

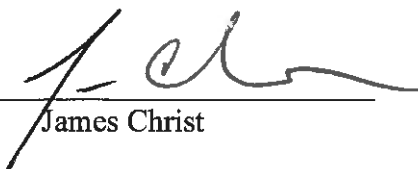
Laboratory Data



AIRTECH
*Environmental
Services Inc.*

Gravimetric Analytical Report

Performed for
Big Rivers
Henderson 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	August 5, 2011
Analytical Protocol	EPA Methods 5B/202
Number of Samples Received	24

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)	0.0366	0.0282	0.0241	
Condensable Particulate	Run 1	Run 2	Run 3	
Condensable Particulate (g)	0.0132	0.0134	0.0453	
Total Particulate	Run 1	Run 2	Run 3	
Total Particulate (g)	0.0498	0.0417	0.0693	
ESP Outlet				
Filterable PM	Run 1	Run 2	Run 3	
Front-Half Particulate (g)	2.8568	3.3679	1.8319	
Condensable Particulate	Run 1	Run 2	Run 3	
Condensable Particulate (g)	0.3160	0.0200	0.1340	
Total Particulate	Run 1	Run 2	Run 3	
Total Particulate (g)	3.1727	3.3879	1.9658	

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
<u>Filter</u>		12155	12156	12157
Filter tare weight (g)	Trial 1	0.3426	0.3444	0.3429
	Trial 2	0.3425	0.3439	0.3423
	Average	0.3426	0.3442	0.3426
Filter final weight (g)	Trial 1	0.3669	0.3681	0.3645
	Trial 2	0.3669	0.3680	0.3645
	Average	0.3669	0.3681	0.3645
Filter net weight, m_f (g)		0.0244	0.0239	0.0219
<u>PM Front Half Wash</u>		<i>Beaker ID</i> 418	211	103
Beaker tare weight (g)	Trial 1	97.2095	93.6430	86.0284
	Trial 2	97.2098	93.6432	86.0287
	Average	97.2097	93.6431	86.0286
Beaker final weight (g)	Trial 1	97.2218	93.6475	86.0306
	Trial 2	97.2220	93.6474	86.0308
	Average	97.2219	93.6475	86.0307
Volume of Wash, V_{aw} (ml)		80	100	60
Beaker net weight, m_a (g)		0.0122	0.0043	0.0022
<u>Organic Fraction</u>		<i>Weighing tin ID</i> F4	F5	F6
Weighing tin tare weight (g)	Trial 1	3.4997	3.5293	3.5165
	Trial 2	3.4992	3.5289	3.5163
	Average	3.4995	3.5291	3.5164
Weighing tin final weight (g)	Trial 1	3.5042	3.5330	3.5229
	Trial 2	3.5046	3.5335	3.5229
	Average	3.5044	3.5333	3.5229
Volume of Wash, V_{aw} (ml)		400	350	400
Weighing tin net weight, m_a (g)		0.0050	0.0041	0.0065
<u>Inorganic Fraction</u>		<i>Weighing tin ID</i> 412	214	28
Weighing tin tare weight (g)	Trial 1	105.4903	81.8326	93.4923
	Trial 2	105.4904	81.8321	93.4919
	Average	105.4904	81.8324	93.4921
Weighing tin final weight (g)	Trial 1	105.4996	81.8430	93.5323
	Trial 2	105.5000	81.8426	93.5318
	Average	105.4998	81.8428	93.5321
Volume of Wash, V_{aw} (ml)		450	600	450
Weighing tin net weight, m_a (g)		0.0094	0.0105	0.0400

Method 5B/202 Parameters		Run 1	Run 2	Run 3
<u>Filter</u>		12158	12159	12160
Filter tare weight (g)	Trial 1	0.3416	0.3446	0.3420
	Trial 2	0.3412	0.3443	0.3418
	Average	0.3414	0.3445	0.3419
Filter final weight (g)	Trial 1	0.7700	1.0687	0.7798
	Trial 2	0.7700	1.0687	0.7794
	Average	0.7700	1.0687	0.7796
Filter net weight, m_f (g)		0.4286	0.7243	0.4377
<u>PM Front Half Wash</u>		<i>Beaker ID</i> 305	304	215
Beaker tare weight (g)	Trial 1	83.9513	83.3552	94.0686
	Trial 2	83.9509	83.3552	94.0686
	Average	83.9511	83.3552	94.0686
Beaker final weight (g)	Trial 1	86.3790	85.9990	95.4627
	Trial 2	86.3795	85.9987	95.4628
	Average	86.3793	85.9989	95.4628
Volume of Wash, V_{aw} (ml)		150	50	50
Beaker net weight, m_a (g)		2.4282	2.6437	1.3942
<u>Organic Fraction</u>				
		<i>Weighing tin ID</i> F1	F2	F3
Weighing tin tare weight (g)	Trial 1	3.5121	3.5448	3.4983
	Trial 2	3.5122	3.5444	3.4981
	Average	3.5122	3.5446	3.4982
Weighing tin final weight (g)	Trial 1	3.5271	3.5517	3.5240
	Trial 2	3.5271	3.5518	3.5241
	Average	3.5271	3.5518	3.5241
Volume of Wash, V_{aw} (ml)		250	300	400
Weighing tin net weight, m_a (g)		0.0149	0.0072	0.0259
<u>Inorganic Fraction</u>				
		<i>Weighing tin ID</i> 414	406	417
Weighing tin tare weight (g)	Trial 1	97.9506	107.0761	106.3748
	Trial 2	97.9508	107.0757	106.3752
	Average	97.9507	107.0759	106.3750
Weighing tin final weight (g)	Trial 1	98.2527	107.0900	106.4845
	Trial 2	98.2531	107.0898	106.4841
	Average	98.2529	107.0899	106.4843
Volume of Wash, V_{aw} (ml)		600	600	500
Weighing tin net weight, m_a (g)		0.3022	0.0140	0.1093

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 Filter ID 12151	3648 Stack 2	Black	Tare	0.3419	7/11 13:15	0.3419	7/13 22:03		✓
			Tech		SH				
			Final	0.3440	8/11 10:39	0.3479	8/11 16:42		
			Tech		ML		ML		
			Notes						
1 Filter ID 12152	3648 Inlet 2	Black	Tare	0.3424	7/11 13:17	0.3424	7/13 22:03		✓
			Tech		SH				
			Final	0.4045	8/11 10:29	0.4050	8/11 16:41		
			Tech		ML		ML		
			Notes						
2 Filter ID 12153	3648 Inlet 2	Black	Tare	0.3417	7/11 13:18	0.3416	7/13 22:04		✓
			Tech		SH				
			Final	0.4031	8/11 10:29	0.4029	8/11 16:40		
			Tech		ML		ML		
			Notes						
3 Filter ID 12154	3648 Inlet 2	Black	Tare	0.3434	7/11 13:19	0.3433	7/13 22:04		✓
			Tech		SH				
			Final	0.7477	8/11 10:28	0.7473	8/11 16:42		
			Tech		ML		ML		
			Notes						
1 Filter ID 12155	3648 Inlet 1 Stack 1	Black	Tare	0.3426	7/11 13:21	0.3425	7/13 22:04		✓
			Tech		SH				
			Final	0.3669	8/11 10:29	0.3669	8/11 16:42		
			Tech		ML		ML		
			Notes						
2 Filter ID 12156	3648 Stack 1	Black	Tare	0.3444	7/11 13:22	0.3439	7/13 22:05		✓
			Tech		SH				
			Final	0.3601	8/11 10:27	0.3600	8/11 16:46		
			Tech		ML		ML		
			Notes						
3 Filter ID 12157	3648 Stack 1	Black	Tare	0.3429	7/11 13:24	0.3423	7/13 22:05		✓
			Tech		SH				
			Final	0.3645	8/11 10:26	0.3645	8/11 16:49		
			Tech		ML		ML		
			Notes						
1 Filter ID 12158	Inlet 3648	Black	Tare	0.3416	7/11 13:25	0.3412	7/13 22:06		✓
			Tech		SH				
			Final	0.7700	8/11 10:29	0.7700	8/11 16:40		
			Tech		ML		ML		
			Notes						
2 Filter ID 12159	3648 Inlet	Black	Tare	0.3436	7/11 13:26	0.3443	7/13 22:06		✓
			Tech		SH				
			Final	0.7698	8/11 10:26	0.7697	8/11 16:41		
			Tech		ML		ML		
			Notes		Filter Grav				

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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 Filter ID 12160	3648 Jink	Black	Tare	0.3460	7/11 13:28	0.5413	7/13 22:07			✓
			Tech		SH					
			Final	0.7792	8/11 10:25	0.7794	8/11 16:43			✓
			Tech		ML		ML			
Notes										
S Filter ID 12161	3648 Wilson ESP 7	Light Brown Spots	Tare	0.3455	7/11 13:29	0.5401	7/14 16:03			✓
			Tech		SH		DD			
			Final	0.3428	7/27 16:07	0.5423	7/28 10:00			✓
			Tech		SH		ML			
Notes										
S Filter ID 12162	3648 Wilson ESP 2	Brown Spots	Tare	0.3419	7/11 13:30	0.3416	7/14 16:04			✓
			Tech		SH		DD			
			Final	0.3472	7/27 15:54	0.3476	7/28 10:34			✓
			Tech		SH		ML			
Notes										
S Filter ID 12163	3648 Wilson Esp1	Brown Spots	Tare	0.3466	7/11 13:31	0.3463	7/14 16:05			✓
			Tech		SH		DD			
			Final	0.3727	7/27 15:40	0.3730	7/28 10:20			✓
			Tech		SH		ML			
Notes										
S Filter ID 12164	3648 W. Kon ESP 4	White Dots	Tare	0.3487	7/11 13:32	0.3483	7/14 16:00			✓
			Tech		SH		DD			
			Final	0.3480	7/27 15:30	0.3481	7/28 10:17			✓
			Tech		SH		ML			
Notes										
S Filter ID 12165	3648 Wilson Stalks	Light Spots	Tare	0.3423	7/11 13:33	0.3418	7/14 16:07			✓
			Tech		SH		DD			
			Final	0.3478	7/27 12:50	0.3478	7/28 10:26			✓
			Tech		SH		ML			
Notes										
Filter ID 12166			Tare	0.3449	7/11 13:35	0.3445	7/14 16:03			✓
			Tech		SH		DD			
			Final							
			Tech							
Notes										
Filter ID 12167			Tare	0.3463	7/11 13:34	0.3458	7/14 16:09			✓
			Tech		SH		DD			
			Final							
			Tech							
Notes										
2 Filter ID 12168	Unit 37	B Dots	Tare	0.3449	7/11 13:38	0.3442	7/14 16:00	0.3441	7/15 10:42	✓
			Tech		SH		DD			
			Final	0.4799	8/23 9:30	0.4810	8/23 10:23			
			Tech							
Notes Filter Grav										

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Beaker Gravimetric Data Sheet

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Client	Dix Rivers	Date Received	
Plant	Henderson		

Run No.	Location/Volume	Method/ Reagent	Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
1 Beaker ID 305	Unit 1 Inlet FIR 150 mls	SBK02 acetone	Tare	83.9513	8/14 8:23	83.9509	8/5 10:52		✓
			Tech				MH		
			Final	86.3990	8/11 10:01	86.3795	8/11 10:33		✓
			Tech		ML		re		
			Notes						
2 Beaker ID 304	Unit 1 Inlet FIR 50 mls	SBK02 acetone	Tare	83.3552	8/14 8:23	83.3552	8/5 10:52		✓
			Tech				MH		
			Final	85.9990	8/11 10:22	85.9797	8/11 10:34		✓
			Tech		ML		ML		
			Notes						
3 Beaker ID 215	Unit 1 Inlet FIR 50 mls	SBK02 acetone	Tare	94.0686	8/14 8:24	94.0686	8/5 10:52		✓
			Tech				MH		
			Final	95.4601	8/11 10:22	95.4623	8/11 10:37		✓
			Tech		ML		re		
			Notes						
1 Beaker ID 418	Unit 1 Stack FIR 80 mls	SBK02 acetone	Tare	97.2095	8/14 8:24	97.2098	8/5 10:51		✓
			Tech				MH		
			Final	97.2214	8/11 10:23	97.2220	8/11 10:30		✓
			Tech		ML		ML		
			Notes						
2 Beaker ID 211	Unit 1 Stack 100 mls	SBK02 acetone	Tare	93.6430	8/14 8:25	93.6432	8/5 10:51		✓
			Tech				MH		
			Final	93.6445	8/11 10:23	93.6474	8/11 10:30		✓
			Tech		ML		ML		
			Notes						
3 Beaker ID 103	Unit 1 Stack 60 mls	SBK02 acetone	Tare	86.0284	8/14 8:25	86.0287	8/5 10:50		✓
			Tech				MH		
			Final	86.0306	8/11 10:24	86.0309	8/11 10:32		✓
			Tech		ML		ML		
			Notes						
1 Beaker ID 202	Unit 2 Inlet FIR 60 mls	SBK02 acetone	Tare	95.4975	8/14 8:26	95.4990	8/5 10:50		✓
			Tech				MH		
			Final	96.9280	8/11 10:18	96.9292	8/11 10:30		✓
			Tech		ML		re		
			Notes						
2 Beaker ID 227	Unit 2 Inlet FIR 100 mls	SBK02 acetone	Tare	84.7008	8/14 8:26	84.7011	8/5 10:49		✓
			Tech				MH		
			Final	86.5241	8/11 10:18	86.5244	8/11 10:32		✓
			Tech		ML		ML		
			Notes						

AIRTECH ENVIRONMENTAL SERVICES INC.

Beaker Gravimetric Data Sheet

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Client	<u>Big Rivers</u>	Date Received	
Plant	<u>Henderson</u>		

Run No.	Location/Volume	Method/ Reagent	Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good	
3	Unit 2 Inlet Fik 100 mls	SDBKZ acetate	Tare	81.6596	7/27 13:55	81.6591	7/28 11:06	81.6591	8/1 11:33	✓
			Tech				MH		MH	
			Final	83.5205	8/11 10:19	83.5205	8/11 16:31			✓
			Tech	83.5205			MH			
Beaker ID	315									
1	Unit 2 Stack Fik 100 mls	SDBKZ acetate	Tare	101.6395	7/27 12:56	101.6370	7/28 11:07	101.6370	8/1 11:34	✓
			Tech				MH		MH	
			Final	101.6423	8/11 10:20	101.6406	8/11 16:37			✓
			Tech				MH			
Beaker ID	466									
2	Unit 2 Stack Fik 75 mls	SDBKZ acetate	Tare	104.9457	7/27 13:57	104.9443	7/28 11:07	104.9447	8/1 11:34	✓
			Tech				MH		MH	
			Final	104.9475	8/11 10:24	104.9445	8/11 16:36			✓
			Tech				MH			
Beaker ID	414									
3	Unit 2 Stack Fik 50 mls	SDBKZ acetate	Tare	106.6829	7/27 13:58	106.6819	7/28 11:08	106.6817	8/1 11:34	✓
			Tech				MH		MH	
			Final	106.6852	8/11 10:25	106.6856	8/11 16:35			✓
			Tech				MH			
Beaker ID	403									
1	Unit 1 Inlet Bk Ingress DI H2O 600 mls	SDBKZ DI H2O	Tare	97.9517	7/27 12:59	97.9506	7/28 11:08	97.9508	8/1 11:34	✓
			Tech				MH		MH	
			Final	98.2529	8/11 13:53	98.2531	8/12 10:15			✓
			Tech				MH			
Beaker ID	414									
2	Unit 1 Inlet Bk Ingress DI H2O 600 mls	SDBKZ DI H2O	Tare	107.0761	7/27 14:00	107.0757	7/28 11:09			✓
			Tech				MH			
			Final	107.0700	8/11 13:58	107.0698	8/12 10:46			✓
			Tech				MH			
Beaker ID	400									
3	Unit Inlet Bk Ingress DI H2O 500 mls	SDBKZ DI H2O	Tare	106.3741	7/27 14:01	106.3718	7/28 11:10	106.3752	8/1 11:36	✓
			Tech				MH		MH	
			Final	106.4845	8/12 11:03	106.4841	8/15 0:39			✓
			Tech				MH			
Beaker ID	417									
1	Stack 1 Bk Ingress DI H2O 450 mls	SDBKZ DI H2O	Tare	105.4911	7/27 14:02	105.4903	7/28 11:10	105.4904	8/1 11:37	✓
			Tech				MH		MH	
			Final	105.4416	8/11 13:59	105.5000	8/12 10:52			✓
			Tech				MH			
Beaker ID	412									

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Beaker Gravimetric Data Sheet

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Client	<u>Big Rivers</u>	Date Received	
Plant	<u>Henderson</u>		

Run No.	Location/Volume	Method/ Reagent	Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good	
2	Stack 1 Bike Inorganic	Sbhor DI H ₂ O	Tare	81.9326	8/4 8:19	81.8521	8/5 10:57		✓	
			Tech				MH			
214	600 mls		Final	81.9419	8/11 14:00	81.8430	8/12 10:55	81.8424	8/15 5:41	✓
			Tech				MH		1	
Notes										

Run No.	Location/Volume	Method/ Reagent	Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good	
3	Stack 1 Bike Inorganic	Sbhor DI H ₂ O	Tare	93.4923	8/4 8:19	93.4919	8/5 10:57		✓	
			Tech				MH			
28	450 mls		Final	93.5306	8/11 14:01	93.5323	8/12 10:53	93.5318	8/15 5:42	✓
			Tech				MH		1	
Notes										

Run No.	Location/Volume	Method/ Reagent	Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good	
1	Unit 2 Inlet Bike Inorganic	Sbhor DI H ₂ O	Tare	87.0005	8/4 8:20	86.9996	8/5 10:56	87.0006	8/9 11:12	✓
			Tech				MH			
101	450 mls		Final	87.0135	8/11 13:59	87.0140	8/12 10:48		✓	
			Tech				MH			
Notes										

Run No.	Location/Volume	Method/ Reagent	Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
2	Unit 2 Inlet Bike Inorganic	Sbhor DI H ₂ O	Tare	85.5123	8/4 8:20	85.5123	8/5 10:56		✓
			Tech				MH		
142	450 mls		Final	85.5224	8/11 13:59	85.5229	8/12 10:50		✓
			Tech				MH		
Notes									

Run No.	Location/Volume	Method/ Reagent	Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
3	Unit 2 Inlet Bike Inorganic	Sbhor DI H ₂ O	Tare	88.0000	8/4 8:21	88.0001	8/5 10:55		✓
			Tech				MH		
100	450 mls		Final	88.0132	8/11 14:01	88.0127	8/12 10:43		✓
			Tech				MH		
Notes									

Run No.	Location/Volume	Method/ Reagent	Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
1	Stack 2 Bike Inorganic	Sbhor DI H ₂ O	Tare	83.1722	8/4 8:21	83.1727	8/5 10:55		✓
			Tech				MH		
150	500 mls		Final	83.1946	8/11 14:01	83.1949	8/12 10:47		✓
			Tech				MH		
Notes									

Run No.	Location/Volume	Method/ Reagent	Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
2	Stack 2 Bike Inorganic	Sbhor DI H ₂ O	Tare	96.5680	8/4 8:22	96.5680	8/5 10:54		✓
			Tech				MH		
213	450 mls		Final	96.5872	8/11 14:02	96.5874	8/12 10:54		✓
			Tech				MH		
Notes									

Run No.	Location/Volume	Method/ Reagent	Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good
3	Stack 2 Bike Inorganic	Sbhor DI H ₂ O	Tare	98.6632	8/4 8:22	98.6637	8/5 10:54		✓
			Tech				MH		
3	450 mls		Final	98.7071	8/11 14:00	98.7074	8/12 10:54		✓
			Tech				MH		
Notes									

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Client	Big Rivers	Date Received	
Plant	Hobbs		

Run No.	Location/Volume	Method/ Reagent	Weight	Date / Time	Weight	Date / Time	Weight	Date / Time	Good	
1 Beaker ID F1	Unit 1 Inlet Bike organic 250 mls	500cc acetone/Hexane	Tare	3.5132	8/4 8:15	3.5121	8/5 13:03	3.5122	8/9 11:11	✓
			Tech							
			Final	3.5271	8/11 13:58	3.5271	8/12 9:16			✓
			Tech		ML		ML			
Notes										
2 Beaker ID F2	Unit 1 Inlet Bike organic 300 mls	500cc acetone/Hexane	Tare	3.5465	8/4 8:14	3.5448	8/5 13:02	3.5444	8/9 11:11	✓
			Tech							
			Final	3.5517	8/11 13:55	3.5514	8/12 9:13			✓
			Tech		ML		ML			
Notes										
3 Beaker ID F3	Unit 1 Inlet Bike organic 400 mls	500cc acetone/Hexane	Tare	3.4983	8/4 8:14	3.4981	8/5 13:02			✓
			Tech							
			Final	3.5240	8/11 13:52	3.5241	8/12 10:57			✓
			Tech		ML		ML			
Notes										
1 Beaker ID F4	Stack 1 Bike organic 400 mls	500cc acetone/Hexane	Tare	3.4997	8/4 8:13	3.4992	8/5 13:01			✓
			Tech							
			Final	3.5042	8/11 13:52	3.5046	8/12 10:59			✓
			Tech		ML		ML			
Notes										
2 Beaker ID F5	Stack 1 Bike organic 350 mls	500cc acetone/Hexane	Tare	3.5293	8/4 8:13	3.5289	8/5 13:01			✓
			Tech							
			Final	3.5320	8/11 13:52	3.5335	8/12 10:00			✓
			Tech		ML		ML			
Notes										
3 Beaker ID F6	Stack 1 Bike organic 400 mls	500cc acetone/Hexane	Tare	3.5165	8/4 8:12	3.5163	8/5 13:00			✓
			Tech							
			Final	3.5209	8/11 13:55	3.5209	8/12 9:16			✓
			Tech		ML		ML			
Notes										
1 Beaker ID F7	Unit 2 Inlet Bike organic 450 mls	500cc acetone/Hexane	Tare	3.5411	8/4 8:11	3.5418	8/5 13:00			✓
			Tech	3.5422						
			Final	3.5572	8/11 13:55	3.5589	8/12 10:57			✓
			Tech		ML		ML			
Notes										
2 Beaker ID F8	Unit 2 Inlet Bike organic 500 mls	500cc acetone/Hexane	Tare	3.4882	8/4 8:11	3.4881	8/5 13:00			✓
			Tech							
			Final	3.4994	8/11 13:55	3.5009	8/12 10:59	3.5005	8/15 5:40	✓
			Tech		ML		ML			
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	TL	99.9999	4.9999	0.1001	29.3	47	68	
4/26/11	NR	99.9999	5.0000	0.1000	29.9	60	70	
4/27/11	NR	100.0001	5.0000	0.1001	28.9	60	70	
4/29/11	NR	100.0000	5.0000	0.1001	29.2	55	70	
4/29/11	NR	100.0000	5.0000	0.0999	29.4	50	70	
4/29/11	NR	100.0001	5.0000	0.1000	29.4	50	68	
5/2/11	TL	100.0000	5.0000	0.1000	29.5	48	70	
5/3/11	TL	99.9999	4.9999	0.0999	29.6	46	68	
5/4/11	TL	99.9998	5.0000	0.1000	29.8	45	68	
5/5/11	TL	100.0000	5.0000	0.1001	29.5	46	70	
5/6/11	TL	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	100.0000	4.9999	0.1000	29.4	45	70	
5/15/11	NR	100.0000	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	29.2	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	TL	99.9999	4.9999	0.0999	28.9	47	74	
5/26/11	TL	100.0001	4.9999	0.1000	29.1	48	70	
5/31/11	TL	100.0000	5.0000	0.1000	29.4	45	73	
6/1/11	TL	100.0000	4.9999	0.0998	29.6	48	74	
6/2/11	TL	100.0000	5.0000	0.0999	29.6	44	72	
6/6/11	TL	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	100.0000	5.0000	0.1001	29.4	50	71	
6/10/11	NR	100.0001	5.0000	0.0999	29.5	50	68	
6/13/11	TL	100.0000	4.9999	0.0999	29.6	44	64	
6/16/11	EA	100.0000	5.0001	0.1000	29.2	60	68	
6/22/11	TL	100.0000	5.0001	0.1001	28.9	48	65	
6/24/11	RW	100.0001	5.0000	0.1000	29.10	64	68	
6/27/11	TL	100.0000	4.9999	0.0999	29.2	68.50	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	TL	100.0000	5.0000	0.1000	29.4	48	70	
7/8/11	TL	100.0001	4.9999	0.1000	29.4	47	70	
7/11/11	TL	99.9999	5.0001	0.1001	29.2	47	70	
7/12/11	TL	100.0000	5.0000	0.1000	29.4	48	65	
7/13/11	TL	100.0000	4.9999	0.0999	29.3	42	66	
7/15/11	TL	100.0000	4.9999	0.0999	29.3	61	70	

AIRTECH ENVIRONMENTAL SERVICES INC.
Analytical Balance Daily Calibration

Scale ID	Ohaus AV114C
Units of Measure	grams

Full Cal Test Date	4/13/10
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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	65	
8/2/11	MH	100.0000	0.1000	5.0000	29.34	70	60	
8/3/11	TL	99.9999	0.1001	4.9999	29.7	61	68	
8/4/11	TL	99.9999	0.0999	5.0000	29.5	60	68	
8/5/11	TL	100.0000	0.1000	5.0000	29.4	46	68	
8/8/11	MH	100.0000	0.1000	5.0001	29.25	60	70	
8/9/11	TL	100.0000	0.1000	5.0001	29.1	50	68	
8/11/11	TL	99.9999	0.1000	4.9999	29.4	50	74	
8/12/11	MH				29.44	50	74	
8/15/11	TL	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	TL	99.9999	0.1000	5.0000	29.4	51	72	
8/23/11	TL	100.0000	0.0999	5.0001	29.4	44	60	
8/24/11	TL	100.0001	0.1000	5.0000	29.1	52	70	



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

TEST & CALIBRATION CERTIFICATE

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

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

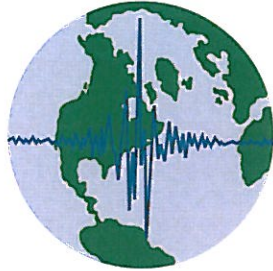
Client Name & Address <i>AIC Tech 601 A Country Club Bensenville</i>	Location (Plant and / or Dept.) <i>L9D</i>	Procedure used: 5.4-02 Process Control
Manufacturer <i>AVIHC</i>	Serial # <i>8028031056</i>	Uncertainty of measurement (UM) Yes [] No [X]
Platform: <i>NA</i>	Capacity X Grad. <i>110g x .0001</i>	Temperature Yes [X] No []
Inspection Cycle: <i>365 day</i>	Equipment ID: <i>NA</i>	Identified metrological reference: NIST Handbook 44
Contact: <i>Jim C</i>		

Indicator	1	C	2
Scale Platform Corner Test	A	See Shift Test	B
Parallelogram Side/Front Test	3	D	4

Date	Client Tolerance (%, I) %	As Found / Left Shift Test		As Found		As Left		Pass/Fail	UM	Temp. F°	Tech	Traceable
		A	B	Zero	AMT 1	AMT 2	AMT 1					
4-13-10	F 50.0000 L 50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	P	NA	74	1	# 1538014 ID ASTM 01
4-12-11	F 50.0000 L 50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	P	NA	74	BR	# 1538014 ID ASTM 01
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Comments:

Full compliance statements are the property of Automated Scale Corp. based on data from measurements made, procedure utilized, environmental conditions, and the uncertainty associated with their calibration. It is the responsibility of the user of this equipment to determine if the results identified meet specific requirements for the intended application. Approximate uncertainty (as applicable) is expressed as a confidence level of approximately 95% with a coverage factor of 1.96.
Form: 5.4.02 L-A-B Accredited Process Control Certificate 3/2/10



AIRTECH
*Environmental
Services Inc.*

Ion Chromatography Analytical Report

Performed for
Big Rivers Energy
Henderson
Unit 1
*Project No. 3648
August 29, 2011*

Analyst: _____

Michael Ogletree

Reviewer: _____

Timothy Wojtach

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APPENDIX

<i>Results</i>	
<i>Calibration Data</i>	
<i>Raw Data</i>	
<i>Chain of Custody</i>	

Project Summary

General

Project Information	
Date Received	8/17/2011
Analytical Protocol	EPA Method 26A
Total Number of Samples Received	6
Total Number of Blanks Received	0

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)
H1 ESP Inlet 1 Run 1	0.1 N H ₂ SO ₄	512
H1 ESP Inlet 1 Run 2	0.1 N H ₂ SO ₄	453
H1 ESP Inlet 1 Run 3	0.1 N H ₂ SO ₄	485
H1 Stack Run 1	0.1 N H ₂ SO ₄	476
H1 Stack Run 2	0.1 N H ₂ SO ₄	559
H1 Stack Run 3	0.1 N H ₂ SO ₄	533

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 H₂SO₄.

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 reasonable range of the calibration curve.

Diluted samples include: H1 ESP Inlet 1 Runs 1-3.

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	H1 ESP Inlet 1 Run 1	H1 ESP Inlet 1 Run 2	H1 ESP Inlet 1 Run 3
Volume (ml)	512	453	485
Dilution factor	50	50	60
Peak Area # 1	0.2508	0.2514	0.1860
Peak Area # 2	0.2471	0.2555	0.1846
Average	0.249	0.253	0.186
Injections % of mean	0.7%	0.8%	0.9%

RESULTS

Average Response Factor			
Linear Regression	x	x	x
Fluoride (µg/ml)	101	102	97.3
Hydrogen Fluoride (µg/ml)	106	108	103
Hydrogen Fluoride (mg)	54.5	48.9	49.7

HYDROGEN CHLORIDE ANALYSIS

Sample Parameters	H1 ESP Inlet 1 Run 1	H1 ESP Inlet 1 Run 2	H1 ESP Inlet 1 Run 3
Volume (ml)	512	453	485
Dilution factor	50	50	60
Peak Area # 1	2.8094	3.0351	2.3378
Peak Area # 2	2.7567	3.0090	2.3522
Average	2.78	3.02	2.35
Injections % of mean	0.9%	0.4%	0.3%

RESULTS

Average Response Factor			
Linear Regression	x	x	x
Chloride (µg/ml)	1311	1422	1325
Hydrogen Chloride (µg/ml)	1348	1463	1363
Hydrogen Chloride (mg)	690	663	661

HYDROGEN FLUORIDE ANALYSIS

Sample Parameters	H1 Stack Run 1	H1 Stack Run 2	H1 Stack Run 3
Volume (ml)	476	559	533
Dilution factor	1	1	1
Peak Area # 1	0.0401	0.0525	0.0585
Peak Area # 2	0.0390	0.0502	0.0579
Average	0.0396	0.0514	0.0582
Injections % of mean	1.4%	2.2%	0.5%

RESULTS

Average Response Factor	x	x	x
Linear Regression			
Fluoride (µg/ml)	0.276	0.358	0.406
Hydrogen Fluoride (µg/ml)	0.291	0.377	0.428
Hydrogen Fluoride (mg)	0.138	0.211	0.228

HYDROGEN CHLORIDE ANALYSIS

Sample Parameters	H1 Stack Run 1	H1 Stack Run 2	H1 Stack Run 3
Volume (ml)	476	559	533
Dilution factor	1	1	1
Peak Area # 1	0.7572	1.1113	1.0211
Peak Area # 2	0.7546	1.0993	1.0208
Average	0.756	1.11	1.02
Injections % of mean	0.2%	0.5%	0.0%

RESULTS

Average Response Factor			
Linear Regression	x	x	x
Chloride (µg/ml)	7.15	10.4	9.64
Hydrogen Chloride (µg/ml)	7.36	10.7	9.92
Hydrogen Chloride (mg)	3.50	8.00	5.29

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	0.1463	0.6929	1.5017	3.1465
Pre Analysis Injection # 2	0.1442	0.7102	1.5262	3.1872
Average	0.145	0.702	1.51	3.17
% difference of injections	1.5%	2.4%	1.6%	1.3%
Post Analysis Injection # 1	0.1296	0.6349	1.4548	3.0279
Post Analysis Injection # 2	0.1258	0.6634	1.4515	3.0463
Average	0.128	0.649	1.45	3.04
% difference of injections	3.0%	4.3%	0.2%	0.6%
Overall Average	0.136	0.675	1.48	3.10
Pre/Post Analysis, % of mean	6.4%	3.9%	2.0%	2.1%

RESULTS

Response Factor	7.33	7.40	6.74	6.45
Average Response Factor	6.98			
Slope	6.34			
Intercept	0.441			

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	0.1137	0.5381	1.0414	2.1477
Pre Analysis Injection # 2	0.1121	0.5390	1.0523	2.1643
Average	0.113	0.539	1.05	2.16
% difference of injections	1.4%	0.2%	1.0%	0.8%
Post Analysis Injection # 1	0.1105	0.5149	1.0327	2.1040
Post Analysis Injection # 2	0.1126	0.5216	1.0200	2.1164
Average	0.112	0.518	1.03	2.11
% difference of injections	1.9%	1.3%	1.2%	0.6%
Overall Average	0.112	0.528	1.04	2.13
Pre/Post Analysis, % of mean	0.6%	1.9%	1.0%	1.1%

RESULTS

Response Factor	8.91	9.46	9.65	9.38
Average Response Factor	9.35			
Slope	9.40			
Intercept	0.0485			

Drift Check (8/23/11)	Chloride	Fluoride
Concentration (µg/ml)	10.0	10.0
Pre Analysis Injection # 1	0.9988	1.4693
Pre Analysis Injection # 2	1.0326	1.5035
Average	1.016	1.486
% difference of injections	3.3%	2.3%

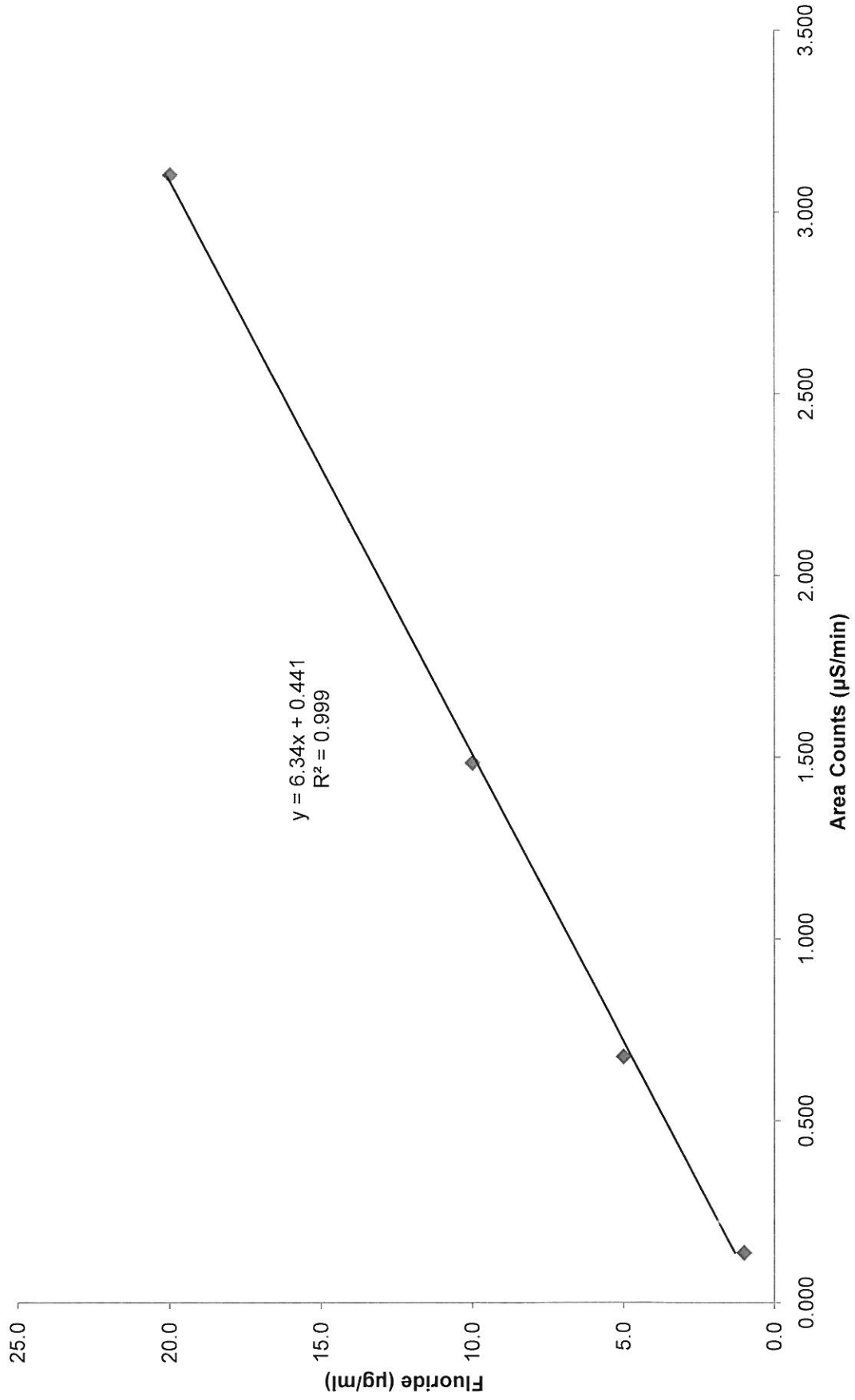
Drift Check (8/4/11)	Chloride	Fluoride
Concentration (µg/ml)	10.0	10.0
Pre Analysis Injection # 1	1.0140	1.4667
Pre Analysis Injection # 2	1.0298	1.4907
Average	1.022	1.479
% difference of injections	1.5%	1.6%

