sequence No.: 36 **Autosampler Location: 19**
Sample ID: unk1 **Date Collected: 10/10/2013 4:10:58 PM**
Analyst: **Data Type: Original**

Replicate Data: unk1

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.023	16:11:24	Yes
2			0.024	16:11:29	Yes
Mean:			0.023		
SD:			0.0004		
%RSD:			1.74		

Sequence No.: 37 **Autosampler Location: 20**
Sample ID: 84 **Date Collected: 10/10/2013 4:11:50 PM**
Analyst: **Data Type: Original**

Replicate Data: 84

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.030	16:12:17	Yes
2			0.029	16:12:22	Yes
Mean:			0.030		

SD:	0.0002
%RSD:	0.67

Sequence No.: 38 **Autosampler Location: 21**
Sample ID: 90 **Date Collected: 10/10/2013 4:12:43 PM**
Analyst: **Data Type: Original**

Replicate Data: 90

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.030	16:13:10	Yes
2			0.029	16:13:15	Yes
Mean:			0.029		
SD:			0.0005		
%RSD:			1.76		

Sequence No.: 39 **Autosampler Location: 22**
Sample ID: 89 **Date Collected: 10/10/2013 4:13:37 PM**
Analyst: **Data Type: Original**

Replicate Data: 89

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.028	16:14:03	Yes
2			0.028	16:14:08	Yes
Mean:			0.028		
SD:			0.0001		
%RSD:			0.23		

Sequence No.: 40 **Autosampler Location: 8**
Sample ID: blank **Date Collected: 10/10/2013 4:14:30 PM**
Analyst: **Data Type: Original**

Replicate Data: blank

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.002	16:14:56	Yes
2			0.002	16:15:01	Yes
Mean:			0.002		
SD:			0.0001		
%RSD:			5.00		

Sequence No.: 41 **Autosampler Location: 4**
Sample ID: 3ppm **Date Collected: 10/10/2013 4:15:23 PM**
Analyst: **Data Type: Original**

Replicate Data: 3ppm

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Time	Signal Stored
1			0.019	16:15:50	Yes
2			0.019	16:15:54	Yes
Mean:			0.019		
SD:			0.0002		
%RSD:			1.18		