

# SAF-RC-001 Industrial Hygiene Sampling FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0133-02 SAF-RC-001

Rad only  Chem only  Rad & Chem

X Complete  Partial

300 Area 303M Bldg

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# Cover Page

Report Identification Number: 06I-0133-02  
Subcontract Number: 0000X-BO-G0058-B-Mod#4  
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby  
Laboratory Identification Number: DCHM  
SAF#: RC-001 / R303M0 J451  
Payroll#: 73513



### Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
11 Jan 2006	J10WN5	06I00928	NMAM 7300M	G060D010	MCE
11 Jan 2006	J10WV1	06I00929	NMAM 7300M	G060D010	MCE
11 Jan 2006	J10WV2	06I00930	NMAM 7300M	G060D010	MCE
11 Jan 2006	J10WV3	06I00931	NMAM 7300M	G060D010	MCE

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Name: Lisa M. Reid  
Title: Chemist  
Date: January 16, 2006



## Case Narrative Page

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**General Set Information:** There are 4 samples in set 06I-0132-01, 4 samples in set 06I-0133-02, 4 samples in set 06I-0134-01 and 9 samples in set 06I-0135-01 which were analyzed for beryllium, lead and cadmium on MCE filter. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

**Method Summary:** Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Samples were digested in a hot block set at 110°C for 40 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

**Sample Preparation:** All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

**Holding Times:** The holding times were met for both sample preparation and analysis.

**Instrument Calibration:** Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

**Initial and Continuing Calibration Verification Analysis:** Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

**Initial and Continuing Calibration Blank Analysis:** No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.01 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.08 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 1. ug/sample.

**Method Blank Analysis:** No beryllium, cadmium or lead was found in the media blank sample above the Contract Required Detection Limit (CRDL).

**Dilution(s):** NA.

**Laboratory Control Sample and Duplicate Analysis:** Two Laboratory Control Samples (LCSs) and two Laboratory Control Sample Duplicates (LCSDs) were prepared and analyzed with the sample batch. The LCS result was within the control limit of +/- 20%. The Relative Percent Differences (RPD) between the LCS and the LCSD was within the control limit of 20%.

**Replicate Analysis:** Two samples were replicated with this analysis run. The RPD between the sample and the replicate was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

**Flagging Codes:** None

**Nonconformance/Corrective Action Report (NC/CAR):** N/A

**Sample Calculation:** The final results are calculated by the following equation:

$$\text{Final result for aqueous samples } (\mu\text{g/sample}) = (A) \times (B) \times (C)$$

Where:

A = Analyte concentration from instrument determination ( $\mu\text{g/L}$ )

B = Concentration factor from sample preparation  
=  $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

C = Dilution performed at time of analysis

Example Calculation:  $(1 \mu\text{g/L}) \times (0.025 \text{ L/sample}) \times (1) = 0.025 \mu\text{g/sample}$

**Miscellaneous Comments:** None.



# Report Page

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Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$		Beryllium $\mu\text{g}/\text{m}^3$		Air Volume L
J10WN5	06I00928	13 Jan 2006	<0.01	U	**		0.00
J10WV1	06I00929	13 Jan 2006	<0.01	U	**		0.00
J10WV2	06I00930	13 Jan 2006	<0.01	U	<0.036	U	280.
J10WV3	06I00931	13 Jan 2006	<0.01	U	<0.036	U	276.
Limit of Detection (LOD)			0.01				
Required Detection Limit (RDL)							

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Lead $\mu\text{g}/\text{sample}$		Lead $\mu\text{g}/\text{m}^3$		Cadmium $\mu\text{g}/\text{sample}$	
J10WN5	06I00928	13 Jan 2006	<1.	U	**		<0.08	U
J10WV1	06I00929	13 Jan 2006	<1.	U	**		<0.08	U
J10WV2	06I00930	13 Jan 2006	<1.	U	<3.6	U	<0.08	U
J10WV3	06I00931	13 Jan 2006	<1.	U	<3.6	U	<0.08	U
Limit of Detection (LOD)			1.				0.08	
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$	
J10WN5	06I00928	13 Jan 2006	**	
J10WV1	06I00929	13 Jan 2006	**	
J10WV2	06I00930	13 Jan 2006	<0.29	U
J10WV3	06I00931	13 Jan 2006	<0.29	U
Limit of Detection (LOD)				
Required Detection Limit (RDL)				

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.