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

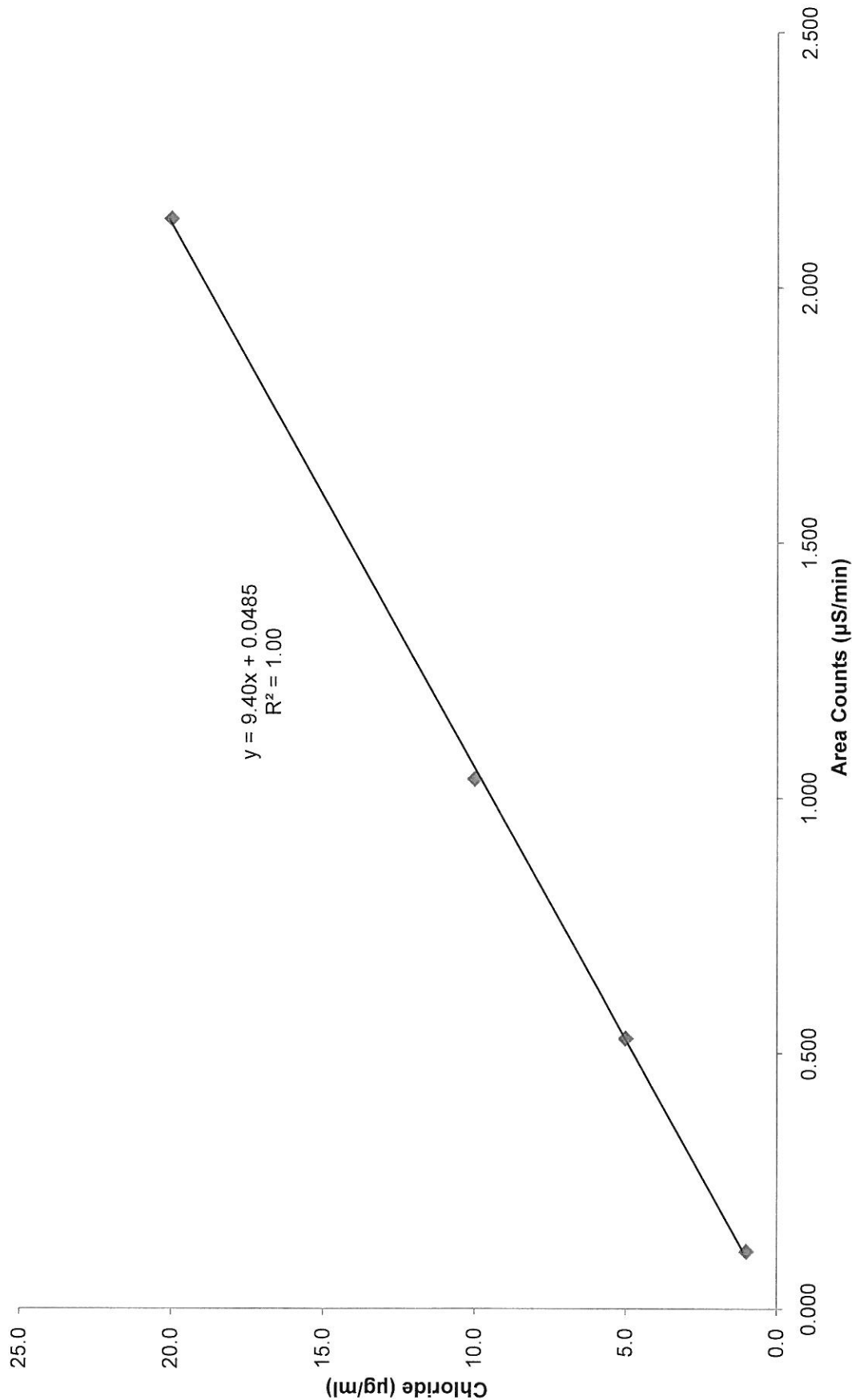
RESULTS

Response Factor	8.39	7.59
Standard Deviation	0.00215	0.00348
No of Samples (n)	7	7
Student t value ($t_{(0.975, 6)}$)	2.447	2.447
Calculated limit of detection (µg/ml)	0.0441	0.0647

Fluoride Calibration



Chloride Calibration



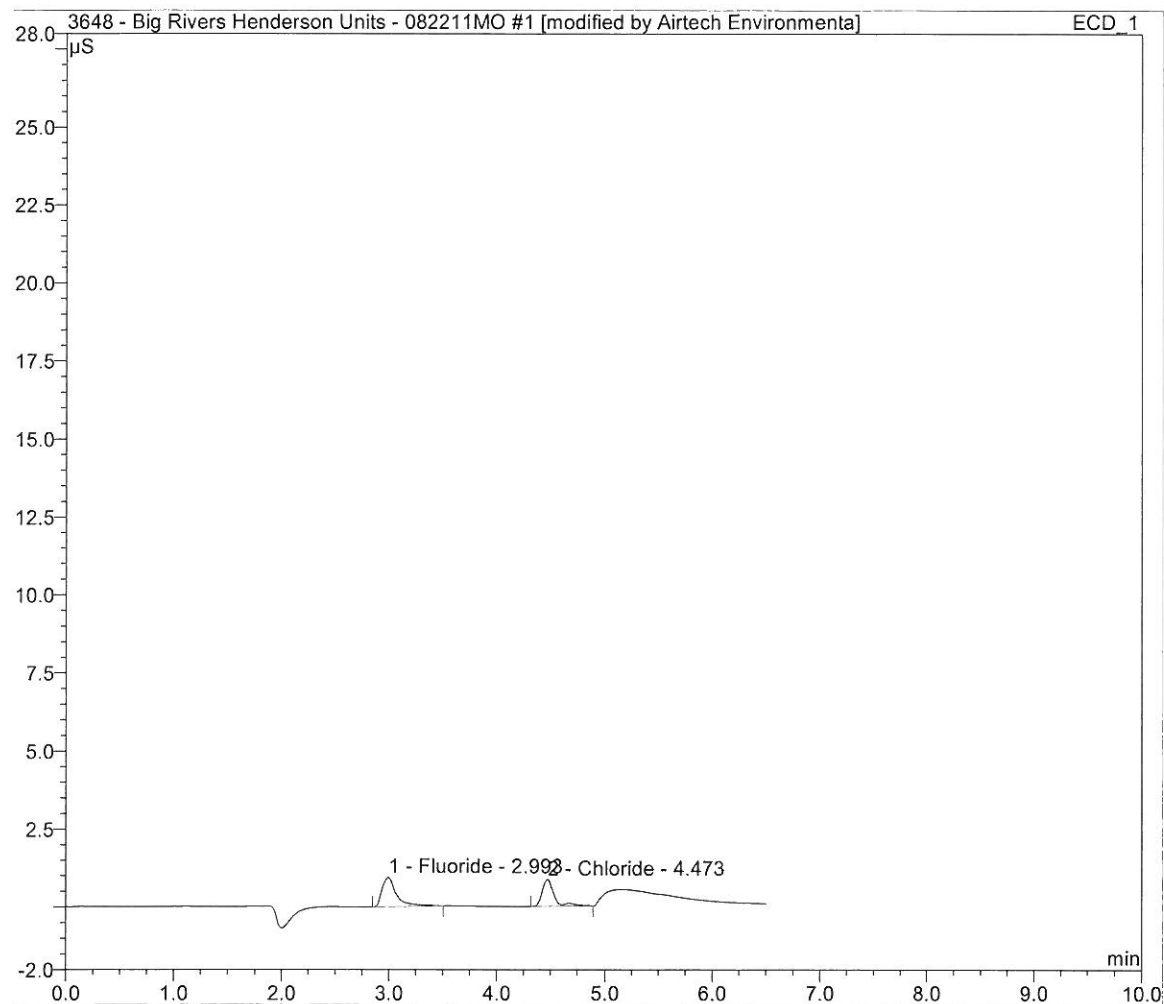
Raw Data

Includes the following:

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

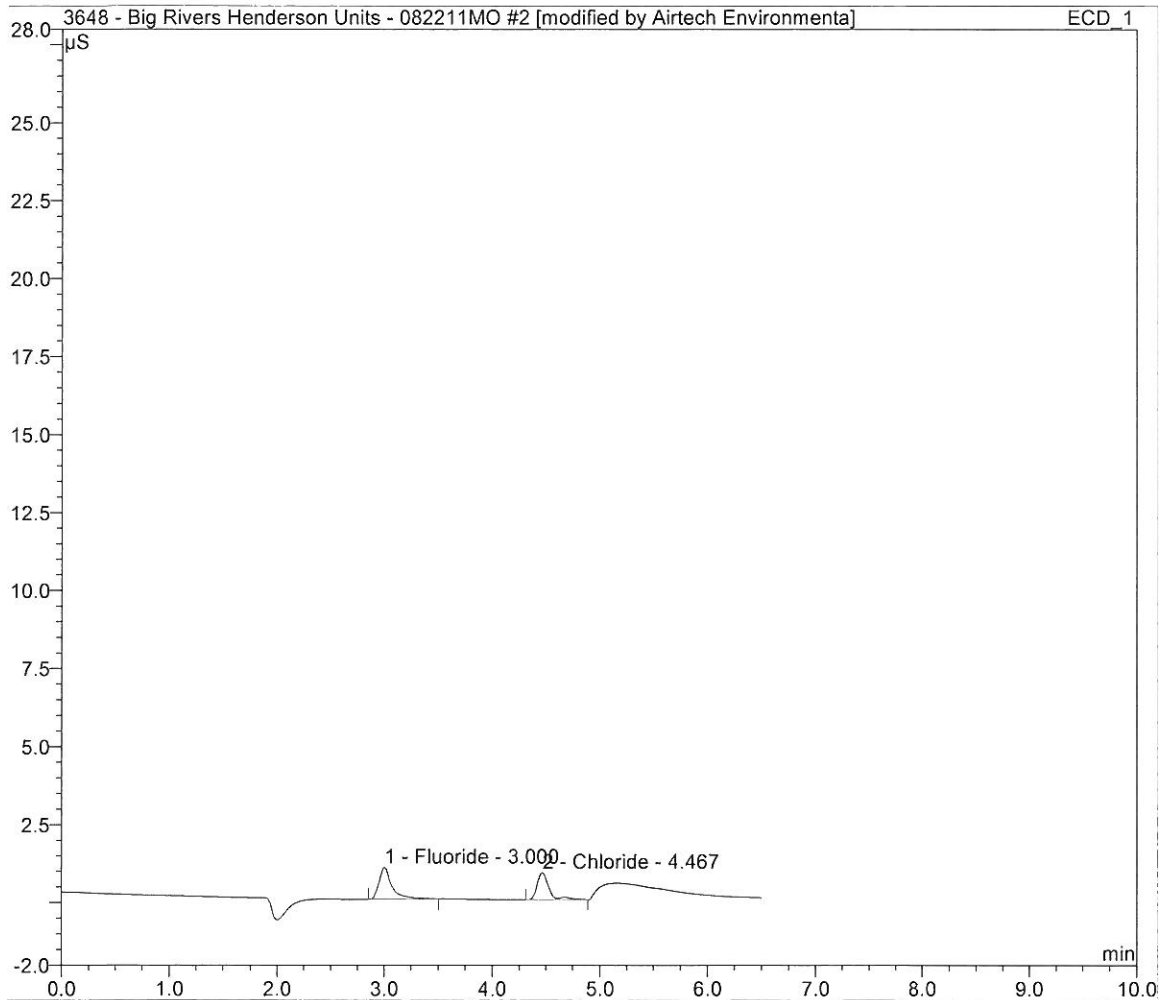
Sample Name:	cal std 1	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	22.08.11 13:15	Run Time:	6.50

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.99	Fluoride	BMB	0.146	0.945	0.1002
2	4.47	Chloride	BMB*	0.114	0.862	0.1112
TOTAL:				0.26	1.81	0.21



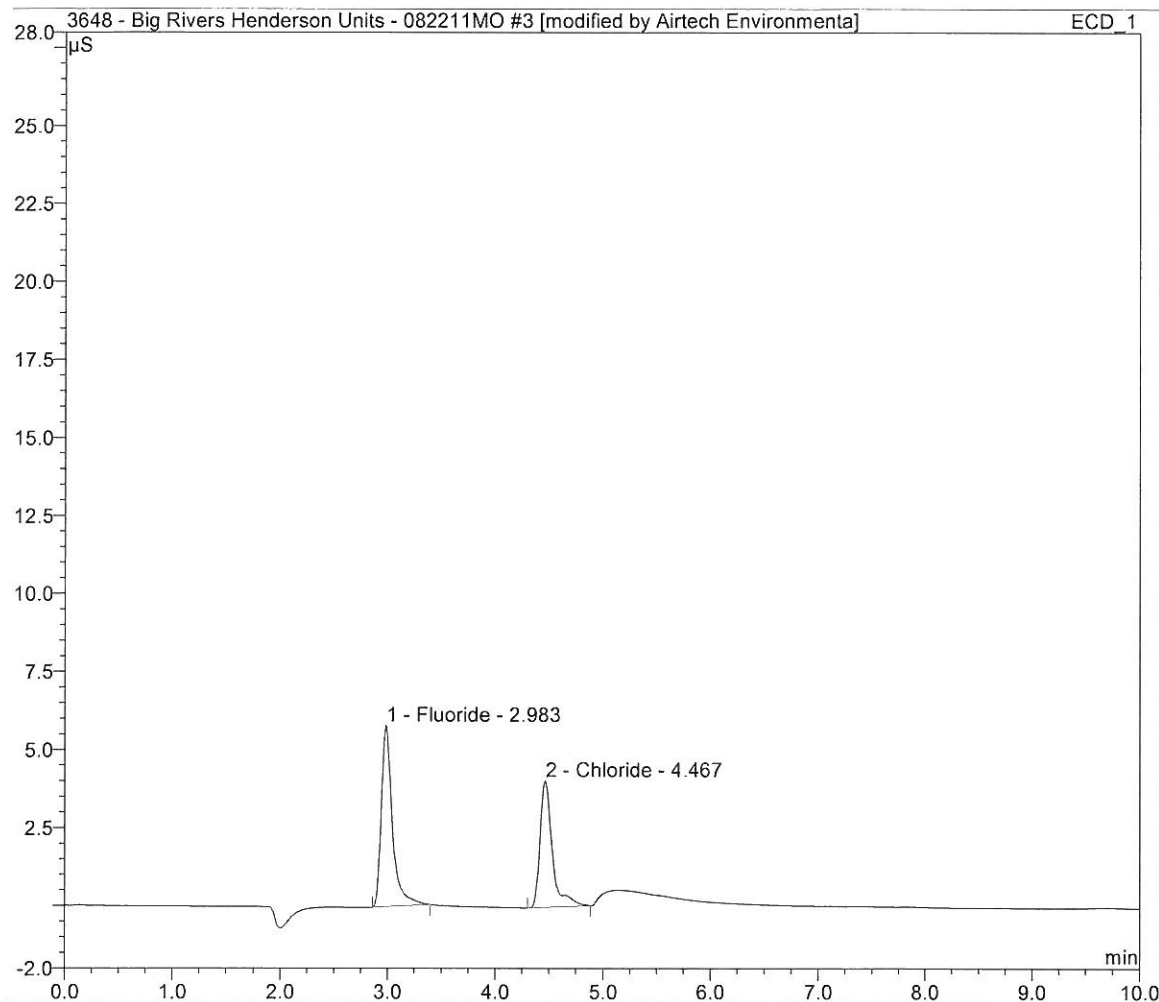
Sample Name:	cal std 1	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	22.08.11 13:22	Run Time:	6.50

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	3.00	Fluoride	BMB	0.144	1.030	0.0988
2	4.47	Chloride	BMB*	0.112	0.865	0.1096
TOTAL:				0.26	1.90	0.21



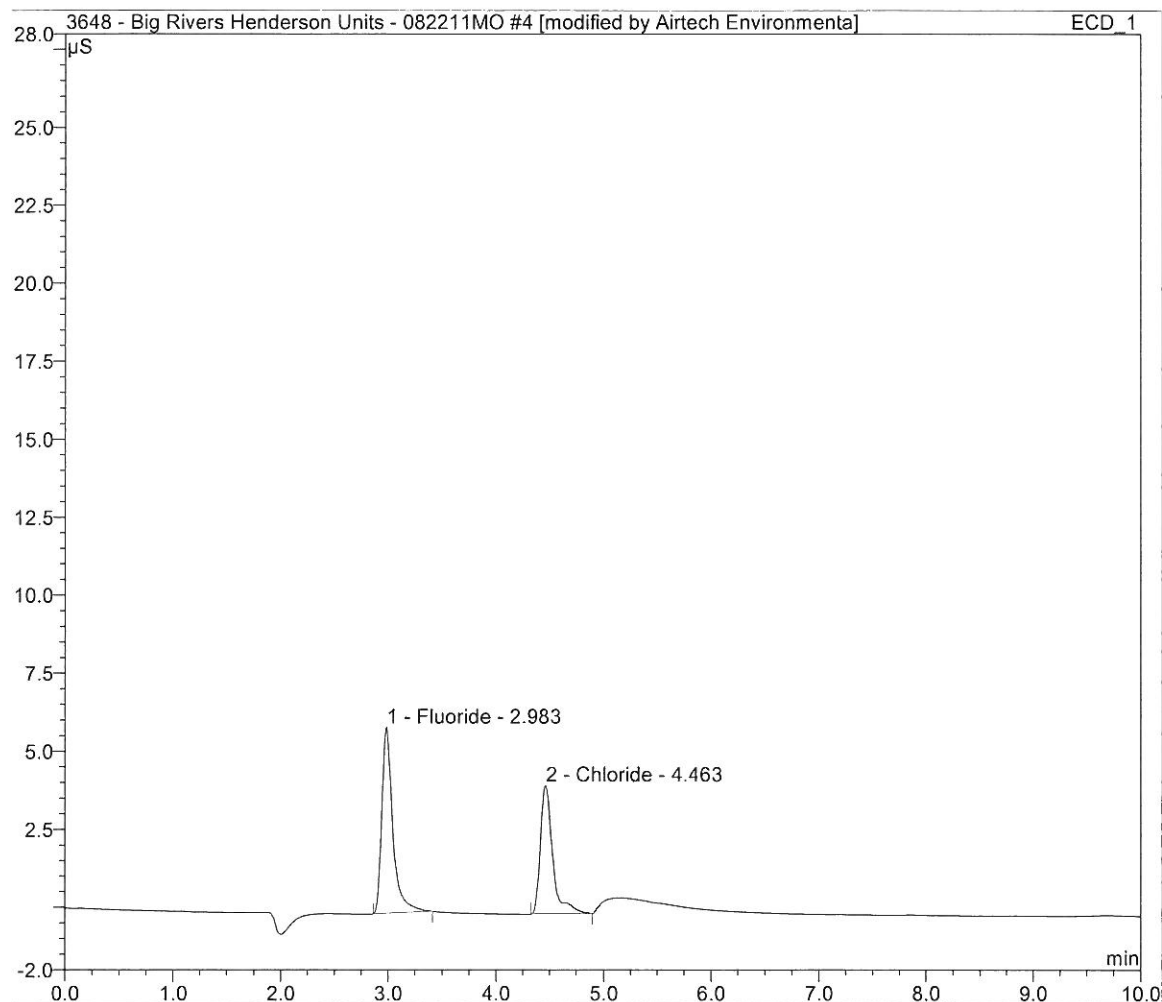
Sample Name:	cal std 2	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	22.08.11 13:38	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.98	Fluoride	BMB*	0.693	5.795	0.4745
2	4.47	Chloride	BMB	0.538	4.057	0.5263
TOTAL:				1.23	9.85	1.00



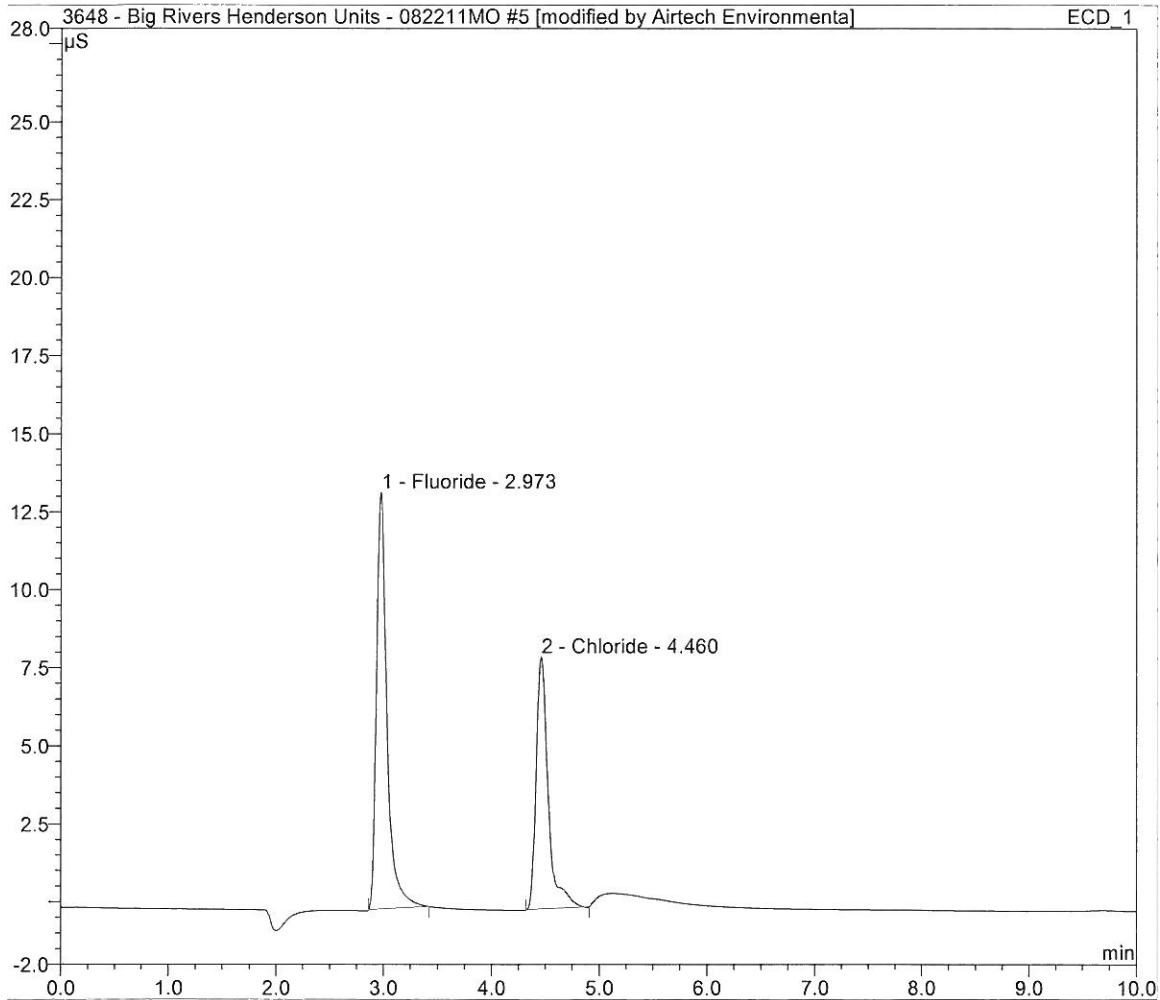
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Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	22.08.11 14:04	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.98	Fluoride	BMB*	0.710	5.955	0.4864
2	4.46	Chloride	BMB*	0.539	4.116	0.5271
TOTAL:				1.25	10.07	1.01



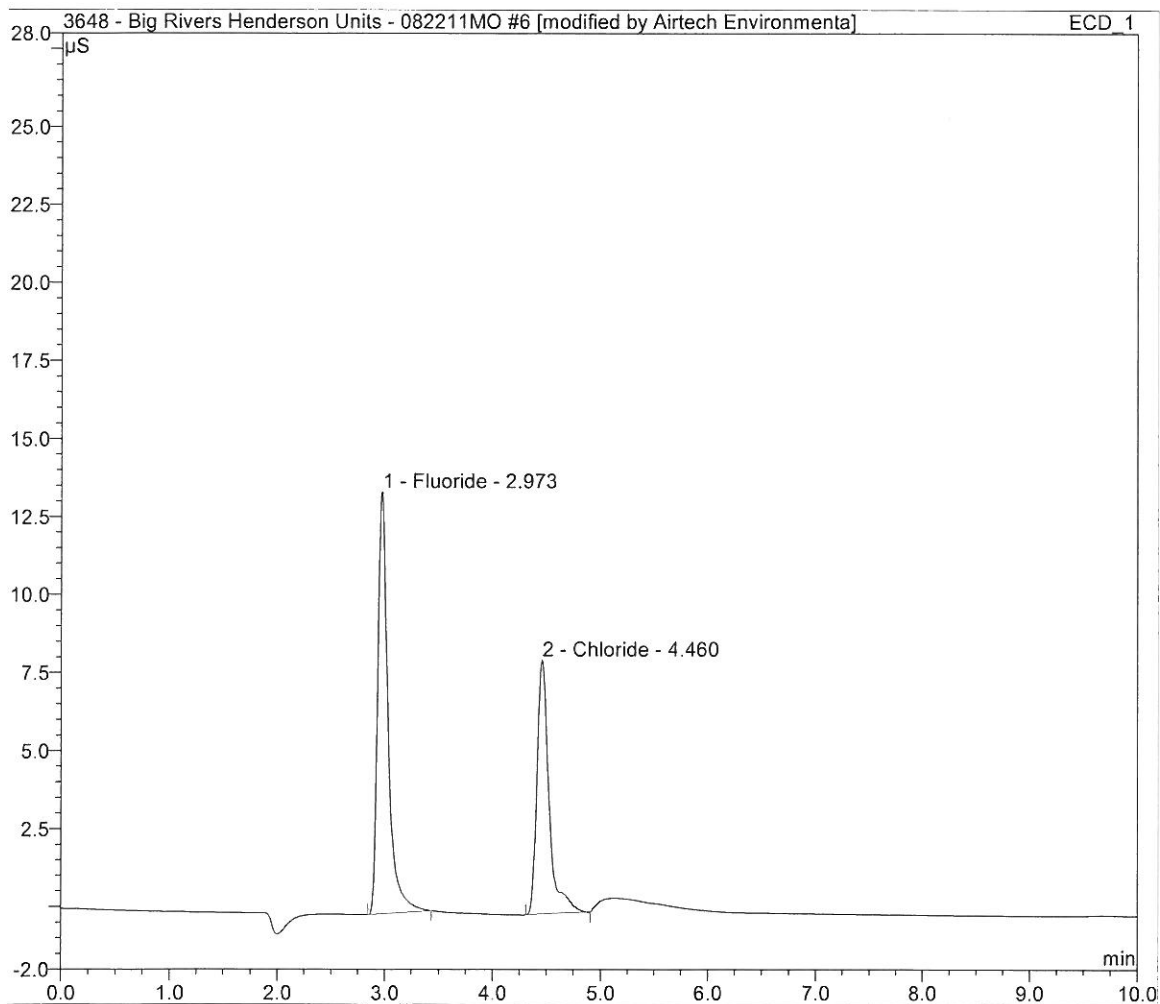
Sample Name:	cal std 3	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	22.08.11 14:19	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.97	Fluoride	BMB*	1.502	13.356	1.0284
2	4.46	Chloride	BMB*	1.041	8.068	1.0185
TOTAL:				2.54	21.42	2.05



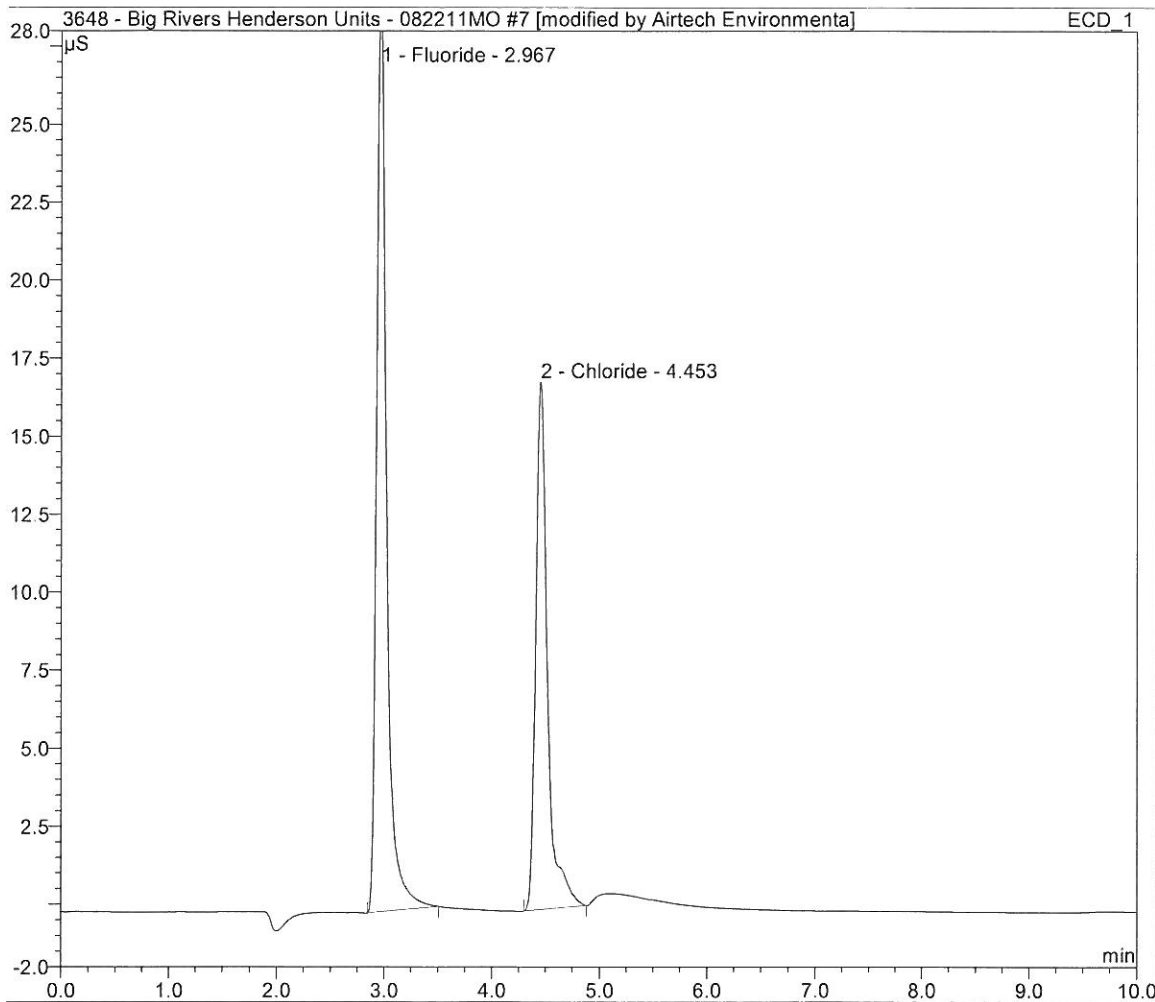
Sample Name:	cal std 3	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	22.08.11 14:36	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.97	Fluoride	BMB*	1.526	13.526	1.0451
2	4.46	Chloride	BMB*	1.052	8.126	1.0292
TOTAL:				2.58	21.65	2.07



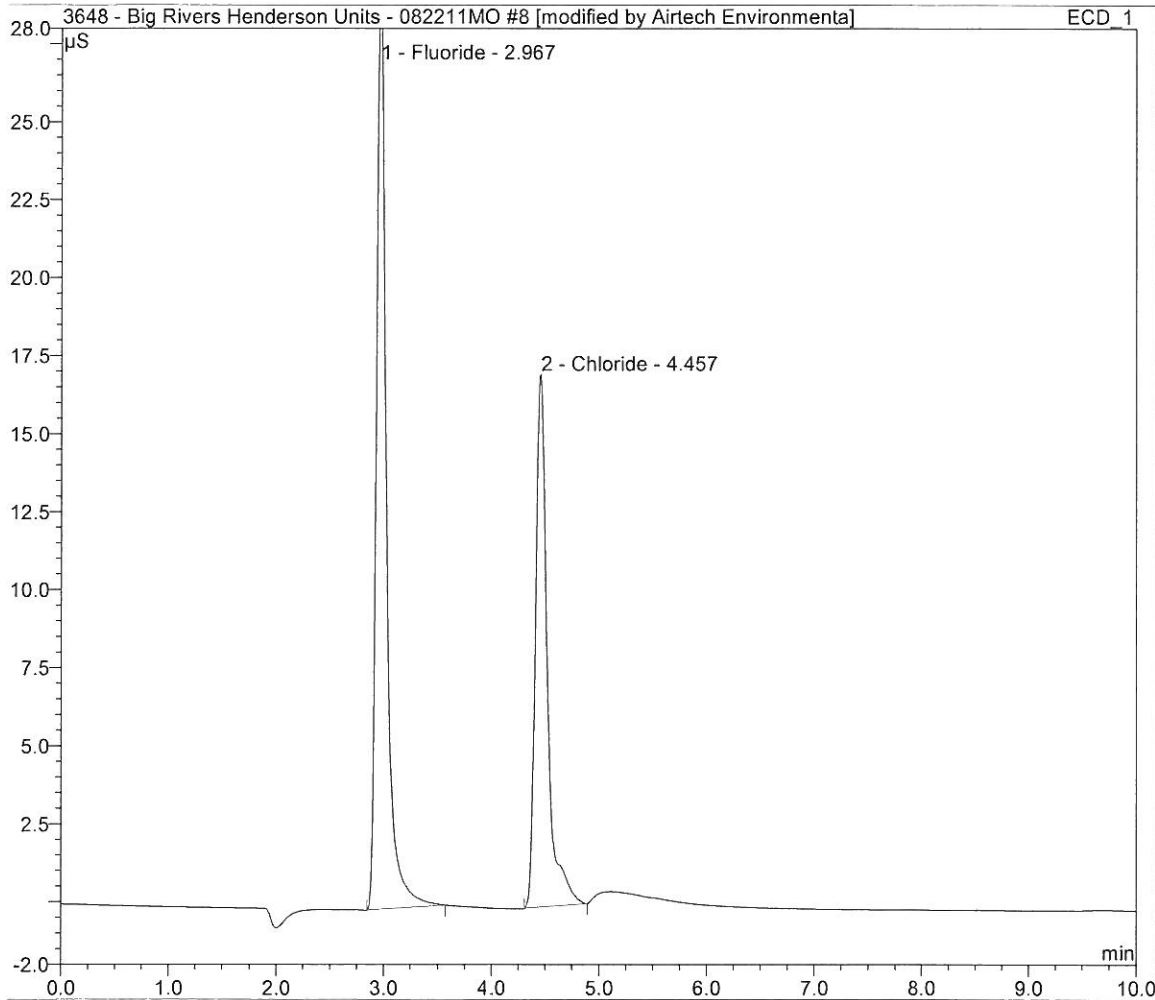
Sample Name:	cal std 4	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	22.08.11 14:51	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.97	Fluoride	BMB*	3.147	29.547	2.1547
2	4.45	Chloride	BMB*	2.148	16.901	2.1005
TOTAL:				5.29	46.45	4.26



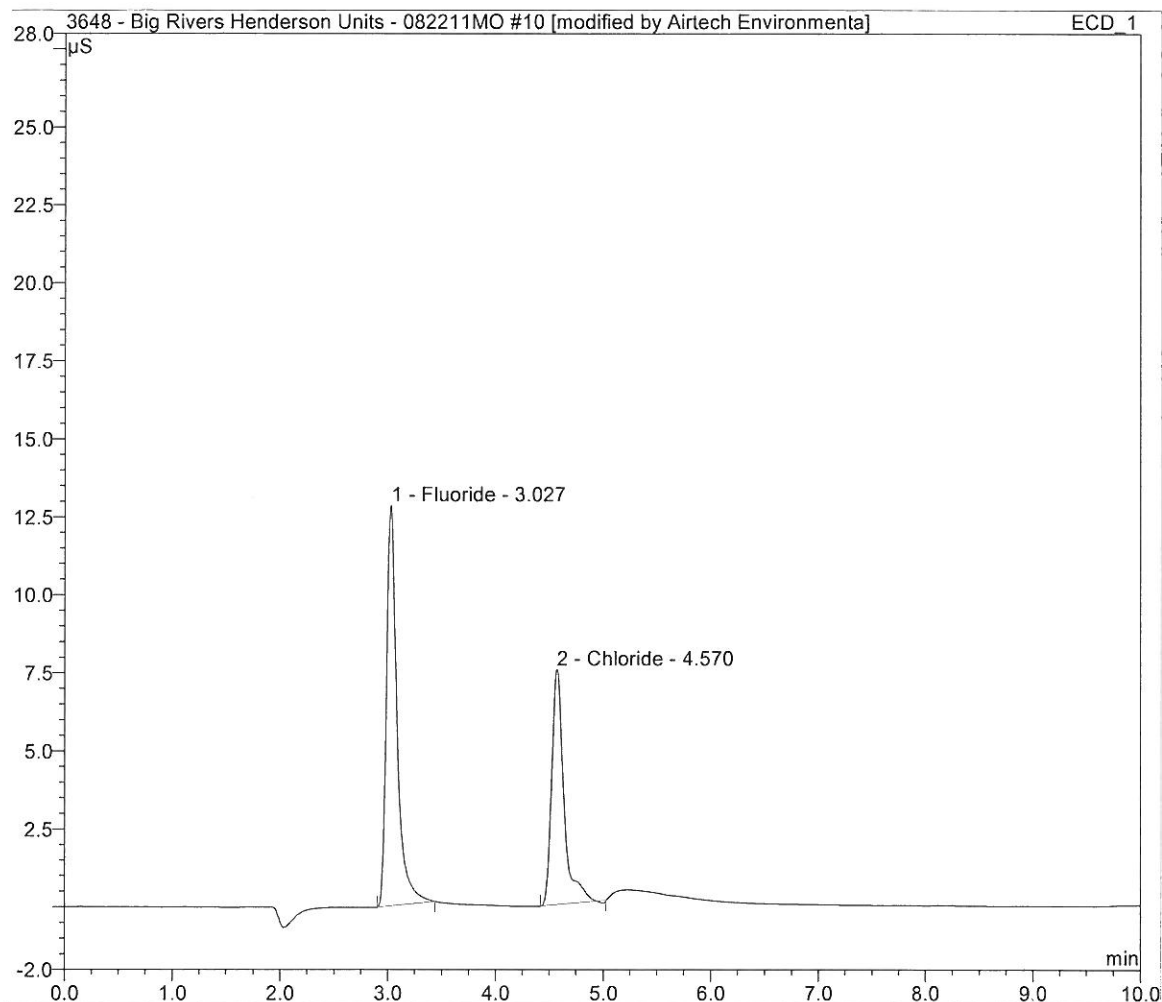
Sample Name:	cal std 4	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	22.08.11 15:11	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.97	Fluoride	BMB*	3.187	29.864	2.1826
2	4.46	Chloride	BMB*	2.164	17.068	2.1167
TOTAL:				5.35	46.93	4.30



