

0069464

**SAF-RC-001**  
**Industrial Hygiene Sampling**  
**FINAL DATA**

**NO DISTRIBUTION REQUIRED**

**COMMENTS:**

SDG 06I-0772-01 SAF-RC-001

Rad only   X   Chem only   Rad & Chem

X Complete   Partial

**300 Area 333 Bldg**

**RECEIVED**  
APR 28 2006  
EDMC

Report Identification Number: 06I-0772-01  
 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#: 0636267



**Sample Information**

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
13 Feb 2006	J114X1	06I06371	NMAM 7300M	G061P016	G WIPE
13 Feb 2006	J114X2	06I06372	NMAM 7300M	G061P016	G WIPE
13 Feb 2006	J114W5	06I06373	NMAM 7300M	G061P016	G WIPE
13 Feb 2006	J113N8	06I06374	NMAM 7300M	G061P016	G WIPE
13 Feb 2006	J113N7	06I06375	NMAM 7300M	G061P016	G WIPE
13 Feb 2006	J114W8	06I06376	NMAM 7300M	G061P016	G WIPE
13 Feb 2006	J114K8	06I06377	NMAM 7300M	G061P016	G WIPE
13 Feb 2006	J114K9	06I06378	NMAM 7300M	G061P016	G WIPE

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

Report Identification Number: 06I-0772-01  
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#: 0636267

**General Set Information:** There are 5 samples in set 06I-0771-02 and 8 samples in set 06I-0772-01 which were analyzed for cadmium, lead and beryllium on Ghost Wipe. 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 5 mL of nitric acid and 5 mL of ASTM Type II water. Samples were digested in a hot block set at 110°C for 60 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 Contract Required Detection Limits (CRDL) 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 Contract Required Detection Limits (CRDL) of 0.07 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 2. ug/sample.

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

**Dilution(s):** None.

**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 limits of +/- 20%. The Relative Percent Difference (RPD) between the LCS and the LCSD were within the control limit of 20%.

**Replicate Analysis:** One sample in this batch was replicated. The RPD between the samples and the replicates 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 Identification Number: 06I-0772-01  
 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#: 0636267

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium µg/sample		Cadmium µg/sample		Lead µg/sample	
J114X1	06I06371	22 Feb 2006	<0.02	U	<0.07	U	<2.	U
J114X2	06I06372	22 Feb 2006	<0.02	U	<0.07	U	<2.	U
J114W5	06I06373	22 Feb 2006	<0.02	U	<0.07	U	3.2	
J113N8	06I06374	22 Feb 2006	0.66		13.		670	
J113N7	06I06375	22 Feb 2006	0.22		72.		860	
J114W8	06I06376	22 Feb 2006	0.022		0.27		4.9	
J114K8	06I06377	22 Feb 2006	<0.02	U	<0.07	U	<2.	U
J114K9	06I06378	22 Feb 2006	<0.02	U	<0.07	U	<2.	U
Limit of Detection (LOD)			0.02		0.07		2.	
Required Detection Limit (RDL)								

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.

Report Identification Number: 06I-0772-01  
 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#: 0636267

Batch ID: G061P016

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-241673-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-241673-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
BL-241673-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
QC-241673-1	LCS	Beryllium	µg/sample	11.3	NA	10.0	113.	NA
QC-241673-1	LCS	Cadmium	µg/sample	31.3	NA	30.0	104.	NA
QC-241673-1	LCS	Lead	µg/sample	103.	NA	100.	103.	NA
QD-241673-1	LCSD	Beryllium	µg/sample	11.6	11.3	10.0	116.	2.90
QD-241673-1	LCSD	Cadmium	µg/sample	31.9	31.3	30.0	106.	2.00
QD-241673-1	LCSD	Lead	µg/sample	105.	103.	100.	105.	2.14

