0083307

SAF-RC-006
100-N Ancillary Facilities & 190-DR Other Solid Sampling for ERDF Waste Designation
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kevin Finucane	X5-50	KW 9/28/09 INITIAL/DATE
Mike Stankovich	X5-50	KW 9/28/09 INITIAL/DATE

COMMENTS:

SDG CN0909345 SAF-RC-006

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Waste Site(s): 1902-D

RECEIVED
OCT 0 1 2009
EDMC

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Submitted To: Joan Kessner
Washington Closure Hanford
2620 Fermi Avenue, MSIN H4-21
Richland WA 99354

REFERENCE DATA

	Asbestos by TEM with Gravimetric Reduction
Sample Type:	Nonfriable Bulk Material with Organic Binder
Method Reference:	EPA/600/R-93/116, Chatfield Method
Client Sample Nos.:	J19704 through J19713
Sample Location:	100-N Ancillary Fac. & 190-DR Other Solid, 1902-D
PO No.:	NA
ALS Work Order No.:	CN0909345
ALS Sample Nos.:	0909345-01 through 0909345-10
Sample Receipt Date:	9/17/2009
Preparation Date:	9/23/2009
Analysis Date:	9/24/2009

We certify that the samples indicated on the following data sheet(s) were analyzed by Transmission Electron Microscopy (TEM) for asbestos using the method, EPA/600/R-93/116, Chatfield Method, for determining the amount and type of asbestos present in bulk building materials.

After an initial examination by stereomicroscope to determine homogeneity, friability, matrix material and other characteristics, we prepared the samples using gravimetric reduction. Coarse, non-asbestos materials that cannot be pulverized, such as pebbles or metal foils, were separated from the portion analyzed. Other non-asbestos material was removed by ashing in a muffle furnace and/or dissolution in decalcifying solution. Sample weights were tracked through each step in the reduction.

Analysis was performed on a Philips CM-12 TEM and EDAX Genesis System using energy dispersive X-ray analysis (EDXA) spectra and selected area electron diffraction (SAED) patterns to determine fiber species. Asbestos percentages are based on a visual estimate of the asbestos percent by area in the final residue and are listed on the following data sheet(s). Results apply only to portions of samples analyzed. ALS Laboratory Group Environmental Division (Cincinnati) will dispose of all bulk samples after 60 days unless other arrangements are made.

Pamela Johnson
Analyst

for Anna Marie Ristich
Section Manager

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ALS Laboratory Group
4388 Glendale-Milford Road, Cincinnati, Ohio 45242
Phone (513) 733 5336 Fax (513) 733 5347 www.alsenviro.com
A Campbell Brothers Limited Company

CLIENT: Washington Closure Hanford
SAMPLE LOCATION: 100-N Ancillary Fac. & 190-DR Other Solid, 1902-D

ANALYSIS DATA

Calibration Date:	7/9/2009	Magnification:	10,500 X
EDXA Resolution:	157.5 eV	Calibration Constant:	1 cm = 0.97 μm
Accelerating Voltage:	100 keV	Camera Constant:	31.97 mm-Å

SAMPLE IDENTIFICATION					
Client Sample No.:	J19704	J19705	J19706	J19707	J19708
ALS Sample No.:	0909345-01	0909345-02	0909345-03	0909345-04	0909345-05
SAMPLE DESCRIPTION					
Homogeneity:	Homogeneous	Homogeneous	Homogeneous	Homogeneous	Homogeneous
Color:	Red / Gray	Red / Gray	Red / Gray	Red / Gray	Red / Gray
Texture:	Resinous	Resinous	Resinous	Resinous	Resinous
Description:	Material	Material	Material	Material	Material
SAMPLE PREP					
Starting Weight (g):	0.1422	0.7697	0.8776	1.0668	1.2390
Residue Weight (g):	0.0909	0.5035	0.6903	0.7445	0.8874
Weight Percent Residue:	63.92	65.42	78.66	69.79	71.62
PERCENT ASBESTOS DETECTED IN RESIDUE					
Chrysotile:	0	0	0	0	0
Amosite:	0	0	0	0	0
Crocidolite:	0	0	0	0	0
Actinolite-Tremolite:	0	0	0	0	0
Anthophyllite:	0	0	0	0	0
TOTAL IN RESIDUE	ND	ND	ND	ND	ND
ASBESTOS PERCENT IN SAMPLE					
	ND	**ND**	**ND**	**ND**	**ND**