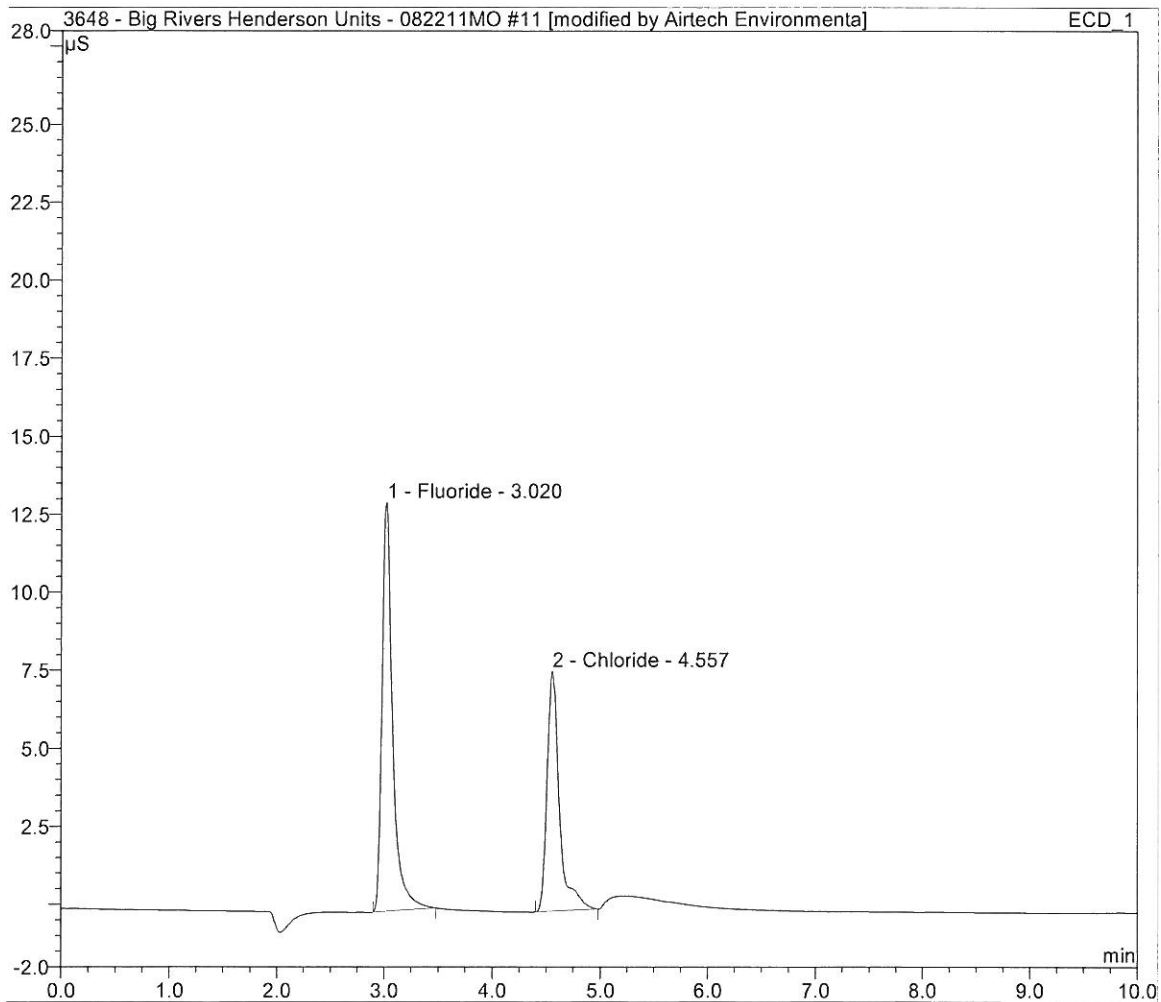
Sample Name:	cal std 3	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	23.08.11 10:31	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	3.03	Fluoride	BMB*	1.469	12.842	1.0062
2	4.57	Chloride	BMB*	0.999	7.536	0.9769
TOTAL:				2.47	20.38	1.98



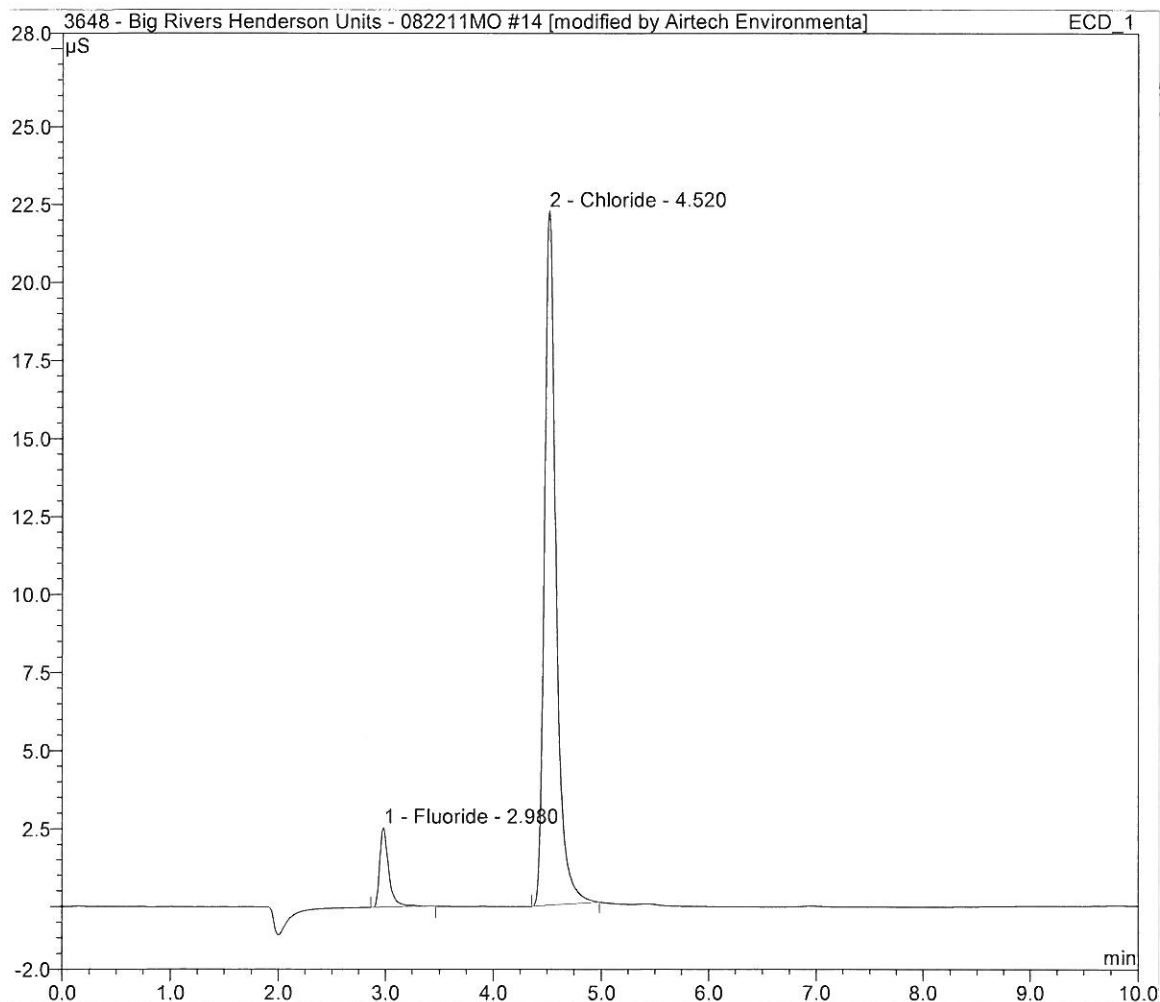
Sample Name:	cal std 3	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	23.08.11 10:46	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	3.02	Fluoride	BMB*	1.504	13.117	1.0296
2	4.56	Chloride	BMB*	1.033	7.698	1.0099
TOTAL:				2.54	20.82	2.04



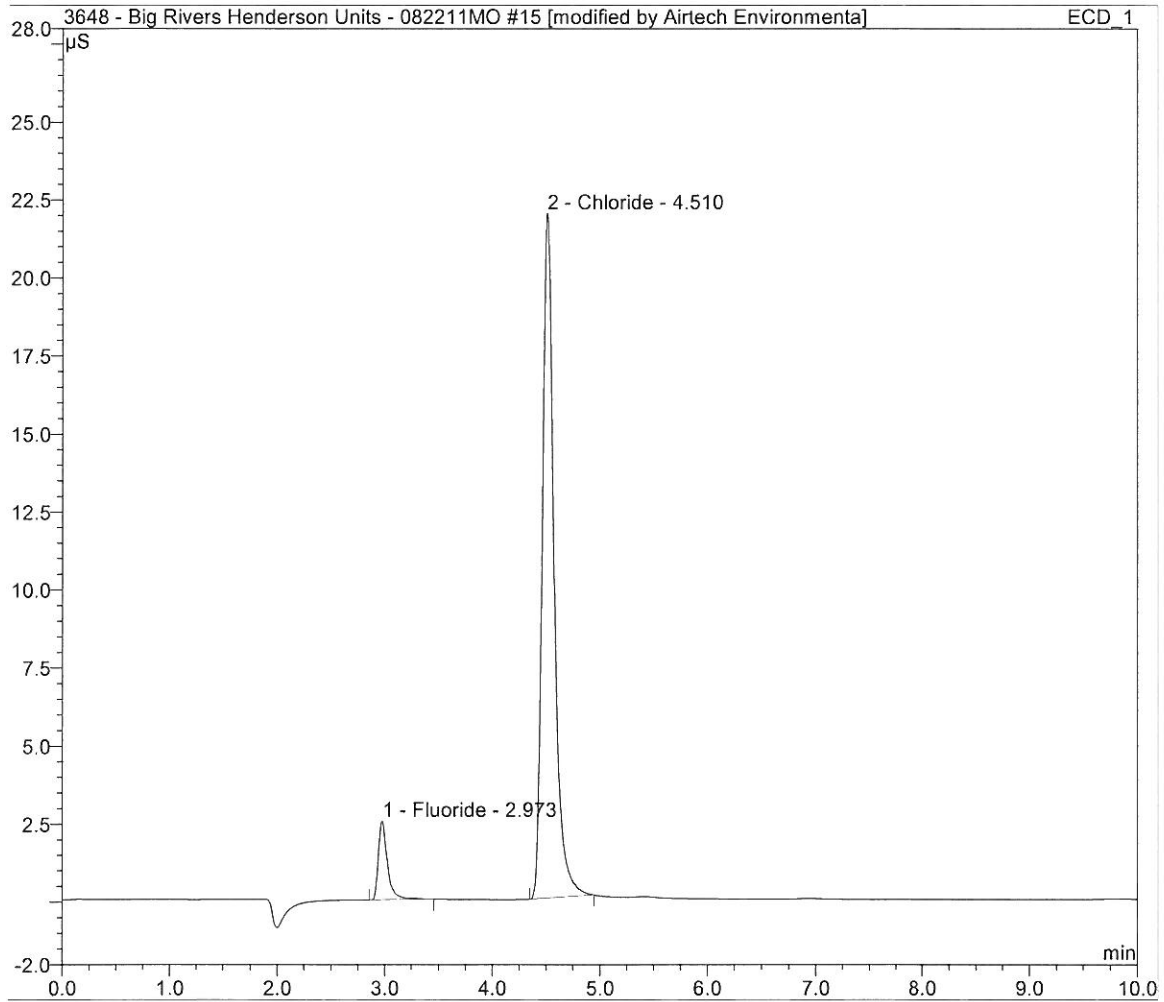
Sample Name:	Unit 1 ESP Inlet 1 - Run 1 x 50 dilution	Inj. Vol.:	10.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	23.08.11 11:45	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.98	Fluoride	BMB	0.251	2.565	0.1718
2	4.52	Chloride	BMB*	2.809	22.260	2.7477
TOTAL:				3.06	24.82	2.92



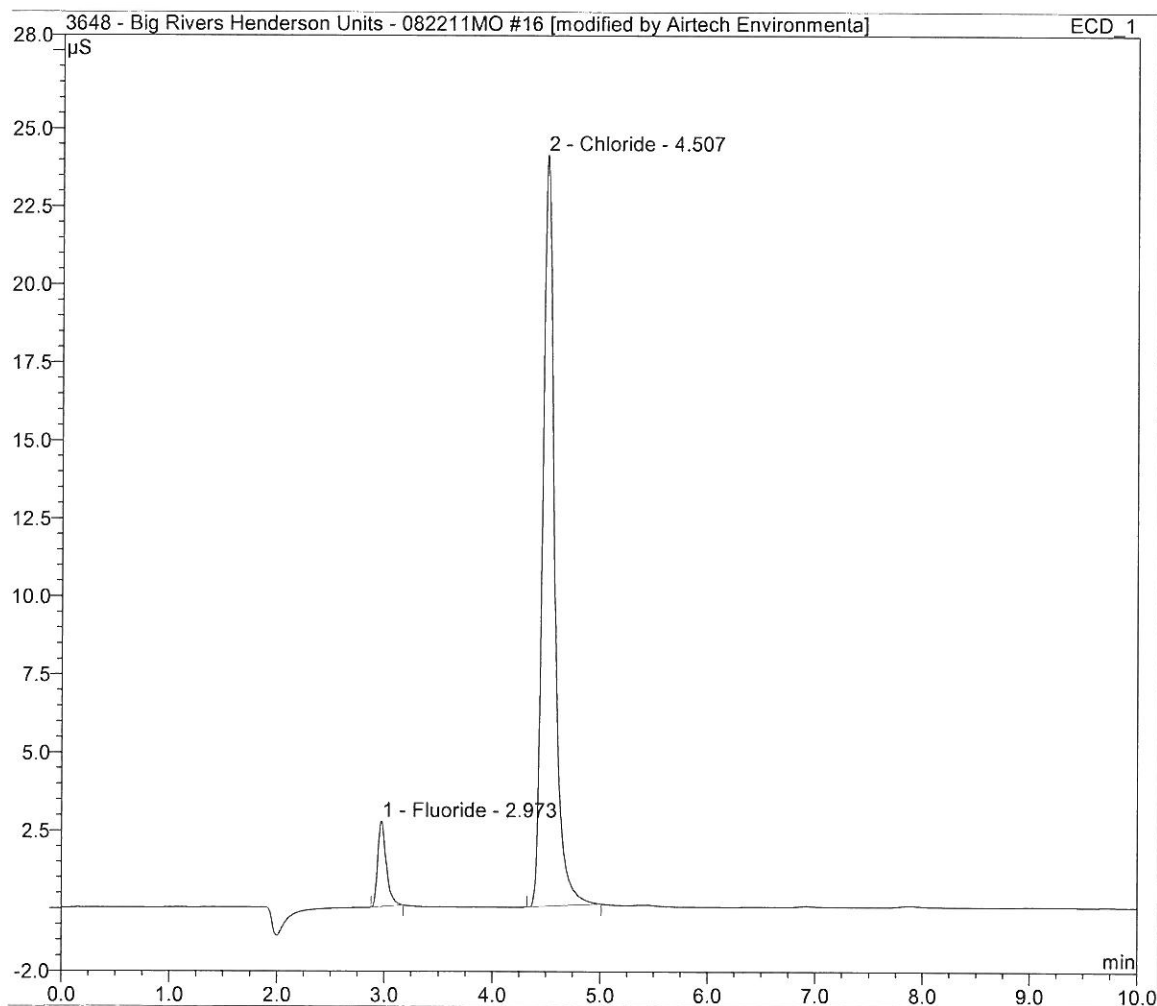
Sample Name:	Unit 1 ESP Inlet 1 - Run 1 x 50 dilution	Inj. Vol.:	10.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	23.08.11 12:01	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.97	Fluoride	BMB	0.247	2.531	0.1692
2	4.51	Chloride	BMB*	2.759	21.953	2.6981
TOTAL:				3.01	24.48	2.87



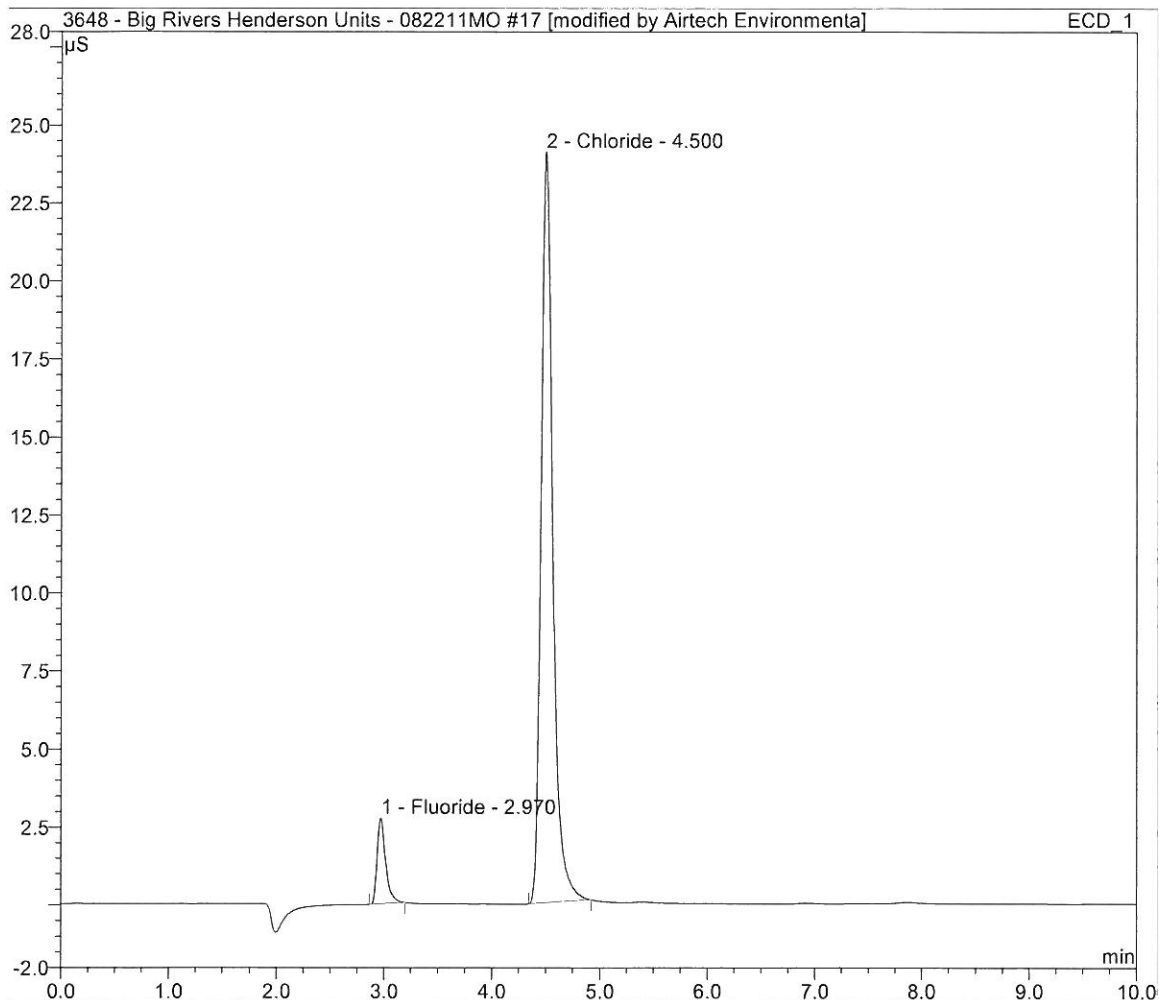
Sample Name:	Unit 1 ESP Inlet 1 - Run 2 x 50 dilution	Inj. Vol.:	10.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	23.08.11 12:25	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.97	Fluoride	BMB*	0.251	2.745	0.1722
2	4.51	Chloride	BMB*	3.035	24.093	2.9684
TOTAL:				3.29	26.84	3.14



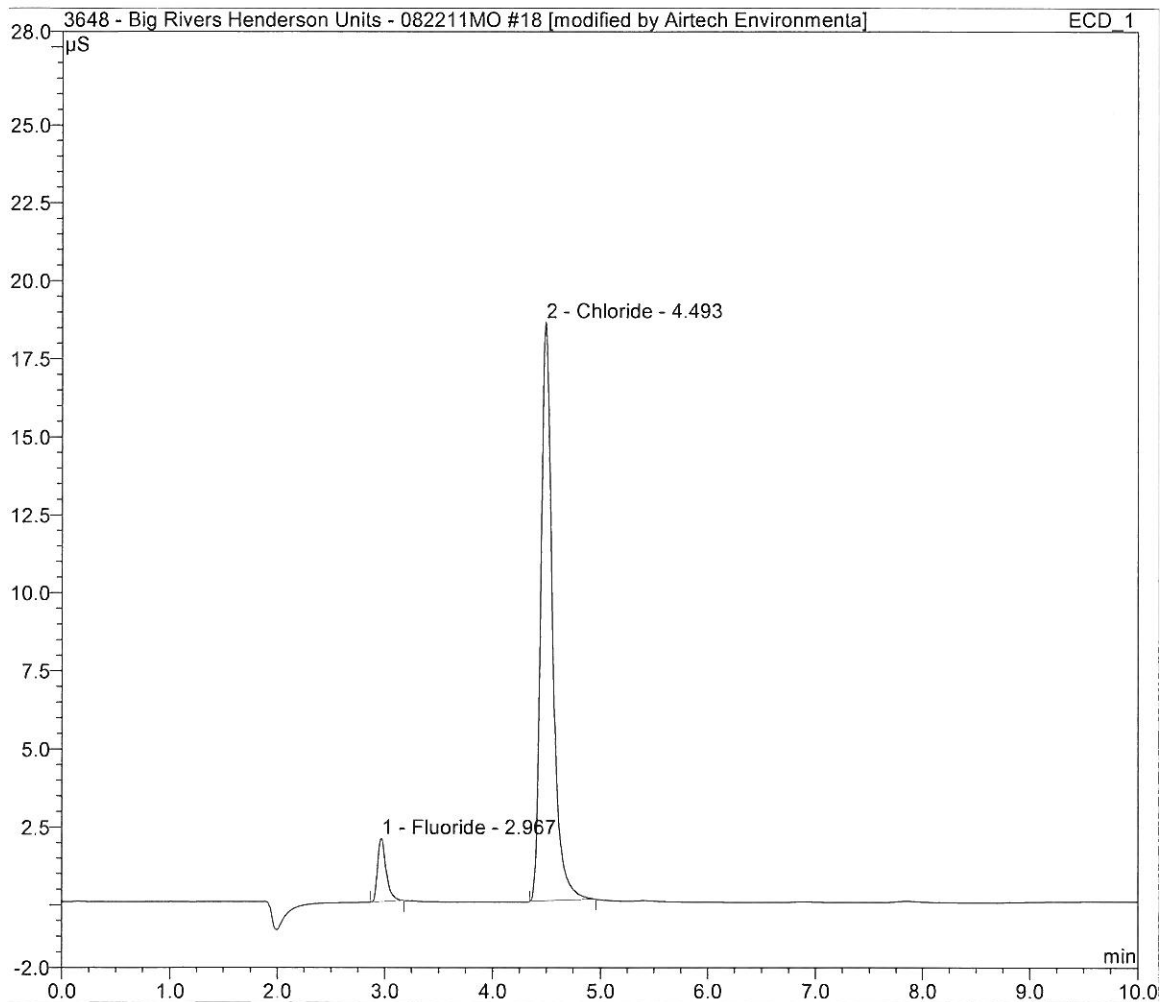
Sample Name:	Unit 1 ESP Inlet 1 - Run 2 x 50 dilution	Inj. Vol.:	10.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	23.08.11 12:45	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.97	Fluoride	BMB*	0.255	2.760	0.1749
2	4.50	Chloride	BMB*	3.009	24.073	2.9429
TOTAL:				3.26	26.83	3.12



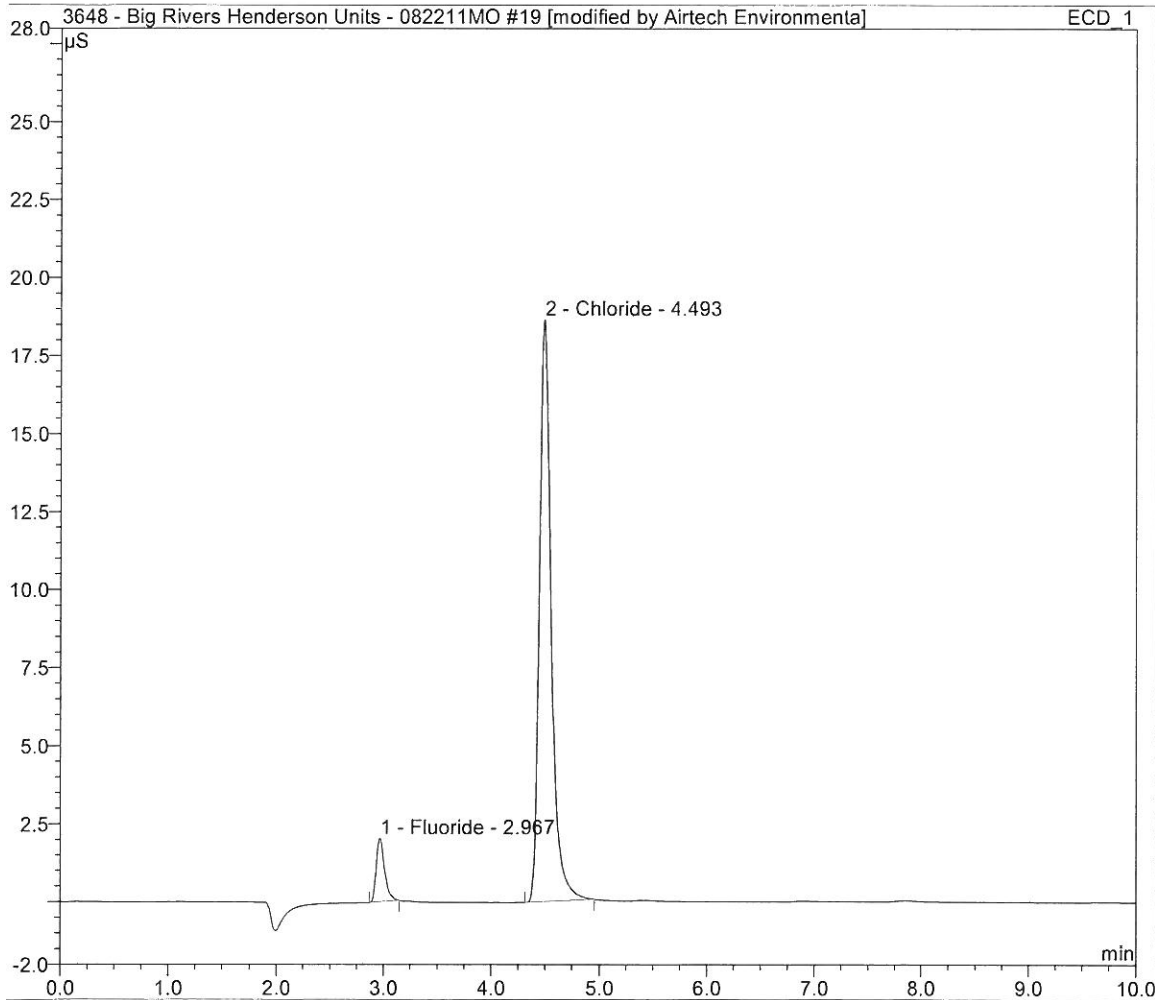
Sample Name:	Unit 1 ESP Inlet 1 - Run 3 x 60 dilution	Inj. Vol.:	10.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	23.08.11 13:12	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.97	Fluoride	BMB*	0.188	2.046	0.1288
2	4.49	Chloride	BMB*	2.338	18.556	2.2864
TOTAL:				2.53	20.60	2.42



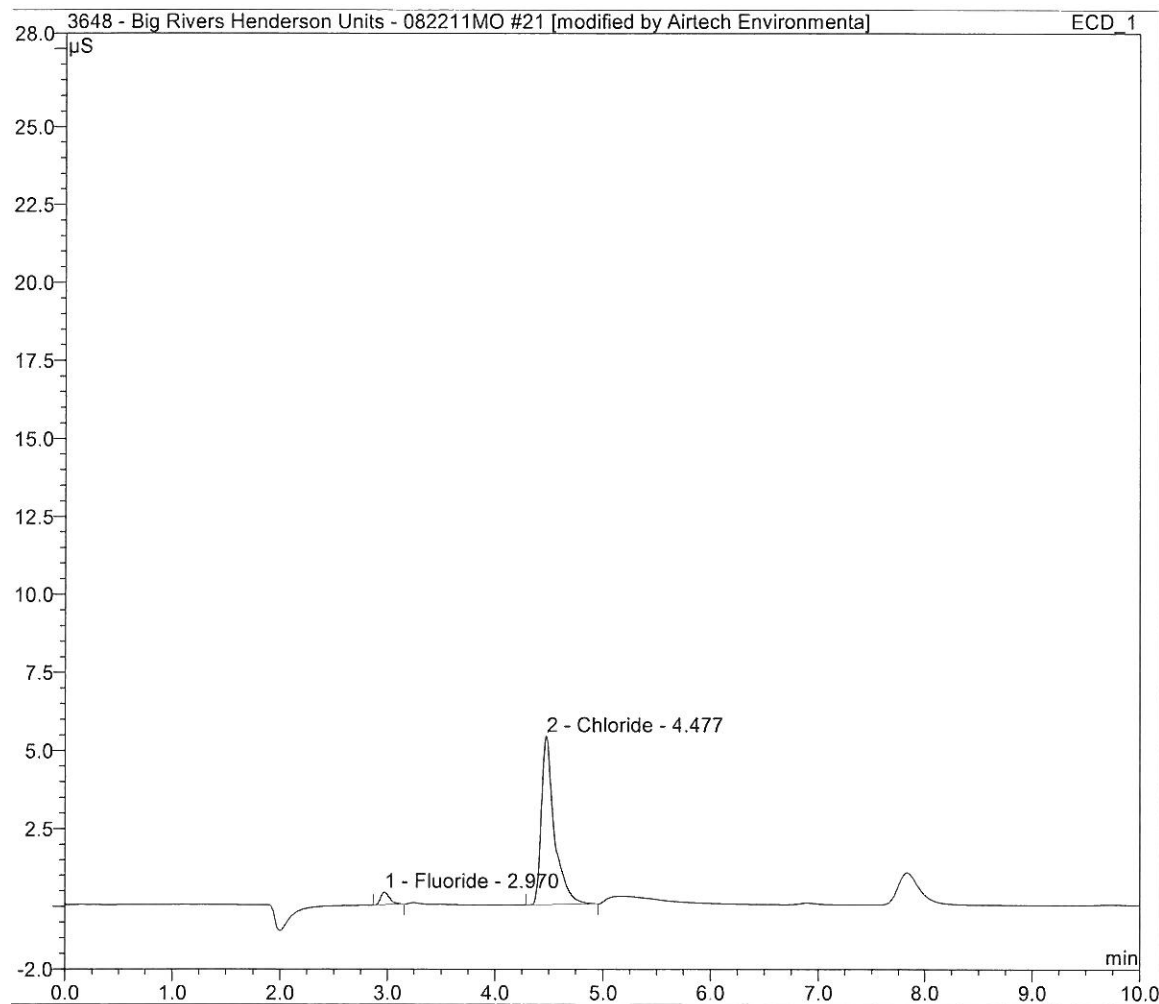
Sample Name:	Unit 1 ESP Inlet 1 - Run 3 x 60 dilution	Inj. Vol.:	10.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	23.08.11 14:01	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.97	Fluoride	BMB*	0.185	2.045	0.1264
2	4.49	Chloride	BMB*	2.352	18.659	2.3005
TOTAL:				2.54	20.70	2.43



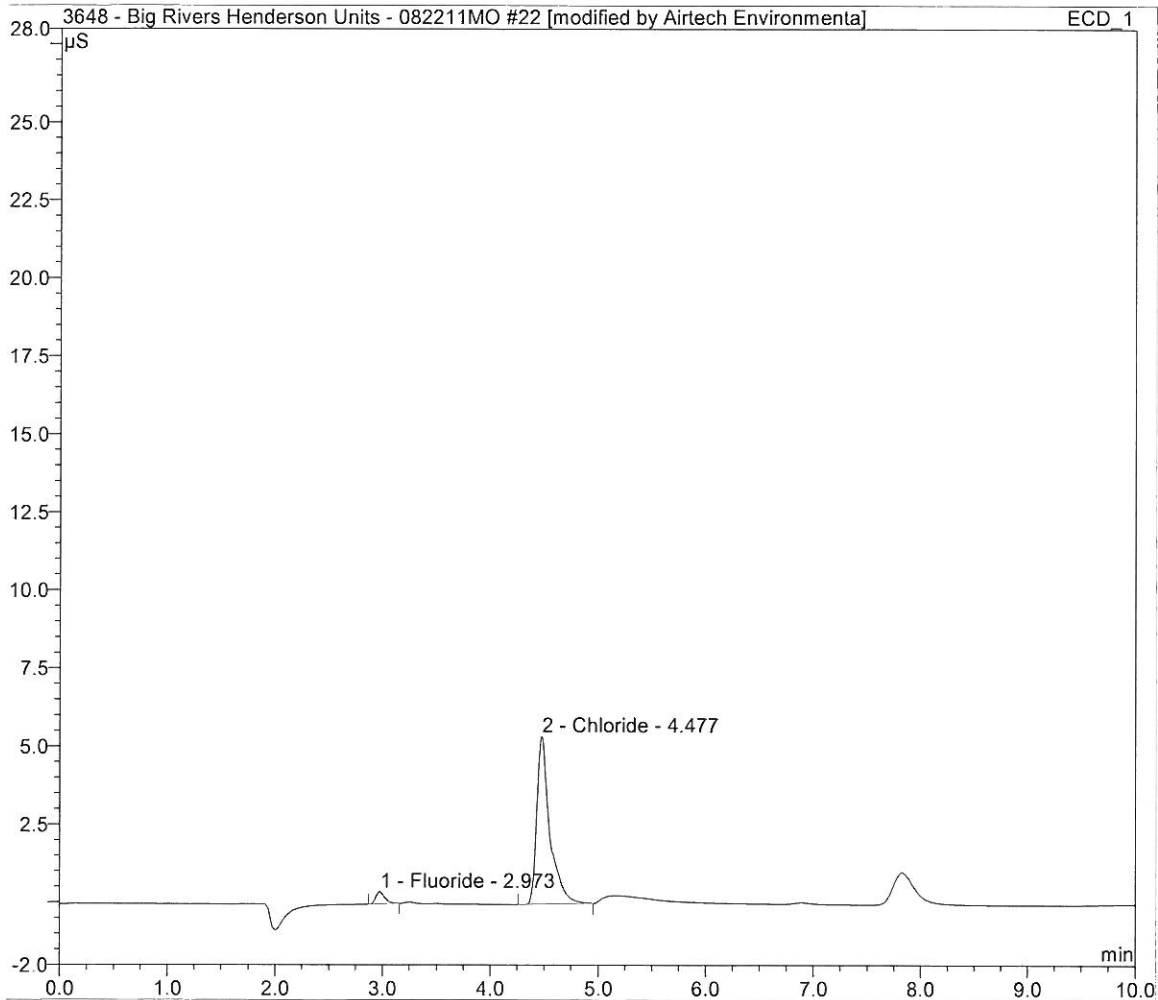
Sample Name:	Unit 1 Stack - Run 1	Inj. Vol.:	10.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	23.08.11 14:38	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.97	Fluoride	BMB	0.040	0.408	0.0274
2	4.48	Chloride	BMB*	0.757	5.408	0.7406
TOTAL:				0.80	5.82	0.77



