

WSCF
ANALYTICAL LABORATORY REPORT

ANALYSIS OF BULK SAMPLES FOR FIBER CONTENT

for

Bechtel
Hanford
Hanford , WA 99352



Attention: D AYRES/D ENCKE
81-35 x5-53

Survey ID

Data Validator

MK Hamilton
(Approved Signatory)



Group#: 97000227
Report Date 11-feb-1997
bulk/rev.2

Rust Federal Services of Handford, Inc.
MSIN: S3-28
Richland, WA 99352

0048051

WSCF 0001

WSCF
ANALYTICAL LABORATORY REPORT
ANALYSIS OF BULK SAMPLES FOR FIBER CONTENT



Your samples have been analyzed for fiber content using polarized light microscopy and dispersion staining in accordance with Industrial Hygiene Laboratory Procedure HAPR70-5, based on 40 CFR Part 763, Subpart E, App. E and EPA method EPA/600/R-93/116. The results are attached.

This method provides a visual estimate of the percentage of each fiber type present. It is a semiquantitative method intended to identify materials containing $>$ or $=$ 1% asbestos fibers.* Reported fiber percentages for samples and sample layers are based on the samples as received by the laboratory. The laboratory cannot verify that these values are representative of the original material sampled.

The Waste Sampling and Characterization Facility, is accredited by the National Institute of Standards and Technology (NIST), National Voluntary Laboratory Accreditation Program (NVLAP), to analyze bulk samples for asbestos content. This accreditation does not constitute approval or endorsement of analytical results by NIST nor does it apply to other analyses performed by this laboratory.

If there are questions concerning this report, please contact the approved signatory listed on the cover page of this report.

* Because of the nonhomogeneous nature of soils, results will be reported using the following terms rather than percentages:

1. None - No asbestos fibers found.
2. Trace detectable - With extensive searching, a few fibers of the type indicated were found; concentration very low, well below 1%.
3. Obvious presence - Fibers easily found but overall concentration still low.
4. Significant presence - Fibers readily found; overall concentration may approach or exceed 1% level.

Polarized light microscopy (PLM) may not be the preferred method for identification of asbestos in floor tile. Most vinyl floor tiles marketed in the late sixties to mid-seventies contained asbestos milled so fine as to be below detection limits for PLM techniques. Tiles of that vintage, showing any detectable asbestos fibers should be considered to be asbestos-containing material. Non-detection of asbestos by PLM should not be considered conclusive proof that the tiles do not contain asbestos. Follow-up analysis by other techniques may be required.

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ANALYTICAL LABORATORY REPORT

Attention: D AYRES/D ENCKE

Group #: 97000227

Sample #	Client ID	Test Performed	Range	Result	Units	Analyst	Sampled	Received	Analyzed
W971000242	BOJXP4	<u>The following are the results of this test- Bulk Asbestos Layer 1</u>							
			Non-Asbestos	NF	100 %	dws1	02/03/97	02/03/97	02/07/97
		SAMPLE COMMENT---	70% black, vesticated, glassy, brittle material.						
W971000242	BOJXP4	<u>The following are the results of this test- Bulk Asbestos Layer 2</u>							
			Non-Asbestos	NF	100 %	dws1	02/03/97	02/03/97	02/07/97
		SAMPLE COMMENT---	30% light yellow foam						
W971000243	BOJXP5	<u>The following are the results of this test- Bulk Asbestos Layer 1</u>							
			Chrysotile Asbestos	<	1 %	dws1	02/03/97	02/03/97	02/07/97
		SAMPLE COMMENT---	60% black, vesticated, glassy, brittle material.						
W971000243	BOJXP5	<u>The following are the results of this test- Bulk Asbestos Layer 2</u>							
			Chrysotile Asbestos	40-60	%	dws1	02/03/97	02/03/97	02/07/97
		SAMPLE COMMENT---	30% black tar/paper.						
W971000243	BOJXP5	<u>The following are the results of this test- Bulk Asbestos Layer 3</u>							
			Cellulose	1-2	%	dws1	02/03/97	02/03/97	02/07/97
			Mineral Wool	1-2	%	dws1	02/03/97	02/03/97	02/07/97
			Chrysotile Asbestos	2-4	%	dws1	02/03/97	02/03/97	02/07/97
		SAMPLE COMMENT---	10% dirt, tar, rocks with yellow paint (note fiberglass and						
		SAMPLE COMMENT---	mineral wool combined to 1-2%)						

MDL=Minimum Detection Limit

RQ=Result Qualifier

B - The analyte was detected in the associated method blank.

J - Estimated value.

N - Identification is based on a mass spectral library search.

U - The analyte was analyzed for but not detected.

bulk/rev.2

Bechtel

WSCF

ANALYTICAL LABORATORY REPORT

Attention: D AYRES/D ENCKE

Group #: 97000227

Sample #	Client ID	Test Performed	Range	Result	Units	Analyst	Sampled	Received	Analyzed
W971000244	BOJXP6	<u>The following are the results of this test-</u>	<u>Bulk Asbestos Layer 1</u>						
		Cellulose		60-80	%	dws1	02/03/97	02/03/97	02/07/97
		SAMPLE COMMENT---	80% brown fibrous material						
W971000244	BOJXP6	<u>The following are the results of this test-</u>	<u>Bulk Asbestos Layer 2</u>						
		Cellulose		40-60	%	dws1	02/03/97	02/03/97	02/07/97
		SAMPLE COMMENT---	15% black tar and fibrous mixture						
W971000244	BOJXP6	<u>The following are the results of this test-</u>	<u>Bulk Asbestos Layer 3</u>						
		Non-Asbestos		NF 100	%	dws1	02/03/97	02/03/97	02/07/97
		SAMPLE COMMENT---	5% mix of tar pieces (~ 3%) and single black sheetlike						
		SAMPLE COMMENT---	material (~ 2%) both nonfibrous						

MDL=Minimum Detection Limit

RQ=Result Qualifier

B - The analyte was detected in the associated method blank.

