

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0785-01 SAF-RC-001

Rad only X Chem only Rad & Chem

X Complete Partial

300 Area 303M Bldg

RECEIVED
APR 28 2006
EDMC

Cover Page



Report Identification Number: 06I-0785-01
 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 /R303MO J451
 Payroll#: 73338

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
21 Feb 2006	J115V3	06I06497	NMAM 7300M	G061Q035	MCE
21 Feb 2006	J115V4	06I06498	NMAM 7300M	G061Q035	MCE
21 Feb 2006	J115B0	06I06499	NMAM 7300M	G061Q035	MCE
21 Feb 2006	J115B1	06I06500	NMAM 7300M	G061Q035	MCE
21 Feb 2006	J115B2	06I06501	NMAM 7300M	G061Q035	MCE
21 Feb 2006	J115C2	06I06502	NMAM 7300M	G061Q035	MCE

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

Report Identification Number: 06I-0785-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
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General Set Information: There are 8 samples in set 06I-0784-01, 6 samples in set 06I-0785-01 and 6 samples in set 06I-0787-02 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 2. 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 LCSs and the LCSDs were 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.



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	
J115V3	06I06497	23 Feb 2006	<0.02	U	**		0.00	
J115V4	06I06498	23 Feb 2006	<0.02	U	**		0.00	
J115B0	06I06499	23 Feb 2006	<0.02	U	<0.038	U	524.	
J115B1	06I06500	23 Feb 2006	<0.02	U	<0.10	U	195.	
J115B2	06I06501	23 Feb 2006	<0.02	U	<0.061	U	326.	
J115C2	06I06502	23 Feb 2006	<0.02	U	<0.060	U	333.	
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 $\mu\text{g}/\text{sample}$	
J115V3	06I06497	23 Feb 2006	<2.	U	**		<0.08	U
J115V4	06I06498	23 Feb 2006	<2.	U	**		<0.08	U
J115B0	06I06499	23 Feb 2006	<2.	U	<3.8	U	<0.08	U
J115B1	06I06500	23 Feb 2006	<2.	U	<10.	U	<0.08	U
J115B2	06I06501	23 Feb 2006	<2.	U	<6.1	U	<0.08	U
J115C2	06I06502	23 Feb 2006	<2.	U	<6.0	U	<0.08	U
Limit of Detection (LOD)			2.				0.08	
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$	
J115V3	06I06497	23 Feb 2006	**	
J115V4	06I06498	23 Feb 2006	**	
J115B0	06I06499	23 Feb 2006	<0.15	U
J115B1	06I06500	23 Feb 2006	<0.41	U
J115B2	06I06501	23 Feb 2006	<0.25	U
J115C2	06I06502	23 Feb 2006	<0.24	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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 Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
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 Payroll#: 73338

Batch ID: G061Q035

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-241741-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-241741-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
BL-241741-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-241741-1	LCS	Beryllium	µg/sample	11.0	NA	10.0	110.	NA
QC-241741-1	LCS	Lead	µg/sample	109.	NA	100.	109.	NA
QC-241741-1	LCS	Cadmium	µg/sample	33.3	NA	30.0	111.	NA
QD-241741-1	LCSD	Beryllium	µg/sample	11.1	11.0	10.0	111.	0.791
QD-241741-1	LCSD	Lead	µg/sample	109.	109.	100.	109.	0.505
QD-241741-1	LCSD	Cadmium	µg/sample	33.1	33.3	30.0	110.	0.602
BL-241741-2	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-241741-2	MB	Lead	µg/sample	ND	NA	NA	NA	NA
BL-241741-2	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-241741-2	LCS	Beryllium	µg/sample	10.6	NA	10.0	106.	NA
QC-241741-2	LCS	Lead	µg/sample	106.	NA	100.	106.	NA
QC-241741-2	LCS	Cadmium	µg/sample	32.3	NA	30.0	108.	NA
QD-241741-2	LCSD	Beryllium	µg/sample	10.9	10.6	10.0	109.	3.43
QD-241741-2	LCSD	Lead	µg/sample	108.	106.	100.	108.	2.50
QD-241741-2	LCSD	Cadmium	µg/sample	32.9	32.3	30.0	110.	1.76