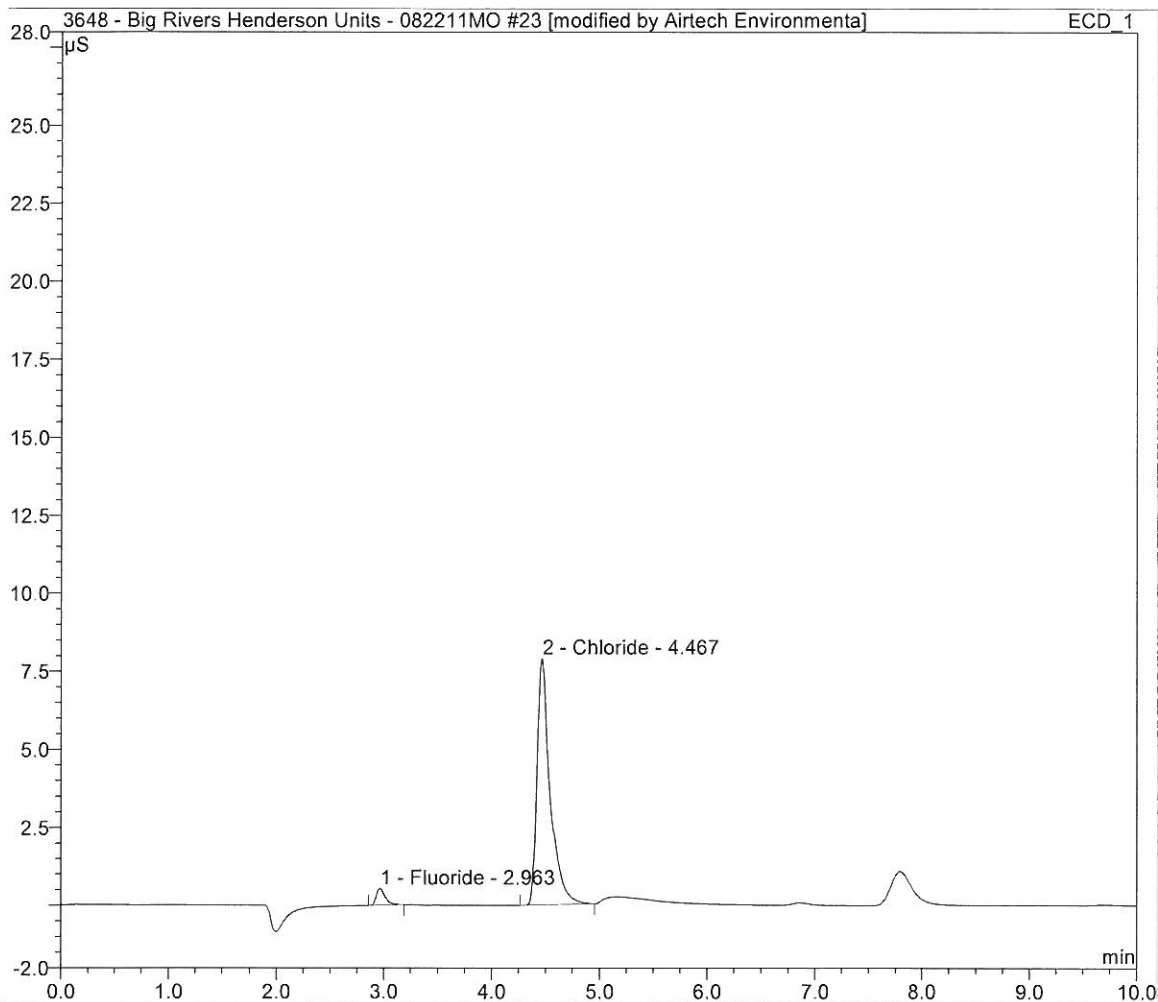
Sample Name:	Unit 1 Stack - Run 1	Inj. Vol.:	10.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	23.08.11 15:22	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.97	Fluoride	BMB	0.039	0.397	0.0267
2	4.48	Chloride	BMB*	0.755	5.391	0.7380
TOTAL:				0.79	5.79	0.76



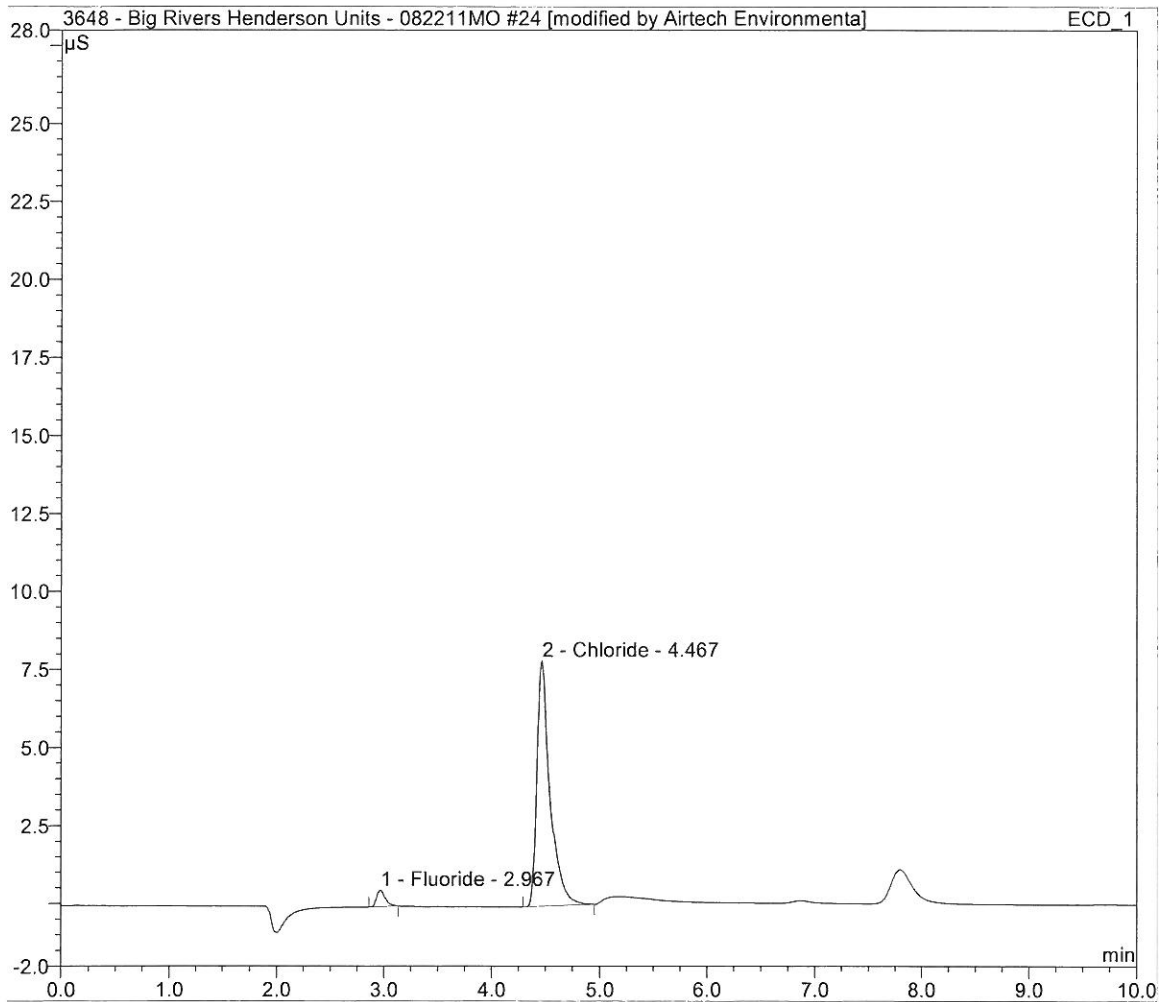
Sample Name:	Unit 1 Stack - Run 2	Inj. Vol.:	10.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	23.08.11 16:05	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.96	Fluoride	BMB	0.053	0.540	0.0360
2	4.47	Chloride	BMB*	1.111	7.902	1.0869
TOTAL:				1.16	8.44	1.12



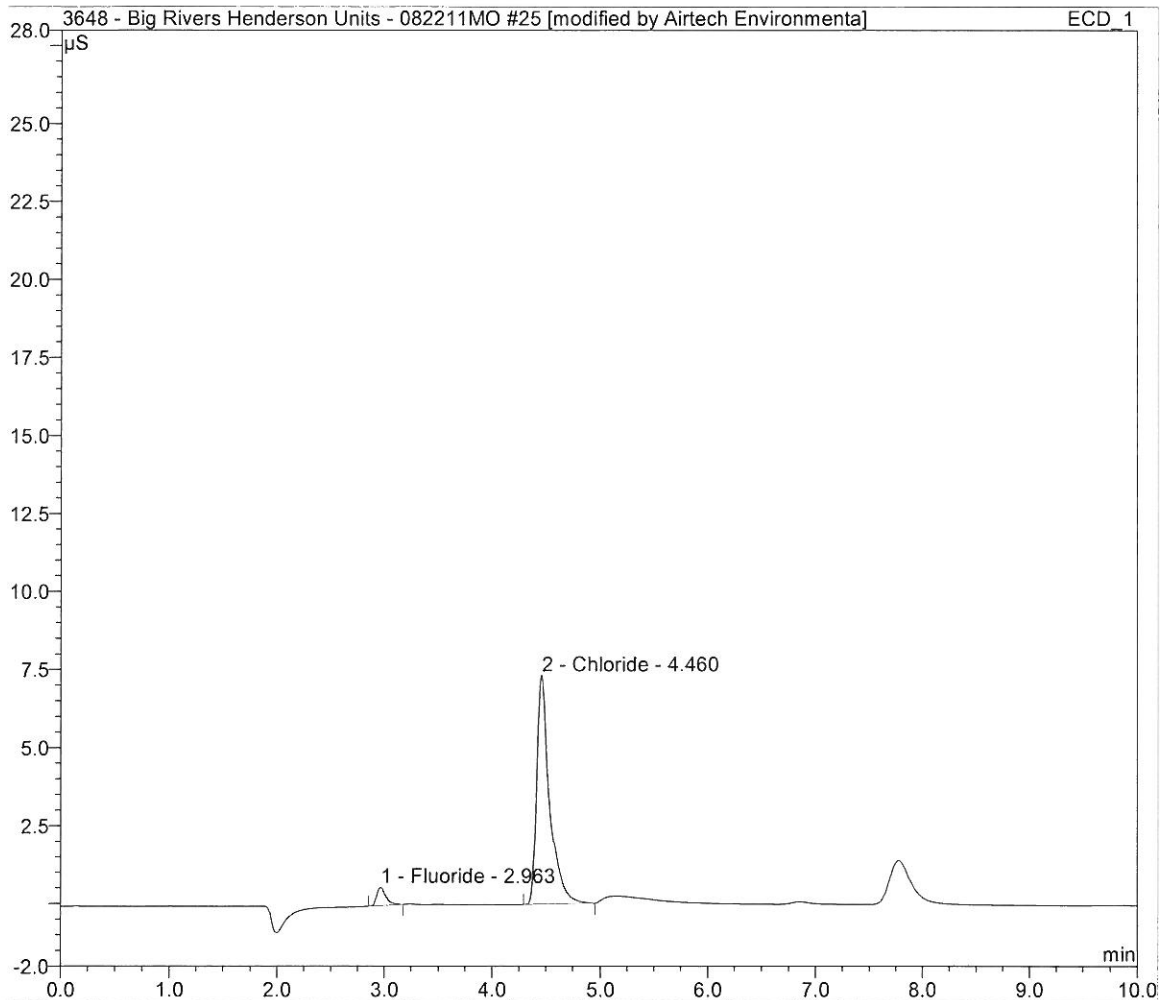
Sample Name:	Unit 1 Stack - Run 2	Inj. Vol.:	10.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	23.08.11 16:57	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g}/\text{ml}$
1	2.97	Fluoride	BMB*	0.050	0.531	0.0344
2	4.47	Chloride	BMB*	1.099	7.859	1.0752
TOTAL:				1.15	8.39	1.11



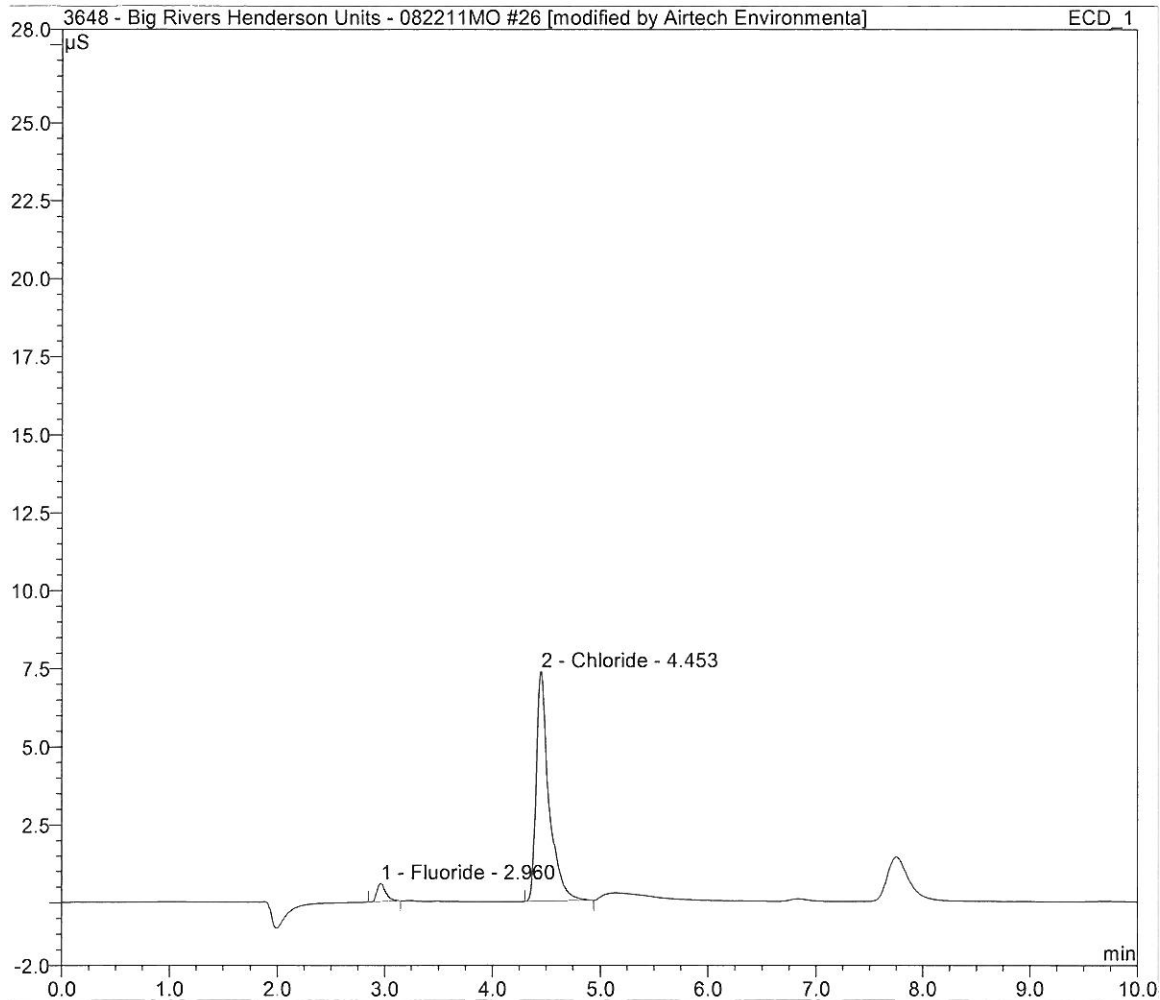
Sample Name:	Unit 1 Stack - Run 3	Inj. Vol.:	10.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	23.08.11 17:15	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.96	Fluoride	BMB	0.058	0.592	0.0401
2	4.46	Chloride	BMB*	1.021	7.340	0.9986
TOTAL:				1.08	7.93	1.04



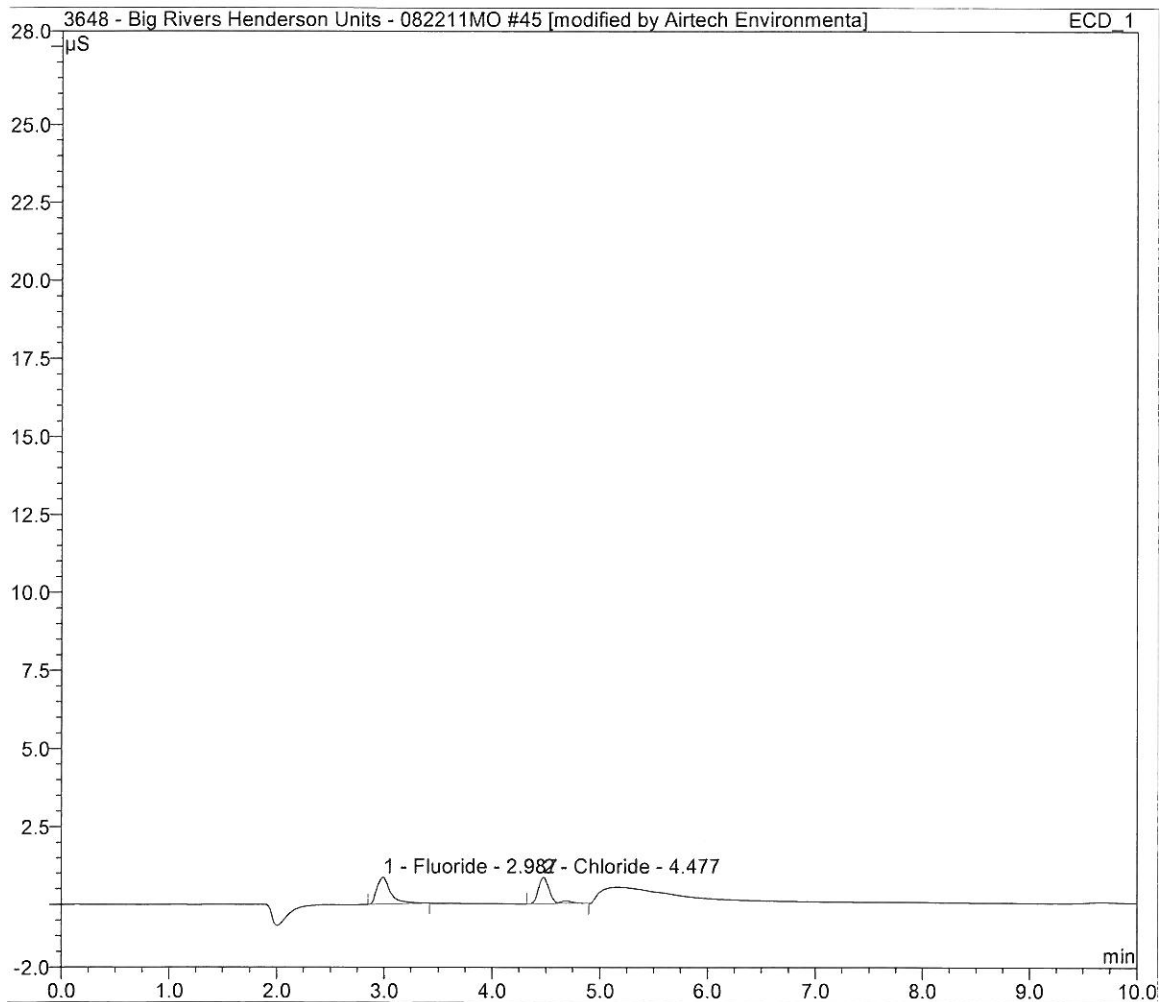
Sample Name:	Unit 1 Stack - Run 3	Inj. Vol.:	10.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	23.08.11 17:38	Run Time:	11.44

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.96	Fluoride	BMB*	0.057	0.589	0.0393
2	4.45	Chloride	BMB*	1.021	7.371	0.9984
TOTAL:				1.08	7.96	1.04



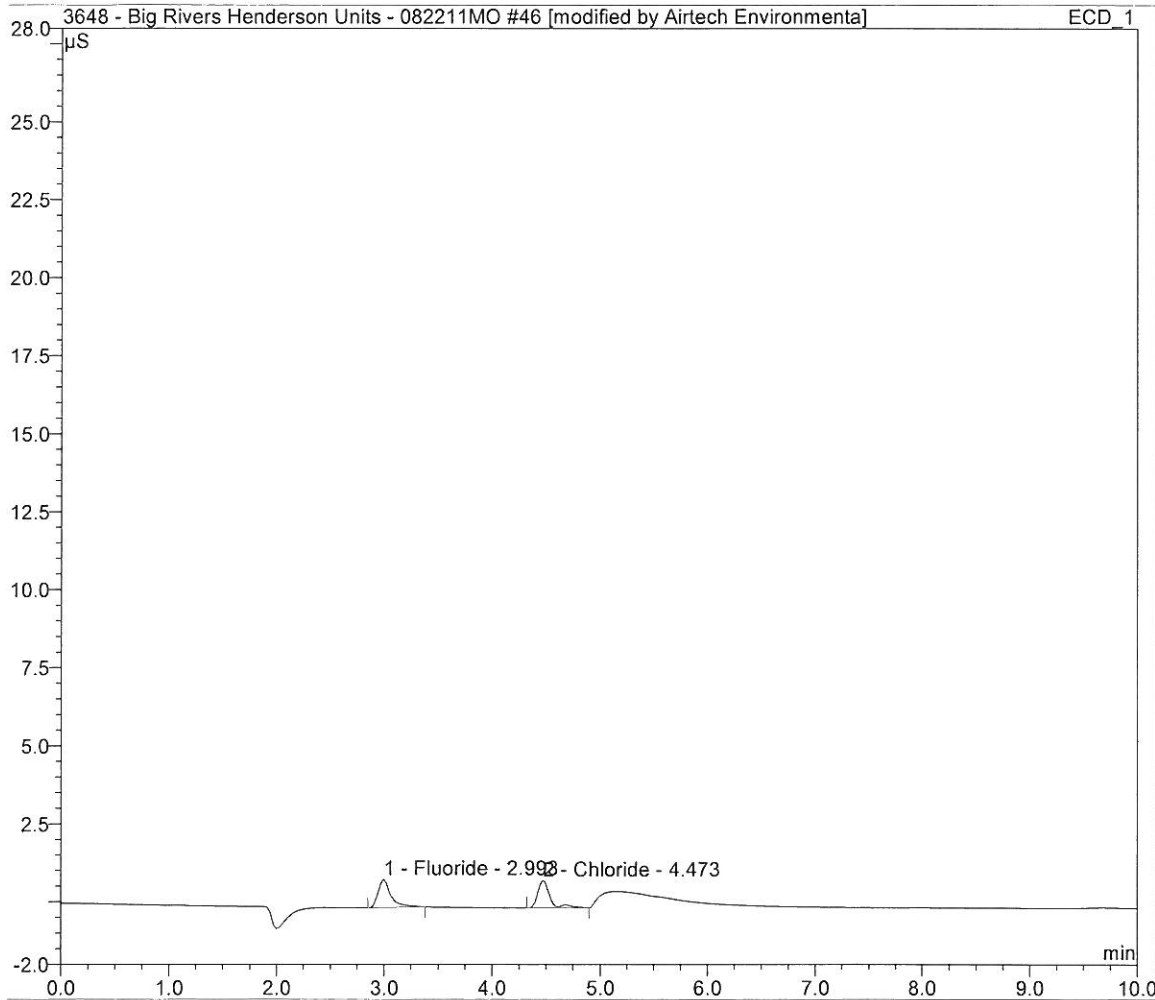
Sample Name:	cal std 1	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	25.08.11 11:35	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.99	Fluoride	BMB*	0.130	0.870	0.0887
2	4.48	Chloride	BMB*	0.111	0.850	0.1081
TOTAL:				0.24	1.72	0.20



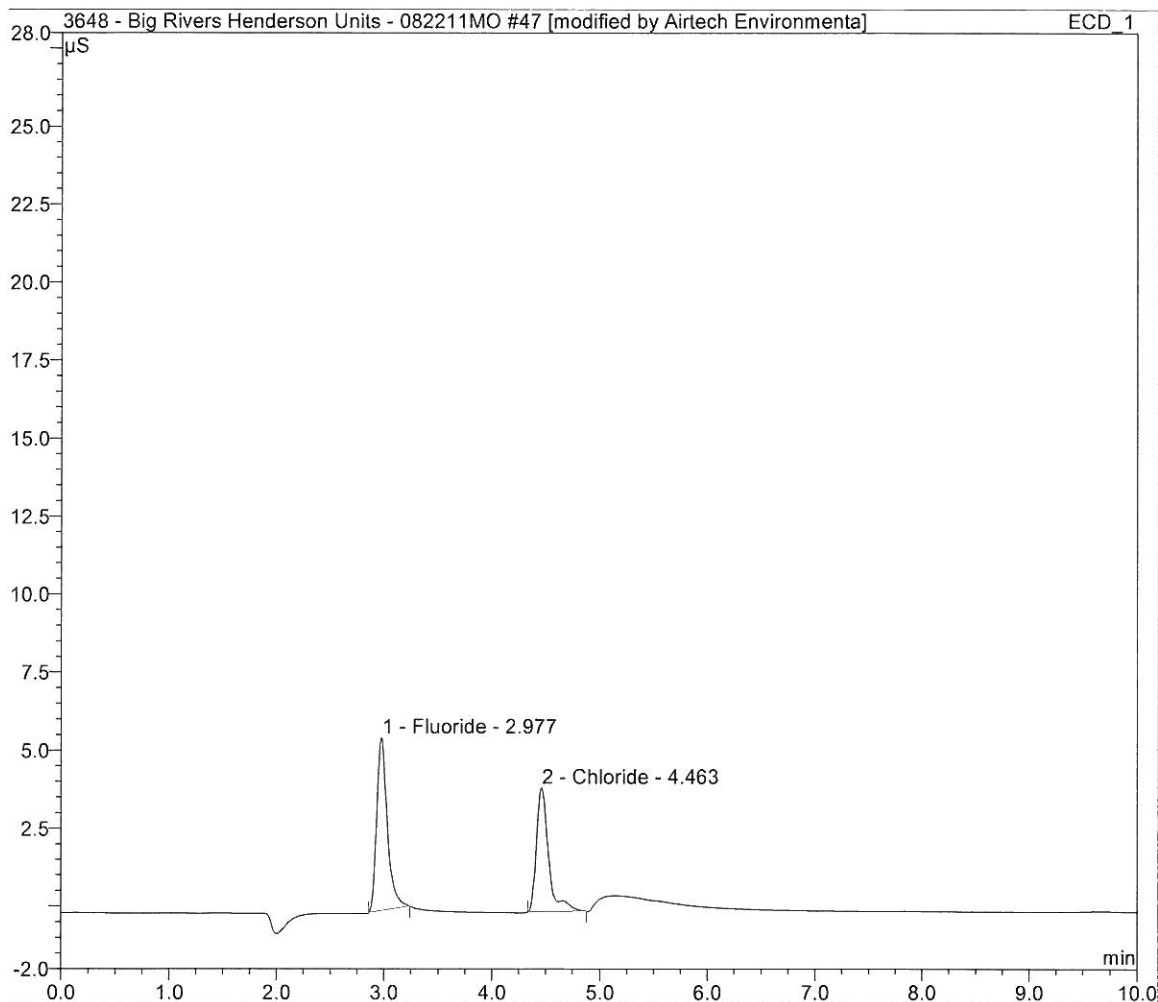
Sample Name:	cal std 1	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	25.08.11 11:51	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.99	Fluoride	BMB*	0.126	0.909	0.0861
2	4.47	Chloride	BMB*	0.113	0.874	0.1101
TOTAL:				0.24	1.78	0.20



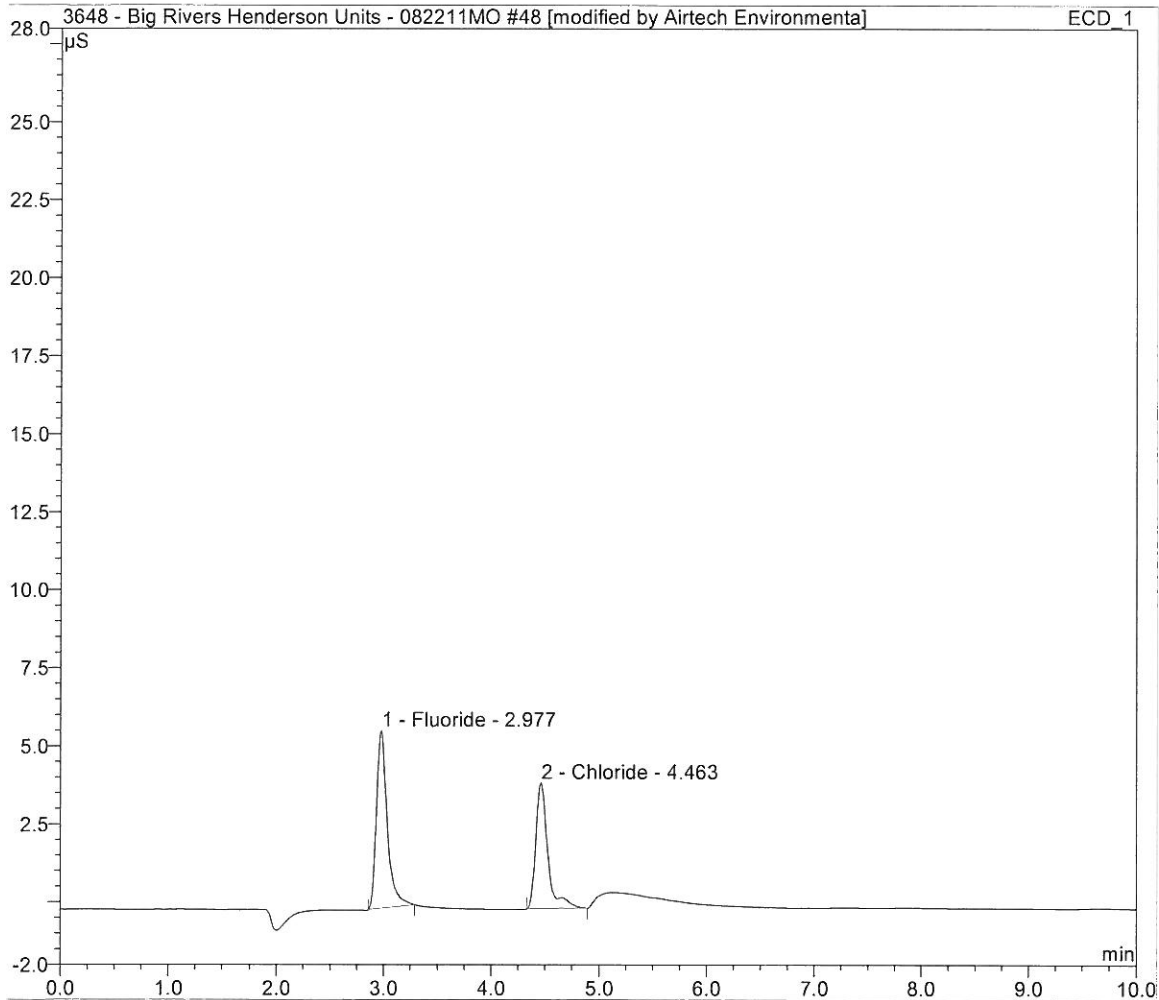
Sample Name:	cal std 2	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	25.08.11 12:06	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.98	Fluoride	BMB*	0.635	5.554	0.4348
2	4.46	Chloride	BMB*	0.515	3.972	0.5036
TOTAL:				1.15	9.53	0.94



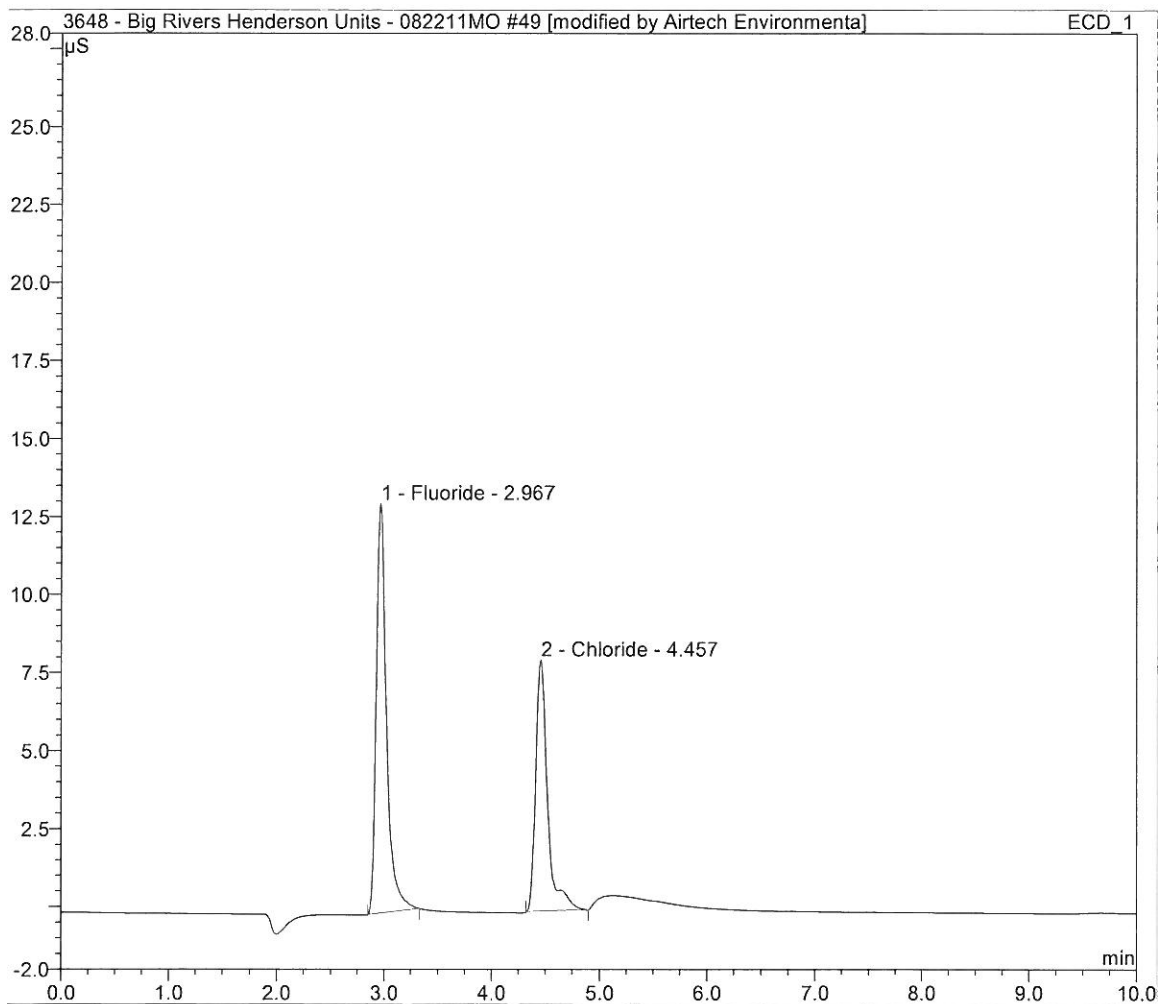
Sample Name:	cal std 2	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	25.08.11 12:27	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.98	Fluoride	BMB*	0.663	5.692	0.4543
2	4.46	Chloride	BMB*	0.522	4.027	0.5102
TOTAL:				1.19	9.72	0.96



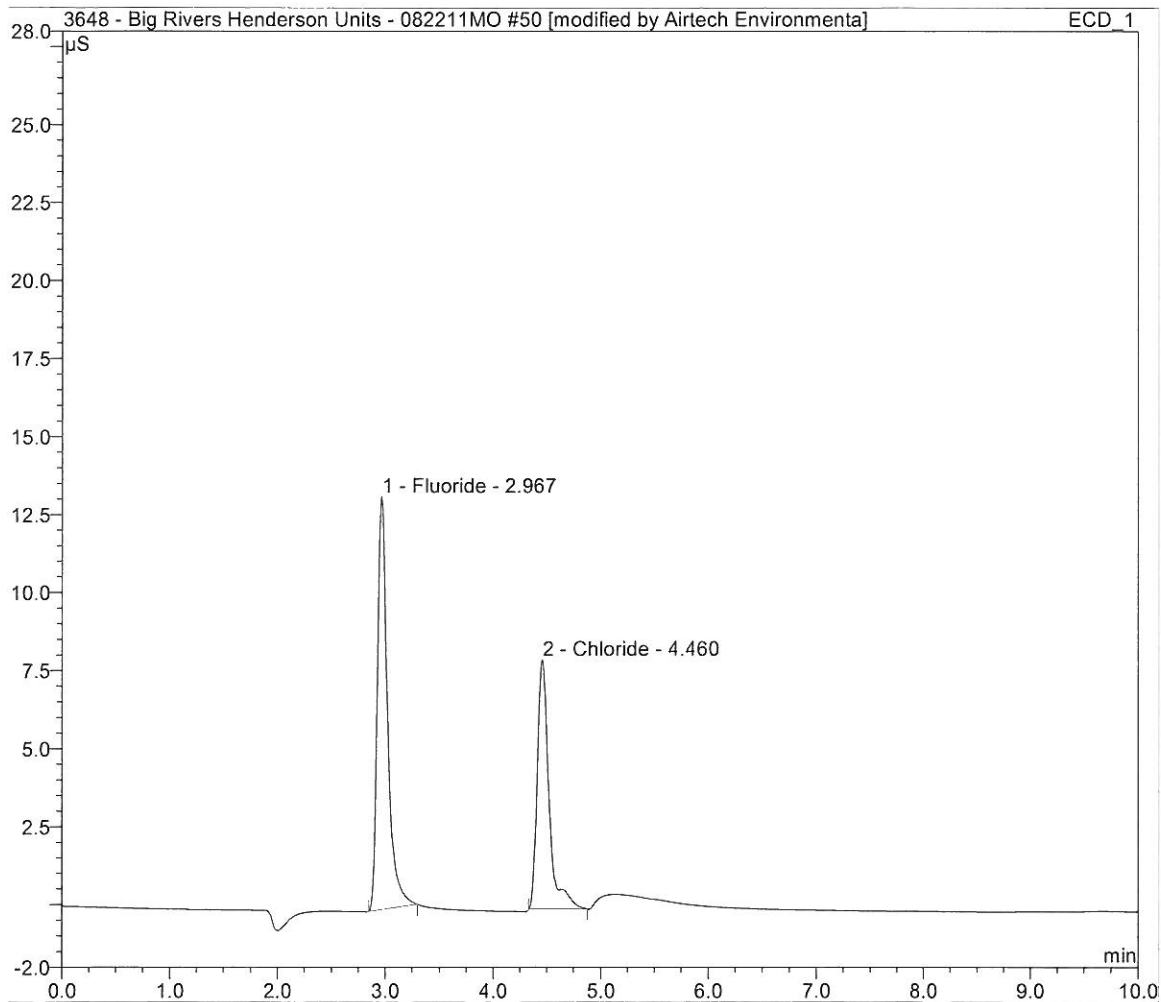
Sample Name:	cal std 3	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	25.08.11 12:48	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.97	Fluoride	BMB*	1.455	13.117	0.9963
2	4.46	Chloride	BMB*	1.033	8.045	1.0100
TOTAL:				2.49	21.16	2.01