ND = None Detected *TRACE = <1%*

Pamela Johnson
Analyst

for Anna Marie Ristich
Section Manager

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CLIENT: Washington Closure Hanford
SAMPLE LOCATION: 100-N Ancillary Fac. & 190-DR Other Solid, 1902-D

ANALYSIS DATA

Calibration Date:	7/9/2009	Magnification:	10,500 X
EDXA Resolution:	157.5 eV	Calibration Constant:	1 cm = 0.97 µm
Accelerating Voltage:	100 keV	Camera Constant:	31.97 mm-Å

SAMPLE IDENTIFICATION					
Client Sample No.:	J19709	J19710	J19711	J19712	J19713
ALS Sample No.:	0909345-06	0909345-07	0909345-08	0909345-09	0909345-10
SAMPLE DESCRIPTION					
Homogeneity:	Homogeneous	Homogeneous	Homogeneous	Homogeneous	Homogeneous
Color:	Red / Gray	Red / Gray	Red / Gray	Red / Gray	Red / Gray
Texture:	Resinous	Resinous	Resinous	Resinous	Resinous
Description:	Material	Material	Material	Material	Material
SAMPLE PREP					
Starting Weight (g):	0.8112	0.4989	1.2120	1.0898	0.8956
Residue Weight (g):	0.6030	0.3060	0.9712	0.6711	0.5423
Weight Percent Residue:	74.33	61.33	80.13	61.58	60.55
PERCENT ASBESTOS DETECTED IN RESIDUE					
Chrysotile:	0	0	0	0	0
Amosite:	0	0	0	0	0
Crocidolite:	0	0	0	0	0
Actinolite-Tremolite:	0	0	0	0.82	0.34
Anthophyllite:	0	0	0	0	0
Libby:	0	0	0	0.09	0.05
TOTAL IN RESIDUE	ND	ND	ND	0.91	0.39
ASBESTOS PERCENT IN SAMPLE					
	ND	**ND**	**ND**	**0.56**	**0.24**

ND = None Detected *TRACE = <1%*

Pamela Johnson
Analyst

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Section Manager

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Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-006-221

Collector Buckenberger	**Company Contact** Mike Stankovich	**Telephone No.** 430-7142	**Project Coordinator** KESSNER, JH
Project Designation 100-N Ancillary Facilities & 190-DR Other Solid Sampling f	**Sampling Location** 1902-D		**SAF No.** RC-006
Ice Chest No. Fed Ex Box	**Field Logbook No.** EL-1516-15	**COA** RD4MXX2F00	**Method of Shipment** FED EX
Shipped To DataChem Laboratories - Cincinnati	**Offsite Property No.** A090153		**Bill of Lading/Air Bill No.** SEE OSPC

Price Code 9K

Data Turnaround 7 Days

POSSIBLE SAMPLE HAZARDS/REMARKS

ACM

Special Handling and/or Storage

Asbestos

Preservation	None											
Type of Container	G/P or Whirl Pack											
No. of Container(s)	1											
Volume	5g											
SAMPLE ANALYSIS 090945	Asbestos-TEM											

Sample No.	Matrix *	Sample Date	Sample Time										
J19704 01	OTHER SOLID	9-16-09	09:05	X									
J19705 02	OTHER SOLID	9-16-09	09:07	X									
J19706 03	OTHER SOLID	9-16-09	09:09	X									
J19707 04	OTHER SOLID	9-16-09	09:11	X									
J19708 05	OTHER SOLID	9-16-09	09:13	X									

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
C. Buckenberger	9-16-09 09:45	MSTankovich	0945 9/16/09
MSTankovich	1430 9/16/09	Fed Ex	

SPECIAL INSTRUCTIONS

REVIEWED BY DATE 9/16/09

Matrix *
S=Soil
SD=Sediment
SO=Solid
SL=Sludge
W=Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-006-221 | Page 2 of 2

Collector Buckenberger	**Company Contact** Mike Stankovich	**Telephone No.** 430-7142	**Project Coordinator** KESSNER, JH
Project Designation 100-N Ancillary Facilities & 190-DR Other Solid Sampling f	**Sampling Location** 1902-D		**SAF No.** RC-006
Ice Chest No. Fed Ex Box	**Field Logbook No.** EL-1516-15	**COA** RD4MXX2F00	**Method of Shipment** FED EX
Shipped To DataChem Laboratories - Cincinnati	**Offsite Property No.** 1-090153		**Bill of Lading/Air Bill No.** SEE OSPC