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Batch ID: G060D010

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-240030-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-240030-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
BL-240030-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-240030-1	LCS	Beryllium	µg/sample	10.6	NA	10.0	106.	NA
QC-240030-1	LCS	Lead	µg/sample	105.	NA	100.	105.	NA
QC-240030-1	LCS	Cadmium	µg/sample	32.8	NA	30.0	109.	NA
QD-240030-1	LCSD	Beryllium	µg/sample	10.7	10.6	10.0	107.	1.01
QD-240030-1	LCSD	Lead	µg/sample	108.	105.	100.	108.	2.51
QD-240030-1	LCSD	Cadmium	µg/sample	33.1	32.8	30.0	110.	0.922

MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

LCS, LCSD Percent Rec. = (Result / Target) \* 100.0

MS, MSD Percent Rec. = ((Result - Parent) / Target) \* 100.0

LCS, LCSD Relative Percent Diff. = ( (|LCS - LCSD|) / ((LCS + LCSD)/2.0) ) \* 100.

MS, MSD Relative Percent Diff. = ( (|MS - MSD|) / ((MS + MSD)/2.0) ) \* 100.

LD Relative Percent Diff. = ( (|Parent - LD|) / ((Parent + LD)/2.0) ) \* 100

06E-033-0102

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST												
Collector: Yella Jones		Company Contact Dante A. Pitts and Henry W. Ruby		Telephone No. 531-1229		Project Coordinator Joan H. Kessler		Data Turnaround 24 Hour				
Payroll #: T3513		Sampling Location 300 Area 303 M Building		SPECIAL INSTRUCTIONS All relevant COAs must be provided: R303MO J451		SAF No. RC-001						
Type of Sample: Air and Wipes		Wipe Sample Media: Glass <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		ANALYSIS METHOD (SPECIFIC): NIOSH 7300		Method of Shipment FE EX						
Shipped To: Data Chem Salt Lake City		Other				Bill of Lading/Air Bill No. 8541 9337 5318						
POSSIBLE SAMPLE HAZARD/REMARKS Be, Pb, Cd		Special Handling and/or Storage NA		Preservation (i.e., cooling required, etc.)								
SAMPLE ANALYSIS												
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area (sq ft)	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cadmium Wipe	Other Airborne
J10R16	W1	1-11-06	NA	Blank	NA	NA	X	X	na	X	na	na
J10R17	W1		1000sqft	NA	NA	NA	X	X	na	X	na	na
J10R18	W1		NA	Blank	NA	NA	X	X	na	X	na	na
J10W15	A		NA	Blank	NA	NA	X	X	na	X	na	na
J10W16	A		NA	Blank	NA	NA	X	X	na	X	na	na
J10W17	A		280L	personal	NA	NA	X	X	na	X	na	na
J10W18	A		276L	personal	NA	NA	X	X	na	X	na	na
				48j								
				1-11-06								

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WCH-SH-302 (06/29/2005)





Enter on line below the first Sample Number from Page One:

J10RR6

**CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

**SIGN / PRINT NAMES / USE MILITARY TIME**

Requested By/Serial	DATE / TIME	Received By/Serial	DATE / TIME
<i>[Signature]</i> Yehud. Jones	1-11-06 1530	3746 Building, Rm 16, locked cabinet	1-11-06 1530
3746 Building Rm #16 locked building			
<i>[Signature]</i> Goldie Mathon	01-12-06 1445	RZ Steffler RZ Steff	1-12-06 1445
RZ Steffler R.Z. Steff <sup>WCH</sup>	1-12-06 1575	Fed Ex	
<b>LABORATORY SECTION</b>	Received By	Title	DATE / TIME

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PRINT/SIGN NAME