

0069436

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0771-01 SAF-RC-001

Rad only Chem only Rad & Chem

X Complete Partial

300 Area 333 Bldg

RECEIVED
APR 28 2006
EDMC

Report Identification Number: 06I-0771-01
 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 /R33300 J451
 Payroll#: 73513



Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
15 Feb 2006	J113X7	06I06360	NMAM 7300M	G061P015	MCE
15 Feb 2006	J113X8	06I06361	NMAM 7300M	G061P015	MCE
15 Feb 2006	J113X1	06I06362	NMAM 7300M	G061P015	MCE
15 Feb 2006	J113X3	06I06363	NMAM 7300M	G061P015	MCE
15 Feb 2006	J113X4	06I06364	NMAM 7300M	G061P015	MCE
15 Feb 2006	J113X6	06I06365	NMAM 7300M	G061P015	MCE

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Name: Lisa M. Reid
 Title: Chemist
 Date: February 24, 2006

Report Identification Number: 06I-0771-01
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General Set Information: There are 6 samples in set 06I-0771-01, 6 samples in set 06I-0773-01 and 7 samples in set 06I-0775-01 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 0.02 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: One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) 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:

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

Where:

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

B = Concentration factor from sample preparation

= $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

C = Dilution performed at time of analysis

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

Miscellaneous Comments: None.

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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	
J113X7	06I06360	22 Feb 2006	<0.02	U	**		0.00	
J113X8	06I06361	22 Feb 2006	<0.02	U	**		0.00	
J113X1	06I06362	22 Feb 2006	<0.02	U	<0.029	U	699.	
J113X3	06I06363	22 Feb 2006	<0.02	U	<0.033	U	603.	
J113X4	06I06364	22 Feb 2006	<0.02	U	<0.033	U	605.	
J113X6	06I06365	22 Feb 2006	<0.02	U	<0.33	U	60.0	
Limit of Detection (LOD)			0.02					
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 $\mu\text{g}/\text{sample}$	
J113X7	06I06360	22 Feb 2006	<1.	U	**		<0.08	U
J113X8	06I06361	22 Feb 2006	<1.	U	**		<0.08	U
J113X1	06I06362	22 Feb 2006	<1.	U	<1.4	U	<0.08	U
J113X3	06I06363	22 Feb 2006	<1.	U	<1.7	U	<0.08	U
J113X4	06I06364	22 Feb 2006	<1.	U	<1.7	U	<0.08	U
J113X6	06I06365	22 Feb 2006	<1.	U	<17.	U	<0.08	U
Limit of Detection (LOD)			1.				0.08	
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$	
J113X7	06I06360	22 Feb 2006	**	
J113X8	06I06361	22 Feb 2006	**	
J113X1	06I06362	22 Feb 2006	<0.11	U
J113X3	06I06363	22 Feb 2006	<0.13	U
J113X4	06I06364	22 Feb 2006	<0.13	U
J113X6	06I06365	22 Feb 2006	<1.3	U

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$
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: G061P015

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-241672-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-241672-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
BL-241672-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-241672-1	LCS	Beryllium	µg/sample	10.9	NA	10.0	109.	NA
QC-241672-1	LCS	Lead	µg/sample	106.	NA	100.	106.	NA
QC-241672-1	LCS	Cadmium	µg/sample	31.5	NA	30.0	105.	NA
QD-241672-1	LCSD	Beryllium	µg/sample	10.8	10.9	10.0	108.	1.18
QD-241672-1	LCSD	Lead	µg/sample	105.	106.	100.	105.	0.737
QD-241672-1	LCSD	Cadmium	µg/sample	31.4	31.5	30.0	105.	0.220

