

**SAF-RC-040**  
**300 Area D4 Waste Characterization**  
**Sampling - Other Solid**  
**FINAL DATA PACKAGE**

COMPLETE COPY OF DATA PACKAGE TO:

No Distribution Required

KW 3/4/10  
INITIAL/DATE

COMMENTS:

**SDG DC1002384**

**SAF-RC-040**

Rad only

Chem only

Rad & Chem

Complete

Partial

Sample Location/Waste Site: 324 / 123

**RECEIVED**  
MAR 17 2010  
**EDMC**



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

Test Report  
Page 1 of 3  
3/1/10

**REFERENCE DATA:**

Client Sample No.: J19KV8 through J19KW3  
P.O. No.: NA  
Sample Location: 324/123  
Sample Type: Bulk  
Method Reference: EPA-600/R-93/116  
ALS Work Order No.: DC 1002384  
ALS Sample ID No.: 1002384-01 through 1002384-06  
Sample Receipt Date: 2/19/10  
Analysis Date: 3/1/10

We certify that the following samples were prepared and analyzed by Polarized Light Microscopy for asbestos and other fibrous constituents using EPA-600/R-93/116. The samples were acceptable upon receipt except where noted. The samples were examined under a stereomicroscope in a laboratory fume hood for general composition and phase separation. If needed, portions of the sample were removed and ground with a mortar and pestle before being mounted on a glass microscope slide. Mountings of representative portions of the material are prepared in one or more appropriate refractive index liquids (1.550, 1.605, 1.680) and examined by Polarized Light Microscopy\*. Estimates of concentration are made on an area basis. The results of the analysis apply only to the materials analyzed and are summarized on the attached bulk asbestos analysis data sheets. ALS Laboratory Group will dispose of all bulk samples after 60 days unless other arrangements are made.

  
Shawn Smythe  
Analyst

  
Anna Marie Ristich  
Reviewer

\*Floor tiles, decorative paints, joint compounds, and cement materials require additional treatment in order to evaluate the concentration of small asbestos fibers bound in the material. Some samples may contain fibers that are not visible by PLM and can only be detected by electron microscopy techniques. Floor tiles are analyzed as homogeneous materials if insufficient mastic is present or if phases have been cross contaminated.

ALS Laboratory Group Environmental Division (Cincinnati) NVLAP Lab ID: 101917. Laboratory accreditation by the National Institute of Standards and Technology does not in any way constitute approval or endorsement by NVLAP, NIST, or any agency of the federal government.



**ALS Laboratory Group  
Polarized Light Microscopy  
Asbestos Analytical Report**

Client: Washington Closure Hanford  
Location: 324/123

Client Sample ID:	J19KV8	J19KV9	J19KV9	J19KW0	J19KW1
ALS Sample ID:	1002384-01	1002384-02A	1002384-02B	1002384-03	1002384-04
<b>Macroscopic Examination</b>					
Accepted/Rejected:	Accepted	Accepted	Accepted	Accepted	Accepted
Homogeneity:	Homog.	Layered	Layered	Homog.	Homog.
Color:	Grey	Grey	Black	Black	Grey
Texture:	Compact	Compact	Resinous	Resinous	Flexible
Description:	Tile	Tile	Mastic	Mastic	Covebase
Analysis:	PLM	PLM	PLM	PLM	PLM
<b>Asbestiform Minerals</b>					
% Chrysotile:		>1 ≤ 3	>3 ≤ 5	>3 ≤ 5	
% Amosite:					
% Crocidolite:					
% Tremolite - Actinolite:					
% Anthophyllite:					
<b>% Total Asbestos:</b>	<b>ND</b>	<b>&gt;1 ≤ 3</b>	<b>&gt;3 ≤ 5</b>	<b>&gt;3 ≤ 5</b>	<b>ND</b>
<b>Other Materials</b>					
% Cellulose:					
% Fiberglass:					
% Other Fibers:					
% Resin/Binder:	>10 ≤ 20	>10 ≤ 20	>70 ≤ 80	>70 ≤ 80	>20 ≤ 30
% Non Fibrous:	>70 ≤ 80	>70 ≤ 80	>10 ≤ 20	>10 ≤ 20	>60 ≤ 70

ND = None Detected Trace = <1%

Special Prep Procedures: None.

\*Notes: P. O. #: NA.

  
Shawn Smythe  
Microscopist

All values are in area percent by visual estimate. The Federal Register Vol. 55 No. 224 Tuesday Nov. 20 1990 Rules and Regulations states "... If the asbestos content is estimated to be less than 10% by a method other than point counting.... (the analysis) be repeated using the point counting technique by PLM." Any of the above samples can be reanalyzed by point counting at the client's request.

Wherever possible, separate phases are analyzed and reported individually.



**ALS Laboratory Group  
Polarized Light Microscopy  
Asbestos Analytical Report**

Client: Washington Closure Hanford  
Location: 324/123

Client Sample ID:	J19KW2	J19KW3
ALS Sample ID:	1002384-05	1002384-06
<b>Macroscopic Examination</b>		
Accepted/Rejected:	Accepted	Accepted
Homogeneity:	Homog.	Layered
Color:	Yellow	Inseparable
Texture:	Flexible	Grey/Tan
Description:	Material	Crmbly/Fbrs
Analysis:	PLM	Drywall PLM
<b>Asbestiform Minerals</b>		
% Chrysotile:		
% Amosite:		
% Crocidolite:		
% Tremolite - Actinolite:		
% Anthophyllite:		
<b>% Total Asbestos:</b>	<b>ND</b>	<b>ND</b>
<b>Other Materials</b>		
% Cellulose:		>10 ≤ 20
% Fiberglass:		
% Other Fibers:		
% Resin/Binder:	>30 ≤ 40	
% Non Fibrous:	>50 ≤ 60	>70 ≤ 80

ND = None Detected Trace = <1%

Special Prep Procedures: None.