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

$$\text{LCS, LCSD Percent Rec.} = (\text{Result} / \text{Target}) * 100.0$$

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

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

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

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

06I-0772-D

**CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

<b>Company Contact</b> Denise A. Pitts and Henry W. Ruby Telephone No. 531-1229		<b>Project Coordinator</b> Joan H. Kessler Data Turnaround 24hr										
<b>Sampling Location</b> 300 Area Building 333 Wipe Sample Method Ghost <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Other		<b>SAF No.</b> RC-001 <b>Method of Shipment</b> Federal Express Bill of Lading/Air Bill No. 8544 9435 4830										
<b>SPECIAL INSTRUCTIONS</b> All relevant COAs must be provided: R333000451 <b>ANALYSIS METHOD (SPECIFIC):</b> NIOSH 7300												
<b>PRESERVATION (i.e., cooling required, etc.)</b> No												
<b>MATRIX ANALYSIS</b> MATRIX: AIR <input checked="" type="checkbox"/> WIFE <input type="checkbox"/> OTHER <input type="checkbox"/>												
<b>SAMPLE ANALYSIS</b>												
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (Ltr or Area)	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne
J114X1	WI	02-13-06	100cm <sup>2</sup>	MSA Mask				X		X	X	No
J114X2			100cm <sup>2</sup>	MSA Mask				X		X	X	No
J114W5			100cm <sup>2</sup>	Step off Pad				X		X	X	No
J113N8			100cm <sup>2</sup>	Roof Ceiling on Tool Room				X		X	X	No
J113N7			100cm <sup>2</sup>	North middle				X		X	X	No
J114N8			100cm <sup>2</sup>	MSA mask				X		X	X	No
J114K8			NA	Blank				X		X	X	No
J114K9	WI	02-13-06	NA	Blank				X		X	X	No

Page \_\_\_ of \_\_\_

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

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

5114X1

D-5555555555

**CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

Received By/Time	DATE/TIME	Received By/Time	DATE/TIME
John Pecosky	02-13-06 / 1630	Locked Cabinet Room 16 Building 3746	02-13-06 / 1630
John Pecosky	02-21-06 / 1440	Locked Cabinet 3746 Bldg. Rm #16	02-21-06 / 1440
Goldie Mall	02-21-06 / 1600	R2 Steffler R.J. Steffler	02-21-06 / 1440
R2 Steffler R.J. Steffler	2-21-06 / 1600	Fed Ex	
Fed Ex		Julie Warrata	2-21-06 0900
Metals 3Jw			
LABORATORY SECTION	Received By	Julie Warrata	DATE/TIME 2-21-06 0900

REVIEWED BY:

DATE:

PRINT/SIGN NAME

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

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### CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: <b>John Peoples</b>	Company Contact Denise A. Pitts and Henry W. Ruby	Telephone No. 531-1229	Project Coordinator Joan H. Kessner	Data Turnaround
Payroll #: <b>0636267</b>	Sampling Location <b>300 Area Building 333</b>	SPECIAL INSTRUCTIONS All relevant COAs must be provided: <b>R333005451</b>		24hr
Type of Sample: <b>Be, Pb, Tcd.</b>	Wipe Sample Media: Ghost <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Other <input checked="" type="checkbox"/>	ANALYSIS METHOD (SPECIFIC): <b>Niosh 7300</b>		
Shipped To: <b>Data Chem Salt Lake</b>	Method of Shipment <b>Federal Express</b>		Bill of Lading/Air Bill No. <b>8544 9435 4830</b>	
POSSIBLE SAMPLE HAZARD/REMARKS				

Special Handling and/or Storage	MATRIX A - AIR WI - WIPE X - OTHER	Preservation (i.e., cooling required, etc.)	No							
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**SAMPLE ANALYSIS**

SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area (cm <sup>2</sup> )	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne
J114X1	WI	02-13-06	100cm <sup>2</sup>	MSA Mask				X		X	X	
J114X2			100cm <sup>2</sup>	MSA Mask				X		X	X	
J114W5			100cm <sup>2</sup>	Step off Pad				X		X	X	
J113N8			100cm <sup>2</sup>	Roof Ceiling in Tool Room				X		X	X	
J113N7			100cm <sup>2</sup>	North middle				X		X	X	
J114W8			100cm <sup>2</sup>	MSA mask				X		X	X	
J114K8			NA	Blank				X		X	X	
J114K9	WI	02-13-06	NA	Blank				X		X	X	
								X		X	X	

COPY

FIELD SAMPLE COPY

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

J114X1

**CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

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

Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
<i>John Peoples</i>	<i>02.13.06 / 1630</i>	<i>Locked Cabinet Room 16 Building 3746</i>	<i>02.13.06 / 1630</i>
<i>locked cabinet 3746 Bldg Rm #16</i>			
<i>Golden Milk Goldie Malhan</i>	<i>02-21-06 / 1440</i>	<i>RZ Steffler RZ Steffler</i>	<i>2-21-06 / 1440</i>
<i>RZ Steffler RZ Steffler</i>	<i>WCH 2-21-06 / 1600</i>	<i>Fed Ex</i>	
<b>LABORATORY SECTION</b>	<b>Received By</b>	<b>Title</b>	<b>DATE / TIME</b>

REVIEWED BY: \_\_\_\_\_

PRINT/SIGN NAME

DATE: \_\_\_\_\_