Laboratory Data

AIRTECH
Environmental
Services Inc.

Gravimetric
Analytical Report

Performed for
Big Rivers
Green Station
Unit 1
Project No. 3648
August 23, 2011

Analyst: _____
James Christ

The following data has been reviewed for completeness, accuracy, adherence to method protocol and compliance with quality assurance guidelines.

Reviewer: _____ Date: 8/25/11

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Project Summary

General

Project Information	
Date Received	July 29, 2011
Analytical Protocol	EPA Methods 5B/202
Number of Samples Received	12

Analytical Equipment

Equipment Information	Manufacturer	Model	Serial No.
Analytical Balance	Ohaus	AV114C	8028031056

Sample Remarks

All samples were analyzed according to the EPA Method 5 Section 4 and EPA Method 202 Section 11. A summary of the analytical results is presented in Table 1.

QA/QC

All sample weights were taken until two consecutive weights were within 0.0005g. The Ohaus balance was calibrated daily in addition to the yearly full scale calibration that was performed by Automated Scale Corporation on April 12, 2011.

Condition of Samples When Received

Samples were received in good condition.

Table 1. Summary of EPA Methods 5B/202 Results

Stack

Filterable PM	Run 1	Run 2	Run 3
Front-Half Particulate (g)	0.0159	0.0145	0.0117

Condensible Particulate	Run 1	Run 2	Run 3
Condensible Particulate (g)	0.0132	0.0186	0.0238

Total Particulate	Run 1	Run 2	Run 3
Total Particulate (g)	0.0291	0.0330	0.0354

Appendix

Includes the following:

- *Data Entry*
- *Raw Data*
- *Calibration Logs*

Data Entry

Includes the following:

- *Filter Data Entry*
- *Front-Half-Rinse Data Entry*
- *Organic Fraction Data Entry*
- *Inorganic Fraction Data Entry*

Method 5B/202 Parameters		Run 1	Run 2	Run 3
Filter		12145	12146	12147
Filter tare weight (g)	Trial 1	0.3503	0.3543	0.3526
	Trial 2	0.3502	0.3540	0.3526
	Average	0.3503	0.3542	0.3526
Filter final weight (g)	Trial 1	0.3571	0.3603	0.3580
	Trial 2	0.3573	0.3604	0.3582
	Average	0.3572	0.3604	0.3581
Filter net weight, m_f (g)		**0.0069**	**0.0062**	**0.0055**
PM Front Half Wash	*Beaker ID*	*44*	*43*	*16*
Beaker tare weight (g)	Trial 1	36.8978	43.3658	35.1889
	Trial 2	36.8983	43.3660	35.1894
	Average	36.8981	43.3659	35.1892
Beaker final weight (g)	Trial 1	36.9072	43.3743	35.1955
	Trial 2	36.9068	43.3740	35.1951
	Average	36.9070	43.3742	35.1953
Volume of Wash, V_{aw} (ml)		50	50	470
Beaker net weight, m_a (g)		**0.0089**	**0.0083**	**0.0062**
Organic Fraction				
	Weighing tin ID	*V6*	*V8*	*W1*
Weighing tin tare weight (g)	Trial 1	3.5337	3.5532	3.5142
	Trial 2	3.5338	3.5533	3.5142
	Average	3.5338	3.5533	3.5142
Weighing tin final weight (g)	Trial 1	3.5357	3.5575	3.5249
	Trial 2	3.5352	3.5573	3.5244
	Average	3.5355	3.5574	3.5247
Volume of Wash, Vaw (ml)		320	330	470
Weighing tin net weight, ma (g)		**0.0017**	**0.0042**	**0.0105**
Inorganic Fraction				
	Weighing tin ID	*406*	*107*	*401*
Weighing tin tare weight (g)	Trial 1	109.4976	85.8489	101.3241
	Trial 2	109.4980	85.8483	101.3245
	Average	109.4978	85.8486	101.3243
Weighing tin final weight (g)	Trial 1	109.5108	85.8644	101.3390
	Trial 2	109.5103	85.8640	101.3386
	Average	109.5106	85.8642	101.3388
Volume of Wash, Vaw (ml)		450	460	415
Weighing tin net weight, ma (g)		**0.0127**	**0.0156**	**0.0145**

Big Rivers Electric | **Method 5B/202 Parameters** Unit 1 Stack | **Project No. 3648**

Method 5B/202 Parameters		**Run 1**	**Run 2**	**Run 3**
Filter		12145	12146	12147
Filter tare weight (g)	Trial 1	0.3503	0.3543	0.3526
	Trial 2	0.3502	0.3540	0.3526
	Average	0.3503	0.3542	0.3526
Filter final weight (g)	Trial 1	0.3571	0.3603	0.3580
	Trial 2	0.3573	0.3604	0.3582
	Average	0.3572	0.3604	0.3581
Filter net weight, m_f (g)		**0.0069**	**0.0062**	**0.0055**
PM Front Half Wash	*Beaker ID*	*44*	*43*	*16*
Beaker tare weight (g)	Trial 1	36.8978	43.3658	35.1889
	Trial 2	36.8983	43.3660	35.1894
	Average	36.8981	43.3659	35.1892
Beaker final weight (g)	Trial 1	36.9072	43.3743	35.1955
	Trial 2	36.9068	43.3740	35.1951
	Average	36.9070	43.3742	35.1953
Volume of Wash, V_{aw} (ml)		50	50	470
Beaker net weight, m_a (g)		**0.0089**	**0.0083**	**0.0062**
Organic Fraction				
	Weighing tin ID	*V6*	*V8*	*W1*
Weighing tin tare weight (g)	Trial 1	3.5337	3.5532	3.5142
	Trial 2	3.5338	3.5533	3.5142
	Average	3.5338	3.5533	3.5142
Weighing tin final weight (g)	Trial 1	3.5357	3.5575	3.5249
	Trial 2	3.5352	3.5573	3.5244
	Average	3.5355	3.5574	3.5247
Volume of Wash, Vaw (ml)		320	330	470
Weighing tin net weight, ma (g)		**0.0017**	**0.0042**	**0.0105**
Inorganic Fraction				
	Weighing tin ID	*406*	*107*	*401*
Weighing tin tare weight (g)	Trial 1	109.4976	85.8489	101.3241
	Trial 2	109.4980	85.8483	101.3245
	Average	109.4978	85.8486	101.3243
Weighing tin final weight (g)	Trial 1	109.5108	85.8644	101.3390
	Trial 2	109.5103	85.8640	101.3386
	Average	109.5106	85.8642	101.3388
Volume of Wash, Vaw (ml)		450	460	415
Weighing tin net weight, ma (g)		**0.0127**	**0.0156**	**0.0145**

Raw Data

Includes the following:

- *Filter Gravimetric Data Sheets*
- *Beaker Gravimetric Data Sheets*
- *Tin Gravimetric Data Sheets*

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Filter Gravimetric Data Sheet

Run No.	Proj. No./Location	Appearance		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
3	3648 Wilson Stack	light spots	Tare	0.3560	6/9 10:55 MC	0.3557	6/10 11:05 MC			✓
Filter ID			Tech							
12142			Final	0.3614	7/27 15:48 SH	0.3619	7/28 10:29 MH			✓
			Tech							
			Notes							

Run No.	Proj. No./Location	Appearance		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
3	3648 wilson ESP-B3		Tare	0.3587	6/9 10:59 MC	0.3587	6/10 11:46 MC			✓
Filter ID			Tech							
12143			Final	0.3624	7/27 15:27 SH	0.3626	7/28 10:13 MH			
			Tech							
			Notes							

Run No.	Proj. No./Location	Appearance		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
3	3648 Wilson ESP-B4	white dots	Tare	0.3583	6/9 11:00 MC	0.3586	6/10 11:49 MC			✓
Filter ID			Tech							
12144			Final	~~0.3614~~	~~7/27 15:27~~ SH	0.3600	7/28 10:06 MH	0.3600	7/28 16:32 MH	✓
			Tech							
			Notes							

Run No.	Proj. No./Location	Appearance		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
1	Green Stack Unit 1	gray dots	Tare	0.3503	6/9 10:43 MC	0.3502	6/10 11:01 MC			✓
Filter ID			Tech							
12145			Final	0.3571	8/4 7:36 /	0.3573	8/5 10:03 MH			✓
			Tech							
			Notes							

Run No.	Proj. No./Location	Appearance		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
2	Green Stack U-1	gray Dots	Tare	0.3543	6/9 10:46 MC	0.3540	6/10 11:01 MC			✓
Filter ID			Tech							
12146			Final	0.3603	8/4 7:35 /	0.3604	8/5 10:04 MH			✓
			Tech							
			Notes							

Run No.	Proj. No./Location	Appearance		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
3	Green Stack U-1	gray Dots	Tare	0.3526	6/9 10:47 MC	0.3526	6/10 11:00 MC			✓
Filter ID			Tech							
12147			Final	0.3580	8/4 7:37 /	0.3582	8/5 10:05 MH			✓
			Tech							
			Notes							

Run No.	Proj. No./Location	Appearance		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
2	3648 Wilson ESP-2	White	Tare	0.3509	6/9 10:49 MC	0.3509	6/10 11:00 MC			✓
Filter ID			Tech							
12148			Final	0.3533	7/27 15:56 SH	0.3532	7/28 10:31 MH			✓
			Tech							
			Notes							

Run No.	Proj. No./Location	Appearance		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
1	3648 Stack 2	Black	Tare	0.3426	7/11 13:11 1C	0.3424	7/13 22:02 /			✓
Filter ID			Tech							
12149			Final	0.3619	8/11 10:37 MC	0.3623	8/11 16:47 MC			✓
			Tech							
			Notes							

Run No.	Proj. No./Location	Appearance		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
2	3648 Stack 2	Black	Tare	0.3424	7/11 13:13 SH	0.3426	7/13 22:02 /			✓
Filter ID			Tech							
12150			Final	0.3616	8/11 10:38 MC	0.3621	8/11 16:47 MC			✓
			Tech							
			Notes	Filter Grav						

Beaker Gravimetric Data Sheet

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Client	BESC	Date Received	
Plant	Green		

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
5	SBS out Mid	Acet	Tare	3.5312	6/4 16:22 MC	3.5312	6/9 15:21 MC			✓
Beaker ID			Tech							
[redacted]	90 mls		Final	3.5442	6/5 2:12 MC	3.5441	6/5 8:39 MC			✓
			Tech							
			Notes							

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
6	MID SBS OUT	Acet	Tare	3.5269	6/4 16:22 MC	3.5271	6/9 15:22 MC			✓
Beaker ID			Tech							
[redacted]	75 mls		Final	3.5350	6/5 2:11 MC	3.5348	6/5 8:41 MC			✓
			Tech							
			Notes							

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
4	ESP 1 200+50	202 Hex/Ace	Tare	3.5935	6/4 16:22 MC	3.5937	6/9 15:23 MC			✓
Beaker ID			Tech							
[redacted]	250 mls		Final	3.6041	8/4 7:17 I					
			Tech							
			Notes							

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
5	ESP 1 200+200	202 Hex/Ace	Tare	3.5564	6/4 16:21 MC	3.5565	6/9 15:23 MC			✓
Beaker ID			Tech							
[redacted]	400 mls		Final	3.5660	8/4 7:16 I					
			Tech							
			Notes							

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
6	ESP 1 200+200	202 Hex/Ace	Tare	3.5315	6/4 16:21 MC	3.5315	6/9 15:24 MC			✓
Beaker ID			Tech							
[redacted]	400 mls		Final	3.5449	8/4 7:16 I					
			Tech							
			Notes							

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
1	Unit 1 200+120	202 Hex Ace	Tare	3.5337	6/4 16:20 MC	3.5338	6/9 15:24 MC			✓
Beaker ID			Tech							
V6	320 mls		Final	3.5557	8/5 10:31 MH	3.5352	8/8 11:17 MH			✓
			Tech							
			Notes							

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
		?	Tare	3.5342	6/4 16:20 MC	3.5344	6/9 15:25 MC			✓
Beaker ID			Tech							
[redacted]	mls		Final							
			Tech							
			Notes							

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
2	Unit 1 200+130	202 Hex Ace	Tare	3.5532	6/4 16:19 MC	3.5533	6/9 15:25 MC			✓
Beaker ID			Tech							
V5	330 mls		Final	3.5575	8/5 10:28 MH	3.5573	8/8 11:18 MH			
			Tech							
			Notes							

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Beaker Gravimetric Data Sheet

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Client	Big Rivers	Date Received	
Plant	Green		

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
3	unit 1	202	Tare	3.5142	6/6 15:58 MR	3.5142	6/9 15:36 MR			✓
			Tech							
Beaker ID	200+180+90	Hex	Final	3.5249	8/5 9:56	3.5244	8/8 11:07			✓
W1	470 mls	Ace	Tech		MH		MH			
			Notes							

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
1	unit 2	202	Tare	3.5674	6/6 15:58 MR	3.5673	6/9 15:37 MR			✓
			Tech							
Beaker ID	200+160	Hex	Final	3.5697	8/5 10:33	3.5693	8/8 11:18			✓
W2	360 mls	Ace	Tech		MH		MH			
			Notes							

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
2	unit 2	202	Tare	3.5386	6/6 15:58 MR	3.5384	6/9 15:37 MR			✓
			Tech							
Beaker ID	200+120+30	Hex	Final	3.5531	8/5 9:56	3.5529	8/8 11:07			✓
W3	350 mls	Ace	Tech		MH		MH			
			Notes							

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
3	unit 2	202	Tare	3.5875	6/6 15:57 MR	3.5875	6/9 15:36 MR			✓
			Tech							
Beaker ID	200+190	Hex	Final	3.5909	8/5 10:32	3.5900	8/8 11:16	3.5902	8/9 7:30	✓
W4	390 mls	Ace	Tech		MH		MH		i	
			Notes							

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
			Tare	3.5570	6/6 15:57 MR	3.5569	6/9 15:35 MR			✓
			Tech							
Beaker ID			Final							
W5			Tech							
	mls		Notes							

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
			Tare	3.5312	6/6 15:56 MR	3.5311	6/9 15:39 MR			✓
			Tech							
Beaker ID			Final							
W6			Tech							
	mls		Notes							

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
			Tare	3.5485	6/6 15:55 MR	3.5486	6/9 15:31 MR			✓
			Tech							
Beaker ID			Final							
W7			Tech							
	mls		Notes							

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
			Tare	3.5363	6/6 15:54 MR	3.5364	6/9 15:29 MR			✓
			Tech							
Beaker ID			Final							
W8			Tech							
	mls		Notes							

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Beaker Gravimetric Data Sheet

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Client	Big Rivers	Date Received	
Plant	Green		

Run No	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
1	unit 1	SB	Tare	36.9001	7/11 15:07	36.8978	10:53 7/26	36.9983	7/27 14:46	✓
			Tech		SH		MH		SH	
Beaker ID			Final	36.9072	8/5 10:26	36.9068	8/8 11:24			✓
44	50 mls		Tech		MH		MH			
			Notes							

Run No	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
2	unit 1	SB	Tare	43.3680	7/11 15:10	43.3658	10:50 7/26	43.3660	7/27 13:52	✓
			Tech		SH		MH		SH	
Beaker ID			Final	43.3743	8/5 10:25	43.3740	8/8 11:25			✓
43	50 mls		Tech		MH		MH			
			Notes							

Run No	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
3	unit 1	SB	Tare	35.1917	7/11 15:11	35.1889	10:50 7/26	35.1844	7/27 13:50	✓
			Tech		SH		MH		SH	
Beaker ID			Final	35.1955	8/5 10:27	35.1951	8/8 11:23			✓
16	75 mls		Tech		MH		MH			
			Notes							

Run No	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
1	unit 2	SB	Tare	40.0493	7/11 15:13	40.0471	10:51 7/26	40.0472	7/27 13:49	✓
			Tech		SH		MH		SH	
Beaker ID			Final	40.0531	8/5 10:27	40.0528	8/8 11:23			✓
25	75 mls		Tech		MH		MH			
			Notes							

Run No	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
2	unit 2	SB	Tare	38.1366	7/11 15:14	38.1341	10:53 7/26	38.1345	7/27 13:47	✓
			Tech		SH		MH		SH	
Beaker ID			Final	38.1380	8/5 10:25	38.1377	8/8 11:25			✓
59	75 mls		Tech		MH		MH			
			Notes							

Run No	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
3	unit 2	SB	Tare	37.6724	7/11 15:14	37.6702	10:53 7/26	37.6701	7/27 13:48	✓
			Tech		SH		MH		SH	
Beaker ID			Final	37.6739	8/5 10:26	37.6734	8/8 11:24			✓
14	75 mls		Tech	42	MH		MH			
			Notes							

Run No	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
			Tare	34.3917	7/11 15:15	34.3894	10:51 7/26	34.3895	7/27 13:48	✓
			Tech		SH		MH		SH	
Beaker ID			Final							
17	mls		Tech							
			Notes							

Run No	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
			Tare	35.0492	7/11 15:16	35.0472	10:55 7/26	35.0468	7/27 13:43	✓
			Tech		SH		MH		SH	
Beaker ID			Final							
52	mls		Tech							
			Notes							

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Beaker Gravimetric Data Sheet

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Client	Big Rivers	Date Received	7/22
Plant	[redacted]	Green	

Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
4	ESP-1	DI	Tare	97.9887	7/27 14:22	97.9871	7/28 11:26	97.9879	7/28 9:21	✓
			Tech		SH		MH		MH	
Beaker ID	200+		Final							
[redacted]			Tech							
	mls		Notes							
Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
5	ESP-1	DI	Tare	101.6784	7/27 14:23	101.5673	7/28 11:27	101.5675	7/28 9:21	✓
			Tech		SH		MH		MH	
Beaker ID	200+		Final							
[redacted]			Tech							
	mls		Notes							
Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
6	ESP-1	DI	Tare	98.3276	7/27 14:23	98.3269	7/28 11:27	98.3281	7/28 9:22	✓
			Tech		SH		MH		MH	
Beaker ID	200+		Final							
[redacted]			Tech							
	mls		Notes							
Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
1	unit 1	DI	Tare	109.4984	7/27 14:24	109.4976	11:28 7/28	109.4980	7/28 9:24	✓
			Tech		SH		MH		MH	
Beaker ID	200+200+50		Final	109.5108	8/5 10:28	109.5103	8/8 11:20			✓
401	450 mls		Tech		MH		MH			
			Notes							
Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
2	unit 1	DI	Tare	85.8483	7/27 14:25	85.8489	7/28 11:28	85.8483	7/28 9:24	✓
			Tech		SH		MH		MH	
Beaker ID	200+200+60		Final	85.8644	8/5 10:30	85.8640	8/8 11:21			✓
107	460 mls		Tech		MH		MH			
			Notes							
Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
3	unit 1	DI	Tare	101.3256	7/27 14:25	101.3241	7/28 11:29	101.3245	7/28 9:26	✓
			Tech		SH		MH		MH	
Beaker ID	200+215		Final	101.3408	8/4 7:19	101.3390	8/5 10:30	101.3386	8/8 11:22	✓
401	415 mls		Tech		/		MH		MH	
			Notes							
Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
1	unit 2	DI	Tare	102.0887	7/27 14:26	102.0871	7/28 11:29	102.0875	7/28 9:30	✓
			Tech		SH		MH		MH	
Beaker ID	200+200+75		Final	102.1014	8/5 10:29	102.0998	~~102.1002~~	102.1002	8/9 7:37	✓
410	475 mls		Tech		MH		8/8 11:21 MH		/	
			Notes							
Run No.	Location/Volume	Method/ Reagent		Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
2	unit 2	DI	Tare	85.7036	7/27 14:27	85.7021	7/28 11:30	85.7029	7/28 9:30	✓
			Tech		SH		MH		MH	
Beaker ID	200+200+100		Final	85.7189	8/5 10:31	85.7184	8/8 11:21			✓
316	500 mls		Tech		MH		MH			
			Notes							

Calibration Data

Includes the following:

- *Daily Analytical Balance Calibration Log*
- *Yearly Analytical Balance Test and Calibration Certificate*

AIRTECH ENVIRONMENTAL SERVICES INC.
Analytical Balance Daily Calibration

Scale ID	Ohaus AV114C
Units of Measure	grams

Full Cal Test Date	4/12/11

Date	Tech Initials	100.0000g	5.0000g	0.1000g	Barometric Pressure (in. Hg)	Relative Humidity (%)	Ambient Temp (°F)	Notes
4/25/11	TC	99.9999	4.9999	0.1001	29.3	47	68	
4/26/11	NR	99.9999	5.0000	0.1000	28.9	60	70	
4/27/11	NR	100.0001	5.0000	0.1001	28.9	60	70	
4/28/11	NR	100.0001	5.0000	0.1001	29.2	55	70	
4/29/11	NR	100.0002	5.0000	0.0999	29.4	50	70	
4/30/11	NR	100.0001	5.0000	0.1000	29.4	50	68	
5/2/11	TC	100.0000	5.0000	0.1000	29.5	48	70	
5/3/11	TC	99.9999	4.9999	0.0999	29.6	46	68	
5/4/11	TC	99.9998	5.0000	0.1000	29.8	45	68	
5/5/11	TC	100.0000	5.0000	0.1001	29.5	46	70	
5/6/11	TC	99.9999	4.9999	0.0999	29.2	47	70	
5/16/11	NR	100.0000	5.0000	0.1000	29.4	45	70	
5/17/11	NR	100.0002	4.9999	0.1000	29.4	45	70	
5/18/11	NR	100.0002	4.9999	0.0999	29.4	45	72	
5/19/11	NR	100.0001	5.0000	0.1001	29.5	50	71	
5/20/11	NR	100.0001	4.9999	0.1000	29.4	50	75	
5/21/11	NR	100.0000	4.9999	0.1000	29.4	50	67	
5/22/11	NR	99.9999	4.9999	0.1001	29.5	50	65	
5/23/11	TC	99.9999	4.9999	0.0999	29.9	47	74	
5/26/11	TC	100.0001	4.9999	0.1000	29.1	48	70	
5/31/11	TC	100.0000	5.0000	0.1000	29.4	45	73	
6/1/11	TC	100.0000	4.9999	0.0998	29.6	48	74	
6/2/11	TC	100.0000	5.0000	0.0999	29.6	44	72	
6/6/11	TC	100.0000	5.0001	0.1000	29.4	47	68	
6/8/11	NR	100.0001	4.9999	0.0999	29.3	50	76	
6/9/11	NR	100.0002	5.0001	0.1001	29.4	50	71	
6/10/11	NR	100.0001	5.0000	0.0999	29.5	50	68	
6/13/11	TC	100.0000	4.9999	0.0999	29.6	44	64	
6/16/11	EA	100.0002	5.0001	0.1000	29.2	60	68	
6/22/11	TC	100.0000	5.0001	0.1001	28.9	48	65	
6/24/11	EW	100.0001	5.0000	0.1000	29.10	64	68	
6/27/11	TC	100.0000	4.9999	0.0999	29.2	~~65~~ 58	68	
6/28/11	NR	100.0001	5.0000	0.1000	29.4	50	68	
6/30/11	NR	100.0000	5.0000	0.1000	29.6	50	68	
7/7/11	TC	100.0000	5.0000	0.1000	29.4	48	70	
7/8/11	TC	100.0001	4.9999	0.1000	29.4	47	70	
7/11/11	TC	99.9999	5.0001	0.1001	29.2	47	70	
7/12/11	TC	100.0000	5.0000	0.1000	29.4	48	65	
7/13/11	TC	100.0000	4.9999	0.0999	29.3	42	66	
7/25/11	TC	100.0000	4.9999	0.0999	29.3	41	70	

AIRTECH ENVIRONMENTAL SERVICES INC.
Analytical Balance Daily Calibration

Scale ID	Ohaus AV114C
Units of Measure	grams

Full Cal Test Date	4/13/10

Date	Tech Initials	100.0000g	0.1000g	5.0000g	Barometric Pressure (in. Hg)	Relative Humidity (%)	Ambient Temp (°F)	Notes
7/26/11	MH	100.0001	0.1000	5.0000	29.27	71	65	
7/27/11	MH	100.0000	0.1001	5.0001	29.31	70	66	
7/28/11	MH	100.0000	0.1000	5.0001	29.34	70	64	
7/29/11	MH	100.0000	0.1001	5.0000	29.41	69	65	
8/1/11	MH	100.0000	0.1000	5.0000	29.58	70	62	
8/2/11	MH	100.0000	0.1000	5.0000	29.34	70	60	
8/3/11	TC	99.9999	0.1001	4.9999	29.4	61	68	
8/4/11	TC	99.9999	0.0999	5.0000	29.5	60	68	
8/5/11	TC	100.0000	0.1000	5.0000	29.4	46	68	
8/8/11	MH	100.0000	0.1000	5.0001	29.28	60	70	
8/9/11	TC	100.0000	0.1000	5.0001	29.1	50	68	
8/11/11	MC	99.9999	0.1000	4.9999	29.4	50	74	
8/12/11	MH				29.41	50	74	
8/15/11	TC	100.0000	0.1000	5.0001	29.4	46	70	
8/17/11	CB	99.9999	0.1000	5.0001	29.3	55	72	
8/22/11	TC	99.9999	0.1000	5.0000	29.4	51	72	
8/23/11	TC	100.0000	0.0999	5.0001	29.4	44	68	
8/24/11	TC	100.0001	0.1000	5.0000	29.1	52	70	

Page 1 of 1 Page

AUTOMATED SCALE CORPORATION

202 W. Fay Ave. Addison, IL 60101 800/498-6650

TEST & CALIBRATION CERTIFICATE

L-A-B Accredited: Certificate #L1053-1

Tests and/or calibrations shall stop when environmental conditions will jeopardize the results. (rain, wind, vibration, temperature, and etc.)	Standards Used: Traceable through NIST to the SI units Test equipment and weight (s) certificates available on request

Client Name & Address	Location (Plant and / or Dept.)	Procedure used: 5.4-02 Process Control
Air Tech	Lab	Uncertainty of measurement (UM) Yes [ ] No [X]
621 A Country Club	NA	Temperature Yes [X] No [ ]
Bensenville	Contact: Jim C	Identified metrological reference: NIST Handbook 44

Manufacturer	Model #	Serial #	Capacity X Grad.
Indicator: Ohaus	AV114C	8028031056	110g x .0001
Platform: NA	NA	NA	NA

Inspection Cycle: 365 day Equipment ID: NA

Scale Platform Corner Test

Parallelogram Side/Front Test

Indicator

1	C	2
A	See Shift Test Below	B
3	D	4

Cert# Date	Client Tolerance (, /)%	As Found/Left Shift Test A	B	C	D	Zero	As Found AMT 1	As Found AMT 2	As Left AMT 2	As Left AMT 1	Pass/Fail P/F	UM	Temp. F°	Tech	Traceable Cert. #/ Wt. ID
4-13-10	F	50.0000	50.0000	50.0000	50.0000	0	50.0000	100.0000	100.0000	50.0000	P	NA	74	[illegible]	# 1538014
	L	50.0000	50.0000	50.0000	50.0000	0									ID ASTMOM
4-12-11	F	50.0000	50.0000	50.0000	50.0000	0	50.0000	100.0001	100.0000	50.0000	P	NA	74	GR	# 1538014
	L	50.0000	50.0000	50.0000	50.0000	0									ID ASTMOM
	F														#
	L														ID
	F														#
	L														ID
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Comments:

Pass/Fail compliance statements are the opinions of Automated Scale Corp. based on data from measurements made, procedure utilized, professional experience, and the uncertainty associated with this calibration. It is the responsibility of the user of this equipment to determine if the results identified meet specific requirements for its intended application. Associated uncertainty (as applicable) is expressed at a confidence level of approximately 95% with a coverage factor of K=2.

AIRTECH
Environmental
Services Inc.

Ion Chromatography
Analytical Report

Performed for
Big Rivers Energy
Green Station Unit 1
Project No. 3648
August 25, 2011

Analyst: _____
Michael Ogletree

Reviewer: _____
Timothy Wojtech

702 WEST 48TH AVENUE, UNIT J • DENVER, COLORADO • TEL: 303.670.0530 • FAX: 303.670.4130

Table of Contents

Project Summary

General

Project Information	
Date Received	8/9/2011
Analytical Protocol	EPA Method 26A
Total Number of Samples Received	10
Total Number of Blanks Received	1

Analytical Equipment

Equipment Information	Manufacturer	Model	Serial No.
Ion Chromatograph	Dionex	ICS-90	02070247
Analytical Column	Dionex	AS14A	007967
Guard Column	Dionex	AG14A	009807
Anion Suppressor	Dionex	AMMS III 4 mm	1934

Parameters	Conditions
Eluent	8.0 mM Sodium Carbonate/1.0 mM Sodium Bicarbonate
Regenerant	0.075 N Sulfuric Acid
Sample Volume	10 µl
Flow Rate	1.0 ml/m
Back Pressure	2,700 PSI

Condition of Samples When Received

Samples were received for analysis in good condition. The samples are summarized in the table below:

Sample ID	Solution	Volume (ml)
Inlet 1A R1-IMP-26A	0.1 N H_2SO_4	450
Inlet 1A R2-IMP-26A	0.1 N H_2SO_4	454
Inlet 1A R3-IMP-26A	0.1 N H_2SO_4	458
Inlet 1B R1-IMP-26A	0.1 N H_2SO_4	400
Inlet 1B R2-IMP-26A	0.1 N H_2SO_4	381
Inlet 1B R3-IMP-26A	0.1 N H_2SO_4	525
Stack R1-IMP-26A	0.1 N H_2SO_4	482
Stack R2-IMP-26A	0.1 N H_2SO_4	443
Stack R3-IMP-26A	0.1 N H_2SO_4	532
RB-0.1N H_2SO_4	0.1 N H_2SO_4	490

Methodology

All samples were analyzed according to the EPA Method 26A procedures found in 40 CFR Part 60 Appendix A.

Detection Limit

The detection limits for HCl and HF were determined using the procedures found in 40 CFR Part 236, Appendix B, entitled "Definition and Procedure for the Determination of the Method Detection Limit". Seven injections of the 0.5 µg/ml standard were analyzed. The detection limit was determined to be <0.0441 µg/ml for Cl^- and <0.0647 µg/ml for F^-.

QA/QC

All sample analysis was performed in duplicate with a percent difference within five percent (5%) of the mean.

The chloride and fluoride calibration curve were generated using four calibration standards. The standards were prepared by diluting NIST traceable chloride and fluoride standards with 0.2 N H_2SO_4.

The chloride standard used for this project was a 2000 µg/ml chloride solution, lot number 030523, manufactured by Dionex Corporation of Sunnyvale, California.

The fluoride standard used for this project was a 2000 µg/ml fluoride solution, lot number 092209, manufactured by Dionex Corporation of Sunnyvale, California.

Results that were determined to be below the lowest calibration standard and above the minimum detection limit were calculated using the corresponding average response factor.

Samples that were found to have concentrations above the highest calibration standard were diluted with deionized water to fall within the calibration curve. Samples diluted included: ESP inlet 1 runs, and ESP inlet 2 runs.

Appendix

Includes the following:

- Results
- Calibration Data
- Raw Data
- Chain of Custody

Results

Includes the following:

- **Hydrogen Chloride Results**
- **Hydrogen Fluoride Results**

HYDROGEN FLUORIDE ANALYSIS

Sample Parameters	Reagent Blank	ESP Inlet 1 Run 1	ESP Inlet 1 Run 2	ESP Inlet 1 Run 3
Volume (ml)	490	414	418	503
Dilution factor	1	10	10	10
Peak Area # 1	0.0000	0.1980	0.2570	0.3210
Peak Area # 2	0.0000	0.1950	0.2600	0.3210
Average	0.000	0.199	0.259	0.321
Injections % of mean	NA	0.2%	0.6%	0.0%

RESULTS

Average Response Factor	x			
Linear Regression		x	x	x
Fluoride (µg/ml)	< 0.0847	16.8	20.8	24.5
Hydrogen Fluoride (µg/ml)	< 0.0882	17.7	21.6	25.5
Hydrogen Fluoride (mg)	< 0.0334	7.32	9.48	13.0

HYDROGEN CHLORIDE ANALYSIS

Sample Parameters	Reagent Blank	ESP Inlet 1 Run 1	ESP Inlet 1 Run 2	ESP Inlet 1 Run 3
Volume (ml)	490	414	438	505
Dilution factor	1	10	10	10
Peak Area # 1	0.0000	0.9860	1.0220	1.2400
Peak Area # 2	0.0000	0.9830	1.0230	1.2420
Average	0.00	0.985	1.02	1.24
Injections % of mean	NA	0.2%	0.0%	0.1%

RESULTS

Average Response Factor	x			
Linear Regression		x	x	x
Chloride (µg/ml)	< 0.0441	93.7	98.2	118
Hydrogen Chloride (µg/ml)	< 0.0454	96.4	101.0	121
Hydrogen Chloride (mg)	< 0.0222	39.9	44.2	61.0

HYDROGEN FLUORIDE ANALYSIS

Sample Parameters	ESP Inlet 2 Run 1	ESP Inlet 2 Run 2	ESP Inlet 2 Run 3
Volume (ml)	426	464	413
Dilution factor	10	10	10
Peak Area # 1	0.2330	0.1790	0.1850
Peak Area # 2	0.2380	0.1770	0.1850
Average	0.234	0.178	0.19
Injections % of mean	1.7%	0.6%	0.0%

RESULTS

Average Response Factor			
Linear Regression	x	y	x
Fluoride (µg/ml)	19.0	15.5	16.0
Hydrogen Fluoride (µg/ml)	20.0	16.3	16.8
Hydrogen Fluoride (mg)	8.53	7.52	6.96

HYDROGEN CHLORIDE ANALYSIS

Sample Parameters	ESP Inlet 2 Run 1	ESP Inlet 2 Run 2	ESP Inlet 2 Run 3
Volume (ml)	425	461	443
Dilution factor	10	10	10
Peak Area # 1	1.1080	1.1460	1.3330
Peak Area # 2	1.1110	1.1440	1.3170
Average	1.11	1.15	1.31
Injections % of mean	0.1%	0.1%	0.5%

RESULTS

Average Response Factor			
Linear Regression	x	x	x
Chloride (µg/ml)	105	109	124
Hydrogen Chloride (µg/ml)	108	112	128
Hydrogen Chloride (mg)	46.2	51.6	52.8

HYDROGEN FLUORIDE ANALYSIS

Sample Parameters	Unit 1 Stack Run 1	Unit 1 Stack Run 2	Unit 1 Stack Run 3
Volume (ml)	482	440	532
Dilution factor	1	1	1
Peak Area # 1	0.0260	0.0230	0.0080
Peak Area # 2	0.0250	0.0230	0.0080
Average	0.0255	0.0230	0.00800
Injections % of mean	2.0%	0.0%	0.0%

RESULTS

Average Response Factor	x	x	x
Linear Regression			
Fluoride (µg/ml)	0.180	0.162	0.064
Hydrogen Fluoride (µg/ml)	0.190	0.171	0.067
Hydrogen Fluoride (mg)	0.0914	0.0758	0.0356

HYDROGEN CHLORIDE ANALYSIS

Sample Parameters	Unit 1 Stack Run 1	Unit 1 Stack Run 2	Unit 1 Stack Run 3
Volume (ml)	482	440	532
Dilution factor	1	1	1
Peak Area # 1	0.1750	0.1470	0.1380
Peak Area # 2	0.1730	0.1460	0.1410
Average	0.176	0.147	0.140
Injections % of mean	0.0%	0.0%	0.0%

RESULTS

Average Response Factor			
Linear Regression	x	x	x
Chloride (µg/ml)	1.75	1.47	1.41
Hydrogen Chloride (µg/ml)	1.90	1.61	1.45
Hydrogen Chloride (mg)	0.865	0.669	0.770

Calibration Data

Includes the following:

- Hydrogen Chloride Standards
- Hydrogen Fluoride Standards
- Detection Limits
- Hydrogen Chloride Calibration Curve
- Hydrogen Fluoride Calibration Curve

IC Operating Conditions	
Ion Chromatograph	Dionex ICS-90
Data Acquisition	Dionex PeakNet 6.4
Carrier Gas	Nitrogen
Injection Type	Manual
Injection Volume (µl)	10.0
Column Type	AS-14A
Detector Type	Suppressed Conductivity ECD-1

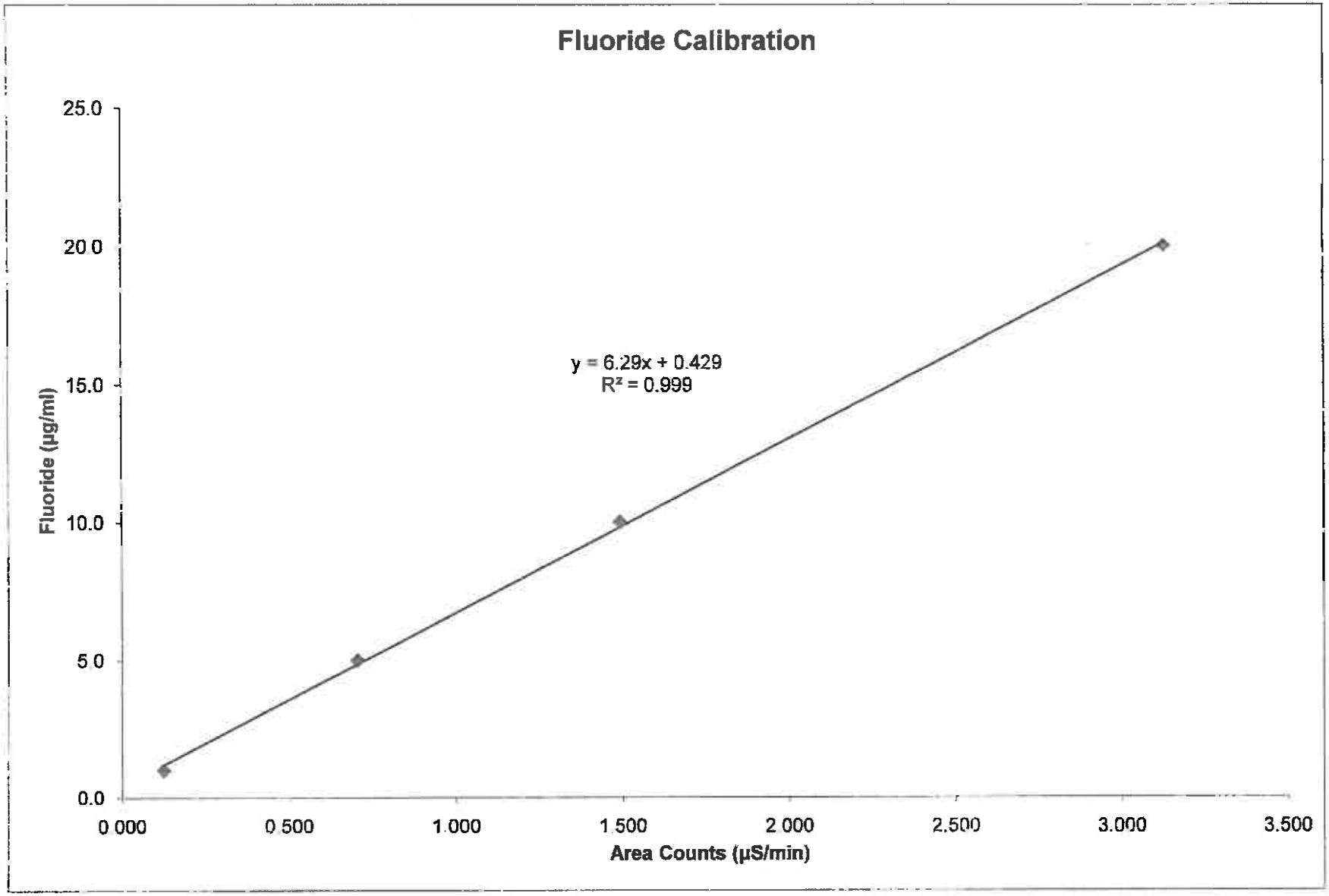
Calibration Summary	Standard 1	Standard 2	Standard 3	Standard 4
Fluoride (µg/ml)	1.0	5.0	10.0	20.0
Pre Analysis Injection # 1	0.1350	0.6940	1.4870	3.0940
Pre Analysis Injection # 2	0.1310	0.7030	1.4840	3.0820
Average	**0.133**	**0.699**	**1.49**	**3.09**
% difference of injections	3.1%	1.3%	0.2%	0.4%
Post Analysis Injection # 1	0.1160	0.7060	1.4980	3.1060
Post Analysis Injection # 2	0.1150	0.7150	1.5000	3.1710
Average	**0.116**	**0.711**	**1.50**	**3.17**
% difference of injections	0.9%	1.3%	0.1%	0.2%
Overall Average	**0.124**	**0.705**	**1.49**	**3.13**
Pre/Post Analysis, % of mean	7.0%	0.9%	0.5%	1.3%
RESULTS				
Response Factor	8.05	7.10	6.70	6.39
Average Response Factor	7.06			
Slope	6.29			
Intercept	0.429			

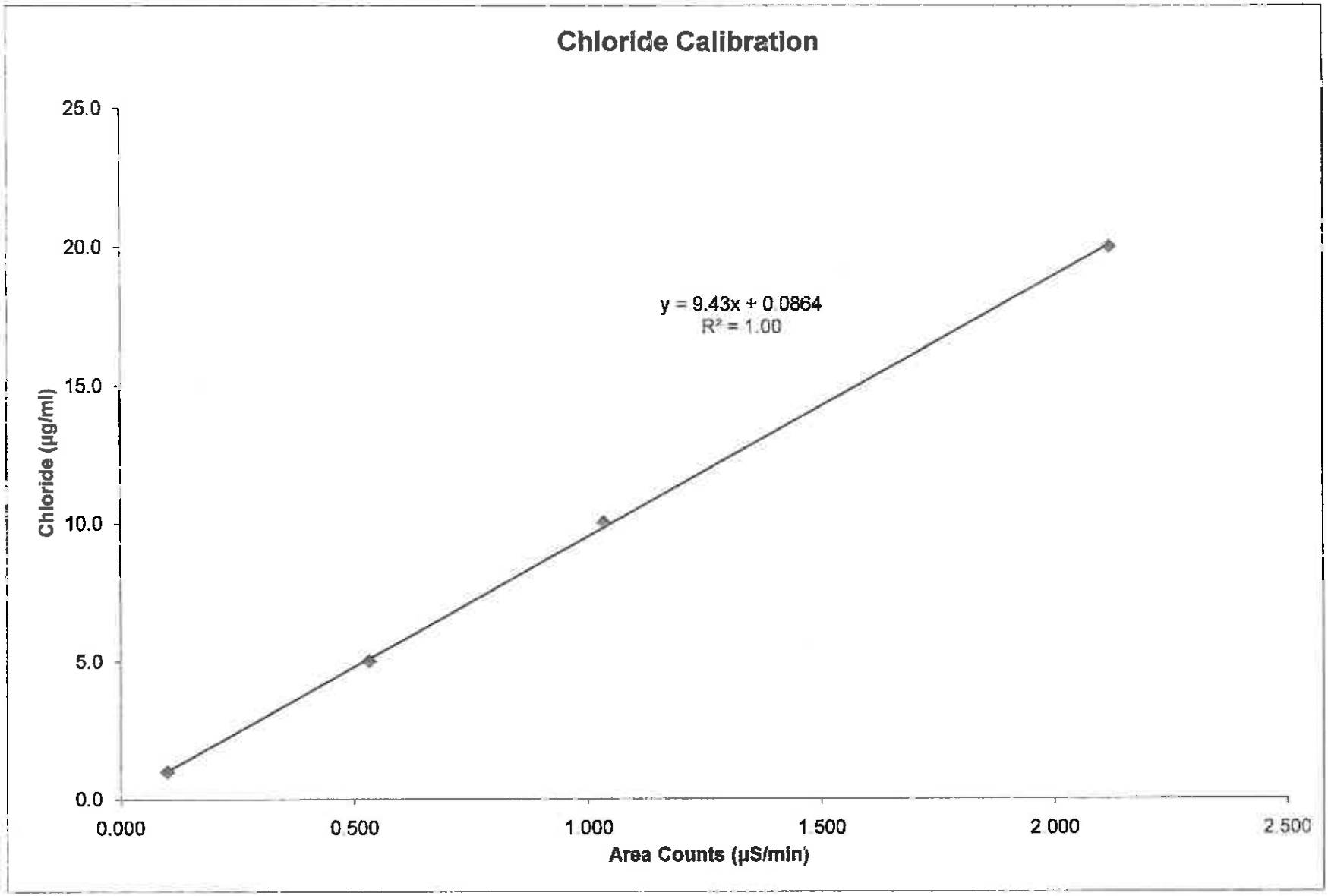
Calibration Summary	Standard 1	Standard 2	Standard 3	Standard 4
Chloride (µg/ml)	1.0	5.0	10.0	20.0
Pre Analysis Injection # 1	0.1070	0.5140	1.0100	2.0790
Pre Analysis Injection # 2	0.1070	0.5140	1.0200	2.0860
Average	**0.107**	**0.514**	**1.02**	**2.08**
% difference of injections	0.0%	0.0%	1.0%	0.3%
Post Analysis Injection # 1	0.0920	0.5480	1.0510	2.1580
Post Analysis Injection # 2	0.0920	0.5480	1.0510	2.1500
Average	**0.0920**	**0.547**	**1.05**	**2.15**
% difference of injections	0.0%	0.5%	0.0%	0.4%
Overall Average	**0.100**	**0.530**	**1.03**	**2.12**
Pre/Post Analysis, % of mean	7.5%	3.1%	1.7%	1.7%
RESULTS				
Response Factor	10.05	9.43	9.68	9.44
Average Response Factor	9.65			
Slope	9.43			
Intercept	0.0864			

Drift Check (8/11/11)	Chloride	Fluoride
Concentration (µg/ml)	5 0	5 0
Pre Analysis Injection # 1	0 5060	0 6930
Pre Analysis Injection # 2	0 5050	0 6980
Average	**0.506**	**0.696**
% difference of injections	0.2%	0.7%

Drift Check (8/16/11)	Chloride	Fluoride
Concentration (µg/ml)	5 0	5 0
Pre Analysis Injection # 1	0 4960	0 6680
Pre Analysis Injection # 2	0 4960	0.6740
Average	**0.496**	**0.671**
% difference of injections	0.0%	0.9%

Detection Limit Parameters	Chloride	Fluoride
Standard (µg/ml)	0 5	0.5
Injection 1	0.064	0.073
Injection 2	0.059	0.067
Injection 3	0.059	0.065
Injection 4	0.060	0.065
Injection 5	0.059	0.065
Injection 6	0.059	0 062
Injection 7	0.057	0.064
Average	0.0596	0 0659
RESULTS		
Response Factor	8 39	7 59
Standard Deviation	0.00215	0.00348
No of Samples (n)	7	7
Student t value ($t_{0.975}$)	2.447	2.447
Calculated limit of detection (µg/ml)	0 0441	0.0647


Fluoride Calibration
25.0
20.0
15.0
10.0
5.0
0.0
Fluoride (µg/ml)
y = 6.29x + 0.429
R² = 0.999
0.000
0.500
1.000
1.500
2.000
2.500
3.000
3.500
Area Counts (µS/min)


Chloride Calibration
y = 9.43x + 0.0864
R² = 1.00
Chloride (µg/ml)
25.0
20.0
15.0
10.0
5.0
0.0
0.000
0.500
1.000
1.500
2.000
2.500
Area Counts (µS/min)

