

## METHOD BLANK REPORT

## Radiochemistry

Client Lot ID: F8L030238  
 Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 $\sigma$ +/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
Radium 226 by EPA 903.0 MOD			pCi/L	Batch #	8338402	Yld %	92 F8L030000-402B
Radium (226)	0.028	U	0.042	1.00	0.071	12/03/08	12/26/08
Radium 228 by GFPC EPA 904 MOD			pCi/L	Batch #	8338404	Yld %	62 F8L030000-404B
Radium 228	-0.09	U	0.51	1.00	0.90	12/03/08	12/24/08
SR-90 BY GFPC EPA-905 MOD			pCi/L	Batch #	8338424	Yld %	59 F8L030000-424B
Strontium 90	-0.14	U	0.36	3.00	0.63	12/03/08	12/15/08
Gross Alpha/Beta EPA 900			pCi/L	Batch #	8339115	Yld %	F8L040000-115B
Gross Alpha	-0.22	U	0.39	2.00	0.92	12/04/08	12/07/08
Gross Beta	0.10	U	0.60	4.00	1.0	12/04/08	12/07/08
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	Batch #	8344329	Yld %	F8L090000-329B
Cesium 137	-0.7	U	8.4	20.0	15	12/09/08	12/21/08
Potassium 40	-40	U	190		220	12/09/08	12/21/08
Total Uranium by KPA ASTM 5174-91			pCi/L	Batch #	8345026	Yld %	F8L100000-026B
Total Uranium	0.150	U	0.018	0.693	0.21	12/10/08	12/12/08
TRITIUM (Distill) by EPA 906.0 MOD			pCi/L	Batch #	8352094	Yld %	F8L170000-094B
Tritium	140	U	180	500	300	12/17/08	12/19/08

## NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only

Bold results are greater than the MDC.

U Result is less than the sample detection limit.

601

## Laboratory Control Sample Report

## Radiochemistry

Client Lot ID: F8L030238  
 Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 $\sigma$ +/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
<b>Gross Alpha/Beta EPA 900</b>							
			pCi/L	900.0 MOD			F8L040000-115C
Gross Beta	67.9	68.1	5.9	1.2		100	(72 - 117)
	Batch #:	8339115		Analysis Date:	12/07/08		
<b>Gross Alpha/Beta EPA 900</b>							
			pCi/L	900.0 MOD			F8L040000-115C
Gross Alpha	49.4	55.8	6.2	1.1		113	(72 - 138)
	Batch #:	8339115		Analysis Date:	12/07/08		
<b>Gamma Cs-137 &amp; Hits by EPA 901.1 MOD</b>							
			pCi/L	901.1 MOD			F8L090000-329C
Americium 241	141000	138000	11000	600		98	(90 - 110)
Cesium 137	53100	51500	3000	300		97	(90 - 110)
Cobalt 60	87900	84300	4700	200		96	(90 - 110)
	Batch #:	8344329		Analysis Date:	12/21/08		
<b>Total Uranium by KPA ASTM 5174-91</b>							
			pCi/L	5174-91			F8L100000-026C
Total Uranium	27.7	29.3	3.5	0.2		106	(90 - 116)
	Batch #:	8345026		Analysis Date:	12/12/08		
<b>Total Uranium by KPA ASTM 5174-91</b>							
			pCi/L	5174-91			F8L100000-026C
Total Uranium	5.54	5.98	0.61	0.21		108	(90 - 116)
	Batch #:	8345026		Analysis Date:	12/12/08		
<b>TRITIUM (Distill) by EPA 906.0 MOD</b>							
			pCi/L	906.0 MOD			F8L170000-094C
Tritium	4840	4170	440	290		86	(77 - 110)
	Batch #:	8352094		Analysis Date:	12/19/08		

