

SAF-RC-001 Industrial Hygiene Sampling FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0162-01 SAF-RC-001

Rad only Chem only Rad & Chem

X Complete Partial

300 Area 303M Bldg

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EDMC



Cover Page

Report Identification Number: 06I-0162-01
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 / R303M0 J451
Payroll#: 73513



Sample Information

Table with 6 columns: Sample Date, Customer Sample Number, Laboratory Sample Number, Method, Analytical Batch Identification, Sample Matrix. Contains 4 rows of sample data.

I certify that this electronic image and all hardcopies produced from this image accurately represent the data and are in compliance with the contract specific requirements, both technically and for completeness, other than the conditions detailed above or in the sample data package narrative. Release, by submission through email, the data contained in this electronic image and the computer-readable EDD (as applicable), has been authorized by the laboratory Manager or the Manager's designee.

Name: Lisa M. Reid
Title: Chemist
Date: January 18, 2006

Report Identification Number: 06I-0162-01
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 / R303M0 J451
Payroll#: 73513

General Set Information: There are 16 samples in set 06I-0161-01 and 4 samples in set 06I-0162-01. The samples 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 "TH-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 0.01 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): Sample 06I01324 was diluted tenfold for beryllium because of interference. The reporting limits should be raised accordingly.

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 results were 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: Two samples in this batch were 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 Page

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 Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
 Laboratory Identification Number: DCHM
 SAF#: RC-001 / R303M0 J451
 Payroll#: 73513

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium µg/sample		Cadmium µg/sample		Lead µg/sample	
J10WP1	06I01328	18 Jan 2006	<0.01	U	0.078		<2.	U
J10RR5	06I01329	18 Jan 2006	<0.01	U	<0.07	U	<2.	U
J10RC3	06I01330	18 Jan 2006	<0.01	U	<0.07	U	<2.	U
J10RC2	06I01331	18 Jan 2006	<0.01	U	<0.07	U	<2.	U
Limit of Detection (LOD)			0.01		0.07		2.	
Required Detection Limit (RDL)								

U - Parameter not detected above LOD.
 J - Parameter between LOD and RDL.



QC Summary Page

Report Identification Number: 06I-0162-01
 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 / R303M0 J451
 Payroll#: 73513

Batch ID: G060J010

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-240143-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-240143-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
BL-240143-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
QC-240143-1	LCS	Beryllium	µg/sample	10.7	NA	10.0	107.	NA
QC-240143-1	LCS	Cadmium	µg/sample	32.7	NA	30.0	109.	NA
QC-240143-1	LCS	Lead	µg/sample	101.	NA	100.	101.	NA
QD-240143-1	LCSD	Beryllium	µg/sample	10.7	10.7	10.0	107.	0.128
QD-240143-1	LCSD	Cadmium	µg/sample	32.7	32.7	30.0	109.	0.0498
QD-240143-1	LCSD	Lead	µg/sample	102.	101.	100.	102.	1.07

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

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

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

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

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

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

01/12-01/02-01,02



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST													
Collector: Vetta D. Jones		Company Contact Denise A. Pitts and Henry W. Ruby			Telephone No. 531-1229		Project Coordinator Joan H. Kessner			Data Turnaround 24 hours			
Payroll #: 73513		Sampling Location 300 Area		SPECIAL INSTRUCTIONS All relevant COAs must be provided: R303MO J451 ANALYSIS METHOD (SPECIFIC): NIOSH 7300			SAF No. RC-001						
Type of Sample: personal/wipes		303M Building					Method of Shipment FED EX		Bill of Lading/Air Bill No. 8541 9337 5329				
Shipped To: Data Chem Salt Lake City		Wipe Sample Media: Ghost <input type="checkbox"/> Yes <input type="checkbox"/> No Other _____		POSSIBLE SAMPLE HAZARD/REMARKS Be, Pb, Cd Special Handling and/or Storage na									
MATRIX A - AIR WI - WIPE X - OTHER				Preservation (i.e., cooling required, etc.)		No	No	No	No	No	No	No	na
SAMPLE ANALYSIS					Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne	na
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area cm ²	Comments									
J10WPI	WI	1-12-06	100cm ²	NA	01/329			X	na	X	X		
J10RR5	WI		100cm ²	NA	01/329			X	na	X	X	1-12-06	
J10RC3	WI		NA	Blank	1-12-06	30		X	na	X	X		
J10RC2	WI		NA	Blank	1-12-06	31		X	na	X	X		
J10WX0	A		131L	personal	na	X	X			01/1332		X	na
J10WX1	A		149L	personal	na	X	X			01/33		X	na
J10WX8	A		NA	Blank	na	X	X		1-12-06	34		X	na
J10WX9	A	1-12-06	NA	Blank	na	X	X			35		X	na
					01/329								
					1-12-06								