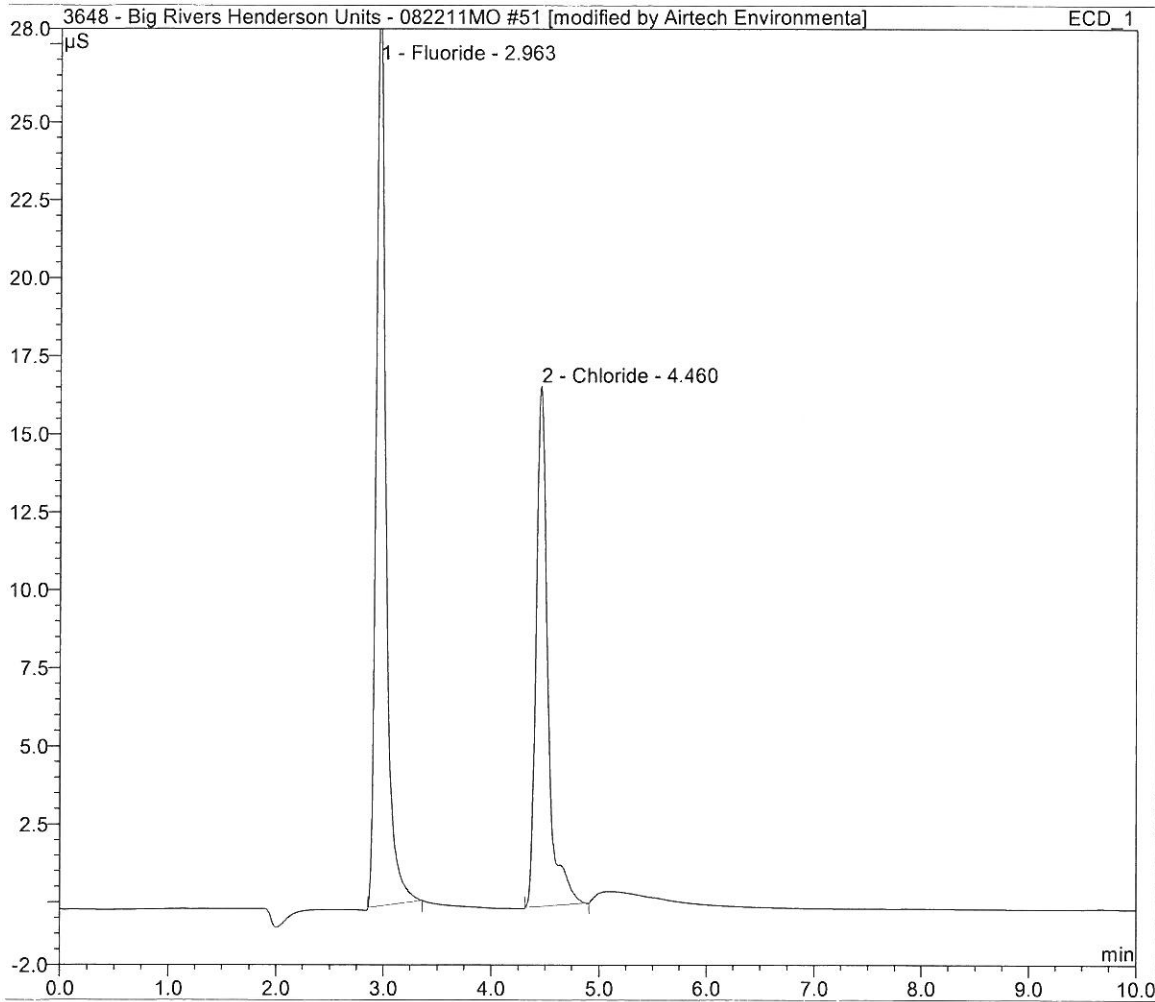
Sample Name:	cal std 3	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	25.08.11 13:05	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.97	Fluoride	BMB*	1.452	13.238	0.9940
2	4.46	Chloride	BMB*	1.020	7.988	0.9976
TOTAL:				2.47	21.23	1.99



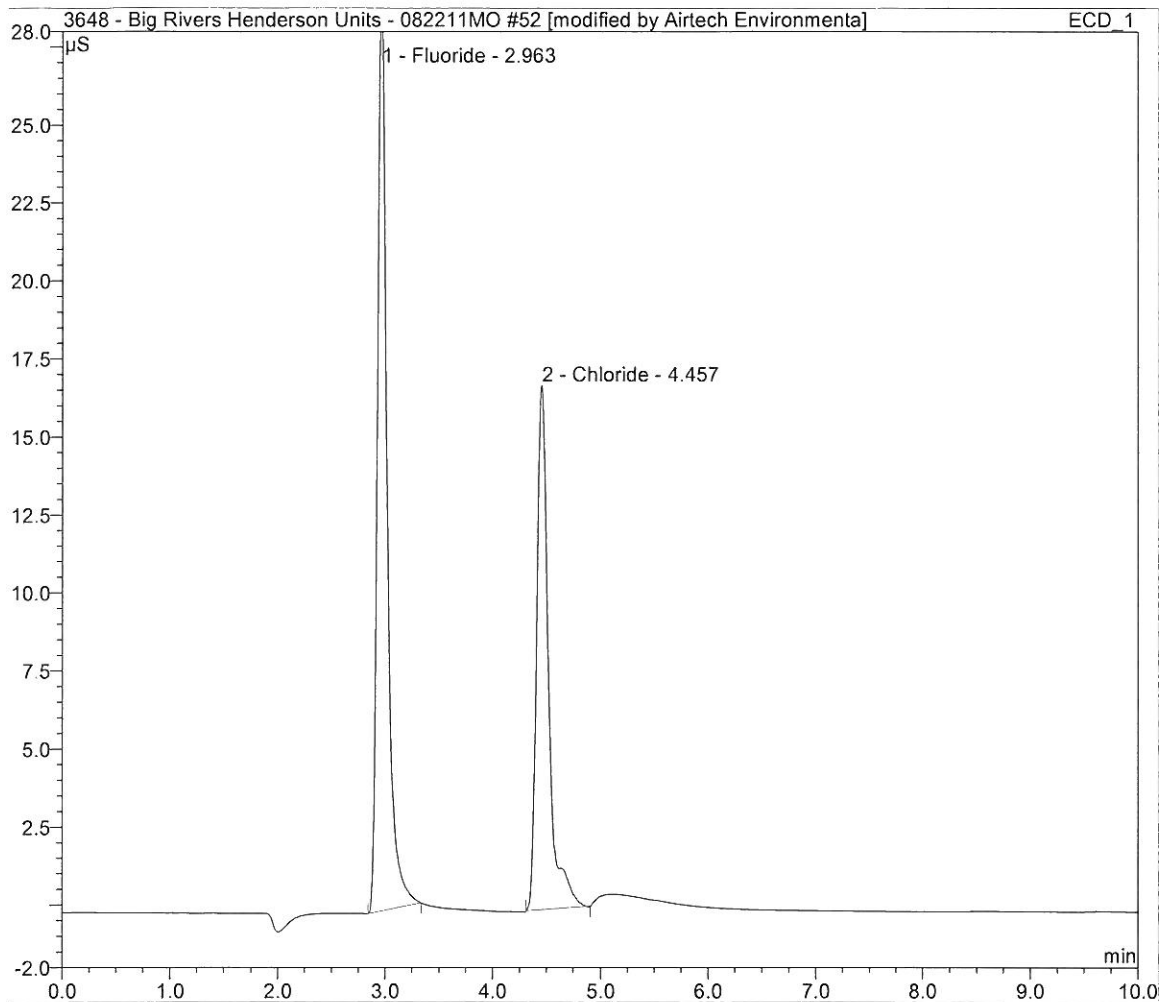
Sample Name:	cal std 4	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	25.08.11 13:20	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.96	Fluoride	BMB*	3.028	29.149	2.0735
2	4.46	Chloride	BMB*	2.104	16.673	2.0580
TOTAL:				5.13	45.82	4.13



Sample Name:	cal std 4	Inj. Vol.:	10.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	ChlorideCal	Operator:	n.a.
Inj. Date/Time:	25.08.11 13:39	Run Time:	15.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount $\mu\text{g/ml}$
1	2.96	Fluoride	BMB*	3.046	29.358	2.0861
2	4.46	Chloride	BMB*	2.116	16.809	2.0699
TOTAL:				5.16	46.17	4.16



Big Rivers (3648)
Henderson Unit 1

ID Vial (ml)

50x dilution	H1 ESP Inlet Run 1	512
	Run 2	453
	Run 3	485
60x dilution	H1 Stack Run 1	476
	Run 2	559
	Run 3	533

50x dilution was performed by pipetting 1 ml of sample to 49 ml of Reagent water. 60x dilution was performed by pipetting 1 ml of sample to 59 ml Reagent water



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Chain of Custody

Includes the following:

- Field Chain of Custody

AIRTECH ENVIRONMENTAL SERVICES INC.
Chain of Custody

Project Number	3648		Location	Stack	Page	1	of	1
Client	Big Rivers Energy		Date	8/9/2011	Number of Containers			
Plant	Henderson Unit 1		Completed By	JC				
<i>The following samples consist of the impinger contents and a 0.1N H₂SO₄ rinse.</i>								
ID No.	Run No.	Date	Sample Description	HF	HCl			
R1-26A-IMP	1		Impinger Contents and 0.1N H ₂ SO ₄ Rinse	x	x	1		
R1-26A-IMP	2		Impinger Contents and 0.1N H ₂ SO ₄ Rinse	x	x	1		
R1-26A-IMP	3		Impinger Contents and 0.1N H ₂ SO ₄ Rinse	x	x	1		
Relinquished By (signature)				Carrier FedEx				
(printed)	James Christ							
Date/Time	8/9/11			Laboratory Airtech Env.				
Accepted By (signature)	<i>MOR</i>							
(printed)	Michael Ogletree			Contact Michael Ogletree				
Date/Time	8/11/11							
				Address Denver, CO				
				Phone				
				Fax				
				Date/Time				



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

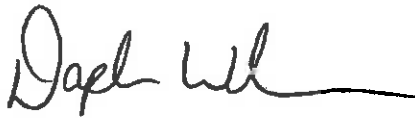
Analytical Report
17130



Element One, Inc.
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910-793-0128 FAX: 910-792-6853 e1lab@e1lab.com

The following data for Analytical Report 17130
has been reviewed for completeness, accuracy,
adherence to method protocol,
and compliance with quality assurance guidelines.

Review by:



Daphne Woodman, Chemist
August 19, 2011

Report Reviewed and Finalized By:



Ken Smith, Laboratory Director
August 19, 2011

SUMMARY OF RESULTS

Summary of Analysis

Front Half – ESP Outlet - Summary of Method 29 Metals Analysis

Element	ESP Outlet-R1 e17130-4 FH Total µg	ESP Outlet-R2 e17130-5 FH Total µg	ESP Outlet-R2 e17130-5 FH dup Total µg	ESP Outlet-R3 e17130-6 FH Total µg	Reagent Blank e17130-7 FH Total µg
Antimony	3.88	3.46	3.50	5.40	< 0.1
Arsenic	35.0	42.3	43.1	35.6	< 0.1
Beryllium	8.78	9.50	9.77	7.54	< 0.025
Cadmium	17.1	17.6	18.0	14.6	< 0.1
Chromium	327	294	333	253	2.21
Cobalt	24.0	24.2	24.4	23.3	< 0.1
Lead	60.4	48.0	54.5	48.2	0.402
Manganese	248	233	261	222	4.43
Nickel	133	129	144	92.5	1.18
Selenium	67.2	51.9	57.6	51.2	< 0.1

Back Half – ESP Outlet - Summary of Method 29 Metals Analysis

Element	ESP Outlet-R1 e17130-4 BH Total µg	ESP Outlet-R2 e17130-5 BH Total µg	ESP Outlet-R2 e17130-5 BH dup Total µg	ESP Outlet-R3 e17130-6 BH Total µg	Reagent Blank e17130-7 BH Total µg
Antimony	1.91	0.103	0.107	0.167	< 0.1
Arsenic	14.6	12.5	13.1	3.17	< 0.1
Beryllium	0.032	< 0.025	< 0.025	< 0.025	< 0.025
Cadmium	2.03	0.289	0.301	0.990	< 0.1
Chromium	2.37	3.03	3.10	1.32	0.614
Cobalt	0.140	< 0.1	< 0.1	< 0.1	0.184
Lead	3.13	0.818	0.838	3.03	0.376
Manganese	2.51	2.61	2.68	2.19	1.46
Nickel	3.89	1.55	1.62	2.82	0.413
Selenium	68.2	99.3	100	14.5	< 0.1

Summary of Analysis

Front Half – Stack - Summary of Method 29 Metals Analysis

Element	Stack-R1 e17130-1 FH <u>Total µg</u>	Stack-R2 e17130-2 FH <u>Total µg</u>	Stack-R2 e17130-2 FH dup <u>Total µg</u>	Stack-R3 e17130-3 FH <u>Total µg</u>
Antimony	1.87	1.59	1.66	1.24
Arsenic	17.1	16.5	16.2	16.4
Beryllium	0.445	0.450	0.467	0.606
Cadmium	2.87	2.84	2.96	3.82
Chromium	30.0	40.9	44.1	56.7
Cobalt	1.25	1.68	1.80	1.64
Lead	5.88	5.58	5.84	5.60
Manganese	18.3	20.0	21.5	22.2
Nickel	17.7	24.8	24.9	27.9
Selenium	64.1	67.1	69.3	77.3

Back Half – Stack - Summary of Method 29 Metals Analysis

Element	Stack-R1 e17130-1 BH <u>Total µg</u>	Stack-R2 e17130-2 BH <u>Total µg</u>	Stack-R2 e17130-2 BH dup <u>Total µg</u>	Stack-R3 e17130-3 BH <u>Total µg</u>
Antimony	< 0.1	0.142	0.148	< 0.1
Arsenic	1.19	0.747	0.753	0.857
Beryllium	< 0.025	< 0.025	< 0.025	< 0.025
Cadmium	< 0.1	0.189	0.198	< 0.1
Chromium	2.56	3.59	3.57	2.65
Cobalt	0.122	0.158	0.169	0.107
Lead	1.27	0.801	0.814	0.562
Manganese	2.10	2.58	2.61	2.94
Nickel	1.49	3.70	3.32	4.36
Selenium	24.7	15.7	16.5	14.9

ANALYTICAL NARRATIVE

Element One Analytical Narrative

Client:	Airtech Environmental Services, Inc.	Element One #:	17130
Client ID:	3648/Big Rivers Energy – Henderson 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:	08/08-11/11

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 9: The beryllium and cadmium spike recoveries for the back half fraction of Stack-Run 3 were outside of the ±25% laboratory guidelines with 67% for both elements. The sample was analyzed at a two-fold dilution resulting in a spike recover7 of 91% for both elements; indicating matrix interference. The samples were non-detect, therefore this should have no significant impact on the results.

**Ref page 9: The selenium spike recovery for the back half fraction of ESP Outlet-Run 3 was outside of the ±25% laboratory guidelines with 137% recovery at a twenty-fold dilution. The sample was extremely high in sulfates causing matrix interference and any further diluting would have reduced selenium below the reporting limit. The result for selenium on the back half fraction of ESP Outlet-Run 3 should be considered biased high.

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	Stack-R2	ESP Outlet-R2	Stack-R2	ESP Outlet-R2
	Front Half RPD	Front Half RPD	Back Half RPD	Back Half RPD
Antimony	4.1%	1.3%	4.2%	4.1%
Arsenic	1.6%	1.9%	0.8%	4.6%
Beryllium	3.8%	2.8%	NA	NA
Cadmium	4.4%	2.1%	4.3%	3.8%
Chromium	7.7%	12.2%	0.5%	2.3%
Cobalt	6.7%	1.1%	6.3%	NA
Lead	4.6%	12.7%	1.5%	2.4%
Manganese	7.3%	11.5%	0.9%	2.7%
Nickel	0.7%	11.3%	10.8%	4.2%
Selenium	3.2%	10.6%	4.6%	1.1%

Metals Analysis Spike Recoveries

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

Element	Stack-R3	ESP Outlet-R3	Stack-R3	ESP Outlet-R3
	Front Half Recovery	Front Half Recovery	Back Half Recovery	Back Half Recovery
Antimony	82%	90%	85%	102%
Arsenic	98%	75%	82%	112%
Beryllium	92%	87%	*67%	80%
Cadmium	80%	78%	*67%	83%
Chromium	102%	114%	104%	102%
Cobalt	101%	105%	104%	97%
Lead	89%	90%	85%	83%
Manganese	100%	112%	106%	100%
Nickel	102%	100%	100%	93%
Selenium	94%	79%	106%	**137%

*See Analytical Narrative, page 7.

**See Analytical Narrative, page 7.

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		106%	98%	101%	98%
Arsenic		106%	97%	103%	99%
Beryllium	107%	105%	102%	102%	101%
Cadmium		107%	99%	103%	100%
Chromium		92%	97%	100%	102%
Cobalt		104%	95%	99%	99%
Lead		82%	100%	105%	100%
Manganese		101%	95%	102%	98%
Nickel		87%	97%	103%	98%
Selenium		100%	95%	101%	98%

SAMPLE CUSTODY

AIRTECH ENVIRONMENTAL SERVICES INC.
Chain of Custody

17130

Project Number	3648	Location	Stack	Page	1	of	1
Client	Big Rivers Energy	Date	8/4/2011	Number of Containers			
Plant	Henderson Unit 1	Completed By	ML	Metallic HAPs			
The following samples consist of a front half 0.1N HNO3 rinse, a quartz filter and the impinger catch and DI rinse							
ID No.	Run No.	Date	Sample Description	Notes			
28-R1-HNO	1		FH Rinse of 0.1N HNO ₃	X	1		
28-R2-HNO	2		FH Rinse of 0.1N HNO ₃	X	1		
28-R3-HNO	3		FH Rinse of 0.1N HNO ₃	X	1		
28-R1-FIL	1		Quartz Filter	X	1		
28-R2-FIL	2		Quartz Filter	X	1		
28-R3-FIL	3		Quartz Filter	X	1		
28-R1-5%10%	1		Imp catches and rinses	X	1		
28-R2-5%10%	2		Imp catches and rinses	X	1		
28-R3-5%10%	3		Imp catches and rinses	X	1		
28-RB-HNO			0.1N HNO ₃	X	1		
28-RB-FIL			Quartz Filter	X	1		
28-RB-5%10%			5%/10% Metals Absorbing Solution	X	1		Did not receive
Retinquished By (signature)	<i>[Signature]</i>	Retinquished By (signature)	<i>[Signature]</i>	Carrier			
(printed)	Matt Libman	(printed)	DAVID DEVLIN	Laboratory			
Date/Time	8-3-11 17:00	Date/Time	8-5-11 15:53	Comet			
Accepted By (signature)	<i>[Signature]</i>	Accepted By (signature)	<i>[Signature]</i>	Address			
(printed)	DAVID DEVLIN	(printed)	Lisa Koston	Phone			
Date/Time	8-4-11 11:15	Date/Time	8-5-11 15:57	Fax			
				Date/Time			

Samples received in good condition. No empty containers



AIRTECH Environmental Services Inc.
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AIRTECH ENVIRONMENTAL SERVICES INC.
Chain of Custody

17130

Project Number	3648	Location	ESP Outlet	Page	1	of	1
Client	Big Rivers Energy	Date	8/4/2011	Analysis Requested			
Plant	Henderson Unit 1	Completed By	ML	Metallic HAPs			
The following samples consist of a first half 0.1N HNO ₃ rinse, a quartz filter and the impinger catch and OI rinse.							
Please use the same Reagent blanks for these runs as the reagent blanks found in Henderson Unit 1 Stack COC.							
ID No.	Run No.	Date	Sample Description	Number of Containers	Notes		
28-R1-HNO	1		FH Rinse of 0.1N HNO ₃	1			
28-R2-HNO	2		FH Rinse of 0.1N HNO ₃	1			
28-R3-HNO	3		FH Rinse of 0.1N HNO ₃	1			
28-R1-FIL	1		Quartz Filter	1			
28-R2-FIL	2		Quartz Filter	1			
28-R3-FIL	3		Quartz Filter	1			
28-R1-9% H ₂ O ₂	1		Imp catches and rinses	1			
28-R2-9% H ₂ O ₂	2		Imp catches and rinses	1			
28-R3-9% H ₂ O ₂	3		Imp catches and rinses	1			
Retinquished By (signature)				Carrier			
<i>David Davies</i>				Laboratory			
Date/Time				Contact			
8-3-11 12:00				Address			
Accepted By (signature)				Phone			
<i>David Davies</i>				Fax			
Date/Time				Date/Time			
8-4-11 11:15				8-5-11 15:57			



Airtech Environmental Services Inc.
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Batesville, IL 60108
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ANALYTICAL DATA

Analytical Calculations

Metals-

$$\text{Element Results } (\mu\text{g}) = \text{ICP Results } (\mu\text{g/L}) * \text{Dilution} * \text{Final Volume (L)}$$

Where-

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

Dilution= $\frac{\text{Diluted Volume}}{\text{Aliquot}}$ --*ICP-MS Run Sheet*

Final Volume= FH= Final Volume (FV)--*Sample Submission*

BH= $\frac{\text{Received Volume (BV)} * \text{Final Volume (FV)}}{\text{Aliquot (Used)}}$ --*Sample Submission*

Combined Results= FH+BH

Analytical Calculations

Spike Recovery-

$$\text{Spike (\%)} = \frac{(\text{Spiked Result } (\mu\text{g/L}) - \text{Sample Result } (\mu\text{g/L}))}{\text{Spike Amount } (\mu\text{g/L})} \times 100$$

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-

$$\text{RPD (\%)} = \frac{(\text{Duplicate Result } (\mu\text{g/L}) - \text{Sample Result } (\mu\text{g/L}))}{\text{Average } (\mu\text{g/L})} \times 100$$

Where-

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

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

elementOne AIR TESTING SAMPLE SUBMISSION FORM Lab ID 17130

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 - Henderson Unit 1

Date Rec	08.05.11
Time Rec	1557
Rec by	LLB

HNO ₃ Lot: S2322	HF Lot: S216296	HCl Lot: S1055	Ref. Method: 29
Volume Marked Y/N	Volume Loss Y/N/?		

Sample Identification

1	Stack-M29-R1	4	ESP Outlet-M29-R1	7	Reagent Blank
2	Stack-M29-R2	5	ESP Outlet-M29-R2		
	Stack-M29-R2 Duplicate		ESP Outlet-M29-R2 Duplicate		
3	Stack-M29-R3	6	ESP Outlet-M29-R3		
	Stack-M29-R3 Spike		ESP Outlet-M29-R3 Spike		

Analyses Requested	Samples 1-7 (S) Pb, As, Be, Cd, Cr, Co, Pb, Mn, Ni, Se
--------------------	--

Runs / FB	Fil / Ace (FH)		HNO ₃ (FH)		5% HNO ₃ /10% H ₂ O ₂ (BH)		HNO ₃ (A)		KMnO ₄ (B)		HCl (C)		
	pH <2.0	Y/N	pH <2.0	Y/N	pH <2.0	Y/N	pH <2.0	Y/N	pH <2.0	Y/N	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			135	100	670	335	50						
2.D			145		560	280							
3.S			115		660	330							
4			145		520	260							
5.D			150		460	230							
6.S			120		620	310							

M-29 Reagent Blank

Lab ID	Fraction	BV, ml	FV, ml	Comments
7	C-7 FH Acetone Blank			
	C-8A FH 0.1N HNO ₃	250	120	used 100
	C-8A A 0.1N HNO ₃			
	C-8B B DI H ₂ O			
	C-9 BH 5% HNO ₃ /10% H ₂ O ₂	240	50	used 120
	C-10 B 4% KMnO ₄ /10% H ₂ SO ₄			
	C-11 C 8N HCl DI H ₂ O			
	C-12-1 FH Filter			

Lab Communications

• 4B+ spiked FH w/ 200 µl of 25 ppm standard A, B (1st to 0.2M - A, B); 8M 100 µl
 • 4-6 FH samples were very dirty (especially for outlets)

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

NOTE--Run RB with job #17131, 17132, & 17133 also.

Fractions Received: C1, C3, C4--RB C12, C8a, C9--LLB 08.04.11

SS Page1 of 1
8/5/2011 4:33:42 PM
SS By LLB
Labeled By/Date LLB 8/5/11

FH Prep By/Date LLB 8/5/11 A Prep By/Date _____
 BH Prep By/Date LLB 8/5/11 B Prep By/Date _____
 BH/FH Prep By/Date LLB 8/5/11 C Prep By/Date _____
 PM Prep By/Date _____ ID Verification By / Date LLB 8.5.11

Sample/Batch Report

User Name: icp
 Computer Name: ICP-MS
 Sample File: C:\elandata_icp\Sample\18.sam
 Report Date/Time: Wednesday, August 10, 2011 08:47:12

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	Deeco	Sample					
204		17129-2	Deeco	Sample					
205	d	17129-2	Deeco	Duplicate of 3					
206		17129-3	Deeco	Sample					
207	s	17129-3	Deeco	Spike - 1 of 5					
208		17129-4	Deeco	Sample					
209		17129-5	Deeco	Sample					
210	d	17129-5	Deeco	Duplicate of 8					
211		17129-6	Deeco	Sample					
212	s	17129-6	Deeco	Spike - 1 of 10					
213		17129-7	Deeco	Sample					
401		QC Std 1	Deeco	Sample					
402		QC Std 4	Deeco	Sample					
	5	QC STD 2		Sample					
216		17130-1fn		Sample					
217		17130-2fn		Sample					
218	d	17130-2fn		Duplicate of 17					
219		17130-3fn		Sample					
220	s	17130-3fn		Spike - 1 of 19					
221		17130-4fn		Sample					
222		17130-5fn		Sample					
223	d	17130-5fn		Duplicate of 22					
224		17130-6fn		Sample					
225	s	17130-6fn		Spike - 1 of 24					
226		17130-7fn		Sample					
227	x50	17130-1fn		Sample					
228	x50	17130-2fn		Sample					
229	x50d	17130-2fn		Duplicate of 28					
230	x50	17130-3fn		Sample					
231	x50s	17130-3fn		Spike - 1 of 30					
232	x50	17130-4fn		Sample					
233	x50	17130-5fn		Sample					
234	x50d	17130-5fn		Duplicate of 33					
235	x50	17130-6fn		Sample					
236	x50s	17130-6fn		Spike - 1 of 35					
237		LRB		Sample					
238	s	LRB		Spike - 1 of 37					
239		17130-1bh		Sample					
240		17130-2bh		Sample					
241	d	17130-2bh		Duplicate of 40					
242		17130-3bh		Sample					
243	s	17130-3bh		Spike - 1 of 42					
244		17130-4bh		Sample					
245		17130-5bh		Sample					
246	d	17130-5bh		Duplicate of 45					
247		17130-6bh		Sample					
248	s	17130-6bh		Spike - 1 of 47					
249		17130-7bh		Sample					

Dataset Report

User Name: icp
 Computer Name: ICP-MS
 Dataset File Path: C:\elandata_icp\DataSet\080811-4\
 Report Date/Time: Wednesday, August 10, 2011 08:43:07

Autosampler Position: 238

The Dataset

Time	Sample ID	Batch ID	Read Type	Description	Init. Quant	Prep. Vol.	Aliquot. Vol.	Diluted V
20:10:58 Mon 08-Aug-11	Blank		Blank					
20:13:29 Mon 08-Aug-11	Standard 1		Standard #1					
20:16:00 Mon 08-Aug-11	Standard 2		Standard #2					
20:18:31 Mon 08-Aug-11	Standard 3		Standard #3					
20:21:02 Mon 08-Aug-11	QC Std 1		QC Std #1					
20:23:34 Mon 08-Aug-11	QC Std 2		QC Std #2					
20:26:04 Mon 08-Aug-11	QC Std 3		QC Std #3					
20:28:36 Mon 08-Aug-11	QC Std 4		QC Std #4					
20:31:09 Mon 08-Aug-11	QC Std 5		QC Std #5					
20:33:40 Mon 08-Aug-11	QC Std 7		QC Std #7					
20:36:11 Mon 08-Aug-11	QC Std 8		QC Std #8					
20:38:43 Mon 08-Aug-11	QC Std 9		QC Std #9					
20:41:14 Mon 08-Aug-11	QC Std 10		QC Std #10					
20:43:47 Mon 08-Aug-11	QC STD 2		Sample					
20:46:20 Mon 08-Aug-11	17129-1		Sample					
20:48:51 Mon 08-Aug-11	17129-2		Sample					
20:51:22 Mon 08-Aug-11	17129-2	d	Duplicate of 16					
20:53:52 Mon 08-Aug-11	17129-3		Sample					
20:56:23 Mon 08-Aug-11	17129-3	s	Spike - 1 of 18					
20:58:54 Mon 08-Aug-11	17129-4		Sample					
21:01:25 Mon 08-Aug-11	17129-5		Sample					
21:03:56 Mon 08-Aug-11	17129-5	d	Duplicate of 21					
21:06:27 Mon 08-Aug-11	17129-6		Sample					
21:08:58 Mon 08-Aug-11	17129-6	s	Spike - 1 of 23					
21:11:31 Mon 08-Aug-11	QC Std 1		QC Std #1					
21:14:02 Mon 08-Aug-11	QC Std 4		QC Std #4					
21:16:35 Mon 08-Aug-11	17129-7		Sample					
21:19:07 Mon 08-Aug-11	QC Std 1		Sample					
21:21:38 Mon 08-Aug-11	QC Std 4		Sample					
21:24:12 Mon 08-Aug-11	Blank		Blank					
21:26:21 Mon 08-Aug-11	Standard 1		Standard #1					
21:28:30 Mon 08-Aug-11	Standard 2		Standard #2					
21:30:40 Mon 08-Aug-11	Standard 3		Standard #3					
21:32:49 Mon 08-Aug-11	QC Std 1		QC Std #1					
21:34:59 Mon 08-Aug-11	QC Std 2		QC Std #2					
21:37:08 Mon 08-Aug-11	QC Std 3		QC Std #3					
21:39:18 Mon 08-Aug-11	QC Std 4		QC Std #4					
21:41:29 Mon 08-Aug-11	QC Std 5		QC Std #5					
21:43:39 Mon 08-Aug-11	QC Std 7		QC Std #7					
21:45:48 Mon 08-Aug-11	QC Std 8		QC Std #8					
21:47:59 Mon 08-Aug-11	QC Std 9		QC Std #9					
21:50:08 Mon 08-Aug-11	QC Std 10		QC Std #10					
21:52:19 Mon 08-Aug-11	QC STD 2		Sample	Airtech				

21:54:31 Mon 08-Aug-11	17130-1fh		Sample	Airtech
21:56:40 Mon 08-Aug-11	17130-2fh		Sample	Airtech
21:58:50 Mon 08-Aug-11	17130-2fh	d	Duplicate of 46	Airtech
22:00:59 Mon 08-Aug-11	17130-3fh		Sample	Airtech
22:03:08 Mon 08-Aug-11	17130-3fh	s	Spike - 1 of 47	Airtech
22:05:18 Mon 08-Aug-11	17130-4fh		Sample	Airtech
22:07:30 Mon 08-Aug-11	QC Std 1		QC Std #1	
22:09:39 Mon 08-Aug-11	QC Std 4		QC Std #4	
22:11:51 Mon 08-Aug-11	17130-5fh		Sample	Airtech
22:14:01 Mon 08-Aug-11	17130-5fh	d	Duplicate of 52	Airtech
22:16:10 Mon 08-Aug-11	17130-6fh		Sample	Airtech
22:18:20 Mon 08-Aug-11	17130-6fh	s	Spike - 1 of 54	Airtech
22:20:29 Mon 08-Aug-11	17130-7fh		Sample	Airtech
22:22:38 Mon 08-Aug-11	17130-1fh	x50	Sample	Airtech
22:24:47 Mon 08-Aug-11	17130-2fh	x50	Sample	Airtech
22:26:57 Mon 08-Aug-11	17130-2fh	x50d	Duplicate of 58	Airtech
22:29:06 Mon 08-Aug-11	17130-3fh	x50	Sample	Airtech
22:31:16 Mon 08-Aug-11	17130-3fh	x50s	Spike - 1 of 60	Airtech
22:33:28 Mon 08-Aug-11	QC Std 1		QC Std #1	
22:35:37 Mon 08-Aug-11	QC Std 4		QC Std #4	
22:37:49 Mon 08-Aug-11	17130-4fh	x50	Sample	Airtech
22:39:59 Mon 08-Aug-11	17130-5fh	x50	Sample	Airtech
22:42:08 Mon 08-Aug-11	17130-5fh	x50d	Duplicate of 65	Airtech
22:44:18 Mon 08-Aug-11	17130-6fh	x50	Sample	Airtech
22:46:27 Mon 08-Aug-11	17130-6fh	x50s	Spike - 1 of 67	Airtech
22:48:36 Mon 08-Aug-11	LRB		Sample	Airtech
22:50:46 Mon 08-Aug-11	LRB	s	Spike - 1 of 69	Airtech
22:52:55 Mon 08-Aug-11	17130-1bh		Sample	Airtech
22:55:04 Mon 08-Aug-11	17130-2bh		Sample	Airtech
22:57:13 Mon 08-Aug-11	17130-2bh	d	Duplicate of 72	Airtech
22:59:25 Mon 08-Aug-11	QC Std 1		QC Std #1	
23:01:34 Mon 08-Aug-11	QC Std 4		QC Std #4	
23:03:46 Mon 08-Aug-11	17130-3bh		Sample	Airtech
23:05:56 Mon 08-Aug-11	17130-3bh	s	Spike - 1 of 76	Airtech
23:08:05 Mon 08-Aug-11	17130-4bh		Sample	Airtech
23:10:14 Mon 08-Aug-11	17130-5bh		Sample	Airtech
23:12:24 Mon 08-Aug-11	17130-5bh	d	Duplicate of 79	Airtech
23:14:33 Mon 08-Aug-11	17130-6bh		Sample	Airtech
23:16:42 Mon 08-Aug-11	17130-6bh	s	Spike - 1 of 81	Airtech
23:18:51 Mon 08-Aug-11	17130-7bh		Sample	Airtech
23:21:01 Mon 08-Aug-11	QC Std 1		Sample	Airtech
23:23:11 Mon 08-Aug-11	QC Std 4		Sample	Airtech
23:25:22 Mon 08-Aug-11	QC Std 1		QC Std #1	
23:27:32 Mon 08-Aug-11	QC Std 4		QC Std #4	
23:29:42 Mon 08-Aug-11	Blank		Blank	
23:31:51 Mon 08-Aug-11	Standard 1		Standard #1	
23:34:00 Mon 08-Aug-11	Standard 2		Standard #2	
23:36:09 Mon 08-Aug-11	Standard 3		Standard #3	
23:38:19 Mon 08-Aug-11	QC Std 1		QC Std #1	
23:40:29 Mon 08-Aug-11	QC Std 2		QC Std #2	
23:42:38 Mon 08-Aug-11	QC Std 3		QC Std #3	
23:44:48 Mon 08-Aug-11	QC Std 4		QC Std #4	
23:46:59 Mon 08-Aug-11	QC Std 5		QC Std #5	
23:49:08 Mon 08-Aug-11	QC Std 7		QC Std #7	
23:51:18 Mon 08-Aug-11	QC Std 8		QC Std #8	
23:53:28 Mon 08-Aug-11	QC Std 9		QC Std #9	

← Tube clogged.
No data below this
is good.