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



QC Summary Page

Page 7 of 9

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

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

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

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

NOTE 0785-d

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST													
Collector: Chris Schilling		Company Contact: Dennis A. Pitts and Henry W. Ruby		Telephone No. 511-1229		Project Coordinator Joan H. Kozmar		Date Turnaround 24hr					
Payroll #: 71338		Sampling Location 300 Area- 303M Bldg		SPECIAL INSTRUCTIONS All relevant COAs must be provided: RUCM01451				SAP No. RC-001		Method of Shipment Federal Express			
Type of Sample: Be, Cd, Pb		Wipe Sample Matrix: Ghost <input type="checkbox"/> No <input checked="" type="checkbox"/> Other <input type="checkbox"/>		ANALYSIS METHOD (SPECIFIC): NOISE 7300 Be, Cd, Pb				Bill of Lading/Air Bill No. 8544 9435 4840					
Shipped To: Data Chem, Salt Lake		PRESERVATION (i.e., cooling required, etc.)		MATRIX		No		No		No		No	
POSSIBLE SAMPLE HAZARD/PREMARKS Be, Cd, Pb		A - AIR WI - WIPE X - OTHER		No		No		No		No		No	
Special Handling and/or Storage N/A		SAMPLE ANALYSIS		No		No		No		No		No	
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area (m ²)	Comments	Hydrocarbons Airborne	Lead Airborne	Beryllium Airborne	Lead Wipe	Beryllium Wipe	Mold	Cd Wipe	Cd Airborne	
J115V3	A	02-21-06	N/A	Blank	X	X	X					X	
J115V4	A	02-21-06	N/A	Blank	X	X	X					X	
J115B0	A	02-21-06	524	Personal	X	X	X					X	
J115B1	A	02-21-06	195	Personal	X	X	X					X	
J115B2	A	02-21-06	324	Personal	X	X	X					X	
J115C2	A	02-21-06	333	Personal	X	X	X					X	

Page 1 of 2

WCH-SH-202 (06/29/2005)

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

3115V3

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	
SIGN / PRINT NAMES/ USE MILITARY TIME	DATE / TIME
Initials: [Signature] Location: Locked Cabinet Rm 16, 3746 Bldg	02-22-06 / 1100
Initials: [Signature] Location: Locked Cabinet Bldg 3746 Rm #16	02-22-06 / 1130
Initials: [Signature] Location: Goldie Malher	02-22-06 / 1430
Initials: [Signature] Location: Fed Ex	2-22-06 / 1100
Initials: [Signature] Location: Fed Ex	2-23-06 1000
Initials: [Signature] Location: [Signature]	0000
Initials: [Signature] Location: [Signature]	18
Initials: [Signature] Location: [Signature]	0000
LABORATORY SECTION	DATE / TIME
Received By: [Signature]	2/23/06 1000

REVIEWED BY:

DATE:

PRINT/SIGN NAME

[Signature]

WCHE-SH-302 (08/29/2005)

Page 3 of 3



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: Chris Schilling	Company Contact Denise A. Pitts and Henry W. Ruby	Telephone No. 531-1229	Project Coordinator Joan H. Kessner	Data Turnaround 24Hr
Payroll #: 73338	Sampling Location 300 Area- 303M Bldg	SPECIAL INSTRUCTIONS All relevant COAs must be provided: R303M0J451		SAF No. RC-001
Type of Sample: Be, Cd, Pb		ANALYSIS METHOD (SPECIFIC): NIOSH 7300 Be, Cd, Pb		Method of Shipment Federal Express
Shipped To: Data Chem, Salt Lake	Wipe Sample Media: Ghost <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Other <u>2-21-06</u>	Bill of Lading/Air Bill No. 8544 9435 4840		

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

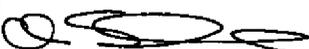
SAMPLE ANALYSIS					Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area 100 cm ²	Comments								
J115V3 ✓	A	02-21-06	N/A	Blank		X	X					X
J115V4 ✓	A	02-21-06	N/A	Blank		X	X					X
J115B0 ✓	A	02-21-06	524	Personal		X	X					X
J115B1 ✓	A	02-21-06	195	Personal		X	X					X
J115B2 ✓	A	02-21-06	326	Personal		X	X					X
J115C2 ✓	A	02-21-06	333	Personal		X	X					X
COPY												
FIELD SAMPLE COPY												

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

3115V3

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Stored: Chris Schilling	DATE / TIME 02-22-06 / 1100	Received By/Stored: Locked Cabinet Rm 16, 3746 Bldg	DATE / TIME 02-22-06 / 1100
 Relinquished By/Stored: Locked cabinet Bldg 3746 Rm #16	DATE / TIME 02-22-06 1430	Received By/Stored: RZ Steffler R.J. Steffler	DATE / TIME 2-22-06 / 1430
Relinquished By/Stored: RZ Steffler R.J. Steffler	DATE / TIME WCH 2-22-06 / 1600	Received By/Stored: Fed Ex	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
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: _____ DATE: _____
 PRINT/SIGN NAME