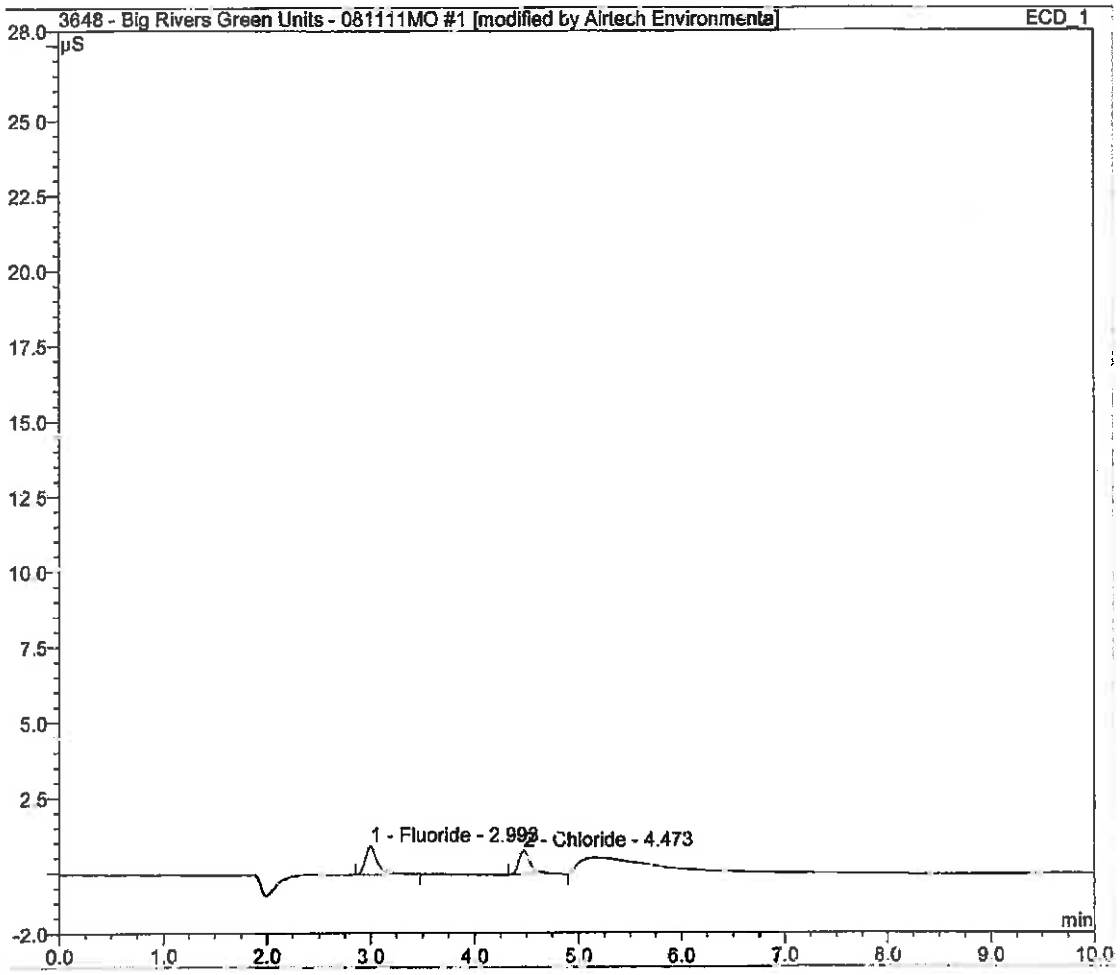
Raw Data

Includes the following:

- Pre Analysis Chromatograms
- Sample Chromatograms
- Drift Check Chromatograms
- Post Analysis Chromatograms
- Lab Book Data Entry

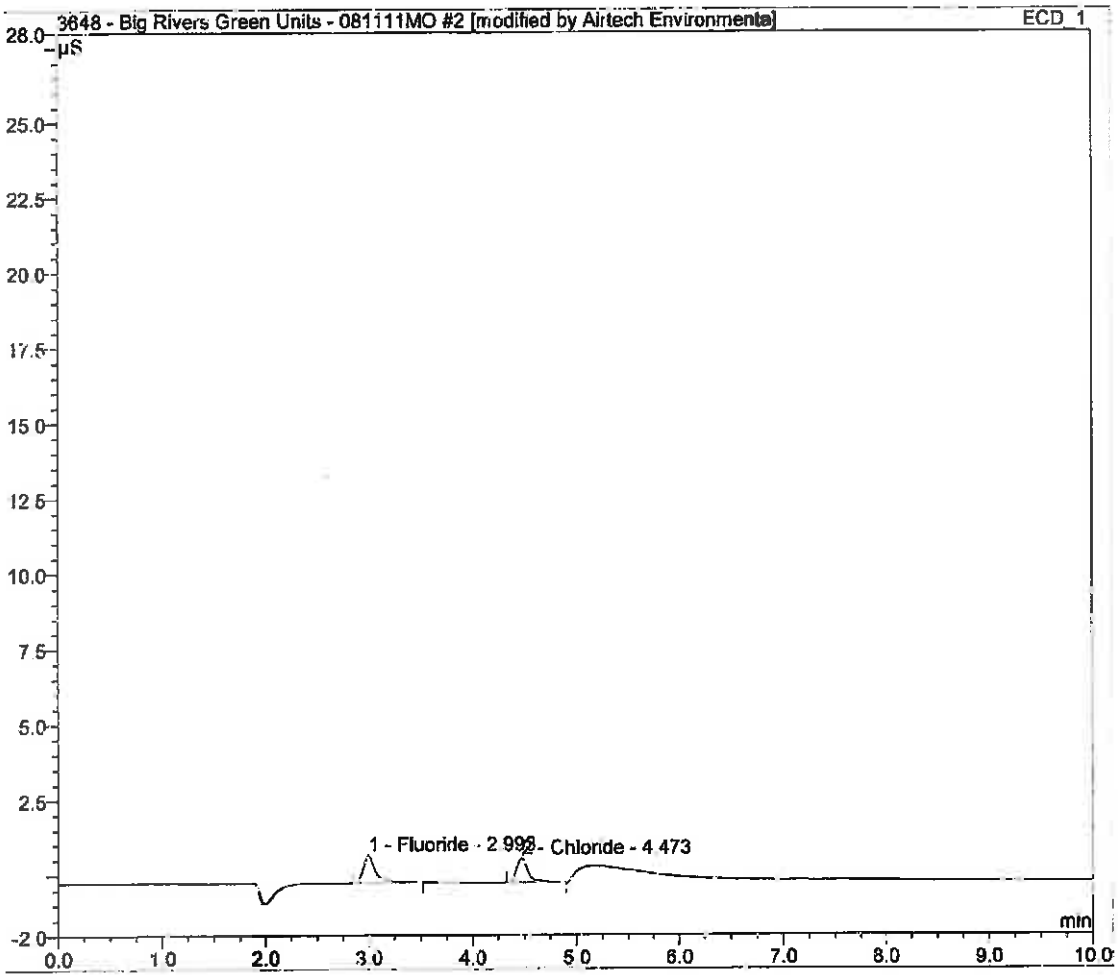
Sample Name:	**cal std 1 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**10.08.11 09:37**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.99	Fluoride	BMB*	0.135	0.949	0.1371
2	4.47	Chloride	BMB*	0.107	0.786	0.1545
		TOTAL:		0.24	1.74	0.29



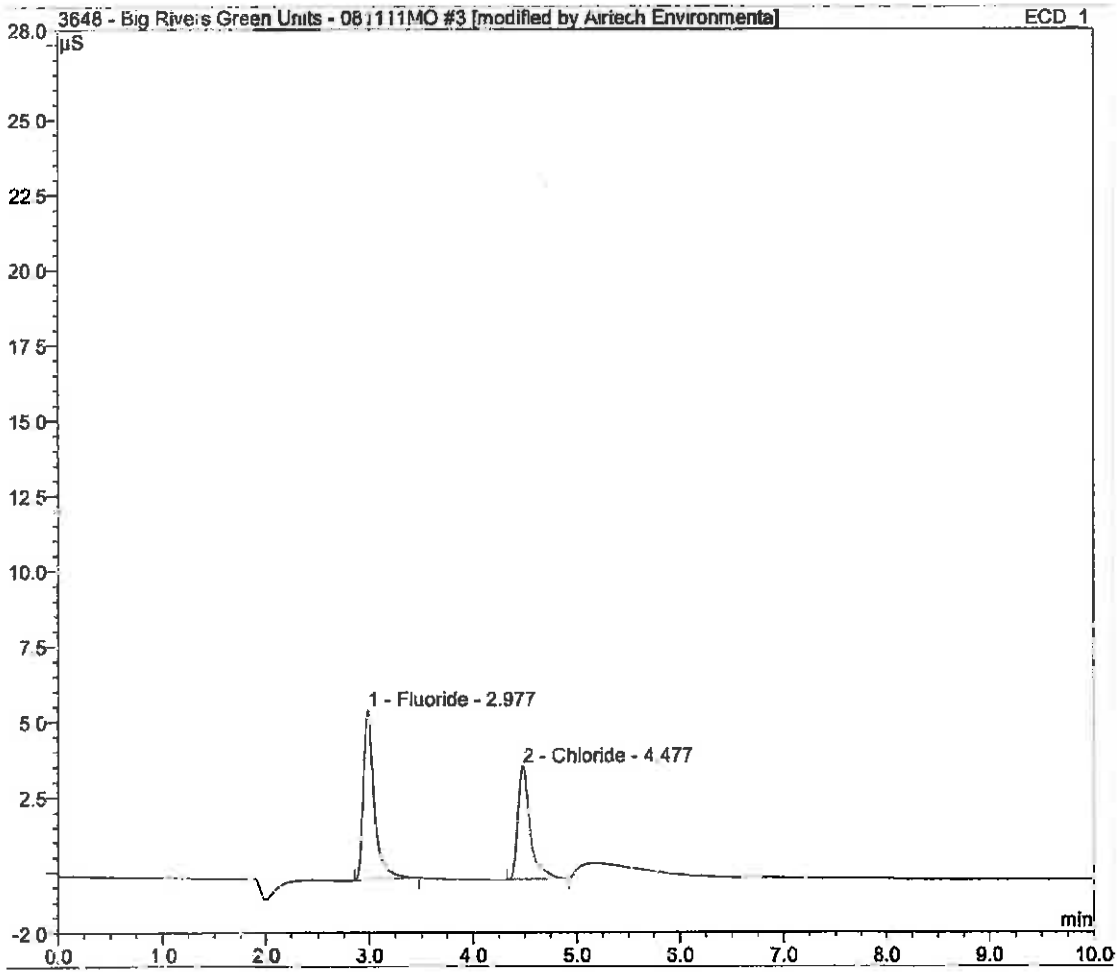
Sample Name:	**cal std 1 - Cl & F in H2SO4**	*Inj. Vol :*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**10.08.11 09:53**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.99	Fluoride	BMB*	0.131	0.920	0.1330
2	4.47	Chloride	BMB*	0.107	0.803	0.1543
		TOTAL:		0.24	1.72	0.29



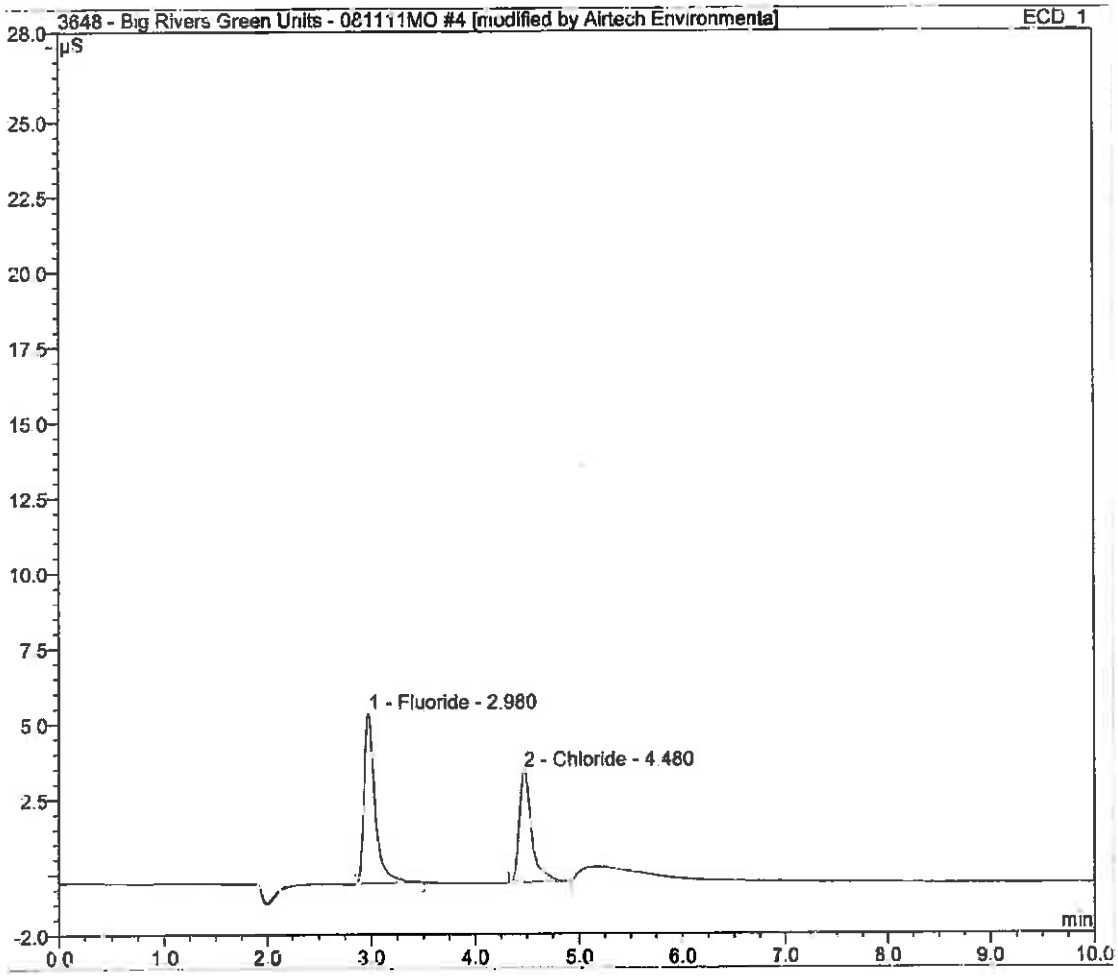
Sample Name:	**cal std 2 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**10.08.11 10:15**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.98	Fluoride	BMB*	0.694	5.599	0.7025
2	4.48	Chloride	BMB*	0.514	3.737	0.7404
		TOTAL:		1.21	9.34	1.44



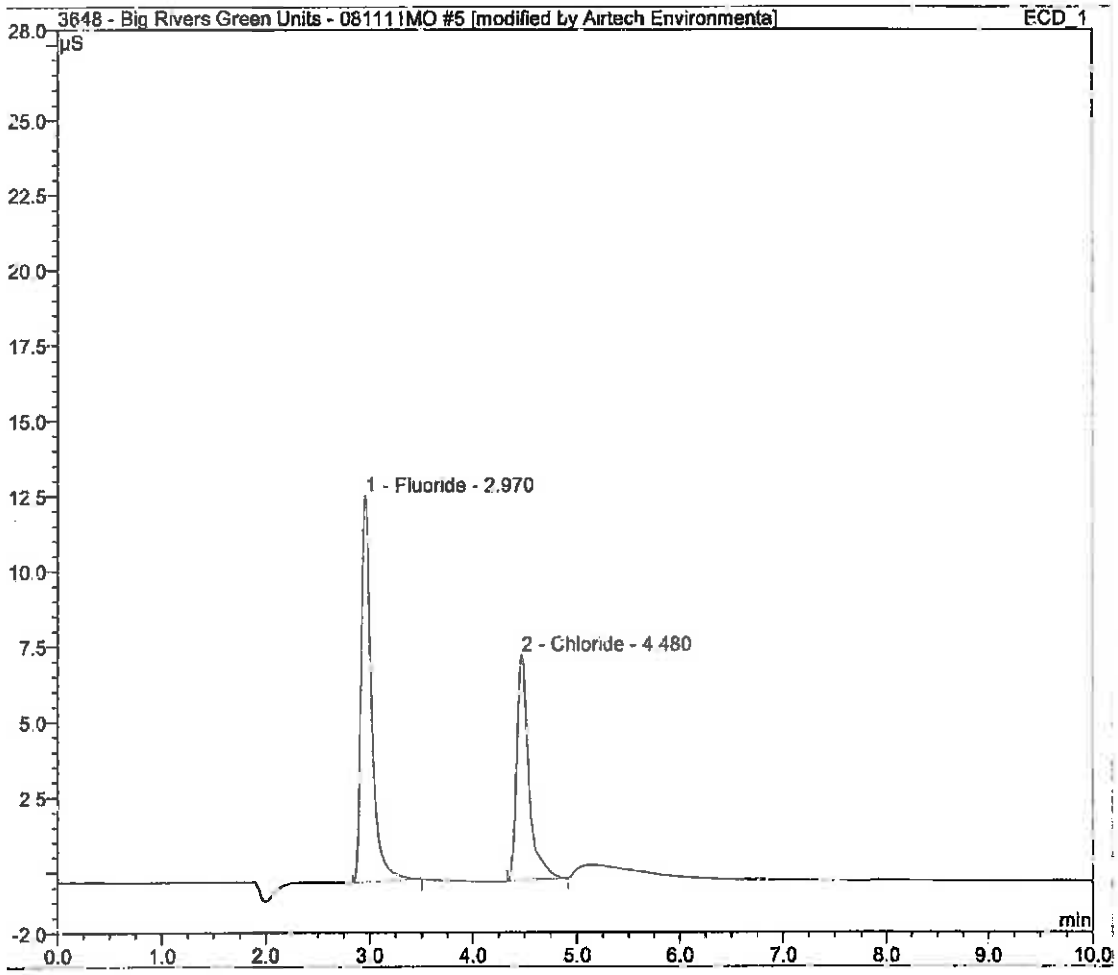
Sample Name:	**cal std 2 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**10.08.11 10:31**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.98	Fluoride	BMB*	0.703	5.675	0.7120
2	4.48	Chloride	BMB*	0.514	3.743	0.7408
		TOTAL:		1.22	9.42	1.45



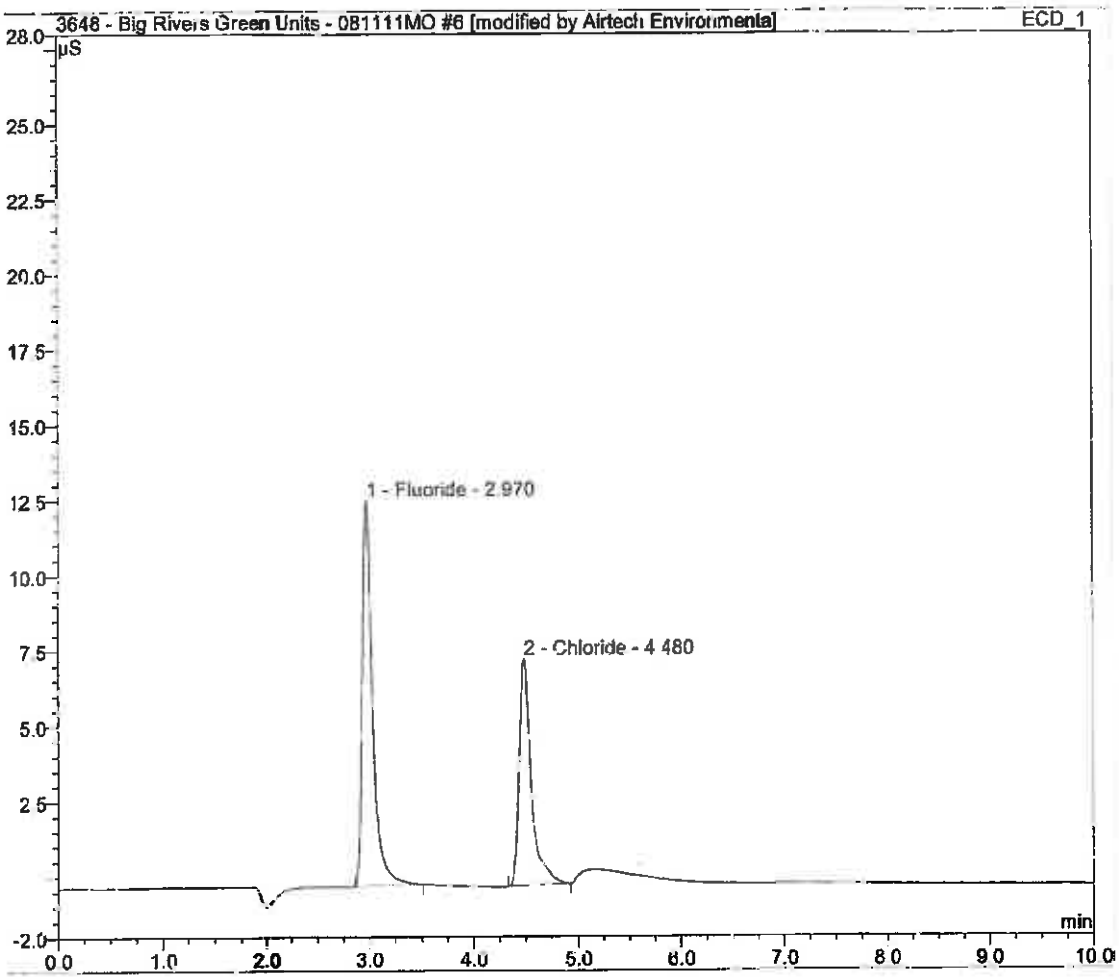
Sample Name:	**cal std 3 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**10.08.11 10:51**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.97	Fluoride	BMB*	1.487	12.822	1.5055
2	4.48	Chloride	BMB*	1.010	7.476	1.4559
		TOTAL:		2.50	20.30	2.96



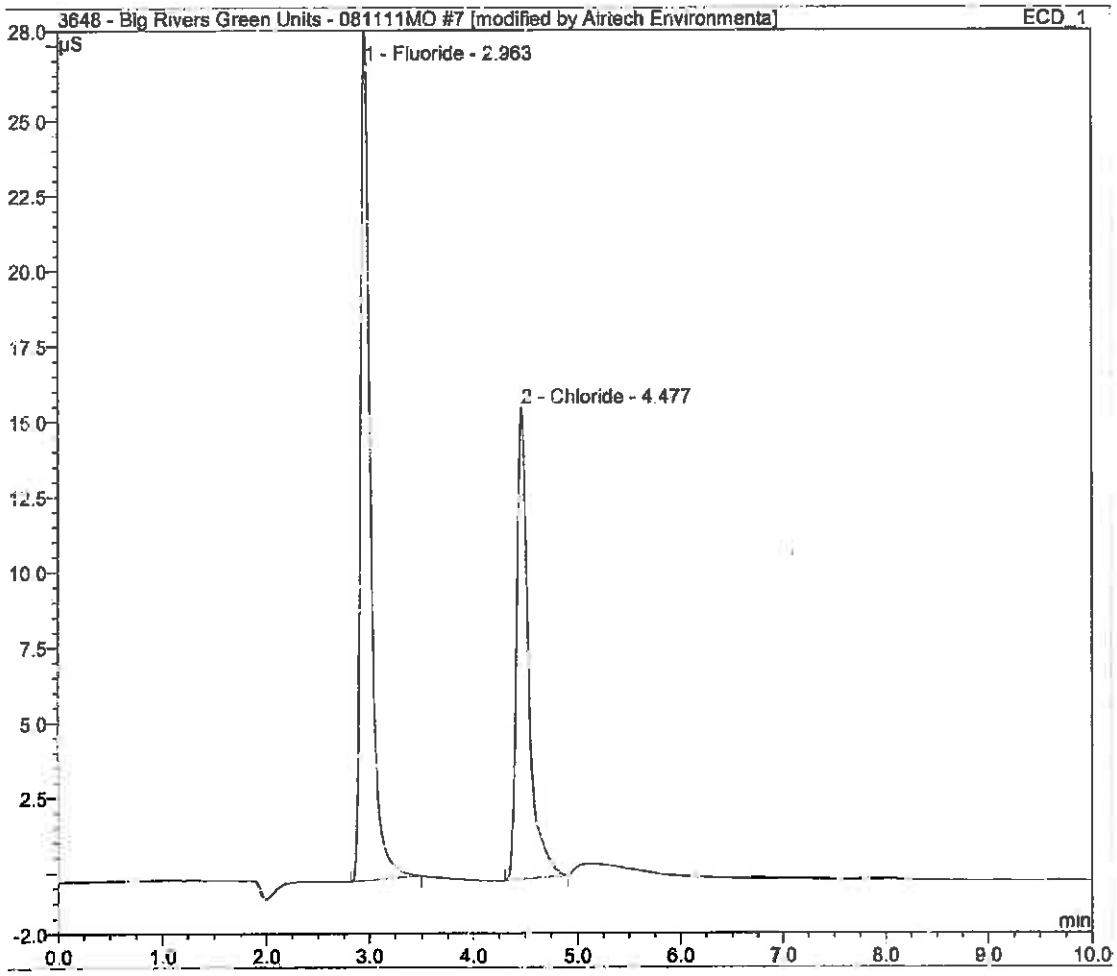
Sample Name:	**cal std 3 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChloridaCal**	*Operator:*	**n.a**
Inj. Date/Time:	**10.08.11 11:19**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.97	Fluoride	BMB*	1.484	12.797	1.5027
2	4.48	Chloride	BMB*	1.020	7.495	1.4704
		TOTAL:		2.50	20.29	2.97



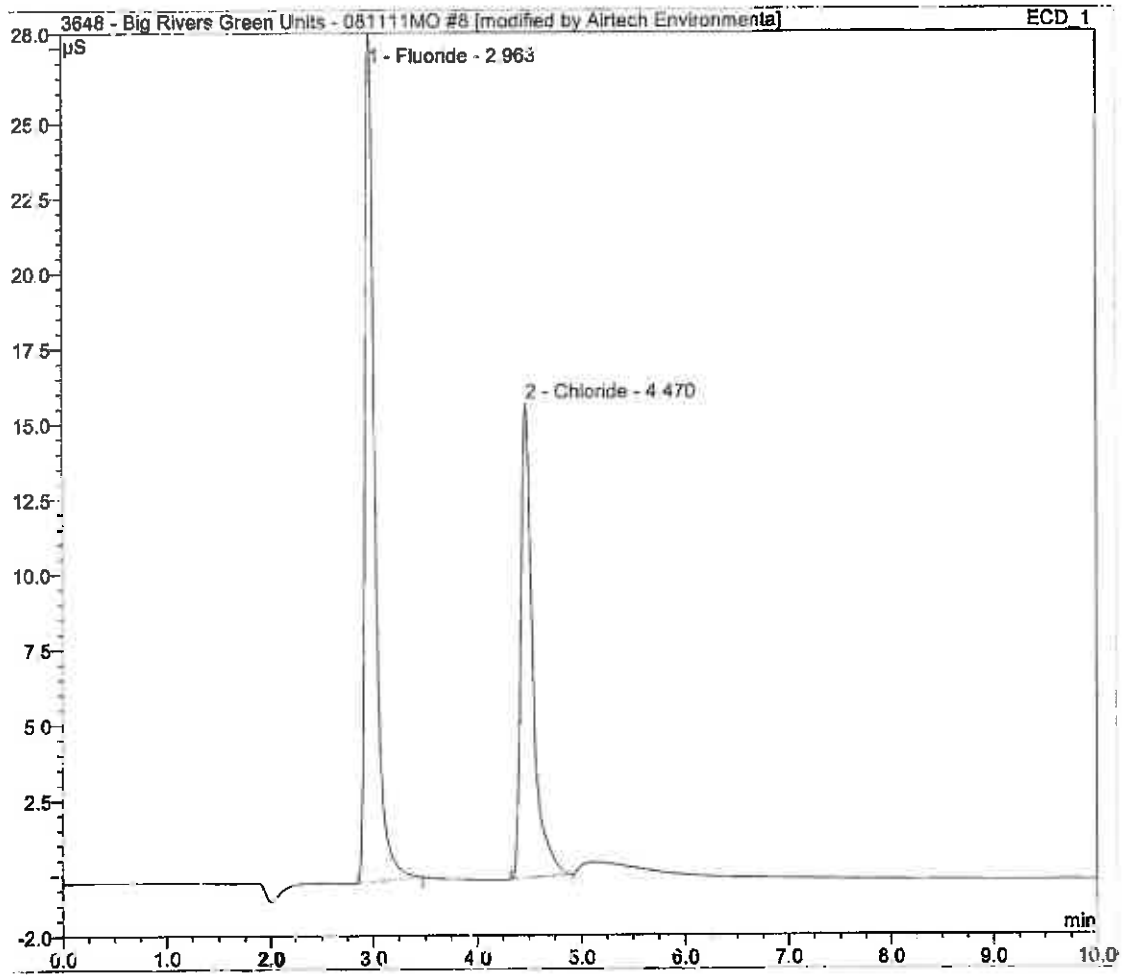
Sample Name:	**cal std 4 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**10.08.11 12:01**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.96	Fluoride	BMB*	3.094	28.415	3.1333
2	4.48	Chloride	BMB*	2.079	15.670	2.9962
		TOTAL:		5.17	44.08	6.13



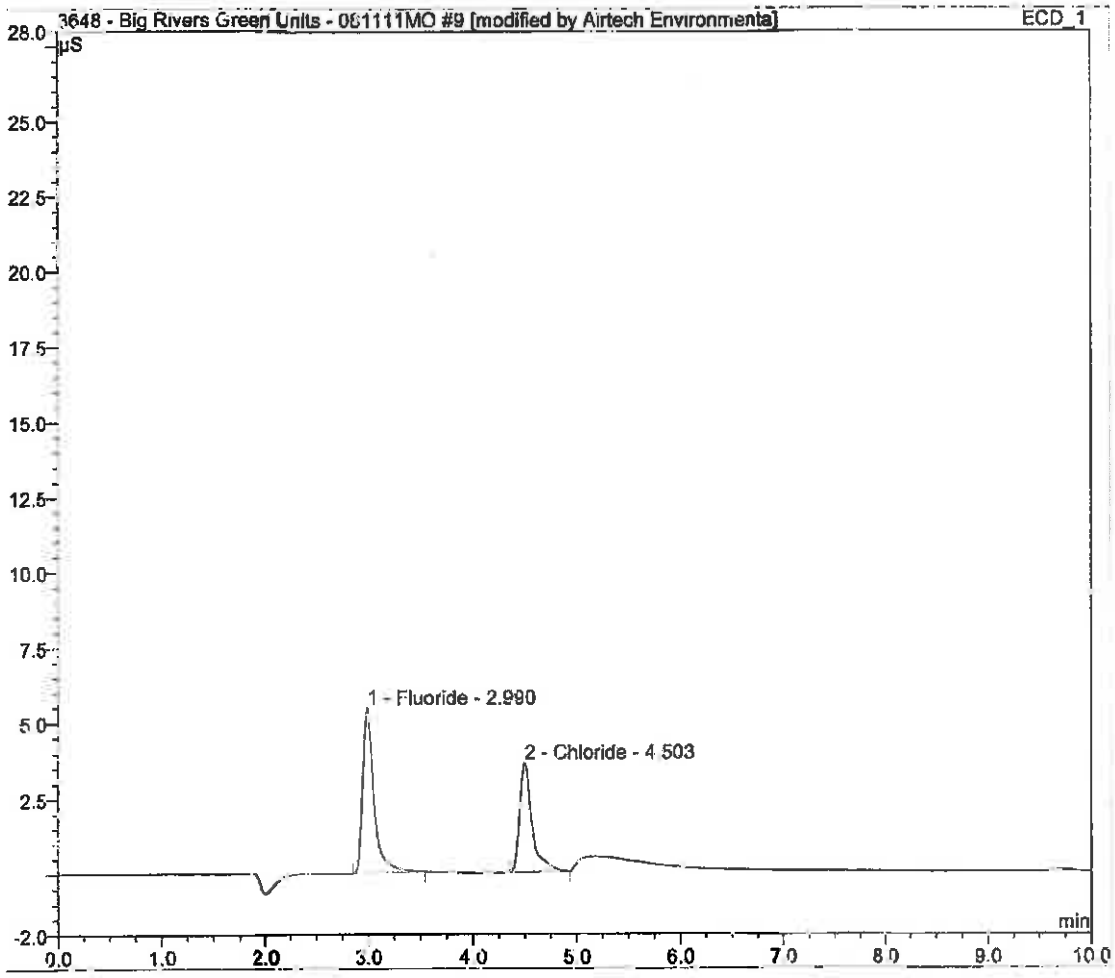
Sample Name:	**cal std 4 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**10.08.11 12:22**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.96	Fluoride	BMB*	3.082	28.444	3.1210
2	4.47	Chloride	BMB*	2.086	15.804	3.0070
		TOTAL:		5.17	44.25	6.13



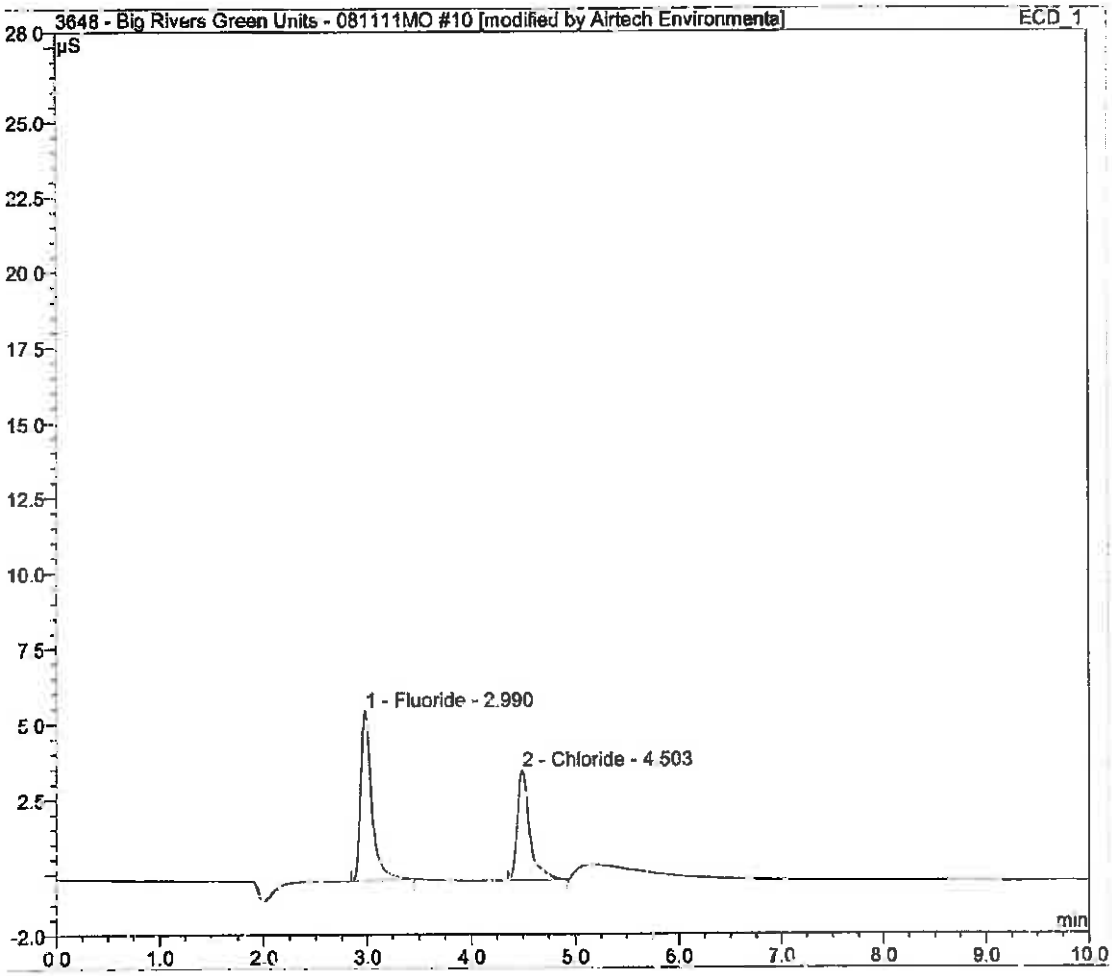
Sample Name:	**cal std 2 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**11.08.11 08:41**	*Run Time:*	**3.91**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.99	Fluoride	BMB*	0.693	5.464	0.7015
2	4.50	Chloride	BMB*	0.506	3.619	0.7293
		TOTAL:		1.20	9.08	1.43



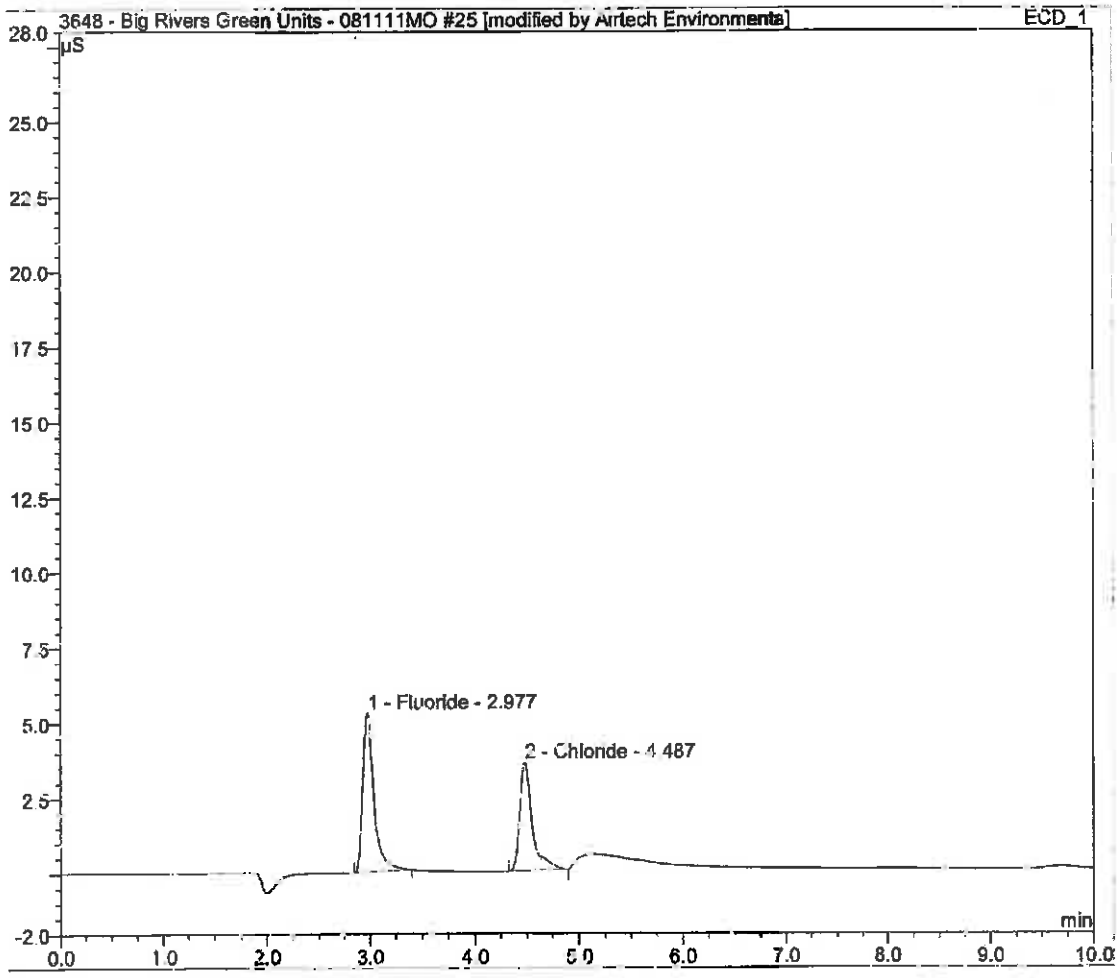
Sample Name:	**cal std 2 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**11.08.11 08:57**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.99	Fluoride	BMB*	0.698	5.640	0.7065
2	4.50	Chloride	BMB*	0.505	3.656	0.7280
		TOTAL:		1.20	9.30	1.43



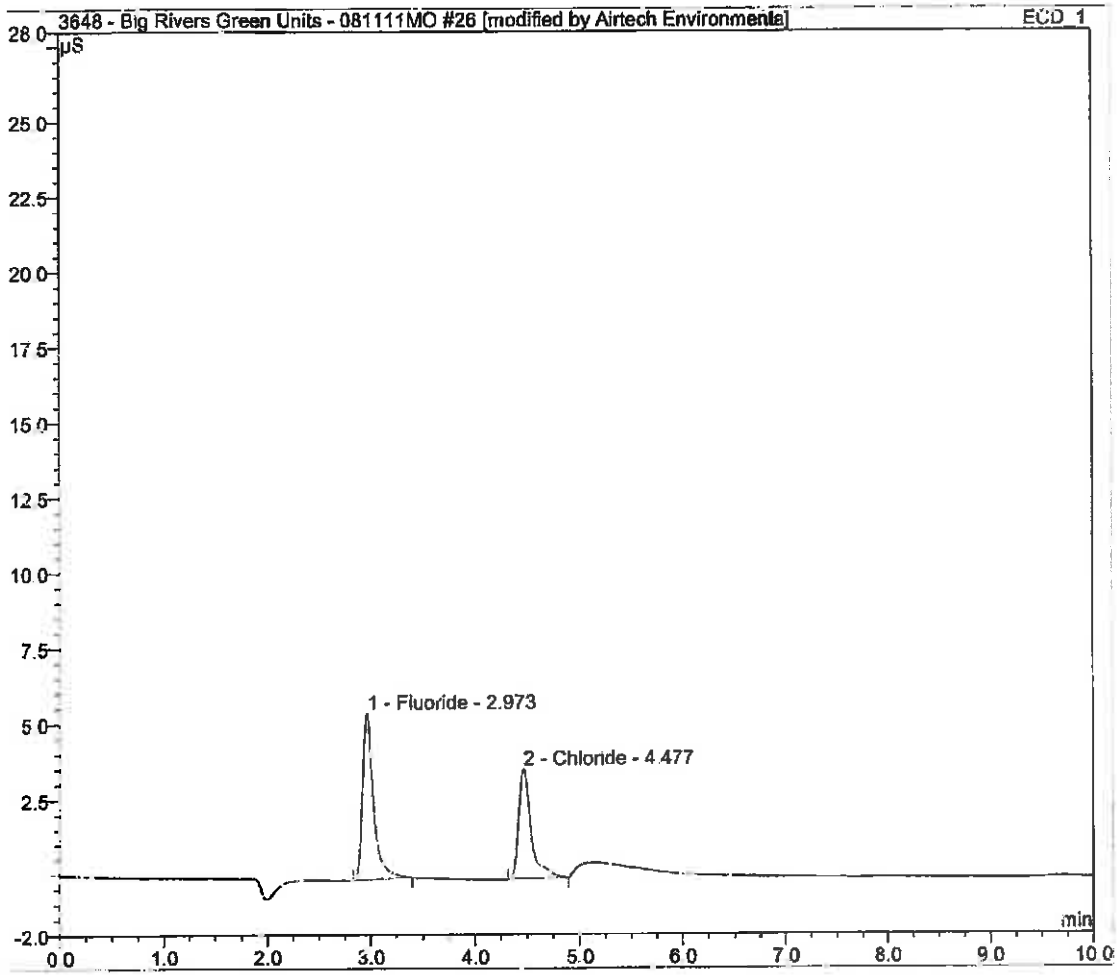
Sample Name:	**cal std 2 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**16.08.11 09:24**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.98	Fluoride	BMB*	0.668	5.282	0.6760
2	4.49	Chloride	BMB*	0.496	3.594	0.7154
		TOTAL:		1.16	8.88	1.39



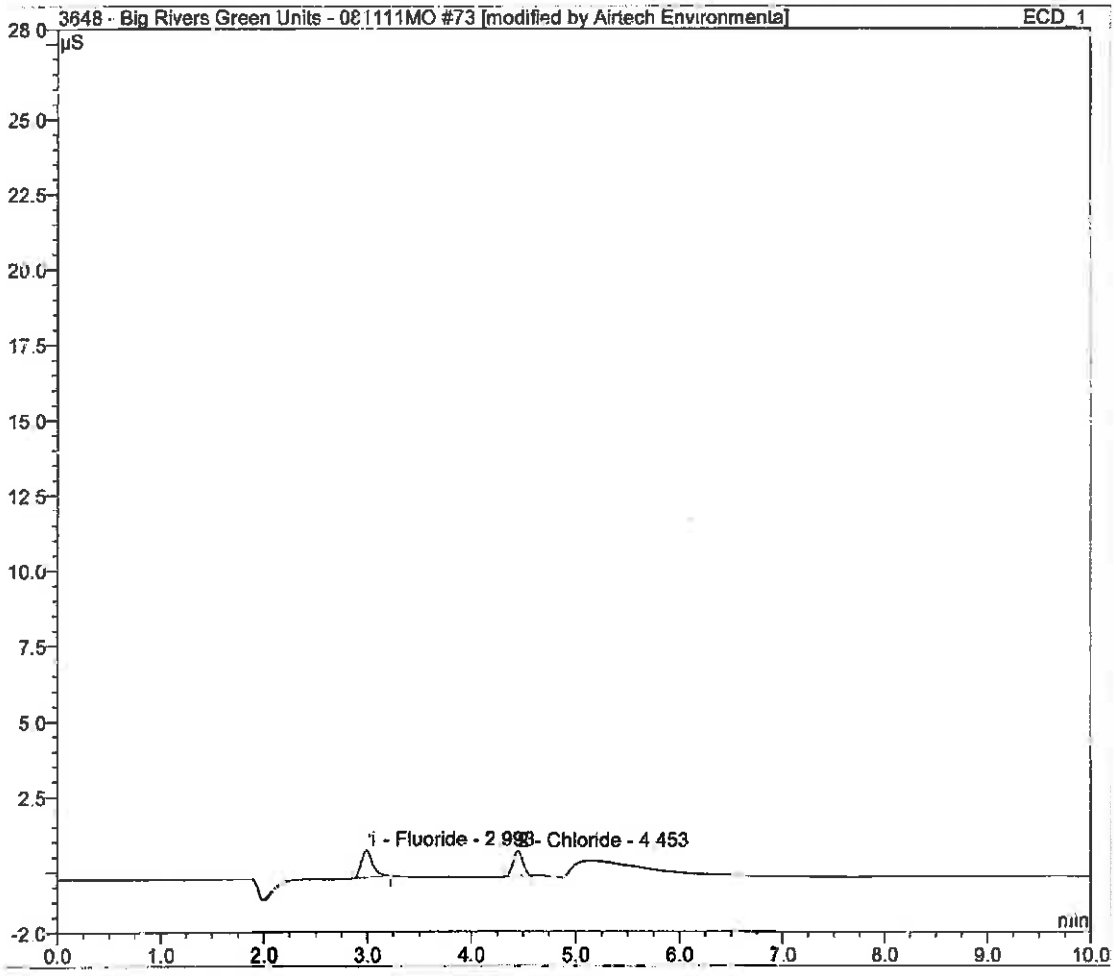
Sample Name:	**cal std 2 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**16.08.11 09:41**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.97	Fluoride	BMB*	0.674	5.523	0.6829
2	4.48	Chloride	BMB*	0.496	3.645	0.7154
		TOTAL:		1.17	9.17	1.40