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		
216		17130-1fh	Airtech	Sample		100
217		17130-2fh	Airtech	Sample		100
218	d	17130-2fh	Airtech	Duplicate of 17		100
219		17130-3fh	Airtech	Sample		100
220	s	17130-3fh	Airtech	Spike - 1 of 19		100
221		17130-4fh	Airtech	Sample		100
222		17130-5fh	Airtech	Sample		100
223	d	17130-5fh	Airtech	Duplicate of 22		100
224		17130-6fh	Airtech	Sample		100
225	s	17130-6fh	Airtech	Spike - 1 of 24		100
226		17130-7fh	Airtech	Sample		100
227	x50	17130-1fh	Airtech	Sample		100
228	x50	17130-2fh	Airtech	Sample		100
229	x50d	17130-2fh	Airtech	Duplicate of 28		100
230	x50	17130-3fh	Airtech	Sample		100
231	x50s	17130-3fh	Airtech	Spike - 1 of 30		100
232	x50	17130-4fh	Airtech	Sample		100
233	x50	17130-5fh	Airtech	Sample		100
234	x50d	17130-5fh	Airtech	Duplicate of 33		100
235	x50	17130-6fh	Airtech	Sample		100
236	x50s	17130-6fh	Airtech	Spike - 1 of 35		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 8:48	DBL	8/16/11 1024
Re-Test Required:	No: <input checked="" type="checkbox"/>	Yes: <input type="checkbox"/>	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\Samplex18.sam
 Report Date/Time: Wednesday, August 10, 2011 09:23:44

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	Deeco	Sample					
204		17129-2	Deeco	Sample					
205	d	17129-2	Deeco	Duplicate of 3					
206		17129-3	Deeco	Sample					
207	s	17129-3	Deeco	Spike - 1 of 5					
208		17129-4	Deeco	Sample					
209		17129-5	Deeco	Sample					
210	d	17129-5	Deeco	Duplicate of 8					
211		17129-6	Deeco	Sample					
212	s	17129-6	Deeco	Spike - 1 of 10					
213		17129-7	Deeco	Sample					
401		QC Std 1	Deeco	Sample					
402		QC Std 4	Deeco	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 55
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 > empty tube
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 118
424	17133-4	Airtech	Sample
237	LRB	Airtech	Sample
238 s	LRB	Airtech	Spikes - 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 09:23:36

Autosampler Position: 249

The Dataset

Time	Sample ID	Batch ID	Read Type	Description	Init. Quant	Prep. Vol.	Aliquot. Vol.	Diluted V
07:44:38 Tue 08-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	
11:01:38 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	
11:10:15 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	

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		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		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
16:43:48 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		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

Front Half

Back Half

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		
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
418		17133-4	Airtech	Sample		100
345		LRB	Airtech	Sample		50
346	s	LRB	Airtech	Spike - 1 of 113		50
418		17133-1	Airtech	Sample		50x2
420		17133-2	Airtech	Sample		50x2
421	d	17133-2	Airtech	Duplicate of 116		50x2
422		17133-3	Airtech	Sample		50x2
423	s	17133-3	Airtech	Spike - 1 of 118		50x2
424		17133-4	Airtech	Sample		50x2
237		LRB	Airtech	Sample		50
238	s	LRB	Airtech	Spike - 1 of 121		50
239		17130-1bh	Airtech	Sample		50x2
240		17130-2bh	Airtech	Sample		50x2
241	d	17130-2bh	Airtech	Duplicate of 124		50x2
242		17130-3bh	Airtech	Sample		50x2
243	s	17130-3bh	Airtech	Spike - 1 of 126		50x2
244		17130-4bh	Airtech	Sample		50x2
245		17130-5bh	Airtech	Sample		50x2
246	d	17130-5bh	Airtech	Duplicate of 129		50x2
247		17130-6bh	Airtech	Sample		50x2
248	s	17130-6bh	Airtech	Spike - 1 of 131		50x2
249		17130-7bh	Airtech	Sample		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:
KMS	8/10/11 9:26		DBL	8/16/11 1100
Re-Test Required:	No: <input checked="" type="checkbox"/>	Yes: <input type="checkbox"/>	Comments:	
Resubmitted for QC by:	Date/Time:		QC Review:	By: <input type="text"/> Date/Time: <input type="text"/>

Sample/Batch Report

Steph L...
8/11/11

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	17130-3fn	Airtech	Sample					
202	x5s	17130-3fn	Airtech	Spike - 1 of 2					
203	x5	17130-6fn	Airtech	Sample					
204	x5s	17130-6fn	Airtech	Spike - 1 of 4					
205	x10	17130-8fn	Airtech	Sample					
206	x10s	17130-8fn	Airtech	Spike - 1 of 8					
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	17131-1fn	Airtech	Sample					
215		17131-2fn	Airtech	Sample					
216	d	17131-2fn	Airtech	Duplicate of 16					
217	x2	17131-3fn	Airtech	Sample					
218	x2s	17131-3fn	Airtech	Spike - 1 of 18					
219		17131-5fn	Airtech	Sample					
220	d	17131-5fn	Airtech	Duplicate of 20					
221	x2	17131-6fn	Airtech	Sample					
222	x2s	17131-6fn	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	17131-6bh	Airtech	Sample					
227	x10d	17131-6bh	Airtech	Duplicate of 27					
228	x2	17131-6bh	Airtech	Sample					
229	x2s	17131-6bh	Airtech	Spike - 1 of 28					
230	x5	17131-8bh	Airtech	Sample					
231	x5s	17131-8bh	Airtech	Spike - 1 of 31					
232	x10	17132-2fn	Airtech	Sample					
233	x10d	17132-2fn	Airtech	Duplicate of 33					
234	x2	17132-3fn	Airtech	Sample					
235	x2s	17132-3fn	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	17130-6bh	Airtech	Sample
260	x20s	17130-6bh	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

Daphne
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	17130-3fn	x5	Sample	Airtech				
14:15:48 Wed 10-Aug-11	17130-3fn	x5s	Spike - 1 of 13	Airtech				
14:17:57 Wed 10-Aug-11	17130-6fn	x5	Sample	Airtech				
14:20:08 Wed 10-Aug-11	17130-6fn	x5s	Spike - 1 of 15	Airtech				
14:22:15 Wed 10-Aug-11	17130-6fn	x10	Sample	Airtech				
14:24:26 Wed 10-Aug-11	17130-6fn	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	17131-1fn	x5	Sample	Airtech				
14:48:13 Wed 10-Aug-11	17131-2fn		Sample	Airtech				
14:50:22 Wed 10-Aug-11	17131-2fn	d	Duplicate of 29	Airtech				
14:52:31 Wed 10-Aug-11	17131-3fn	x2	Sample	Airtech				
14:54:41 Wed 10-Aug-11	17131-3fn	x2s	Spike - 1 of 31	Airtech				
14:56:50 Wed 10-Aug-11	17131-5fn		Sample	Airtech				
14:59:00 Wed 10-Aug-11	17131-5fn	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	17131-6fn	x2	Sample	Airtech				
15:07:42 Wed 10-Aug-11	17131-6fn	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
15:48:37 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 54		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: <input checked="" type="checkbox"/>	Yes:	Comments:		
Resubmitted for QC by:	Date/Time:		QC Review:	By:	Date/Time:

Analyte	Max (amu)	Spike Table 1 (Conc.)	Spike Table 1 Det. Limit (Conc.)	Spike Table 2 (Conc.)	Spike Table 2 Det. Limit (Conc.)	Spike Table 3 (Conc.)	Spike Table 3 Det. Limit (Conc.)	Spike Table 4 (Conc.)	Spike Table 4 Det. Limit (Conc.)	Spike Table 5 (Conc.)
1 Se	7907.37	50	1	25	1	100	1			
2 Br	4177.03	50	1	25	1	100	1			
3 I	21497.95	50	1	25	1	100	1			
4 Cl	51542.78	50	1	25	1	100	1			
5 Sn	241938.1	50	1	25	1	100	1			
6 Pb	56105.47	50	1	25	1	100	1			
7 Hg	20112.47	50	1	25	1	100	1			
8 Ag	21497.95	50	1	25	1	100	1			
9 Au	21497.95	50	1	25	1	100	1			
10 Sb	21497.95	50	1	25	1	100	1			
11 Bi	21497.95	50	1	25	1	100	1			
12 Tl	21497.95	50	1	25	1	100	1			
13 As	21497.95	50	1	25	1	100	1			
14 S	21497.95	50	1	25	1	100	1			
15 P	21497.95	50	1	25	1	100	1			
16 V	21497.95	50	1	25	1	100	1			

Wednesday, Aug 10, 2011 09:44 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	76	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														

elementOne

elementOne

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: Blank

Sample Date: Monday, August 08, 2011 21:24:12

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	74071.4		ppb
Be	9	21.7		ppb
Sc	45	367773.9		ppb
Cr	52	23436.9		ppb
Cr	53	73261.9		ppb
Mn	55	21718		ppb
Co	59	823.4		ppb
Ni	60	1609.1		ppb
As	75	-1299.3		ppb
Se	77	12245.6		ppb
Se	82	24.4		ppb
Rh	103	824287.2		ppb
Cd	111	247		ppb
Cd	114	492.9		ppb
Sb	121	829		ppb
Sb	123	600.5		ppb
Hg	165	1329930.2		ppb
Pb	208	23888.2		ppb
Kr	83	109		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: Standard 1

Sample Date: Monday, August 08, 2011 21:26:21

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	75098.4		ppb
Be	9	695	1.04756	ppb
Sc	45	382491.7		ppb
Cr	52	39493.3	0.96018	ppb
Cr	53	76738.9	1.34133	ppb
Mn	55	33139.3	0.39935	ppb
Co	59	22509.8	1.04049	ppb
Ni	60	5391.3	0.87508	ppb
As	75	1763	0.86476	ppb
Se	77	12885.8	0.56857	ppb
Se	82	375.6	1.04533	ppb
Rh	103	857984.9		ppb
Cd	111	4527.7	1.05691	ppb
Cd	114	10491.5	1.0267	ppb
Sb	121	14668.8	1.05135	ppb
Sb	123	11005.8	1.03616	ppb
Hg	165	1382446.4		ppb
Pb	208	68526.3	0.78637	ppb
Kr	83	-180.9		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: Standard 2

Sample Date: Monday, August 08, 2011 21:28:30

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	70147.6		ppb
Be	9	62336	103.80469	ppb
Sc	45	362718.3		ppb
Cr	52	1514586.6	100.89634	ppb
Cr	53	247452.2	100.71813	ppb
Mn	55	2545001.9	101.78884	ppb
Co	59	1970892.5	100.68967	ppb
Ni	60	413844.2	103.25088	ppb
As	75	307658.9	101.81281	ppb
Se	77	35854.9	102.77622	ppb
Se	82	32231.5	102.28941	ppb
Rh	103	806693.4		ppb
Cd	111	390400.1	102.70015	ppb
Cd	114	916248.6	100.2273	ppb
Sb	121	1264068.7	102.06275	ppb
Sb	123	966849.8	102.33576	ppb
Hg	165	1302612.6		ppb
Pb	208	5568142.1	105.88164	ppb
Kr	83	-26180.9		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: Standard 3

Sample Da Monday, August 08, 2011 21:30:40

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	66147.2		ppb
Be	9	282721.1	499.23897	ppb
Sc	45	351732.3		ppb
Cr	52	7181588.2	499.82081	ppb
Cr	53	914659.1	499.85569	ppb
Mn	55	12022685	499.64343	ppb
Co	59	9476200.5	499.86199	ppb
Ni	60	1933365	499.35007	ppb
As	75	1467602	499.63751	ppb
Se	77	124014.5	499.44562	ppb
Se	82	152418.8	499.54203	ppb
Rh	103	781562.4		ppb
Cd	111	1838565.1	499.45986	ppb
Cd	114	4426197.9	499.95449	ppb
Sb	121	6263602	499.58735	ppb
Sb	123	4777820.9	499.53278	ppb
Ho	165	1319364.9		ppb
Pb	208	26479849	498.8241	ppb
Kr	83	-125323.6		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Da Monday, August 08, 2011 21:32:49

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	64994.8		ppb
Be	9	86.3	0.12095	ppb
Sc	45	340455.3		ppb
Cr	52	21182.3	-0.06943	ppb
Cr	53	57436.6	-7.05085	ppb
Mn	55	22559.7	0.08402	ppb
Co	59	2956.2	0.1153	ppb
Ni	60	1920.5	0.10318	ppb
As	75	-376	0.29149	ppb
Se	77	8048.9	-15.76124	ppb
Se	82	25.2	0.00759	ppb
Rh	103	780098.1		ppb
Cd	111	655.7	0.11509	ppb
Cd	114	1477.3	0.11467	ppb
Sb	121	2098.2	0.11125	ppb
Sb	123	1579.3	0.11221	ppb
Ho	165	1248875.6		ppb
Pb	208	28990.1	0.13066	ppb
Kr	83	110.3		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 2

Sample Da Monday, August 08, 2011 21:34:59

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	68894.4		ppb
Be	9	678.7	1.11658	ppb
Sc	45	356147.1		ppb
Cr	52	38647.7	0.91696	ppb
Cr	53	60837.9	-6.37104	ppb
Mn	55	32127.1	0.43336	ppb
Co	59	22284.3	1.09312	ppb
Ni	60	5053.1	0.86606	ppb
As	75	1945.5	1.05795	ppb
Se	77	8644.1	-14.5361	ppb
Se	82	341.1	1.00314	ppb
Rh	103	810149.8		ppb
Cd	111	4419.3	1.0948	ppb
Cd	114	10361.9	1.07666	ppb
Sb	121	14392.7	1.08539	ppb
Sb	123	10884.4	1.07852	ppb
Ho	165	1316456.6		ppb
Pb	208	66805.9	0.81595	ppb
Kr	83	-150.5		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 3

Sample Da Monday, August 08, 2011 21:37:08

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	65405.9		ppb
Be	9	140760.6	251.34765	ppb
Sc	45	340736.8		ppb
Cr	52	3609642.6	254.5734	ppb
Cr	53	475589.8	244.79049	ppb
Mn	55	5787688.9	244.01214	ppb
Co	59	4598665.7	246.50905	ppb
Ni	60	934478.4	245.1046	ppb
As	75	711594.5	246.43007	ppb
Se	77	62555.2	230.90262	ppb
Se	82	73476	244.70943	ppb
Rh	103	769001.2		ppb
Cd	111	903068.5	249.29827	ppb
Cd	114	2137953	245.40661	ppb
Sb	121	2995136.2	243.81835	ppb
Sb	123	2284899.9	243.81239	ppb
Ho	165	1292674.4		ppb
Pb	208	13070185	251.08346	ppb
Kr	83	-61024.5		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Da Monday, August 08, 2011 21:39:18

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	65656.6		ppb
Be	9	57317.2	101.94148	ppb
Sc	45	347354		ppb
Cr	52	1454931.7	99.52861	ppb
Cr	53	230164.1	94.36769	ppb
Mn	55	2479926.3	101.86351	ppb
Co	59	1877566.7	98.51281	ppb
Ni	60	400013.3	102.49059	ppb
As	75	303319.6	103.0864	ppb
Se	77	31627.9	88.2546	ppb
Se	82	31077.1	101.28394	ppb
Rh	103	785487.3		ppb
Cd	111	382783.6	103.42984	ppb
Cd	114	883473.6	99.2618	ppb
Sb	121	1239194.7	101.10726	ppb
Sb	123	947517.1	101.34177	ppb
Ho	165	1289138.7		ppb
Pb	208	5485705.9	105.40342	ppb
Kr	83	-25517.7		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 5

Sample Da Monday, August 08, 2011 21:41:29

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	69002.7		ppb
Be	9	30080	50.90213	ppb
Sc	45	362917.8		ppb
Cr	52	762110.8	48.53469	ppb
Cr	53	145425.3	39.88123	ppb
Mn	55	1233821.8	47.49201	ppb
Co	59	953736	47.31411	ppb
Ni	60	201778.5	48.69992	ppb
As	75	150628.8	48.64448	ppb
Se	77	19478.5	29.87435	ppb
Se	82	15352.9	47.29537	ppb
Rh	103	830324.1		ppb
Cd	111	194015.7	49.54988	ppb
Cd	114	458887.7	48.74031	ppb
Sb	121	630889.8	48.7358	ppb
Sb	123	481578.1	48.76869	ppb
Ho	165	1360491.6		ppb
Pb	208	2767135.1	50.14728	ppb
Kr	83	128.2		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 7

Sample Da Monday, August 08, 2011 21:43:39

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas. Report Unit
Li	6	71245		ppb
Be	9	360	0.5561	ppb
Sc	45	344313.9		ppb
Cr	52	170427.8	11.35274	ppb
Cr	53	68568.3	2.90037	ppb
Mn	55	295891.4	12.50076	ppb
Co	59	371950.1	21.23859	ppb
Ni	60	75597.4	20.7984	ppb
As	75	27289	10.4831	ppb
Se	77	11292.3	2.82889	ppb
Se	82	2873.9	10.14019	ppb
Rh	103	720666.5		ppb
Cd	111	19020.5	5.54061	ppb
Cd	114	53187.2	6.4639	ppb
Sb	121	9533	0.67637	ppb
Sb	123	7115.3	0.66361	ppb
Ho	165	1352361.4		ppb
Pb	208	45631.4	0.3927	ppb
Kr	83	-118.4		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 8

Sample Da Monday, August 08, 2011 21:45:48

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas. Report Unit
Li	6	99843.1		ppb
Be	9	257.7	0.26718	ppb
Sc	45	515743.8		ppb
Cr	52	34760.7	0.04189	ppb
Cr	53	72727.8	-12.84116	ppb
Mn	55	82101.8	1.3867	ppb
Co	59	8876	0.2662	ppb
Ni	60	14396.4	2.04864	ppb
As	75	-115.5	0.39312	ppb
Se	77	10196.7	-21.84298	ppb
Se	82	136.5	0.2183	ppb
Rh	103	1190477.1		ppb
Cd	111	1825.8	0.26201	ppb
Cd	114	4014.1	0.24491	ppb
Sb	121	6276.2	0.28209	ppb
Sb	123	4806.7	0.28681	ppb
Ho	165	1899782.5		ppb
Pb	208	53978	0.25997	ppb
Kr	83	-74.6		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 9

Sample Da Monday, August 08, 2011 21:47:59

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas. Report Unit
Li	6	69226.8		ppb
Be	9	7	-0.02236	ppb
Sc	45	331400.8		ppb
Cr	52	34056.7	0.75746	ppb
Cr	53	20730.9	-29.16495	ppb
Mn	55	150632.5	5.23192	ppb
Co	59	2265.6	0.07484	ppb
Ni	60	2952.1	0.34666	ppb
As	75	302.2	0.51889	ppb
Se	77	1006.1	-47.2426	ppb
Se	82	44.7	0.06627	ppb
Rh	103	804860		ppb
Cd	111	144.9	-0.0254	ppb
Cd	114	266.7	-0.02354	ppb
Sb	121	65536.8	4.97174	ppb
Sb	123	49908.8	4.96688	ppb
Ho	165	1369149		ppb
Pb	208	51012.2	0.47999	ppb
Kr	83	66		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 10

Sample Date: Monday, August 08, 2011 21:50:08

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	74835.6			ppb
Be	9	23996.3	37.42646		ppb
Sc	45	377582.7			ppb
Cr	52	879432	52.92926		ppb
Cr	53	116373.8	19.99951		ppb
Mn	55	1549867.5	56.39376		ppb
Co	59	1004063.8	46.95858		ppb
Ni	60	218440.3	49.71383		ppb
As	75	114365.6	34.94362		ppb
Se	77	8323.1	-18.76701		ppb
Se	82	9882.7	28.67312		ppb
Rh	103	880766			ppb
Cd	111	158265.1	38.09578		ppb
Cd	114	374468.3	37.48725		ppb
Sb	121	519666.3	36.6586		ppb
Sb	123	396497.6	36.66647		ppb
Ho	165	1489274.7			ppb
Pb	208	2865058.3	47.41158		ppb
Kr	83	44.2			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC STD 2

Sample Date: Monday, August 08, 2011 21:52:19

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	67248.5			ppb
Be	9	627	1.05497		ppb
Sc	45	375950.5			ppb
Cr	52	35476.4	0.79481		ppb
Cr	53	55251.1	-10.1224		ppb
Mn	55	30666	0.35207		ppb
Co	59	21591.9	1.03769		ppb
Ni	60	5029.1	0.83682		ppb
As	75	2356	1.17782		ppb
Se	77	7907.8	-18.29952		ppb
Se	82	333.8	0.96055		ppb
Rh	103	825290.5			ppb
Cd	111	4423.3	1.07477		ppb
Cd	114	10301.4	1.0494		ppb
Sb	121	14248.8	1.04855		ppb
Sb	123	10989.7	1.06417		ppb
Ho	165	1345953.6			ppb
Pb	208	66770.2	0.78722		ppb
Kr	83	-151.3			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-1fh

Sample Date: Monday, August 08, 2011 21:54:31

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	89656.6			ppb
Be	9	3437.3	4.44584		ppb
Sc	45	632704.4			ppb
Cr	52	4789664.2	308.57784		ppb
Cr	53	577989.1	276.00659		ppb
Mn	55	3431496.5	131.62226		ppb
Co	59	257092.8	12.53814		ppb
Ni	60	741456.4	177.36837		ppb
As	75	435475.6	137.81406		ppb
Se	77	142237.6	534.64394		ppb
Se	82	191507.6	582.23279		ppb
Rh	103	842669.5			ppb
Cd	111	114054.5	28.67906		ppb
Cd	114	253970.4	26.55834		ppb
Sb	121	264652.1	18.79669		ppb
Sb	123	200975.4	18.71442		ppb
Ho	165	1476619.5			ppb
Pb	208	3514771.3	58.76556		ppb
Kr	83	-42722.1			mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-2fh

Sample Da Monday, August 08, 2011 21:56:40

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
Li	6	100408.2			ppb
Be	9	3896.8	4.49991		ppb
Sc	45	803854.3			ppb
Cr	52	6851904.4	426.37095		ppb
Cr	53	828130.8	397.06394		ppb
Mn	55	4277680.6	158.44196		ppb
Co	59	357825.2	16.8444		ppb
Ni	60	994104.2	229.4795		ppb
As	75	419611.9	128.10919		ppb
Se	77	152786.6	555.72835		ppb
Se	82	205102.4	601.3675		ppb
Rh	103	873673.1			ppb
Cd	111	116958.2	28.36323		ppb
Cd	114	258781.7	26.0992		ppb
Sb	121	234995.5	15.97427		ppb
Sb	123	178939.3	15.94797		ppb
Ho	165	1541897.5			ppb
Pb	208	3485532.1	55.78375		ppb
Kr	83	-43755.9			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-2fh

Sample Da Monday, August 08, 2011 21:58:50

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
Li	6	96300.8			ppb
Be	9	3880.5	4.67338		ppb
Sc	45	757721.7			ppb
Cr	52	6797435.9	452.19782		ppb
Cr	53	810173.1	417.06798		ppb
Mn	55	4186822.5	165.79201		ppb
Co	59	358112.6	18.02099		ppb
Ni	60	965464.6	238.22013		ppb
As	75	406944.5	132.77322		ppb
Se	77	149872.6	585.13671		ppb
Se	82	200826.2	629.35501		ppb
Rh	103	817417			ppb
Cd	111	114346.8	29.64033		ppb
Cd	114	255140.9	27.50514		ppb
Sb	121	231636.1	16.66875		ppb
Sb	123	176087.2	16.61374		ppb
Ho	165	1456713.2			ppb
Pb	208	3445146	58.38328		ppb
Kr	83	-43082.8			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-3fh

Sample Da Monday, August 08, 2011 22:00:59

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
Li	6	94474.7			ppb
Be	9	4134.6	5.07791		ppb
Sc	45	857340.6			ppb
Cr	52	9014694.2	621.81302		ppb
Cr	53	1070035.6	585.7385		ppb
Mn	55	4904282.6	201.35765		ppb
Co	59	313748.1	16.3519		ppb
Ni	60	1071229.9	273.87376		ppb
As	75	400057	135.20118		ppb
Se	77	160655.5	655.46191		ppb
Se	82	215443	699.39566		ppb
Rh	103	789072.9			ppb
Cd	111	142123.8	38.1823		ppb
Cd	114	322182	35.99602		ppb
Sb	121	168152	12.41044		ppb
Sb	123	128573.5	12.44276		ppb
Ho	165	1418472.2			ppb
Pb	208	3221360.9	56.0476		ppb
Kr	83	-43746.6			mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
 Sample ID: 17130-3fn
 Sample Da Monday, August 08, 2011 22:03:08
 Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear Report Unit
Li	6	96189.7		ppb
Be	9	34498.3	41.86455	ppb
Sc	45	841091.8		ppb
Cr	52	9652497.5	653.8771	ppb
Cr	53	1146288.2	618.31785	ppb
Mn	55	6163139.7	248.6764	ppb
Co	59	1306501.3	66.98378	ppb
Ni	60	1244611.4	312.51364	ppb
As	75	514924.5	170.77465	ppb
Se	77	167524.5	672.40736	ppb
Se	82	224047.3	714.21722	ppb
Rh	103	803575.6		ppb
Cd	111	296877	78.38752	ppb
Cd	114	680557.5	74.7262	ppb
Sb	121	744405.6	53.62868	ppb
Sb	123	567873.3	53.63292	ppb
Ho	165	1459099.8		ppb
Pb	208	5935614	100.74838	ppb
Kr	83	-43020.7		mg/L

Method 6020 & 200.8 Metals Summary Report
 Sample ID: 17130-4fn
 Sample Da Monday, August 08, 2011 22:05:18
 Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear Report Unit
Li	6	36632.3		ppb
Be	9	27445.8	87.80089	ppb
Sc	45	2664143.3		ppb
Cr	52	24072873	3305.619	ppb
Cr	53	2910523.2	3346.4368	ppb
Mn	55	29626351	2426.1919	ppb
Co	59	2311538.6	239.92582	ppb
Ni	60	2314342	1176.8417	ppb
As	75	522083.6	349.94051	ppb
Se	77	54054	421.05692	ppb
Se	82	72019.6	464.57707	ppb
Rh	103	397089.1		ppb
Cd	111	320319.9	171.2528	ppb
Cd	114	637831.1	141.82829	ppb
Sb	121	465804.4	39.029	ppb
Sb	123	353213.5	38.79719	ppb
Ho	165	1254117.7		ppb
Pb	208	16090962	318.76943	ppb
Kr	83	-378067.3		mg/L

Method 6020 & 200.8 Metals Summary Report
 Sample ID: QC Std 1
 Sample Da Monday, August 08, 2011 22:07:30
 Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear Report Unit
Li	6	80969.2		ppb
Be	9	56	0.04768	ppb
Sc	45	367230.4		ppb
Cr	52	44889.6	1.53147	ppb
Cr	53	40260.6	-17.6835	ppb
Mn	55	58109.6	1.52204	ppb
Co	59	3049.1	0.11713	ppb
Ni	60	4320.4	0.70426	ppb
As	75	82.4	0.4472	ppb
Se	77	5825.5	-26.16026	ppb
Se	82	148.9	0.40455	ppb
Rh	103	795460.1		ppb
Cd	111	499.6	0.06991	ppb
Cd	114	1115.7	0.0712	ppb
Sb	121	884.4	0.00737	ppb
Sb	123	679.3	0.0112	ppb
Ho	165	1277764.8		ppb
Pb	208	37232	0.2792	ppb
Kr	83	-241.9		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Da Monday, August 08, 2011 22:09:39

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
Li	6	77861.9			ppb
Be	9	67534.6	101.2924		ppb
Sc	45	351180.7			ppb
Cr	52	1508383.1	105.81389		ppb
Cr	53	223296.1	93.57384		ppb
Mn	55	2581619.5	108.71745		ppb
Co	59	1930938.6	103.80866		ppb
Ni	60	404405.2	106.18644		ppb
As	75	299506.9	104.29257		ppb
Se	77	29898.4	83.86309		ppb
Se	82	31047.8	103.68516		ppb
Rh	103	766559.8			ppb
Cd	111	379815.2	105.15128		ppb
Cd	114	886537.8	102.05705		ppb
Sb	121	1214962.1	99.43084		ppb
Sb	123	937264.3	100.54998		ppb
Ho	165	1285173.2			ppb
Pb	208	5446683.1	104.97502		ppb
Kr	83	-25506.8			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-5fh

Sample Da Monday, August 08, 2011 22:11:51

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
Li	6	30964.7			ppb
Be	9	25222.5	94.99245		ppb
Sc	45	2207834.7			ppb
Cr	52	21805332	3370.1397		ppb
Cr	53	2639812.7	3417.3121		ppb
Mn	55	27671099	2550.5037		ppb
Co	59	2072592.7	241.81185		ppb
Ni	60	2251241	1288.6216		ppb
As	75	560526.5	422.97405		ppb
Se	77	46999.7	411.43178		ppb
Se	82	61453.1	446.25255		ppb
Rh	103	352613			ppb
Cd	111	292386.5	176.04774		ppb
Cd	114	568960.6	142.40547		ppb
Sb	121	383229.5	34.24848		ppb
Sb	123	295011.2	34.56744		ppb
Ho	165	1175187.7			ppb
Pb	208	12402589	262.22599		ppb
Kr	83	-350402.3			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-5fh

Sample Da Monday, August 08, 2011 22:14:01

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
Li	6	27699.7			ppb
Be	9	23171.2	97.66651		ppb
Sc	45	2105228.2			ppb
Cr	52	20435929	3389.8795		ppb
Cr	53	2473361.6	3437.0711		ppb
Mn	55	26185512	2590.3649		ppb
Co	59	1954416.7	244.42834		ppb
Ni	60	2068371.9	1267.724		ppb
As	75	531398.4	430.93418		ppb
Se	77	43765.5	411.63052		ppb
Se	82	56160.2	438.01109		ppb
Rh	103	327917.1			ppb
Cd	111	277470.3	179.86572		ppb
Cd	114	543556.3	146.48654		ppb
Sb	121	365824.7	34.72336		ppb
Sb	123	281602.4	35.03008		ppb
Ho	165	1106950.2			ppb
Pb	208	11665830	262.0874		ppb
Kr	83	-336860.3			mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
 Sample ID: 17130-6fh
 Sample Da Monday, August 08, 2011 22:16:10
 Sample De Airtech
 Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	36384.2			ppb
Be	9	23491.6	75.39852		ppb
Sc	45	1621185.2			ppb
Cr	52	21111970	3038.4978		ppb
Cr	53	2545341.9	3063.8508		ppb
Mn	55	28898784	2480.413		ppb
Co	59	2141872.7	233.00094		ppb
Ni	60	1800731.4	959.66816		ppb
As	75	507268.4	356.31284		ppb
Se	77	48194.4	390.08854		ppb
Se	82	64251.6	434.32357		ppb
Rh	103	378928.2			ppb
Cd	111	281239.8	146.32634		ppb
Cd	114	506036.2	117.85334		ppb
Sb	121	325091.2	31.78969		ppb
Sb	123	248939.1	31.81392		ppb
Ho	165	1073991.9			ppb
Pb	208	12534600	289.86995		ppb
Kr	83	-294507.8			mg/L

Method 6020 & 200.8 Metals Summary Report
 Sample ID: 17130-6fh
 Sample Da Monday, August 08, 2011 22:18:20
 Sample De Airtech
 Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	35165.4			ppb
Be	9	35695.6	118.65505		ppb
Sc	45	1644277.8			ppb
Cr	52	21078611	3104.4132		ppb
Cr	53	2525915	3112.1635		ppb
Mn	55	28904610	2538.7499		ppb
Co	59	2565755.2	285.62537		ppb
Ni	60	1837341.2	1002.0243		ppb
As	75	547587.4	393.6012		ppb
Se	77	50767.4	424.5609		ppb
Se	82	67710.6	468.42696		ppb
Rh	103	370299.7			ppb
Cd	111	323233.1	185.30615		ppb
Cd	114	653650.8	155.81443		ppb
Sb	121	584661.1	58.24101		ppb
Sb	123	450779.3	58.86899		ppb
Ho	165	1055255.3			ppb
Pb	208	13605065	320.26128		ppb
Kr	83	-292636.7			mg/L

Method 6020 & 200.8 Metals Summary Report
 Sample ID: 17130-7fh
 Sample Da Monday, August 08, 2011 22:20:29
 Sample De Airtech
 Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	60872.5			ppb
Be	9	55.3	0.07399		ppb
Sc	45	282562			ppb
Cr	52	290194.6	22.07742		ppb
Cr	53	38566	-14.47788		ppb
Mn	55	930958.6	44.27353		ppb
Co	59	7790.1	0.44154		ppb
Ni	60	40598.8	11.83341		ppb
As	75	1416.7	0.98636		ppb
Se	77	508.7	-48.94004		ppb
Se	82	147.1	0.49315		ppb
Rh	103	671830.1			ppb
Cd	111	1490.4	0.40979		ppb
Cd	114	1229.3	0.11137		ppb
Sb	121	7090.8	0.54395		ppb
Sb	123	5483.8	0.55582		ppb
Ho	165	1229864.1			ppb
Pb	208	217436.7	4.0165		ppb
Kr	83	-1668.7			mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-1fh

Sample Da Monday, August 08, 2011 22:22:38

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
> Li	6	71104.2			ppb
- Be	9	92	0.11688		ppb
- Sc	45	332413.9			ppb
- Cr	52	100856.7	6.00565		ppb
- Cr	53	43693.5	-13.34965		ppb
- Mn	55	101192.1	3.66398		ppb
- Co	59	5319.6	0.25999		ppb
- Ni	60	14202.1	3.54577		ppb
- As	75	8224.6	3.42169		ppb
- Se	77	8285.1	-12.08163		ppb
- Se	82	3668.1	12.82826		ppb
> Rh	103	728215			ppb
- Cd	111	2366.4	0.62638		ppb
- Cd	114	5490.6	0.61291		ppb
- Sb	121	5466.6	0.4182		ppb
- Sb	123	4150.8	0.41924		ppb
> Ho	165	1189133.9			ppb
- Pb	208	79450	1.21516		ppb
- Kr	83	-664.1			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-2fh

Sample Da Monday, August 08, 2011 22:24:47

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
> Li	6	69743.4			ppb
- Be	9	72	0.0865		ppb
- Sc	45	321659.7			ppb
- Cr	52	128031.6	8.17011		ppb
- Cr	53	50774.1	-8.42464		ppb
- Mn	55	107261.1	3.99917		ppb
- Co	59	6461	0.32951		ppb
- Ni	60	19019.9	4.95273		ppb
- As	75	7769.9	3.29234		ppb
- Se	77	8338.8	-11.28945		ppb
- Se	82	3787.1	13.42396		ppb
> Rh	103	718613.9			ppb
- Cd	111	2429.4	0.65438		ppb
- Cd	114	5225.6	0.58915		ppb
- Sb	121	4612.8	0.34705		ppb
- Sb	123	3509.4	0.34933		ppb
> Ho	165	1176427.8			ppb
- Pb	208	75248.8	1.14434		ppb
- Kr	83	-586.5			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-2fh

Sample Da Monday, August 08, 2011 22:26:57

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
> Li	6	68334.5			ppb
- Be	9	83	0.1078		ppb
- Sc	45	316990.2			ppb
- Cr	52	133688.3	8.82012		ppb
- Cr	53	51984.9	-6.90466		ppb
- Mn	55	111475.8	4.30053		ppb
- Co	59	6496.7	0.33975		ppb
- Ni	60	18726.9	4.98625		ppb
- As	75	7458.5	3.24048		ppb
- Se	77	8492	-9.64699		ppb
- Se	82	3825.8	13.86496		ppb
> Rh	103	703106.6			ppb
- Cd	111	2482.9	0.68636		ppb
- Cd	114	5416.5	0.62731		ppb
- Sb	121	4776.9	0.36712		ppb
- Sb	123	3631.4	0.36896		ppb
> Ho	165	1161803			ppb
- Pb	208	80066.6	1.26728		ppb
- Kr	83	-571.4			mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
 Sample ID: 17130-3fh
 Sample Da Monday, August 08, 2011 22:29:06
 Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc. Meas	Report Unit
Li	6	68482.2		ppb
Be	9	84.7	0.11028	ppb
Sc	45	313644.1		ppb
Cr	52	165084.9	11.34728	ppb
Cr	53	56938.1	-3.39304	ppb
Mn	55	113546.3	4.43252	ppb
Co	59	5671.4	0.29361	ppb
Ni	60	20630.4	5.57402	ppb
As	75	7530.9	3.28646	ppb
Se	77	8639.8	-8.62748	ppb
Se	82	4236.5	15.46805	ppb
Rh	103	698379.2		ppb
Cd	111	3002.1	0.84899	ppb
Cd	114	6901.8	0.81986	ppb
Sb	121	3267.9	0.23163	ppb
Sb	123	2504.6	0.23629	ppb
Ho	165	1157042.1		ppb
Pb	208	68044.8	1.01614	ppb
Kr	83	-615.4		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-3fh
 Sample Da Monday, August 08, 2011 22:31:16
 Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc. Meas	Report Unit
Li	6	67629.9		ppb
Be	9	28047.2	48.41836	ppb
Sc	45	310612.1		ppb
Cr	52	811430	62.32735	ppb
Cr	53	134123.5	48.37025	ppb
Mn	55	1181640.7	54.61054	ppb
Co	59	848434.6	50.42583	ppb
Ni	60	195736.4	56.65746	ppb
As	75	135393.6	52.35447	ppb
Se	77	18300.7	40.10577	ppb
Se	82	16901.9	62.4045	ppb
Rh	103	693120.5		ppb
Cd	111	165200.6	50.54901	ppb
Cd	114	388335.9	49.41495	ppb
Sb	121	526544.7	48.18401	ppb
Sb	123	401973.7	48.22286	ppb
Ho	165	1148508		ppb
Pb	208	2431433.5	52.21704	ppb
Kr	83	-580.1		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1
 Sample Da Monday, August 08, 2011 22:33:28
 Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc. Meas	Report Unit
Li	6	66210.9		ppb
Be	9	13	-0.01123	ppb
Sc	45	294567.8		ppb
Cr	52	16145	-0.2733	ppb
Cr	53	39534.4	-14.57542	ppb
Mn	55	22721.7	0.21518	ppb
Co	59	493.7	-0.01153	ppb
Ni	60	1631.1	0.08367	ppb
As	75	-264.1	0.31771	ppb
Se	77	5448	-24.14452	ppb
Se	82	25.3	0.01936	ppb
Rh	103	689481.7		ppb
Cd	111	152.6	-0.01657	ppb
Cd	114	358.1	-0.00682	ppb
Sb	121	578.7	-0.01148	ppb
Sb	123	454.1	-0.00664	ppb
Ho	165	1126899.7		ppb
Pb	208	21162.3	0.02046	ppb
Kr	83	92.2		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
 Sample ID: QC Std 4
 Sample Da Monday, August 08, 2011 22:35:37
 Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
Li	6	65910.6		ppb
Be	9	55686.7	98.66943	ppb
Sc	45	298300.3		ppb
Cr	52	1330944.9	104.80034	ppb
Cr	53	197303.8	92.48859	ppb
Mn	55	2226028.2	105.20814	ppb
Co	59	1709347.9	103.16476	ppb
Ni	60	358044.5	105.53193	ppb
As	75	264326.9	103.33077	ppb
Se	77	26107.4	81.19916	ppb
Se	82	27378.4	102.64593	ppb
Rh	103	682829.4		ppb
Cd	111	331821.3	103.12069	ppb
Cd	114	777981.7	100.54103	ppb
Sb	121	1066469.8	98.04463	ppb
Sb	123	819706.9	98.78529	ppb
Ho	165	1144051.9		ppb
Pb	208	4929759.9	106.73281	ppb
Kr	83	-22206.5		mg/L

Method 6020 & 200.8 Metals Summary Report
 Sample ID: Blank
 Sample Da Tuesday, August 09, 2011 16:00:34
 Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
Li	6	59892.7		ppb
Be	9	3		ppb
Sc	45	253475.4		ppb
Cr	52	8994.1		ppb
Cr	53	27523		ppb
Mn	55	7053.4		ppb
Co	59	121.3		ppb
Ni	60	1314.1		ppb
As	75	187		ppb
Se	77	2246.6		ppb
Se	82	11.3		ppb
Rh	103	513670.4		ppb
Cd	111	70.8		ppb
Cd	114	178.8		ppb
Sb	121	149.3		ppb
Sb	123	124.1		ppb
Ho	165	954727.3		ppb
Pb	208	6827.7		ppb
Kr	83	116.7		mg/L