## NOTE(S)

MDC is determined by instrument performance only

602

Laboratory Control Sample/LCS Duplicate Report

Radiochemistry

Client Lot ID: F8L030238  
 Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 $\sigma$ +/-)	% Yld	% Rec	Lab Sample ID	
						QC Control Limits	Precision
Radium 226 by EPA	903.0 MOD	pCi/L	903.0 MOD			F8L030000-402C	
Radium (226)	11.3	10.8	0.96	97	96	(72 - 130)	
Spk 2	11.3	10.8	0.97	94	96	(72 - 130)	0.6 %RPD
	Batch #:	8338402		Analysis Date: 12/26/08			
Radium 228 by GFPC EPA	904 MOD	pCi/L	904 MOD			F8L030000-404C	
Radium 228	7.39	9.0	1.1	73	122	(61 - 139)	
Spk 2	7.39	9.7	1.2	74	132	(61 - 139)	8 %RPD
	Batch #:	8338404		Analysis Date: 12/24/08			
SR-90 BY GFPC EPA	905 MOD	pCi/L	905 MOD			F8L030000-424C	
Strontium 90	7.00	7.81	0.91	67	111	(73 - 135)	
Spk 2	7.00	8.60	0.99	62	123	(73 - 135)	10 %RPD
	Batch #:	8338424		Analysis Date: 12/15/08			

NOTE(S)

603

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F8L030238  
 Matrix: WATER

Date Sampled: 11/26/08  
 Date Received: 11/29/08

Parameter	SAMPLE Result	Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ +/-)	% Yld	QC Sample ID Precision
<b>Gross Alpha/Beta EPA 900</b>							
			pCi/L	900.0 MOD			F8L030234-001
Gross Alpha	2.9 J	1.2		2.6 J	1.2		9 %RPD
Gross Beta	8.1	1.5		7.8	1.4		4 %RPD
	Batch #:	8339115 (Sample)		8339115 (Duplicate)			
<b>Gamma Cs-137 &amp; Hits by EPA 901.1 MOD</b>							
			pCi/L	901.1 MOD			F8L030234-001
Cesium 137	1.1 U	5.3		0.02 U	9.0		193 %RPD
Potassium 40	-100 U	3100		-100 U	1200		8 %RPD
	Batch #:	8344329 (Sample)		8344329 (Duplicate)			
<b>TRITIUM (Distill) by EPA 906.0 MOD</b>							
			pCi/L	906.0 MOD			F8L030234-001
Tritium	50 U	170		80 U	170		35 %RPD
	Batch #:	8352094 (Sample)		8352094 (Duplicate)			

NOTE (S)

Data are incomplete without the case narrative.  
 Calculations are performed before rounding to avoid round-off error in calculated results

J Result is greater than sample detection limit but less than stated reporting limit.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE REPORT

Radiochemistry

Client Lot ID: F8L090116  
 Matrix: WATER

Date Sampled: 11/26/08 1112  
 Date Received: 12/09/08 0830

Parameter	Spike Amount	SPIKE Result	Total Uncert. (2 $\sigma$ +/-)	Spike Yld	SAMPLE Result	Total Uncert. (2 $\sigma$ +/-)	QC Sample ID		QC Control Limits
							% Yld	%Rec	
Total Uranium by KPA ASTM 5			ug/L	5174-91			F8L090116-001		
Total Uranium	40.0	17800 a	2100		18200	2200	-101	a	(90 - 129)
Spk2	40.0	18100 a	2200		18200	2200	-334	a	(90 - 129)
							Precision:	2	%RPD
Batch #:			8345026	Analysis date:		12/12/08			

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off error in calculated results

## MATRIX SPIKE REPORT

## Radiochemistry

Client Lot Id: F8L030234  
 Matrix: WATER

Date Sampled: 11/26/08  
 Date Received: 11/29/08

Parameter	Spike Amount	Spike Result	Total Uncert. (2σ +/-)	Spike Yld.	Sample Result	Total Uncert. (2σ +/-)	QC Sample ID		QC Control Limits
							%YLD	%REC	
Gross Alpha/Beta EPA 900			pCi/L	900.0 MOD			F8L030234-001		
Gross Beta	67.9	82.0	6.8		8.1	1.5		109	(66 - 147)
	Batch #:	8339115		Analysis Date:	12/07/08				
Gross Alpha/Beta EPA 900			pCi/L	900.0 MOD			F8L030234-001		
Gross Alpha	49.4	40.8	5.2		2.9	1.2		77	(44 - 150)
	Batch #:	8339115		Analysis Date:	12/07/08				
TRITIUM (Distill) by EPA 906.0 MOD			pCi/L	906.0 MOD			F8L030238-001		
Tritium	4840	4230	450		100	180		86	(47 - 150)
	Batch #:	8352094		Analysis Date:	12/19/08				

## NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off errors in calculated results.

*cut 174*

**IRK2835**

**SENDING LABORATORY:**

TestAmerica Irvine  
 17461 Derian Avenue, Suite 100  
 Irvine, CA 92614  
 Phone: (949) 261-1022  
 Fax: (949) 260-3297  
 Project Manager: Joseph Doak  
 Client: MWH-Pasadena/Boeing


**RECEIVING LABORATORY:**

TestAmerica St. Louis  
 13715 Rider Trail North  
 Earth City, MO 63045  
 Phone : (314) 298-8566  
 Fax: (314) 298-8757  
 Project Location: CA - CALIFORNIA  
 Receipt Temperature: \_\_\_\_\_ °C      Ice: Y / N


Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
<b>Sample ID: IRK2835-01</b>	<b>Water</b>					<b>Instant Notification</b>
EDD + Level 4	N/A	12/09/08	12/24/08 14:55	\$0.00	0%	Excel EDD email to pm, Include Std logs for Lvi IV
Gamma Spec-O	mg/kg	12/09/08	11/26/09 14:55	\$250.00	0%	Out St Louis, K-40 and CS-137 only, DO NOT FILTER
Gross Alpha-O	pCi/L	12/09/08	05/25/09 14:55	\$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	12/09/08	05/25/09 14:55	\$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Radium, Combined-O	pCi/L	12/09/08	11/26/09 14:55	\$238.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Strontium 90-O	pCi/L	12/09/08	11/26/09 14:55	\$155.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Tritium-O	pCi/L	12/09/08	11/26/09 14:55	\$80.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Uranium, Combined-O	pCi/L	12/09/08	11/26/09 14:55	\$120.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!

*Containers Supplied:*

2.5 gal Poly (J)      500 mL Amber (K)

  
 Released By \_\_\_\_\_

\_\_\_\_\_  
 Date/Time

  
 Received By \_\_\_\_\_

*11-29-08 09:15*  
 Date/Time

Released By \_\_\_\_\_

\_\_\_\_\_  
 Date/Time

Received By \_\_\_\_\_

\_\_\_\_\_  
 Date/Time



F8L030234  
238  
143

CONDITION UPON RECEIPT FORM

Client: TA Irvine 2/12/08-08

Quote No: 77635 81594

COC/RFA No: below 77635 174

Initiated By: [Signature] Date: 11-29-08 Time: 0915

Shipping Information

Shipper: (FedEx) UPS DHL Courier Client Other: \_\_\_\_\_ Multiple Packages: (Y) N

Shipping # (s):*		Sample Temperature (s):**	
1. <u>7971 4437 5515</u>	6. _____	1. <u>2</u>	6. _____
2. <u>7961 4775 4360</u>	7. _____	2. <u>2</u>	7. _____
3. _____	8. _____	3. _____	8. _____
4. _____	9. _____	4. _____	9. _____
5. _____	10. _____	5. _____	10. _____

\*Numbered shipping lines correspond to Numbered Sample Temp lines

\*\*Sample must be received at 4°C ± 2°C. If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. <u>(Y)</u> N	Are there custody seals present on the cooler?	8. Y <u>(N)</u>	Are there custody seals present on bottles?
2. Y <u>(N)</u> N/A	Do custody seals on cooler appear to be tampered with?	9. Y N <u>(N/A)</u>	Do custody seals on bottles appear to be tampered with?
3. <u>(Y)</u> N	Were contents of cooler frisked after opening, but before unpacking?	10. Y <u>(N)</u> <u>(N/A)</u>	Was sample received with proper pH? (If not, make note below)
4. <u>(Y)</u> N	Sample received with Chain of Custody?	11. <u>(Y)</u> N <u>2/12-01</u>	Sample received in proper containers?
5. <u>(Y)</u> N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. Y N <u>(N/A)</u>	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6. Y N <u>?</u>	Was sample received broken?	13. <u>(Y)</u> N N/A	Was Internal <u>COC/Workshare</u> received?
7. Y N <u>?</u>	Is sample volume sufficient for analysis?	14. <u>(Y)</u> N <u>(N/A)</u>	Was pH taken by original TestAmerica lab?

For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

IRK 2802  
↓ 2832  
2828  
2835

IRK 2832-01, the 2.5 gal which I left on the bench Saturday has leaked - probably 2/12-01-08 there are 3 liters left.

Samples are not preserved - do these get filtered?

Per Sherryl, preserved the 1 sample from TA San Diego IRK2802. HNO<sub>3</sub> lot #07054 to pH of 1.