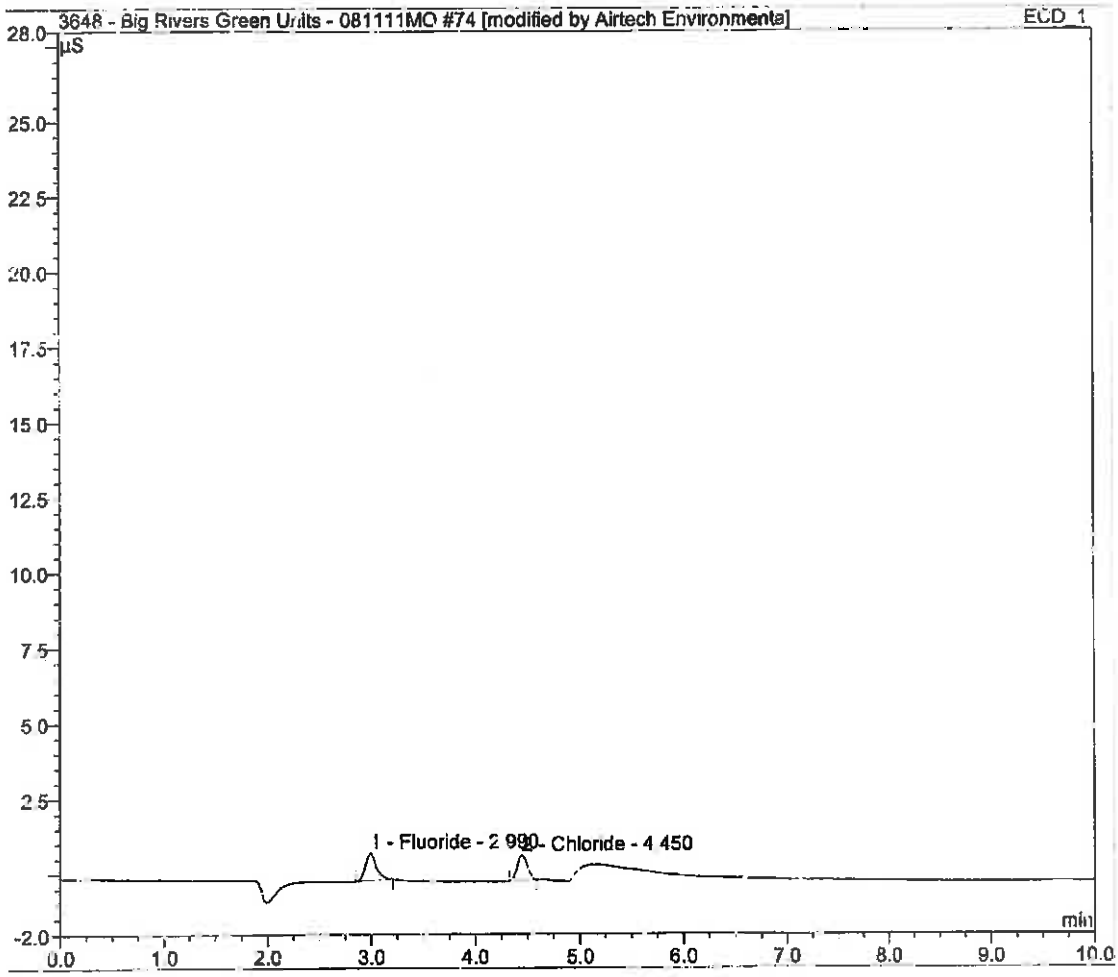
Sample Name:	**cal std 1 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**18.08.11 12:26**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.99	Fluoride	BMB*	0.116	0.919	0.1142
2	4.45	Chloride	BMB*	0.092	0.838	0.1285
		TOTAL:		0.21	1.76	0.24



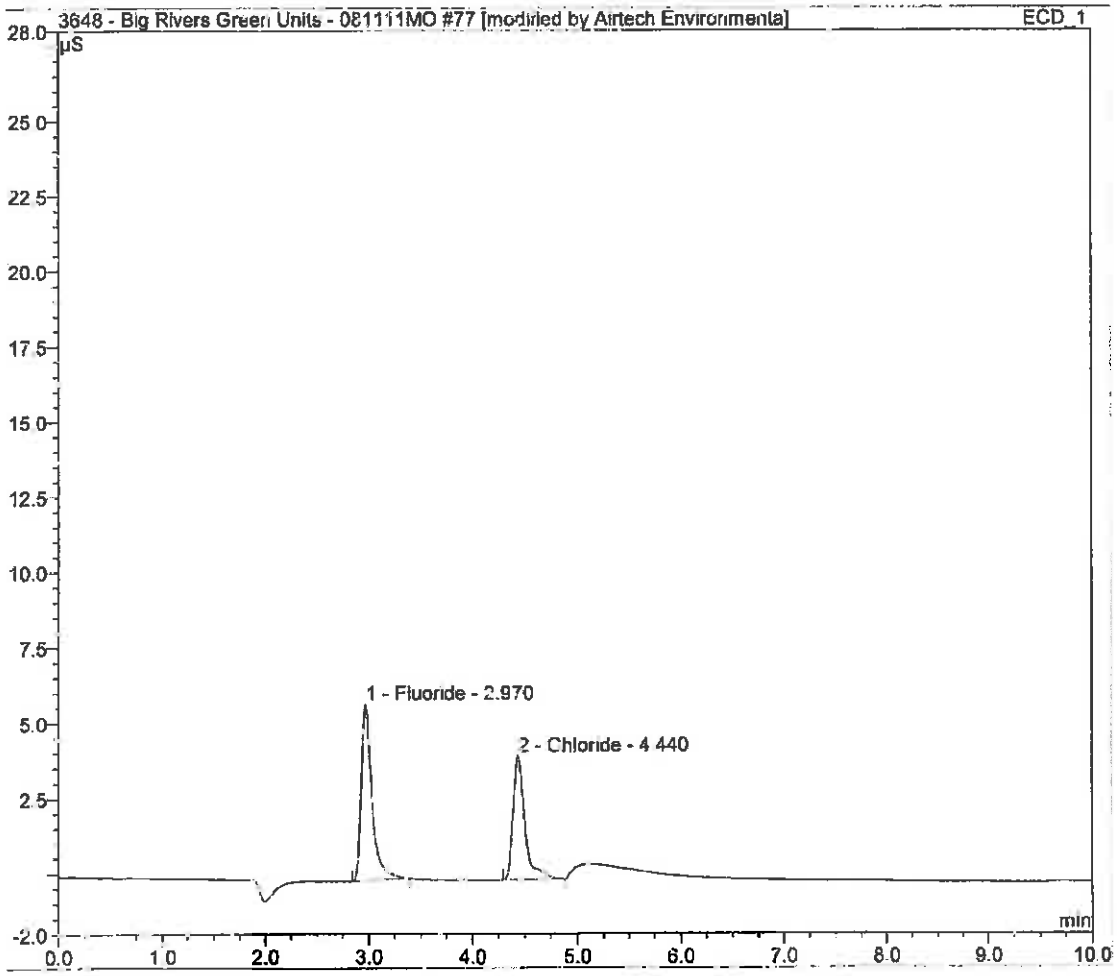
Sample Name:	**cal std 1 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**18.08.11 13:08**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.99	Fluoride	BMB*	0.115	0.919	0.1124
2	4.45	Chloride	BMB*	0.092	0.838	0.1281
		TOTAL:		0.21	1.76	0.24



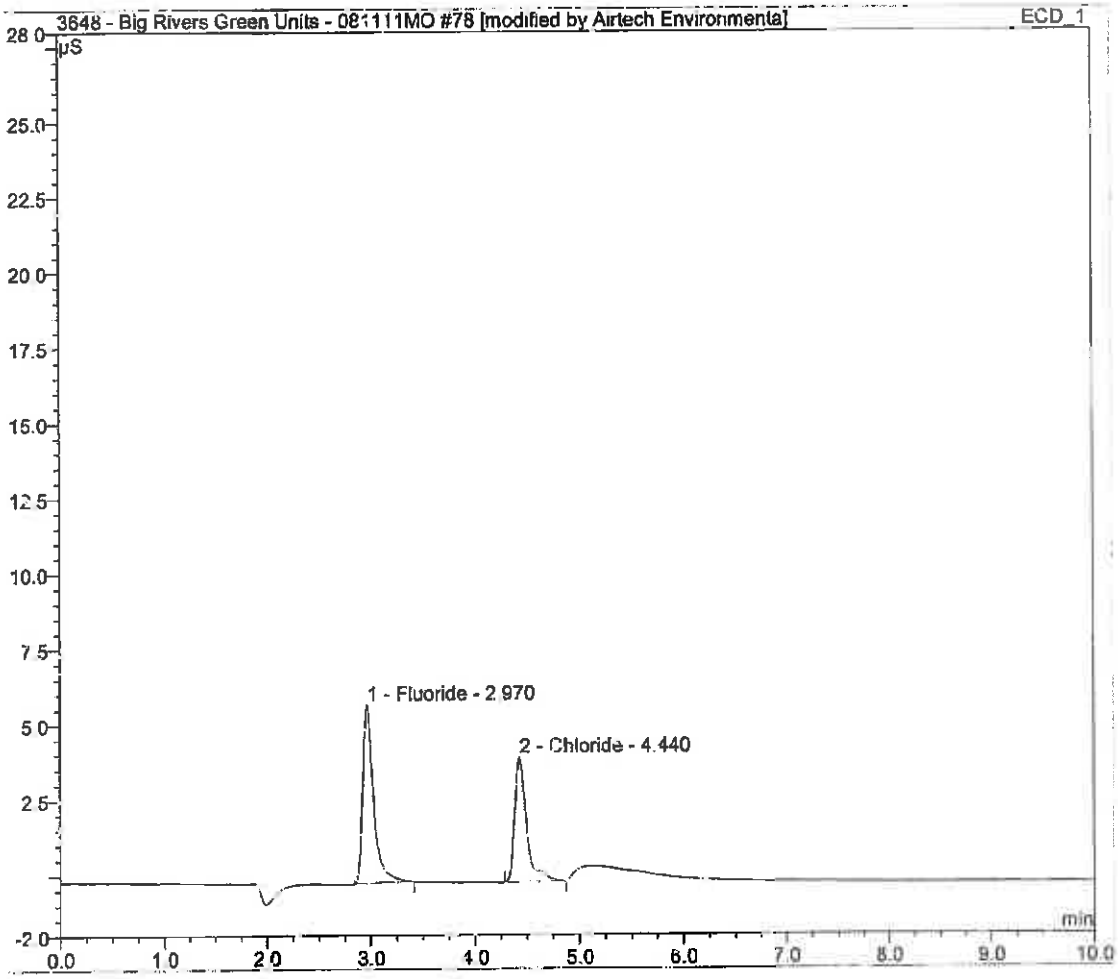
Sample Name:	**cal std 2 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator*	**n.a.**
Inj. Date/Time:	**18.08.11 14:01**	*Run Time*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.97	Fluoride	BMB*	0.706	5.859	0.6923
2	4.44	Chloride	BMB*	0.545	4.124	0.7568
		TOTAL:		1.25	9.98	1.45



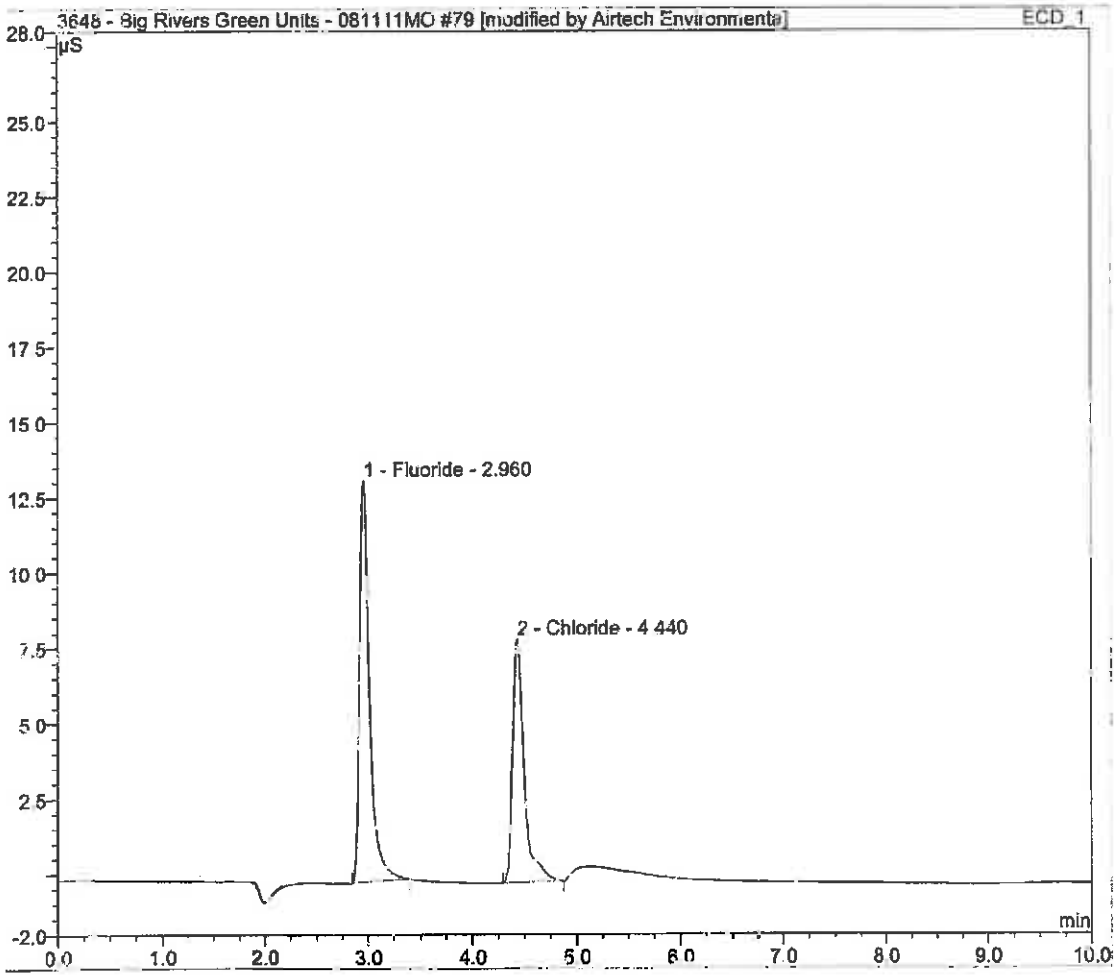
Sample Name:	**cal std 2 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**18.08.11 14:17**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.97	Fluoride	BMB*	0.715	5.925	0.7012
2	4.44	Chloride	BMB*	0.548	4.156	0.7609
		TOTAL:		1.26	10.08	1.46



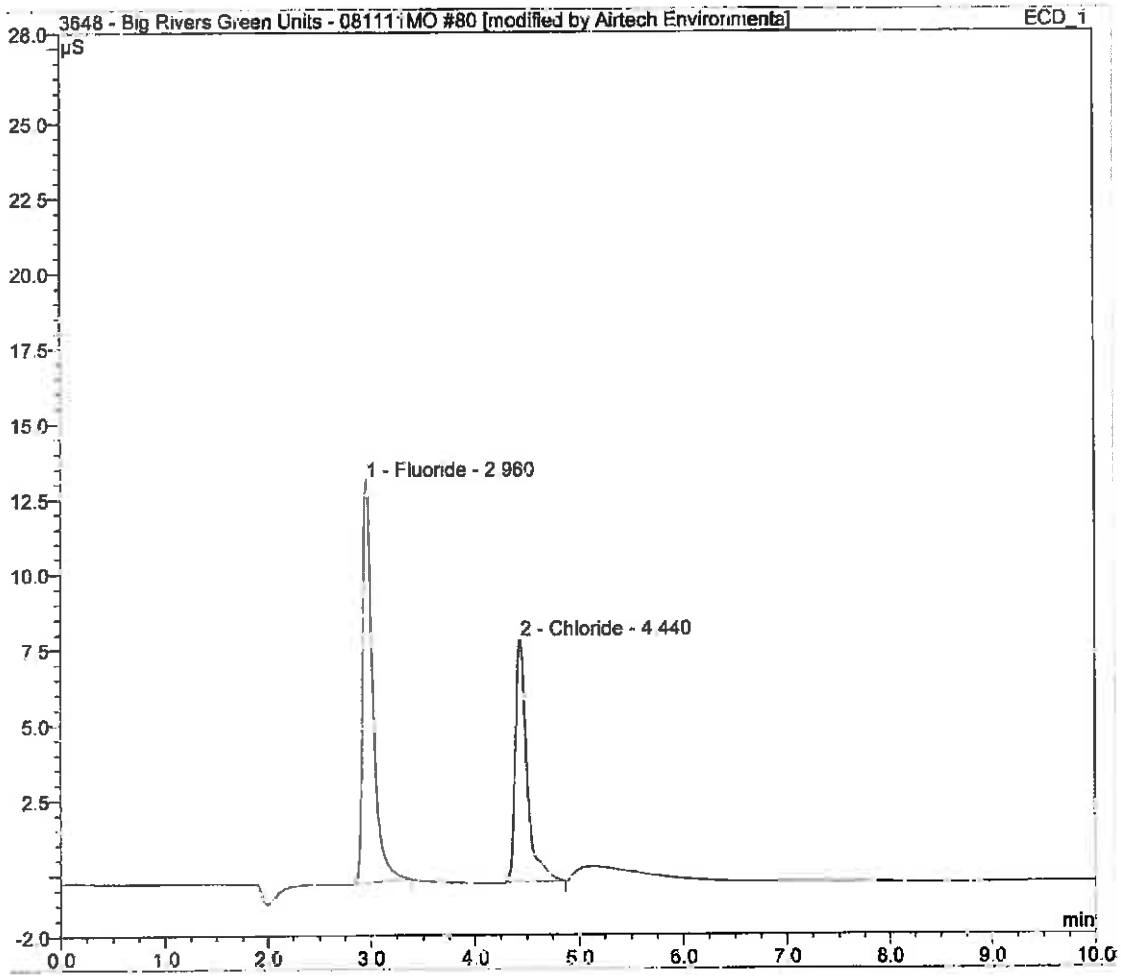
Sample Name:	**cal std 3 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**18.08.11 14:35**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.96	Fluoride	BMB*	1.498	13.343	1.4695
2	4.44	Chloride	BMB*	1.051	8.072	1.4606
		TOTAL:		2.55	21.41	2.93



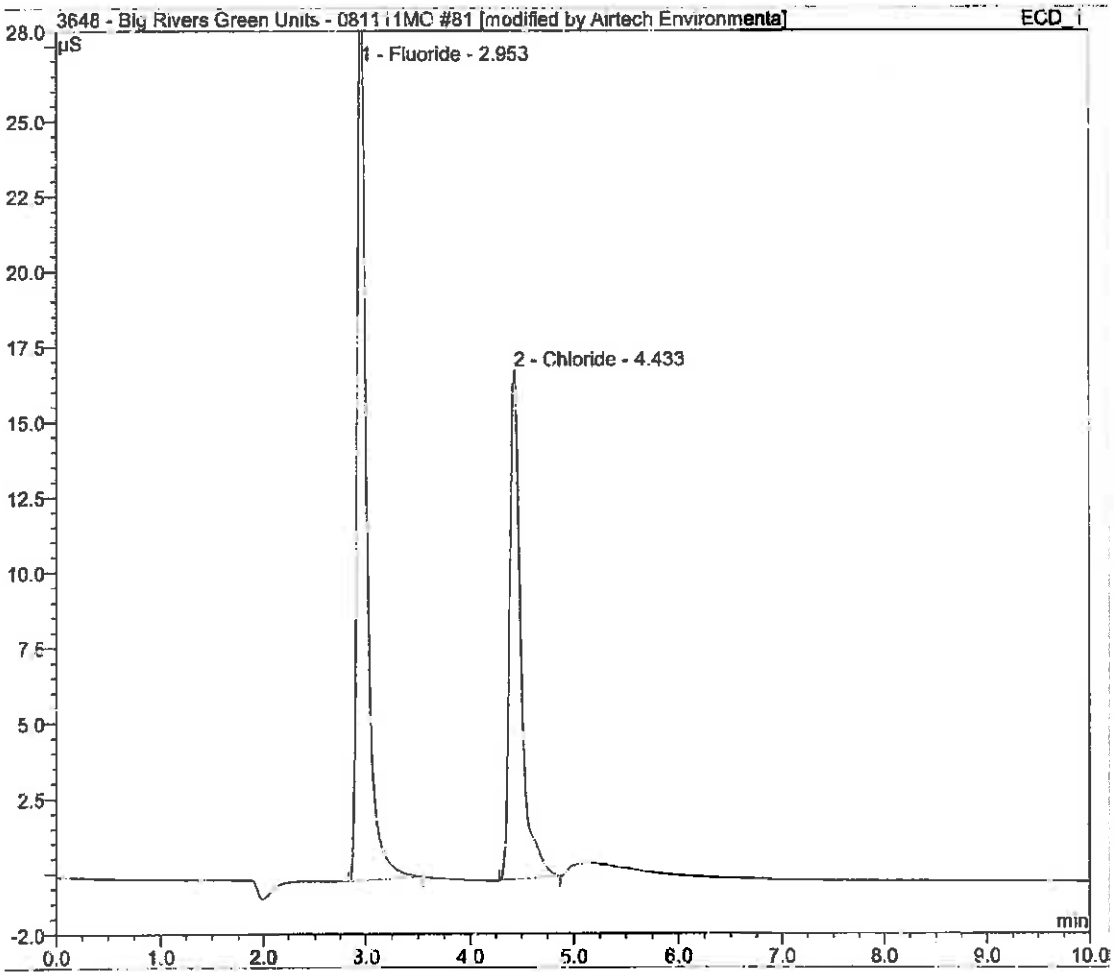
Sample Name:	**cal std 3 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**18.08.11 14:52**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.96	Fluoride	BMB*	1.500	13.371	1.4710
2	4.44	Chloride	BMB*	1.051	8.059	1.4609
		TOTAL:		2.55	21.43	2.93



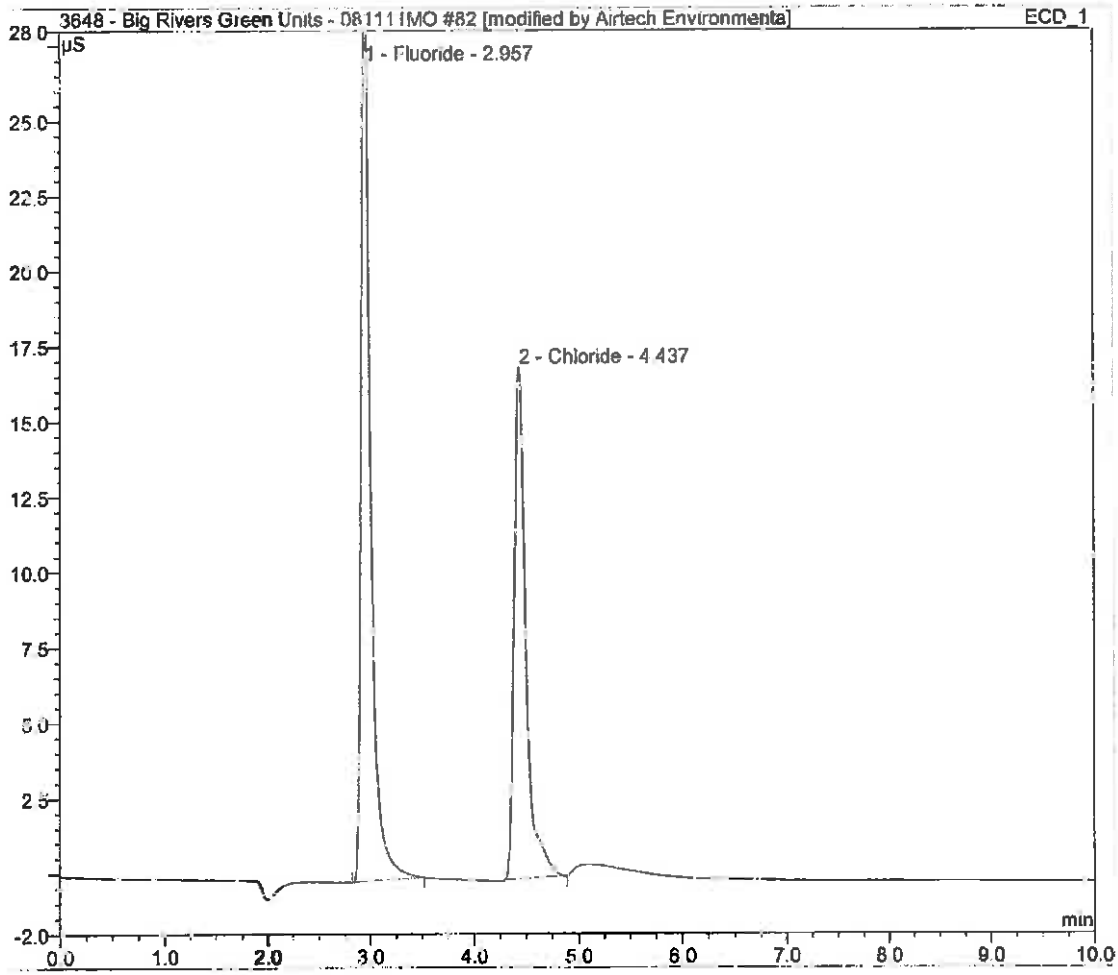
Sample Name:	**cal std 4 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type.	**standard**	*Dilution Factor.*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**18.08.11 15:11**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.95	Fluoride	BMB*	3.166	29.539	3.1048
2	4.43	Chloride	BMB*	2.158	16.910	2.9986
		TOTAL:		5.32	46.45	6.10



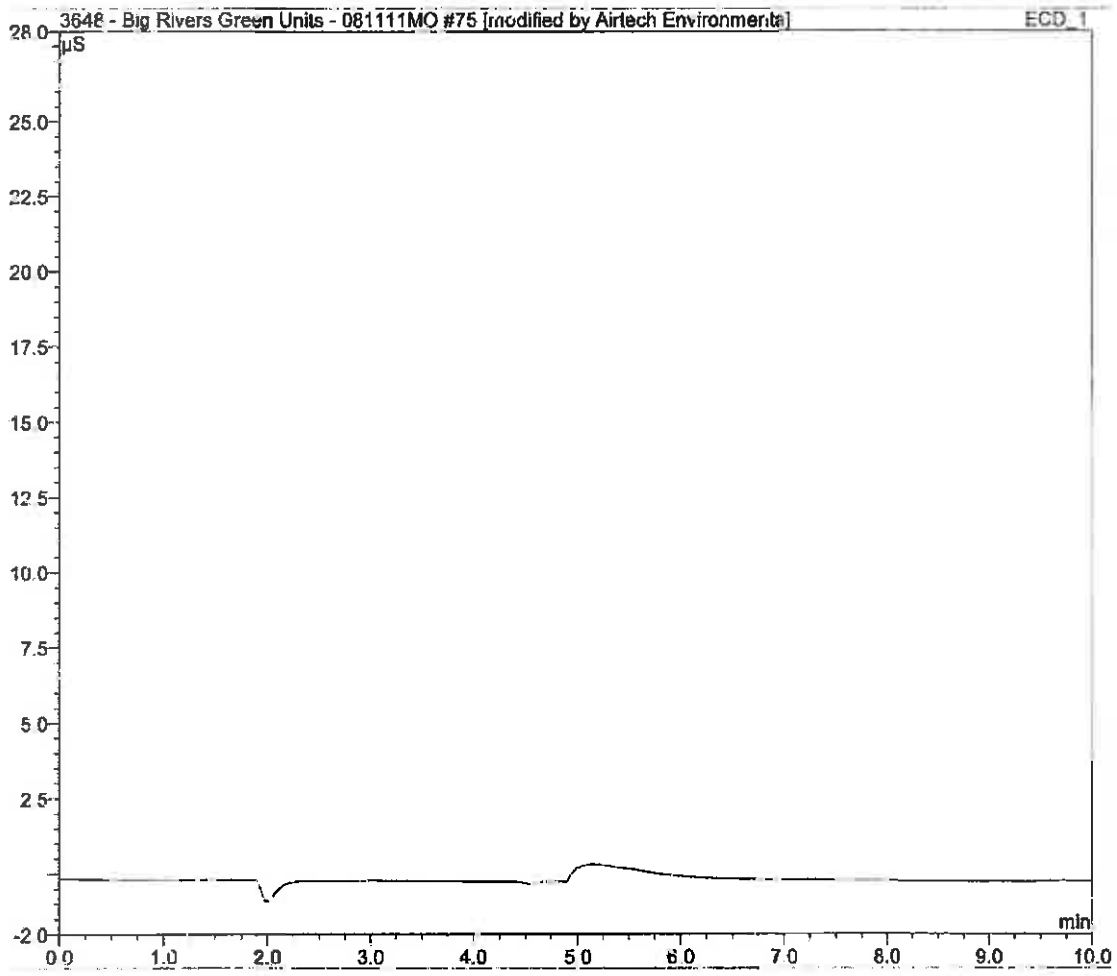
Sample Name:	**cal std 4 - Cl & F in H2SO4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**18.08.11 15:27**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.96	Fluoride	BMB*	3.171	29.711	3.1095
2	4.44	Chloride	BMB*	2.150	16.978	2.9883
		TOTAL:		5.32	46.69	6.10



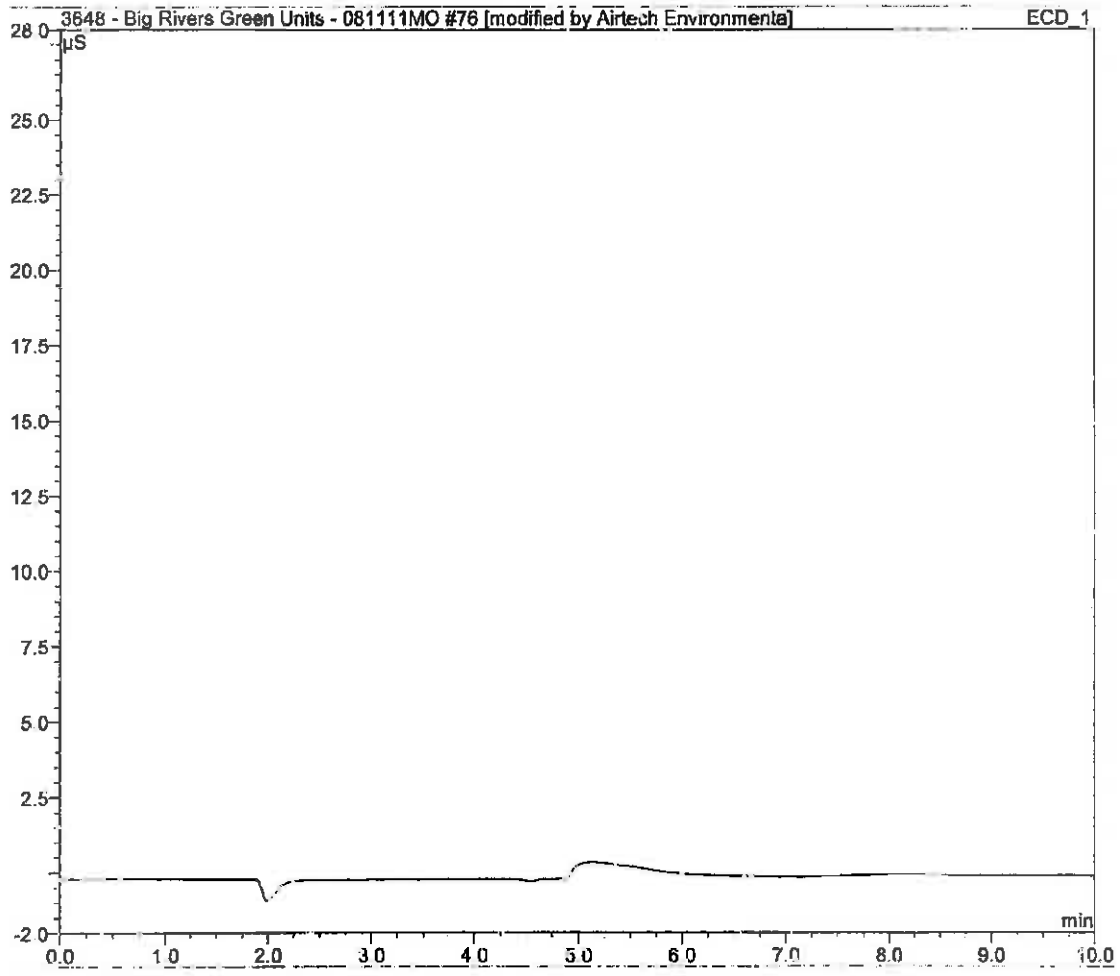
Sample Name:	**Reagent Blank**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**18.08.11 13:24**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
		TOTAL:		0.00	0.00	0.00



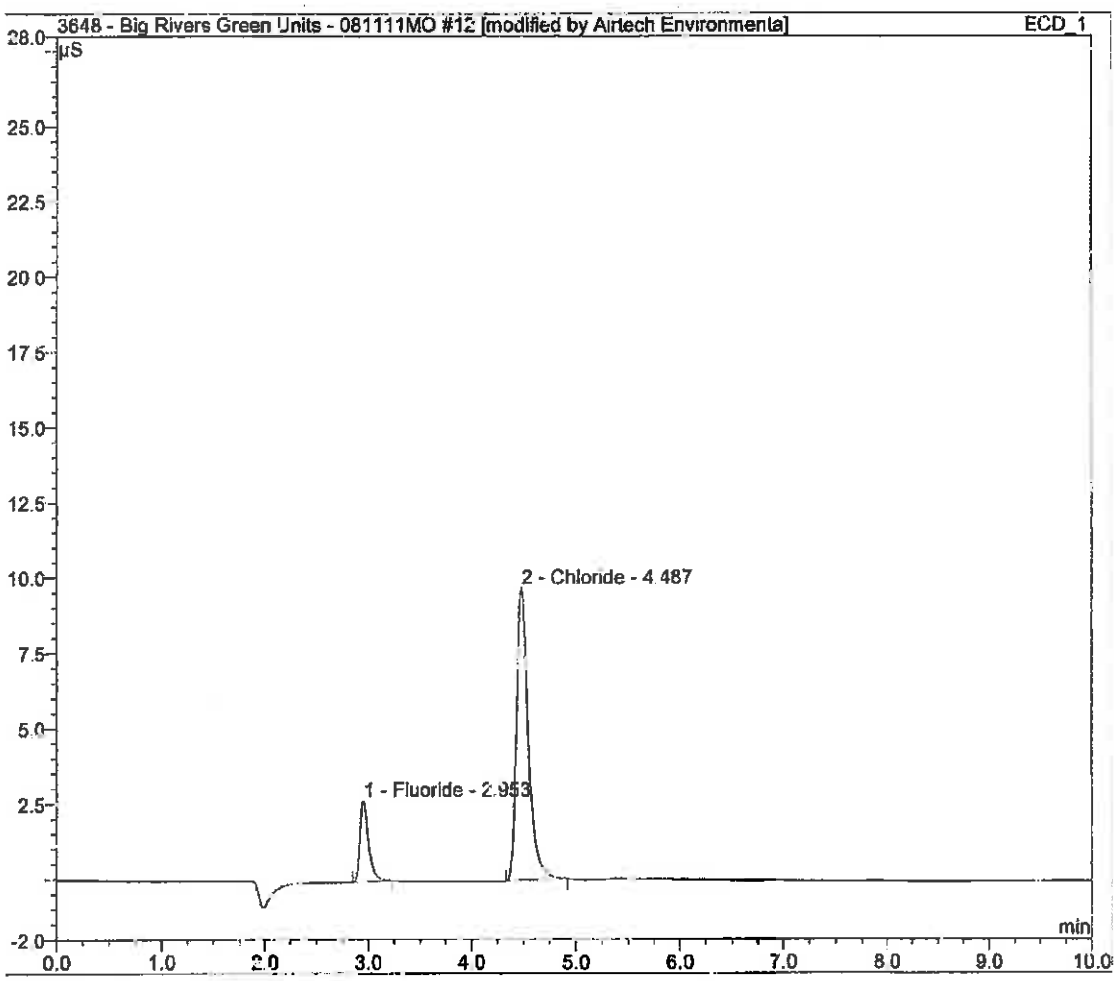
Sample Name:	**Reagent Blank**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**18.08.11 13:41**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
		TOTAL:		0.00	0.00	0.00



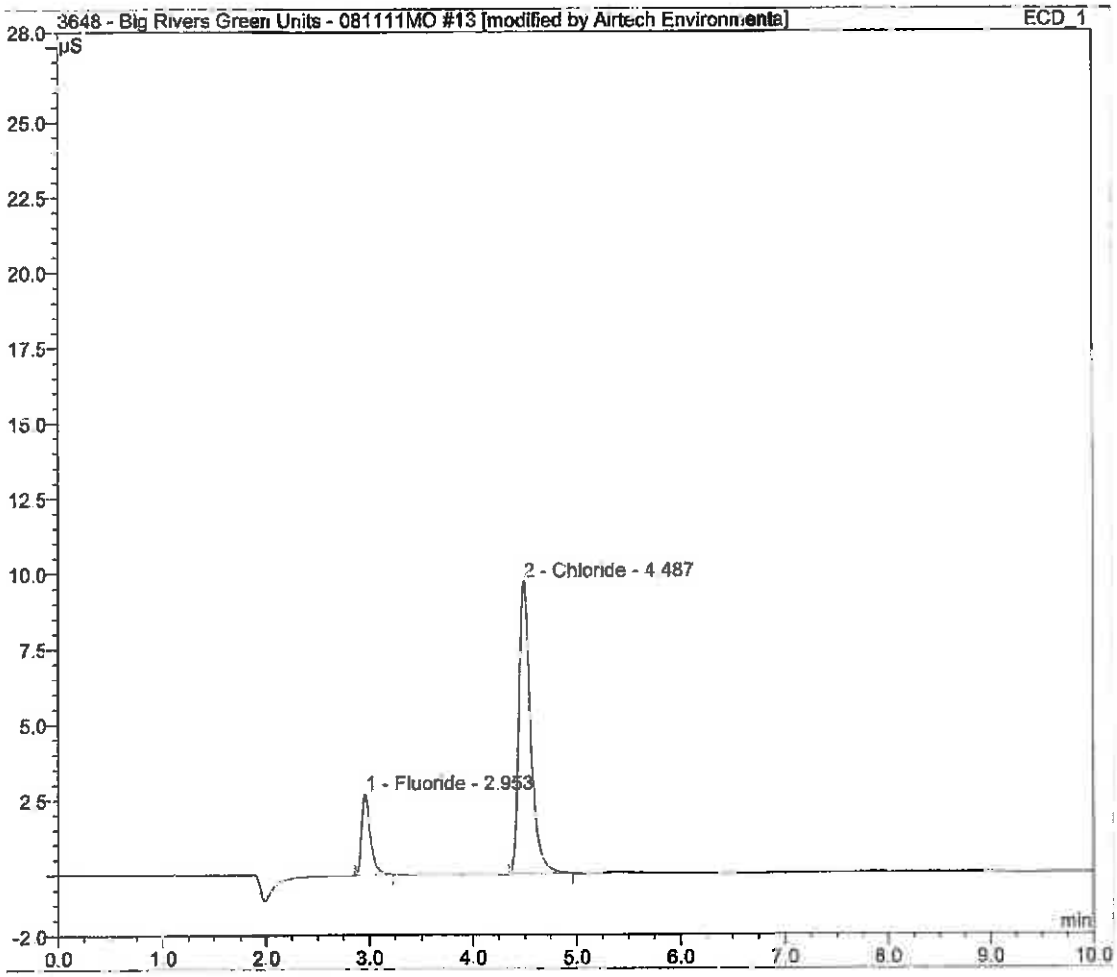
Sample Name:	**Unit 1 ESP Inlet 1 Run 1 3:50 Dilution**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**11.08.11 09:42**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.95	Fluoride	BMB*	0.260	2.694	0.2633
2	4.49	Chloride	BMB*	1.277	9.697	1.8411
		TOTAL:		1.54	12.39	2.10



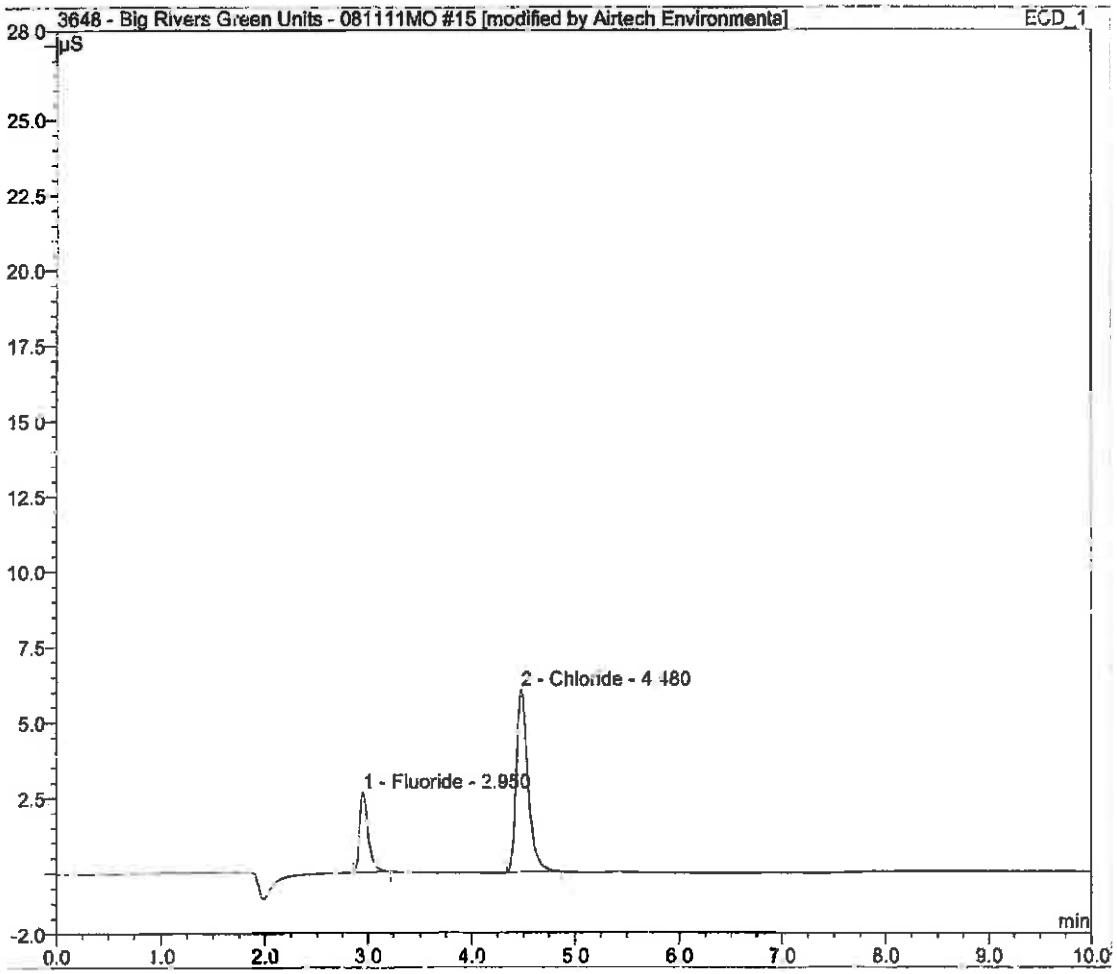
Sample Name:	**Unit 1 ESP Inlet 1 Run 1 3:50 Dilution**	*Inj. Vol :*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**11.08.11 09:58**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.95	Fluoride	BMB*	0.258	2.680	0.2613
2	4.49	Chloride	BMB*	1.278	9.692	1.8419
TOTAL:				1.54	12.37	2.10



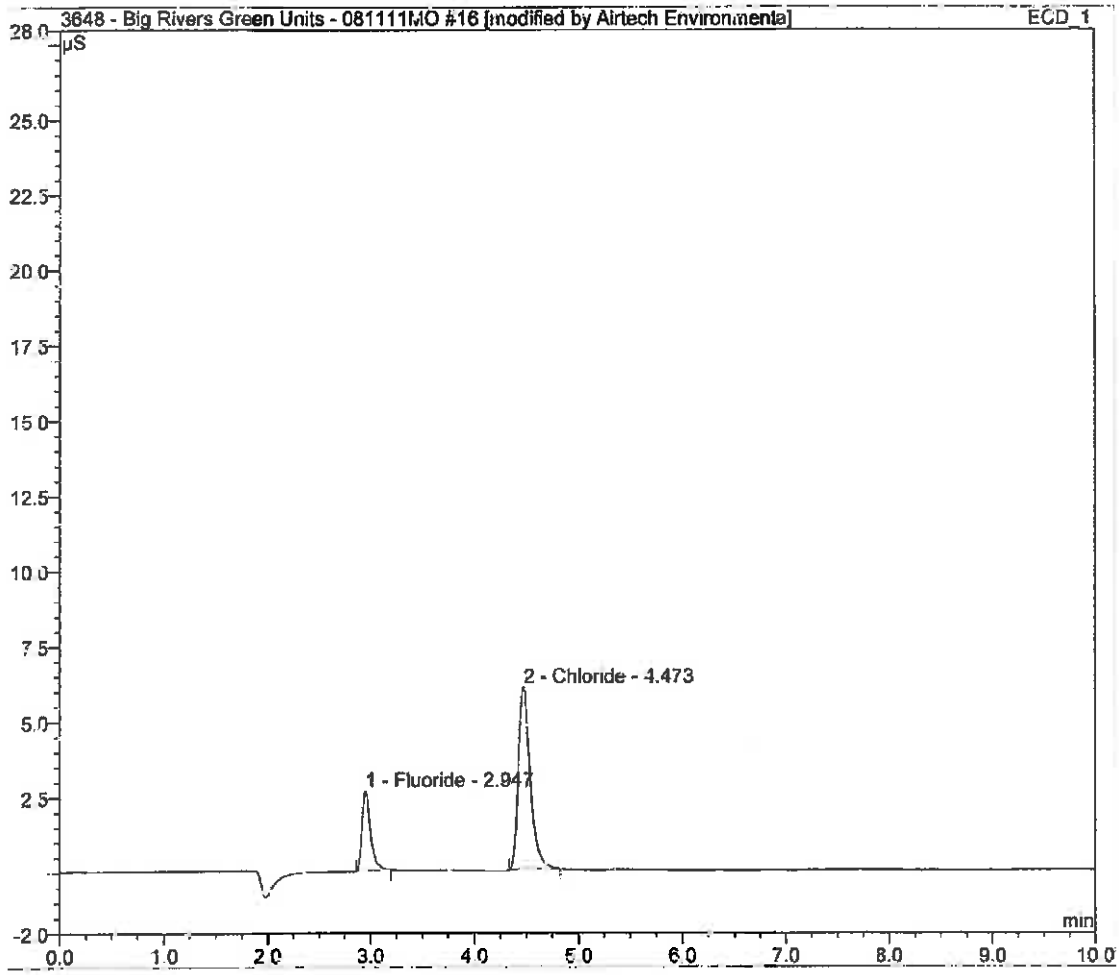
Sample Name:	**Unit 1 ESP Inlet 1 Run 2 3:50 Dilution**	*Inj Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj Date/Time:	**11.08.11 10:39**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.95	Fluoride	BMB*	0.256	2.661	0.2589
2	4.48	Chloride	BMB*	0.799	6.055	1.1518
		TOTAL:		1.05	8.72	1.41