Price Code 9K **Data Turnaround** 7 Days

POSSIBLE SAMPLE HAZARDS/REMARKS
ICM

Special Handling and/or Storage
Asbestos

SAMPLE ANALYSIS
0909345

Sample No	Matrix *	Sample Date	Sample Time	Asbestos-TEM
Preservation				None
Type of Container				G P or Whirl Pack
No. of Container(s)				1
Volume				5g
J19709 06	OTHER SOLID	9-16-09	09:15	X
J19710 07	OTHER SOLID	9-16-09	09:17	X
J19711 08	OTHER SOLID	9-16-09	09:22	X
J19712 09	OTHER SOLID	9-16-09	09:27	X
J19713 10	OTHER SOLID	9-16-09	09:29	X

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By Removed From	Date Time	Received By Stored In	Date Time
C. Buckenberger	9-16-09 09:45	M Stankovich	0945 9/16/09
M Stankovich	0945 9/16/09	Fed Ex	
		ARS	9/16/09 0922

SPECIAL INSTRUCTIONS

REVIEWED BY JRI DATE 9/16/09

Matrix *
S=Soil
SE=Sediment
SO=Solid
SL=Sludge
W=Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date Time

WCH-EE-011

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Label:0909345 09 Act-Tremolite

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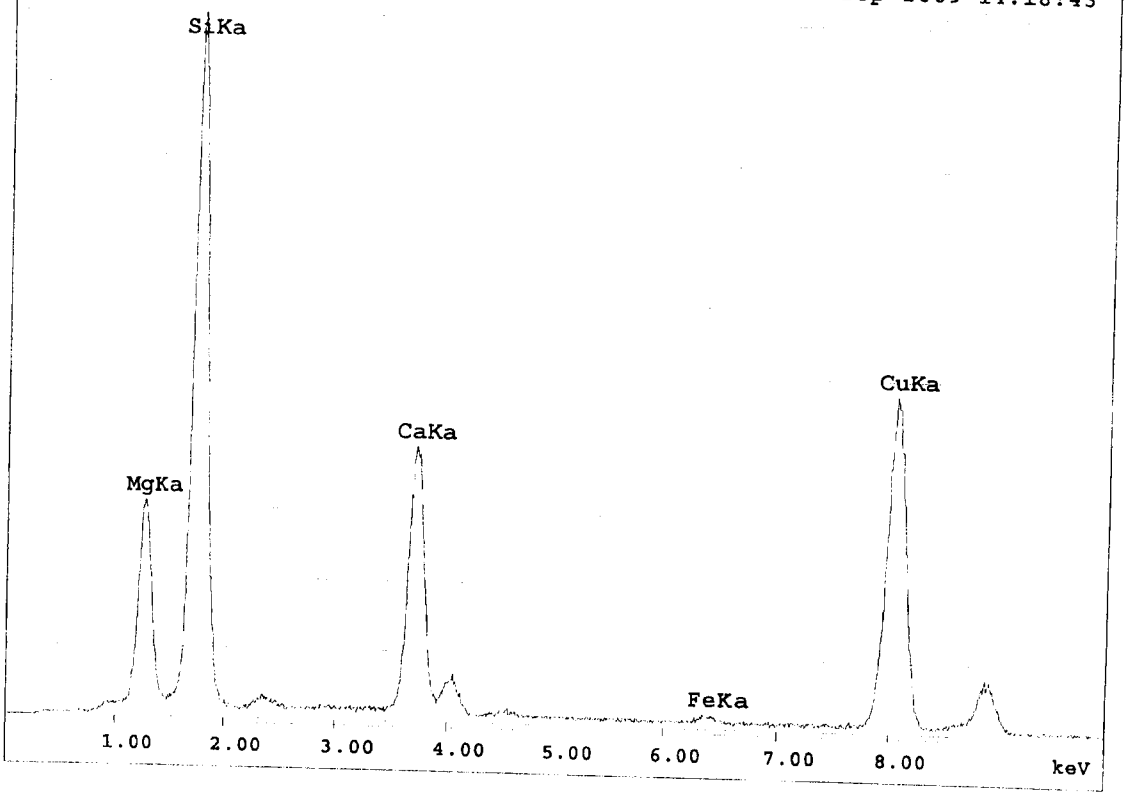
24-Sep-2009 14:18:43