\*Notes: P. O. #: NA.

  
Shawn Smythe  
Microscopist

All values are in area percent by visual estimate. The Federal Register Vol. 55 No. 224 Tuesday Nov. 20 1990 Rules and Regulations states "... If the asbestos content is estimated to be less than 10% by a method other than point counting,... (the analysis) be repeated using the point counting technique by PLM." Any of the above samples can be reanalyzed by point counting at the client's request.

Wherever possible, separate phases are analyzed and reported individually.

1000382-21910

RC-040-440 Price Code 9K Data Turnaround 7 Days

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST  
 Project Coordinator KESSNER, III  
 SAF No. RC 040  
 Method of Shipment FedEx

Washington Closure Hanford  
 Collector Joe Fallox  
 Project Designation RC 040 Waste Characterization Sampling - Other Solid  
 Ice Chest No. FedEx Box

Company Contact Telephone No. 430-7111  
 Sampling Location 324121  
 Field Logbook No. FE-1518-12  
 COA RDMAN-2168  
 Offsite Property No. A10005Y  
 Bill of Lading Air Bill No. See USPC

Shipped to ALS Laboratories, Cincinnati  
 POSSIBLE SAMPLE HAZARDS/REMARKS  
 Special Handling and/or Storage None

Sample No.	Matrix *	Sample Date	Sample Time	Preservation	Volume	Matrix *	
						Other	Matrix
J19KW8	OTHER SOLID	7/18/0	10:05	X	150	011	
J19KW9	OTHER SOLID	7	10:08	X	150	022	
J19KW0	OTHER SOLID	7	10:11	X	160	003	
J19KW1	OTHER SOLID	7	10:14	X	150	004	
J19KW2	OTHER SOLID	7	10:17	X	150	018	

CHAIN OF POSSESSION		SIGN/PRINT NAMES	
Relinquished By	Received From	Date/Time	Date/Time
Joe Fallox & Joe Levine	MZC	2/18/0	1030
Joe Fallox & Joe Levine	MZC	2/18/0	1215
Joe Fallox & Joe Levine	MZC	2/18/0	1215
Joe Fallox & Joe Levine	MZC	2/18/0	1215
Joe Fallox & Joe Levine	MZC	2/18/0	1215
Joe Fallox & Joe Levine	MZC	2/18/0	1215

LABORATORY SECTION Received By: [Signature]  
 FINAL SAMPLE DISPOSITION Disposed Method: [Signature]  
 Date/Time: 2/18/0 1030  
 Date/Time: 2/18/0 1215  
 Date/Time: 2/18/0 1215  
 Date/Time: 2/18/0 1215  
 Date/Time: 2/18/0 1215  
 Date/Time: 2/18/0 1215

1002384  
 1002382  
 21910

<b>Washington Closure Hanford</b> Collection: Joe [Signature] Joe Talley Project Designation: Air Area 104 Waste Characterization Sampling - Other Solid Ice Chest No.: FedEx Box		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b> Company Contact: Mike Stanbock Telephone No.: 430-7142 Project Coordinator: KENNETH III Price Code: 9K Data Turnaround: 7 Days SAF No.: RC 040 Method of Shipment: FedEx						
Shipped To: ALS Laboratories - Cincinnati POSSIBLE SAMPLE HAZARDS/REMARKS: <i>See label</i> Special Handling and/or Storage: <i>None</i>		Field Logbook No.: 11-1518-12 COA: RDMAN-100 Bill of Lading: Air Bill No. See OSRP Offsite Property No.: A10054						
Sample No.	Matrix *	Sample Date	Sample Time	Preservation	Type of Container	No. of Container(s)	Volume	Matrix *
J19KW3	OTHER SOLID	7/18/0	1020					
J19KW4	OTHER SOLID							
J19KW5	OTHER SOLID							

CHAIN OF POSSESSION		SPECIAL INSTRUCTIONS	
Relinquished By: [Signature]	Received By: [Signature]	Received By: [Signature]	Date Time: 1030
Relinquished By: [Signature]	Received By: [Signature]	Received By: [Signature]	Date Time: 2/10/10
Relinquished By: [Signature]	Received By: [Signature]	Received By: [Signature]	Date Time: 12/15
Relinquished By: [Signature]	Received By: [Signature]	Received By: [Signature]	Date Time: 2/18/10
Relinquished By: [Signature]	Received By: [Signature]	Received By: [Signature]	Date Time: Fed Ex
Relinquished By: [Signature]	Received By: [Signature]	Received By: [Signature]	Date Time: [Signature]
Relinquished By: [Signature]	Received By: [Signature]	Received By: [Signature]	Date Time: [Signature]
Relinquished By: [Signature]	Received By: [Signature]	Received By: [Signature]	Date Time: [Signature]
Relinquished By: [Signature]	Received By: [Signature]	Received By: [Signature]	Date Time: [Signature]

LABORATORY SECTION: [Signature]  
 FINAL SAMPLE DISPOSITION: [Signature]  
 Disposed By: [Signature]  
 Date Time: [Signature]