Corrective Action:

- Client Contact Name: \_\_\_\_\_
- Sample(s) processed "as is"
- Sample(s) on hold until: \_\_\_\_\_
- Project Management Review: [Signature]

Informed by: \_\_\_\_\_  
If released, notify: \_\_\_\_\_  
Date: 12-8-08

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM. 608



## **ANALYTICAL REPORT**

**MWH-Pasadena / Boeing**

Lot D8K290113

Project IRK2835

Joseph Doak  
17461 Derian Avenue  
Suite 100  
Irvine, CA 92614

TestAmerica Laboratories, Inc.

  
Danielle Fougere  
Project Manager

December 5, 2008

## Case Narrative

Enclosed is the report for one sample received at TestAmerica Laboratories, Inc. – Denver laboratory on November 29, 2008. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than the Denver laboratory's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

### Quality Control Summary for Lot D8K290113

#### **Sample Receiving**

The cooler temperature for the samples received on November 29, 2008 at the Denver laboratory was 0.8°C. All sample containers were received in acceptable condition.

#### **Total Mercury –Method 245.1**

Matrix spike analyses for QC batch 8336128 were performed on a sample from another client and/or lot, and were in control.

No anomalies were observed.

#### **Dissolved Mercury –Method 245.1**

Matrix spike analyses for QC batch 8336136 were performed on a sample from another client and/or lot, and were in control.

No anomalies were observed.

## Quality Control Definitions of Qualifiers

Qualifier	Definition
U	Result is less than the method detection limit (MDL).
B	Organics: Method blank contamination. The associated method blank contains the target analyte at a reportable level. Inorganics: Estimated result. Result is less than the RL
J	Organics: Estimated result. Result is less than RL Inorganics: Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentrations exceed the calibration range.
p	Relative Percent Difference (RPD) is outside control limits.
*	Surrogate or Relative Percent Difference (RPD) is outside control limits.
DIL	The concentration is estimated or not reported due to dilution.
COL	More than 40% difference between the primary and confirmation detector results. The lower of the two results is reported.
CHI	More than 40% difference between the primary and confirmation detector results. The higher of the two results is reported.
L	Serial dilution of a digestate in the analytical batch indicates that physical and chemical interferences are present.
a	Spiked analyte recovery is outside stated control limits.
N	Spiked analyte recovery is outside stated control limits.
NC	The recovery and/or RPD were not calculated.
MSB	The recovery and/or RPD were not calculated because the sample amount was greater than four times the spike amount.

SUBCONTRACT ORDER

TestAmerica Irvine

IRK2835

Q-8 (R)  
Lm 11/29/08

SENDING LABORATORY:

TestAmerica Irvine  
17461 Derian Avenue, Suite 100  
Irvine, CA 92614  
Phone: (949) 261-1022  
Fax: (949) 260-3297  
Project Manager: Joseph Doak  
Client: MWH-Pasadena/Boeing

RECEIVING LABORATORY:

TestAmerica Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Phone : (303) 736-0100  
Fax: (303) 431-7171  
Project Location: CA - CALIFORNIA  
Receipt Temperature: \_\_\_\_\_ °C      Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
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Sample ID: IRK2835-01

Water

Sampled: 11/26/08 14:55

Instant Notification

Level 4 + EDD-OUT	N/A	12/09/08	12/24/08 14:55	\$0.00	0%	Sub Denver, transfer file EDD
Mercury - 245.1, Diss -OUT	ug/l	12/09/08	12/24/08 14:55	\$36.00	0%	Denver, Boeing, J flags
Mercury - 245.1-OUT	ug/l	12/09/08	12/24/08 14:55	\$36.00	0%	Denver, Boeing, permit, J flags,

Containers Supplied:

1 L Poly w/HNO3 (B)    125 mL Poly (N)

  
Released By

11-28-08 / F.W.  
Date/Time

  
Received By

11/29/08  
Date/Time

Released By

Date/Time

Received By

Date/Time

TestAmerica Denver  
Sample Receiving Checklist

Lot #: D8K29013 Date/Time Received: 11/29/08 0830

Company Name & Sampling Site: TA Irvine

PM to Complete This Section: *Yes* *No*  
Residual chlorine check required:   Quarantined:

Quote #:

Special Instructions:

Time Zone:  
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): \_\_\_\_\_

Temperatures (°C): 0.8 \_\_\_\_\_

N/A Yes No

Initials

- |                                     |                                     |                          |   |           |
|-------------------------------------|-------------------------------------|--------------------------|---|-----------|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.   | <u>AM</u> |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 2. Coolers scanned for radiation. Is the reading $\leq$ to background levels? Yes: <u>0</u> No: _____   |           |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. Chain of custody present? If no, document on CUR.  |           |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Bottles broken and/or are leaking? If yes, document on CUR.  |           |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 5. Multiphasic samples obvious? If yes, document on CUR.  |           |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.  |           |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 7. pH of all samples checked and meet requirements? If no, document on CUR.   |           |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.                                      |           |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.  |           |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | 10. Were VOA samples without headspace? If no, document on CUR.   |           |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | 11. Were VOA vials preserved? Preservative <input type="checkbox"/> HCl <input type="checkbox"/> 4 $\pm$ 2°C <input type="checkbox"/> Sodium Thiosulfate <input type="checkbox"/> Ascorbic Acid |           |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 12. Did samples require preservation with sodium thiosulfate?   |           |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.  |           |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.  |           |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.  |           |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.   |           |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 17. Are analyses with short holding times requested?  |           |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | 18. Was a quick Turn Around (TAT) requested?  |           |

TestAmerica Denver  
Sample Receiving Checklist

Lot # D812290113

**Login Checks:**

N/A Yes No

Initials

SM

19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) document on CUR, and contact PM before proceeding. If no,
20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
22. Were special log in instructions read and followed?
23. Were AFCEE metals logged for refrigerated storage?
24. Were tests logged checked against the COC? Which samples were confirmed? 1
25. Was a Rush form completed for quick TAT?
26. Was a Short Hold form completed for any short holds?
27. Were special archiving instructions indicated in the General Comments? If so, what were they?
- 

**Labeling and Storage Checks:**

Initials

SM

28. Was the subcontract COC signed and sent with samples to bottle prep?
29. Were sample labels double-checked by a second person?
30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
31. Did the sample ID, Date, and Time from label match what was logged?
32. Were stickers for special archiving instructions affixed to each box? See #27
33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

# EXECUTIVE SUMMARY - Detection Highlights

D8K290113

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
IRK2835-01 11/26/08 14:55 001				
Mercury	0.055 J	0.20	ug/L	MCAWW 245.1

# METHODS SUMMARY

D8K290113

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Dissolved Mercury (CVAA)	MCAWW 245.1	MCAWW 245.1
Mercury (Manual Cold Vapor Technique)	MCAWW 245.1	MCAWW 245.1

## References:

MCAWW "Methods for Chemical Analysis of Water and Wastes",  
EPA-600/4-79-020, March 1983 and subsequent revisions.



# METHOD / ANALYST SUMMARY

D8K290113

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
MCAWW 245.1	Christopher Grisdale	9582

**References:**

MCAWW "Methods for Chemical Analysis of Water and Wastes",  
EPA-600/4-79-020, March 1983 and subsequent revisions.

# SAMPLE SUMMARY

D8K290113

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
K3TMG	001	IRK2835-01	11/26/08	14:55

**NOTE(S) :**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

# QC DATA ASSOCIATION SUMMARY

D8K290113

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	MCAWW 245.1		8336128	8336053
	WATER	MCAWW 245.1		8336136	8336058

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## Total Metals

Lot ID: D8K290113

Client: TestAmerica Irvine

Method: 245.1

Associated Samples: 001

Batch: 8336128

**Total Metals Analysis**  
**COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE**

Contract: TestAmerica Irvine SDG No.: D8K290113  
Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_  
SOW No.: \_\_\_\_\_

Sample ID. Lab Sample No.  
IRK2835-01 D8K290113-001

Were ICP interelement corrections applied? Yes/No YES  
Were ICP background corrections applied? Yes/No YES  
If yes-were raw data generated before Yes/No NO  
application of background corrections?