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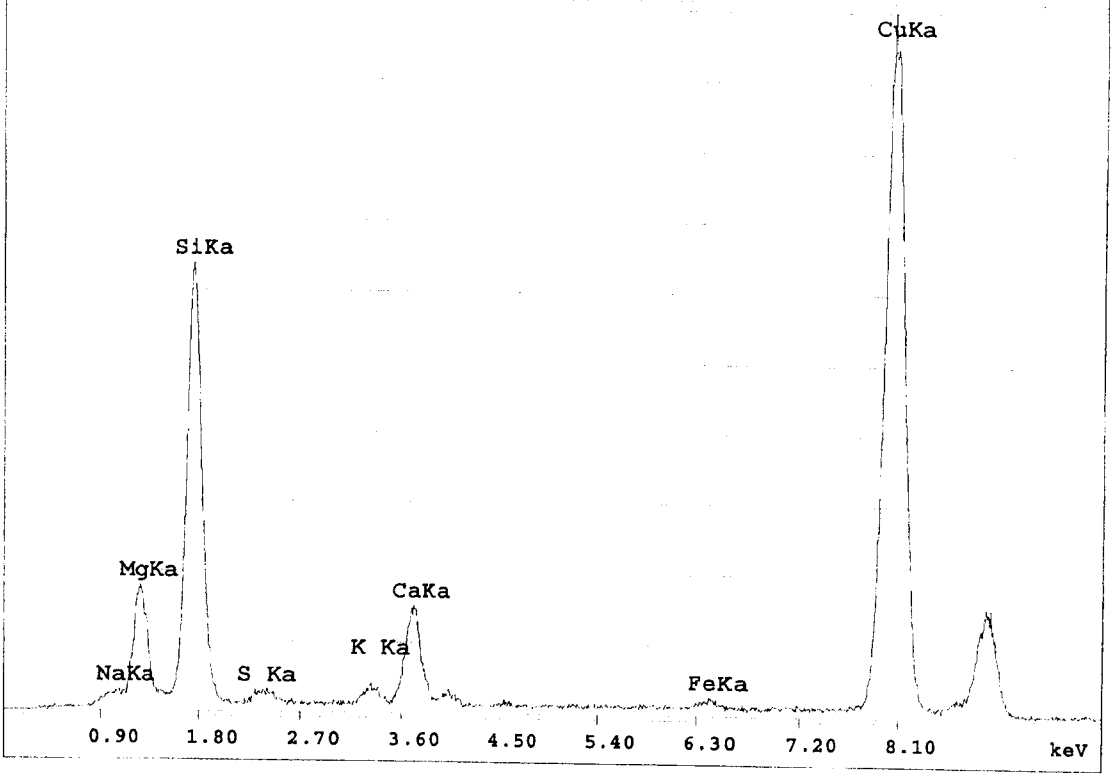

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Label:0909345 10 ActTremolite