Method 6020 & 200.8 Metals Summary Report
 Sample ID: Standard 1
 Sample Da Tuesday, August 09, 2011 16:02:43
 Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
Li	6	63216		ppb
Be	9	642.4	1.14482	ppb
Sc	45	262971		ppb
Cr	52	19882.4	1.0027	ppb
Cr	53	29734.6	0.57643	ppb
Mn	55	23643.1	0.99231	ppb
Co	59	13272	1.07924	ppb
Ni	60	2935.8	0.60118	ppb
As	75	2088.9	0.88762	ppb
Se	77	2515.3	0.83749	ppb
Se	82	260	1.1358	ppb
Rh	103	542015.7		ppb
Cd	111	2960.2	1.0612	ppb
Cd	114	6989.6	1.07467	ppb
Sb	121	9624.8	1.06761	ppb
Sb	123	7448.3	1.08487	ppb
Ho	165	989985.1		ppb
Pb	208	51246.1	1.02459	ppb
Kr	83	-71.7		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: Standard 2

Sample Da: Tuesday, August 09, 2011 16:04:53

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	59806.5		ppb
Be	9	57152.8	108.08079	ppb
Sc	45	245080.3		ppb
Cr	52	984832.5	102.52926	ppb
Cr	53	142631.7	102.06136	ppb
Mn	55	1531510.5	101.63604	ppb
Co	59	1157128.3	103.40294	ppb
Ni	60	248761.2	104.6496	ppb
As	75	201887.3	102.70458	ppb
Se	77	18794.4	106.38639	ppb
Se	82	21368.3	106.39603	ppb
Rh	103	497974.2		ppb
Cd	111	257863	103.1982	ppb
Cd	114	615446.1	105.81262	ppb
Sb	121	865057.8	105.50359	ppb
Sb	123	654974.6	105.0605	ppb
Ho	165	914747.4		ppb
Pb	208	4185774.7	104.88641	ppb
Kr	83	-16008.7		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: Standard 3

Sample Da: Tuesday, August 09, 2011 16:07:02

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	63283.3		ppb
Be	9	279029.5	498.38355	ppb
Sc	45	255038.5		ppb
Cr	52	4909273.6	499.49414	ppb
Cr	53	612294.3	499.58858	ppb
Mn	55	7731224.4	499.67281	ppb
Co	59	5757768.2	499.31925	ppb
Ni	60	1217577.7	499.07088	ppb
As	75	1010966.5	499.45931	ppb
Se	77	82497.6	498.72305	ppb
Se	82	103173.4	498.72052	ppb
Rh	103	513208.9		ppb
Cd	111	1285341	499.36024	ppb
Cd	114	2989269.6	498.83733	ppb
Sb	121	4399926.1	498.89915	ppb
Sb	123	3346108.5	498.98773	ppb
Ho	165	983886		ppb
Pb	208	21391266	499.02267	ppb
Kr	83	-81941.5		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Da: Tuesday, August 09, 2011 16:09:12

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	59468.3		ppb
Be	9	31	0.05323	ppb
Sc	45	229524.9		ppb
Cr	52	8593.4	0.02874	ppb
Cr	53	27373.5	1.73189	ppb
Mn	55	7271.6	0.05139	ppb
Co	59	528.7	0.03869	ppb
Ni	60	1286.4	0.03055	ppb
As	75	67	-0.05672	ppb
Se	77	2126.2	0.30679	ppb
Se	82	22.7	0.06341	ppb
Rh	103	475726.7		ppb
Cd	111	145.9	0.03344	ppb
Cd	114	353.9	0.03364	ppb
Sb	121	394.7	0.03275	ppb
Sb	123	290.9	0.02957	ppb
Ho	165	878318.6		ppb
Pb	208	8005.1	0.04511	ppb
Kr	83	99.3		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 2

Sample Date: Tuesday, August 09, 2011 16:11:21

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	63847.6			ppb
Be	9	641	1.12908		ppb
Sc	45	245340.2			ppb
Cr	52	19586.8	1.14436		ppb
Cr	53	31810.6	4.55455		ppb
Mn	55	22482.1	1.04504		ppb
Co	59	12618.4	1.11884		ppb
Ni	60	2729.1	0.61701		ppb
As	75	2231.2	1.04609		ppb
Se	77	2671.4	3.18389		ppb
Se	82	229.1	1.08804		ppb
Rh	103	497247.8			ppb
Cd	111	2890.6	1.13119		ppb
Cd	114	6609.9	1.10858		ppb
Sb	121	9479.6	1.11413		ppb
Sb	123	7292.8	1.1258		ppb
Ho	165	934657.3			ppb
Pb	208	50158.6	1.06796		ppb
Kr	83	-66.9			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 3

Sample Date: Tuesday, August 09, 2011 16:13:30

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	57891.1			ppb
Be	9	126995.2	247.86511		ppb
Sc	45	214960.3			ppb
Cr	52	2123271.7	245.15932		ppb
Cr	53	280861.6	249.28165		ppb
Mn	55	3306302.9	242.72244		ppb
Co	59	2515235.4	248.02302		ppb
Ni	60	533875.8	248.55531		ppb
As	75	430587.6	241.81799		ppb
Se	77	36048	240.66863		ppb
Se	82	44284.5	243.35483		ppb
Rh	103	451426.5			ppb
Cd	111	567303.1	250.50112		ppb
Cd	114	1334317.3	253.1156		ppb
Sb	121	1896084.9	249.37056		ppb
Sb	123	1445478.1	250.03213		ppb
Ho	165	848812.8			ppb
Pb	208	9215615.1	249.06746		ppb
Kr	83	-36164			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Tuesday, August 09, 2011 16:15:41

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	69400.9			ppb
Be	9	65131	106.09684		ppb
Sc	45	262243.9			ppb
Cr	52	1053547.2	104.34121		ppb
Cr	53	150597	102.62201		ppb
Mn	55	1635025.9	103.20219		ppb
Co	59	1251759.6	106.36292		ppb
Ni	60	266206	106.51924		ppb
As	75	217447.8	105.19142		ppb
Se	77	20250.6	109.35314		ppb
Se	82	23097.7	109.39001		ppb
Rh	103	523450.9			ppb
Cd	111	277401.1	105.62169		ppb
Cd	114	652331.8	106.68014		ppb
Sb	121	912857.6	102.89056		ppb
Sb	123	700802.1	103.88972		ppb
Ho	165	989511.4			ppb
Pb	208	4453848.5	103.17602		ppb
Kr	83	-17019.9			mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 5

Sample Date: Tuesday, August 09, 2011 16:17:51

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	63420.7		ppb
Be	9	27572.1	49.13758	ppb
Sc	45	222544		ppb
Cr	52	445540.5	49.96104	ppb
Cr	53	81260.6	54.27205	ppb
Mn	55	698419.9	50.15259	ppb
Co	59	520093	50.52128	ppb
Ni	60	112357.2	51.10713	ppb
As	75	87280.7	48.22265	ppb
Se	77	9307.1	50.83133	ppb
Se	82	8914.5	48.23142	ppb
Rh	103	458108.1		ppb
Cd	111	116163.2	50.52421	ppb
Cd	114	273598.8	51.12239	ppb
Sb	121	394104.4	50.30542	ppb
Sb	123	300092	50.37521	ppb
Ho	165	873771.5		ppb
Pb	208	1957817.5	51.28185	ppb
Kr	83	100.5		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 7

Sample Date: Tuesday, August 09, 2011 16:20:01

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	60377.6		ppb
Be	9	26	0.0427	ppb
Sc	45	242190.1		ppb
Cr	52	106686.1	11.1747	ppb
Cr	53	48763.5	22.83281	ppb
Mn	55	165979.9	11.48468	ppb
Co	59	220679.4	21.27097	ppb
Ni	60	44791.4	19.89803	ppb
As	75	18240.2	9.93085	ppb
Se	77	5940.9	27.1064	ppb
Se	82	1781.3	9.52029	ppb
Rh	103	461545.2		ppb
Cd	111	11556	4.9642	ppb
Cd	114	30470.4	5.62534	ppb
Sb	121	1188.1	0.12449	ppb
Sb	123	948.9	0.13008	ppb
Ho	165	931059.3		ppb
Pb	208	7779.7	0.02728	ppb
Kr	83	48.3		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 8

Sample Date: Tuesday, August 09, 2011 16:22:10

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	69173.8		ppb
Be	9	190.3	0.30554	ppb
Sc	45	243916.2		ppb
Cr	52	13920	0.54907	ppb
Cr	53	36932.2	9.11123	ppb
Mn	55	10414	0.24013	ppb
Co	59	3371	0.29185	ppb
Ni	60	856	-0.17557	ppb
As	75	480.7	0.15616	ppb
Se	77	3379.3	7.76225	ppb
Se	82	64.8	0.26808	ppb
Rh	103	497025.5		ppb
Cd	111	712.5	0.25886	ppb
Cd	114	1715.3	0.2662	ppb
Sb	121	2659.4	0.30356	ppb
Sb	123	2034.7	0.3041	ppb
Ho	165	926002.5		ppb
Pb	208	15346.8	0.21716	ppb
Kr	83	54.7		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC STD 2

Sample Da Tuesday, August 09, 2011 16:28:40

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	70915.1		ppb
Be	9	647.7	1.02628	ppb
Sc	45	213310.6		ppb
Cr	52	17347.9	1.11714	ppb
Cr	53	29753	5.73194	ppb
Mn	55	19706.3	1.00986	ppb
Co	59	11073.1	1.09364	ppb
Ni	60	2584.7	0.68065	ppb
As	75	1916.3	0.99692	ppb
Se	77	2698.7	5.33185	ppb
Se	82	183.9	0.96763	ppb
Rh	103	446367.3		ppb
Cd	111	2543.3	1.1084	ppb
Cd	114	5990.1	1.11947	ppb
Sb	121	8592.7	1.10512	ppb
Sb	123	6491.4	1.09611	ppb
Hg	165	854084.7		ppb
Pb	208	45221.1	1.05146	ppb
Kr	83	-66.4		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Da Tuesday, August 09, 2011 16:50:20

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	70329.9		ppb
Be	9	4	0.00081	ppb
Sc	45	269496.6		ppb
Cr	52	10529.8	0.16644	ppb
Cr	53	37234.1	8.58794	ppb
Mn	55	7418.4	0.02801	ppb
Co	59	104.3	-0.00139	ppb
Ni	60	1357.8	0.02331	ppb
As	75	88.4	-0.04896	ppb
Se	77	3744.4	9.51348	ppb
Se	82	28.2	0.08398	ppb
Rh	103	508965.8		ppb
Cd	111	69.4	-0.00032	ppb
Cd	114	149.4	-0.00467	ppb
Sb	121	142.3	-0.00057	ppb
Sb	123	100	-0.00346	ppb
Hg	165	940792.9		ppb
Pb	208	6732	0.00009	ppb
Kr	83	82.6		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Da Tuesday, August 09, 2011 16:52:30

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	72266		ppb
Be	9	65725	102.79354	ppb
Sc	45	274029.1		ppb
Cr	52	1093170.1	104.94454	ppb
Cr	53	164547.5	110.05249	ppb
Mn	55	1727060.5	105.693	ppb
Co	59	1275535.2	105.10107	ppb
Ni	60	268080.9	103.98914	ppb
As	75	218877.2	102.65304	ppb
Se	77	21885.4	115.20474	ppb
Se	82	23541.5	108.07114	ppb
Rh	103	540029.4		ppb
Cd	111	285063.9	105.19016	ppb
Cd	114	669382.7	106.10458	ppb
Sb	121	950597	104.66295	ppb
Sb	123	726991.4	105.25361	ppb
Hg	165	1013151		ppb
Pb	208	4493021.9	101.68181	ppb
Kr	83	-17206.6		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
 Sample ID: LRB
 Sample Da Tuesday, August 09, 2011 17:05:29
 Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
Li	6	69513.5			ppb
Be	9	7.3	0.00636		ppb
Sc	45	265789.7			ppb
Cr	52	139702.4	12.16453		ppb
Cr	53	22379.2	-5.92395		ppb
Mn	55	354579.4	20.61581		ppb
Co	59	2038.6	0.15189		ppb
Ni	60	25836	9.20141		ppb
As	75	78.7	-0.05689		ppb
Se	77	415	-11.57534		ppb
Se	82	3.5	-0.03879		ppb
Rh	103	558641.1			ppb
Cd	111	884.8	0.28821		ppb
Cd	114	1963.7	0.27123		ppb
Sb	121	227603.9	25.33855		ppb
Sb	123	173785.2	25.44919		ppb
Ho	165	1001381			ppb
Pb	208	415722.5	9.36843		ppb
Kr	83	-1.9			mg/L

Method 6020 & 200.8 Metals Summary Report
 Sample ID: LRB
 Sample Da Tuesday, August 09, 2011 17:07:39
 Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
Li	6	70543			ppb
Be	9	25618.1	41.03977		ppb
Sc	45	278514.2			ppb
Cr	52	632145.4	55.71286		ppb
Cr	53	79632.7	36.29307		ppb
Mn	55	1056790.5	59.62738		ppb
Co	59	675927.9	51.51258		ppb
Ni	60	145044.6	51.76924		ppb
As	75	84733.9	36.70618		ppb
Se	77	5967	18.63744		ppb
Se	82	7255.8	30.77781		ppb
Rh	103	583875.3			ppb
Cd	111	116770.8	39.8413		ppb
Cd	114	277205.2	40.63064		ppb
Sb	121	479570.4	49.82422		ppb
Sb	123	365182.8	49.8881		ppb
Ho	165	1073572.1			ppb
Pb	208	2267839.9	48.34054		ppb
Kr	83	71.9			mg/L

Method 6020 & 200.8 Metals Summary Report
 Sample ID: 17130-1bh
 Sample Da Tuesday, August 09, 2011 17:09:48
 Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
Li	6	71726.2			ppb
Be	9	22	0.02912		ppb
Sc	45	285640.9			ppb
Cr	52	279206.5	25.60315		ppb
Cr	53	37198.8	6.12297		ppb
Mn	55	355551.8	20.97473		ppb
Co	59	15178.7	1.21619		ppb
Ni	60	40399.4	14.91096		ppb
As	75	26070.8	11.91935		ppb
Se	77	42589.4	232.65629		ppb
Se	82	54753.9	246.67866		ppb
Rh	103	550429.6			ppb
Cd	111	2116.7	0.73892		ppb
Cd	114	4456	0.66349		ppb
Sb	121	6818.6	0.81129		ppb
Sb	123	5332.9	0.83325		ppb
Ho	165	917953.2			ppb
Pb	208	514360.2	12.70159		ppb
Kr	83	-608.7			mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-2bh

Sample Da Tuesday, August 09, 2011 17:11:57

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	76797			ppb
Be	9	22.3	0.02722		ppb
Sc	45	278713.4			ppb
Cr	52	399077.1	35.90981		ppb
Cr	53	51568.2	16.37387		ppb
Mn	55	448641.3	25.81078		ppb
Co	59	20305.7	1.58337		ppb
Ni	60	101031.7	36.99131		ppb
As	75	16882.4	7.46542		ppb
Se	77	27555	141.07245		ppb
Se	82	35942	157.22083		ppb
Rh	103	567311.5			ppb
Cd	111	5460.8	1.89285		ppb
Cd	114	11701.4	1.73793		ppb
Sb	121	12619.8	1.41479		ppb
Sb	123	9637.2	1.41898		ppb
Ho	165	983390.7			ppb
Pb	208	350269.6	8.01499		ppb
Kr	83	-549			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-2bh

Sample Da Tuesday, August 09, 2011 17:14:07

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	72818.7			ppb
Be	9	26.7	0.03568		ppb
Sc	45	270275.7			ppb
Cr	52	377896.2	35.74008		ppb
Cr	53	48505.5	15.93467		ppb
Mn	55	430644	26.05437		ppb
Co	59	20567.9	1.6869		ppb
Ni	60	86410.9	33.20746		ppb
As	75	16216.2	7.5253		ppb
Se	77	27787.4	150.33996		ppb
Se	82	35803.6	164.64773		ppb
Rh	103	539256			ppb
Cd	111	5421.8	1.97659		ppb
Cd	114	11488	1.79466		ppb
Sb	121	12592.4	1.49774		ppb
Sb	123	9473.8	1.48038		ppb
Ho	165	927335.2			ppb
Pb	208	335331.4	8.13832		ppb
Kr	83	-538.4			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Da Tuesday, August 09, 2011 17:16:18

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	70465.9			ppb
Be	9	7.3	0.00635		ppb
Sc	45	276861			ppb
Cr	52	11283.4	0.24494		ppb
Cr	53	29327.2	1.7534		ppb
Mn	55	7806.4	0.05337		ppb
Co	59	235.3	0.00901		ppb
Ni	60	1372.1	0.02764		ppb
As	75	-273.7	-0.22564		ppb
Se	77	3437	7.56057		ppb
Se	82	46.4	0.16636		ppb
Rh	103	510078.2			ppb
Cd	111	87.1	0.00582		ppb
Cd	114	185	0.00033		ppb
Sb	121	660.7	0.06091		ppb
Sb	123	546	0.06615		ppb
Ho	165	939052.9			ppb
Pb	208	7137.1	0.0103		ppb
Kr	83	94.7			mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Tuesday, August 09, 2011 17:18:28

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	70250.9		ppb
Be	9	61492.7	99.03828	ppb
Sc	45	263598.3		ppb
Cr	52	1030925.7	106.41259	ppb
Cr	53	149110	106.59322	ppb
Mn	55	1633980.3	107.52045	ppb
Co	59	1178439.9	104.39553	ppb
Ni	60	251365.5	104.82438	ppb
As	75	205700	103.75615	ppb
Se	77	20049.5	113.30391	ppb
Se	82	21390.3	105.54356	ppb
Rh	103	502724.4		ppb
Cd	111	265687	105.3752	ppb
Cd	114	622545.9	106.05546	ppb
Sb	121	904283.5	104.54811	ppb
Sb	123	695490	105.75511	ppb
Ho	165	964977.9		ppb
Pb	208	4325498.6	102.75713	ppb
Kr	83	-16171.2		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-3bh

Sample Date: Tuesday, August 09, 2011 17:20:40

Sample Description: Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	71275.7		ppb
Be	9	39.7	0.05724	ppb
Sc	45	260801.6		ppb
Cr	52	277922.7	26.47755	ppb
Cr	53	37538.8	7.51384	ppb
Mn	55	478063.9	29.44791	ppb
Co	59	12936.5	1.07437	ppb
Ni	60	111248.3	43.5953	ppb
As	75	18122.3	8.5694	ppb
Se	77	24195.2	131.40114	ppb
Se	82	31871.8	148.91167	ppb
Rh	103	530758		ppb
Cd	111	1945.7	0.70293	ppb
Cd	114	4342.1	0.67091	ppb
Sb	121	4672.9	0.57133	ppb
Sb	123	3517.3	0.56397	ppb
Ho	165	885544		ppb
Pb	208	222920.6	5.61765	ppb
Kr	83	-931.5		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-3bh

Sample Date: Tuesday, August 09, 2011 17:22:49

Sample Description: Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	71364.6		ppb
Be	9	21027.6	33.30052	ppb
Sc	45	276456.8		ppb
Cr	52	819576.3	78.54787	ppb
Cr	53	99937.3	57.71318	ppb
Mn	55	1346993.5	82.4231	ppb
Co	59	645113.2	53.20995	ppb
Ni	60	241662.3	93.78815	ppb
As	75	105548.2	49.51944	ppb
Se	77	33810.8	185.88364	ppb
Se	82	43950.2	202.07728	ppb
Rh	103	539508.1		ppb
Cd	111	90874.2	33.55151	ppb
Cd	114	216714.3	34.37311	ppb
Sb	121	345007	42.74204	ppb
Sb	123	259783.9	42.3248	ppb
Ho	165	900270.5		ppb
Pb	208	1898089.3	48.24494	ppb
Kr	83	-945.6		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
 Sample ID: 17130-4bh
 Sample Da Tuesday, August 09, 2011 17:24:59
 Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	52595.2		ppb
Be	9	153	0.32305	ppb
Sc	45	224508.1		ppb
Cr	52	226264	23.66661	ppb
Cr	53	36387.5	9.66688	ppb
Mn	55	370823.2	25.11437	ppb
Co	59	15220.7	1.39656	ppb
Ni	60	90147.2	38.89286	ppb
As	75	276392	145.50426	ppb
Se	77	91523.4	592.335	ppb
Se	82	120355.9	620.27592	ppb
Rh	103	481375.7		ppb
Cd	111	33626	13.89952	ppb
Cd	114	73089.6	12.97515	ppb
Sb	121	108357.3	18.94902	ppb
Sb	123	83113.5	19.11318	ppb
Ho	165	637406.6		ppb
Pb	208	872973.7	31.28171	ppb
Kr	83	1492.8		mg/L

Method 6020 & 200.8 Metals Summary Report
 Sample ID: 17130-5bh
 Sample Da Tuesday, August 09, 2011 17:27:08
 Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	51484.2		ppb
Be	9	22	0.04249	ppb
Sc	45	210476.1		ppb
Cr	52	274265.9	30.27119	ppb
Cr	53	37742.2	12.4885	ppb
Mn	55	368490	26.13561	ppb
Co	59	9251	0.88443	ppb
Ni	60	35116	15.53622	ppb
As	75	226811.9	124.92539	ppb
Se	77	135599.4	925.95157	ppb
Se	82	178211	961.14647	ppb
Rh	103	459995		ppb
Cd	111	6740.5	2.89415	ppb
Cd	114	11268.6	2.06839	ppb
Sb	121	5766.8	0.99859	ppb
Sb	123	4527	1.02989	ppb
Ho	165	633189.3		ppb
Pb	208	230109	8.18079	ppb
Kr	83	2362.9		mg/L

Method 6020 & 200.8 Metals Summary Report
 Sample ID: 17130-5bh
 Sample Da Tuesday, August 09, 2011 17:29:17
 Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	50758.6		ppb
Be	9	19.3	0.03737	ppb
Sc	45	207000.4		ppb
Cr	52	278885.7	30.9787	ppb
Cr	53	37061.4	12.03504	ppb
Mn	55	376197.7	26.84821	ppb
Co	59	9640.4	0.92756	ppb
Ni	60	36364.6	16.20422	ppb
As	75	236118.9	130.81195	ppb
Se	77	137682.5	945.92525	ppb
Se	82	182304.2	988.88577	ppb
Rh	103	457342.1		ppb
Cd	111	6956.5	3.00509	ppb
Cd	114	11590.7	2.14088	ppb
Sb	121	5956.3	1.04449	ppb
Sb	123	4658.6	1.07326	ppb
Ho	165	625796.9		ppb
Pb	208	232874.7	8.37991	ppb
Kr	83	2021.9		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-6bh

Sample Da Tuesday, August 09, 2011 17:31:27

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	58716.1		ppb
Be	9	11.3	0.01612	ppb
Sc	45	275108.7		ppb
Cr	52	150522.3	13.18646	ppb
Cr	53	20125.6	-7.685	ppb
Mn	55	375170.4	21.85117	ppb
Co	59	5379.6	0.41835	ppb
Ni	60	76114.6	28.16998	ppb
As	75	107140.1	48.57011	ppb
Se	77	37994.9	203.0387	ppb
Se	82	49368.9	219.33492	ppb
Rh	103	558297.6		ppb
Cd	111	19017.5	6.7631	ppb
Cd	114	43537.3	6.64886	ppb
Sb	121	12404.1	1.67274	ppb
Sb	123	9413.2	1.66782	ppb
Ho	165	818798		ppb
Pb	208	1086657.7	30.30703	ppb
Kr	83	171.4		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-6bh

Sample Da Tuesday, August 09, 2011 17:33:36

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	60466.1		ppb
Be	9	21502.1	40.19598	ppb
Sc	45	283039.5		ppb
Cr	52	716757.7	64.06881	ppb
Cr	53	87018.2	42.82793	ppb
Mn	55	1252027.4	71.58425	ppb
Co	59	631708.6	48.72383	ppb
Ni	60	206046.2	74.66828	ppb
As	75	313813.8	137.83909	ppb
Se	77	56034.2	295.72908	ppb
Se	82	72524.3	311.83018	ppb
Rh	103	576922.2		ppb
Cd	111	99436.3	34.33212	ppb
Cd	114	232634.6	34.50442	ppb
Sb	121	398723.7	52.35532	ppb
Sb	123	306244	52.88424	ppb
Ho	165	849387.6		ppb
Pb	208	2670084.4	72.013	ppb
Kr	83	142.1		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-7bh

Sample Da Tuesday, August 09, 2011 17:35:45

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	61666.2		ppb
Be	9	22	0.03465	ppb
Sc	45	282893.7		ppb
Cr	52	78289.8	6.14443	ppb
Cr	53	9741.6	-16.12013	ppb
Mn	55	263670.4	14.64953	ppb
Co	59	24047.4	1.83548	ppb
Ni	60	12849.1	4.12895	ppb
As	75	441.5	0.10219	ppb
Se	77	314.3	-12.22475	ppb
Se	82	32.8	0.08581	ppb
Rh	103	580080.5		ppb
Cd	111	561.1	0.1652	ppb
Cd	114	-1594.9	-0.26803	ppb
Sb	121	1890.9	0.18375	ppb
Sb	123	1394.5	0.1761	ppb
Ho	165	1048533.5		ppb
Pb	208	179421.2	3.76457	ppb
Kr	83	-607		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Date: Tuesday, August 09, 2011 17:37:57

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	68223.5		ppb
Be	9	7	0.00588	ppb
Sc	45	301900.6		ppb
Cr	52	9231.7	-0.07425	ppb
Cr	53	16202.4	-11.10749	ppb
Mn	55	8559.7	0.03929	ppb
Co	59	151.3	0.00122	ppb
Ni	60	1521.1	0.01936	ppb
As	75	7.5	-0.08896	ppb
Se	77	2585.7	0.42362	ppb
Se	82	-4.2	-0.07249	ppb
Rh	103	573868.4		ppb
Cd	111	85.3	0.00213	ppb
Cd	114	154.3	-0.00677	ppb
Sb	121	180.3	0.00268	ppb
Sb	123	147.5	0.00256	ppb
Ho	165	1000167.7		ppb
Pb	208	7117.4	-0.00079	ppb
Kr	83	132.5		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Tuesday, August 09, 2011 17:40:06

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	69082.9		ppb
Be	9	62645.8	102.49049	ppb
Sc	45	288787.5		ppb
Cr	52	1152443.5	106.26588	ppb
Cr	53	152374.8	95.2554	ppb
Mn	55	1841572	108.21506	ppb
Co	59	1327437.9	105.02935	ppb
Ni	60	280110	104.31863	ppb
As	75	231615.5	104.31494	ppb
Se	77	21569.6	108.32733	ppb
Se	82	24331.9	107.27741	ppb
Rh	103	562600		ppb
Cd	111	268819.1	102.32847	ppb
Cd	114	680361.8	103.57217	ppb
Sb	121	978832.6	106.54386	ppb
Sb	123	748569	107.15833	ppb
Ho	165	1024816.1		ppb
Pb	208	4568009.1	102.1819	ppb
Kr	83	-18023.7		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: Blank

Sample Date: Wednesday, August 10, 2011 13:47:40

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas 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

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: Standard 1

Sample Date: Wednesday, August 10, 2011 13:49:49

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	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 Date: Wednesday, August 10, 2011 13:51:59

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	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 Date: Wednesday, August 10, 2011 13:54:08

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	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

PerkinElmer ELAN 6100 ICP-MS

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	-0.00764	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

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Wednesday, August 10, 2011 14:02:47

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas 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 Date: Wednesday, August 10, 2011 14:04:57

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas 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 Date: Wednesday, August 10, 2011 14:07:07

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas 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

PerkinElmer ELAN 6100 ICP-MS

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.	Meas	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	1816.4	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.	Meas	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: 17130-3fh

Sample Da Wednesday, August 10, 2011 14:13:38

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	64540.1			ppb
Be	9	637.4	1.2128		ppb
Sc	45	226107.1			ppb
Cr	52	811642.9	116.3247		ppb
Cr	53	110925.9	106.60184		ppb
Mn	55	406102.8	37.37072		ppb
Co	59	27771.4	3.29718		ppb
Ni	60	99954.2	57.30301		ppb
As	75	39806.2	29.22121		ppb
Se	77	16862	137.11774		ppb
Se	82	19763.6	145.56051		ppb
Rh	103	379342.5			ppb
Cd	111	15902.9	8.52637		ppb
Cd	114	37596	8.66295		ppb
Sb	121	19356.3	3.13531		ppb
Sb	123	14782.6	3.11066		ppb
Ho	165	723129.7			ppb
Pb	208	395624.9	12.86519		ppb
Kr	83	-3709.7			mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-3fh

Sample Da Wednesday, August 10, 2011 14:15:48

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	64845.4			ppb
Be	9	22604.8	47.17313		ppb
Sc	45	231248.9			ppb
Cr	52	1195449.8	169.57343		ppb
Cr	53	152445.6	154.02211		ppb
Mn	55	947523.9	87.04772		ppb
Co	59	454957.4	55.40913		ppb
Ni	60	192576.5	109.33011		ppb
As	75	104087.7	75.45245		ppb
Se	77	21717.9	181.91066		ppb
Se	82	25951.9	188.56009		ppb
Rh	103	384333.5			ppb
Cd	111	103725.6	55.20582		ppb
Cd	114	245073.6	56.06551		ppb
Sb	121	332526.7	55.89227		ppb
Sb	123	252180.7	55.03816		ppb
Ho	165	702422.9			ppb
Pb	208	1929370	65.31619		ppb
Kr	83	-3740.5			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-6fh

Sample Da Wednesday, August 10, 2011 14:17:57

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	57041.6			ppb
Be	9	7059.7	16.67096		ppb
Sc	45	555765.2			ppb
Cr	52	3631006.6	473.28594		ppb
Cr	53	452021.2	463.23959		ppb
Mn	55	5113819.5	432.4402		ppb
Co	59	370180.9	41.16819		ppb
Ni	60	331592.4	172.32182		ppb
As	75	121594.5	80.56741		ppb
Se	77	13411.9	90.27521		ppb
Se	82	14294.3	94.8527		ppb
Rh	103	420642.9			ppb
Cd	111	61088.2	29.68078		ppb
Cd	114	133733.9	27.92133		ppb
Sb	121	86753.1	10.82807		ppb
Sb	123	66597.6	10.79626		ppb
Ho	165	943927.8			ppb
Pb	208	2962996.6	74.67153		ppb
Kr	83	-64564.9			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-8fh

Sample Da Wednesday, August 10, 2011 14:20:06

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	55697.2			ppb
Be	9	25770.9	62.67088		ppb
Sc	45	574649.9			ppb
Cr	52	4012222.2	514.74271		ppb
Cr	53	504416.7	511.24947		ppb
Mn	55	5786346.3	481.58097		ppb
Co	59	807095.4	88.51332		ppb
Ni	60	427535.8	218.83794		ppb
As	75	195930.1	127.80313		ppb
Se	77	18468.8	132.41937		ppb
Se	82	21083.7	137.72956		ppb
Rh	103	427358			ppb
Cd	111	158812.5	76.05453		ppb
Cd	114	362091	74.53118		ppb
Sb	121	451817.6	55.90201		ppb
Sb	123	345982.8	55.58793		ppb
Ho	165	954200.6			ppb
Pb	208	4624673.1	115.38506		ppb
Kr	83	-67434.2			mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-6fh

Sample Da Wednesday, August 10, 2011 14:22:15

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intent	Conc.	Mear	Report Unit
Li	6	63195.5			ppb
Be	9	3917.8	8.28414		ppb
Sc	45	384602.1			ppb
Cr	52	1944253.5	252.91387		ppb
Cr	53	244414.5	238.33079		ppb
Mn	55	2629923.9	222.12776		ppb
Co	59	194223.5	21.54498		ppb
Ni	60	178355.2	92.51975		ppb
As	75	62944.4	41.69002		ppb
Se	77	8147.7	43.74449		ppb
Se	82	7326	48.58129		ppb
Rh	103	420358.9			ppb
Cd	111	31693.6	15.37363		ppb
Cd	114	69212	14.42452		ppb
Sb	121	43971.4	5.89013		ppb
Sb	123	33465.1	5.82307		ppb
Ho	165	877642			ppb
Pb	208	1519695.1	41.10797		ppb
Kr	83	-31338.3			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-6fh

Sample Da Wednesday, August 10, 2011 14:24:25

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
Li	6	61015.4			ppb
Be	9	24757.7	54.93697		ppb
Sc	45	383119.1			ppb
Cr	52	2276325.6	309.98685		ppb
Cr	53	287216.9	298.8137		ppb
Mn	55	3152040.2	278.29498		ppb
Co	59	633990.6	73.8068		ppb
Ni	60	262326.4	142.33758		ppb
As	75	131043.2	90.68732		ppb
Se	77	12725.2	89.18168		ppb
Se	82	13454.4	93.25667		ppb
Rh	103	402801.2			ppb
Cd	111	125307.6	63.67457		ppb
Cd	114	293358.2	64.09715		ppb
Sb	121	396058.4	54.51862		ppb
Sb	123	304813.8	54.47483		ppb
Ho	165	857757.3			ppb
Pb	208	3204454.7	88.9148		ppb
Kr	83	-30783.4			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-3bh

Sample Da Wednesday, August 10, 2011 14:26:34

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
Li	6	62488.6			ppb
Be	9	21	-0.08262		ppb
Sc	45	202205.4			ppb
Cr	52	96229.6	13.37248		ppb
Cr	53	19306.8	-2.18944		ppb
Mn	55	154614.1	14.61107		ppb
Co	59	4644.5	0.46574		ppb
Ni	60	41166.7	24.71119		ppb
As	75	5773.6	4.42841		ppb
Se	77	8496.6	59.96634		ppb
Se	82	9963.7	77.68985		ppb
Rh	103	357904.6			ppb
Cd	111	703.8	0.33057		ppb
Cd	114	1562.5	0.31045		ppb
Sb	121	1713.5	0.31566		ppb
Sb	123	1244.4	0.29865		ppb
Ho	165	588504.8			ppb
Pb	208	90133.2	3.46712		ppb
Kr	83	-284			mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-3bh

Sample Da Wednesday, August 10, 2011 14:28:43

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
> Li	6	53835.5		ppb
- Be	9	18156.5	45.63089	ppb
- Sc	45	172367		ppb
- Cr	52	450273.6	79.82912	ppb
- Cr	53	59466.8	62.17516	ppb
- Mn	55	682961.2	79.0805	ppb
- Co	59	443794.7	68.22605	ppb
- Ni	60	135311	96.86287	ppb
- As	75	65742.1	60.10611	ppb
- Se	77	13570.1	137.36117	ppb
- Se	82	16721.8	153.23697	ppb
> Rh	103	304635.4		ppb
- Cd	111	67606.8	45.39409	ppb
- Cd	114	159505.4	46.0418	ppb
- Sb	121	245312.8	59.24118	ppb
- Sb	123	182935.8	57.35756	ppb
> Ho	165	488993.1		ppb
- Pb	208	1415990.8	68.86625	ppb
- Kr	83	-268.3		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-4bh

Sample Da Wednesday, August 10, 2011 14:30:53

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
> Li	6	63497.5		ppb
- Be	9	38.3	-0.04604	ppb
- Sc	45	224897.2		ppb
- Cr	52	47540.1	5.14205	ppb
- Cr	53	16604.9	-7.83376	ppb
- Mn	55	71517.4	5.60835	ppb
- Co	59	2993.8	0.20896	ppb
- Ni	60	18075.6	9.43623	ppb
- As	75	35998.6	25.10131	ppb
- Se	77	16133	122.19205	ppb
- Se	82	19486.4	136.36563	ppb
> Rh	103	398796.6		ppb
- Cd	111	8058.1	4.06717	ppb
- Cd	114	17971.7	3.89359	ppb
- Sb	121	18704.6	3.49038	ppb
- Sb	123	14062.6	3.40841	ppb
> Ho	165	628064.5		ppb
- Pb	208	214338.1	7.95608	ppb
- Kr	83	84.8		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Da Wednesday, August 10, 2011 14:33:05

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
> Li	6	62014.2		ppb
- Be	9	6.3	-0.11438	ppb
- Sc	45	168307		ppb
- Cr	52	6856.9	-0.33095	ppb
- Cr	53	14529.3	-7.74654	ppb
- Mn	55	4575.2	-0.31621	ppb
- Co	59	87.7	-0.13191	ppb
- Ni	60	689	-0.07337	ppb
- As	75	-115.5	-0.16941	ppb
- Se	77	1927.5	-7.75683	ppb
- Se	82	4.4	-0.08119	ppb
> Rh	103	347667.5		ppb
- Cd	111	38.9	-0.04912	ppb
- Cd	114	78.8	-0.05398	ppb
- Sb	121	80.3	-0.01248	ppb
- Sb	123	60.7	-0.01033	ppb
> Ho	165	607600.5		ppb
- Pb	208	4009.7	-0.0278	ppb
- Kr	83	67.6		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Da Wednesday, August 10, 2011 14:35:14

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
Li	6	60330.2			ppb
Be	9	44712.1	100.43703		ppb
Sc	45	167951			ppb
Cr	52	683203.9	106.39328		ppb
Cr	53	94171.6	96.42991		ppb
Mn	55	1009425.8	102.45818		ppb
Co	59	792564.3	106.62046		ppb
Ni	60	170929.3	107.0573		ppb
As	75	128381.4	102.71564		ppb
Se	77	11583.7	95.37826		ppb
Se	82	12798.5	102.58291		ppb
Rh	103	348376.6			ppb
Cd	111	176310.5	103.56648		ppb
Cd	114	418918.5	105.78907		ppb
Sb	121	601448.7	114.69158		ppb
Sb	123	459142.7	113.68934		ppb
Ho	165	619358.2			ppb
Pb	208	2964312.2	113.95446		ppb
Kr	83	-11035.1			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-5bh