Comments:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Janice Collins Name: Janice Collins  
Date: 12/4/08 Title: Metals Analyst

## Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER

Lot/SDG Number: D8K290113

Matrix: WATER

% Moisture: N/A

Basis: Wet

Client Sample ID: IRK2835-01

Lab Sample ID: D8K290113-001

Lab WorkOrder: K3TMG

Date/Time Collected: 11/26/08 14:55

Date/Time Received: 11/29/08 08:30

CAS No.	Analyte	Conc.	MDL	RL	Units	Q	Method
7439-97-6	Mercury	0.055	0.027	0.20	ug/L	J	245.1

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D8K290113

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury	7.000	7.096	101.4	5.000	5.150	103.0	5.147	102.9	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D8K290113

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury				5.000	5.453	109.1			CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115



Total Metals Analysis  
-2B-  
CRDL STANDARD FOR AA AND ICP

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D8K290113

AA CRDL Standard Source: Ultra Scientific

ICP CRDL Standard Source: \_\_\_\_\_

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial		Final		
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.200	0.13694	68.5					

Comments:

## TestAmerica Irvine

### Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER

Lot/SDG Number: D8K290113

Matrix: WATER

% Moisture:

Basis: Wet

Analysis Method: 245.1

Unit: ug/L

QC Batch ID: 8336128

Sample Aliquot: 10 mL

Dilution Factor: 1

Client Sample ID:

Lab Sample ID: D8L010000-128B

Lab WorkOrder: K3VCE

Date/Time Collected:

Date/Time Received:

Date Leached:

Date/Time Extracted: 12/01/08 13:30

Date/Time Analyzed: 12/01/08 17:23

Instrument ID: 019

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.027	0.027	0.20	U

**Total Metals Analysis**

-3-

**BLANKS**

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D8K290113

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		1	2	3	4	5	6		
Mercury	0.027 U	0.027 U	0.027 U				0.027 U	CV	

Comments:

## TestAmerica Irvine

### Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER  
Lot/SDG Number: D8K290113  
Matrix: WATER  
% Moisture: N/A  
Basis: Wet  
Analysis Method: 245.1  
Unit: ug/L  
QC Batch ID: 8336128  
MS Sample Aliquot: 10 mL  
MS Dilution Factor: 1

Client Sample ID: LAB MS/MSD  
MS Lab Sample ID: D8K290110-001S  
MS Lab WorkOrder: K3TLX  
Date/Time Collected: 11/26/08 09:15  
Date/Time Received: 11/29/08 08:30  
Date Leached:  
Date/Time Extracted: 12/01/08 13:30  
Date/Time Analyzed: 12/01/08 17:30  
Instrument ID: 019

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Mercury	5.00	0.027	U	5.41		108		90 - 110

## TestAmerica Irvine

### Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D8K290113  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 245.1  
**Unit:** ug/L  
**QC Batch ID:** 8336128  
**MSD Sample Aliquot:** 10 mL  
**MSD Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MSD Lab Sample ID:** D8K290110-001D  
**MSD Lab WorkOrder:** K3TLX  
**Date/Time Collected:** 11/26/08 09:15  
**Date/Time Received:** 11/29/08 08:30  
**Date Leached:**  
**Date/Time Extracted:** 12/01/08 13:30  
**Date/Time Analyzed:** 12/01/08 17:32  
**Instrument ID:** 019

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Mercury	5.00	0.027	U	5.41		108		0.10		90 - 110	10

## TestAmerica Irvine

### Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER  
Lot/SDG Number: D8K290113  
Matrix: WATER  
% Moisture: N/A  
Basis: Wet  
Analysis Method: 245.1  
Unit: ug/L  
QC Batch ID: 8336128  
Sample Aliquot: 10 mL  
Dilution Factor: 1

Client Sample ID:  
Lab Sample ID: D8L010000-128C  
Lab WorkOrder: K3VCE  
Date/Time Collected:  
Date/Time Received:  
Date Leached:  
Date/Time Extracted: 12/01/08 13:30  
Date/Time Analyzed: 12/01/08 17:27  
Instrument ID: 019

Analyte	True	Found	%Rec	Q	Limits
Mercury	5.00	5.27	105		90 - 110

Total Metals Analysis

-10-

DETECTION LIMITS

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D8K290113

ICP ID Number: \_\_\_\_\_ Date: 1/23/2008

Flame AA ID Number: PE CVAA

Furnace AA ID Number: \_\_\_\_\_

Analyte	Wave-length (nm)	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Mercury	253.70		0.20	0.027	CV

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Total Metals Analysis

-13-

PREPARATION LOG

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D8K290113

Method: CV Prep Method: \_\_\_\_\_

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
INTRA-LAB QC	12/1/2008	10.0	10.0
LAB MS/MSD MS	12/1/2008	10.0	10.0
LAB MS/MSD MSD	12/1/2008	10.0	10.0
IRK2835-01	12/1/2008	10.0	10.0
MB8336128	12/1/2008	10.0	10.0
Check Sample	12/1/2008	10.0	10.0