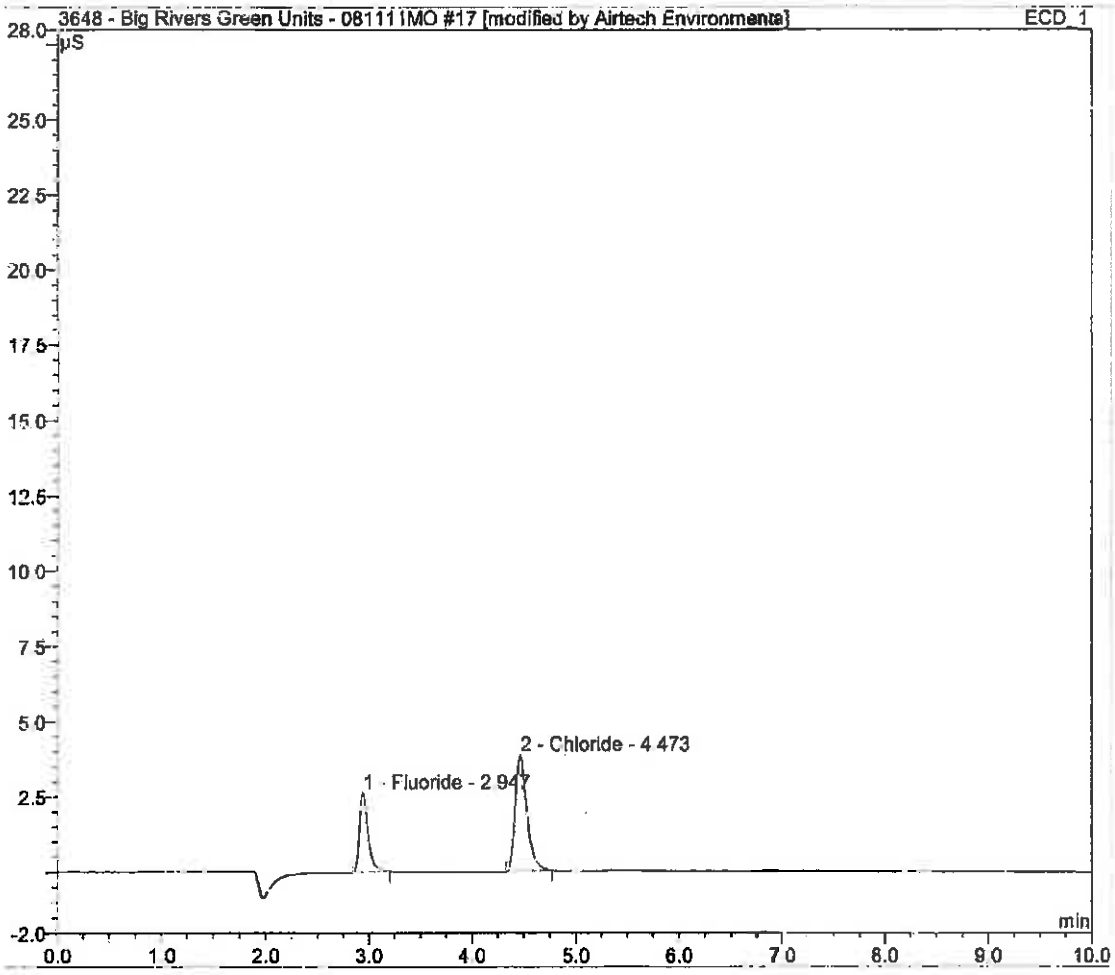
Sample Name:	**Unit 1 ESP Inlet 1 Run 2 3:50 Dilution**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**11.08.11 10:58**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.95	Fluoride	BMB*	0.253	2.657	0.2484
2	4.47	Chloride	BMB*	0.794	6.059	1.1033
		TOTAL:		1.05	8.72	1.35



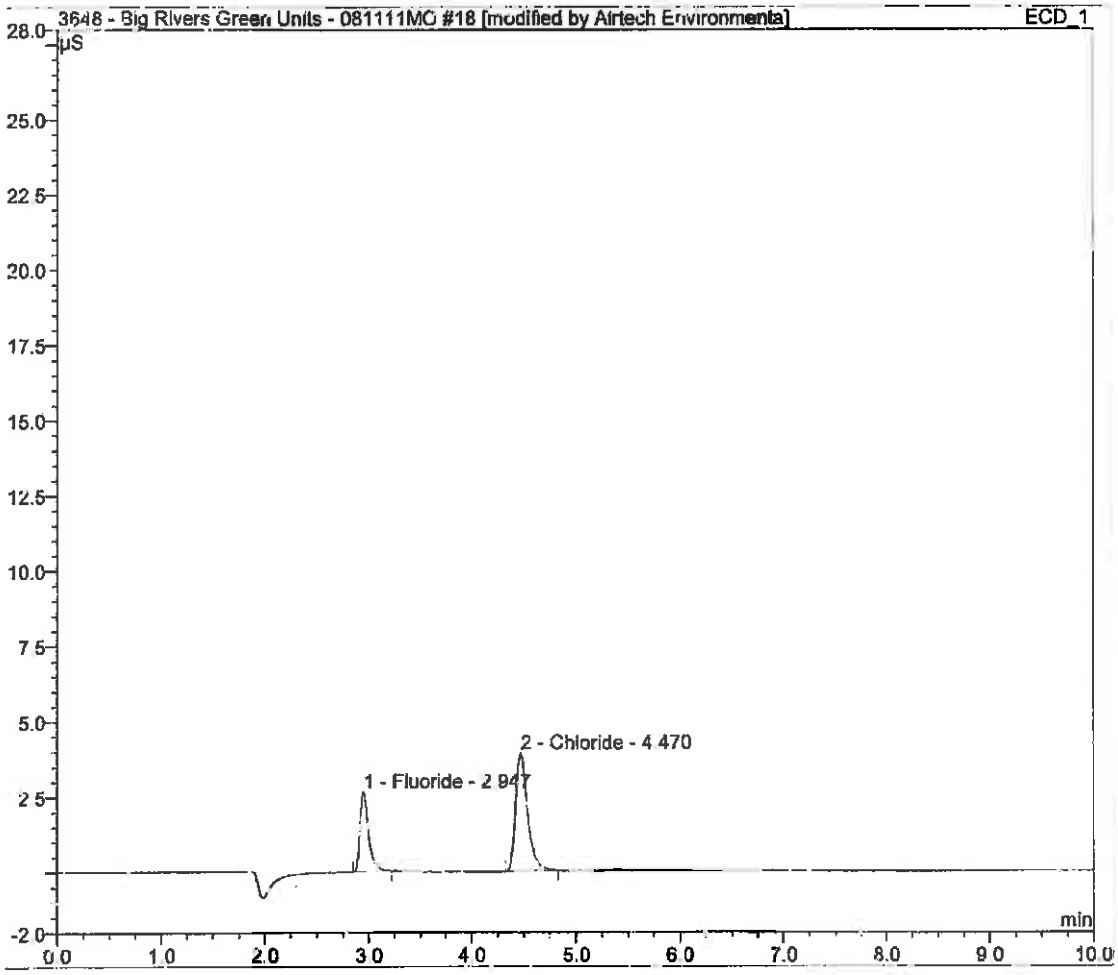
Sample Name:	**Unit 1 ESP Inlet 1 Run 3 3:50 Dilution**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**11.08.11 11:30**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.95	Fluoride	BMB*	0.253	2.638	0.2563
2	4.47	Chloride	BMB*	0.505	3.870	0.7285
TOTAL:				0.76	6.51	0.98



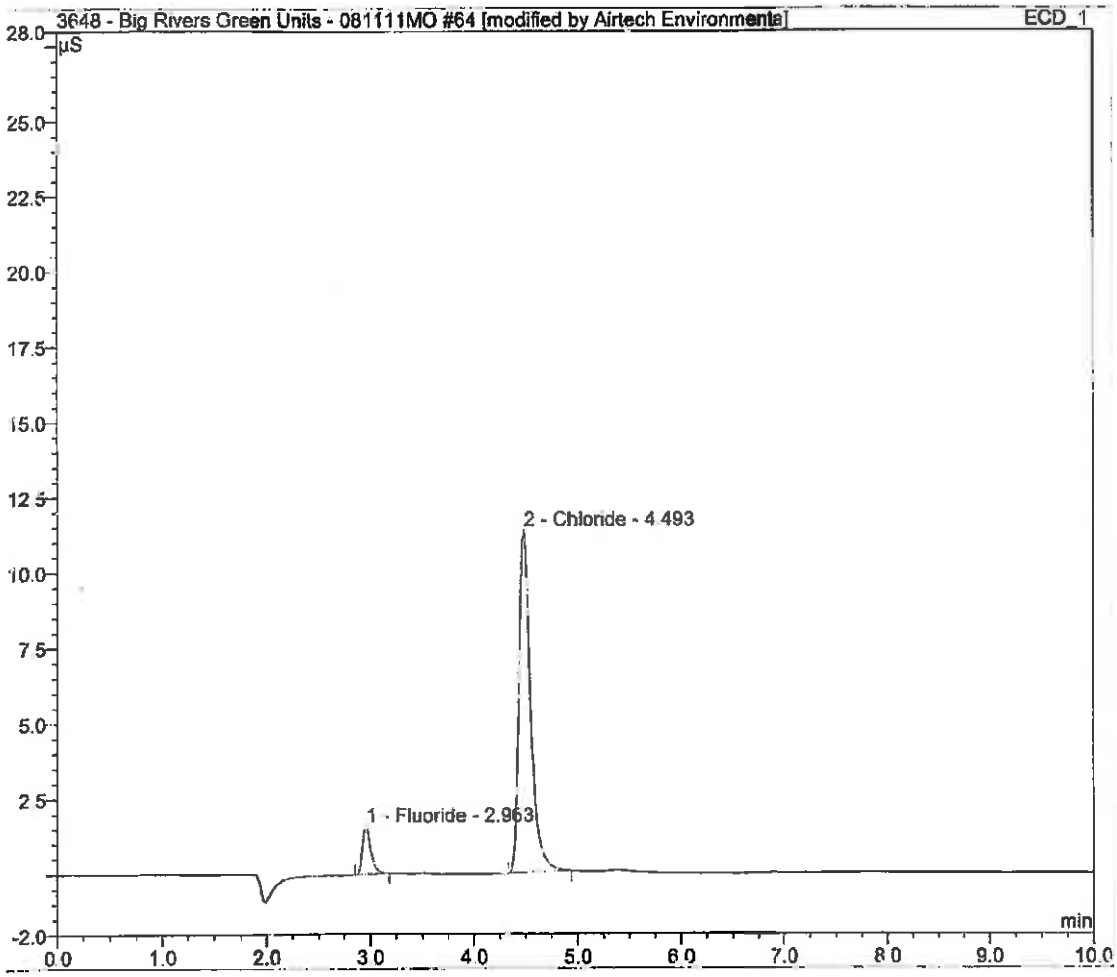
Sample Name:	**Unit 1 ESP Inlet 1 Run 3 3:50 Dilution**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**11.08.11 11:46**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.95	Fluoride	BMB*	0.254	2.638	0.2576
2	4.47	Chloride	BMB*	0.515	3.904	0.7428
		TOTAL:		0.77	6.54	1.00



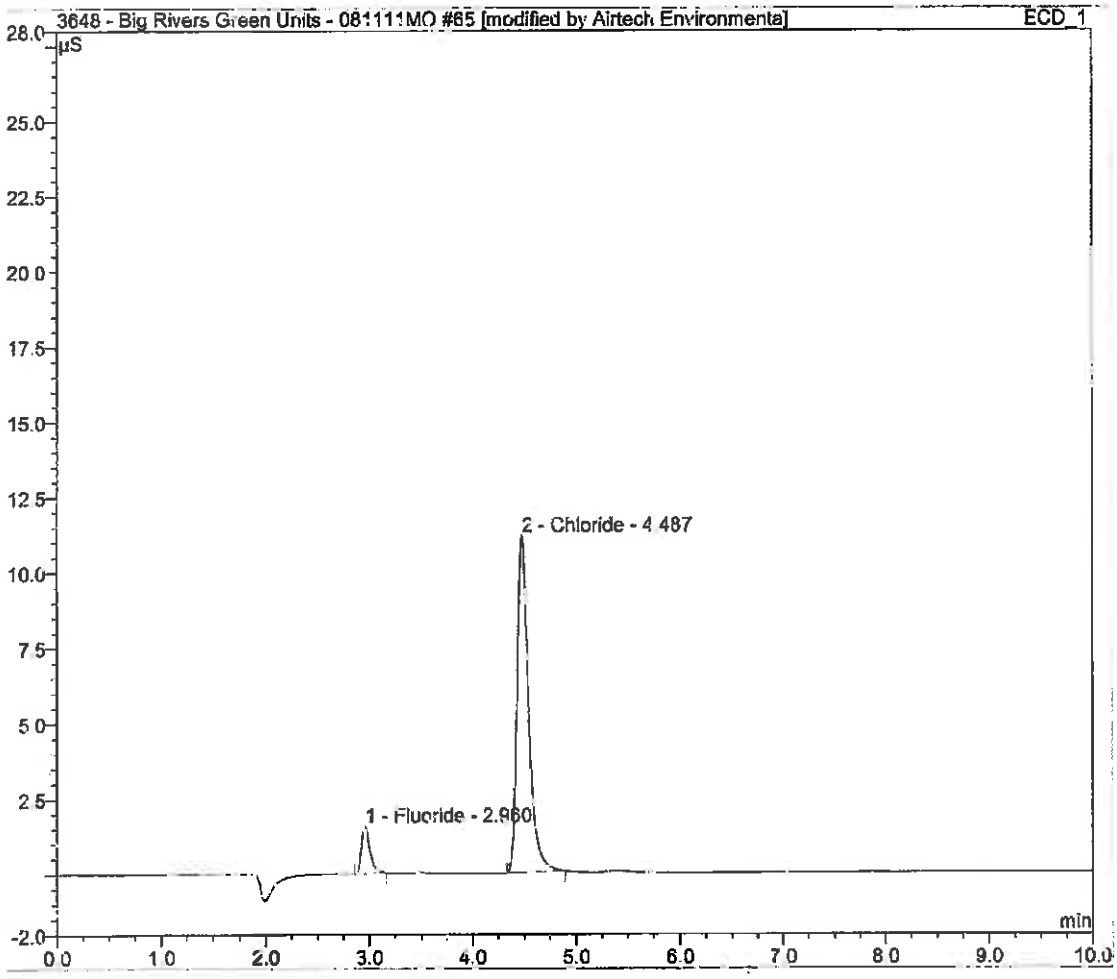
Sample Name:	**Unit 1 ESP Inlet 2 Run 1 - 10x dilution**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**18.08.11 09:44**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.96	Fluoride	BMB*	0.150	1.596	0.1467
2	4.49	Chloride	BMB*	1.478	11.347	2.0540
		TOTAL:		1.63	12.94	2.20



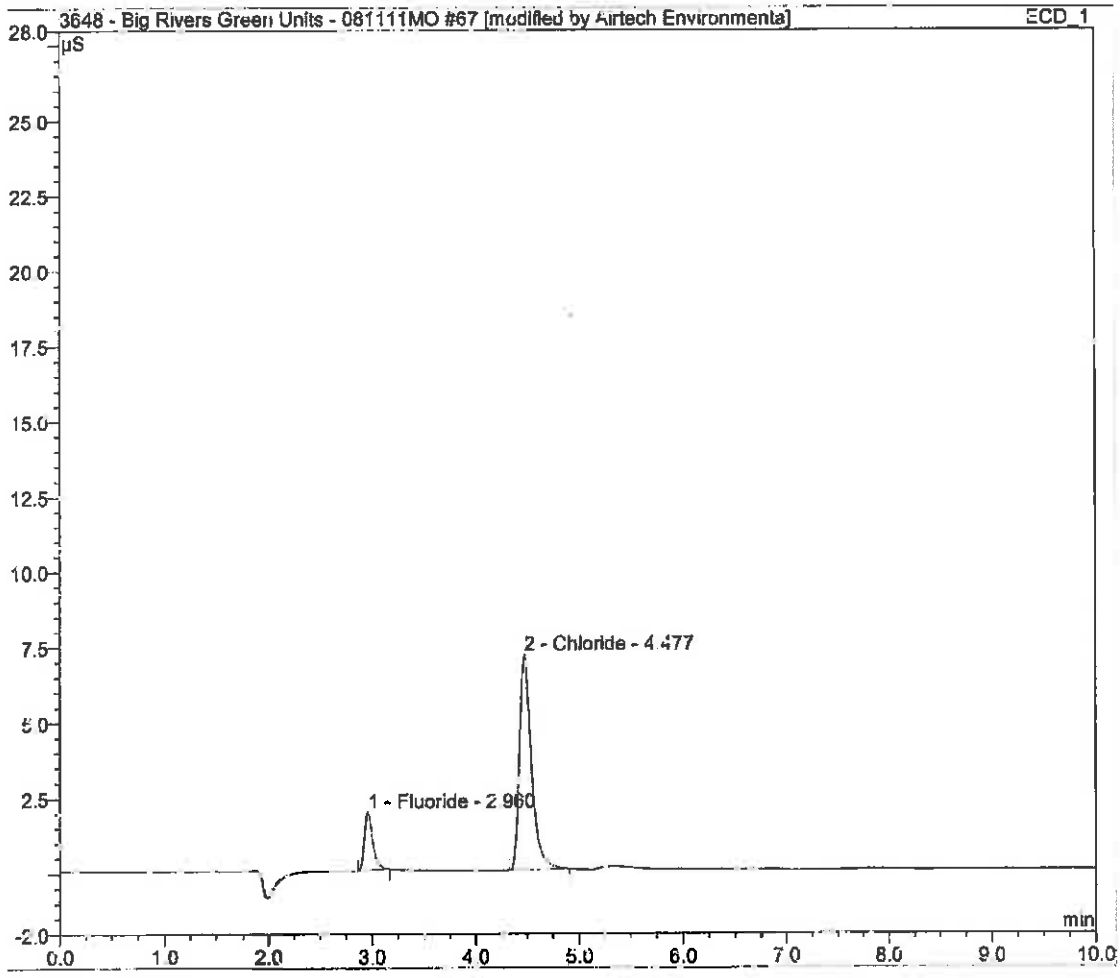
Sample Name:	**Unit 1 ESP Inlet 2 Run 1 - 10x dilution**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**18.08.11 09:59**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.96	Fluoride	BMB*	0.146	1.570	0.1429
2	4.49	Chloride	BMB*	1.447	11.160	2.0113
		TOTAL:		1.59	12.73	2.15



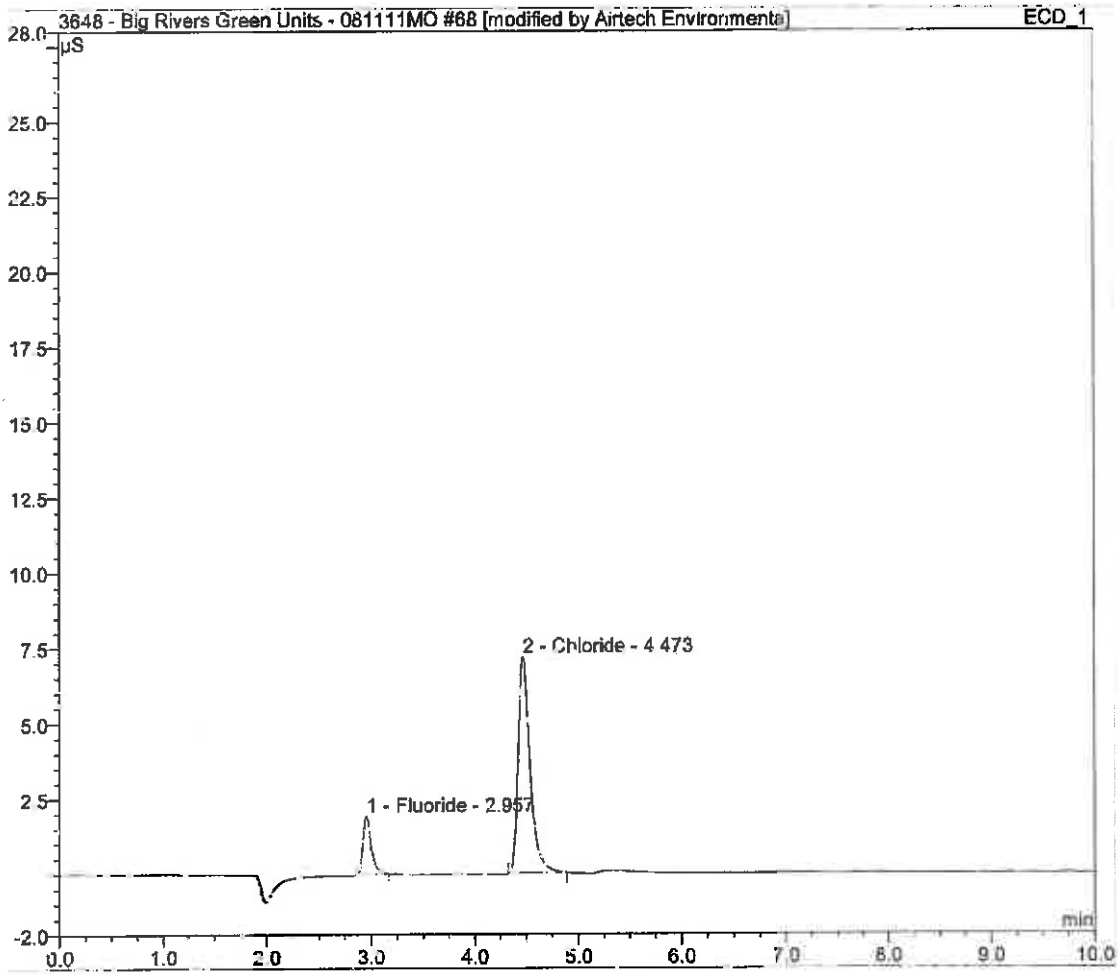
Sample Name:	**Unit 1 ESP Inlet 2 Run 2 - 5x dilution**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**18.08.11 10:40**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.96	Fluoride	BMB*	0.182	1.943	0.1785
2	4.48	Chloride	BMB*	0.966	7.144	1.3429
		TOTAL:		1.15	9.09	1.52



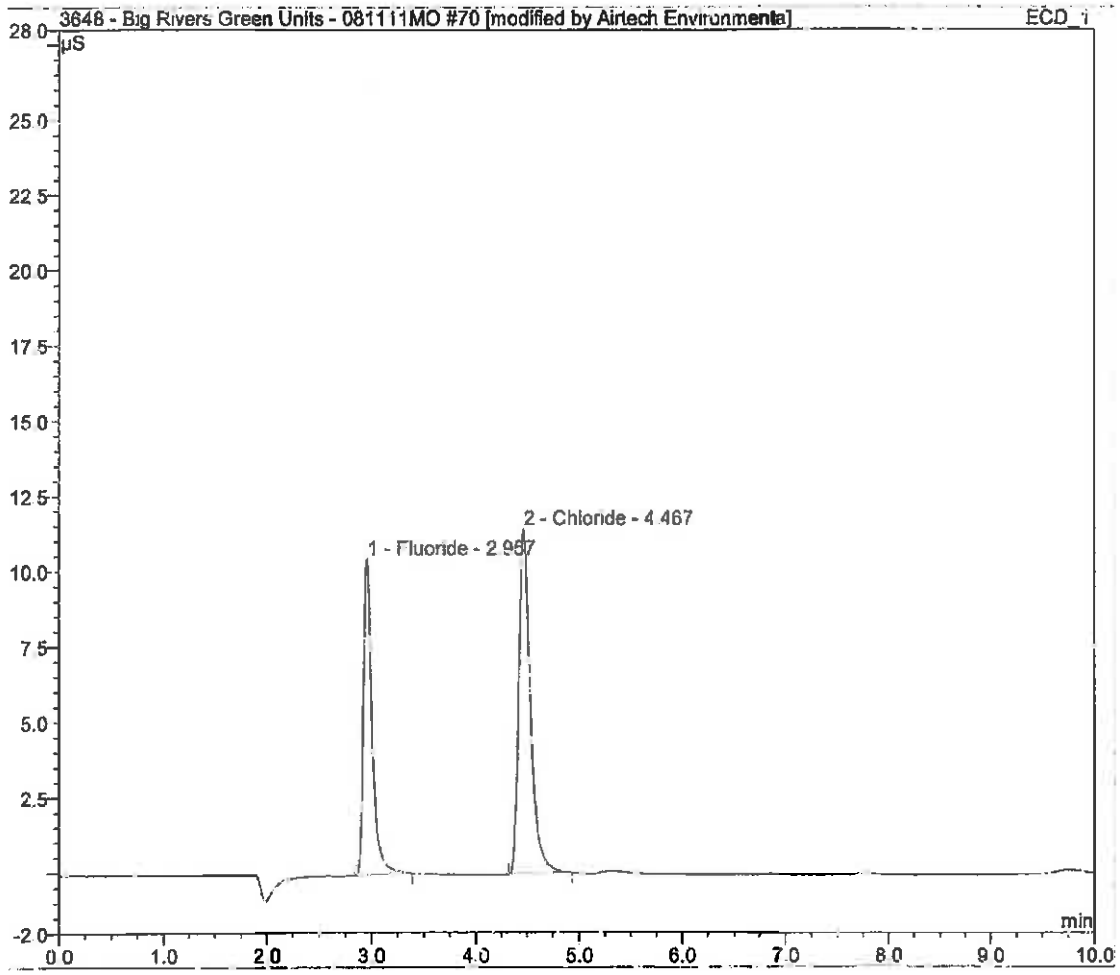
Sample Name:	**Unit 1 ESP Inlet 2 Run 2 - 5x dilution**	*Inj. Vol:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**18.08.11 11:03**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.96	Fluoride	BMB*	0.182	1.946	0.1786
2	4.47	Chloride	BMB*	0.963	7.174	1.3383
		TOTAL:		1.15	9.12	1.52



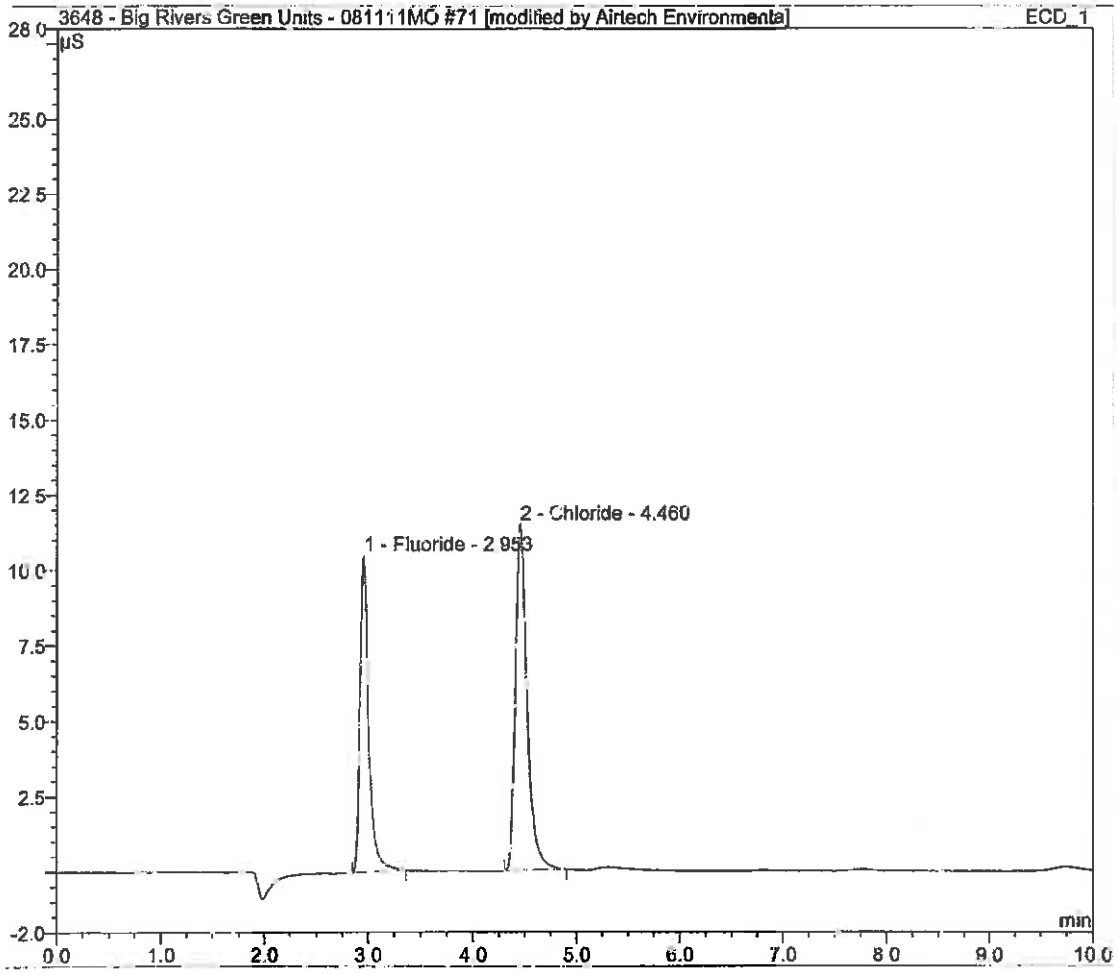
Sample Name:	**Unit 1 ESP Inlet 2 Run 3 - 5x dilution**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**18.08.11 11:34**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.96	Fluoride	BMB*	1.009	10.479	0.9893
2	4.47	Chloride	BMB*	1.511	11.429	2.0996
		TOTAL:		2.52	21.91	3.09



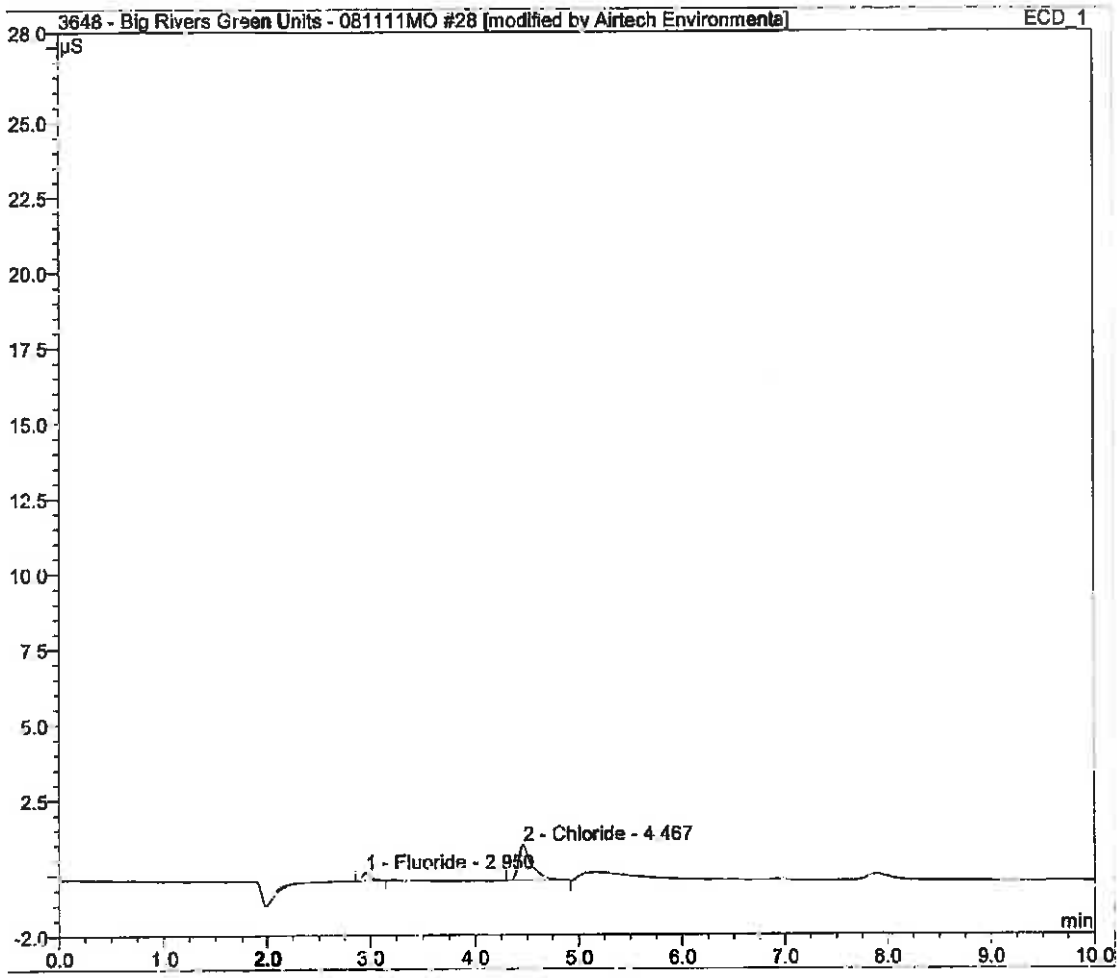
Sample Name:	**Unit 1 ESP Inlet 2 Run 3 - 5x dilution**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time.	**18.08.11 11:54**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.95	Fluoride	BMB*	1.007	10.517	0.9674
2	4.46	Chloride	BMB*	1.510	11.482	2.0989
		TOTAL:		2.52	22.00	3.09



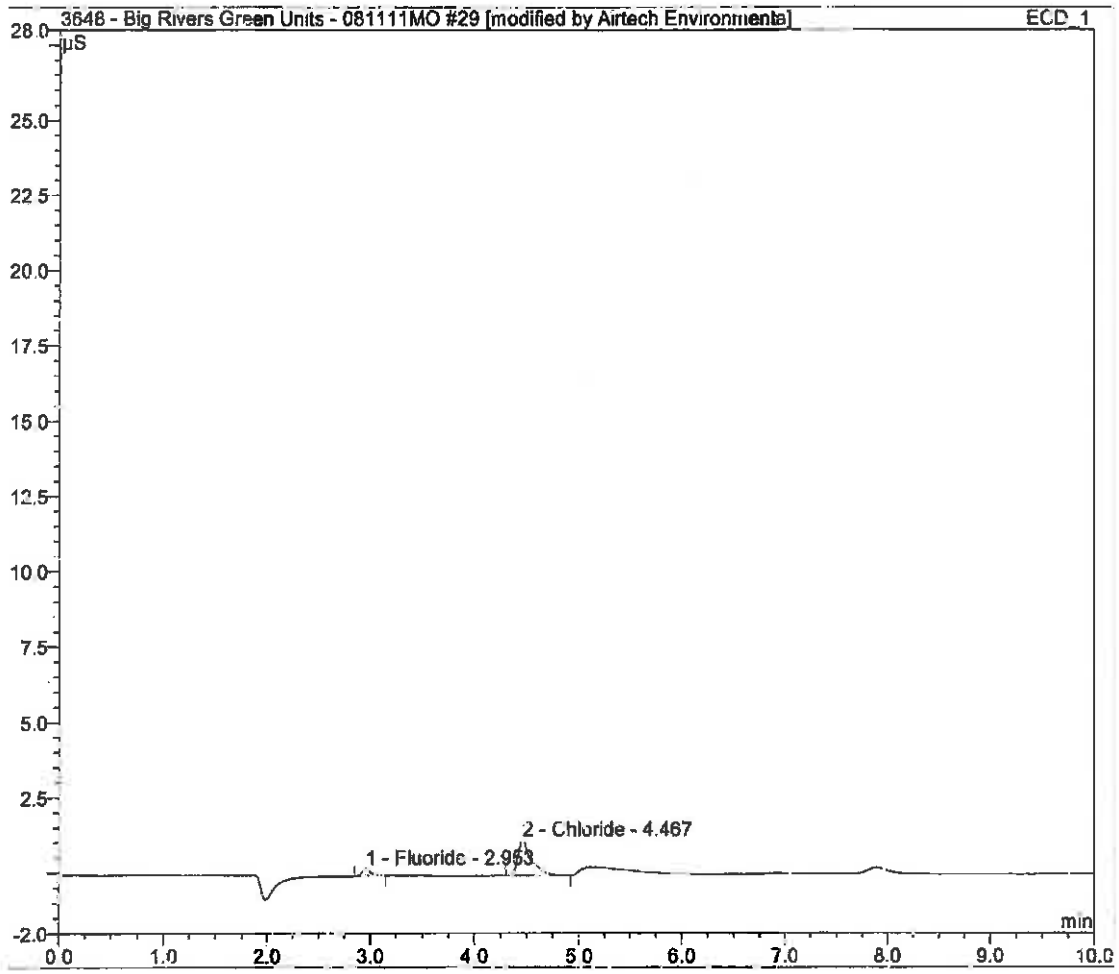
Sample Name:	**Unit 1 Stack Run 1**	*Inj. Vol :*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**16.08.11 10:14**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.95	Fluoride	BMB	0.026	0.264	0.0261
2	4.47	Chloride	BMB	0.176	1.179	0.2532
		TOTAL:		0.20	1.44	0.28



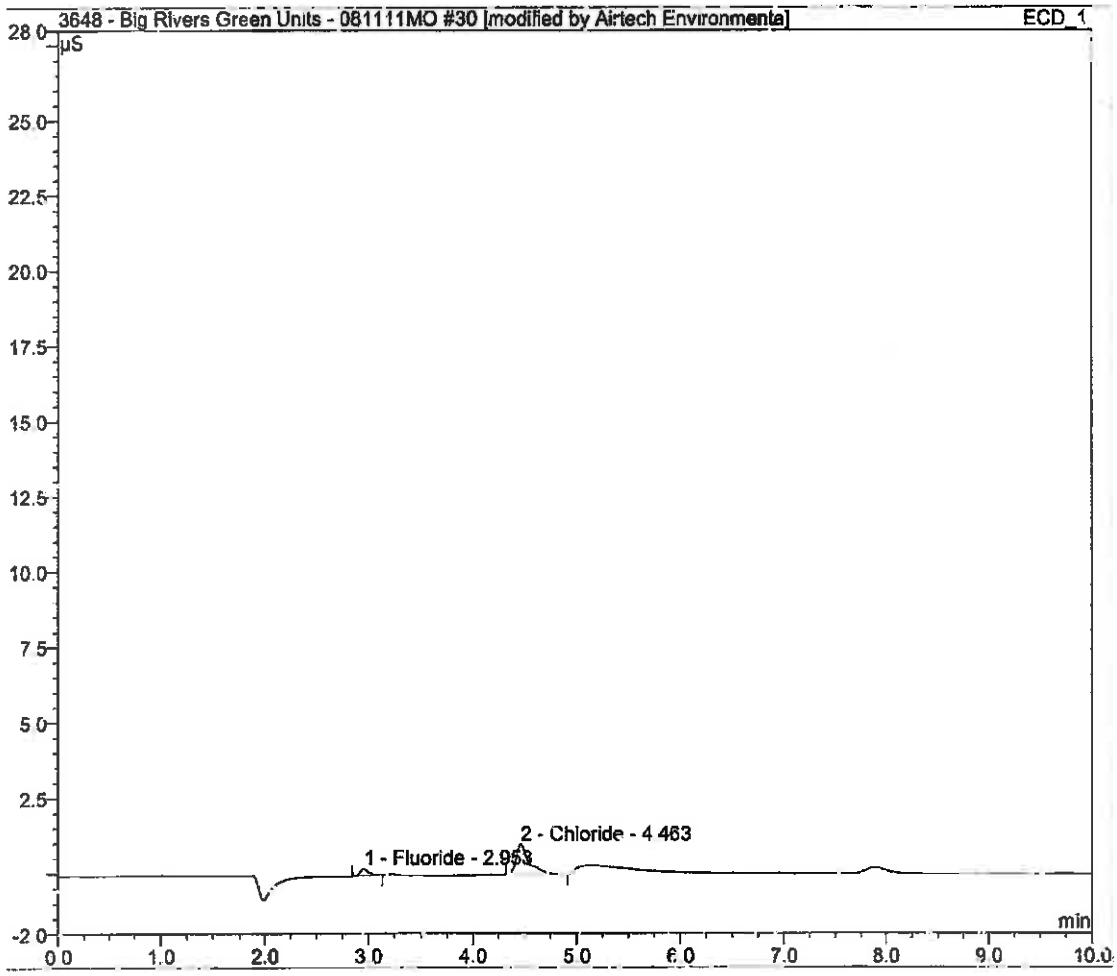
Sample Name:	**Unit 1 Stack Run 1**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**16.08.11 10:30**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.95	Fluoride	BMB	0.025	0.250	0.0249
2	4.47	Chloride	BMB*	0.176	1.178	0.2541
		TOTAL:		0.20	1.43	0.28



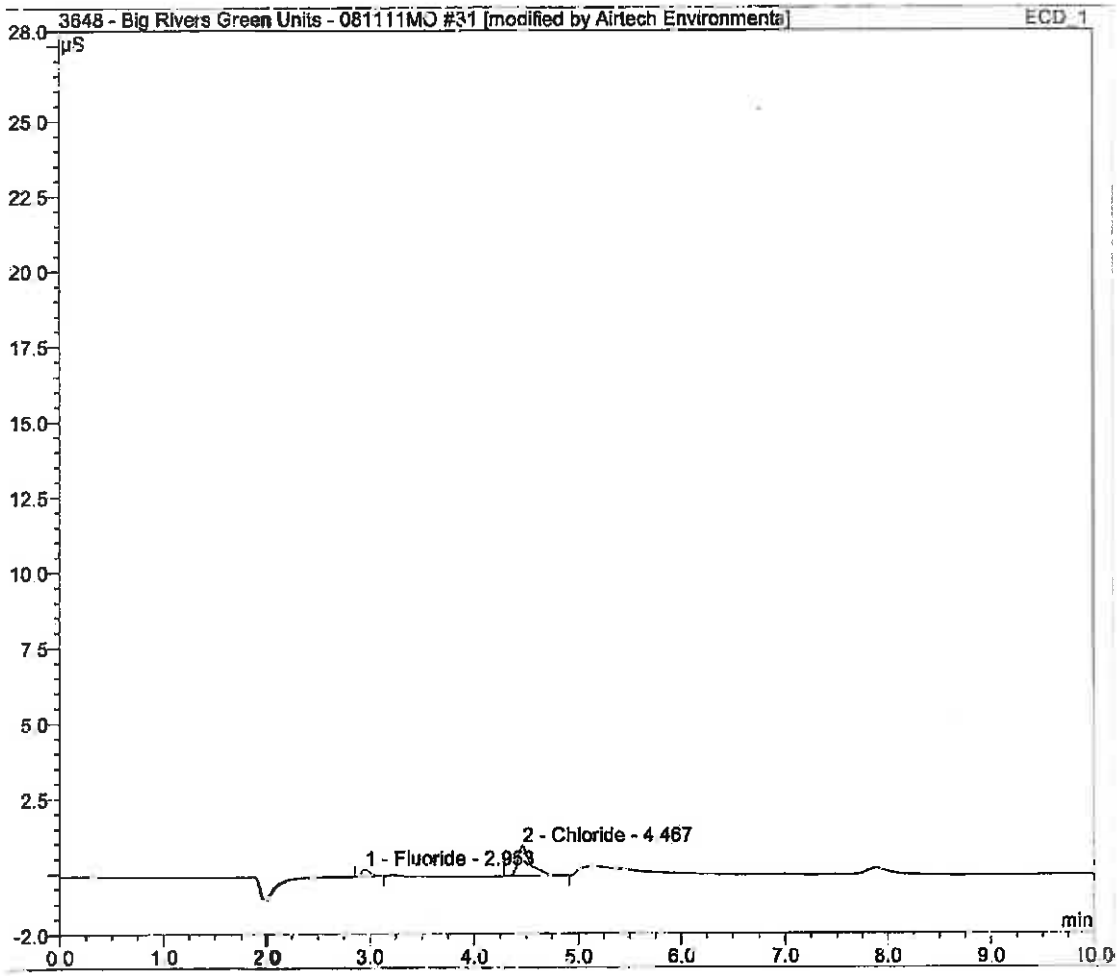
Sample Name:	**Unit 1 Stack Run 2**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**16.08.11 10:48**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.95	Fluoride	BMB	0.023	0.232	0.0234
2	4.46	Chloride	BMB*	0.147	0.995	0.2115
		TOTAL:		0.17	1.23	0.23



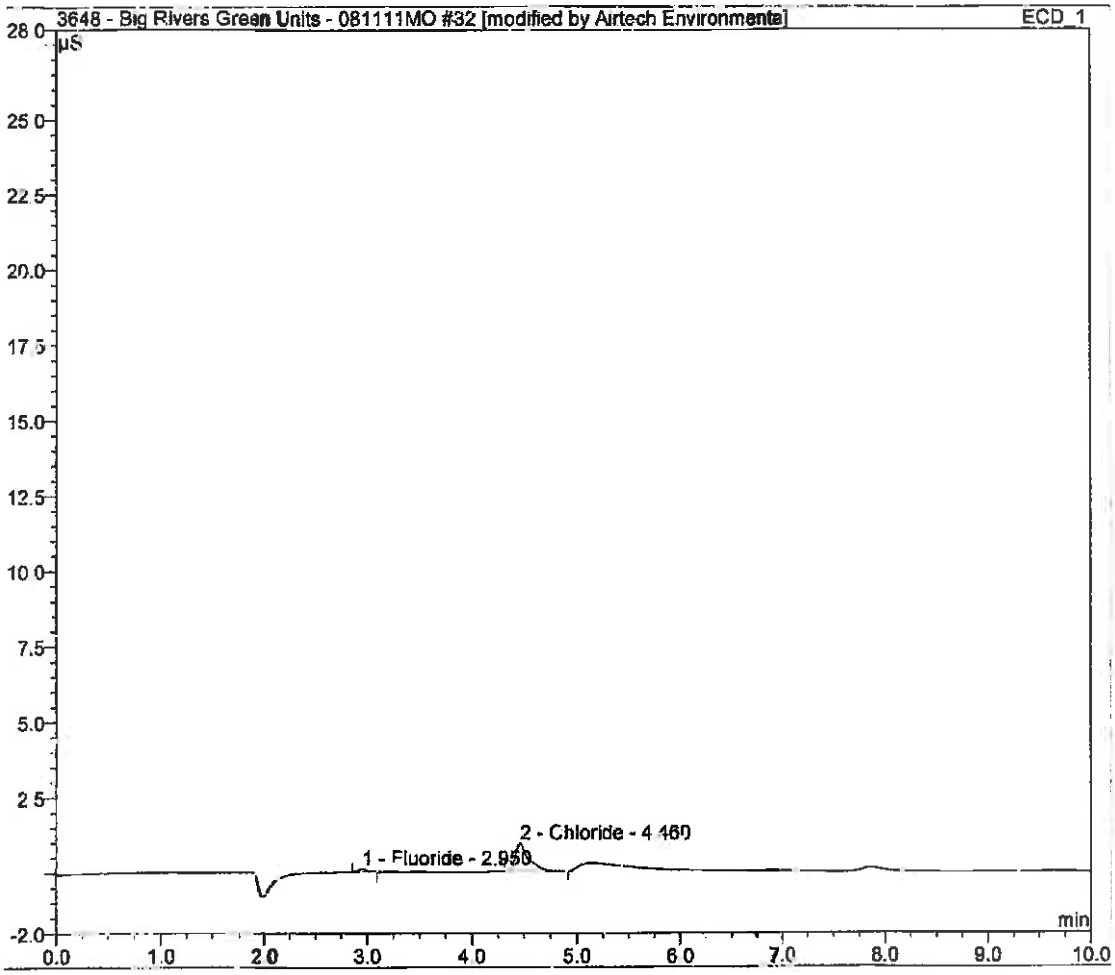
Sample Name:	**Unit 1 Stack Run 2**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**16.08.11 11:07**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.95	Fluoride	BMB	0.023	0.233	0.0236
2	4.47	Chloride	BMB*	0.146	0.995	0.2099
		TOTAL:		0.17	1.23	0.23



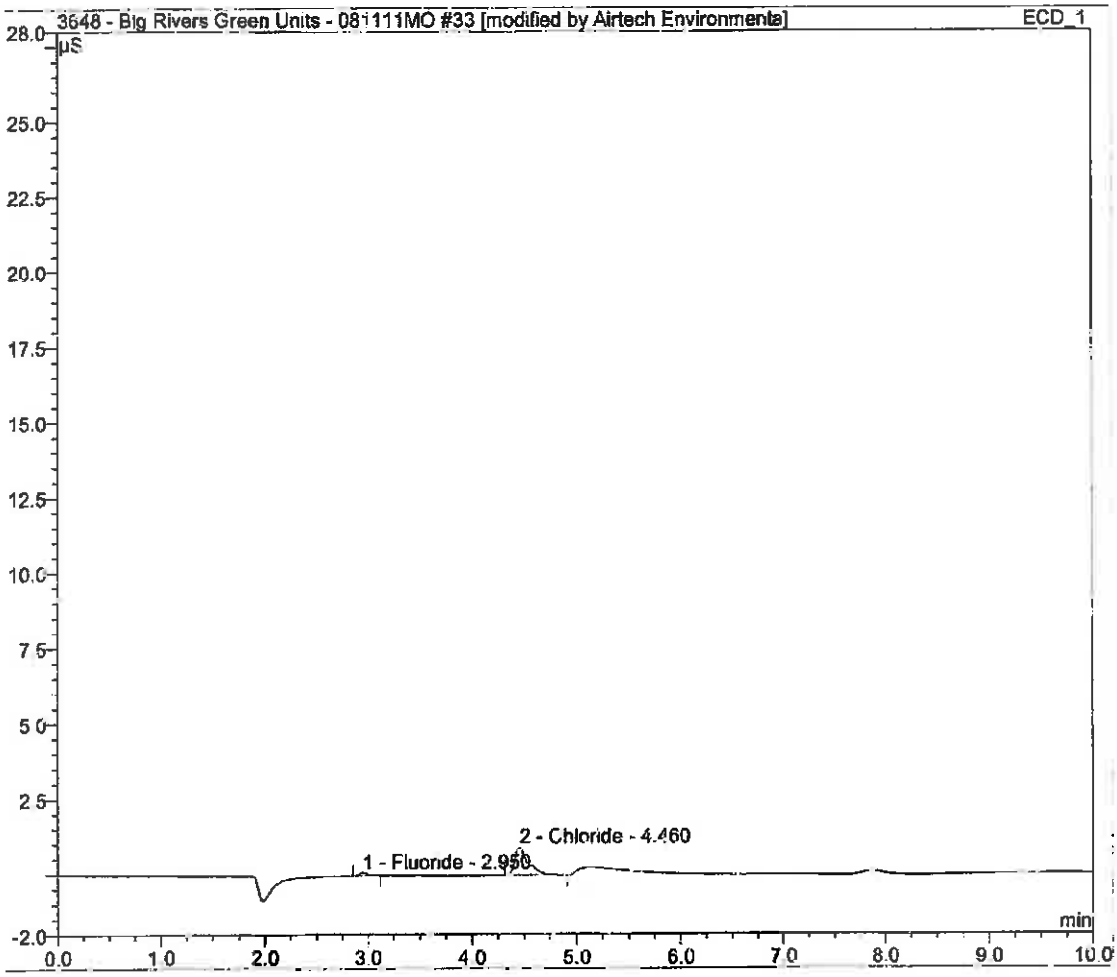
Sample Name:	**Unit 1 Stack Run 3**	*Inj. Vol.:*	**10.0**
Sample Type.	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**16.08.11 11:24**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.95	Fluoride	BMB*	0.009	0.096	0.0091
2	4.46	Chloride	BMB	0.139	0.922	0.2009
		TOTAL:		0.15	1.02	0.21



Sample Name:	**Unit 1 Stack Run 3**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ChlorideCal**	*Operator:*	**n.a.**
Inj. Date/Time:	**16.08.11 11:41**	*Run Time:*	**15.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount ug/ml
1	2.95	Fluoride	BMB*	0.009	0.097	0.0094
2	4.46	Chloride	BMB	0.141	0.926	0.2028
		TOTAL:		0.15	1.02	0.21



Big Rivers

Green Unit 1

ID		Ug/m3
ESP Inlet 1	Run 1	450
	Run 2	454
	Run 3	458
ESP Inlet 2	Run 1	400
	Run 2	381
	Run 3	525
Stack	Run 1	452
	Run 2	443
	Run 3	532
Reagent Blank		490

Dilution: 4 ml sample to 50 ml DI

1 ml sample to 10 ml DI

1 ml sample to 10 ml DI

Chain of Custody

Includes the following:

- **Field Chain of Custody**

AIRTECH ENVIRONMENTAL SERVICES INC.
Chain of Custody

Project Number	3648	Location	Inlet Unit 1A
Client	Big Rivers Energy	Date	8/2/2011
Plant	Green Unit 1	Completed By	~~James Christ~~ MH

The following samples consist of the impinger contents and a 0.1N H_2SO_4 rinse.