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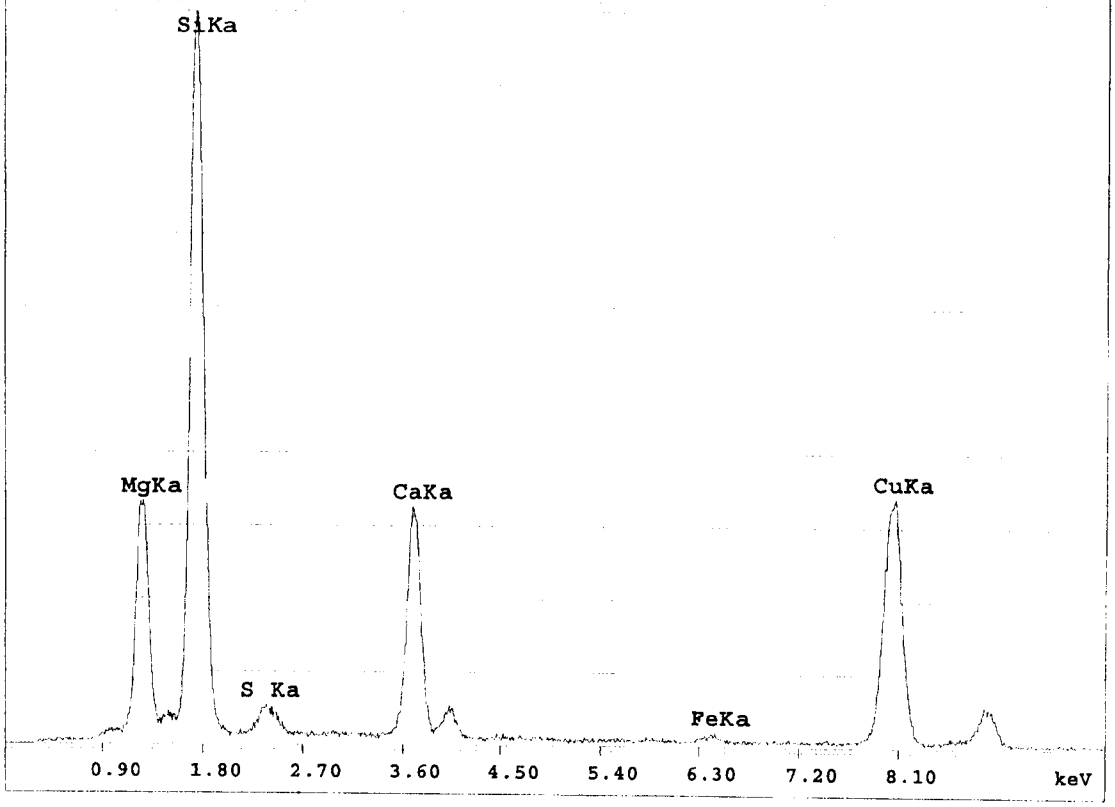

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Label:0909345 10 Libby

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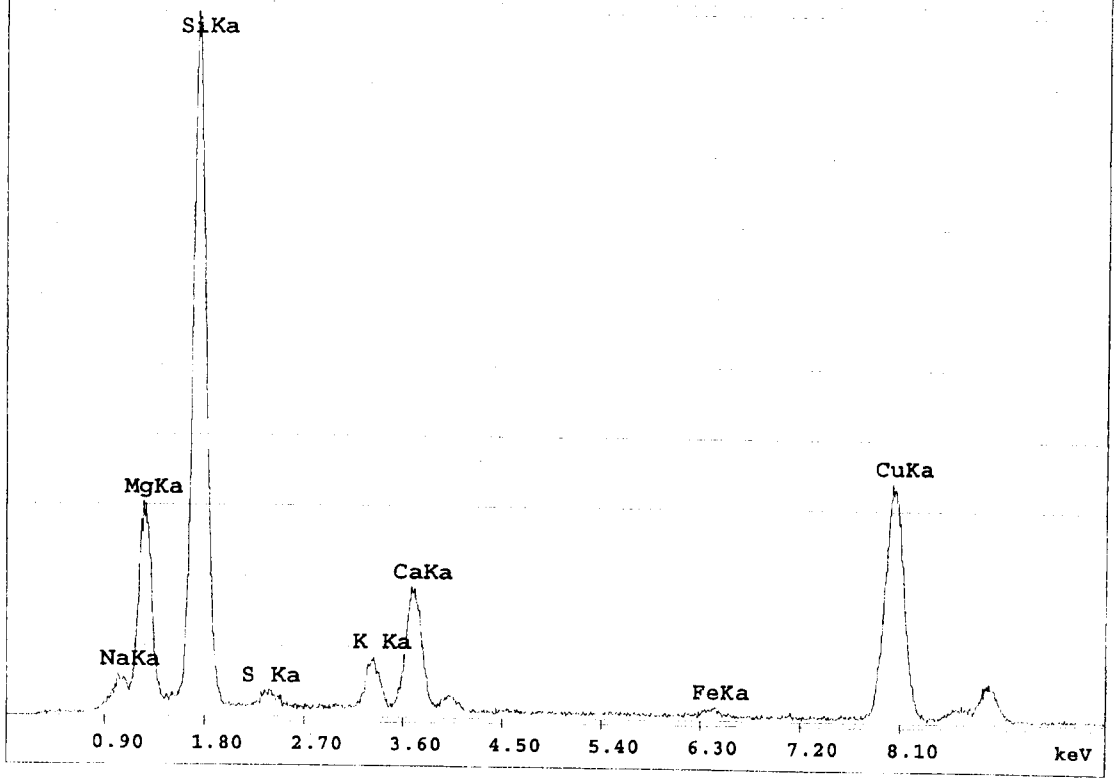
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