SAF-B00-004
Industrial Hygiene Sampling – Airborne
FINAL DATA

COMPLETE DATA PACKAGE TO:

Denise Pitts X2-09 HK 5/2/05
INITIAL/DATE

COMMENTS:

SDG D00553 SAF-B00-004

Rad only X Chem only Rad & Chem

X Complete Partial

313 Bldg.

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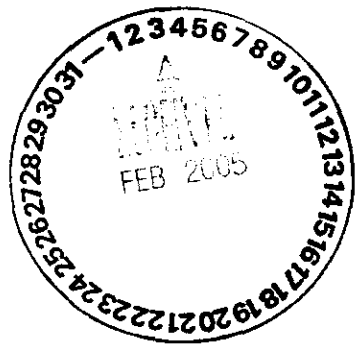
Cover Page



Report Identification Number: 05I-0309-04
Subcontract Number: 0000X-BO-G0058-B-Mod#3
Name of Industrial Hygienist: Henry W. Ruby / Denise A. Pitts
Laboratory Identification Number: DCHM
SAF#: B00-004; B00-005
Payroll#: 72947

Sample Information

Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
27-JAN-2005	J027R0	05I02946	NIOSH 7300M	G051002G	MCE Filter
27-JAN-2005	J027P5	05I02947	NIOSH 7300M	G051002G	MCE Filter
27-JAN-2005	J027P7	05I02948	NIOSH 7300M	G051002G	MCE Filter

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Name: Michelle Paradise
Title: Chemist
Date: February 03, 2005

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D00553
May 2, 2005

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Case Narrative Page

Report Identification Number: 05I-0309-04
Subcontract Number: 0000X-BO-G0058-B-Mod#3
Name of Industrial Hygienist: Henry W. Ruby / Denise A. Pitts
Laboratory Identification Number: DCHM
SAF#: B00-004; B00-005
Payroll#: 72947

General Set Information: There are three samples in set 05I-0309-04, seven samples in set 05I-0309-05, and seven samples in set 05I-0309-06 for a total of 17 samples in this group. The samples were analyzed for beryllium 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 at 110°C for 60 minutes. Samples were then diluted to 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 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.

Method Blank Analysis: No beryllium was found in the media blank sample above the Contract Required Detection Limit (CRDL).

Dilution(s): None of the samples were diluted.

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 is within control limits of ± 20%. The Relative Percent Difference (RPD) between the LCS and LCSD is within the control limit of 20%.

Case Narrative Page

Replicate Analysis: Two samples in this batch were replicated. The RPDs between the samples and the replicates are within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes:

U - Analyte not detected above the Method Detection Limit (MDL) of 0.004 ug/sample.
J - Analyte result is reported above the Method Detection Limit (MDL) of 0.004 ug/sample, but below the Contract Required Detection Limit (CRDL) of 0.02 ug/sample.

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples (µg/sample) = (A) x (B) x (C)

Where:
A = Analyte concentration from instrument determination (µg/L)
B = Concentration factor from sample preparation
= Final Volume of Digestate (L) / Sample
C = Dilution performed at time of analysis

Example Calculation: (1 µg/L) x (0.025 L/sample) x (1) = 0.025 µg/sample

Miscellaneous Comments: None.

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Report Page

Report Identification Number: 05I-0309-04
Subcontract Number: 0000X-BO-G0058-B-Mod#3
Name of Industrial Hygienist: Henry W. Ruby / Denise A. Pitts
Laboratory Identification Number: DCHM
SAF#: B00-004; B00-005
Payroll#: 72947

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium mg/m3		Beryllium µg/sample	
J027R0	05I02946	01 Feb 2005	<1.0E-5	U	<0.02	
J027P5	05I02947	01 Feb 2005	**		<0.02	
J027P7	05I02948	01 Feb 2005	**		<0.02	
Limit of Detection (LOD)					0.004	
Required Detection Limit (RDL)			0.02		0.02	

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

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QC Summary Page

Report Identification Number: 05I-0309-04
Subcontract Number: 0000X-BO-G0058-B-Mod#3
Name of Industrial Hygienist: Henry W. Ruby / Denise A. Pitts
Laboratory Identification Number: DCHM
SAF#: B00-004; B00-005
Payroll#: 72947

Batch ID: G051002G

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-227968-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
QC-227968-1	LCS	Beryllium	µg/sample	9.92	NA	10.0	99.2	NA
QD-227968-1	LCSD	Beryllium	µg/sample	9.81	9.92	10.0	98.1	1.16

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

D00553

USI-0309.04

Bechtel Hanford, Inc.

ERC/INDUSTRIAL HYGIENE CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: Teresa Wester	Company Contact: Henry W. Ruby and Denise A. Pitts — Telephone No. 373-5600	Project Coordinator: Joan H. Kessner	Data Turnaround: 24 hr.
Payroll #: 72947	Sampling Location: 300 Area 313 Bldg. (North)	SPECIAL INSTRUCTIONS All relevant COAs must be provided: R300XXJ461	SAF No. B00-004; B00-005
Type of Sample: Be		ANALYSIS METHOD (SPECIFIC): N1084 7300 Be	Method of Shipment: FED EX
Shipped To: DATACHEM SALT LAKE City UT			Bill of Lading/Air Bill No. 8457 9149 9946
POSSIBLE SAMPLE HAZARD/REMARKS: Be	MATRIX A - AIR WI - WIPE X - OTHER	Preservation (ie., cooling required, etc.)	
Special Handling and/or Storage: NA			

SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L)	Comments	Asbestos Airborne (No)	Lead Airborne (No)	Be (No)						
✓ J027R0	A	1/27/05	303	NA	NA	NA	X					USI-09946	
✓ J027P5	A	1/27/05	NA	Blank	NA	NA	X			TDW			47
✓ J027P7	A	1/27/05	NA	Blank	NA	NA	X	1/27/05					48
		TDW											
1/27/05													

BHI-SH-202 (07/28/2004)

Page 1 of 2

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ERC/INDUSTRIAL HYGIENE CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Signed:	DATE / TIME	Received By/Signed:	DATE / TIME
Teresa Wester TDWester	1/27/05 1527	locked file cabinet Room 116, Bldg 3746	1/27/05 1527
P Elliott / Patrick Vichit from locked file cabinet Rm 116, Bldg 3746	1-31-05 1431	SJGALE	1/31/05 1431
SJGALE	1/31/05 1505	FED EX	
fed ex		Meredith Edwards	1/31/05 930

LABORATORY SECTION	Received By	Title	DATE / TIME
	Meredith Edwards		1/31/05 930

REVIEWED BY: _____ DATE: _____
PRINT/SIGN NAME

BHI-SH-202 (07/28/2004)