Analysis Requested

Page 1 of 1

ID No.	Run No.	Date	Sample Description	HCl	HF						Number of Containers	Notes
R1-26-IMP	1		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x						1	
R1-26-IMP	2		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x						1	
R1-26-IMP	3		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x						1	

Relinquished By (signature)		Relinquished By (signature)		Carrier	FedEx
(printed)	~~James Christ~~ Matt Lyman	(printed)		Laboratory	Airtech Env
Date/Time	8-2-11 10 04	Date/Time		Contact	Michael Olgetree
Accepted By (signature)		Accepted By (signature)		Address	Denver, CO
(printed)	Michael Olgetree	(printed)		Phone	
Date/Time	8/9/11	Date/Time		Fax	
				Date/Time	

AIRTECH Environmental Services Inc.

Airtech Environmental Services Inc
601A Country Club Drive
Bensenville, IL 60106
Phone: (630) 860-4740, Fax: (630) 860 4745

AIRTECH ENVIRONMENTAL SERVICES INC.

Chain of Custody

Project Number	3648	Location	Inlet Unit 1B
Client	Big Rivers Energy	Date	8/2/2011
Plant	Green Unit 1	Completed By	ML

The following samples consist of the impinger contents and a 0.1N H_2SO_4 rinse.

Analysis Requested

Page 1 of 1

ID No.	Run No.	Date	Sample Description	HCl	HF						Number of Containers	Notes
R1-26-IMP	1		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x						1	
R1-26-IMP	2		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x						1	
R1-26-IMP	3		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x						1	

Relinquished By (signature)		Relinquished By (signature)		Carrier	FedEx
(printed)	Matt Libman	(printed)		Laboratory	Airtech Env
Date/Time	8-2-11 1004	Date/Time		Contact	Michael Olgetree
Accepted By (signature)		Accepted By (signature)		Address	Denver, CO
(printed)	Michael Olgetree	(printed)		Phone	
Date/Time	8/2/11	Date/Time		Fax	
				Date/Time	

AIRTECH Environmental Services Inc

Airtech Environmental Services Inc.
601A Country Club Drive
Bensenville, IL 60106
Phone: (630) 860-4740 Fax: (630) 860 4745

AIRTECH ENVIRONMENTAL SERVICES INC.
Chain of Custody

Project Number	3648	Location	Common Stack	Page	1	of	1
Client	Big Rivers Energy	Date	8/2/2011				
Plant	Green Unit 1	Completed By	ML				

The following samples consist of the impinger contents and a 0.1N H_2SO_4 rinse. There is also a reagent blank for the entire project included.

Analysis Requested

ID No.	Run No.	Date	Sample Description	HCl	HF					Number of Containers	Notes
R1-26A-IMP	1		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x					1	
R1-26A-IMP	2		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x					1	
R1-26A-IMP	3		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x					1	
RB-0.1N H_2SO_4	RB		0.1N H_2SO_4 Reagent Blank	x	x					1	

Relinquished By (signature)	[signature]	Relinquished By (signature)		Carrier	FedEx
(printed)	Matt Libman	(printed)		Laboratory	Airtech Env.
Date/Time	8-2-11 1004	Date/Time		Contact	Michael Olgetree
Accepted By (signature)	[signature]	Accepted By (signature)		Address	Denver, CO
(printed)	Michael Ogletree	(printed)		Phone	
Date/Time	8/9/11	Date/Time		Fax	
				Date/Time	

AIRTECH Environmental Services Inc.

Airtech Environmental Services Inc.
601A Country Club Drive
Bensenville, IL 60106
Phone. (630) 860-4740. Fax: (630) 860 4745

G1

Airtech Environmental Services, Inc.

601A Country Club Drive
Bensenville, IL 60106

Project Number: 3648

Antimony, Arsenic, Beryllium, Cadmium,
Chromium, Cobalt, Lead, Manganese,
Nickel and Selenium

EPA Method 29 Analysis

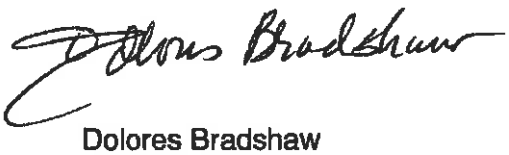
Analytical Report
17132

el1

Element One, Inc.
5022-C Wrightsville Av., Wilmington, NC 28403
910-793-0128 FAX: 910-792-6853 e1lab@e1lab.com

The following data for Analytical Report 17132
has been reviewed for completeness, accuracy,
adherence to method protocol,
and compliance with quality assurance guidelines.

Review by:



Dolores Bradshaw
August 23, 2011

Report Reviewed and Finalized By:

Ken Smith, Laboratory Director
August 23, 2011

SUMMARY OF RESULTS

Summary of Analysis

Front Half – Common Stack - Summary of Method 29 Metals Analysis

Element	Common Stack-R1 e17132-1 FH Total µg	Common Stack-R2 e17132-2 FH Total µg	Common Stack-R2 e17132-2 FH dup Total µg	Common Stack-R3 e17132-3 FH Total µg	Reagent Blank e17132-4 FH Total µg
Antimony	0.409	0.353	0.365	0.595	< 0.1
Arsenic	5.81	7.58	7.93	11.0	< 0.1
Beryllium	0.087	0.104	0.110	0.054	< 0.025
Cadmium	0.386	0.344	0.373	0.212	< 0.1
Chromium	3.65	197	199	3.39	2.02
Cobalt	0.283	0.438	0.451	0.19	< 0.1
Lead	3.80	4.09	4.36	4.24	0.216
Manganese	9.79	11.0	11.4	7.70	4.72
Nickel	3.08	12.5	13.1	2.45	1.13
Selenium	36.7	28.5	30.4	34.6	< 0.1

Back Half – Common Stack - Summary of Method 29 Metals Analysis

Element	Common Stack-R1 e17132-1 BH Total µg	Common Stack-R2 e17132-2 BH Total µg	Common Stack-R2 e17132-2 BH dup Total µg	Common Stack-R3 e17132-3 BH Total µg	Reagent Blank e17132-4 BH Total µg
Antimony	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Arsenic	1.92	0.984	0.962	1.05	< 0.1
Beryllium	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Cadmium	< 0.1	0.716	0.704	< 0.1	< 0.1
Chromium	2.33	3.00	2.93	2.74	0.522
Cobalt	< 0.1	< 0.1	< 0.1	< 0.1	0.151
Lead	1.20	1.18	1.15	0.897	0.434
Manganese	4.34	2.84	2.85	4.35	1.244
Nickel	1.46	1.98	1.96	1.76	0.699
Selenium	47.8	25.5	25.5	24.2	< 0.1

ANALYTICAL NARRATIVE

Element One Analytical Narrative

Client:	Airtech Environmental Services, Inc.	Element One #:	17132
Client ID:	3648/Big Rivers Energy – Green Unit 1	Analyst:	DBW
Method:	Method 29	Dates Received:	08/05/11
Analytes:	Sb, As, Be, Cd, Cr, Co, Pb, Mn, Ni & Se	Dates Analyzed:	08/08-23/11

Summary of Analysis

The Method 29 samples were digested, prepared, and analyzed according to Method 29 protocol. Samples were analyzed for metals using a PerkinElmer ELAN 6100 ICP-MS.

Detection Limits

The ICP-MS instrument reporting limits were 0.25µg/L for beryllium and 1.0µg/L for the other metals.

Analysis QA/QC

Duplicate analyses relative percent difference (RPD), spike sample recovery, and second source calibration verification data are summarized in the Quality Control Section.
Ref: Page 8, Common Stack R3 failed to meet the laboratory spike recovery of ±25% for beryllium and antimony with recoveries of 60%, and 69% respectively. The sample was analyzed at a twofold dilution with spike recoveries of 92% and 97% respectively indicating matrix interference.

All other QA/QC data was within the criteria of the method.

Additional Comments

The reported results have not been corrected for any blank values or spike recovery values. The ICP analysis of the Reagent Blank samples revealed detectable concentrations of metals, subsequent analyses produced equivalent results.

QUALITY CONTROL SUMMARY

Summary of Quality Control Data

Metals Duplicate Analysis RPD

(Method 29 QC limits: < 20% for RPD)

Element	Common Stack-R2 Front Half RPD	Common Stack-R2 Back Half RPD
Antimony	3.4%	NA
Arsenic	4.4%	2.3%
Beryllium	5.0%	NA
Cadmium	8.3%	1.6%
Chromium	1.3%	2.3%
Cobalt	2.9%	NA
Lead	6.3%	2.1%
Manganese	3.1%	0.3%
Nickel	5.1%	1.3%
Selenium	5.3%	0.1%

Metals Analysis Spike Recoveries

(Method 29 QC limits: ±25% for Spike Recoveries)

Element	Common Stack-R3 Front Half Recovery	Common Stack-R3 Back Half Recovery
Antimony	80%	*69%
Arsenic	80%	78%
Beryllium	88%	*60%
Cadmium	83%	78%
Chromium	99%	92%
Cobalt	90%	93%
Lead	109%	99%
Manganese	93%	92%
Nickel	87%	91%
Selenium	101%	97%

*See analytical narrative page 6

Summary of Quality Control Data

Second Source Calibration Check Recoveries

(Method 29 QC limits: ±10% for Second Source Continuing Check Standard)*

Element	0.25 ppb	1 ppb	50 ppb	100 ppb*	250 ppb
Antimony		115%	108%	106%	103%
Arsenic		110%	103%	106%	104%
Beryllium	101%	100%	103%	106%	102%
Cadmium		108%	103%	104%	101%
Chromium		101%	105%	109%	106%
Cobalt		106%	104%	106%	104%
Lead		111%	109%	108%	102%
Manganese		83%	104%	106%	102%
Nickel		75%	104%	107%	104%
Selenium		107%	98%	103%	100%

SAMPLE CUSTODY

AIRTECH ENVIRONMENTAL SERVICES INC.
Chain of Custody

17132

Project Number	3648	Location	Common Stack
Client	Big Rivers Energy	Date	8/2/2011
Plant	Green Unit 1	Completed By	ML

The following samples consist of a front half 0.1N HNO3 rinse, a quartz filter and the impinger catch and DI rinse

Analysis Requested: Metallic HAPs

Page 1 of 1

ID No.	Run No.	Date	Sample Description	Metallic HAPs	Number of Containers	Notes
29-R1-HNO	1		FH Rinse of 0.1N HNO_3	x	1	
29-R2-HNO	2		FH Rinse of 0.1N HNO_3	x	1	
29-R3-HNO	3		FH Rinse of 0.1N HNO_3	x	1	
29-R1-FIL	1		Quartz Filter	x	1	
29-R2-FIL	2		Quartz Filter	x	1	
29-R3-FIL	3		Quartz Filter	x	1	
29-R1-5%/10%	1		Imp catches and rinses	x	1	
29-R2-5%/10%	2		Imp catches and rinses	x	1	
29-R3-5%/10%	3		Imp catches and rinses	x	1	

Relinquished By (signature)		Relinquished By (signature)	David DeVries	Carrier	
(printed)	Matt Libman	(printed)	David DeVries	Laboratory	
Date/Time		Date/Time	8-5-11 4:09	Contact	
Accepted By (signature)		Accepted By (signature)	Lisa Bratton	Address	
(printed)		(printed)	Lisa Bratton	Phone	
Date/Time		Date/Time	8-5-11 1609	Fax	
				Date/Time	

Samples received in good condition. No empty containers

AIRTECH Environmental Services Inc.

Airtech Environmental Services Inc.
601A Country Club Drive
Bensenville, IL 60106
Phone: (630) 860-4740, Fax: (630) 860 4745

ANALYTICAL DATA

Analytical Calculations

Metals-

Element Results (µg) =ICP Results (µg/L)*Dilution*Final Volume (L)

Where-

ICP Results= Raw sample concentration (ppb)--*ICP-Data Sheet*

Dilution= Diluted Volume--*ICP-MS Run Sheet*
Aliquot

Final Volume=FH=Final Volume (FV)--*Sample Submission*
BH=Received Volume (BV).*Final Volume (FV)--*Sample Submission*
Aliquot (Used)
Combined Results=FH+BH

Analytical Calculations

Spike Recovery-

$$\textbf{Spike (\%)} = \frac{\textbf{(Spiked Result (µg/L) – Sample Result (µg/L))}}{\textbf{Spike Amount (µg/L)}} \quad \textbf{X100}$$

Where-

Spike Result = Raw sample concentration (ppb)--*ICP-Data Sheet*

Sample Result = Raw sample concentration (ppb)--*ICP-Data Sheet*

Spike Amount--*ICP-MS Spike Table*

Duplicate Analysis RPD-

$$\textbf{RPD (\%)} = \frac{\textbf{(Duplicate Result (µg/L) - Sample Result (µg/L))}}{\textbf{Average (µg/L)}} \quad \textbf{X100}$$

Where-

Sample Result and Duplicate Results=Raw sample concentration (ppb)--*ICP-Data Sheet*

$$\text{Average} = \frac{\textit{(Duplicate + Sample Results)}}{2}$$

elementOne **AIR TESTING SAMPLE SUBMISSION FORM** **Lab ID 17132**

FH / BH Separate Analysis

Analysis Due Date 08.15.11
QA/QC/Report Due Date 08.17.11

Client	Airtech Environmental Services, Inc.
Project No	3648
Project ID	Big Rivers Energy – Green Unit 1

Date Rec	08.05.11
Time Rec	1609
Rec by	LLB

HNO_3 Lot: 56322	HF Lot: 511289	HCl Lot: 512355	**Ref. Method: 29**
Volume Marked (Y) / N	Volume Loss Y (N) / ?		

Sample Identification

1	Common Stack-M29-R1	4	Reagent Blank		
2	Common Stack-M29-R2				
	Common Stack-M29-R2 Duplicate				
3	Common Stack-M29-R3				
	Common Stack-M29-R3 Spike				

Analyses Requested: Samples 1-4 (St) As, Be, Cd, Cr, Co, Pb, Mn, Ni, Se

Runs / FB	Fil / Ace (FH) pH <2.0 Y / N		HNO_3 (FH) pH <2.0 (Y) / N		5% HNO_3/10% H_2O_2 (BH) pH <2.0 (Y) / N			HNO_3 (A) pH <2.0 Y / N		$KMnO_4$ (B) pH <2.0 Y / N		HCl © pH <2.0 Y / N	
Lab ID	Fil ID	BV ml	BV ml	FV ml	BV ml	Used	FV ml	BV ml	FV ml	BV ml	FV ml	BV ml	FV ml
1			75	100	500	250	50						
2.D			80	↓	480	240	↓						
3.S			100	↓	500	250	↓						

M-29 Reagent Blank

Lab ID	Fraction			BV, ml	FV, ml	Comments
4	C-7	FH	Acetone Blank			
	C-8A	FH	0.1N HNO_3	250	100	used 100
	C-8A	A	0.1N HNO_3			
	C-8B	B	DI H_2O			
	C-9	BH	5% HNO_3/10% H_2O_2	240	50	used 120
	C-10	B	4% $KMnO_4$/10%H_2SO_4			
	C-11	C	8N HCl DI H_2O			
	C-12-1	FH	Filter			

Lab Communications

LLB 1: Spiked FH w/ 240 µL of 25 ppm standard A,B (lot no. 82141-A,B); BH 144 µL

Did not receive RB Filter. Per Jim via phone 08.05.11, he will ship on 08.08.11—LLB Rec. 8-9-11 @ 1149 via fedex DDS

NOTE—Run RB from job e17130

Fractions Received: C1, C3, C4—RB C12, C8a, C9—LLB 08.05.11

SS Page1 of 1
8/5/2011 4:35:31 PM
SS By
Labeled By/Date 8/5/11

FH Prep By/Date 8/5/11
BH Prep By/Date 8/5/11
BH/FH Prep By/Date 8/5/11
PM Prep By/Date

A Prep By/Date
B Prep By/Date
C Prep By/Date
ID Verification By / Date 8.9.11

Sample/Batch Report

User Name: icp
Computer Name: ICP-MS
Sample File: C:\elandata_icp\Sample\x.sam
Report Date/Time: Thursday, August 11, 2011 09:39:20

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
5		QC STD 2	Airtech	Sample					
201	x5	17130-3fh	Airtech	Sample					
202	x5s	17130-3fh	Airtech	Spike - 1 of 2					
203	x5	17130-6fh	Airtech	Sample					
204	x5s	17130-6fh	Airtech	Spike - 1 of 4					
205	x10	17130-6fh	Airtech	Sample					
206	x10s	17130-6fh	Airtech	Spike - 1 of 6					
207	x2	17130-3bh	Airtech	Sample					
208	x2s	17130-3bh	Airtech	Spike - 1 of 8					
209	x5	17130-4bh	Airtech	Sample					
210	x10	17130-5bh	Airtech	Sample					
211	x10d	17130-5bh	Airtech	Duplicate of 11					
212	x5	17130-6bh	Airtech	Sample					
213	x5s	17130-6bh	Airtech	Spike - 1 of 13					
214	x5	17131-1fh	Airtech	Sample					
215		17131-2fh	Airtech	Sample					
216	d	17131-2fh	Airtech	Duplicate of 16					
217	x2	17131-3fh	Airtech	Sample					
218	x2s	17131-3fh	Airtech	Spike - 1 of 18					
219		17131-5fh	Airtech	Sample					
220	d	17131-5fh	Airtech	Duplicate of 20					
221	x2	17131-6fh	Airtech	Sample					
222	x2s	17131-6fh	Airtech	Spike - 1 of 22					
223	x2	17131-3bh	Airtech	Sample					
224	x2s	17131-3bh	Airtech	Spike - 1 of 24					
225	x10	17131-4bh	Airtech	Sample					
226	x10	17131-5bh	Airtech	Sample					
227	x10d	17131-5bh	Airtech	Duplicate of 27					
228	x2	17131-6bh	Airtech	Sample					
229	x2s	17131-6bh	Airtech	Spike - 1 of 29					
230	x5	17131-6bh	Airtech	Sample					
231	x5s	17131-6bh	Airtech	Spike - 1 of 31					
232	x10	17132-2fh	Airtech	Sample					
233	x10d	17132-2fh	Airtech	Duplicate of 33					
234	x2	17132-3fh	Airtech	Sample					
235	x2s	17132-3fh	Airtech	Spike - 1 of 35					
236		17132-2bh	Airtech	Sample					
237	d	17132-2bh	Airtech	Duplicate of 37					
238	x2	17132-3bh	Airtech	Sample					
239	x2s	17132-3bh	Airtech	Spike - 1 of 39					
240	x10	17133-1FH	Airtech	Sample					
241	x5	17133-2FH	Airtech	Sample					
242	x5d	17133-2FH	Airtech	Duplicate of 42					
243	x5	17133-3FH	Airtech	Sample					
244	x5s	17133-3FH	Airtech	Spike - 1 of 44					
245	x2	17133-3BH	Airtech	Sample					
246	x2s	17133-3BH	Airtech	Spike - 1 of 46					
247	x10	17130-6bh	Airtech	Sample					
248	x10s	17130-6bh	Airtech	Spike - 1 of 48					

249	x5	17131-2fh	Airtech	Sample
250	x5d	17131-2fh	Airtech	Duplicate of 50
251	x10	17131-5fh	Airtech	Sample
252	x10d	17131-5fh	Airtech	Duplicate of 52
253	x5	17131-6fh	Airtech	Sample
254	x5s	17131-6fh	Airtech	Spike - 1 of 54
255	x10	17131-6bh	Airtech	Sample
256	x10s	17131-6bh	Airtech	Spike - 1 of 56
257	x5	17133-3FH	Airtech	Sample
258	x5s	17133-3FH	Airtech	Spike - 1 of 58
259	x20	17130-8bh	Airtech	Sample
260	x20s	17130-8bh	Airtech	Spike - 1 of 60
411	x20	17131-8bh	Airtech	Sample
412	x20s	17131-8bh	Airtech	Spike - 1 of 62

Dataset Report

User Name: icp
Computer Name: ICP-MS
Dataset File Path: C:\elandata_icp\DataSet\081011-2\
Report Date/Time: Thursday, August 11, 2011 09:39:16

8/11/11

Autosampler Position: 3

The Dataset

Time	Sample ID	Batch ID	Read Type	Description	Init. Quant	Prep. Vol.	Aliquot. Vol.	Diluted V
13:47:40 Wed 10-Aug-11	Blank		Blank					
13:49:49 Wed 10-Aug-11	Standard 1		Standard #1					
13:51:59 Wed 10-Aug-11	Standard 2		Standard #2					
13:54:08 Wed 10-Aug-11	Standard 3		Standard #3					
13:56:18 Wed 10-Aug-11	QC Std 1		QC Std #1					
13:58:27 Wed 10-Aug-11	QC Std 2		QC Std #2					
14:00:37 Wed 10-Aug-11	QC Std 3		QC Std #3					
14:02:47 Wed 10-Aug-11	QC Std 4		QC Std #4					
14:04:57 Wed 10-Aug-11	QC Std 5		QC Std #5					
14:07:07 Wed 10-Aug-11	QC Std 7		QC Std #7					
14:09:16 Wed 10-Aug-11	QC Std 8		QC Std #8					
14:11:27 Wed 10-Aug-11	QC STD 2		Sample	Airtech				
14:13:38 Wed 10-Aug-11	17130-3fh	x5	Sample	Airtech				
14:15:48 Wed 10-Aug-11	17130-3fh	x5s	Spike - 1 of 13	Airtech				
14:17:57 Wed 10-Aug-11	17130-6fh	x5	Sample	Airtech				
14:20:06 Wed 10-Aug-11	17130-6fh	x5s	Spike - 1 of 15	Airtech				
14:22:15 Wed 10-Aug-11	17130-6fh	x10	Sample	Airtech				
14:24:25 Wed 10-Aug-11	17130-6fh	x10s	Spike - 1 of 17	Airtech				
14:26:34 Wed 10-Aug-11	17130-3bh	x2	Sample	Airtech				
14:28:43 Wed 10-Aug-11	17130-3bh	x2s	Spike - 1 of 19	Airtech				
14:30:53 Wed 10-Aug-11	17130-4bh	x5	Sample	Airtech				
14:33:05 Wed 10-Aug-11	QC Std 1		QC Std #1					
14:35:14 Wed 10-Aug-11	QC Std 4		QC Std #4					
14:37:26 Wed 10-Aug-11	17130-5bh	x10	Sample	Airtech				
14:39:36 Wed 10-Aug-11	17130-5bh	x10d	Duplicate of 24	Airtech				
14:41:45 Wed 10-Aug-11	17130-6bh	x5	Sample	Airtech				
14:43:54 Wed 10-Aug-11	17130-6bh	x5s	Spike - 1 of 26	Airtech				
14:46:03 Wed 10-Aug-11	17131-1fh	x5	Sample	Airtech				
14:48:13 Wed 10-Aug-11	17131-2fh		Sample	Airtech				
14:50:22 Wed 10-Aug-11	17131-2fh	d	Duplicate of 28	Airtech				
14:52:31 Wed 10-Aug-11	17131-3fh	x2	Sample	Airtech				
14:54:41 Wed 10-Aug-11	17131-3fh	x2s	Spike - 1 of 31	Airtech				
14:56:50 Wed 10-Aug-11	17131-5fh		Sample	Airtech				
14:59:00 Wed 10-Aug-11	17131-5fh	d	Duplicate of 33	Airtech				
15:01:12 Wed 10-Aug-11	QC Std 1		QC Std #1					
15:03:21 Wed 10-Aug-11	QC Std 4		QC Std #4					
15:05:33 Wed 10-Aug-11	17131-6fh	x2	Sample	Airtech				
15:07:42 Wed 10-Aug-11	17131-6fh	x2s	Spike - 1 of 37	Airtech				
15:09:52 Wed 10-Aug-11	17131-3bh	x2	Sample	Airtech				
15:12:01 Wed 10-Aug-11	17131-3bh	x2s	Spike - 1 of 39	Airtech				
15:14:10 Wed 10-Aug-11	17131-4bh	x10	Sample	Airtech				
15:16:20 Wed 10-Aug-11	17131-5bh	x10	Sample	Airtech				
15:18:29 Wed 10-Aug-11	17131-5bh	x10d	Duplicate of 42	Airtech				

15:20:39 Wed 10-Aug-11	17131-6bh	x2	Sample	Airtech
15:22:48 Wed 10-Aug-11	17131-6bh	x2s	Spike - 1 of 44	Airtech
15:24:57 Wed 10-Aug-11	17131-6bh	x5	Sample	Airtech
15:27:07 Wed 10-Aug-11	17131-6bh	x5s	Spike - 1 of 46	Airtech
15:29:19 Wed 10-Aug-11	QC Std 1		QC Std #1	
15:31:28 Wed 10-Aug-11	QC Std 4		QC Std #4	
15:33:40 Wed 10-Aug-11	17132-2fh	x10	Sample	Airtech
15:35:50 Wed 10-Aug-11	17132-2fh	x10d	Duplicate of 50	Airtech
15:37:59 Wed 10-Aug-11	17132-3fh	x2	Sample	Airtech
15:40:09 Wed 10-Aug-11	17132-3fh	x2s	Spike - 1 of 52	Airtech
15:42:18 Wed 10-Aug-11	17132-2bh		Sample	Airtech
15:44:28 Wed 10-Aug-11	17132-2bh	d	Duplicate of 54	Airtech
15:46:37 Wed 10-Aug-11	17132-3bh	x2	Sample	Airtech
15:48:46 Wed 10-Aug-11	17132-3bh	x2s	Spike - 1 of 56	Airtech
15:50:56 Wed 10-Aug-11	17133-1FH	x10	Sample	Airtech
15:53:05 Wed 10-Aug-11	17133-2FH	x5	Sample	Airtech
15:55:15 Wed 10-Aug-11	17133-2FH	x5d	Duplicate of 59	Airtech
15:57:27 Wed 10-Aug-11	QC Std 1		QC Std #1	
15:59:36 Wed 10-Aug-11	QC Std 4		QC Std #4	
16:01:48 Wed 10-Aug-11	17133-3FH	x5	Sample	Airtech
16:03:58 Wed 10-Aug-11	17133-3FH	x5s	Spike - 1 of 63	Airtech
16:06:07 Wed 10-Aug-11	17133-3BH	x2	Sample	Airtech
16:08:17 Wed 10-Aug-11	17133-3BH	x2s	Spike - 1 of 65	Airtech
16:10:29 Wed 10-Aug-11	QC Std 1		QC Std #1	
16:12:39 Wed 10-Aug-11	QC Std 4		QC Std #4	
08:51:03 Thu 11-Aug-11	17130-6bh	x10	Sample	Airtech
08:53:12 Thu 11-Aug-11	17130-6bh	x10s	Spike - 1 of 69	Airtech
08:55:21 Thu 11-Aug-11	17131-2fh	x5	Sample	Airtech
08:57:31 Thu 11-Aug-11	17131-2fh	x5d	Duplicate of 71	Airtech
08:59:40 Thu 11-Aug-11	17131-5fh	x10	Sample	Airtech
09:01:49 Thu 11-Aug-11	17131-5fh	x10d	Duplicate of 73	Airtech
09:03:59 Thu 11-Aug-11	17131-6fh	x5	Sample	Airtech
09:06:08 Thu 11-Aug-11	17131-6fh	x5s	Spike - 1 of 75	Airtech
09:08:17 Thu 11-Aug-11	17131-6bh	x10	Sample	Airtech
09:10:27 Thu 11-Aug-11	17131-6bh	x10s	Spike - 1 of 77	Airtech
09:12:39 Thu 11-Aug-11	QC Std 1		QC Std #1	
09:14:48 Thu 11-Aug-11	QC Std 4		QC Std #4	
09:17:01 Thu 11-Aug-11	17133-3FH	x5	Sample	Airtech
09:19:10 Thu 11-Aug-11	17133-3FH	x5s	Spike - 1 of 81	Airtech
09:21:23 Thu 11-Aug-11	QC Std 1		QC Std #1	
09:23:32 Thu 11-Aug-11	QC Std 4		QC Std #4	
09:26:46 Thu 11-Aug-11	17130-6bh	x20	Sample	Airtech
09:28:56 Thu 11-Aug-11	17130-6bh	x20s	Spike - 1 of 85	Airtech
09:31:06 Thu 11-Aug-11	17131-6bh	x20	Sample	Airtech
09:33:17 Thu 11-Aug-11	17131-6bh	x20s	Spike - 1 of 87	Airtech
09:35:29 Thu 11-Aug-11	QC Std 1		QC Std #1	
09:37:38 Thu 11-Aug-11	QC Std 4		QC Std #4	

3 samples are extremely high in Sulfates causing enhanced spike recoveries for As + Se.

elementOne
Analyst:--dbw--

ICP-MS RUN SHEET
8/11/2011

Job Number:

A/S Loc.	Dilution	Sample ID	Client	Type	Weight (g)	Prep Vol (ml)
5		QC STD 2	Airtech	Sample		
201	x5	17130-3fh	Airtech	Sample		100
202	x5s	17130-3fh	Airtech	Spike - 1 of 2		100
203	x5	17130-6fh	Airtech	Sample		100
204	x5s	17130-6fh	Airtech	Spike - 1 of 4		100
205	x10	17130-6fh	Airtech	Sample		100
206	x10s	17130-6fh	Airtech	Spike - 1 of 6		100
207	x2	17130-3bh	Airtech	Sample		50x2
208	x2s	17130-3bh	Airtech	Spike - 1 of 8		50x2
209	x5	17130-4bh	Airtech	Sample		50x2
210	x10	17130-5bh	Airtech	Sample		50x2
211	x10d	17130-5bh	Airtech	Duplicate of 11		50x2
212	x5	17130-6bh	Airtech	Sample		50x2
213	x5s	17130-6bh	Airtech	Spike - 1 of 13		50x2
214	x5	17131-1fh	Airtech	Sample		100
215		17131-2fh	Airtech	Sample		100
216	d	17131-2fh	Airtech	Duplicate of 16		100
217	x2	17131-3fh	Airtech	Sample		100
218	x2s	17131-3fh	Airtech	Spike - 1 of 18		100
219		17131-5fh	Airtech	Sample		100
220	d	17131-5fh	Airtech	Duplicate of 20		100
221	x2	17131-6fh	Airtech	Sample		100
222	x2s	17131-6fh	Airtech	Spike - 1 of 22		100
223	x2	17131-3bh	Airtech	Sample		50x2
224	x2s	17131-3bh	Airtech	Spike - 1 of 24		50x2
225	x10	17131-4bh	Airtech	Sample		50x2
226	x10	17131-5bh	Airtech	Sample		50x2
227	x10d	17131-5bh	Airtech	Duplicate of 27		50x2
228	x2	17131-6bh	Airtech	Sample		50x2
229	x2s	17131-6bh	Airtech	Spike - 1 of 29		50x2
230	x5	17131-6bh	Airtech	Sample		50x2
231	x5s	17131-6bh	Airtech	Spike - 1 of 31		50x2
232	x10	17132-2fh	Airtech	Sample		100
233	x10d	17132-2fh	Airtech	Duplicate of 33		100
234	x2	17132-3fh	Airtech	Sample		100
235	x2s	17132-3fh	Airtech	Spike - 1 of 35		100
236		17132-2bh	Airtech	Sample		50x2
237	d	17132-2bh	Airtech	Duplicate of 37		50x2
238	x2	17132-3bh	Airtech	Sample		50x2
239	x2s	17132-3bh	Airtech	Spike - 1 of 39		50x2
240	x10	17133-1FH	Airtech	Sample		100
241	x5	17133-2FH	Airtech	Sample		100
242	x5d	17133-2FH	Airtech	Duplicate of 42		100
243	x5	17133-3FH	Airtech	Sample		100
244	x5s	17133-3FH	Airtech	Spike - 1 of 44		100
245	x2	17133-3BH	Airtech	Sample		50x2
246	x2s	17133-3BH	Airtech	Spike - 1 of 46		50x2
247	x10	17130-6bh	Airtech	Sample		50x2
248	x10s	17130-6bh	Airtech	Spike - 1 of 48		50x2
249	x5	17131-2fh	Airtech	Sample		100
250	x5d	17131-2fh	Airtech	Duplicate of 50		100
251	x10	17131-5fh	Airtech	Sample		100
252	x10d	17131-5fh	Airtech	Duplicate of 52		100

elementOne
Analyst:--dbw--

ICP-MS RUN SHEET
8/11/2011

Job Number:

A/S Loc.	Dilution	Sample ID	Client	Type	Weight (g)	Prep Vol (ml)
253	x5	17131-6fh	Airtech	Sample		100
254	x5s	17131-6fh	Airtech	Spike - 1 of 64		100
255	x10	17131-6bh	Airtech	Sample		50x2
256	x10s	17131-6bh	Airtech	Spike - 1 of 56		50x2
257	x5	17133-3FH	Airtech	Sample		100
258	x5s	17133-3FH	Airtech	Spike - 1 of 58		100
259	x20	17130-6bh	Airtech	Sample		50x2
260	x20s	17130-6bh	Airtech	Spike - 1 of 60		50x2
411	x20	17131-6bh	Airtech	Sample		50x2
412	x20s	17131-6bh	Airtech	Spike - 1 of 62		50x2

Spikes are post at 0.02mL of 25ppm spiking solutions lot 021410-ABCD & F in a final volume of 10mL

Submitted for QC by:	Date/Time:		QC Review By:	Date/Time:	
dbw	8/11/11 9:44		DBW	8/19/11	1340
Re-Test Required:	No: ✓	Yes:	Comments:		
Resubmitted for QC by:	Date/Time:		QC Review:	By:	Date/Time:

Sample/Batch Report

User Name: icp
Computer Name: ICP-MS
Sample File: C:\elandata_icp\Sample\x18.sam
Report Date/Time: Wednesday, August 10, 2011 09:03:41

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
5		QC STD 2		Sample					
203		17129-1		Sample					
204		17129-2		Sample					
205	d	17129-2		Duplicate of 3					
206		17129-3		Sample					
207	s	17129-3		Spike - 1 of 5					
208		17129-4		Sample					
209		17129-5		Sample					
210	d	17129-5		Duplicate of 8					
211		17129-6		Sample					
212	s	17129-6		Spike - 1 of 10					
213		17129-7		Sample					
401		QC Std 1		Sample					
402		QC Std 4		Sample					
5		QC STD 2	Airtech	Sample					
216		17130-1fh	Airtech	Sample					
217		17130-2fh	Airtech	Sample					
218	d	17130-2fh	Airtech	Duplicate of 17					
219		17130-3fh	Airtech	Sample					
220	s	17130-3fh	Airtech	Spike - 1 of 19					
221		17130-4fh	Airtech	Sample					
222		17130-5fh	Airtech	Sample					
223	d	17130-5fh	Airtech	Duplicate of 22					
224		17130-6fh	Airtech	Sample					
225	s	17130-6fh	Airtech	Spike - 1 of 24					
226		17130-7fh	Airtech	Sample					
227	x50	17130-1fh	Airtech	Sample					
228	x50	17130-2fh	Airtech	Sample					
229	x50d	17130-2fh	Airtech	Duplicate of 28					
230	x50	17130-3fh	Airtech	Sample					
231	x50s	17130-3fh	Airtech	Spike - 1 of 30					
232	x50	17130-4fh	Airtech	Sample					
233	x50	17130-5fh	Airtech	Sample					
234	x50d	17130-5fh	Airtech	Duplicate of 33					
235	x50	17130-6fh	Airtech	Sample					
236	x50s	17130-6fh	Airtech	Spike - 1 of 35					
237		LRB	Airtech	Sample					
238	s	LRB	Airtech	Spike - 1 of 37					
239		17130-1bh	Airtech	Sample					
240		17130-2bh	Airtech	Sample					
241	d	17130-2bh	Airtech	Duplicate of 40					
242		17130-3bh	Airtech	Sample					
243	s	17130-3bh	Airtech	Spike - 1 of 42					
244		17130-4bh	Airtech	Sample					
245		17130-5bh	Airtech	Sample					
246	d	17130-5bh	Airtech	Duplicate of 45					
247		17130-6bh	Airtech	Sample					
248	s	17130-6bh	Airtech	Spike - 1 of 47					
249		17130-7bh	Airtech	Sample					

401		QC Std 1	Airtech	Sample
402		QC Std 4	Airtech	Sample
5		QC STD 2	Airtech	Sample
303		17131-1fh	Airtech	Sample
304		17131-2fh	Airtech	Sample
305	d	17131-2fh	Airtech	Duplicate of 54
306		17131-3fh	Airtech	Sample
307	s	17131-3fh	Airtech	Spike - 1 of 56
308		17131-4fh	Airtech	Sample
309		17131-5fh	Airtech	Sample
310	d	17131-5fh	Airtech	Duplicate of 59
311		17131-6fh	Airtech	Sample
312	s	17131-6fh	Airtech	Spike - 1 of 61
313		17131-7fh	Airtech	Sample
314	x50	17131-1fh	Airtech	Sample
315	x50	17131-2fh	Airtech	Sample
316	x50d	17131-2fh	Airtech	Duplicate of 65
317	x50	17131-3fh	Airtech	Sample
318	x50s	17131-3fh	Airtech	Spike - 1 of 67
319	x50	17131-4fh	Airtech	Sample
320	x50	17131-5fh	Airtech	Sample
321	x50d	17131-5fh	Airtech	Duplicate of 70
322	x50	17131-6fh	Airtech	Sample
323	x50s	17131-6fh	Airtech	Spike - 1 of 72
324		LRB	Airtech	Sample
325	s	LRB	Airtech	Spike - 1 of 74
326		17131-1bh	Airtech	Sample
327		17131-2bh	Airtech	Sample
328	d	17131-2bh	Airtech	Duplicate of 77
329		17131-3bh	Airtech	Sample
330	s	17131-3bh	Airtech	Spike - 1 of 79
331		17131-4bh	Airtech	Sample
332		17131-5bh	Airtech	Sample
333	d	17131-5bh	Airtech	Duplicate of 82
334		17131-6bh	Airtech	Sample
335	s	17131-6bh	Airtech	Spike - 1 of 84
336		17131-7bh	Airtech	Sample
403		QC Std 1	Airtech	Sample
404		QC Std 4	Airtech	Sample
5		QC STD 2	Airtech	Sample
339		17132-1fh	Airtech	Sample
340		17132-2fh	Airtech	Sample
341	d	17132-2fh	Airtech	Duplicate of 91
342		17132-3fh	Airtech	Sample
343	s	17132-3fh	Airtech	Spike - 1 of 93
344		17132-4fh	Airtech	Sample
345		LRB	Airtech	Sample
346	s	LRB	Airtech	Spike - 1 of 96
347		17132-1bh	Airtech	Sample
348		17132-2bh	Airtech	Sample
348	d	17132-2bh	Airtech	Duplicate of 99
350		17132-3bh	Airtech	Sample
351	s	17132-3bh	Airtech	Spike - 1 of 101
352		17132-4bh	Airtech	Sample
403		QC Std 1	Airtech	Sample
404		QC Std 4	Airtech	Sample
5		QC STD 2	Airtech	Sample
413		17133-1	Airtech	Sample
414		17133-2	Airtech	Sample
415	d	17133-2	Airtech	Duplicate of 108

416		17133-3	Airtech	Sample
417	s	17133-3	Airtech	Spike - 1 of 110
418		17133-4	Airtech	Sample
345	-	LRB	Airtech	Sample
346	s	LRB	Airtech	Spike - 1 of 113
419		17133-1	Airtech	Sample
420		17133-2	Airtech	Sample
421	d	17133-2	Airtech	Duplicate of 116
422		17133-3	Airtech	Sample
423	s	17133-3	Airtech	Spike - 1 of 116
424		17133-4	Airtech	Sample
237		LRB	Airtech	Sample
238	s	LRB	Airtech	Spike - 1 of 121
239		17130-1bh	Airtech	Sample
240		17130-2bh	Airtech	Sample
241	d	17130-2bh	Airtech	Duplicate of 124
242		17130-3bh	Airtech	Sample
243	s	17130-3bh	Airtech	Spike - 1 of 126
244		17130-4bh	Airtech	Sample
245		17130-5bh	Airtech	Sample
246	d	17130-5bh	Airtech	Duplicate of 129
247		17130-6bh	Airtech	Sample
248	s	17130-6bh	Airtech	Spike - 1 of 131
249		17130-7bh	Airtech	Sample

Dataset Report

User Name: icp
Computer Name: ICP-MS
Dataset File Path: C:\elandata_icp\DataSet\080911-1\
Report Date/Time: Wednesday, August 10, 2011 09:03:29

Autosampler Position: 4

The Dataset

Time	Sample ID	Batch ID	Read Type	Description	Init. Quant	Prep. Vol.	Aliquot. Vol.	Diluted V
07:44:38 Tue 09-Aug-11	Blank		Blank					
07:46:48 Tue 09-Aug-11	Standard 1		Standard #1					
07:48:57 Tue 09-Aug-11	Standard 2		Standard #2					
07:51:06 Tue 09-Aug-11	Standard 3		Standard #3					
07:53:16 Tue 09-Aug-11	QC Std 1		QC Std #1					
07:55:25 Tue 09-Aug-11	QC Std 2		QC Std #2					
07:57:35 Tue 09-Aug-11	QC Std 3		QC Std #3					
07:59:45 Tue 09-Aug-11	QC Std 4		QC Std #4					
08:01:55 Tue 09-Aug-11	QC Std 5		QC Std #5					
08:04:05 Tue 09-Aug-11	QC Std 7		QC Std #7					
08:06:15 Tue 09-Aug-11	QC Std 8		QC Std #8					
08:08:25 Tue 09-Aug-11	QC Std 9		QC Std #9					
08:10:35 Tue 09-Aug-11	QC Std 10		QC Std #10					
08:12:45 Tue 09-Aug-11	QC STD 2		Sample	Airtech				
08:14:55 Tue 09-Aug-11	17131-1fh		Sample	Airtech				
08:17:04 Tue 09-Aug-11	17131-2fh		Sample	Airtech				
08:19:14 Tue 09-Aug-11	17131-2fh	d	Duplicate of 16	Airtech				
08:21:23 Tue 09-Aug-11	17131-3fh		Sample	Airtech				
08:23:32 Tue 09-Aug-11	17131-3fh	s	Spike - 1 of 18	Airtech				
08:25:41 Tue 09-Aug-11	17131-4fh		Sample	Airtech				
08:27:51 Tue 09-Aug-11	17131-5fh		Sample	Airtech				
08:30:00 Tue 09-Aug-11	17131-5fh	d	Duplicate of 21	Airtech				
08:32:09 Tue 09-Aug-11	17131-6fh		Sample	Airtech				
08:34:19 Tue 09-Aug-11	17131-6fh	s	Spike - 1 of 23	Airtech				
08:36:29 Tue 09-Aug-11	QC Std 1		QC Std #1					
08:38:39 Tue 09-Aug-11	QC Std 4		QC Std #4					
08:40:49 Tue 09-Aug-11	17131-7fh		Sample	Airtech				
08:42:58 Tue 09-Aug-11	17131-1fh	x50	Sample	Airtech				
08:45:08 Tue 09-Aug-11	17131-2fh	x50	Sample	Airtech				
08:47:17 Tue 09-Aug-11	17131-2fh	x50d	Duplicate of 29	Airtech				
08:49:26 Tue 09-Aug-11	17131-3fh	x50	Sample	Airtech				
08:51:36 Tue 09-Aug-11	17131-3fh	x50s	Spike - 1 of 31	Airtech				
08:53:45 Tue 09-Aug-11	17131-4fh	x50	Sample	Airtech				
08:55:54 Tue 09-Aug-11	17131-5fh	x50	Sample	Airtech				
08:58:04 Tue 09-Aug-11	17131-5fh	x50d	Duplicate of 34	Airtech				
09:00:13 Tue 09-Aug-11	17131-6fh	x50	Sample	Airtech				
09:02:22 Tue 09-Aug-11	17131-6fh	x50s	Spike - 1 of 36	Airtech				
09:04:34 Tue 09-Aug-11	QC Std 1		QC Std #1					
09:06:44 Tue 09-Aug-11	QC Std 4		QC Std #4					
09:08:55 Tue 09-Aug-11	LRB		Sample	Airtech				
09:11:05 Tue 09-Aug-11	LRB	s	Spike - 1 of 40	Airtech				
09:13:14 Tue 09-Aug-11	17131-1bh		Sample	Airtech				
09:15:23 Tue 09-Aug-11	17131-2bh		Sample	Airtech				