DataChem Laboratories, Inc.
960 West Levoiy Drive
Salt Lake City, Utah 84123-2547

Phone: (801) 266-7700
FAX: (801) 268-9992

Web Page: www.datachem.com
E-mail: lab@datachem.com

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

J10 WP1

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Relinquished By/Sheet:	DATE / TIME	Received By/Sheet:	DATE / TIME
<i>[Signature]</i> Yetta D. Jones	1-12-06 1600	3746 Building Rm 16, locked cabinet	1-12-06 1600
<i>[Signature]</i> Dan Driggels / DM Drigg			
locked cabinet room 16 3746	1-16-06 / 1415	R2 Steffler R3 Steffler	1-16-06 / 1415
<i>[Signature]</i> R2 Steffler R3 Steffler	1-16-06 1500	Fed Ex	
<i>[Signature]</i> Fed Ex		<i>[Signature]</i> Meredith Edwards	1/16/06
<i>[Signature]</i> Metals M	1/16/06		
LABORATORY SECTION	Received By	Title	DATE / TIME
	<i>[Signature]</i> Meredith Edwards		1/16/06

REVIEWED BY: _____ DATE: _____
PRINT/SIGN NAME

DataChem Laboratories, Inc.
960 West Levooy Drive
Salt Lake City, Utah 84123-2547

Phone: (801) 266-7700
FAX: (801) 268-9992

Web Page: www.datachem.com
E-mail: lab@datachem.com



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: Yetta D. Jones	Company Contact Denise A. Pitts and Henry W. Ruby	Telephone No. 531-1229	Project Coordinator Joan H. Kessner	Data Turnaround
Payroll #: 73513	Sampling Location 300 Area	SPECIAL INSTRUCTIONS All relevant COAs must be provided: R303MO J451		SAF No. RC-001
Type of Sample: personal / wipes	303M Building	ANALYSIS METHOD (SPECIFIC): NIOSH 7300		Method of Shipment FED EX
Shipped To: Data Chem Salt Lake City	Wipe Sample Media: Ghost <input type="checkbox"/> Yes <input type="checkbox"/> No Other _____	Bill of Lading/Air Bill No. 8541 9337 5329		

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

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 <u> </u> cm ²	Comments									
J10WPI	WI	1-12-06	100cm ²	NA				X	na	X	X		na
J10RR5	WI		100cm ²	NA				X	na	X	X	1-12-06	
J10RC3	WI		NA	Blank	1-12-06			X	na	X	X		
J10RC2	WI		NA	Blank				X	na	X	X		
J10WX0	A		131L	Personal	na	X	X					X	na
J10X1	A		149L	Personal	na	X	X					X	na
J10W8	A		NA	Blank	na	X	X		1-12-06			X	na
J10W9	A	1-12-06	NA	Blank	na	X	X					X	na
				vdj									
				1-12-06									

COPY

FIELD SAMPLE COPY

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

J10 WP1

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> Yetta D. Jones	1-12-06 1600	3746 Building Rm 16, locked cabinet	1-12-06 1600
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
DW Driggers / DMB [Signature]		RZ Steffler R. Z. Steffler	1-16-06 / 1415
locked cabinet room 16 3746	1-16-06 / 1415		
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
RZ Steffler R. Z. Steffler	1-16-06 1500	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
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: _____ DATE: _____
PRINT/SIGN NAME