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

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: <u>Wendy Jones</u> Project Coordinator: <u>Juan H. Kasser</u>		Telephone No.: <u>531-1229 Method of Shipment: <u>Fed Ex</u> </u>		Data Transferred: <u>24 Hour</u>	
Company Contact: <u>Dennis A. Pits and Henry W. Ruby</u> Sampling Location: <u>300 Area</u> <u>335 Building</u>		SAF No.: <u>RC-001</u> Bill of Lading/Air Bill No.: <u>8544 9435 4830</u>			
Type of Sample: <u>Air & Wipes</u> Shipped To: <u>Data Chem</u> <u>Salt Lake City</u>		SPECIAL INSTRUCTIONS: <u>All relevant COAs must be provided:</u> <u>R3300 J451</u> <u>ANALYSIS METHOD (SPECIFIC):</u> <u>NIOSH 7300</u>			
Wipe Sample Media: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Other:		Preservation (i.e., cooling required, etc.):			
Matrix: A - AIR WI - WIPE X - OTHER		Asbestos Airborne: <u>No</u> Lead Airborne: <u>No</u> Beryllium Airborne: <u>No</u> Beryllium Wipe: <u>X</u> Mold: <u>NO</u> Lead Wipe: <u>X</u> Cd Wipe: <u>X</u> Cd Airborne: <u>NO</u>			
SAMPLE ANALYSIS					
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area (sq ft)	Comments	
J115X1	WI	2-15-06	1500cm ²	Wipe SOP	

Page 3 of 4

WCH-SH-202 (08/29/2005)

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

J113X7

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Released By/Stamp	DATE / TIME	Received By/Stamp	DATE / TIME
<i>[Signature]</i>	Yetta D. Jones 2-15-06 1515	3746 Building, Rm 116, locked cabinet	2-15-06 1515
locked cabinet bldg 3746 Rm #16			
Golden Milk / Goldie Mathon	02/21/06 / 1440	RZ Steffler R.J. Steff	2-21-06 / 1440
RZ Steffler R.J. Steff	WCH 2-21-06 / 1600	Fed Ex	

LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: _____ DATE: _____
 PRINT/SIGN NAME



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: <i>Vella D. Jones</i>	Company Contact <i>Denise A. Pitts and Henry W. Ruby</i>	Telephone No. <i>531-1229</i>	Project Coordinator <i>Joan H. Kessner</i>	Data Turnaround
Payroll #: <i>73513</i>	Sampling Location <i>300 Area</i>	SPECIAL INSTRUCTIONS All relevant COAs must be provided: <i>R33300 J451</i> ANALYSIS METHOD (SPECIFIC): <i>NIOSH 7300</i>		SAF No. <i>RC-001</i>
Type of Sample: <i>Air & Wipes</i>	<i>333 Building</i>	Method of Shipment <i>FED EX</i>		
Shipped To: <i>Data Chem</i> <i>Salt Lake City</i>	Wipe Sample Media: Ghost <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Other _____	Bill of Lading/Air Bill No. <i>8544 9435 4830</i>		

POSSIBLE SAMPLE HAZARD/REMARKS <i>Be, Cd, Pb</i> Special Handling and/or Storage <i>NA</i>	MATRIX A - AIR WI - WIPE X - OTHER	Preservation (i.e., cooling required, etc.)	No										

SAMPLE ANALYSIS					Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne	
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area <small>cm²</small>	Comments									
<i>J115X1</i>	<i>WI</i>	<i>2-15-06</i>	<i>100cm²</i>	<i>10% S.O.P</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>X</i>	<i>na</i>	<i>X</i>	<i>X</i>	<i>na</i>	<i>na</i>

COPY

FIELD SAMPLE COPY

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

J113X7

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Stored	DATE / TIME	Received By/Stored	DATE / TIME
<i>[Signature]</i> locked cabinet 3746 Bldg Rm#16	Y. Jones 2-15-06 1515	3746 Building, Rm16, locked cabinet	2-15-06 1515
<i>[Signature]</i>	G. M. Mathan 02-21-06 / 1440	RZ Steffler <i>[Signature]</i>	2-21-06 / 1440
<i>[Signature]</i>	RZ Steffler <i>[Signature]</i> WCH 2-21-06 / 1600	Fed Ex	
Relinquished By/Stored	DATE / TIME	Received By/Stored	DATE / TIME
Relinquished By/Stored	DATE / TIME	Received By/Stored	DATE / TIME
Relinquished By/Stored	DATE / TIME	Received By/Stored	DATE / TIME
Relinquished By/Stored	DATE / TIME	Received By/Stored	DATE / TIME
Relinquished By/Stored	DATE / TIME	Received By/Stored	DATE / TIME
Relinquished By/Stored	DATE / TIME	Received By/Stored	DATE / TIME
Relinquished By/Stored	DATE / TIME	Received By/Stored	DATE / TIME
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: _____ DATE: _____
 PRINT/SIGN NAME