09:17:33 Tue 09-Aug-11	17131-2bh	d	Duplicate of 43	Airtech
09:19:42 Tue 09-Aug-11	17131-3bh		Sample	Airtech
09:21:52 Tue 09-Aug-11	17131-3bh	s	Spike - 1 of 45	Airtech
09:24:01 Tue 09-Aug-11	17131-4bh		Sample	Airtech
09:26:10 Tue 09-Aug-11	17131-5bh		Sample	Airtech
09:28:20 Tue 09-Aug-11	17131-5bh	d	Duplicate of 48	Airtech
09:30:31 Tue 09-Aug-11	QC Std 1		QC Std #1	
09:32:41 Tue 09-Aug-11	QC Std 4		QC Std #4	
09:34:53 Tue 09-Aug-11	17131-6bh		Sample	Airtech
09:37:02 Tue 09-Aug-11	17131-6bh	s	Spike - 1 of 52	Airtech
09:39:11 Tue 09-Aug-11	17131-7bh		Sample	Airtech
09:41:23 Tue 09-Aug-11	QC Std 1		Sample	Airtech
09:43:32 Tue 09-Aug-11	QC Std 4		Sample	Airtech
09:45:44 Tue 09-Aug-11	Blank		Blank	
09:47:54 Tue 09-Aug-11	Standard 1		Standard #1	
09:50:03 Tue 09-Aug-11	Standard 2		Standard #2	
09:52:12 Tue 09-Aug-11	Standard 3		Standard #3	
09:54:22 Tue 09-Aug-11	QC Std 1		QC Std #1	
09:56:31 Tue 09-Aug-11	QC Std 2		QC Std #2	
09:58:41 Tue 09-Aug-11	QC Std 3		QC Std #3	
10:00:51 Tue 09-Aug-11	QC Std 4		QC Std #4	
10:03:02 Tue 09-Aug-11	QC Std 5		QC Std #5	
10:05:11 Tue 09-Aug-11	QC Std 7		QC Std #7	
10:07:21 Tue 09-Aug-11	QC Std 8		QC Std #8	
10:09:30 Tue 09-Aug-11	QC Std 9		QC Std #9	
10:11:40 Tue 09-Aug-11	QC Std 10		QC Std #10	
10:13:51 Tue 09-Aug-11	QC STD 2		Sample	Airtech
10:16:02 Tue 09-Aug-11	17132-1fh		Sample	Airtech
10:18:11 Tue 09-Aug-11	17132-2fh		Sample	Airtech
10:20:21 Tue 09-Aug-11	17132-2fh	d	Duplicate of 72	Airtech
10:22:30 Tue 09-Aug-11	17132-3fh		Sample	Airtech
10:24:40 Tue 09-Aug-11	17132-3fh	s	Spike - 1 of 74	Airtech
10:26:51 Tue 09-Aug-11	QC Std 1		QC Std #1	
10:29:01 Tue 09-Aug-11	QC Std 4		QC Std #4	
10:31:12 Tue 09-Aug-11	17132-4fh		Sample	Airtech
10:33:22 Tue 09-Aug-11	LRB		Sample	Airtech
10:35:31 Tue 09-Aug-11	LRB	s	Spike - 1 of 79	Airtech
10:37:40 Tue 09-Aug-11	17132-1bh		Sample	Airtech
10:39:50 Tue 09-Aug-11	17132-2bh		Sample	Airtech
10:42:02 Tue 09-Aug-11	17132-2bh	d	Duplicate of 82	Airtech
10:44:12 Tue 09-Aug-11	17132-3bh		Sample	Airtech
10:46:21 Tue 09-Aug-11	17132-3bh	s	Spike - 1 of 84	Airtech
10:48:31 Tue 09-Aug-11	17132-4bh		Sample	Airtech
10:50:42 Tue 09-Aug-11	QC Std 1		Sample	Airtech
10:52:54 Tue 09-Aug-11	QC Std 1		QC Std #1	
10:55:03 Tue 09-Aug-11	QC Std 4		QC Std #4	
10:57:15 Tue 09-Aug-11	QC Std 4		Sample	Airtech
10:59:27 Tue 09-Aug-11	Blank		Blank	
11:01:36 Tue 09-Aug-11	Standard 1		Standard #1	
11:03:46 Tue 09-Aug-11	Standard 2		Standard #2	
11:05:55 Tue 09-Aug-11	Standard 3		Standard #3	
11:08:05 Tue 09-Aug-11	QC Std 1		QC Std #1	
11:10:16 Tue 09-Aug-11	QC Std 2		QC Std #2	
11:12:24 Tue 09-Aug-11	QC Std 3		QC Std #3	
11:14:34 Tue 09-Aug-11	QC Std 4		QC Std #4	
11:16:45 Tue 09-Aug-11	QC Std 5		QC Std #5	

use first curve

use first curve

11:18:55 Tue 09-Aug-11	QC Std 7		QC Std #7	
11:21:04 Tue 09-Aug-11	QC Std 8		QC Std #8	
11:23:14 Tue 09-Aug-11	QC Std 9		QC Std #9	
11:25:23 Tue 09-Aug-11	QC Std 10		QC Std #10	
11:27:34 Tue 09-Aug-11	QC STD 2		Sample	Airtech
11:29:45 Tue 09-Aug-11	17133-1	FH	Sample	Airtech
11:31:55 Tue 09-Aug-11	17133-2		Sample	Airtech
11:34:05 Tue 09-Aug-11	17133-2	d	Duplicate of 10	Airtech
11:36:14 Tue 09-Aug-11	17133-3		Sample	Airtech
16:00:34 Tue 09-Aug-11	Blank		Blank	
16:02:43 Tue 09-Aug-11	Standard 1		Standard #1	
16:04:53 Tue 09-Aug-11	Standard 2		Standard #2	
16:07:02 Tue 09-Aug-11	Standard 3		Standard #3	
16:09:12 Tue 09-Aug-11	QC Std 1		QC Std #1	
16:11:21 Tue 09-Aug-11	QC Std 2		QC Std #2	
16:13:30 Tue 09-Aug-11	QC Std 3		QC Std #3	
16:15:41 Tue 09-Aug-11	QC Std 4		QC Std #4	
16:17:51 Tue 09-Aug-11	QC Std 5		QC Std #5	
16:20:01 Tue 09-Aug-11	QC Std 7		QC Std #7	
16:22:10 Tue 09-Aug-11	QC Std 8		QC Std #8	
16:24:20 Tue 09-Aug-11	QC Std 9		QC Std #9	
16:26:29 Tue 09-Aug-11	QC Std 10		QC Std #10	
16:28:40 Tue 09-Aug-11	QC STD 2		Sample	Airtech
16:30:52 Tue 09-Aug-11	17133-1	FH	Sample	Airtech
16:33:01 Tue 09-Aug-11	17133-2		Sample	Airtech
16:35:10 Tue 09-Aug-11	17133-2	d	Duplicate of 12	Airtech
16:37:19 Tue 09-Aug-11	17133-3		Sample	Airtech
16:39:29 Tue 09-Aug-11	17133-3	s	Spike - 1 of 12	Airtech
16:41:38 Tue 09-Aug-11	17133-4		Sample	Airtech
16:43:49 Tue 09-Aug-11	LRB		Sample	Airtech
16:45:58 Tue 09-Aug-11	LRB	s	Spike - 1 of 12	Airtech
16:48:08 Tue 09-Aug-11	17133-1		Sample	Airtech
16:50:20 Tue 09-Aug-11	QC Std 1		QC Std #1	
16:52:30 Tue 09-Aug-11	QC Std 4		QC Std #4	
16:54:42 Tue 09-Aug-11	17133-2	BH	Sample	Airtech
16:56:51 Tue 09-Aug-11	17133-2	d	Duplicate of 13	Airtech
16:59:00 Tue 09-Aug-11	17133-3		Sample	Airtech
17:01:10 Tue 09-Aug-11	17133-3	s	Spike - 1 of 13	Airtech
17:03:19 Tue 09-Aug-11	17133-4		Sample	Airtech
17:05:29 Tue 09-Aug-11	LRB		Sample	Airtech
17:07:39 Tue 09-Aug-11	LRB	s	Spike - 1 of 13	Airtech
17:09:48 Tue 09-Aug-11	17130-1bh		Sample	Airtech
17:11:57 Tue 09-Aug-11	17130-2bh		Sample	Airtech
17:14:07 Tue 09-Aug-11	17130-2bh	d	Duplicate of 14	Airtech
17:16:18 Tue 09-Aug-11	QC Std 1		QC Std #1	
17:18:28 Tue 09-Aug-11	QC Std 4		QC Std #4	
17:20:40 Tue 09-Aug-11	17130-3bh		Sample	Airtech
17:22:49 Tue 09-Aug-11	17130-3bh	s	Spike - 1 of 14	Airtech
17:24:59 Tue 09-Aug-11	17130-4bh		Sample	Airtech
17:27:08 Tue 09-Aug-11	17130-5bh		Sample	Airtech
17:29:17 Tue 09-Aug-11	17130-5bh	d	Duplicate of 14	Airtech
17:31:27 Tue 09-Aug-11	17130-6bh		Sample	Airtech
17:33:36 Tue 09-Aug-11	17130-6bh	s	Spike - 1 of 15	Airtech
17:35:45 Tue 09-Aug-11	17130-7bh		Sample	Airtech
17:37:57 Tue 09-Aug-11	QC Std 1		QC Std #1	
17:40:06 Tue 09-Aug-11	QC Std 4		QC Std #4	

elementOne
Analyst:--KMS--

ICP-MS RUN SHEET
8/10/2011

Job Number:

A/S Loc.	Dilution	Sample ID	Client	Type	Weight (g)	Prep Vol (ml)
5		QC STD 2	Airtech	Sample		
303		17131-1fh	Airtech	Sample		100
304		17131-2fh	Airtech	Sample		100
305	d	17131-2fh	Airtech	Duplicate of 54		100
306		17131-3fh	Airtech	Sample		100
307	s	17131-3fh	Airtech	Spike - 1 of 56		100
308		17131-4fh	Airtech	Sample		100
309		17131-5fh	Airtech	Sample		100
310	d	17131-5fh	Airtech	Duplicate of 59		100
311		17131-6fh	Airtech	Sample		100
312	s	17131-6fh	Airtech	Spike - 1 of 61		100
313		17131-7fh	Airtech	Sample		100
314	x50	17131-1fh	Airtech	Sample		100
315	x50	17131-2fh	Airtech	Sample		100
316	x50d	17131-2fh	Airtech	Duplicate of 65		100
317	x50	17131-3fh	Airtech	Sample		100
318	x50s	17131-3fh	Airtech	Spike - 1 of 67		100
319	x50	17131-4fh	Airtech	Sample		100
320	x50	17131-5fh	Airtech	Sample		100
321	x50d	17131-5fh	Airtech	Duplicate of 70		100
322	x50	17131-6fh	Airtech	Sample		100
323	x50s	17131-6fh	Airtech	Spike - 1 of 72		100
324		LRB	Airtech	Sample		50
325	s	LRB	Airtech	Spike - 1 of 74		50
326		17131-1bh	Airtech	Sample		50x2
327		17131-2bh	Airtech	Sample		50x2
328	d	17131-2bh	Airtech	Duplicate of 77		50x2
329		17131-3bh	Airtech	Sample		50x2
330	s	17131-3bh	Airtech	Spike - 1 of 79		50x2
331		17131-4bh	Airtech	Sample		50x2
332		17131-5bh	Airtech	Sample		50x2
333	d	17131-5bh	Airtech	Duplicate of 82		50x2
334		17131-6bh	Airtech	Sample		50x2
335	s	17131-6bh	Airtech	Spike - 1 of 84		50x2
336		17131-7bh	Airtech	Sample		50x2
403		QC Std 1	Airtech	Sample		
404		QC Std 4	Airtech	Sample		
5		QC STD 2	Airtech	Sample		
339		17132-1fh	Airtech	Sample		100
340		17132-2fh	Airtech	Sample		100
341	d	17132-2fh	Airtech	Duplicate of 91		100
342		17132-3fh	Airtech	Sample		100
343	s	17132-3fh	Airtech	Spike - 1 of 93		100
344		17132-4fh	Airtech	Sample		100
345		LRB	Airtech	Sample		50
346	s	LRB	Airtech	Spike - 1 of 96		50
347		17132-1bh	Airtech	Sample		50x2
348		17132-2bh	Airtech	Sample		50x2
348	d	17132-2bh	Airtech	Duplicate of 99		50x2
350		17132-3bh	Airtech	Sample		50x2
351	s	17132-3bh	Airtech	Spike - 1 of 101		50x2
352		17132-4bh	Airtech	Sample		50x2
403		QC Std 1	Airtech	Sample		

elementOne
Analyst:--KMS--

ICP-MS RUN SHEET
8/10/2011

Job Number:

A/S Loc.	Dilution	Sample ID	Client	Type	Weight (g)	Prep Vol (ml)
404		QC Std 4	Airtech	Sample		
5		QC STD 2	Airtech	Sample		
413		17133-1	Airtech	Sample		100
414		17133-2	Airtech	Sample		100
415	d	17133-2	Airtech	Duplicate of 108		100
416		17133-3	Airtech	Sample		100
417	s	17133-3	Airtech	Spike - 1 of 110		100

Spikes are post at 0.02mL of 25ppm spiking solutions lot 021410-ABCD & F in a final volume of 10mL					
Submitted for QC by:	**Date/Time:**		**QC Review By:**	**Date/Time:**	
KMS	8/10/11 9:11		DBL	8/19/11	1520
Re-Test Required:	**No:** ✓	**Yes:**	**Comments:**		
Resubmitted for QC by:	**Date/Time:**		**QC Review:**	**By:**	**Date/Time:**

Dataset Report

User Name: icp
Computer Name: ICP-MS
Dataset File Path: C:\elandata_icp\DataSet\082211-1\
Report Date/Time: Tuesday, August 23, 2011 13:55:16

8.23-11

Autosampler Position:

The Dataset

Time	Sample ID	Batch ID	Read Type	Description	Init. Quant	Prep. Vol.	Aliquot. Vol.	Diluted V
14:42:48 Mon 22-Aug-11	Blank		Blank					
14:44:57 Mon 22-Aug-11	Standard 1		Standard #1					
14:47:06 Mon 22-Aug-11	Standard 2		Standard #2					
14:49:16 Mon 22-Aug-11	Standard 3		Standard #3					
14:51:26 Mon 22-Aug-11	QC Std 1		QC Std #1					
14:53:35 Mon 22-Aug-11	QC Std 2		QC Std #2					
14:55:44 Mon 22-Aug-11	QC Std 3		QC Std #3					
14:57:55 Mon 22-Aug-11	QC Std 4		QC Std #4					
15:00:05 Mon 22-Aug-11	QC Std 5		QC Std #5					
15:02:16 Mon 22-Aug-11	QC Std 2		Sample	Air Tech				
15:04:26 Mon 22-Aug-11	17131-2		Sample	Air Tech				
15:06:35 Mon 22-Aug-11	17131-2	d	Duplicate of 11	Air Tech				
15:11:35 Mon 22-Aug-11	17131-2	x5	Sample	Air Tech				
15:13:44 Mon 22-Aug-11	17131-2	x5d	Duplicate of 13	Air Tech				
15:15:56 Mon 22-Aug-11	QC Std 1		QC Std #1					
15:18:05 Mon 22-Aug-11	QC Std 4		QC Std #4					
18:32:50 Mon 22-Aug-11	17131-4bh	x50	Sample	Air Tech				
18:34:59 Mon 22-Aug-11	17131-5bh	x50	Sample	Air Tech				
18:37:09 Mon 22-Aug-11	17131-5bh	x50d	Duplicate of 18	Air Tech				
18:39:18 Mon 22-Aug-11	17131-6bh	x50	Sample	Air Tech				
18:41:27 Mon 22-Aug-11	17131-6bh	x50s	Spike - 1 of 20	Air Tech				
18:43:39 Mon 22-Aug-11	QC Std 1		QC Std #1					
18:45:48 Mon 22-Aug-11	QC Std 4		QC Std #4					
18:50:52 Mon 22-Aug-11	17131-4bh	x100	Sample	Air Tech				
18:53:02 Mon 22-Aug-11	17131-5bh	x100	Sample	Air Tech				
18:55:11 Mon 22-Aug-11	17131-5bh	x100d	Duplicate of 25	Air Tech				
18:57:20 Mon 22-Aug-11	17131-6bh	x100	Sample	Air Tech				
18:59:29 Mon 22-Aug-11	17131-6bh	x100s	Spike - 1 of 27	Air Tech				
19:01:41 Mon 22-Aug-11	QC Std 1		QC Std #1					
19:03:50 Mon 22-Aug-11	QC Std 4		QC Std #4					
12:16:31 Tue 23-Aug-11	17132-1	x20	Sample	Air Tech				
12:18:41 Tue 23-Aug-11	17132-2	x20	Sample	Air Tech				
12:20:50 Tue 23-Aug-11	17132-2	x20d	Duplicate of 32	Air Tech				
12:22:59 Tue 23-Aug-11	17132-3	x20	Sample	Air Tech				
12:25:08 Tue 23-Aug-11	17132-3	x20s	Spike - 1 of 34	Air Tech				
12:27:20 Tue 23-Aug-11	QC Std 1		QC Std #1					
12:29:29 Tue 23-Aug-11	QC Std 4		QC Std #4					
13:40:42 Tue 23-Aug-11	17132-2	x20	Sample	Air Tech				
13:42:51 Tue 23-Aug-11	17132-2	x20d	Duplicate of 38	Air Tech				
13:45:03 Tue 23-Aug-11	QC Std 1		QC Std #1					
13:47:12 Tue 23-Aug-11	QC Std 4		QC Std #4					

elementOne
Analyst:--dbw--

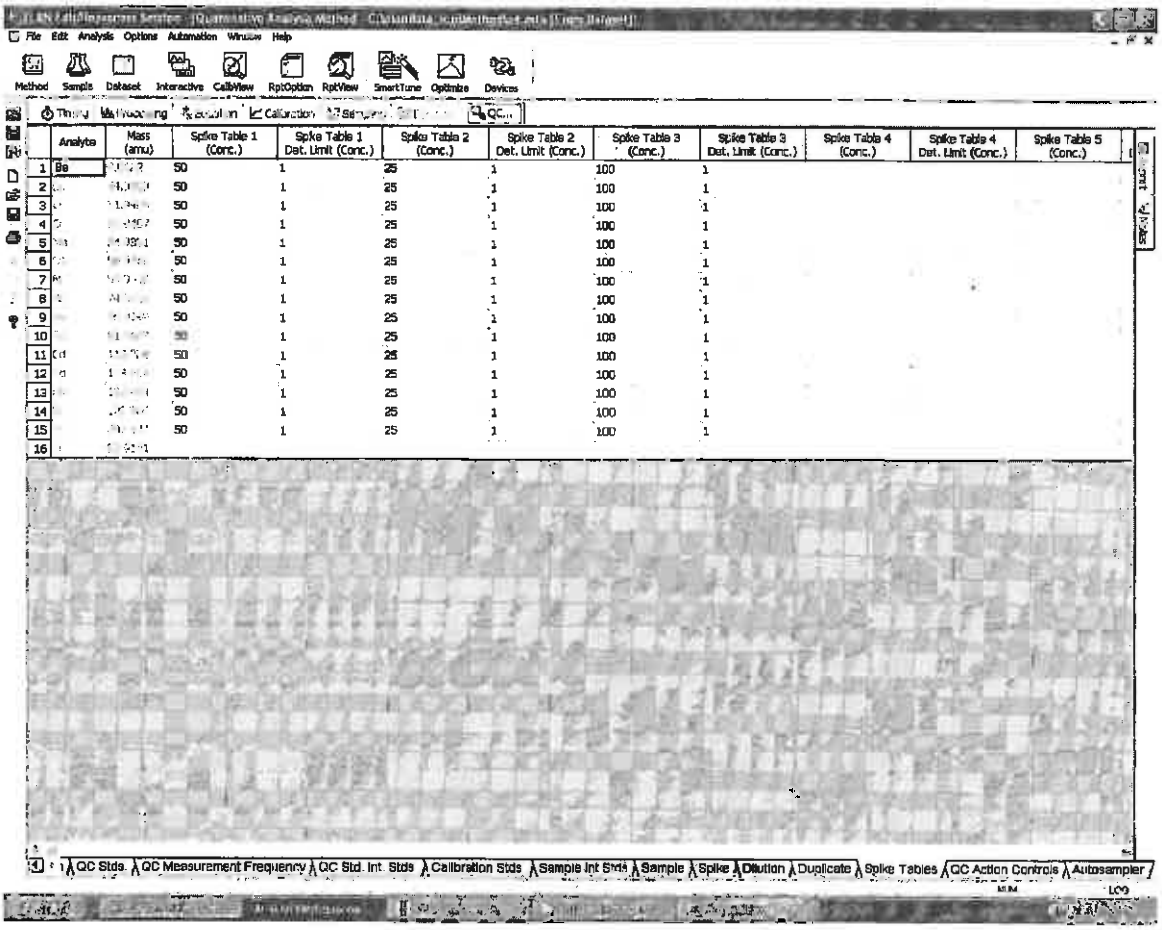
ICP-MS RUN SHEET
8/23/2011

Job Number:

A/S Loc.	Dilution	Sample ID	Client	Type	Weight (g)	Prep Vol (ml)
5		QC Std 2	Air Tech	Sample		
115	x20	17132-1	Air Tech	Sample		
116	x20	17132-2	Air Tech	Sample		
117	x20d	17132-2	Air Tech	Duplicate of 3		
118	x20	17132-3	Air Tech	Sample		
119	x20s	17132-3	Air Tech	Spike - 1 of 5		
116	x20	17132-2	Air Tech	Sample		
117	x20d	17132-2	Air Tech	Duplicate of 3		

Kim Sims 8-23-11

Submitted for QC by:	Date/Time:		QC Review By:	Date/Time:	
kms	8/23/11 13:54		DTB	8/23/11 1400	
Re-Test Required:	No: ✓	Yes:	Comments:		
Resubmitted for QC by:	Date/Time:		QC Review:	By:	Date/Time:



Wednesday, Aug 10, 2011 09:03 AM

ICP Standards and QC Standards Values Table

Element or Test	Mass	Symbol	Std.#1 ppb	Std.#2 ppb	Std.#3 ppb	QC #1	QC #2	QC #3	QC #4	QC #6 A	QC #7 AB	QC #8 .25	QC #9 LRB	QC #10 LRB+	QC #11 LRB+
Lithium	6	*Li*													
Lithium	7	Li	1	100	500	0	1	250	100				0	50	100
Beryllium	9	Be	1	100	500	0	1	250	100			0.25	0	50	100
Boron	10	*B*	1	50	100	0	1	250	100				0	50	100
Boron	11	B	1	50	100	0	1	250	100				0	50	100
Sodium	23	Na	20	1100	5500	0	21	2500	1100				0	718	
Magnesium	24	Mg	20	1100	5500	0	21	2500	1100				0	550	
Magnesium	25	*Mg*	20	1100	5500	0	21	2500	1100				0	550	
Aluminum	27	Al	1	100	500	0	1	250	100				0	50	100
Phosphorus	31	P	20	1000	5000	0	20	2500	1000				0	200	
Potassium	39	K	20	1100	5500	0	21	2500	1100				0	500	
Calcium	44	Ca	50	1100	5500	0	21	2500	1100				0	550	
Scandium	45														
Titanium	47	Ti	1	100	500	0	1	250	100				0	50	100
Titanium	49	Ti	1	100	500	0	1	250	100				0	50	100
Vanadium	51	V	1	100	500	0	1	250	100	0	20		0	50	100
Vanadium	51	V	1	100	500	0	1	250	100	0	20		0	50	100
Chromium	52	Cr	1	100	500	0	1	250	100		10		0	50	100
Chromium	53	*Cr*	1	100	500	0	1	250	100		10		0	50	100
Iron	54	*Fe*	20	1100	5500	0	21	2500	1100	0			0		
Manganese	55	Mn	1	100	500	0	1	250	100	0	10		0	50	100
Iron	57	Fe	20	1100	5500	0	21	2500	1100	0			0		
Cobalt	59	Co	1	100	500	0	1	250	100	0	20		0	50	100
Nickel	60	Ni	1	100	500	0	1	250	100	0	20		0	50	100
Copper	63	Cu	1	100	500	0	1	250	100	0	10		0	50	100
Copper	65	Cu	1	100	500	0	1	250	100	0	10		0	50	100
Zinc	66	Zn	1	100	500	0	1	250	100	0	10		0	50	100
Zinc	67	*Zn*	1	100	500	0	1	250	100	0	10		0	50	100
Zinc	68	*Zn*	1	100	500	0	1	250	100	0	10		0	50	100
Germanium	72	Ge	1	100	500	0	1	250	100				0	50	100
Arsenic	75	As	1	100	500	0	1	250	100	0	10		0	50	100
Selenium	77	*Se*	1	100	500	0	1	250	100	0	10		0	50	100
Selenium	82	Se	1	100	500	0	1	250	100	0	10		0	50	100
Strontium	88	Sr	1	100	500	0	1	250	100	0			0	50	100
Molybdenum	95	*Mo*	1	100	500	0	1	250	100				0	50	100
Molybdenum	97	*Mo*	1	100	500	0	1	250	100				0	50	100
Molybdenum	98	Mo	1	100	500	0	1	200	100				0	50	100
Rhodium	103														
Silver	107	Ag	1	100	500	0	1	250	100	0	10		0	50	100
Silver	109	*Ag*	1	100	500	0	1	250	100	0	10		0	50	100
Cadmium	111	Cd	1	100	500	0	1	250	100	0	5		0	50	100
Cadmium	114	*Cd*	1	100	500	0	1	250	100	0	5		0	50	100
Tin	118	Sn	1	100	500	0	1	250	100	0			0	50	100
Antimony	121	*Sb*	1	100	500	0	1	250	100	0			0	50	100
Antimony	123	Sb	1	100	500	0	1	250	100	0			0	50	100
Tellurium	128	Te	1	100	500	0	1	250	100				0	50	100
Cesium	133														
Barium	135	*Ba*	1	100	500	0	1	250	100	0			0	50	100
Barium	137	Ba	1	100	500	0	1	250	100	0			0	50	100
Lanthanum	139	La	1	100	500	0	1	250	100				0	50	100
Tantalum	159	Ta	1	100	500	0	1	250	100				0	50	100
Platinum	195	Pt	1	100	500	0	1	250	100				0	50	100
Gold	181	Au	1	100	500	0	1	250	100				0	50	100
Thallium	205	Tl	1	100	500	0	1	250	100	0			0	50	100
Lead	208	Pb	1	100	500	0	1	250	100	0			0	50	100
Bismuth	209	Bi	1	100	500	0	1	250	100				0	50	100
Thorium	232	Th	1	100	500	0	1	250	100				0	50	100
Uranium	238	U	1	100	500	0	1	250	100				0	50	100
Krypton	83														

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PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: Blank
Sample Da Tuesday, August 09, 2011 07:44:38
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	43541.9		ppb
|-	Be	9	14.7		ppb
|-	Sc	45	273834.7		ppb
|	Cr	52	18445.4		ppb
|	Cr	53	59726.6		ppb
|	Mn	55	26540.4		ppb
|	Co	59	564.4		ppb
|	Ni	60	1097.1		ppb
|	As	75	1733.8		ppb
|	Se	77	8803.9		ppb
|	Se	82	31.2		ppb
|>	Rh	103	628188.5		ppb
|	Cd	111	181		ppb
|-	Cd	114	342.3		ppb
|-	Sb	121	11895.8		ppb
|	Sb	123	8944.3		ppb
|>	Ho	165	934764.3		ppb
|-	Pb	208	11310.1		ppb
	Kr	83	156.6		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 1
Sample Da Tuesday, August 09, 2011 07:46:48
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	45041.5		ppb
|-	Be	9	460.7	1.08025	ppb
|-	Sc	45	272485.3		ppb
|	Cr	52	30731.5	1.01944	ppb
|	Cr	53	65983	3.86583	ppb
|	Mn	55	24411.1	-0.13383	ppb
|	Co	59	16652.9	1.02364	ppb
|	Ni	60	4090.9	0.92863	ppb
|	As	75	3914.4	0.89948	ppb
|	Se	77	8760.2	-0.98242	ppb
|	Se	82	267	0.97857	ppb
|>	Rh	103	637654.2		ppb
|	Cd	111	3293.8	1.06121	ppb
|-	Cd	114	7521	1.03783	ppb
|-	Sb	121	17211	0.51648	ppb
|	Sb	123	13045.4	0.52365	ppb
|>	Ho	165	975741.1		ppb
|-	Pb	208	47879	0.92872	ppb
	Kr	83	-58.4		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 2
Sample Da Tuesday, August 09, 2011 07:48:57
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	43618.2		ppb
|-	Be	9	40636.6	101.72307	ppb
|-	Sc	45	262771.8		ppb
|	Cr	52	1149333.2	100.38866	ppb
|	Cr	53	197542.8	105.06756	ppb
|	Mn	55	1806766.7	98.5612	ppb
|	Co	59	1466797.3	97.57586	ppb
|	Ni	60	317327.4	103.11436	ppb
|	As	75	230574.2	100.01621	ppb
|	Se	77	25820.3	101.10124	ppb
|	Se	82	22720.5	98.68102	ppb
|>	Rh	103	610027.2		ppb
|	Cd	111	284997.6	101.60936	ppb
|-	Cd	114	661100.5	99.91426	ppb
|-	Sb	121	928631.2	101.75459	ppb
|	Sb	123	712248.1	102.36116	ppb
|>	Ho	165	946889.9		ppb
|-	Pb	208	3948758.4	104.42167	ppb
	Kr	83	-18404.6		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 3
Sample Da Tuesday, August 09, 2011 07:51:06
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	43910.7		ppb
|-	Be	9	200867.3	499.65523	ppb
|-	Sc	45	262731.9		ppb
|	Cr	52	5619689.9	499.92223	ppb
|	Cr	53	716586.6	498.98076	ppb
|	Mn	55	9015005.9	500.29003	ppb
|	Co	59	7477957.6	500.48478	ppb
|	Ni	60	1523843.2	499.37727	ppb
|	As	75	1139052	499.99696	ppb
|	Se	77	93381.1	499.78372	ppb
|	Se	82	114367	500.26384	ppb
|>	Rh	103	606377.2		ppb
|	Cd	111	1392734.3	499.67801	ppb
|-	Cd	114	3287977.1	500.01707	ppb
|-	Sb	121	4709634.3	499.65005	ppb
|	Sb	123	3591009.7	499.52872	ppb
|>	Ho	165	988147.9		ppb
|-	Pb	208	19651487	499.11581	ppb
	Kr	83	-93380.5		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Da Tuesday, August 09, 2011 07:53:16
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	44451.7		ppb
|-	Be	9	24.3	0.0232	ppb
|-	Sc	45	262035.9		ppb
|	Cr	52	19116.7	0.08413	ppb
|	Cr	53	59437.4	0.48338	ppb
|	Mn	55	27338.1	0.06624	ppb
|	Co	59	821.4	0.01747	ppb
|	Ni	60	877.4	-0.065	ppb
|	As	75	410.9	-0.55862	ppb
|	Se	77	7486.7	-6.8039	ppb
|	Se	82	28.6	-0.00889	ppb
|>	Rh	103	618353.8		ppb
|	Cd	111	210.7	0.01154	ppb
|-	Cd	114	451.7	0.01722	ppb
|-	Sb	121	5718.5	-0.71427	ppb
|	Sb	123	4317.3	-0.70168	ppb
|>	Ho	165	963991.8		ppb
|-	Pb	208	11783.6	0.00302	ppb
	Kr	83	146.1		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 2
Sample Da Tuesday, August 09, 2011 07:55:25
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	47775.1		ppb
|-	Be	9	507	1.12255	ppb
|-	Sc	45	273570.6		ppb
|	Cr	52	33899.1	1.25837	ppb
|	Cr	53	61562.1	0.22348	ppb
|	Mn	55	40345.7	0.68786	ppb
|	Co	59	18350.2	1.11975	ppb
|	Ni	60	6271.2	1.58861	ppb
|	As	75	2848.5	0.44268	ppb
|	Se	77	7893.4	-6.28979	ppb
|	Se	82	264.3	0.95667	ppb
|>	Rh	103	644259.5		ppb
|	Cd	111	3422.7	1.09352	ppb
|-	Cd	114	7967.6	1.09064	ppb
|-	Sb	121	15849.1	0.30901	ppb
|	Sb	123	12141.3	0.33518	ppb
|>	Ho	165	1011682.2		ppb
|-	Pb	208	59635.7	1.17664	ppb
	Kr	83	-63.8		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 3
Sample Da Tuesday, August 09, 2011 07:57:35
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mean	Report Unit
|>	Li	6	22514.5		ppb
|-	Be	9	103379.2	501.55022	ppb
|-	Sc	45	134938.2		ppb
|	Cr	52	2824747.7	520.53083	ppb
|	Cr	53	379715.5	551.91161	ppb
|	Mn	55	4414951.1	507.5519	ppb
|	Co	59	3625298.1	502.57352	ppb
|	Ni	60	753277.4	511.34519	ppb
|	As	75	549544.4	499.60083	ppb
|	Se	77	48453.5	540.85986	ppb
|	Se	82	54969.9	497.96482	ppb
|>	Rh	103	292766		ppb
|	Cd	111	672118.4	499.531	ppb
|-	Cd	114	1561638.3	492.00458	ppb
|-	Sb	121	2255605.8	500.52834	ppb
|	Sb	123	1672946.2	486.73028	ppb
|>	Ho	165	472459.6		ppb
|-	Pb	208	9522041.7	505.82971	ppb
	Kr	83	-45013.1		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Da Tuesday, August 09, 2011 07:59:45
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mean	Report Unit
|>	Li	6	48531.4		ppb
|-	Be	9	45552.5	102.48012	ppb
|-	Sc	45	277144.8		ppb
|	Cr	52	1211775.6	100.57844	ppb
|	Cr	53	204354.7	102.5478	ppb
|	Mn	55	1956079.3	101.44566	ppb
|	Co	59	1585164.6	100.21728	ppb
|	Ni	60	337017.6	104.07708	ppb
|	As	75	246773	101.73646	ppb
|	Se	77	26403.6	96.82471	ppb
|	Se	82	24892.2	102.73796	ppb
|>	Rh	103	641861.9		ppb
|	Cd	111	303420.3	102.80995	ppb
|-	Cd	114	710302.9	102.03158	ppb
|-	Sb	121	985936.5	101.28779	ppb
|	Sb	123	756816	101.96185	ppb
|>	Ho	165	1010004.9		ppb
|-	Pb	208	4267972.1	105.82495	ppb
	Kr	83	-20220.6		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 5
Sample Da Tuesday, August 09, 2011 08:01:55
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mean	Report Unit
|>	Li	6	50935.5		ppb
|-	Be	9	22847.3	48.9546	ppb
|-	Sc	45	284235.1		ppb
|	Cr	52	616839.8	49.4811	ppb
|	Cr	53	129727.1	47.47472	ppb
|	Mn	55	972669.9	48.81592	ppb
|	Co	59	786601.9	48.81274	ppb
|	Ni	60	169133.3	51.10061	ppb
|	As	75	123464.9	49.59131	ppb
|	Se	77	16644.2	40.87429	ppb
|	Se	82	12263.3	49.60165	ppb
|>	Rh	103	654080.7		ppb
|	Cd	111	148921.6	49.48186	ppb
|-	Cd	114	352216.9	49.62066	ppb
|-	Sb	121	493048.2	48.14673	ppb
|	Sb	123	377403	48.35873	ppb
|>	Ho	165	1047027.5		ppb
|-	Pb	208	2128523.8	50.75163	ppb
	Kr	83	119.8		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 7
Sample Da Tuesday, August 09, 2011 08:04:05
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	50721.7		ppb
|-	Be	9	278.3	0.56257	ppb
|-	Sc	45	279085.5		ppb
|	Cr	52	146250.1	12.09032	ppb
|	Cr	53	72252.2	13.67982	ppb
|	Mn	55	240087.8	12.57778	ppb
|	Co	59	313151.6	21.93175	ppb
|	Ni	60	64604.8	21.86153	ppb
|	As	75	22223.5	9.50033	ppb
|	Se	77	11756.6	22.5047	ppb
|	Se	82	2249.4	10.1795	ppb
|>	Rh	103	578539.5		ppb
|	Cd	111	15013.8	5.58448	ppb
|-	Cd	114	42045.7	6.65273	ppb
|-	Sb	121	13627.2	0.05364	ppb
|	Sb	123	10423.6	0.07635	ppb
|>	Ho	165	1029678.5		ppb
|-	Pb	208	35150	0.55359	ppb
	Kr	83	-39.7		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 8
Sample Da Tuesday, August 09, 2011 08:06:15
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	76601.2		ppb
|-	Be	9	203.3	0.25314	ppb
|-	Sc	45	443678.1		ppb
|	Cr	52	38774.2	0.53848	ppb
|	Cr	53	88431.2	-2.48607	ppb
|	Mn	55	69927.2	0.96698	ppb
|	Co	59	7575.8	0.27531	ppb
|	Ni	60	12728.2	2.21909	ppb
|	As	75	-30.1	-0.74391	ppb
|	Se	77	12843.7	-3.54189	ppb
|	Se	82	134.2	0.22897	ppb
|>	Rh	103	986291.3		ppb
|	Cd	111	1430.9	0.25305	ppb
|-	Cd	114	3239	0.25267	ppb
|-	Sb	121	11502.9	-0.55842	ppb
|	Sb	123	8728.8	-0.54338	ppb
|>	Ho	165	1551535.3		ppb
|-	Pb	208	42435.2	0.38302	ppb
	Kr	83	-32.4		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 9
Sample Da Tuesday, August 09, 2011 08:08:25
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	54703.8		ppb
|-	Be	9	5	-0.02684	ppb
|-	Sc	45	277661.2		ppb
|	Cr	52	30242.2	0.7187	ppb
|	Cr	53	23631.7	-28.34607	ppb
|	Mn	55	121874.2	4.37391	ppb
|	Co	59	1664.2	0.05877	ppb
|	Ni	60	3022.2	0.50009	ppb
|	As	75	121.1	-0.68987	ppb
|	Se	77	1409.8	-42.92997	ppb
|	Se	82	6.6	-0.10679	ppb
|>	Rh	103	709272.6		ppb
|	Cd	111	114.6	-0.02753	ppb
|-	Cd	114	239.3	-0.01915	ppb
|-	Sb	121	52415	3.38362	ppb
|	Sb	123	40199.6	3.42903	ppb
|>	Ho	165	1166955.1		ppb
|-	Pb	208	39995.2	0.55683	ppb
	Kr	83	98.3		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 10
Sample Da: Tuesday, August 09, 2011 08:10:35
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	57553.3		ppb
|-	Be	9	17148.8	32.51572	ppb
|-	Sc	45	290419.6		ppb
|	Cr	52	709705.3	50.73919	ppb
|	Cr	53	97793.6	17.52702	ppb
|	Mn	55	1221832	54.76279	ppb
|	Co	59	824249.9	45.54889	ppb
|	Ni	60	184866.8	49.74649	ppb
|	As	75	93654.5	33.27662	ppb
|	Se	77	6811.6	-16.90017	ppb
|	Se	82	7923.9	28.50777	ppb
|>	Rh	103	733926.9		ppb
|	Cd	111	127559.3	37.7585	ppb
|-	Cd	114	301140.4	37.79959	ppb
|-	Sb	121	416572.8	34.45905	ppb
|	Sb	123	317791.1	34.48284	ppb
|>	Ho	165	1223725.8		ppb
|-	Pb	208	2358459.4	48.10033	ppb
	Kr	83	65.4		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC STD 2
Sample Da: Tuesday, August 09, 2011 08:12:45
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	53647.3		ppb
|-	Be	9	560.4	1.10464	ppb
|-	Sc	45	325383.7		ppb
|	Cr	52	41087.7	1.61614	ppb
|	Cr	53	70410.1	2.94027	ppb
|	Mn	55	44106.1	0.72025	ppb
|	Co	59	19538.3	1.10688	ppb
|	Ni	60	6972.7	1.65175	ppb
|	As	75	1717.1	-0.0768	ppb
|	Se	77	10330.9	3.12761	ppb
|	Se	82	305.1	1.035	ppb
|>	Rh	103	693669.8		ppb
|	Cd	111	3657.8	1.08481	ppb
|-	Cd	114	8717.1	1.109	ppb
|-	Sb	121	14443.1	0.1217	ppb
|	Sb	123	10976.2	0.1354	ppb
|>	Ho	165	1040336.6		ppb
|-	Pb	208	59852.7	1.14093	ppb
	Kr	83	-99.5		mg/L

