

SAF-RC-001 Industrial Hygiene Sampling FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG _____ 05I-4408-01 _____ SAF-RC-001

Rad only Chem only Rad & Chem

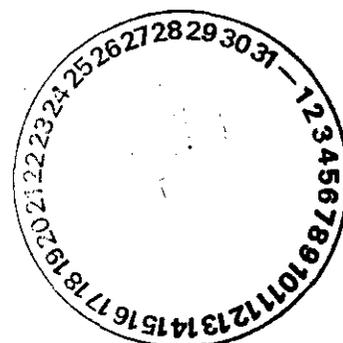
Complete Partial

300 Area 333 Bldg.

RECEIVED
MAR 09 2006
EDMC



Cover Page



Report Identification Number: 05I-4408-01
Subcontract Number: 0000X-BO-G0058-B-Mod#3
Name of Industrial Hygienist: Henry W. Ruby / Denise A. Pitts
Laboratory Identification Number: DCHM
SAF#: RC-001 / R300XX J451
Payroll#: 73219

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: Joanna C. Sanchez
Title: Chemist
Date: October 27, 2005



Case Narrative Page

Report Identification Number: 05I-4408-01
Subcontract Number: 0000X-BO-G0058-B-Mod#3
Name of Industrial Hygienist: Henry W. Ruby / Denise A. Pitts
Laboratory Identification Number: DCHM
SAF#: RC-001 / R300XX J451
Payroll#: 73219

General Set Information: There are 12 samples in set 05I-4407-01 and 4 samples in set 05I-4408-01 which were analyzed for beryllium on MCE filter. There are 9 samples for lead on MCE filter and 15 samples for beryllium on MCE filter in set 05I-4409-01. 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 (with a thermometer reading of 96°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 and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of $\pm 10\%$.

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 lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.5 ug/sample.

Method Blank Analysis: No beryllium was found in the media blank sample above the Contract Required Detection Limit (CRDL). No 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 results for both beryllium and lead were within the control limit of $\pm 20\%$. The Relative Percent Differences (RPD) between the LCSs and the LCSDs were within the control limit of 20%.

Replicate Analysis: Four samples in this batch were replicated. The RPDs between the samples and the replicates were 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: 05I-4408-01
 Subcontract Number: 0000X-BO-G0058-B-Mod#3
 Name of Industrial Hygienist: Henry W. Ruby / Denise A. Pitts
 Laboratory Identification Number: DCHM
 SAF#: RC-001 / R300XX J451
 Payroll#: 73219

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$		Beryllium $\mu\text{g}/\text{m}^3$		Air Volume L	
J10B28	05I41823	26 Oct 2005	<0.02	U	<0.043		465.	
J10B29	05I41824	26 Oct 2005	<0.02	U	<0.047		424.	
J10B32	05I41825	26 Oct 2005	<0.02	U	**		**	
J10B33	05I41826	26 Oct 2005	<0.02	U	**		**	
Limit of Detection (LOD)			0.02					
Required Detection Limit (RDL)								

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.

Report Identification Number: 05I-4408-01
 Subcontract Number: 0000X-BO-G0058-B-Mod#3
 Name of Industrial Hygienist: Henry W. Ruby / Denise A. Pitts
 Laboratory Identification Number: DCHM
 SAF: RC-001 / R300XX J451
 Payroll#: 73219

Batch ID: G059T00R

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-237621-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
QC-237621-1	LCS	Beryllium	µg/sample	10.7	NA	10.0	107.	NA
QD-237621-1	LCSD	Beryllium	µg/sample	10.7	10.7	10.0	107.	0.164
BL-237621-2	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
QC-237621-2	LCS	Beryllium	µg/sample	10.8	NA	10.0	108.	NA
QD-237621-2	LCSD	Beryllium	µg/sample	10.7	10.8	10.0	107.	0.664

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

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

J10 828

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Released By/Client:	DATE / TIME	Received By/Client:	DATE / TIME
David Werten / David Werten	10/25/05 1430	David St John David St John	10/25/05 1430
David St John WCH David St John	10/25/05 1500	Fed Ex	
Fed Ex		Julie Warattis	10/26/05 1000
Metals 3 JW			
LABORATORY SECTION	Received By Julie Warattis	Title	DATE / TIME 10/26/05 1000

REVIEWED BY: _____ DATE: _____
PRINT/SIGN NAME

DataChem Laboratories, Inc.
960 West Levoy 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