Comments:



Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D8K290113

Instrument ID Number: PE CVAA Method: CV

Start Date: 12/1/2008 End Date: 12/1/2008

Sample ID.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
Calib Blank 1	1.00	16:57																									X		
STD1	1.00	16:58																									X		
STD2	1.00	17:00																									X		
STD3	1.00	17:02																									X		
STD4	1.00	17:04																									X		
STD5	1.00	17:05																									X		
STD6	1.00	17:07																									X		
CCV	1.00	17:11																									X		
ICB	1.00	17:14																									X		
ICV	1.00	17:16																									X		
RL	1.00	17:17																									X		
CCV	1.00	17:19																									X		
CCB	1.00	17:21																									X		
MB8336128	1.00	17:23																									X		
Check Sample	1.00	17:27																									X		
INTRA-LAB QC	1.00	17:28																									X		
LAB MS/MSD MS	1.00	17:30																									X		
LAB MS/MSD MSD	1.00	17:32																									X		
IRK2835-01	1.00	17:33																									X		
CCV	1.00	17:39																									X		
CCB	1.00	17:40																									X		

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## Dissolved Metals

Lot ID: D8K290113

Client: TestAmerica Irvine

Method: 245.1

Associated Samples: 001

Batch: 8336136

Dissolved Metals Analysis  
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: TestAmerica Irvine SDG No.: D8K290113  
Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_  
SOW No.: \_\_\_\_\_

Sample ID. Lab Sample No.  
IRK2835-01 D8K290113-001

Were ICP interelement corrections applied? Yes/No YES  
Were ICP background corrections applied? Yes/No YES  
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Janice Collins Name: Janice Collins  
Date: 12/14/08 Title: Metals Analyst

## TestAmerica Irvine

### Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D8K290113  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet

**Client Sample ID:** IRK2835-01  
**Lab Sample ID:** D8K290113-001  
**Lab WorkOrder:** K3TMG  
**Date/Time Collected:** 11/26/08 14:55  
**Date/Time Received:** 11/29/08 08:30

CAS No.	Analyte	Conc.	MDL	RL	Units	Q	Method
7439-97-6	Mercury	0.027	0.027	0.20	ug/L	U	245.1

Dissolved Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D8K290113

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury	7.000	7.096	101.4	5.000	5.150	103.0	5.147	102.9	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D8K290113

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury				5.000	5.453	109.1	5.360	107.2	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Dissolved Metals Analysis  
-2B-  
CRDL STANDARD FOR AA AND ICP**

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D8K290113

AA CRDL Standard Source: Ultra Scientific

ICP CRDL Standard Source: \_\_\_\_\_

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial		Final		
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.200	0.13694	68.5					

Comments:

## Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D8K290113  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 245.1  
**Unit:** ug/L  
**QC Batch ID:** 8336136  
**Sample Aliquot:** 10 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D8L010000-136B  
**Lab WorkOrder:** K3VC1  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 12/01/08 13:30  
**Date/Time Analyzed:** 12/01/08 17:44  
**Instrument ID:** 019

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.027	0.027	0.20	U



**Dissolved Metals Analysis**

-3-

**BLANKS**

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D8K290113

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		1	2	3	C	C	C		
Mercury	0.027   U	0.027   U	0.027   U	0.027   U	0.027   U	0.027   U	0.027   U	CV	

Comments:

## TestAmerica Irvine

### Dissolved Metals Analysis Data Sheet

<b>Lab Name:</b>	<u>TESTAMERICA DENVER</u>	<b>Client Sample ID:</b>	<u>LAB MS/MSD</u>
<b>Lot/SDG Number:</b>	<u>D8K290113</u>	<b>MS Lab Sample ID:</b>	<u>D8K290110-001S</u>
<b>Matrix:</b>	<u>WATER</u>	<b>MS Lab WorkOrder:</b>	<u>K3TLX</u>
<b>% Moisture:</b>	<u>N/A</u>	<b>Date/Time Collected:</b>	<u>11/26/08 09:15</u>
<b>Basis:</b>	<u>Wet</u>	<b>Date/Time Received:</b>	<u>11/29/08 08:30</u>
<b>Analysis Method:</b>	<u>245.1</u>	<b>Date Leached:</b>	
<b>Unit:</b>	<u>ug/L</u>	<b>Date/Time Extracted:</b>	<u>12/01/08 13:30</u>
<b>QC Batch ID:</b>	<u>8336136</u>	<b>Date/Time Analyzed:</b>	<u>12/01/08 17:51</u>
<b>MS Sample Aliquot:</b>	<u>10 mL</u>	<b>Instrument ID:</b>	<u>019</u>
<b>MS Dilution Factor:</b>	<u>1</u>		