Sample ID: 17132-1fh
Sample Da: Tuesday, August 09, 2011 10:16:02
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	80567.8		ppb
|-	Be	9	671	0.87308	ppb
|-	Sc	45	711257.4		ppb
|	Cr	52	471781.1	36.51165	ppb
|	Cr	53	62046.4	-1.1343	ppb
|	Mn	55	1971486.3	97.87945	ppb
|	Co	59	47254.2	2.82605	ppb
|	Ni	60	104855.7	30.77512	ppb
|	As	75	147905.5	58.09873	ppb
|	Se	77	33624.1	129.1153	ppb
|	Se	82	42954.6	169.92235	ppb
|>	Rh	103	670118.8		ppb
|	Cd	111	12085.3	3.86221	ppb
|-	Cd	114	24203.6	3.28194	ppb
|-	Sb	121	62106.1	4.07117	ppb
|	Sb	123	47408.2	4.09483	ppb
|>	Ho	165	1206960.3		ppb
|-	Pb	208	1840690.1	37.99448	ppb
	Kr	83	-8555.1		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-2fh
Sample Da: Tuesday, August 09, 2011 10:18:11
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	67074.6		ppb
|-	Be	9	664	1.04456	ppb
|-	Sc	45	418418.3		ppb
|	Cr	52	19189371	1830.3144	ppb
|	Cr	53	2320539.7	1836.1464	ppb
|	Mn	55	1873955.5	110.15172	ppb
|	Co	59	61680.9	4.38025	ppb
|	Ni	60	356336.9	124.67552	ppb
|	As	75	162855.5	75.83942	ppb
|	Se	77	26251.5	115.30535	ppb
|	Se	82	34170.3	159.77477	ppb
|>	Rh	103	566849.3		ppb
|	Cd	111	9116.2	3.43699	ppb
|-	Cd	114	18124.4	2.89918	ppb
|-	Sb	121	47788.6	3.53892	ppb
|	Sb	123	36209.8	3.52635	ppb
|>	Ho	165	1030075.3		ppb
|-	Pb	208	1690534.3	40.91029	ppb
	Kr	83	-6819.3		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-2fh
Sample Da: Tuesday, August 09, 2011 10:20:21
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	61069		ppb
|-	Be	9	634.4	1.09803	ppb
|-	Sc	45	389363.3		ppb
|	Cr	52	19206457	1945.3879	ppb
|	Cr	53	2319880.9	1951.8745	ppb
|	Mn	55	1820502.5	113.67391	ppb
|	Co	59	59759.5	4.50733	ppb
|	Ni	60	352946.1	131.14175	ppb
|	As	75	160252.3	79.2804	ppb
|	Se	77	25619	121.30586	ppb
|	Se	82	33940.5	168.52347	ppb
|>	Rh	103	533814.1		ppb
|	Cd	111	9314	3.73415	ppb
|-	Cd	114	18543.3	3.15418	ppb
|-	Sb	121	47888.8	3.61992	ppb
|	Sb	123	36586.4	3.64659	ppb
|>	Ho	165	1015501		ppb
|-	Pb	208	1775084.4	43.59156	ppb
	Kr	83	-6815.4		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-3fh
Sample Da: Tuesday, August 09, 2011 10:22:30
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	59638.8		ppb
|-	Be	9	308	0.52747	ppb
|-	Sc	45	648436.4		ppb
|	Cr	52	331821.1	33.92378	ppb
|	Cr	53	42099.6	-5.42064	ppb
|	Mn	55	1174640.4	76.98436	ppb
|	Co	59	23726.3	1.86839	ppb
|	Ni	60	63170.8	24.49932	ppb
|	As	75	176063.2	92.07144	ppb
|	Se	77	31132.6	169.80879	ppb
|	Se	82	39964.9	209.53956	ppb
|>	Rh	103	505609.1		ppb
|	Cd	111	5069.8	2.11874	ppb
|-	Cd	114	8474.8	1.49611	ppb
|-	Sb	121	42576.8	3.42314	ppb
|	Sb	123	32754.1	3.48327	ppb
|>	Ho	165	940059.9		ppb
|-	Pb	208	1599503.3	42.42439	ppb
	Kr	83	-4639.8		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-4fh
Sample Da Tuesday, August 09, 2011 10:31:12
Sample De Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	52942.4		ppb
|-	Be	9	18.7	0.0017	ppb
|-	Sc	45	192137.2		ppb
|	Cr	52	192715.7	20.17586	ppb
|	Cr	53	26108.1	-18.62567	ppb
|	Mn	55	689642.3	47.1551	ppb
|	Co	59	3323.3	0.24522	ppb
|	Ni	60	28118.5	11.32195	ppb
|	As	75	474	-0.47146	ppb
|	Se	77	331	-47.55694	ppb
|	Se	82	12.2	-0.06386	ppb
|>	Rh	103	479055.9		ppb
|	Cd	111	699.7	0.25575	ppb
|-	Cd	114	233	-0.00499	ppb
|-	Sb	121	4849.6	-0.78505	ppb
|	Sb	123	3755.6	-0.7577	ppb
|>	Ho	165	922422.4		ppb
|-	Pb	208	90600.9	2.1628	ppb
	Kr	83	-831.4		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: LRB
Sample Da Tuesday, August 09, 2011 10:33:22
Sample De Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	62119.7		ppb
|-	Be	9	8.3	-0.02563	ppb
|-	Sc	45	211223.8		ppb
|	Cr	52	21243.5	0.5275	ppb
|	Cr	53	5088.8	-39.3527	ppb
|	Mn	55	103032.9	4.97592	ppb
|	Co	59	1371.1	0.06598	ppb
|	Ni	60	1986.6	0.38	ppb
|	As	75	247.6	-0.61398	ppb
|	Se	77	287	-48.14542	ppb
|	Se	82	20.1	-0.0337	ppb
|>	Rh	103	543125.7		ppb
|	Cd	111	100.1	-0.02261	ppb
|-	Cd	114	190.4	-0.01798	ppb
|-	Sb	121	44623.6	3.56955	ppb
|	Sb	123	33847.1	3.56207	ppb
|>	Ho	165	955827.1		ppb
|-	Pb	208	36690	0.66019	ppb
	Kr	83	77.7		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: LRB
Sample Da Tuesday, August 09, 2011 10:35:31
Sample De Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	60529.1		ppb
|-	Be	9	17934.7	32.32712	ppb
|-	Sc	45	219035.6		ppb
|	Cr	52	553493.4	53.36836	ppb
|	Cr	53	67985.6	13.63844	ppb
|	Mn	55	988670.4	59.79938	ppb
|	Co	59	616150	45.84938	ppb
|	Ni	60	134868.8	48.86611	ppb
|	As	75	73259	35.09837	ppb
|	Se	77	5327.6	-15.1275	ppb
|	Se	82	6550.6	31.75144	ppb
|>	Rh	103	544982.7		ppb
|	Cd	111	104399.1	41.62971	ppb
|-	Cd	114	248878	42.08038	ppb
|-	Sb	121	347483.3	35.88299	ppb
|	Sb	123	267346.4	36.22769	ppb
|>	Ho	165	981341.3		ppb
|-	Pb	208	2014066	51.23767	ppb
	Kr	83	49.6		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-1bh
Sample Da: Tuesday, August 09, 2011 10:37:40
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	54472.5		ppb
|-	Be	9	11.7	-0.01331	ppb
|-	Sc	45	194398.4		ppb
|	Cr	52	216396.5	23.31742	ppb
|	Cr	53	28366.9	-15.94362	ppb
|	Mn	55	624732.9	43.42983	ppb
|	Co	59	5494.3	0.43807	ppb
|	Ni	60	35443.4	14.64584	ppb
|	As	75	35092.1	19.17145	ppb
|	Se	77	64238.5	437.96016	ppb
|	Se	82	84644.4	477.59076	ppb
|>	Rh	103	470027.4		ppb
|	Cd	111	1176.7	0.48223	ppb
|-	Cd	114	935.3	0.13313	ppb
|-	Sb	121	4761.9	-0.74567	ppb
|	Sb	123	3519.1	-0.74517	ppb
|>	Ho	165	845658.3		ppb
|-	Pb	208	412853	11.95768	ppb
	Kr	83	-536		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-2bh
Sample Da: Tuesday, August 09, 2011 10:39:50
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	52618.7		ppb
|-	Be	9	10.3	-0.01543	ppb
|-	Sc	45	189796		ppb
|	Cr	52	261683.4	27.16589	ppb
|	Cr	53	32901.1	-12.95877	ppb
|	Mn	55	424971.7	27.70055	ppb
|	Co	59	6916	0.53371	ppb
|	Ni	60	47815	18.96223	ppb
|	As	75	21513.8	10.90717	ppb
|	Se	77	36047.1	211.30311	ppb
|	Se	82	48431.9	260.81111	ppb
|>	Rh	103	492345.8		ppb
|	Cd	111	18306.6	8.03421	ppb
|-	Cd	114	42096.4	7.83833	ppb
|-	Sb	121	6176.1	-0.68288	ppb
|	Sb	123	4671.4	-0.66936	ppb
|>	Ho	165	991380.3		ppb
|-	Pb	208	529363.1	13.10545	ppb
	Kr	83	-634.5		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-2bh
Sample Da: Tuesday, August 09, 2011 10:42:02
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	3923.5		ppb
|-	Be	9	6.7	2.10704	ppb
|-	Sc	45	17082.7		ppb
|	Cr	52	23548.6	128.00316	ppb
|	Cr	53	8224.5	1325.1018	ppb
|	Mn	55	35064	61.02152	ppb
|	Co	59	660.1	2.37938	ppb
|	Ni	60	4058.4	28.91795	ppb
|	As	75	1957.7	51.48354	ppb
|	Se	77	2939.9	1487.0806	ppb
|	Se	82	2916.7	177.99526	ppb
|>	Rh	103	37512.4		ppb
|	Cd	111	1221.3	8.71667	ppb
|-	Cd	114	2757.6	7.449	ppb
|-	Sb	121	533.7	3.794	ppb
|	Sb	123	407.3	3.32678	ppb
|>	Ho	165	56806.3		ppb
|-	Pb	208	28084.6	13.87857	ppb
	Kr	83	258.7		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-3bh
Sample Da: Tuesday, August 09, 2011 10:44:12
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	51050.8		ppb
|-	Be	9	8	-0.01957	ppb
|-	Sc	45	183122.7		ppb
|	Cr	52	244117.6	27.41417	ppb
|	Cr	53	31456.3	-11.94081	ppb
|	Mn	55	605687	43.45533	ppb
|	Co	59	5240.8	0.4305	ppb
|	Ni	60	41149.6	17.6213	ppb
|	As	75	19275.3	10.54477	ppb
|	Se	77	35243.9	226.27396	ppb
|	Se	82	46055.1	268.11629	ppb
|>	Rh	103	455431.1		ppb
|	Cd	111	990.5	0.41057	ppb
|-	Cd	114	1254.5	0.20374	ppb
|-	Sb	121	3501	-0.90627	ppb
|	Sb	123	2623.8	-0.89496	ppb
|>	Ho	165	853101.3		ppb
|-	Pb	208	315109.1	8.97189	ppb
	Kr	83	-661.8		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-3bh
Sample Da: Tuesday, August 09, 2011 10:46:21
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	55098.8		ppb
|-	Be	9	15212.7	30.11372	ppb
|-	Sc	45	195352.9		ppb
|	Cr	52	681901.9	73.43607	ppb
|	Cr	53	83534.1	34.33573	ppb
|	Mn	55	1323253.7	89.38342	ppb
|	Co	59	566021.5	46.67631	ppb
|	Ni	60	156470.4	62.92169	ppb
|	As	75	92401.7	49.33371	ppb
|	Se	77	41155.3	248.70568	ppb
|	Se	82	54685.2	294.8007	ppb
|>	Rh	103	491773.3		ppb
|	Cd	111	88040.7	38.89472	ppb
|-	Cd	114	206644.2	38.71026	ppb
|-	Sb	121	313248.7	34.3137	ppb
|	Sb	123	241319.8	34.6895	ppb
|>	Ho	165	923767.4		ppb
|-	Pb	208	2155575.3	58.30591	ppb
	Kr	83	-659.7		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-4bh
Sample Da: Tuesday, August 09, 2011 10:48:31
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	44922.5		ppb
|-	Be	9	13.7	-0.00363	ppb
|-	Sc	45	166674		ppb
|	Cr	52	53789.4	5.21824	ppb
|	Cr	53	7422.4	-35.6789	ppb
|	Mn	55	175614.7	12.43916	ppb
|	Co	59	16318.6	1.5127	ppb
|	Ni	60	15774	6.99078	ppb
|	As	75	185.5	-0.62046	ppb
|	Se	77	257.7	-47.87255	ppb
|	Se	82	31.4	0.06078	ppb
|>	Rh	103	427577.8		ppb
|	Cd	111	394.4	0.13827	ppb
|-	Cd	114	-906.3	-0.24401	ppb
|-	Sb	121	1136.4	-1.20626	ppb
|	Sb	123	891.4	-1.18348	ppb
|>	Ho	165	909150		ppb
|-	Pb	208	168022.9	4.33846	ppb
	Kr	83	-475.3		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Da Tuesday, August 09, 2011 10:50:42
Sample De Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	68267.8		ppb
|-	Be	9	9.3	-0.02173	ppb
|-	Sc	45	279011.1		ppb
|	Cr	52	15986.7	-0.06919	ppb
|	Cr	53	37724.6	-13.22551	ppb
|	Mn	55	27851	0.22508	ppb
|	Co	59	324	-0.0133	ppb
|	Ni	60	681.7	-0.10913	ppb
|	As	75	-545.1	-0.98881	ppb
|	Se	77	6255.2	-10.80805	ppb
|	Se	82	47.7	0.09163	ppb
|>	Rh	103	569443.8		ppb
|	Cd	111	56.2	-0.04117	ppb
|-	Cd	114	110.6	-0.03231	ppb
|-	Sb	121	489.7	-1.28204	ppb
|	Sb	123	372.8	-1.26323	ppb
|>	Ho	165	925547.9		ppb
|-	Pb	208	8748.6	-0.06644	ppb
	Kr	83	98.6		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Da Tuesday, August 09, 2011 10:52:54
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	68410.7		ppb
|-	Be	9	4.3	-0.02988	ppb
|-	Sc	45	257310.9		ppb
|	Cr	52	16867	-0.01516	ppb
|	Cr	53	43902.4	-8.89464	ppb
|	Mn	55	26937.5	0.14177	ppb
|	Co	59	199.7	-0.02249	ppb
|	Ni	60	744.4	-0.09207	ppb
|	As	75	-1129.4	-1.25481	ppb
|	Se	77	6529.7	-9.83597	ppb
|	Se	82	24.5	-0.01945	ppb
|>	Rh	103	579954.3		ppb
|	Cd	111	41.3	-0.04718	ppb
|-	Cd	114	71.8	-0.03885	ppb
|-	Sb	121	318.3	-1.30311	ppb
|	Sb	123	244.3	-1.28396	ppb
|>	Ho	165	969752.4		ppb
|-	Pb	208	9937.1	-0.04655	ppb
	Kr	83	84.6		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Da Tuesday, August 09, 2011 10:55:03
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	66109		ppb
|-	Be	9	54721.5	90.37217	ppb
|-	Sc	45	260437.2		ppb
|	Cr	52	1153595.5	109.66679	ppb
|	Cr	53	169237.8	94.83795	ppb
|	Mn	55	1866890.6	110.86836	ppb
|	Co	59	1445496.1	104.52907	ppb
|	Ni	60	301793.9	106.61684	ppb
|	As	75	220268.7	103.89646	ppb
|	Se	77	22416.6	92.59246	ppb
|	Se	82	22889.7	108.08042	ppb
|>	Rh	103	561115.1		ppb
|	Cd	111	277943.3	107.73155	ppb
|-	Cd	114	646704.4	106.26748	ppb
|-	Sb	121	914791.1	101.116	ppb
|	Sb	123	695599.6	100.82604	ppb
|>	Ho	165	938653.4		ppb
|-	Pb	208	3976020.3	106.08105	ppb
	Kr	83	-18630.7		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Da: Tuesday, August 09, 2011 10:57:15
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	65156.6		ppb
|-	Be	9	52974.2	88.7689	ppb
|-	Sc	45	258475.1		ppb
|	Cr	52	1134272.9	107.31486	ppb
|	Cr	53	164793.2	90.59774	ppb
|	Mn	55	1842545.4	108.90965	ppb
|	Co	59	1421520.4	102.33682	ppb
|	Ni	60	297007.3	104.45142	ppb
|	As	75	218755.6	102.71361	ppb
|	Se	77	21685.8	87.32783	ppb
|	Se	82	22773.1	107.0475	ppb
|>	Rh	103	563631.5		ppb
|	Cd	111	273246.8	105.43417	ppb
|-	Cd	114	641655.3	104.96603	ppb
|-	Sb	121	895074	98.18482	ppb
|	Sb	123	684498.7	98.47851	ppb
|>	Ho	165	945412.8		ppb
|-	Pb	208	3933714.6	104.19561	ppb
	Kr	83	-18380.1		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Da: Tuesday, August 09, 2011 11:08:05
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	59860.2		ppb
|-	Be	9	43	0.04183	ppb
|-	Sc	45	237203.3		ppb
|	Cr	52	14091.3	-0.15764	ppb
|	Cr	53	29596.4	-18.16154	ppb
|	Mn	55	26117.2	0.22843	ppb
|	Co	59	1130.8	0.05018	ppb
|	Ni	60	889.7	-0.0147	ppb
|	As	75	-268.2	-0.86966	ppb
|	Se	77	4308.7	-21.17366	ppb
|	Se	82	28.7	0.0111	ppb
|>	Rh	103	533040.4		ppb
|	Cd	111	185.5	0.01341	ppb
|-	Cd	114	431.4	0.02476	ppb
|-	Sb	121	742.7	-1.25037	ppb
|	Sb	123	575.9	-1.22998	ppb
|>	Ho	165	894590.3		ppb
|-	Pb	208	11437.8	0.01727	ppb
	Kr	83	92		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 2
Sample Da: Tuesday, August 09, 2011 11:10:15
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	62660.8		ppb
|-	Be	9	612.4	1.03163	ppb
|-	Sc	45	230092.5		ppb
|	Cr	52	26541	0.8766	ppb
|	Cr	53	30931.2	-19.27702	ppb
|	Mn	55	37311.1	0.73597	ppb
|	Co	59	16156.7	1.0896	ppb
|	Ni	60	5629.4	1.5747	ppb
|	As	75	1986.2	0.17372	ppb
|	Se	77	4086.6	-24.99174	ppb
|	Se	82	291.9	1.19861	ppb
|>	Rh	103	582489.4		ppb
|	Cd	111	3510.9	1.24963	ppb
|-	Cd	114	8252.4	1.25777	ppb
|-	Sb	121	11488.3	-0.18281	ppb
|	Sb	123	8700.1	-0.17208	ppb
|>	Ho	165	1044897.9		ppb
|-	Pb	208	65878.6	1.2774	ppb
	Kr	83	-131		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 3
Sample Da Tuesday, August 09, 2011 11:12:24
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	29126.3		ppb
|-	Be	9	120789.6	452.90679	ppb
|-	Sc	45	122803.9		ppb
|	Cr	52	2576842.8	539.76891	ppb
|	Cr	53	331753.7	547.74787	ppb
|	Mn	55	4150295.9	542.40606	ppb
|	Co	59	3244453.2	511.22014	ppb
|	Ni	60	662412.9	511.08068	ppb
|	As	75	496217.1	512.73406	ppb
|	Se	77	42096.2	533.41183	ppb
|	Se	82	50901.4	524.07018	ppb
|>	Rh	103	257588.8		ppb
|	Cd	111	612569.7	517.43541	ppb
|-	Cd	114	1423830.4	509.84094	ppb
|-	Sb	121	2014846.4	480.34901	ppb
|	Sb	123	1530985.4	478.5596	ppb
|>	Ho	165	439695.6		ppb
|-	Pb	208	8933185.7	509.88594	ppb
	Kr	83	-41416.1		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Da Tuesday, August 09, 2011 11:14:34
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	61871.9		ppb
|-	Be	9	52152.5	92.02964	ppb
|-	Sc	45	250669		ppb
|	Cr	52	1140698.4	109.55737	ppb
|	Cr	53	164360.5	92.23241	ppb
|	Mn	55	1841330.2	110.47168	ppb
|	Co	59	1421781.2	103.86764	ppb
|	Ni	60	296246.2	105.73479	ppb
|	As	75	218303	104.02431	ppb
|	Se	77	21584.9	88.71791	ppb
|	Se	82	22721	108.38315	ppb
|>	Rh	103	555424.3		ppb
|	Cd	111	276062.4	108.09977	ppb
|-	Cd	114	644125.1	106.94312	ppb
|-	Sb	121	895552	99.50693	ppb
|	Sb	123	678541.5	98.86419	ppb
|>	Ho	165	933458.1		ppb
|-	Pb	208	3965763.7	106.38444	ppb
	Kr	83	-18263.1		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 5
Sample Da Tuesday, August 09, 2011 11:16:45
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	63217.1		ppb
|-	Be	9	25962	44.81882	ppb
|-	Sc	45	257424.6		ppb
|	Cr	52	567169.2	51.8029	ppb
|	Cr	53	93863.8	31.31701	ppb
|	Mn	55	898966.9	51.35536	ppb
|	Co	59	701077.2	49.46615	ppb
|	Ni	60	148223.7	50.93026	ppb
|	As	75	109732.2	50.14202	ppb
|	Se	77	12446.9	27.27055	ppb
|	Se	82	11229.5	51.6851	ppb
|>	Rh	103	574869.5		ppb
|	Cd	111	135849.7	51.36364	ppb
|-	Cd	114	319735	51.25729	ppb
|-	Sb	121	446364.4	47.87472	ppb
|	Sb	123	339346	47.73464	ppb
|>	Ho	165	953450.2		ppb
|-	Pb	208	1938309.3	50.75035	ppb
	Kr	83	94.1		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 7
Sample Da Tuesday, August 09, 2011 11:18:55
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	58783.6		ppb
|-	Be	9	300	0.51988	ppb
|-	Sc	45	237149.1		ppb
|	Cr	52	130796.9	12.92631	ppb
|	Cr	53	50733.9	4.1189	ppb
|	Mn	55	213057.8	13.32103	ppb
|	Co	59	270185.5	22.45391	ppb
|	Ni	60	55025.7	22.09438	ppb
|	As	75	19069.7	9.68797	ppb
|	Se	77	8716.2	13.78305	ppb
|	Se	82	1949.5	10.47318	ppb
|>	Rh	103	487624.9		ppb
|	Cd	111	13215.6	5.83483	ppb
|-	Cd	114	34431.2	6.46331	ppb
|-	Sb	121	6618.7	-0.59534	ppb
|	Sb	123	5084.3	-0.57117	ppb
|>	Ho	165	937243.8		ppb
|-	Pb	208	32877	0.57702	ppb
	Kr	83	-64.6		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 8
Sample Da Tuesday, August 09, 2011 11:21:04
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	84392.9		ppb
|-	Be	9	194.7	0.21509	ppb
|-	Sc	45	354491.8		ppb
|	Cr	52	31159.6	0.53783	ppb
|	Cr	53	49849.3	-14.78294	ppb
|	Mn	55	59084.1	1.08934	ppb
|	Co	59	6168.1	0.27937	ppb
|	Ni	60	10331.5	2.24445	ppb
|	As	75	81	-0.70834	ppb
|	Se	77	7751	-15.12879	ppb
|	Se	82	97.4	0.19402	ppb
|>	Rh	103	792865.5		ppb
|	Cd	111	1210.5	0.26955	ppb
|-	Cd	114	2686.8	0.26233	ppb
|-	Sb	121	4532.1	-0.97788	ppb
|	Sb	123	3423.5	-0.96241	ppb
|>	Ho	165	1324117.1		ppb
|-	Pb	208	37301.9	0.40361	ppb
	Kr	83	-34.2		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 9
Sample Da Tuesday, August 09, 2011 11:23:14
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	60.8		ppb
|-	Be	9	15.3	27.82348	ppb
|-	Sc	45	1604.8		ppb
|	Cr	52	5424.7	692.22644	ppb
|	Cr	53	13648.3	14920.933	ppb
|	Mn	55	2799.1	223.54802	ppb
|	Co	59	564.7	54.68599	ppb
|	Ni	60	160.7	74.29872	ppb
|	As	75	1128.2	712.28891	ppb
|	Se	77	910.4	7313.2711	ppb
|	Se	82	-4.7	-58.41459	ppb
|>	Rh	103	428.3		ppb
|	Cd	111	93.8	49.35541	ppb
|-	Cd	114	236	52.01866	ppb
|-	Sb	121	488	73.43719	ppb
|	Sb	123	340.4	66.58774	ppb
|>	Ho	165	708.7		ppb
|-	Pb	208	2254.8	80.63126	ppb
	Kr	83	417		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 10
Sample Da Tuesday, August 09, 2011 11:25:23
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	583.8		ppb
|-	Be	9	153.3	18.84561	ppb
|-	Sc	45	2774		ppb
|	Cr	52	7884.3	6737.3959	ppb
|	Cr	53	13067.5	230801.1	ppb
|	Mn	55	8018.6	813.71246	ppb
|	Co	59	4142.5	40.5701	ppb
|	Ni	60	935.1	81.9764	ppb
|	As	75	803.6	586.0094	ppb
|	Se	77	809.7	95029.959	ppb
|	Se	82	78.7	-2612.723	ppb
|>	Rh	103	10183		ppb
|	Cd	111	2310.2	93.85849	ppb
|-	Cd	114	5251.1	99.31302	ppb
|-	Sb	121	6470.8	314.97302	ppb
|	Sb	123	4283.4	211.415	ppb
|>	Ho	165	12751.4		ppb
|-	Pb	208	22892.1	290.02006	ppb
	Kr	83	107.6		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC STD 2
Sample Da Tuesday, August 09, 2011 11:27:34
Sample De Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	52811.9		ppb
|-	Be	9	461.7	0.92168	ppb
|-	Sc	45	212540.6		ppb
|	Cr	52	28313.2	1.76246	ppb
|	Cr	53	36085.5	-4.48448	ppb
|	Mn	55	32084.5	0.90196	ppb
|	Co	59	13854.1	1.15963	ppb
|	Ni	60	4919.5	1.73003	ppb
|	As	75	1525.3	0.21214	ppb
|	Se	77	5145.6	-9.5348	ppb
|	Se	82	201.8	0.97838	ppb
|>	Rh	103	482211.9		ppb
|	Cd	111	2662.3	1.13514	ppb
|-	Cd	114	6251.7	1.13977	ppb
|-	Sb	121	8722.5	-0.17551	ppb
|	Sb	123	6670	-0.14562	ppb
|>	Ho	165	801562.5		ppb
|-	Pb	208	47566.5	1.18913	ppb
	Kr	83	-71.8		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: Blank
Sample Da Wednesday, August 10, 2011 13:47:40
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	65965.2		ppb
|-	Be	9	62.3		ppb
|-	Sc	45	201848		ppb
|	Cr	52	11245		ppb
|	Cr	53	25679.9		ppb
|	Mn	55	9627.9		ppb
|	Co	59	1337.8		ppb
|	Ni	60	1012.1		ppb
|	As	75	119.1		ppb
|	Se	77	3332.6		ppb
|	Se	82	18.1		ppb
|>	Rh	103	436904.7		ppb
|	Cd	111	153.7		ppb
|-	Cd	114	366.9		ppb
|-	Sb	121	195.3		ppb
|	Sb	123	137.4		ppb
|>	Ho	165	821622.6		ppb
|-	Pb	208	6381.6		ppb
	Kr	83	58.9		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 1
Sample Da Wednesday, August 10, 2011 13:49:49
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	68368.1		ppb
|-	Be	9	553	0.96854	ppb
|-	Sc	45	202460.3		ppb
|	Cr	52	19295.1	0.94341	ppb
|	Cr	53	28805.7	2.38237	ppb
|	Mn	55	18887.9	0.71077	ppb
|	Co	59	10777.7	0.98114	ppb
|	Ni	60	2424.3	0.67361	ppb
|	As	75	1780.9	1.02753	ppb
|	Se	77	3487.7	0.44273	ppb
|	Se	82	174.7	0.9693	ppb
|>	Rh	103	450058.1		ppb
|	Cd	111	2331	0.98875	ppb
|-	Cd	114	5465.5	0.99558	ppb
|-	Sb	121	8102.6	1.13395	ppb
|	Sb	123	6173	1.124	ppb
|>	Ho	165	824032.2		ppb
|-	Pb	208	42399.9	1.0423	ppb
	Kr	83	-78.7		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 2
Sample Da Wednesday, August 10, 2011 13:51:59
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	63783.6		ppb
|-	Be	9	48998.4	104.13388	ppb
|-	Sc	45	191695.1		ppb
|	Cr	52	816315.9	106.88	ppb
|	Cr	53	120664.8	105.9409	ppb
|	Mn	55	1222928.1	104.33081	ppb
|	Co	59	938215.4	106.09964	ppb
|	Ni	60	200486.6	105.55721	ppb
|	As	75	154143.6	103.65683	ppb
|	Se	77	14699.2	103.61405	ppb
|	Se	82	15201.1	102.35569	ppb
|>	Rh	103	414483.2		ppb
|	Cd	111	204658.4	101.04336	ppb
|-	Cd	114	490577.6	104.12432	ppb
|-	Sb	121	712889	106.37799	ppb
|	Sb	123	552169.8	106.99021	ppb
|>	Ho	165	791190		ppb
|-	Pb	208	3588724.7	108.00459	ppb
	Kr	83	-12892.7		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 3
Sample Da Wednesday, August 10, 2011 13:54:08
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	61175.4		ppb
|-	Be	9	225595.9	499.17329	ppb
|-	Sc	45	186095.5		ppb
|	Cr	52	3688697.8	498.62411	ppb
|	Cr	53	467274.2	498.80906	ppb
|	Mn	55	5686808.4	499.13442	ppb
|	Co	59	4308645.7	498.78011	ppb
|	Ni	60	923828.1	498.88921	ppb
|	As	75	726863.7	499.26858	ppb
|	Se	77	57629	499.2783	ppb
|	Se	82	72480.3	499.52892	ppb
|>	Rh	103	404464.2		ppb
|	Cd	111	988147.7	499.79135	ppb
|-	Cd	114	2294452.5	499.17514	ppb
|-	Sb	121	3435284.9	498.72413	ppb
|	Sb	123	2646688.4	498.60171	ppb
|>	Ho	165	813316.3		ppb
|-	Pb	208	17010366	498.399	ppb
	Kr	83	-62073.8		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Da Wednesday, August 10, 2011 13:56:18
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	60892		ppb
|-	Be	9	29.7	-0.06333	ppb
|-	Sc	45	185020		ppb
|	Cr	52	9561.4	-0.1635	ppb
|	Cr	53	22731.2	-2.12176	ppb
|	Mn	55	5998.7	-0.27822	ppb
|	Co	59	614.7	-0.07603	ppb
|	Ni	60	833.7	-0.07526	ppb
|	As	75	266	0.10205	ppb
|	Se	77	2570.7	-5.60114	ppb
|	Se	82	-1.9	-0.1279	ppb
|>	Rh	103	420241.6		ppb
|	Cd	111	132.9	-0.00784	ppb
|-	Cd	114	318.4	-0.00764	ppb
|-	Sb	121	364.3	0.02773	ppb
|	Sb	123	280.5	0.03057	ppb
|>	Ho	165	774389.3		ppb
|-	Pb	208	6474.9	0.01369	ppb
	Kr	83	87.5		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 2
Sample Da Wednesday, August 10, 2011 13:58:27
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	64677.7		ppb
|-	Be	9	538.3	1.00275	ppb
|-	Sc	45	195093.4		ppb
|	Cr	52	18839.5	1.00544	ppb
|	Cr	53	25064.9	-0.06916	ppb
|	Mn	55	19375	0.82776	ppb
|	Co	59	10937.6	1.05579	ppb
|	Ni	60	2457.7	0.75156	ppb
|	As	75	1797.3	1.09694	ppb
|	Se	77	2793.4	-4.09283	ppb
|	Se	82	181.6	1.06751	ppb
|>	Rh	103	428602.2		ppb
|	Cd	111	2412.1	1.08179	ppb
|-	Cd	114	5618.7	1.0804	ppb
|-	Sb	121	8070.9	1.13889	ppb
|	Sb	123	6270.4	1.15159	ppb
|>	Ho	165	816906.4		ppb
|-	Pb	208	44475.4	1.11328	ppb
	Kr	83	-71.7		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 3
Sample Da Wednesday, August 10, 2011 14:00:37
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	61380.8		ppb
|-	Be	9	114927.7	254.02601	ppb
|-	Sc	45	185077.7		ppb
|	Cr	52	1937432.9	265.47756	ppb
|	Cr	53	249423.2	258.09693	ppb
|	Mn	55	2872047.5	255.56078	ppb
|	Co	59	2205574	259.22109	ppb
|	Ni	60	473249.4	259.4042	ppb
|	As	75	371986	259.78135	ppb
|	Se	77	30456.3	255.43091	ppb
|	Se	82	35800.2	250.35919	ppb
|>	Rh	103	399311.6		ppb
|	Cd	111	492838.8	252.70695	ppb
|-	Cd	114	1154200.5	254.36768	ppb
|-	Sb	121	1701131	256.6941	ppb
|	Sb	123	1312119.7	257.12557	ppb
|>	Ho	165	782589.8		ppb
|-	Pb	208	8410436.7	256.11575	ppb
	Kr	83	-30709.2		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Da Wednesday, August 10, 2011 14:02:47
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	62261.7		ppb
|-	Be	9	48509.8	105.6242	ppb
|-	Sc	45	188000.8		ppb
|	Cr	52	823799.1	108.49433	ppb
|	Cr	53	117834.2	103.55564	ppb
|	Mn	55	1229685.7	105.5212	ppb
|	Co	59	935584.7	106.41439	ppb
|	Ni	60	201114.3	106.48381	ppb
|	As	75	156308.8	105.71572	ppb
|	Se	77	14317.9	100.89394	ppb
|	Se	82	15221.1	103.09149	ppb
|>	Rh	103	412148.7		ppb
|	Cd	111	209727.4	104.17808	ppb
|-	Cd	114	500960.8	106.97021	ppb
|-	Sb	121	723426.2	106.60351	ppb
|	Sb	123	554499.5	106.10111	ppb
|>	Ho	165	801380.7		ppb
|-	Pb	208	3634999	107.98069	ppb
	Kr	83	-13019.4		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 5
Sample Da Wednesday, August 10, 2011 14:04:57
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	64602.6		ppb
|-	Be	9	24592.2	51.53813	ppb
|-	Sc	45	192499.3		ppb
|	Cr	52	411211.2	52.67253	ppb
|	Cr	53	69651	49.17924	ppb
|	Mn	55	619327.7	52.00865	ppb
|	Co	59	466118.8	52.18823	ppb
|	Ni	60	99947.6	51.88551	ppb
|	As	75	77108.8	51.35928	ppb
|	Se	77	8090.9	43.66127	ppb
|	Se	82	7319.2	48.80101	ppb
|>	Rh	103	418105		ppb
|	Cd	111	104848.1	51.31221	ppb
|-	Cd	114	252260.3	53.06782	ppb
|-	Sb	121	371772.7	54.41748	ppb
|	Sb	123	283914.2	53.96436	ppb
|>	Ho	165	806574.7		ppb
|-	Pb	208	1855353.5	54.67205	ppb
	Kr	83	82.7		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 7
Sample Da Wednesday, August 10, 2011 14:07:07
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	52762.6		ppb
|-	Be	9	14.7	-0.07785	ppb
|-	Sc	45	180617.6		ppb
|	Cr	52	82327.4	10.91955	ppb
|	Cr	53	35962.5	22.32998	ppb
|	Mn	55	125596.1	11.40181	ppb
|	Co	59	171519.4	21.79842	ppb
|	Ni	60	33956.2	19.73692	ppb
|	As	75	13482.1	9.9942	ppb
|	Se	77	4374.8	16.59766	ppb
|	Se	82	1327.5	9.92061	ppb
|>	Rh	103	367015.7		ppb
|	Cd	111	9209	5.09729	ppb
|-	Cd	114	24139.4	5.74794	ppb
|-	Sb	121	815.7	0.1068	ppb
|	Sb	123	616.4	0.10699	ppb
|>	Ho	165	762610.6		ppb
|-	Pb	208	6273.2	0.0215	ppb
	Kr	83	84.7		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 8
Sample Da Wednesday, August 10, 2011 14:09:16
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	63952.6		ppb
|-	Be	9	155.3	0.20073	ppb
|-	Sc	45	196456.1		ppb
|	Cr	52	12163.8	0.1637	ppb
|	Cr	53	24330.5	-0.59034	ppb
|	Mn	55	8588.4	-0.06246	ppb
|	Co	59	3079.2	0.19712	ppb
|	Ni	60	662.7	-0.16541	ppb
|	As	75	187.2	0.04483	ppb
|	Se	77	2691.1	-4.72804	ppb
|	Se	82	33.6	0.10408	ppb
|>	Rh	103	423685.5		ppb
|	Cd	111	651.3	0.24227	ppb
|-	Cd	114	1616.4	0.261	ppb
|-	Sb	121	2095.2	0.27751	ppb
|	Sb	123	1551.4	0.26778	ppb
|>	Ho	165	811010.1		ppb
|-	Pb	208	14226.4	0.23226	ppb
	Kr	83	41.7		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC STD 2
Sample Da Wednesday, August 10, 2011 14:11:27
Sample De Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	64726.4		ppb
|-	Be	9	528.3	0.97943	ppb
|-	Sc	45	191815.1		ppb
|	Cr	52	19577.4	1.10766	ppb
|	Cr	53	27370.2	2.45634	ppb
|	Mn	55	18232.9	0.73721	ppb
|	Co	59	10419.6	1.00214	ppb
|	Ni	60	2348.3	0.69879	ppb
|	As	75	1595	0.96801	ppb
|	Se	77	3173.9	-0.69721	ppb
|	Se	82	164.3	0.96083	ppb
|>	Rh	103	426810.8		ppb
|	Cd	111	2399.4	1.07932	ppb
|-	Cd	114	5660.9	1.09397	ppb
|-	Sb	121	7890.8	1.13619	ppb
|	Sb	123	6257.1	1.17273	ppb
|>	Ho	165	800834.5		ppb
|-	Pb	208	43450.6	1.10905	ppb
	Kr	83	-64.8		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-2fh
Sample Da Wednesday, August 10, 2011 15:33:40
Sample De Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	61126.4		ppb
|-	Be	9	77	0.04291	ppb
|-	Sc	45	180137.5		ppb
|	Cr	52	1210237.6	196.52513	ppb
|	Cr	53	151819.6	179.10354	ppb
|	Mn	55	111413.2	11.02253	ppb
|	Co	59	3808.8	0.388	ppb
|	Ni	60	23211.9	14.62987	ppb
|	As	75	11414	9.39241	ppb
|	Se	77	3392.6	9.16516	ppb
|	Se	82	2419.7	19.99852	ppb
|>	Rh	103	336215.9		ppb
|	Cd	111	681.4	0.34317	ppb
|-	Cd	114	1454.5	0.30695	ppb
|-	Sb	121	3546.7	0.64779	ppb
|	Sb	123	2694.3	0.64086	ppb
|>	Ho	165	620004.1		ppb
|-	Pb	208	131321.4	4.86657	ppb
	Kr	83	-331.7		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-2fh
Sample Da: Wednesday, August 10, 2011 15:35:50
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mean	Report Unit
|>	Li	6	60430.8		ppb
|-	Be	9	69.7	0.02835	ppb
|-	Sc	45	178239.3		ppb
|	Cr	52	1186326.1	199.09603	ppb
|	Cr	53	147696.4	180.19211	ppb
|	Mn	55	107861.1	11.02901	ppb
|	Co	59	3640.4	0.3815	ppb
|	Ni	60	22643.5	14.75203	ppb
|	As	75	10997.2	9.35213	ppb
|	Se	77	3209.2	8.33186	ppb
|	Se	82	2381	20.33522	ppb
|>	Rh	103	325336.1		ppb
|	Cd	111	671	0.35047	ppb
|-	Cd	114	1442	0.31641	ppb
|-	Sb	121	3190.6	0.59612	ppb
|	Sb	123	2595.5	0.63385	ppb
|>	Ho	165	603724		ppb
|-	Pb	208	127250.9	4.84148	ppb
	Kr	83	-345.4		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-3fh
Sample Da: Wednesday, August 10, 2011 15:37:59
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mean	Report Unit
|>	Li	6	60730.3		ppb
|-	Be	9	178.3	0.27045	ppb
|-	Sc	45	376851.4		ppb
|	Cr	52	124788.2	18.28775	ppb
|	Cr	53	20161.7	-0.39662	ppb
|	Mn	55	393890.9	39.49899	ppb
|	Co	59	7685.9	0.89256	ppb
|	Ni	60	24241.7	14.77282	ppb
|	As	75	68711.5	54.92169	ppb
|	Se	77	12542	105.56768	ppb
|	Se	82	15131.9	121.26109	ppb
|>	Rh	103	348651.5		ppb
|	Cd	111	1852.6	1.01851	ppb
|-	Cd	114	3311.2	0.76319	ppb
|-	Sb	121	16151.4	3.00897	ppb
|	Sb	123	12295.9	2.97375	ppb
|>	Ho	165	629054.4		ppb
|-	Pb	208	589067.1	22.19523	ppb
	Kr	83	-1563.7		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-3fh
Sample Da: Wednesday, August 10, 2011 15:40:09
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mean	Report Unit
|>	Li	6	64233.4		ppb
|-	Be	9	20858.6	43.94093	ppb
|-	Sc	45	407546.9		ppb
|	Cr	52	577217.2	69.70648	ppb
|	Cr	53	74195.1	49.02485	ppb
|	Mn	55	1132818.4	89.64542	ppb
|	Co	59	493192.4	51.73608	ppb
|	Ni	60	128210.8	62.48785	ppb
|	As	75	151965.6	94.90125	ppb
|	Se	77	20264.6	140.53391	ppb
|	Se	82	25029	156.56791	ppb
|>	Rh	103	446400.9		ppb
|	Cd	111	92620.2	42.44283	ppb
|-	Cd	114	219361.9	43.19172	ppb
|-	Sb	121	386004.1	54.03918	ppb
|	Sb	123	296147.8	53.81981	ppb
|>	Ho	165	843543.1		ppb
|-	Pb	208	2475834.7	69.819	ppb
	Kr	83	-1910.9		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-2bh
Sample Da: Wednesday, August 10, 2011 15:42:18
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	61235		ppb
|-	Be	9	21.7	-0.08037	ppb
|-	Sc	45	208003.7		ppb
|	Cr	52	278962.9	29.97201	ppb
|	Cr	53	33964.4	4.89771	ppb
|	Mn	55	400200.8	28.39124	ppb
|	Co	59	6698.5	0.49945	ppb
|	Ni	60	45314.1	19.824	ppb
|	As	75	17395.6	9.84105	ppb
|	Se	77	34454.6	234.03223	ppb
|	Se	82	44599.5	254.91476	ppb
|>	Rh	103	488629.8		ppb
|	Cd	111	17237.1	7.15614	ppb
|-	Cd	114	38560.5	6.87913	ppb
|-	Sb	121	6170.1	0.75954	ppb
|	Sb	123	4825.7	0.77406	ppb
|>	Ho	165	925521.1		ppb
|-	Pb	208	463478.7	11.75765	ppb
	Kr	83	-553.6		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-2bh
Sample Da: Wednesday, August 10, 2011 15:44:28
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	62793.1		ppb
|-	Be	9	14	-0.09796	ppb
|-	Sc	45	225969.1		ppb
|	Cr	52	288397.7	29.27821	ppb
|	Cr	53	34874.8	3.98516	ppb
|	Mn	55	424482.9	28.48218	ppb
|	Co	59	6865.6	0.47978	ppb
|	Ni	60	47291.4	19.56006	ppb
|	As	75	17974.4	9.61978	ppb
|	Se	77	35668.9	228.50537	ppb
|	Se	82	47104.8	254.60247	ppb
|>	Rh	103	516680.7		ppb
|	Cd	111	17940.5	7.04071	ppb
|-	Cd	114	40268.9	6.79108	ppb
|-	Sb	121	6493	0.7586	ppb
|	Sb	123	4973.6	0.75645	ppb
|>	Ho	165	975390.5		ppb
|-	Pb	208	478363.4	11.51211	ppb
	Kr	83	-588.6		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-3bh
Sample Da: Wednesday, August 10, 2011 15:46:37
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	66173.3		ppb
|-	Be	9	10.3	-0.10712	ppb
|-	Sc	45	237045.9		ppb
|	Cr	52	132400.2	12.34838	ppb
|	Cr	53	23231.6	-6.77433	ppb
|	Mn	55	301817.4	19.54576	ppb
|	Co	59	2603.7	0.08731	ppb
|	Ni	60	20600.6	8.03119	ppb
|	As	75	9557.5	4.96379	ppb
|	Se	77	19015.2	105.40705	ppb
|	Se	82	22922.8	120.98429	ppb
|>	Rh	103	528951.2		ppb
|	Cd	111	540	0.13713	ppb
|-	Cd	114	301.7	-0.02356	ppb
|-	Sb	121	2114.9	0.22545	ppb
|	Sb	123	1623.3	0.22699	ppb
|>	Ho	165	985497.7		ppb
|-	Pb	208	165460.3	3.81861	ppb
	Kr	83	-262.3		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-3bh
Sample Da: Wednesday, August 10, 2011 15:48:46
Sample De: Airtech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	67035		ppb
|-	Be	9	22734.4	45.89671	ppb
|-	Sc	45	233701.2		ppb
|	Cr	52	647252.6	65.96606	ppb
|	Cr	53	83777.6	45.52152	ppb
|	Mn	55	1063593.9	70.96312	ppb
|	Co	59	573922.4	50.86025	ppb
|	Ni	60	137907.8	56.73938	ppb
|	As	75	95324.3	50.26835	ppb
|	Se	77	26105.1	155.55538	ppb
|	Se	82	32032.1	169.35086	ppb
|>	Rh	103	528187.8		ppb
|	Cd	111	108179.8	41.88411	ppb
|-	Cd	114	254184.2	42.30186	ppb
|-	Sb	121	403735.1	48.62975	ppb
|	Sb	123	309867.3	48.46526	ppb
|>	Ho	165	980326		ppb
|-	Pb	208	2209734.7	53.57463	ppb
	Kr	83	-263.5		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Da: Thursday, August 11, 2011 09:35:29
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	55678.2		ppb
|-	Be	9	7.3	-0.1104	ppb
|-	Sc	45	184602.4		ppb
|	Cr	52	8743.9	-0.2026	ppb
|	Cr	53	19290.8	-4.6251	ppb
|	Mn	55	5988.6	-0.24703	ppb
|	Co	59	145	-0.12656	ppb
|	Ni	60	1468.1	0.30389	ppb
|	As	75	-101	-0.14661	ppb
|	Se	77	2241.9	-7.34903	ppb
|	Se	82	2.5	-0.09715	ppb
|>	Rh	103	396562.2		ppb
|	Cd	111	45.8	-0.04833	ppb
|-	Cd	114	99.2	-0.05191	ppb
|-	Sb	121	149.7	-0.00462	ppb
|	Sb	123	102.7	-0.00475	ppb
|>	Ho	165	755214.5		ppb
|-	Pb	208	4529.8	-0.04215	ppb
	Kr	83	86.5		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Da: Thursday, August 11, 2011 09:37:38
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	61069		ppb
|-	Be	9	43988.5	97.64555	ppb
|-	Sc	45	204155.9		ppb
|	Cr	52	754158.7	92.5271	ppb
|	Cr	53	106389.1	83.08787	ppb
|	Mn	55	1133033.6	90.6729	ppb
|	Co	59	867472.3	92.10018	ppb
|	Ni	60	183704.8	90.7248	ppb
|	As	75	150020.6	94.73018	ppb
|	Se	77	13595.2	86.24394	ppb
|	Se	82	15340.9	97.00779	ppb
|>	Rh	103	441410.5		ppb
|	Cd	111	201437.8	93.41254	ppb
|-	Cd	114	479784.9	95.63818	ppb
|-	Sb	121	699423	97.24729	ppb
|	Sb	123	537703.3	97.07797	ppb
|>	Ho	165	849384.2		ppb
|-	Pb	208	3430207	96.12119	ppb
	Kr	83	-12216.2		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: Blank
Sample Da Monday, August 22, 2011 14:42:48
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	61634		ppb
|-	Be	9	5.3		ppb
|-	Sc	45	227582.5		ppb
|	Cr	52	11773		ppb
|	Cr	53	17138.2		ppb
|	Mn	55	3006.2		ppb
|	Co	59	142.7		ppb
|	Ni	60	342.7		ppb
|	As	75	292.8		ppb
|	Se	77	2056.2		ppb
|	Se	82	9.1		ppb
|>	Rh	103	526859.4		ppb
|	Cd	111	11.2		ppb
|-	Cd	114	51.8		ppb
|-	Sb	121	85		ppb
|	Sb	123	49.2		ppb
|>	Ho	165	937684.4		ppb
|-	Pb	208	2449.5		ppb
	Kr	83	196.5		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 1
Sample Da Monday, August 22, 2011 14:44:57
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	62073.3		ppb
|-	Be	9	6.3	0.00204	ppb
|-	Sc	45	225986.6		ppb
|	Cr	52	11795	-0.01012	ppb
|	Cr	53	20668.9	2.68388	ppb
|	Mn	55	2423.3	-0.03615	ppb
|	Co	59	245	0.00803	ppb
|	Ni	60	430.3	0.03366	ppb
|	As	75	130.4	-0.08013	ppb
|	Se	77	2073.9	-0.02513	ppb
|	Se	82	14.8	0.02714	ppb
|>	Rh	103	532596.2		ppb
|	Cd	111	54.2	0.01569	ppb
|-	Cd	114	98	0.00686	ppb
|-	Sb	121	67	-0.00208	ppb
|	Sb	123	43.4	-0.00092	ppb
|>	Ho	165	951896.4		ppb
|-	Pb	208	3520.3	0.02432	ppb
	Kr	83	192.4		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 2
Sample Da Monday, August 22, 2011 14:47:06
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	61565.2		ppb
|-	Be	9	46433.6	102.75937	ppb
|-	Sc	45	221022.3		ppb
|	Cr	52	1026438.4	100.06829	ppb
|	Cr	53	144429.8	107.74701	ppb
|	Mn	55	1754181.8	108.00563	ppb
|	Co	59	1180281.2	99.53211	ppb
|	Ni	60	248213.7	104.40037	ppb
|	As	75	202060.2	102.28647	ppb
|	Se	77	18055.3	102.40983	ppb
|	Se	82	20560.7	102.62317	ppb
|>	Rh	103	506579.4		ppb
|	Cd	111	270695.5	104.68457	ppb
|-	Cd	114	641555	102.38175	ppb
|-	Sb	121	909047.8	101.6702	ppb
|	Sb	123	694450.2	101.82886	ppb
|>	Ho	165	912626.9		ppb
|-	Pb	208	4266144.6	104.61049	ppb
	Kr	83	-16697.4		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 3
Sample Da Monday, August 22, 2011 14:49:16
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	59750.6		ppb
|-	Be	9	218983.5	499.45012	ppb
|-	Sc	45	221845.2		ppb
|	Cr	52	5056283.4	499.98836	ppb
|	Cr	53	605102.5	498.44723	ppb
|	Mn	55	8041773.7	498.40095	ppb
|	Co	59	5894120.9	500.09556	ppb
|	Ni	60	1178402.6	499.12186	ppb
|	As	75	979766.4	499.54487	ppb
|	Se	77	79914.7	499.52008	ppb
|	Se	82	99421.7	499.47731	ppb
|>	Rh	103	503562.1		ppb
|	Cd	111	1282937.1	499.06505	ppb
|-	Cd	114	3112171.6	499.52564	ppb
|-	Sb	121	4574787.6	499.66797	ppb
|	Sb	123	3489271.4	499.63623	ppb
|>	Ho	165	934238.1		ppb
|-	Pb	208	20828120	499.07985	ppb
	Kr	83	-82602.6		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Da Monday, August 22, 2011 14:51:26
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	61601.9		ppb
|-	Be	9	10.7	0.01203	ppb
|-	Sc	45	227114		ppb
|	Cr	52	12424.2	0.0491	ppb
|	Cr	53	25974.4	6.92668	ppb
|	Mn	55	2719.8	-0.01887	ppb
|	Co	59	273.3	0.01031	ppb
|	Ni	60	257.7	-0.03561	ppb
|	As	75	52.1	-0.1171	ppb
|	Se	77	2077.2	-0.01191	ppb
|	Se	82	37.5	0.13482	ppb
|>	Rh	103	532692.7		ppb
|	Cd	111	47.1	0.01309	ppb
|-	Cd	114	130.9	0.01188	ppb
|-	Sb	121	178.3	0.01016	ppb
|	Sb	123	121.7	0.01035	ppb
|>	Ho	165	947970.7		ppb
|-	Pb	208	3193.2	0.01711	ppb
	Kr	83	108.9		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 2
Sample Da Monday, August 22, 2011 14:53:35
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	61203.7		ppb
|-	Be	9	498	1.09745	ppb
|-	Sc	45	224245.7		ppb
|	Cr	52	25801.3	1.302	ppb
|	Cr	53	29647	9.85979	ppb
|	Mn	55	20398.5	1.01783	ppb
|	Co	59	13213.6	1.04813	ppb
|	Ni	60	2992.8	1.05951	ppb
|	As	75	2401.8	1.01553	ppb
|	Se	77	2527.7	2.71528	ppb
|	Se	82	273.2	1.25229	ppb
|>	Rh	103	532733		ppb
|	Cd	111	3069.4	1.12436	ppb
|-	Cd	114	7334.1	1.10489	ppb
|-	Sb	121	10380.6	1.11843	ppb
|	Sb	123	7914.1	1.12008	ppb
|>	Ho	165	939414.9		ppb
|-	Pb	208	50388.4	1.14219	ppb
	Kr	83	-64.2		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 3
Sample Da Monday, August 22, 2011 14:55:44
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	59674.9		ppb
|-	Be	9	112803.7	257.53902	ppb
|-	Sc	45	217345.5		ppb
|	Cr	52	2506622.3	244.4087	ppb
|	Cr	53	310982.7	246.34767	ppb
|	Mn	55	3914519.2	239.68886	ppb
|	Co	59	2909630.4	243.85743	ppb
|	Ni	60	587191.1	245.62191	ppb
|	As	75	499672.5	251.57929	ppb
|	Se	77	42382	255.677	ppb
|	Se	82	51440.1	255.30306	ppb
|>	Rh	103	509669.3		ppb
|	Cd	111	667971.2	256.68776	ppb
|-	Cd	114	1569394.8	248.85329	ppb
|-	Sb	121	2319831.2	254.45848	ppb
|	Sb	123	1689924.3	243.03372	ppb
|>	Ho	165	930248		ppb
|-	Pb	208	10585407	254.69377	ppb
	Kr	83	-40831.7		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Da Monday, August 22, 2011 14:57:55
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	61480		ppb
|-	Be	9	47365.4	104.9726	ppb
|-	Sc	45	220600.7		ppb
|	Cr	52	1023742.4	98.8178	ppb
|	Cr	53	145960.7	107.83534	ppb
|	Mn	55	1580322.6	96.31797	ppb
|	Co	59	1176528.8	98.24639	ppb
|	Ni	60	249499.3	103.89132	ppb
|	As	75	209075.2	104.76992	ppb
|	Se	77	18990.5	107.12569	ppb
|	Se	82	21757.3	107.52254	ppb
|>	Rh	103	511579		ppb
|	Cd	111	275906.4	105.61191	ppb
|-	Cd	114	656795.5	103.73322	ppb
|-	Sb	121	928132.2	101.70747	ppb
|	Sb	123	704762.8	101.25976	ppb
|>	Ho	165	931119.7		ppb
|-	Pb	208	4375529.4	105.14942	ppb
	Kr	83	-17002.6		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 5
Sample Da Monday, August 22, 2011 15:00:05
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	65700.6		ppb
|-	Be	9	24523	50.84909	ppb
|-	Sc	45	232472.6		ppb
|	Cr	52	532899.6	47.67066	ppb
|	Cr	53	90677	57.0457	ppb
|	Mn	55	851621.7	48.59866	ppb
|	Co	59	607366.6	47.5715	ppb
|	Ni	60	130706.6	50.99627	ppb
|	As	75	108044.2	50.73043	ppb
|	Se	77	11061.7	52.8529	ppb
|	Se	82	11300.1	52.38417	ppb
|>	Rh	103	545344.1		ppb
|	Cd	111	144457.4	51.88019	ppb
|-	Cd	114	342293.5	50.72208	ppb
|-	Sb	121	479118.5	48.67849	ppb
|	Sb	123	365763.6	48.72748	ppb
|>	Ho	165	1004066.1		ppb
|-	Pb	208	2241226.1	49.91604	ppb
	Kr	83	93.2		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 2
Sample Da Monday, August 22, 2011 15:02:16
Sample De Air Tech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	60673.5		ppb
|-	Be	9	521.3	1.15884	ppb
|-	Sc	45	213117.1		ppb
|	Cr	52	25181.5	1.40976	ppb
|	Cr	53	30087.7	11.90395	ppb
|	Mn	55	19434.8	1.04113	ppb
|	Co	59	12580.7	1.06809	ppb
|	Ni	60	2901.8	1.1048	ppb
|	As	75	2270.3	1.02852	ppb
|	Se	77	2410.7	3.03259	ppb
|	Se	82	255.6	1.25521	ppb
|>	Rh	103	497833.9		ppb
|	Cd	111	2970.6	1.16454	ppb
|-	Cd	114	6935.1	1.11789	ppb
|-	Sb	121	9801.9	1.10039	ppb
|	Sb	123	7434.3	1.09646	ppb
|>	Ho	165	901324.8		ppb
|-	Pb	208	47831.7	1.12966	ppb
	Kr	83	-61		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Da Monday, August 22, 2011 19:01:41
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	61426.8		ppb
|-	Be	9	5	-0.00021	ppb
|-	Sc	45	182145.9		ppb
|	Cr	52	11316.1	0.27863	ppb
|	Cr	53	20760.7	7.96269	ppb
|	Mn	55	10305.2	0.61993	ppb
|	Co	59	116.3	0.00075	ppb
|	Ni	60	438.3	0.09255	ppb
|	As	75	75.4	-0.09502	ppb
|	Se	77	1691.5	0.87507	ppb
|	Se	82	31.9	0.15442	ppb
|>	Rh	103	405283.8		ppb
|	Cd	111	19.5	0.00526	ppb
|-	Cd	114	20.2	-0.00384	ppb
|-	Sb	121	47.7	-0.0028	ppb
|	Sb	123	36.4	-0.0005	ppb
|>	Ho	165	768051.4		ppb
|-	Pb	208	2274.8	0.00778	ppb
	Kr	83	69		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Da Monday, August 22, 2011 19:03:50
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	57344.1		ppb
|-	Be	9	40195.8	95.52088	ppb
|-	Sc	45	171668.1		ppb
|	Cr	52	777299.7	97.5068	ppb
|	Cr	53	111578.8	107.05261	ppb
|	Mn	55	1220309.6	96.65866	ppb
|	Co	59	912742.8	99.05267	ppb
|	Ni	60	194856.4	105.45993	ppb
|	As	75	155217.2	101.10417	ppb
|	Se	77	13534.1	98.3329	ppb
|	Se	82	15735.2	101.07754	ppb
|>	Rh	103	393549.6		ppb
|	Cd	111	219132.5	109.03496	ppb
|-	Cd	114	523203.7	107.414	ppb
|-	Sb	121	740035.7	103.41434	ppb
|	Sb	123	558788.2	102.34868	ppb
|>	Ho	165	731098.6		ppb
|-	Pb	208	3448766.4	105.49624	ppb
	Kr	83	-12683.1		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-1
Sample Da: Tuesday, August 23, 2011 12:16:31
Sample De: Air Tech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	50203.7		ppb
|-	Be	9	4	-0.00086	ppb
|-	Sc	45	161892.8		ppb
|	Cr	52	22256.9	1.74679	ppb
|	Cr	53	28253.5	17.15687	ppb
|	Mn	55	31316	2.33972	ppb
|	Co	59	320.3	0.02368	ppb
|	Ni	60	1976.2	0.94609	ppb
|	As	75	1246.1	0.67987	ppb
|	Se	77	4561.5	25.27207	ppb
|	Se	82	2826.9	18.33365	ppb
|>	Rh	103	388821.9		ppb
|	Cd	111	77.2	0.03469	ppb
|-	Cd	114	43.5	0.00102	ppb
|-	Sb	121	418.3	0.04884	ppb
|	Sb	123	359.7	0.05836	ppb
|>	Ho	165	734289.6		ppb
|-	Pb	208	27669.5	0.78566	ppb
	Kr	83	210.4		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-2
Sample Da: Tuesday, August 23, 2011 12:18:41
Sample De: Air Tech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	51177.4		ppb
|-	Be	9	6	0.00419	ppb
|-	Sc	45	163591.6		ppb
|	Cr	52	26741.4	2.27102	ppb
|	Cr	53	28746.4	17.2242	ppb
|	Mn	55	24141.4	1.73465	ppb
|	Co	59	458	0.03808	ppb
|	Ni	60	3061.8	1.51836	ppb
|	As	75	831	0.39962	ppb
|	Se	77	4033.2	20.41491	ppb
|	Se	82	2175.3	13.91332	ppb
|>	Rh	103	394384		ppb
|	Cd	111	1146.9	0.56562	ppb
|-	Cd	114	2604.2	0.52599	ppb
|-	Sb	121	553.4	0.06553	ppb
|	Sb	123	417.5	0.06707	ppb
|>	Ho	165	753771.9		ppb
|-	Pb	208	31030.5	0.86425	ppb
	Kr	83	-28.8		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-2
Sample Da: Tuesday, August 23, 2011 12:20:50
Sample De: Air Tech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	33982.5		ppb
|-	Be	9	4	0.00461	ppb
|-	Sc	45	107365		ppb
|	Cr	52	26406.4	4.65791	ppb
|	Cr	53	27479	37.34548	ppb
|	Mn	55	22959.2	2.96064	ppb
|	Co	59	384.3	0.06015	ppb
|	Ni	60	2542.7	2.2307	ppb
|	As	75	862.3	0.81751	ppb
|	Se	77	3869.5	41.77065	ppb
|	Se	82	2102.6	23.05543	ppb
|>	Rh	103	230004.7		ppb
|	Cd	111	1175.6	0.99565	ppb
|-	Cd	114	2765.9	0.96253	ppb
|-	Sb	121	494	0.09728	ppb
|	Sb	123	373.2	0.09845	ppb
|>	Ho	165	473484.4		ppb
|-	Pb	208	30164.6	1.36669	ppb
	Kr	83	177.3		mg/L

