0082526

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 7/6/09 INITIAL/DATE
Mike Stankovich	X5-50	KW 7/6/09 INITIAL/DATE

COMMENTS:

SDG DC0906178 **SAF-RC-006**

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Waste Site(s): 105-N Roof

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:

Client Sample No.:	J18YD8 through J18YF1
P.O. No.:	N/A
Sample Location:	105-N Roof
Sample Type:	Bulk
Method Reference:	EPA-600/R-93/116
ALS Workorder No.:	DC0906178
ALS Sample ID No.:	0906178-01 through 0906178-04
Sample Receipt Date:	6/10/09
Analysis Date:	6/30/09

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 Divison (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: 105-N Roof

Client Sample ID:	J18YD8	J18YD9	J18YF0	J18YF1
ALS Sample ID:	0906178-01	0906178-02	0906178-03	0906178-04
Macroscopic Examination				
Accepted/Rejected:	Accepted	Accepted	Accepted	Accepted
Homogeneity:		Homog.		
Color:		Grey		
Texture:		Fibrous		
Description:		Material		
Analysis:		PLM		
Asbestiform Minerals				
% Chrysotile:				
% Amosite:				
% Crocidolite:				
% Tremolite - Actinolite:				
% Anthophyllite:				
% Total Asbestos:		**ND**		
Other Materials				
% Cellulose:		>90 ≤ 100		
% Fiberglass:				
% Other Fibers:				
% Resin/Binder:				
% Non Fibrous:				

ND = None Detected Trace = <1%

Special Prep Procedures: Sample numbers J18YD8, J18YF0 and J18YF1 were prepared by gravimetric reduction.

*Notes: P. O. #: N/A.

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
ANALYTICAL CHEMISTRY & TESTING SERVICES

Submitted To:

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

REFERENCE DATA:

Client Sample No.:	J18YD8 through J18YF1
P.O. No.:	N/A
Sample Location:	105-N Roof
Sample Type:	Bulk
Method Reference:	EPA/600/R-93/116, ELAP 198.1 (modified), PLM Analysis with Gravimetric Reduction
ALS Workorder No.:	0906178
ALS Sample ID No.:	0906178-01 through 0906178-04
Sample Receipt Date:	6/10/09
Preparation Date:	6/29/09 through 6/30/09
Analysis Date:	6/30/09

We certify that the samples indicated on the following data sheet(s) were prepared by gravimetric reduction and analyzed by Polarized Light Microscopy (PLM) for asbestos using a modification of the method, EPA/600/R-93/116, ELAP 198.1, Chatfield Method, for determining the amount and type of asbestos present in bulk building materials. The samples were acceptable upon receipt except where noted.

The samples were examined under a stereomicroscope for general composition and phase separation. 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 hydrochloric acid. Sample weights were tracked through each step in the reduction. Mountings of representative portions of the final residue were prepared in one or more 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 PLM Asbestos Analysis Data Sheets.

Shawn Smythe
Analyst

Anna Marie Ristich
Reviewer

* Some samples may contain fibers that are not visible by PLM and can only be discovered 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 (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.
Samples will be disposed of after 60 days unless instructed otherwise.

ALS Laboratory Group Analytical Report
PLM Bulk Asbestos Analysis using Gravimetric Reduction

Client: Washington Closure Hanford
Location: 105-N Roof

SAMPLE IDENTIFICATION			
Client ID:	J18YD8	J18YF0	J18YF1
ALS ID:	0906178-01	0906178-03	0906178-04
SAMPLE DESCRIPTION			
Homogeneity:	Homog.	Homog.	Layered Inseparable
Color:	Black	Black	Black/Grey
Texture:	Resinous	Resinous	Resinous/Spongy
Description:	Roofing	Roofing	Roofing
SAMPLE PREP			
Starting Weight (g):	1.1422	1.2229	0.9362
Residue Weight (g):	0.0295	0.0128	0.0745
Weight Percent Residue:	2.58	1.05	7.96
PERCENT ASBESTOS DETECTED IN RESIDUE			
Chrysotile:	0	0	0
Grunerite:	0	0	0
Crocidolite:	0	0	0
Actinolite-Tremolite:	0	0	0
Anthophyllite:	0	0	0
TOTAL IN RESIDUE	ND	ND	ND
ASBESTOS PERCENT IN SAMPLE			
	ND	**ND**	**ND**

ND = None Detected *TRACE = <1%*

*Notes: P. O. #: N/A.

Shawn Smythe
Analyst

Anna Marie Ristich
Reviewer

0906178

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-006-209	Page 1 of 7
Collector Buckenberger/Moore	**Company Contact** Mike Stankovich **Telephone No.** 430-7142	**Project Coordinator** KESSNER, JH	**Price Code** 9K **Data Turnaround** 7 Days
Project Designation 100-N Ancillary Facilities & 190-DR Other Solid Sampling f	**Sampling Location** 105-N Roof	**SAF No.** RC-006	
Ice Chest No. Fed Ex Box	**Field Logbook No.** EL-1516-15 **COA** ~~R105N01000~~ RD9MXX2F00 PDA 6/5/09	**Method of Shipment** FED EX	
Shipped To DataChem Laboratories - Cincinnati	**Offsite Property No.** NA	**Bill of Lading/Air Bill No.** ~~SEE OSPC~~ JEB 6-9-09 7976 6701 4222	

POSSIBLE SAMPLE HAZARDS/REMARKS

PACM

Special Handling and/or Storage

N/A

Preservation	None										
Type of Container	G/P										
No. of Container(s)	1										
Volume	5g										
SAMPLE ANALYSIS	Asbestos-BULK-EPA										

Sample No.	Matrix *	Sample Date	Sample Time									
J18YD8 01	OTHER SOLID	6-8-09	12:30	X								
J18YD9 02	OTHER SOLID	6-8-09	12:35	X								
J18YF0 03	OTHER SOLID	6-8-09	12:40	X								
J18YF1 04	OTHER SOLID	6-8-09	12:55	X								
~~J18YF2~~ CB 6-8-09	OTHER SOLID											

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Ron Buckenberger	6-8-09 13:15	M Stankovich	6/8/09 1315
M Stankovich	JUN 08 2009 1630	3C/1060	1630 JUN 08 2009
3C/1060 J.E. Benhal	6-9-09 1000	J.E. Benhal	6-9-09 1000
J.E. Benhal	6-9-09 1500	1 FED EX	
		ACS 6/10/09	1112

SPECIAL INSTRUCTIONS

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

Fedex