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Mercury	5.00	0.027	U	5.43		109		90 - 110

**TestAmerica Irvine**

**Dissolved Metals Analysis Data Sheet**

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D8K290113  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 245.1  
**Unit:** ug/L  
**QC Batch ID:** 8336136  
**MSD Sample Aliquot:** 10 mL  
**MSD Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MSD Lab Sample ID:** D8K290110-001D  
**MSD Lab WorkOrder:** K3TLX  
**Date/Time Collected:** 11/26/08 09:15  
**Date/Time Received:** 11/29/08 08:30  
**Date Leached:**  
**Date/Time Extracted:** 12/01/08 13:30  
**Date/Time Analyzed:** 12/01/08 17:53  
**Instrument ID:** 019

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Mercury	5.00	0.027	U	5.33		107		1.9		90 - 110	10

## TestAmerica Irvine

### Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D8K290113  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 245.1  
**Unit:** ug/L  
**QC Batch ID:** 8336136  
**Sample Aliquot:** 10 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D8L010000-136C  
**Lab WorkOrder:** K3VC1  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 12/01/08 13:30  
**Date/Time Analyzed:** 12/01/08 17:46  
**Instrument ID:** 019

Analyte	True	Found	%Rec	Q	Limits
Mercury	5.00	5.16	103		90 - 110

Dissolved Metals Analysis

-10-

DETECTION LIMITS

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_

Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_

SDG NO.: D8K290113

ICP ID Number: \_\_\_\_\_

Date: 1/23/2008

Flame AA ID Number: PE CVAA

Furnace AA ID Number: \_\_\_\_\_

Analyte	Wave-length (nm)	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Mercury	253.70		0.20	0.027	CV

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dissolved Metals Analysis

-13-

PREPARATION LOG

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D8K290113

Method: CV Prep Method: \_\_\_\_\_

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
INTRA-LAB QC	12/1/2008	10.0	10.0
LAB MS/MSD MS	12/1/2008	10.0	10.0
LAB MS/MSD MSD	12/1/2008	10.0	10.0
IRK2835-01	12/1/2008	10.0	10.0
MB8336136	12/1/2008	10.0	10.0
Check Sample	12/1/2008	10.0	10.0

Comments:

Dissolved Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D8K290113

Instrument ID Number: PE CVAA Method: CV

Start Date: 12/1/2008 End Date: 12/1/2008

Sample ID.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
Calib Blank 1	1.00	16:57																									X		
STD1	1.00	16:58																									X		
STD2	1.00	17:00																									X		
STD3	1.00	17:02																									X		
STD4	1.00	17:04																									X		
STD5	1.00	17:05																									X		
STD6	1.00	17:07																									X		
CCV	1.00	17:11																									X		
ICB	1.00	17:14																									X		
ICV	1.00	17:16																									X		
RL	1.00	17:17																									X		
CCV	1.00	17:19																									X		
CCB	1.00	17:21																									X		
CCV	1.00	17:39																									X		
CCB	1.00	17:40																									X		
MB8336136	1.00	17:44																									X		
Check Sample	1.00	17:46																									X		
INTRA-LAB QC	1.00	17:49																									X		
LAB MS/MSD MS	1.00	17:51																									X		
LAB MS/MSD MSD	1.00	17:53																									X		
IRK2835-01	1.00	17:54																									X		
CCV	1.00	17:56																									X		
CCB	1.00	17:58																									X		

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

# Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D8K290113

Client: TA-Irvine

Batch(es) #: 8336128 + 8336136

Associated Samples: 1

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date: Christopher Grisdale 12/2/08



## *Metals Raw Data RoadMap*

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
D8K290113	1	HG	K3TMG1A	20081201	M2451DS	8336136	081201BA	019
D8K290113	1	HG	K3TMG1AA	20081201	M2451_L	8336128	081201BA	019

**METALS  
PREPARATION LOGS  
CVAA**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**