N - Identification is based on a mass spectral library search.

J - Estimated value.

U - The analyte was analyzed for but not detected.

WSCF ANALYTICAL COMMENT REPORT

Attention: D AYRES/D ENCKE

Group #: 97000227

Sample #	Client ID	Lab Area	Test	Comment
W97I000242	BOJXP4	VALGROUP		Validated 2/11/97 by MK Hamilton. LOGGED BY MKG 2/6/97. All 3 samples are reportedly from the roof of 233-S.
		LOGSAMP		
W97I000243	BOJXP5	TESTDATA	Bulk Asbestos Layer 1	70% black, vassicated, glassy, brittle material.
		TESTDATA	Bulk Asbestos Layer 2	30% light yellow foam
		TESTDATA	Bulk Asbestos Layer 1	60% black, vassicated, glassy, brittle material.
		TESTDATA	Bulk Asbestos Layer 2	30% black tar/paper.
W97I000244	BOJXP6	TESTDATA	Bulk Asbestos Layer 3	10% dirt, tar, rocks with yellow paint (note fiberglass and mineral wool combined to 1-2%)
		TESTDATA	Bulk Asbestos Layer 1	80% brown fibrous material
		TESTDATA	Bulk Asbestos Layer 2	15% black tar and fibrous mixture
		TESTDATA	Bulk Asbestos Layer 3	5% mix of tar piecscs (~ 3%) and single black sheettlike material (~ 2%) both nonfibrous

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample

VALTEST - Test Validation
LOGTEST - Login for Tests

TESTDATA - Test Data Entry

Westinghouse Hanford Company
WSCF Laboratory

**BULK ASBESTOS SAMPLE REQUEST
CHAIN OF CUSTODY FORM**

Radiation Zone Sample: Yes No

Released by: John Betzold
potential asbestos contamination

Page 1 of 1

Contractor: ICF-KH PNL WHC (circle one) or Other: BHT

Survey No:

Collected By (Print Name):

Phone:

Signature:

Date Collect:

Doug Bowers

376-8498

Doug Bowers

2-3-97

Work Order #

Org Code:

Charge Code:

WSCF Group#:

DB 7251

ITE-8231

WHC DB7251

97000227

Approval Signatures:

Shipped by:

Date Shipped:

Tom Bryant

Doug Bowers

Send Report To:

MSIN:

Phone/pager:

(CCS):

MSIN:

DORIS AYRES

R1-35

372-9022

DAVE ENCKE

X5-53

FAY 372-9057

Sample Information

Results Needed By:

WSCF Lab No.	Sample ID No.	Room/Bldg/Area	Specific Location/Type
<u>W97500242</u>	<u>BOJXP4</u>	<u>233-S</u>	<u>Roof</u>
Description: <u>1-27-97</u>			

WSCF Lab No.	Sample ID No.	Room/Bldg/Area	Specific Location/Type
<u>243</u>	<u>BOJXP5</u>	<u>233-S</u>	<u>Roof</u>
Description: <u>2-3-97</u>			

WSCF Lab No.	Sample ID No.	Room/Bldg/Area	Specific Location/Type
<u>244</u>	<u>BOJXP6</u>	<u>233-S</u>	<u>Roof</u>
Description: <u>2-3-97</u>			

WSCF Lab No.	Sample ID No.	Room/Bldg/Area	Specific Location/Type
Description:			

WSCF Lab No.	Sample ID No.	Room/Bldg/Area	Specific Location/Type
Description:			

Chain of Custody

Relinquished By: Print	Sign	Date/Time	Company	Received By: Print	Sign	Date/Time	Co.
<u>Doug Bowers</u>	<u>Doug Bowers</u>	<u>2-3-97</u>	<u>1459 BHT</u>	<u>SI Cobb</u>	<u>Si Cobb</u>	<u>02/03/97</u>	<u>1459</u>

Quality:

Unless a prior arrangement is in place, analysis will be done in accordance with the Quality Assurance Project Plan for Industrial Hygiene Analyses

Final Sample Dispositions:

Samples are held at the WSCF laboratory for at least 6 months. They are then discarded as asbestos-containing waste.

Return Copy of Form with Report

Waste Sampling and Characterization Facility
P.O. BOX 1970 S3-30, Richland, WA 99352
PHONE: (509) 373-7004/FAX: (509) 373-7134

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Bechtel
Hanford
Hanford, WA 99352
Attn: D AYRES/D ENCKE

Customer Code: BEC021A
PO#: DB7251/ITE-8231
Group#: 97000227

The following samples were received from you on 02/03/97. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W97I000242	BOJXP4	@BULK1 @BULK2	Solid, or handle as if solid	02/03/97
W97I000243	BOJXP5	@BULK1 @BULK2 @BULK3	Solid, or handle as if solid	02/03/97
W97I000244	BOJXP6	@BULK1 @BULK2 @BULK3	Solid, or handle as if solid	02/03/97

Test Acronym Description

Test Acronym	Description
@BULK1	Bulk Asbestos Layer 1
@BULK2	Bulk Asbestos Layer 2
@BULK3	Bulk Asbestos Layer 3