Sample Da Wednesday, August 10, 2011 14:37:26

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
Li	6	60641			ppb
Be	9	9.7	-0.10661		ppb
Sc	45	195440.8			ppb
Cr	52	30819.2	3.08037		ppb
Cr	53	14953.7	-8.71724		ppb
Mn	55	36371.7	2.65264		ppb
Co	59	900.4	-0.03167		ppb
Ni	60	3508.7	1.5328		ppb
As	75	13727.6	10.08199		ppb
Se	77	11528.3	85.42411		ppb
Se	82	13409.1	99.28661		ppb
Rh	103	376885.8			ppb
Cd	111	795.9	0.36033		ppb
Cd	114	1623.2	0.3053		ppb
Sb	121	605.7	0.09032		ppb
Sb	123	480.5	0.09627		ppb
Ho	165	604151.6			ppb
Pb	208	31611.8	1.06256		ppb
Kr	83	132.9			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-5bh

Sample Da Wednesday, August 10, 2011 14:39:36

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Mear	Report Unit
Li	6	60286.8			ppb
Be	9	5.7	-0.11553		ppb
Sc	45	189678.7			ppb
Cr	52	29725.3	2.97644		ppb
Cr	53	13792.5	-9.90547		ppb
Mn	55	35598.1	2.62287		ppb
Co	59	863.4	-0.03484		ppb
Ni	60	3562.4	1.59205		ppb
As	75	13819.9	10.29382		ppb
Se	77	11412.8	85.76192		ppb
Se	82	13379.1	100.37871		ppb
Rh	103	371975.2			ppb
Cd	111	847	0.39492		ppb
Cd	114	1615.8	0.30837		ppb
Sb	121	861.4	0.14316		ppb
Sb	123	676.8	0.14898		ppb
Ho	165	594191.4			ppb
Pb	208	31107.1	1.06336		ppb
Kr	83	125			mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-6bh

Sample Da Wednesday, August 10, 2011 14:41:45

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	60596.7			ppb
Be	9	5.7	-0.11541		ppb
Sc	45	194037.1			ppb
Cr	52	24132.7	2.27273		ppb
Cr	53	11945.9	-11.66796		ppb
Mn	55	51064.8	4.26944		ppb
Co	59	863	-0.03106		ppb
Ni	60	11274.3	6.36052		ppb
As	75	11246.8	8.62579		ppb
Se	77	5712.1	30.62498		ppb
Se	82	5764.6	44.57179		ppb
Rh	103	360695.1			ppb
Cd	111	3609.4	1.97919		ppb
Cd	114	8451.3	1.9876		ppb
Sb	121	1740.8	0.33277		ppb
Sb	123	1325.4	0.33089		ppb
Ho	165	569591.7			ppb
Pb	208	191801.9	7.84606		ppb
Kr	83	69.8			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-6bh

Sample Da Wednesday, August 10, 2011 14:43:54

Sample De Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	59193			ppb
Be	9	19662.3	44.9582		ppb
Sc	45	192532.2			ppb
Cr	52	362940.1	52.54571		ppb
Cr	53	51251.6	36.39361		ppb
Mn	55	581640.4	55.2765		ppb
Co	59	442081.3	55.98218		ppb
Ni	60	107748.9	63.38053		ppb
As	75	111220.2	83.85147		ppb
Se	77	15873.5	131.42923		ppb
Se	82	19623.7	148.25609		ppb
Rh	103	369692.8			ppb
Cd	111	78447.6	43.39633		ppb
Cd	114	183095	43.53571		ppb
Sb	121	277759.4	58.19874		ppb
Sb	123	209931.7	57.10803		ppb
Ho	165	563519.6			ppb
Pb	208	1467206.3	61.90153		ppb
Kr	83	74.8			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Da Wednesday, August 10, 2011 15:01:12

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas	Report Unit
Li	6	63465			ppb
Be	9	15	-0.09629		ppb
Sc	45	175188.4			ppb
Cr	52	10300.7	0.17918		ppb
Cr	53	15132.3	-7.30573		ppb
Mn	55	8833.9	0.0995		ppb
Co	59	393.7	-0.09198		ppb
Ni	60	1135.1	0.19227		ppb
As	75	24.8	-0.05538		ppb
Se	77	2011.6	-7.24977		ppb
Se	82	-6.7	-0.16978		ppb
Rh	103	354004			ppb
Cd	111	107.1	-0.0105		ppb
Cd	114	221.1	-0.01915		ppb
Sb	121	200.3	0.00837		ppb
Sb	123	142	0.00794		ppb
Ho	165	646935.4			ppb
Pb	208	7594	0.09373		ppb
Kr	83	57.2			mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Wednesday, August 10, 2011 15:03:21

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas. Report Unit
Li	6	60139		ppb
Be	9	43428.5	97.8638	ppb
Sc	45	162545.3		ppb
Cr	52	641379.5	106.44167	ppb
Cr	53	88374.9	96.4034	ppb
Mn	55	953509.1	103.08327	ppb
Co	59	741236.5	106.22479	ppb
Ni	60	161607.8	107.78625	ppb
As	75	122407.2	104.2784	ppb
Se	77	10790.1	94.33183	ppb
Se	82	12024.7	102.5502	ppb
Rh	103	327251.8		ppb
Cd	111	165858.5	103.73315	ppb
Cd	114	395756.7	106.39915	ppb
Sb	121	571253.3	112.79334	ppb
Sb	123	440680.2	112.97382	ppb
Ho	165	598182.9		ppb
Pb	208	2856024.8	113.67463	ppb
Kr	83	-10363.6		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17133-3FH

Sample Date: Thursday, August 11, 2011 09:19:10

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas. Report Unit
Li	6	59831.8		ppb
Be	9	21836	49.3266	ppb
Sc	45	201964		ppb
Cr	52	507364.7	64.05033	ppb
Cr	53	77310.7	56.00714	ppb
Mn	55	736478.3	60.71294	ppb
Co	59	480973.2	52.79329	ppb
Ni	60	125643.5	64.10459	ppb
As	75	82221.5	53.73244	ppb
Se	77	19034.1	137.21747	ppb
Se	82	21666.5	141.46667	ppb
Rh	103	427702.4		ppb
Cd	111	98536.5	47.13033	ppb
Cd	114	233830.5	48.05236	ppb
Sb	121	378867.7	53.53607	ppb
Sb	123	291889	53.61638	ppb
Ho	165	835179.9		ppb
Pb	208	1930962.3	54.9874	ppb
Kr	83	-516.2		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Date: Thursday, August 11, 2011 09:21:23

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas. Report Unit
Li	6	46356.5		ppb
Be	9	7	-0.10333	ppb
Sc	45	158494.8		ppb
Cr	52	7948.3	-0.14828	ppb
Cr	53	30480.2	21.77513	ppb
Mn	55	5522.8	-0.22057	ppb
Co	59	156.3	-0.11912	ppb
Ni	60	1310.4	0.29663	ppb
As	75	-266.6	-0.37508	ppb
Se	77	2633	2.90582	ppb
Se	82	2.3	-0.12473	ppb
Rh	103	354593.4		ppb
Cd	111	37.8	-0.04777	ppb
Cd	114	90.6	-0.04887	ppb
Sb	121	137	-0.00355	ppb
Sb	123	127.9	0.00441	ppb
Ho	165	679765.9		ppb
Pb	208	4139	-0.03759	ppb
Kr	83	72.9		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Thursday, August 11, 2011 09:23:32

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
> Li	6	55977.9		ppb
- Be	9	40024.2	96.68774	ppb
- Sc	45	191900.3		ppb
- Cr	52	717871.5	91.84543	ppb
- Cr	53	103947.6	85.29385	ppb
- Mn	55	1081400.3	90.24254	ppb
- Co	59	830217	92.01634	ppb
- Ni	60	179265.3	92.5881	ppb
- As	75	143934.1	95.03379	ppb
- Se	77	13145.9	87.67825	ppb
- Se	82	14291.1	94.52765	ppb
> Rh	103	421432.9		ppb
- Cd	111	191521.8	93.00794	ppb
- Cd	114	451834.2	94.26115	ppb
- Sb	121	656187.8	97.59369	ppb
- Sb	123	502451.3	97.00544	ppb
> Ho	165	793674.9		ppb
- Pb	208	3205017.7	96.09536	ppb
- Kr	83	-11656		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-6bh

Sample Date: Thursday, August 11, 2011 09:26:46

Sample Description: Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
> Li	6	61922.3		ppb
- Be	9	8	-0.11052	ppb
- Sc	45	197785.1		ppb
- Cr	52	13534.4	0.31574	ppb
- Cr	53	20835.6	-4.702	ppb
- Mn	55	24509.4	1.24634	ppb
- Co	59	329.3	-0.10774	ppb
- Ni	60	3003.5	1.0244	ppb
- As	75	2559.8	1.58259	ppb
- Se	77	3043.8	-2.05252	ppb
- Se	82	1136.7	7.25931	ppb
> Rh	103	429946		ppb
- Cd	111	1162.3	0.48205	ppb
- Cd	114	2766.1	0.49198	ppb
- Sb	121	622	0.06838	ppb
- Sb	123	485.2	0.07205	ppb
> Ho	165	761329.8		ppb
- Pb	208	64817.3	1.84531	ppb
- Kr	83	92.5		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 17130-6bh

Sample Date: Thursday, August 11, 2011 09:28:56

Sample Description: Airtech

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
> Li	6	61506		ppb
- Be	9	22025.3	48.4686	ppb
- Sc	45	193431.7		ppb
- Cr	52	394191.1	49.47034	ppb
- Cr	53	63200	40.84145	ppb
- Mn	55	589948	48.56412	ppb
- Co	59	442528.6	48.62915	ppb
- Ni	60	99421.4	50.67087	ppb
- As	75	87871.2	57.4644	ppb
- Se	77	10624.9	64.44046	ppb
- Se	82	11543.1	75.6111	ppb
> Rh	103	426011.9		ppb
- Cd	111	98440.4	47.26694	ppb
- Cd	114	236521.9	48.81846	ppb
- Sb	121	355278.3	54.28881	ppb
- Sb	123	273332.7	54.23604	ppb
> Ho	165	772636.9		ppb
- Pb	208	1771011.4	54.47574	ppb
- Kr	83	85.7		mg/L

PerkinElmer ELAN 6100 ICP-MS

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.	Meas. 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

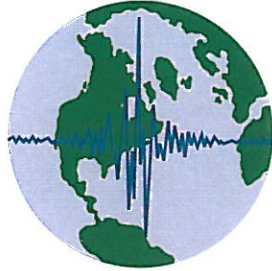
Sample ID: QC Std 4

Sample Da: Thursday, August 11, 2011 09:37:38

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas. 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



AIRTECH
*Environmental
Services Inc.*

**Ohio Lumex Spectrometer
(Mercury)
Analytical Report**

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

Analyst: 
Michael Ogletree

Reviewer: 
Patrick Clark P.E.

Table of Contents

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Project Summary

General

Project Information	
Date Received	8/10/2011
Analytical Protocol	EPA Method 30B
Total Number of Samples Received	12
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 were supplied by Ohio Lumex, Twinsburg, Ohio 44087.

Concentration ($\mu\text{g}/\text{ml}$)	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: 8/24/11

Analyst: MO

Sample Parameters	Henderson 1	Henderson 1	Henderson 1
	Run 1	Run 2	Run 3
Particulate Coil	220	174	266
Oxidized Front Half (area)	19,600	16,600	13,900
Oxidized Back Half (area)	11,000	8,250	8,040
Elemental Front Half (area)	33,500	37,300	39,500
Elemental Back Half (area)	137	0	0

RESULTS

Ash Bonded (ng)	1.06	0.835	1.28
Oxidized Front Half (ng)	90.4	76.6	64.1
Oxidized Back Half (ng)	52.8	39.6	38.6
Oxidized Breakthrough (%)	36.9	34.1	37.6
Total Oxidized (ng)	143	116	103
Elemental Front Half (ng)	154	172	182
Elemental Back Half (ng)	0.657	0.00	0.00
Elemental Breakthrough (%)	0.4	0.0	0.0
Total Elemental (ng)	155	172	182
Total Mercury (ng)	299	289	286

Sample Parameters	Henderson 1	Henderson 1	Henderson 1
	Run 2 Spike	Run 3 Spike	Run 2 Spike
Particulate Coil	30	167	116
Front Half (area)	103,000	100,000	96,200
Back Half (area)	84	0	111

RESULTS

Ash Bonded (ng)	0.144	0.770	0.535
Front Half (ng)	475	461	444
Back Half (ng)	0.403	0.000	0.532
Breakthrough (%)	0.1	0.0	0.1
Total Mercury (ng)	476	462	445

Spike Recovery	100%	100%	96%
----------------	------	------	-----

Analysis Date: 8/25/11

Analyst: MO

Sample Parameters	Henderson Unit 1	Henderson Unit 1	Henderson Unit 1
	Stack Run 1	Stack Run 2	Stack Run 3
Particulate Coil	1,640	1,810	1,650
Oxidized Front Half (area)	2,400	2,230	2,490
Oxidized Back Half (area)	0	113	0
Elemental Front Half (area)	3,030	2,670	2,610
Elemental Back Half (area)	99	46	75

RESULTS

Ash Bonded (ng)	7.47	8.25	7.52
Oxidized Front Half (ng)	10.9	10.2	11.3
Oxidized Back Half (ng)	0.00	0.564	0.00
Oxidized Breakthrough (%)	0.0	5.3	0.0
Total Oxidized (ng)	10.9	10.7	11.3
Elemental Front Half (ng)	13.8	12.2	11.9
Elemental Back Half (ng)	0.494	0.229	0.374
Elemental Breakthrough (%)	3.5	1.9	3.0
Total Elemental (ng)	14.3	12.4	12.3
Total Mercury (ng)	32.7	31.4	31.1

Sample Parameters	Henderson Unit 1	Henderson Unit 1	Henderson Unit 1
	Stack Run 1 Spike	Stack Run 2 Spike	Stack Run 3 Spike
Particulate Coil	99	2,640	2,590
Front Half (area)	11,080	8,540	8,180
Back Half (area)	133	24	124.0

RESULTS

Ash Bonded (ng)	0.494	12.0	11.8
Front Half (ng)	50.5	38.9	37.3
Back Half (ng)	0.663	0.120	0.618
Breakthrough (%)	1.3	0.2	1.2
Total Mercury (ng)	51.6	51.1	49.7
Spike Recovery	98.0%	99.4%	97.2%

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	1,150	0.00435	5.30	6.1	Yes
2	10	2,110	0.00474	9.7	-2.7	Yes
3	25	5,760	0.00434	26.6	6.2	Yes
4	50	10,600	0.00472	48.9	-2.2	Yes
5	100	21,400	0.00467	98.7	-1.3	Yes
6	250	55,400	0.00451	255	2.2	Yes
7	500	101,000	0.00495	466	-6.8	Yes

Average Response Factor (ng/area) 0.00461

R-Squared 0.998

LOW LEVEL STANDARD - FOR QUANTIFICATION BELOW 5 NG

Standard Number	Amount (ng)	Response (area)	RF (ng/area)	Calculated Value (ng)	Error (%)	Valid?
NA	2	417	0.00480	2	-3.9	NA

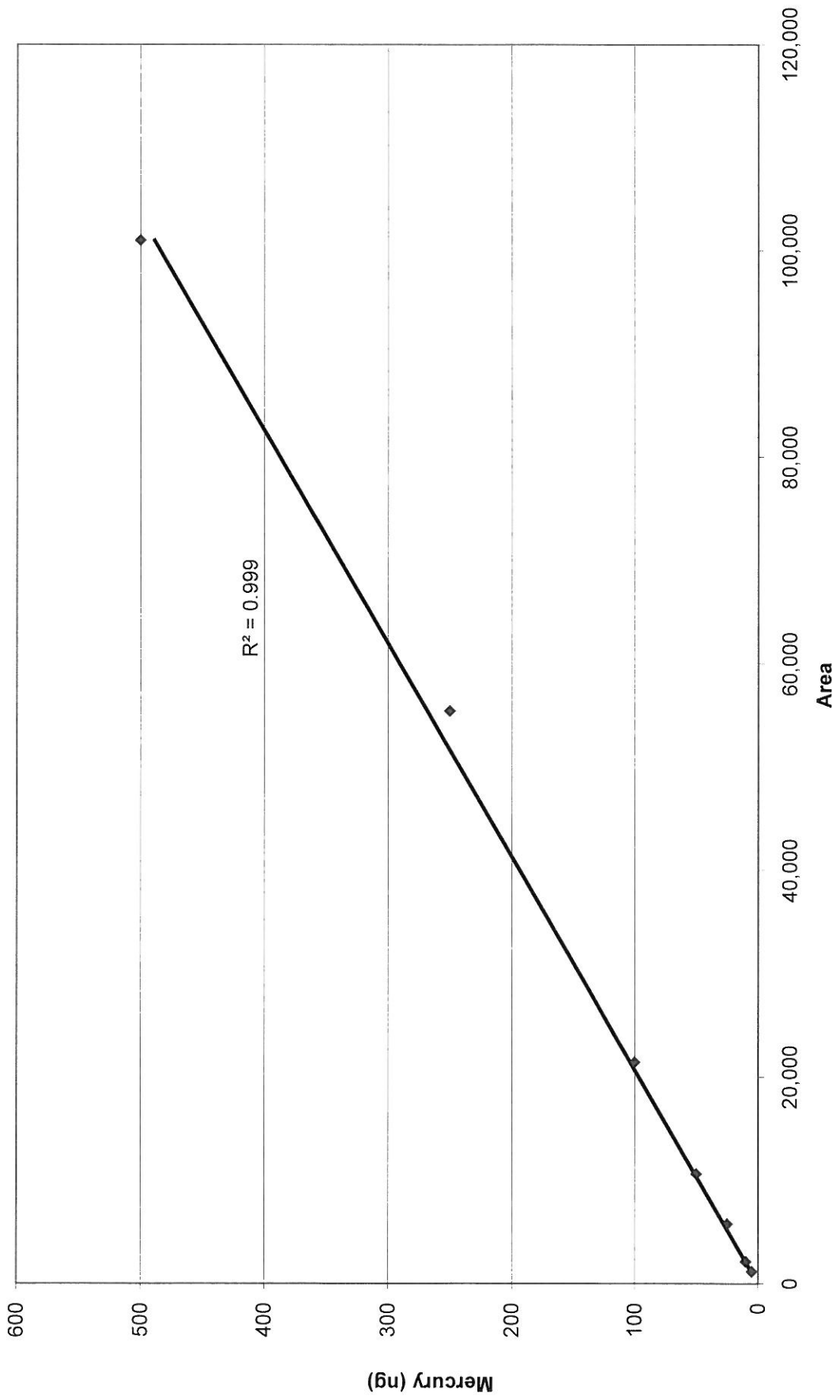
SECOND SOURCE CHECK STANDARD ANALYSIS

Standard Number	Amount (ng)	Response (area)	RF (ng/area)	Calculated Value (ng)	Error (%)	Valid?
NA	250	54,000	0.00463	249	-0.4	Yes

CONTINUING CALIBRATION VERIFICATION STANDARDS

Standard Number	Amount (ng)	Response (area)	RF (ng/area)	Calculated Value (ng)	Error (%)	Valid?
NA	250	52,400	0.00477	241.64	-3.3	Yes
NA	250	53,800	0.00465	248.10	-0.8	Yes
NA	250	54,800	0.00456	252.71	1.1	Yes
NA	250	55,500	0.00450	255.94	2.4	Yes
NA	250	56,000	0.00446	258.24	3.3	Yes
NA	250	52,900	0.00473	243.95	-2.4	Yes
NA	250	55,500	0.00450	255.94	2.4	Yes
NA	250	53,000	0.00472	244.41	-2.2	Yes
NA	250	54,500	0.00459	251.33	0.5	Yes
NA	250	54,100	0.00462	249.48	-0.2	Yes
NA	250	56,700	0.00441	261.47	4.6	Yes
NA	250	54,400	0.00460	250.87	0.3	Yes

Mercury Calibration Summary (Henderson Unit 1)



Date: 8/25/11
 Analyzer: Ohio Lumex
 Analyst: MO

INITIAL CALIBRATION

Standard Number	Amount (ng)	Response (area)	RF (ng/area)	Calculated Value (ng)	Error (%)	Valid?
1	5	1,140	0.00439	5.19	3.9	Yes
2	10	2,180	0.00459	9.9	-0.7	Yes
3	25	5,510	0.00454	25.1	0.4	Yes
4	50	10,900	0.00459	49.7	-0.7	Yes
5	100	21,700	0.00461	98.9	-1.1	Yes
6	250	53,800	0.00465	245	-1.9	Yes
7	500	110,000	0.00455	501	0.3	Yes

Average Response Factor (ng/area) 0.00456
 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	401	0.00499	2	-8.6	NA

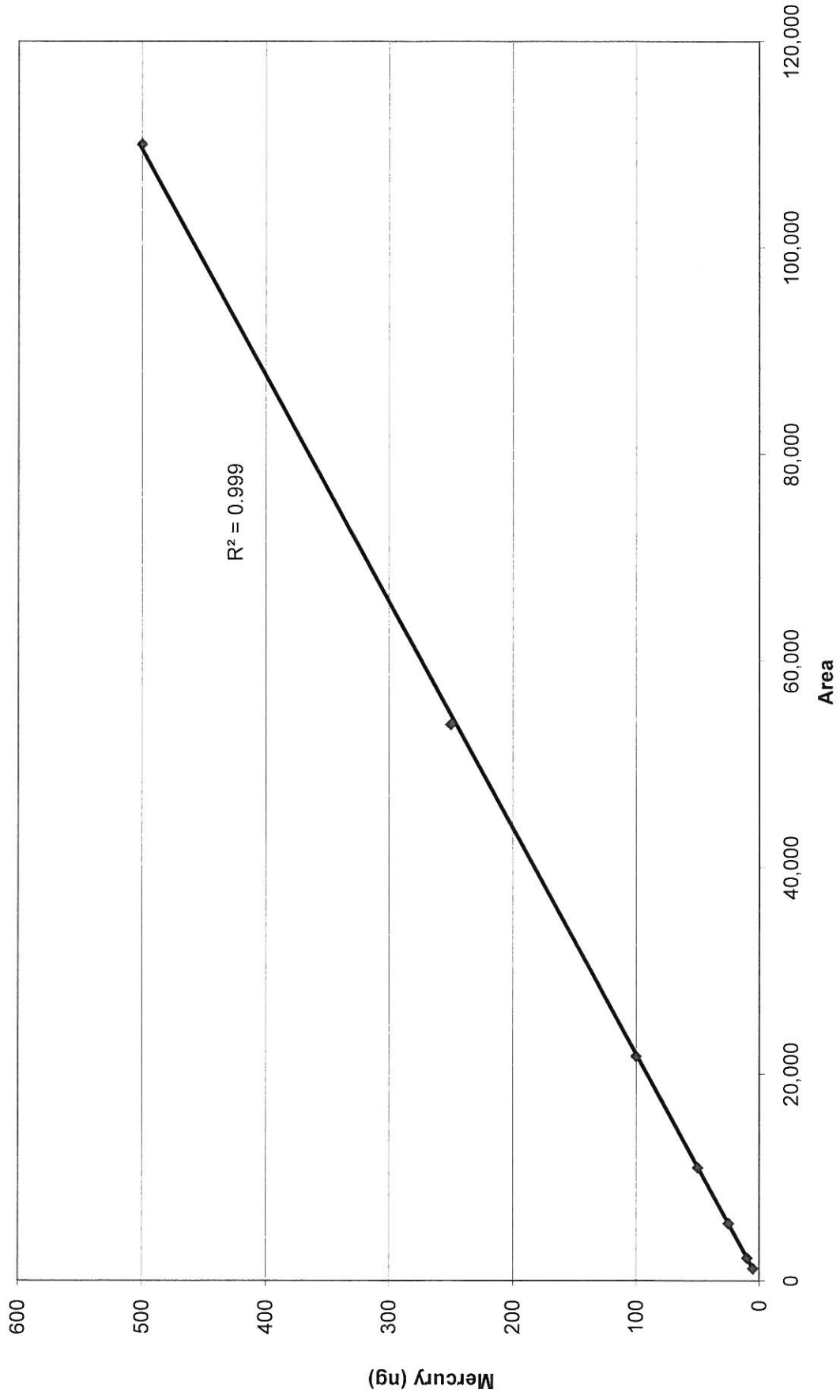
SECOND SOURCE CHECK STANDARD ANALYSIS

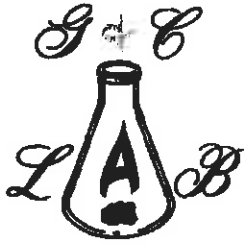
Standard Number	Amount (ng)	Response (area)	RF (ng/area)	Calculated Value (ng)	Error (%)	Valid?
NA	250	51,200	0.00488	233	-6.7	Yes

CONTINUING CALIBRATION VERIFICATION STANDARDS

Standard Number	Amount (ng)	Response (area)	RF (ng/area)	Calculated Value (ng)	Error (%)	Valid?
NA	250	52,200	0.00479	237.87	-4.9	Yes
NA	250	54,200	0.00461	246.98	-1.2	Yes
NA	250	52,000	0.00481	236.96	-5.2	Yes
NA	250	54,900	0.00455	250.17	0.1	Yes
NA	250	52,400	0.00477	238.78	-4.5	Yes
NA	250	52,400	0.00477	238.78	-4.5	Yes
NA	250	54,000	0.00463	246.07	-1.6	Yes
NA	250	53,300	0.00469	242.88	-2.8	Yes

Mercury Calibration Summary (Henderson Unit 1)





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

894725
 LAB NO. 08/03/11
 SAMPLED 08/11/11
 RECEIVED 08/26/11
 REPORTED

SAMPLE MARKED:
 PROJECT #3648
 BIG RIVER ELECTRIC
 SAPMPLE ID:022
 HENDERSON UNIT 1/FUEL SAMPLE RUN 1
 CHLORINE 2208 MG/KG DRY (USGS BULLETIN 1823)
 MERCURY 0.096 MG/KG DRY OR PPM DRY (ASTM 6722)
 FLUORINE 93 MG/KG (ASTM 3761-96)

ANALYSIS REPORT

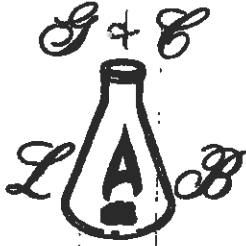
	AS RECEIVED	DRY BASIS
% Moisture.....	7.56	
% Ash	10.38	11.23
% Sulfur.....	3.33	3.60
B.T.U.....	12,102	13,092
BTU (Moisture-ash free).....		14,748
% Volatile Matter.....	37.98	41.09
% Fixed Carbon.....	44.08	47.68

2.75 Lbs. Sul./mil. BTU
 8.58 Lbs. Ash./mil. BTU

THE ABOVE ANALYTICAL RESULTS WERE
 OBTAINED FOLLOWING ASTM PROCEDURES.

APPROVED BY

[Signature]
 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 # : 894725
Date Sampled: 08/03/11
Date Received: 08/11/11
Date Reported: 08/24/11

SAMPLE MARKED:

PROJECT #3648
SAMPLE #022
BIG RIVERS ELECTRIC
FUEL SAMPLE RUN 1- HENDERSON UNIT 1

Procedure used following ASTM Method D-5373-02

ULTIMATE ANALYSIS

As Received** Dry Basis

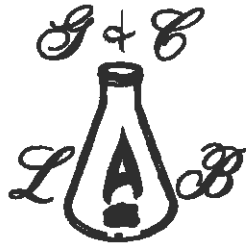
	As Received**	Dry Basis
% CARBON	67.98	73.54
% HYDROGEN	4.75	5.14
% NITROGEN	1.35	1.46
% OXYGEN (by difference)	4.65	5.03
% ASH	10.38	11.23
% SULFUR	3.33	3.60
% MOISTURE	7.56	

**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.

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Received From:

G&C Lab#: 894725

AIRTECH ENVIROMENTAL
601A COUNTRY CLUB DRIVE

Date Sampled: 08/03/11

Date Received: 08/11/11

BENSONVILLE, IL

60106

Date Reported: 08/26/11

Sample Marked:

PROJECT #3648

BIG RIVER ELECTRIC

SAMPLE ID:022

HENDERSON UNIT 1/FUEL SAMPLE RUN 1

CHLORINE 2208 MG/KG DRY (USGS BULLETIN 1823)

MERCURY 0.096 MG/KG DRY OR PPM DRY (ASTM 6722)

FLUORINE 93 MG/KG (ASTM 3761-96)

% Total Moisture 7.56

% Ash Dry 11.23

% Ash As Received 10.38

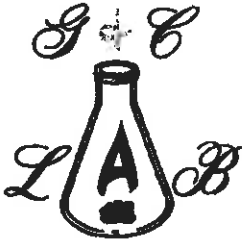
	OF ASH MG/KG	COAL (DRY) MG/KG	COAL (AS REC) MG/KG
Antimony	0.06	0.01	0.01
Arsenic	32.07	3.60	3.33
Beryllium	7.84	0.88	0.81
Cadmium	7.75	0.87	0.80
Chromium	34.84	3.91	3.62
Cobalt	18.61	2.09	1.93
Lead	90.22	10.13	9.36
Manganese	169.23	19.00	17.57
Nickel	75.31	8.46	7.82

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.

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BENSONVILLE, IL

60106

894726

LAB NO. 08/03/11
 SAMPLED 08/11/11
 RECEIVED
 REPORTED 08/26/11

SAMPLE MARKED:

PROJECT #3648
 BIG RIVERS ELECTRIC
 SAMPLE ID:023
 HENDERSON UNIT 1/FUEL SAMPLE RUN 2
 CHLORINE 2094 MG/KG DRY (USGS BULLETIN 1823)
 MERCURY 0.134 MG/KG DRY OR PPM DRY (ASTM 6722)
 FLUORINE 106 MG/KG DRY (ASTM 3761-96)

ANALYSIS REPORT

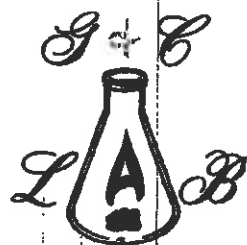
	AS RECEIVED	DRY BASIS
% Moisture.....	6.64	
% Ash	11.10	11.89
% Sulfur.....	4.15	4.45
B.T.U.....	12,125	12,987
BTU (Moisture-ash free).....		14,740
% Volatile Matter.....	37.91	40.61
% Fixed Carbon.....	44.35	47.50

3.42 Lbs. Sul./mil. BTU
 9.15 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

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Fax: 814-849-8878

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AIRTECH ENVIRONMENTAL
601A COUNTRY CLUB DRIVE
BENSONVILLE, IL 60106

Lab # : 894726

Date Sampled: 08/03/11

Date Received: 08/11/11

Date Reported: 08/24/11

SAMPLE MARKED:

PROJECT #3648

SAMPLE #023

BIG RIVERS ELECTRIC

FUEL SAMPLE RUN 2- HENDERSON UNIT 1

Procedure used following ASTM Method D-5373-02

ULTIMATE ANALYSIS

As Received**

Dry Basis

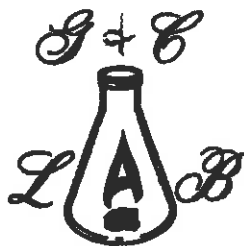
	As Received**	Dry Basis
% CARBON	68.08	72.92
% HYDROGEN	4.84	5.18
% NITROGEN	1.31	1.40
% OXYGEN	3.88	4.16
(by difference)		
% ASH	11.10	11.89
% SULFUR	4.15	4.45
% MOISTURE	6.64	

**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.

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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#: 894726

AIRTECH ENVIROMENTAL
601A COUNTRY CLUB DRIVE

Date Sampled: 08/03/11

Date Received: 08/11/11

BENSONVILLE, IL

60106

Date Reported: 08/26/11

Sample Marked:

PROJECT #3648

SAMPLE ID:023

HENDERSON UNIT 1/FUEL SAMPLE RUN 2

CHLORINE 2094 MG/KG DRY (USGS BULLETIN 1823)

MERCURY 0.134 MG/KG DRY OR PPM DRY (ASTM 6722)

FLUORINE 106 MG/KG DRY (ASTM 3761-96)

BIG RIVERS ELECTRIC

% Total Moisture 6.64
% Ash Dry 11.89
% Ash As Received 11.10

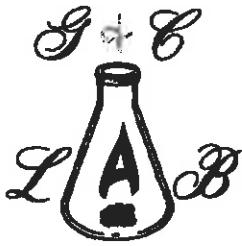
	OF ASH MG/KG	COAL (DRY) MG/KG	COAL (AS REC) MG/KG
Antimony	0.06	0.01	0.01
Arsenic	63.30	7.53	7.03
Beryllium	4.83	0.57	0.54
Cadmium	5.59	0.66	0.62
Chromium	47.27	5.62	5.25
Cobalt	22.41	2.66	2.49
Lead	97.56	11.60	10.83
Manganese	152.24	18.10	16.90
Nickel	80.82	9.61	8.97

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 _____



G and C COAL ANALYSIS LAB., INC.

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 601A COUNTRY CLUB DRIVE

BENSONVILLE, IL

60106

894727

LAB NO. 08/03/11
 SAMPLED 08/11/11
 RECEIVED 08/26/11
 REPORTED

SAMPLE MARKED:

PROJECT #3648
 BIG RIVERS ELECTRIC
 SAMPLE ID:024
 HENDERSON UNIT 1/FUEL SAMPLE RUN 3
 CHLORINE 1747 MG/KG DRY (USGS BULLETIN 1823)
 MERCURY 0.113 MG/KG DRY OR PPM DRY (ASTM 6722)
 FLUORINE 64 MG/KG DRY (ASTM 3761-96)

ANALYSIS REPORT

	AS RECEIVED	DRY BASIS
% Moisture.....	7.02	
% Ash	9.34	10.05
% Sulfur.....	3.42	3.68
B.T.U.....	12,383	13,318
BTU (Moisture-ash free).....		14,806
% Volatile Matter.....	38.55	41.46
% Fixed Carbon.....	45.09	48.49

2.76 Lbs. Sul./mil. BTU
 7.54 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.

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RECEIVED FROM:

AIRTECH ENVIRONMENTAL
 601A COUNTRY CLUB DRIVE
 BENSONVILLE, IL 60106

Lab # : 894727
 Date Sampled: 08/03/11
 Date Received: 08/11/11
 Date Reported: 08/24/11

SAMPLE MARKED:

PROJECT #3648
 SAMPLE #024
 BIG RIVERS ELECTRIC
 FUEL SAMPLE RUN 3- HENDERSON UNIT 1

Procedure used following ASTM Method D-5373-02

ULTIMATE ANALYSIS

	As Received**	Dry Basis
% CARBON	69.44	74.68
% HYDROGEN	4.90	5.27
% NITROGEN	1.39	1.49
% OXYGEN	4.49	4.83
(by difference)		
% ASH	9.34	10.05
% SULFUR	3.42	3.68
% MOISTURE	7.02	

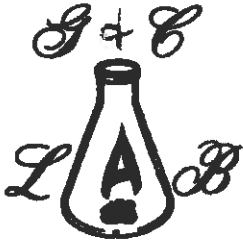
(by difference)

**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#: 894727

AIRTECH ENVIROMENTAL
601A COUNTRY CLUB DRIVE

Date Sampled: 08/03/11

Date Received: 08/11/11

BENSONVILLE, IL

60106

Date Reported: 08/26/11

Sample Marked:

PROJECT #3648

SAMPLE ID:024

HENDERSON UNIT 1/FUEL SAMPLE RUN 3

CHLORINE 1747 MG/KG DRY (USGS BULLETIN 1823)

MERCURY 0.113 MG/KG DRY OR PPM DRY (ASTM 6722)

FLUORINE 64 MG/KG DRY (ASTM 3761-96)

BIG RIVERS ELECTRIC

% Total Moisture 7.02

% Ash Dry 10.05

% Ash As Received 9.34

	OF ASH MG/KG	COAL (DRY) MG/KG	COAL (AS REC) MG/KG
Antimony	0.64	0.06	0.06
Arsenic	46.01	4.62	4.30
Beryllium	4.73	0.48	0.44
Cadmium	6.68	0.67	0.62
Chromium	68.28	6.86	6.38
Cobalt	21.47	2.16	2.01
Lead	104.12	10.46	9.72
Manganese	174.47	17.53	16.30
Nickel	89.17	8.96	8.33

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 _____

BIG RIVERS ELECTRIC CORP. CHAIN OF CUSTODY RECORD

No. _____

Sampling Location: HAMPL

Plant ID. Sample Number	Date Time	Central Lab ID. Sample Number	Station Description	Sampling Method	Sample Size	Type of Preservation	Analysis Requested
022	8-3-11 10:00		Henderson Unit One Run One A+B mill		2 bags		
023	8-3-11 12:00		Henderson Unit One Run Two A+B mill		2 bags		
024	8-3-11 16:00		Henderson Unit One Run Three A+B mill		2 bags		
025	8-4-11 10:00		Henderson Unit Two Run One A+B mill		2 bags		
026	8-4-11 12:00		Henderson Unit Two Run Two A+B mill		2 bags		
027	8-4-11 16:00		Henderson Unit Two Run Three A+B mill		2 bags		
Samplers (Signatures)							
Relinquished By (Signature)		Date		Time		Received By (Signature)	
		8-4-11		17:00		8/6/11	
Relinquished By (Signature)		Date		Time		Received By (Signature)	
Relinquished By (Signature)		Date		Time		Received By (Signature)	
Relinquished By (Signature)		Date		Time		Received By (Signature)	

NOTE: Composite A+B mills (2 bags) as one sample

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