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Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-3
Sample Da Tuesday, August 23, 2011 12:22:59
Sample De Air Tech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	41967.3		ppb
|-	Be	9	2.3	-0.00405	ppb
|-	Sc	45	132202.4		ppb
|	Cr	52	22840.4	2.44391	ppb
|	Cr	53	27926.9	23.26957	ppb
|	Mn	55	27796.1	2.52875	ppb
|	Co	59	301.3	0.02858	ppb
|	Ni	60	2053.6	1.22634	ppb
|	As	75	585.6	0.32978	ppb
|	Se	77	4099.6	28.56285	ppb
|	Se	82	2209.7	17.31916	ppb
|>	Rh	103	321499.7		ppb
|	Cd	111	74.7	0.04151	ppb
|-	Cd	114	72.4	0.01043	ppb
|-	Sb	121	277	0.03817	ppb
|	Sb	123	203.9	0.03876	ppb
|>	Ho	165	595573.9		ppb
|-	Pb	208	19283.4	0.66614	ppb
	Kr	83	122.8		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-3
Sample Da Tuesday, August 23, 2011 12:25:08
Sample De Air Tech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	45495		ppb
|-	Be	9	15496.9	46.41482	ppb
|-	Sc	45	152761.1		ppb
|	Cr	52	337802.7	52.65028	ppb
|	Cr	53	66940	77.14075	ppb
|	Mn	55	527017.6	52.35448	ppb
|	Co	59	369682.5	50.41529	ppb
|	Ni	60	79992.9	54.34087	ppb
|	As	75	61942	50.58909	ppb
|	Se	77	9158.3	81.01525	ppb
|	Se	82	8454.9	68.01114	ppb
|>	Rh	103	315319.6		ppb
|	Cd	111	78670.4	48.91476	ppb
|-	Cd	114	186457.7	47.88969	ppb
|-	Sb	121	275247.5	45.06818	ppb
|	Sb	123	214101.2	45.97071	ppb
|>	Ho	165	622844.4		ppb
|-	Pb	208	1447009.5	51.96059	ppb
	Kr	83	59.8		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Da Tuesday, August 23, 2011 12:27:20
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	57430.6		ppb
|-	Be	9	5.7	0.00217	ppb
|-	Sc	45	189338.1		ppb
|	Cr	52	12945.2	0.35935	ppb
|	Cr	53	28426.7	13.80046	ppb
|	Mn	55	1730.8	-0.0545	ppb
|	Co	59	91.7	-0.00262	ppb
|	Ni	60	243.3	-0.02011	ppb
|	As	75	251.3	0.00785	ppb
|	Se	77	2524	5.99654	ppb
|	Se	82	18.5	0.06771	ppb
|>	Rh	103	438179.3		ppb
|	Cd	111	21.6	0.00544	ppb
|-	Cd	114	39.7	-0.00064	ppb
|-	Sb	121	71	-0.00055	ppb
|	Sb	123	46.5	0.00031	ppb
|>	Ho	165	837077		ppb
|-	Pb	208	2719.2	0.01434	ppb
	Kr	83	150.5		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Da Tuesday, August 23, 2011 12:29:29
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mean	Report Unit
|>	Li	6	58613		ppb
|-	Be	9	41107.8	95.5542	ppb
|-	Sc	45	181635.8		ppb
|	Cr	52	823477.6	93.02637	ppb
|	Cr	53	124365.5	107.57722	ppb
|	Mn	55	1301994.7	92.90989	ppb
|	Co	59	980758.9	95.90559	ppb
|	Ni	60	207060.1	100.97421	ppb
|	As	75	176715.2	103.71874	ppb
|	Se	77	16863	111.90827	ppb
|	Se	82	18497.7	107.02003	ppb
|>	Rh	103	437215.5		ppb
|	Cd	111	240172.9	107.59812	ppb
|-	Cd	114	569194.9	105.2691	ppb
|-	Sb	121	827279.2	99.66833	ppb
|	Sb	123	624678.2	98.67331	ppb
|>	Ho	165	847068.3		ppb
|-	Pb	208	3950602	104.39812	ppb
	Kr	83	-14470.8		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-2
Sample Da Tuesday, August 23, 2011 13:40:42
Sample De Air Tech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mean	Report Unit
|>	Li	6	55975.7		ppb
|-	Be	9	3.3	-0.00359	ppb
|-	Sc	45	171492.9		ppb
|	Cr	52	25019.7	2.15533	ppb
|	Cr	53	24823.8	13.83575	ppb
|	Mn	55	28042.9	2.1143	ppb
|	Co	59	444.3	0.03811	ppb
|	Ni	60	2644.4	1.33826	ppb
|	As	75	599.5	0.26282	ppb
|	Se	77	3553.4	17.38557	ppb
|	Se	82	2161.6	14.25846	ppb
|>	Rh	103	382890.5		ppb
|	Cd	111	1130.8	0.57526	ppb
|-	Cd	114	2581.3	0.53723	ppb
|-	Sb	121	465.7	0.05374	ppb
|	Sb	123	365.1	0.05771	ppb
|>	Ho	165	755372.3		ppb
|-	Pb	208	29935.6	0.82852	ppb
	Kr	83	35.4		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 17132-2
Sample Da Tuesday, August 23, 2011 13:42:51
Sample De Air Tech
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mean	Report Unit
|>	Li	6	54393.2		ppb
|-	Be	9	3.3	-0.00344	ppb
|-	Sc	45	164671.2		ppb
|	Cr	52	24249.7	2.07011	ppb
|	Cr	53	24546.4	13.68041	ppb
|	Mn	55	21224.1	1.56651	ppb
|	Co	59	403.7	0.03384	ppb
|	Ni	60	2398.3	1.20797	ppb
|	As	75	976.9	0.51811	ppb
|	Se	77	3674.4	18.6109	ppb
|	Se	82	2290.9	15.20941	ppb
|>	Rh	103	379993.8		ppb
|	Cd	111	1144.6	0.58584	ppb
|-	Cd	114	2632.8	0.55192	ppb
|-	Sb	121	441	0.05118	ppb
|	Sb	123	343.8	0.05471	ppb
|>	Ho	165	744644.5		ppb
|-	Pb	208	27368.6	0.7646	ppb
	Kr	83	72.1		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Da Tuesday, August 23, 2011 13:45:03
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	61073.4		ppb
|-	Be	9	5	-0.00067	ppb
|-	Sc	45	195208.7		ppb
|	Cr	52	12333.7	0.24292	ppb
|	Cr	53	25991.8	10.58326	ppb
|	Mn	55	2204.9	-0.02646	ppb
|	Co	59	83.7	-0.00367	ppb
|	Ni	60	252	-0.02039	ppb
|	As	75	-254	-0.28551	ppb
|	Se	77	2219.6	3.19724	ppb
|	Se	82	16	0.04716	ppb
|>	Rh	103	453566.5		ppb
|	Cd	111	11.9	0.00094	ppb
|-	Cd	114	27.8	-0.003	ppb
|-	Sb	121	46.7	-0.00373	ppb
|	Sb	123	41.4	-0.00059	ppb
|>	Ho	165	862657		ppb
|-	Pb	208	2755.2	0.01302	ppb
	Kr	83	90.2		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Da Tuesday, August 23, 2011 13:47:12
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
|>	Li	6	59403.1		ppb
|-	Be	9	42321	97.07937	ppb
|-	Sc	45	185992		ppb
|	Cr	52	845169.3	96.92876	ppb
|	Cr	53	124026.3	109.06167	ppb
|	Mn	55	1330845.7	96.43635	ppb
|	Co	59	992317.2	98.53348	ppb
|	Ni	60	212416.1	105.18638	ppb
|	As	75	176249.9	105.04717	ppb
|	Se	77	16358	110.07158	ppb
|	Se	82	18553.5	109.06787	ppb
|>	Rh	103	430377.3		ppb
|	Cd	111	241431.1	109.8638	ppb
|-	Cd	114	573093.1	107.60896	ppb
|-	Sb	121	817450.4	98.25877	ppb
|	Sb	123	621672.8	97.9598	ppb
|>	Ho	165	849305.4		ppb
|-	Pb	208	3920195.5	103.30006	ppb
	Kr	83	-14025.5		mg/L

AIRTECH
Environmental
Services Inc.

Ohio Lumex Spectrometer (Mercury) Analytical Report

Performed for
Big Rivers Electric Corporation
Green Station
Unit 1
Project No. 3648
August 29, 2011

Analyst: _____
Michael Ogletree

Reviewer: _____
Patrick Clark P.E.

702 WEST 48TH AVENUE, UNIT J - DENVER, COLORADO - TEL: 303.670.0530 - FAX: 303.670.4130

Table of Contents

Project Summary

General

Project Information	
Date Received	8/10/2011
Analytical Protocol	EPA Method 30B
Total Number of Samples Received	18
Total Number of Blanks Received	NA

Analytical Equipment

Equipment Information	Manufacturer	Model	Serial
Zeeman Mercury	Ohio Lumex	RA-915+	1283

Parameters	Conditions
Oven Temperature	585° Celsius
Flow Rate	2.0 LPM

Condition of Samples When Received

Samples were received for analysis in good condition without any noticeable contamination or breakage of samples tubes.

Methodology

All samples were analyzed according to the EPA Method 30B procedures found in 40 CFR Part 60 Appendix A.

QA/QC

The mercury calibration curve was generated using seven calibration standards. The standards were prepared by using a micro pipette to transfer a known amount of NIST traceable mercury standards to a bed of activated carbon and covered with potassium chloride.

The preparation of the mercury standards used for this project is detailed in the table below. All standards where supplied by Ohio Lumex, Twinsburg, Ohio 44087.

Concentration (µg/ml)	Volume (µl)	Final Hg (ng)
0.1	20	2
0.1	50	5
0.1	100	10
1	25	25
1	50	50
1	100	100
10	25	250
10	50	500

An independent calibration standard was analyzed along with the mercury calibration standards; results can be found in the calibration standards spreadsheet. A continuing calibration standard of 250 ng/ml was analyzed along with samples at least once every ten runs.

Appendix

Includes the following:

- Results
- Calibration Data

Results

Includes the following:

- Mercury Results

Analysis Date: 8/23/11
Analyst: MO

Sample Parameters	Green Unit 1 A Run 1	Green Unit 1 A Run 2	Green Unit 1 A Run 3
Particulate Coil (area)	16,900	20,600	28,800
Oxidized Front Half (area)	16,400	19,200	10,000
Oxidized Back Half (area)	605	565	545
Elemental Front Half (area)	16,300	21,100	40,200
Elemental Back Half (area)	313	402	24

RESULTS			
Ash Bonded (ng)	76.3	93.0	130
Oxidized Front Half (ng)	74.0	86.6	45.1
Oxidized Back Half (ng)	2.77	2.59	2.49
Oxidized Breakthrough (%)	3.6	2.9	5.2
Total Oxidized (ng)	76.8	89.2	47.6
Elemental Front Half (ng)	73.6	95.2	181
Elemental Back Half (ng)	1.43	1.84	0.110
Elemental Breakthrough (%)	1.9	1.9	0.1
Total Elemental (ng)	75.0	97.1	182
Total Mercury (ng)	**228**	**279**	**359**

Sample Parameters	Green Unit 1 A Run 1 Spike	Green Unit 1 A Run 2 Spike	Green Unit 1 A Run 3 Spike
Particulate Coil	12,600	18,300	20,900
Front Half (area)	81,900	78,500	90,000
Back Half (area)	62	157	103.0

RESULTS			
Ash Bonded (ng)	56.9	82.6	94.3
Front Half (ng)	370	354	406
Back Half (ng)	0.284	0.719	0.47
Breakthrough (%)	0.1	0.2	0.1
Total Mercury (ng)	**427**	**438**	**501**
Spike Recovery (%)	94.4%	104%	107%

Analysis Date: 8/23/11
Analyst: MO

Sample Parameters	Green Unit 1 B Run 1	Green Unit 1 B Run 2	Green Unit 1 B Run 3
Particulate Coil (area)	21,800	1,710	15,700
Oxidized Front Half (area)	8,270	9,970	12,000
Oxidized Back Half (area)	362	5,640	6,070
Elemental Front Half (area)	16,100	26,400	32,300
Elemental Back Half (area)	104	106	177

RESULTS			
Ash Bonded (ng)	98.4	7.72	70.8
Oxidized Front Half (ng)	37.3	45.0	54.2
Oxidized Back Half (ng)	1.66	25.5	27.4
Oxidized Breakthrough (%)	4.3	36.1	33.6
Total Oxidized (ng)	39.0	70.4	81.5
Elemental Front Half (ng)	72.7	119	146
Elemental Back Half (ng)	0.476	0.485	0.810
Elemental Breakthrough (%)	0.7	0.4	0.6
Total Elemental (ng)	73.1	120	147
Total Mercury (ng)	**210**	**198**	**299**

Sample Parameters	Green Unit 1 B Run 1 Spike	Green Unit 1 B Run 2 Spike	Green Unit 1 B Run 3 Spike
Particulate Coil	27,300	2,660	29,400
Front Half (area)	53,100	79,000	73,700
Back Half (area)	99	0	0

RESULTS			
Ash Bonded (ng)	123	12.0	133
Front Half (ng)	240	357	333
Back Half (ng)	0.453	0.000	0.000
Breakthrough (%)	0.1	0.0	0.0
Total Mercury (ng)	**363**	**369**	**465**
Spike Recovery (%)	106%	101%	102%

Analysis Date: 8/23/11
Analyst: MO

Sample Parameters	Unit 1 Stack Run 1	Unit 1 Stack Run 2	Unit 1 Stack Run 3
Particulate Coil (area)	0	0	0
Oxidized Front Half (area)	3,670	2,650	2,060
Oxidized Back Half (area)	27	176	0
Elemental Front Half (area)	16,800	22,700	26,700
Elemental Back Half (area)	94	153	147

RESULTS			
Ash Bonded (ng)	0	0	0
Oxidized Front Half (ng)	16.6	12.0	9.30
Oxidized Back Half (ng)	0.124	0.805	0.00
Oxidized Breakthrough (%)	0.7	6.3	0.0
Total Oxidized (ng)	16.7	12.8	9.30
Elemental Front Half (ng)	75.8	102	120
Elemental Back Half (ng)	0.430	0.700	0.673
Elemental Breakthrough (%)	0.6	0.7	0.6
Total Elemental (ng)	76.2	103	121
Total Mercury (ng)	**92.9**	**116**	**130**

Sample Parameters	Unit 1 Stack Run 1 Spike	Unit 1 Stack Run 2 Spike	Unit 1 Stack Run 3 Spike
Particulate Coil	DAS failure	5,210	1,900
Front Half (area)	38,700	44,400	47,400
Back Half (area)	0	110	137

RESULTS			
Ash Bonded (ng)	0.00	23.5	8.6
Front Half (ng)	175	200	214
Back Half (ng)	0.00	0.503	0.627
Breakthrough (%)	0.0	0.2	0.3
Total Mercury (ng)	**175**	**224**	**223**
Spike Recovery (%)	110%	96%	103%

Calibration Data

Includes the following:

- Mercury Standards
- Mercury Calibration Curves

Date: 8/23/11
Analyzer: Ohio Lumex
Analyst: MO

INITIAL CALIBRATION

Standard Number	Amount (ng)	Response (area)	RF (ng/area)	Calculated Value (ng)	Error (%)	Valid?
1	5	1,200	0.00417	5.42	8.3	Yes
2	10	2,400	0.00417	10.8	8.3	Yes
3	25	5,300	0.00472	23.9	-4.3	Yes
4	50	11,100	0.00450	50.1	0.2	Yes
5	100	21,700	0.00461	97.9	-2.1	Yes
6	250	52,600	0.00475	237	-5.1	Yes
7	500	107,000	0.00467	483	-3.4	Yes

Average Response Factor (ng/area) 0.00451
R-Squared 1.000

LOW LEVEL STANDARD - FOR QUANTIFICATION BELOW 5 NG

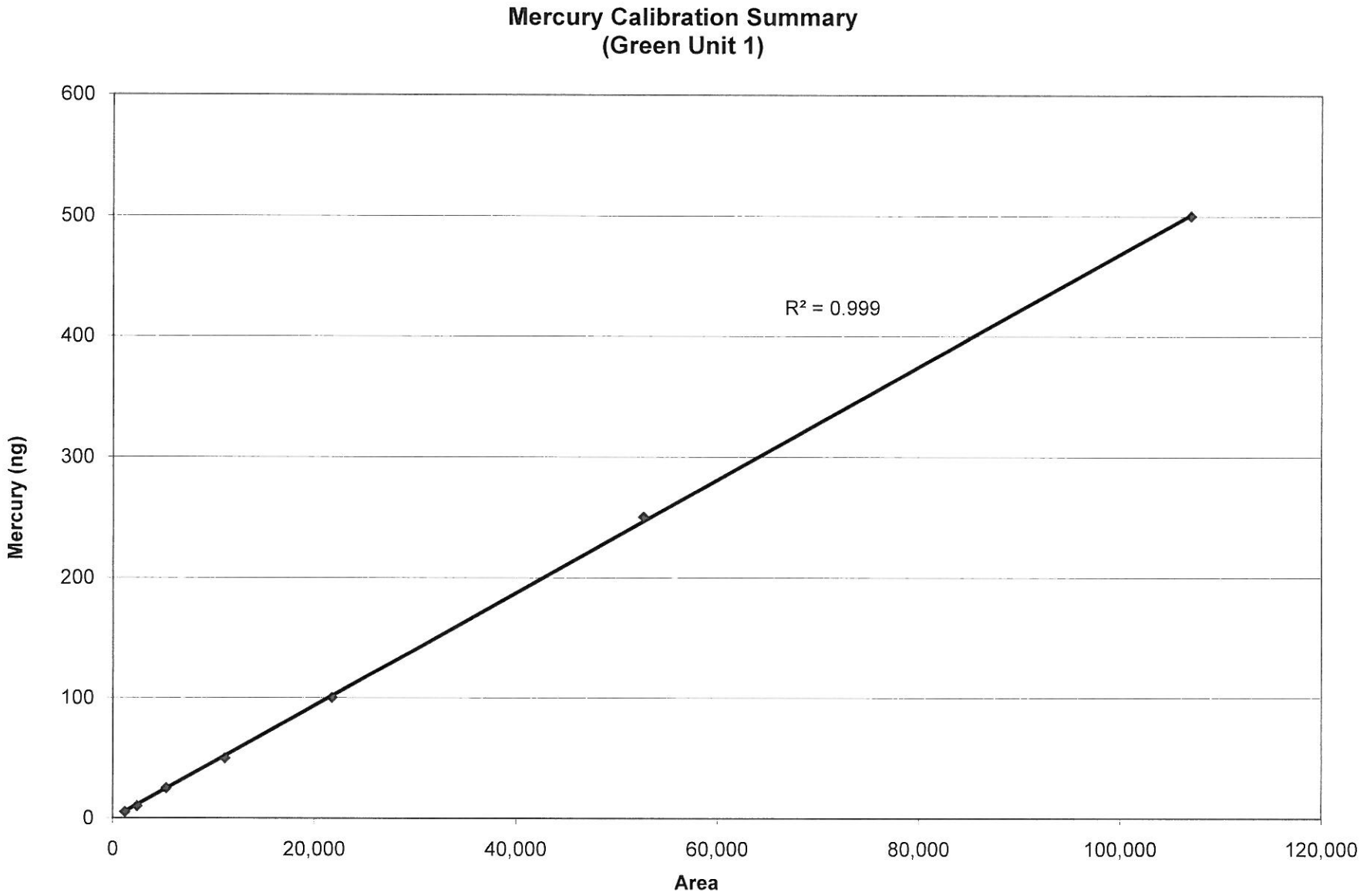
Standard Number	Amount (ng)	Response (area)	RF (ng/area)	Calculated Value (ng)	Error (%)	Valid?
NA	2	437	0.00458	2	-1.4	NA

SECOND SOURCE CHECK STANDARD ANALYSIS

Standard Number	Amount (ng)	Response (area)	RF (ng/area)	Calculated Value (ng)	Error (%)	Valid?
NA	250	56,300	0.00444	254	1.6	Yes

CONTINUING CALIBRATION VERIFICATION STANDARDS

Standard Number	Amount (ng)	Response (area)	RF (ng/area)	Calculated Value (ng)	Error (%)	Valid?
NA	250	51,300	0.00487	231.50	-7.4	Yes
NA	250	52,900	0.00473	238.72	-4.5	Yes
NA	250	51,000	0.00490	230.15	-7.9	Yes
NA	250	51,100	0.00489	230.60	-7.8	Yes
NA	250	53,300	0.00469	240.53	-3.8	Yes
NA	250	54,000	0.00463	243.69	-2.5	Yes
NA	250	53,800	0.00465	242.78	-2.9	Yes
NA	250	53,600	0.00466	241.88	-3.2	Yes
NA	250	53,700	0.00466	242.33	-3.1	Yes


Mercury Calibration Summary
(Green Unit 1)
600
500
400
300
200
100
0
Mercury (ng)
R² = 0.999
0
20,000
40,000
60,000
80,000
100,000
120,000
Area

G and C COAL ANALYSIS LAB., INC.

1341 HOFFMAN HOLLOW RD.
SUMMERVILLE, PA 15864
(814) 849-2559
FAX (814) 849-8878

893893

RECEIVED FROM:

AIRTECH ENVIROMENTAL
601A COUNTRY CLUB DRIVE

BENSONVILLE, IL 60106

LAB NO.
SAMPLED 07/27/11
RECEIVED 08/05/11
REPORTED 08/26/11

SAMPLE MARKED:
PROJECT #3648
SAMPLE ID:0016
BIG RIVERS ELECTRIC
PETCOKE BLEND SAMPLE/GREEN UNIT 1-RUN 1
CHLORINE 443 MG/KG DRY (USGS BULLETIN 1823)
MERCURY 0.142 MG/KG DRY OR PPM DRY (ASTM 6722)
FLUORINE 82 MG/KG DRY (ASTM 3761-96)

ANALYSIS REPORT

	AS RECEIVED	DRY BASIS
% Moisture	12.70	
% Ash	9.43	10.80
% Sulfur	2.54	2.91
B.T.U.	11,229	12,862
BTU (Moisture-ash free)	14,419	
% Volatile Matter	34.43	39.44
% Fixed Carbon	43.44	49.76

2.26 Lbs. Sul./mil. BTU
8.40 Lbs. Ash./mil. BTU

THE ABOVE ANALYTICAL RESULTS WERE OBTAINED FOLLOWING ASTM PROCEDURES.

APPROVED BY G&C COAL ANALYSIS LAB., INC.

G and C Coal Analysis Lab., Inc.
1341 Hoffman Hollow Road
Summerville, Pa 15864
814-849-2559
Fax: 814-849-8878

RECEIVED FROM:

AIRTECH ENVIRONMENTAL
601A COUNTRY CLUB DRIVE
BENSONVILLE, IL 60106

Lab # : 893893
Date Sampled: 07/27/11
Date Received: 08/05/11
Date Reported: 08/24/11

SAMPLE MARKED:
PROJECT #3648
SAMPLE #0016
BIG RIVERS ELECTRIC
PETCOKE BLEND SAMPLE - GREEN UNIT 1- RUN 1

Procedure used following ASTM Method D-5373-02

ULTIMATE ANALYSIS	As Received**	Dry Basis
% CARBON	67.23	74.64
% HYDROGEN	4.29	4.76
% NITROGEN	1.41	1.56
% OXYGEN (by difference)	5.77	6.41
% ASH	7.89	8.76
% SULFUR	3.49	3.87
% MOISTURE	9.93	

**Hydrogen and Oxygen do not include the Hydrogen and Oxygen from the Moisture.

The above analytical results were obtained following ASTM procedures.

G & C COAL ANALYSIS LAB., INC.

APPROVED BY _____

G and C Coal Analysis Lab., Inc.
1341 Hoffman Hollow Road
Summerville, Pa 15864
814-849-2559
Fax: 814-849-8878

G&C Lab#: 893893

Received From:

AIRTECH ENVIROMENTAL
601A COUNTRY CLUB DRIVE

Date Sampled: 07/27/11

Date Received: 08/05/11

BENSONVILLE, IL 60106

Date Reported: 08/26/11

Sample Marked:
PROJECT #3648 SAMPLE ID:0016
BIG RIVERS ELECTRIC
PETCOKE BLEND SAMPLE/GREEN UNIT 1-RUN 1
CHLORINE 443 MG/KG DRY (USGS BULLETIN 1823)
MERCURY 0.142 MG/KG DRY OR PPM DRY (ASTM 6722)
FLUORINE 82 MG/KG DRY (ASTM 3761-96)

% Total Moisture 12.70

% Ash Dry 10.80
% Ash As Received 9.43

	OF ASH MG/KG	COAL(DRY) MG/KG	COAL(AS REC) MG/KG
Antimony	0.12	0.01	0.01
Arsenic	27.67	2.99	2.61
Beryllium	4.59	0.50	0.43
Cadmium	0.64	0.07	0.06
Chromium	30.03	3.24	2.83
Cobalt	10.15	1.10	0.96
Lead	90.16	9.74	8.50
Manganese	97.40	10.52	9.18
Nickel	45.88	4.96	4.33

Procedure followed using EPA-SW-846, ASTM Method 3030b,6010b.

The above analytical results were obtained following ASTM procedures.

G & C COAL ANALYSIS LAB., INC.

APPROVED BY

G and C COAL ANALYSIS LAB., INC.

1341 HOFFMAN HOLLOW RD.
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(814) 849-2559
FAX (814) 849-8878

RECEIVED FROM:

Airtech Enviromental
601A Country Club Drive

Bensonville, IL 60106

LAB NO. 893890
SAMPLED 07/27/11
RECEIVED 08/05/11
REPORTED 08/22/11

SAMPLE MARKED:

PROJECT #3648
SAMPLE ID:0017
BIG RIVERS ELECTRIC
PETCOKE BLEND SAMPLE GREEN UNIT 1-RUN 2
CHLORINE 451 MG/KG DRY (USGS BULLETIN 1823)
MERCURY 0.204 MG/KG DRY OR PPM DRY (ASTM 6722)
FLUORINE 87 MG/KG DRY (ASTM 3761)

ANALYSIS REPORT

	AS RECEIVED	DRY BASIS
% Moisture	12.76	
% Ash	13.02	14.92
% Sulfur	3.45	3.96
B.T.U.	10,614	12,166
BTU (Moisture-ash free)	14,299	
% Volatile Matter	32.82	37.62
% Fixed Carbon	41.40	47.46

3.25 Lbs. Sul./mil. BTU
12.27 Lbs. Ash./mil. BTU

THE ABOVE ANALYTICAL RESULTS WERE OBTAINED FOLLOWING ASTM PROCEDURES.

APPROVED BY G&C COAL ANALYSIS LAB., INC.

G and C Coal Analysis Lab., Inc.
1341 Hoffman Hollow Road
Summerville, Pa 15864
814-849-2559
Fax: 814-849-8878

Received From:

G&C Lab#: 893890

Airtech Enviromental
601A Country Club Drive

Date Sampled: 07/27/11

Date Received: 08/05/11

Bensonville, IL 60106

Date Reported: 08/22/11

Sample Marked:
PROJECT #3648 SAMPLE ID:0017
BIG RIVERS ELECTRIC
PETCOKE BLEND SAMPLE GREEN UNIT 1-RUN 2
CHLORINE 451 MG/KG DRY (USGS BULLETIN 1823)

Procedure used following ASTM Method D-5373-02

ULTIMATE ANALYSIS	As Received	Dry Basis
% CARBON	59.67	68.40
% HYDROGEN	4.18	4.79
% NITROGEN	1.26	1.44
% Oxygen (by Difference)	7.31	8.22
% Ash	13.02	14.92
% Sulfur	3.45	3.96
% Total Moisture	12.76	

**Hydrogen and Oxygen do not include the Hydrogen and Oxygen from the Moisture

The above analytical results were obtained following ASTM procedures.

G & C COAL ANALYSIS LAB., INC.

APPROVED BY _____

G and C Coal Analysis Lab., Inc.
1341 Hoffman Hollow Road
Summerville, Pa 15864
814-849-2559
Fax: 814-849-8878

Received From:

G&C Lab#: 893890

AIRTECH ENVIROMENTAL
601A COUNTRY CLUB DRIVE

Date Sampled: 07/27/11

Date Received: 08/05/11

BENSONVILLE, IL 60106

Date Reported: 08/22/11

Sample Marked:
PROJECT #3648 SAMPLE ID:0017
BIG RIVERS ELECTRIC
PETCOKE BLEND SAMPLE GREEN UNIT 1-RUN 2
CHLORINE 451 MG/KG DRY (USGS BULLETIN 1823)
MERCURY 0.204 MG/KG DRY OR PPM DRY (ASTM 6722)
FLUORINE 87 MG/KG DRY (ASTM 3761)

% Total Moisture 12.76

% Ash Dry 14.92
% Ash As Received 13.02

	OF ASH MG/KG	COAL(DRY) MG/KG	COAL(AS REC) MG/KG
Antimony	0.21	0.03	0.03
Arsenic	51.98	7.76	6.77
Beryllium	1.61	0.24	0.21
Cadmium	0.98	0.15	0.13
Chromium	43.21	6.45	5.63
Cobalt	11.48	1.71	1.49
Lead	86.91	12.97	11.32
Manganese	98.40	14.68	12.81
Nickel	27.98	4.17	3.64

Procedure followed using EPA-SW-846, ASTM Method 3030b,6010b.

The above analytical results were obtained following ASTM procedures.

G & C COAL ANALYSIS LAB., INC.

APPROVED BY

G and C COAL ANALYSIS LAB., INC.

1341 HOFFMAN HOLLOW RD.
SUMMERVILLE, PA 15864
(814) 849-2559
FAX (814) 849-8878

RECEIVED FROM:

Airtech Enviromental
601A Country Club Drive

Bensonville, IL 60106

LAB NO. 893889
SAMPLED 07/27/11
RECEIVED 08/05/11
REPORTED 08/22/11

SAMPLE MARKED:

PROJECT #3648
SAMPLE ID#0018
BIG RIVERS ELECTRIC
PETCOKE BLEND SAMPLE GREEN UNIT 1-RUN 3
CHLORINE 327 MG/KG DRY (USGS BULLETIN 1823)
MERCURY 0.159 MG/KG DRY OR PPM DRY (ASTM 6722)
FLUORINE 84 MG/KG DRY (ASTM 3761)

ANALYSIS REPORT

	AS RECEIVED	DRY BASIS
% Moisture	11.60	
% Ash	12.24	13.85
% Sulfur	2.55	2.89
B.T.U	10,955	12,393
BTU (Moisture-ash free)	14,385	
% Volatile Matter	33.47	37.86
% Fixed Carbon	42.69	48.29

2.33 Lbs. Sul./mil. BTU
11.17 Lbs. Ash./mil. BTU

THE ABOVE ANALYTICAL RESULTS WERE OBTAINED FOLLOWING ASTM PROCEDURES.

APPROVED BY G&C COAL ANALYSIS LAB., INC.

G and C Coal Analysis Lab., Inc.
1341 Hoffman Hollow Road
Summerville, Pa 15864
814-849-2559
Fax: 814-849-8878

Received From:

G&C Lab#: 893889

Airtech Enviromental
601A Country Club Drive

Date Sampled: 07/27/11

Date Received: 08/05/11

Bensonville, IL 60106

Date Reported: 08/22/11

Sample Marked:
PROJECT #3648 SAMPLE ID#0018
BIG RIVERS ELECTRIC
PETCOKE BLEND SAMPLE GREEN UNIT 1-RUN 3
CHLORINE 327 MG/KG DRY (USGS BULLETIN 1823)

Procedure used following ASTM Method D-5373-02

	ULTIMATE ANALYSIS As Received	Dry Basis
% CARBON	61.51	69.58
% HYDROGEN	4.39	4.97
% NITROGEN	1.33	1.50
% Oxygen (by Difference)	8.03	8.94
% Ash	12.24	13.85
% Sulfur	2.55	2.89
% Total Moisture	11.60	

**Hydrogen and Oxygen do not include the Hydrogen and Oxygen from the Moisture

The above analytical results were obtained following ASTM procedures.

G & C COAL ANALYSIS LAB., INC.

APPROVED BY

G and C Coal Analysis Lab., Inc.
1341 Hoffman Hollow Road
Summerville, Pa 15864
814-849-2559
Fax: 814-849-8878

Received From:

G&C Lab#: 893889

AIRTECH ENVIROMENTAL
601A COUNTRY CLUB DRIVE

Date Sampled: 07/27/11

Date Received: 08/05/11

BENSONVILLE, IL 60106

Date Reported: 08/22/11

Sample Marked:
PROJECT #3648 SAMPLE ID#0018
BIG RIVERS ELECTRIC
PETCOKE BLEND SAMPLE GREEN UNIT 1-RUN 3
CHLORINE 327 MG/KG DRY (USGS BULLETIN 1823)
MERCURY 0.159 MG/KG DRY OR PPM DRY (ASTM 6722)
FLUORINE 84 MG/KG DRY (ASTM 3761)

% Total Moisture 11.60

% Ash Dry 13.85
% Ash As Received 12.24

	OF ASH MG/KG	COAL(DRY) MG/KG	COAL(AS REC) MG/KG
Antimony	0.17	0.02	0.02
Arsenic	50.07	6.93	6.13
Beryllium	4.97	0.69	0.61
Cadmium	1.70	0.24	0.21
Chromium	37.77	5.23	4.62
Cobalt	14.13	1.96	1.73
Lead	132.34	18.33	16.20
Manganese	177.88	24.64	21.77
Nickel	65.15	9.02	7.97

Procedure followed using EPA-SW-846, ASTM Method 3030b,6010b.

The above analytical results were obtained following ASTM procedures.

G & C COAL ANALYSIS LAB., INC.

APPROVED BY

BIG RIVERS ELECTRIC CORP.
CHAIN OF CUSTODY RECORD

No._____

Sampling Location: Green

Plant ID. Sample Number	Date Time	Central Lab ID. Sample Number	Station Description	Sampling Method	Sample Size	Type of Preservation	Analysis Requested
016	7-27-11 1000		HAPS run one D, A+B mills		3 bags		
017	7-27-11 1400		HAPS run two D, A+B mills		3 bags		
018	7-27-11 1600		HAPS run three D, A+B mills		3 bags		
019	7-29-11 1000		HAPS Green Two-Run One D, A+B mills		3 bags		
020	7-29-11 1400		HAPS Green Two-Run Two D, A+B mills		3 bags		
021	7-29-11 1600		HAPS Green Two-Run three D, A+B mills		3 bags		

Samplers (Signatures)

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time
	7-29-11	1600			
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time

White Copy - Central Lab
Yellow Copy - Plant (Final Copy)
Pink Copy - Plant Env. Contact
Gold Copy - Plant Lab

Note: 3 bags from each mill of operation (D, A + B mills) - riffle as one sample

AIRTECH ENVIRONMENTAL SERVICES INC.

Chain of Custody

Project Number	3648	Location	Common Stack
Client	Big Rivers Energy	Date	8/2/2011
Plant	Green Unit 1	Completed By	ML

The following samples consist of the impinger contents and a 0.1N H_2SO_4 rinse. There is also a reagent blank for the entire project included.

Analysis Requested

Page 1 of 1

ID No.	Run No.	Date	Sample Description	HCl	HF						Number of Containers	Notes
R1-26A-IMP	1		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x						1	
R1-26A-IMP	2		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x						1	
R1-26A-IMP	3		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x						1	
RB-0.1N H_2SO_4	RB		0.1N H_2SO_4 Reagent Blank	x	x						1	

Relinquished By (signature)		Relinquished By (signature)		Carrier	FedEx
(printed)	Matt Libman	(printed)		Laboratory	Airtech Env.
Date/Time	8-2-11 10 04	Date/Time		Contact	Michael Olgetree
Accepted By (signature)		Accepted By (signature)		Address / Phone	Denver, CO
(printed)		(printed)		Fax	
Date/Time		Date/Time		Date/Time	

AIRTECH Environmental Services Inc.

Airtech Environmental Services Inc.
601A Country Club Drive
Bensenville, IL 60106
Phone: (630) 860-4740, Fax: (630) 860 4745

AIRTECH ENVIRONMENTAL SERVICES INC.

Chain of Custody

Project Number	3648	Location	Inlet Unit 1A
Client	Big Rivers Energy	Date	8/2/2011
Plant	Green Unit 1	Completed By	~~James Christ~~ MC

The following samples consist of the impinger contents and a 0.1N H_2SO_4 rinse.

Analysis Requested

Page 1 of 1

ID No.	Run No.	Date	Sample Description	HCl	HF						Number of Containers	Notes
R1-26-IMP	1		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x						1	
R1-26-IMP	2		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x						1	
R1-26-IMP	3		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x						1	

Relinquished By (signature)		Relinquished By (signature)		Carrier	FedEx
(printed)	~~James Christ~~ Matt Libman	(printed)		Laboratory	Airtech Env.
Date/Time	8-2-11 10 am	Date/Time		Contact	Michael Olgetree
Accepted By (signature)		Accepted By (signature)		Address	Denver, CO
(printed)		(printed)		Phone	
Date/Time		Date/Time		Fax	
				Date/Time	

AIRTECH Environmental Services Inc.

Airtech Environmental Services Inc.
601A Country Club Drive
Bensenville, IL 60106
Phone: (630) 860-4740, Fax: (630) 860 4745

AIRTECH ENVIRONMENTAL SERVICES INC.

Chain of Custody

Project Number	3648	Location	Inlet Unit 1B
Client	Big Rivers Energy	Date	8/2/2011
Plant	Green Unit 1	Completed By	ML

The following samples consist of the impinger contents and a 0.1N H_2SO_4 rinse.

Analysis Requested

Page 1 of 1

ID No.	Run No.	Date	Sample Description	HCl	HF						Number of Containers	Notes
R1-26-IMP	1		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x						1	
R1-26-IMP	2		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x						1	
R1-26-IMP	3		Impinger Contents and 0.1N H_2SO_4 Rinse	x	x						1	

Relinquished By (signature)		Relinquished By (signature)		Carrier	FedEx
(printed)	Matt Libman	(printed)		Laboratory	Airtech Env.
Date/Time	8-2-11 1204	Date/Time		Contact	Michael Olgetree
Accepted By (signature)		Accepted By (signature)		Address / Phone	Denver, CO
(printed)		(printed)		Fax	
Date/Time		Date/Time		Date/Time	

AIRTECH Environmental Services Inc.

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