



**WSCF**  
**ANALYTICAL LABORATORY REPORT**  
**ANALYSIS OF BULK SAMPLES FOR FIBER CONTENT**

for

**Washington Closure Hanford (WCH)**  
**Richland, WA 99354**

**Attention: Joan Kessner MSIN: H4-21**

**Survey ID** J16B58 - J16B60, J16D53,  
J16D54 & J16DKD

**Data Validator** *Stacey O. Bellin*



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**Group#:** 20080527  
**Report Date** 31-mar-2008  
bulk/rev.7.2

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**Fluor Hanford, Inc.**  
**MSIN: S3-28**  
**Richland, WA 99352**      **Phone 373-7403**

**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 LA-519-403, 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 American Industrial Hygiene Association (AIHA) to analyze bulk samples for asbestos content. This accreditation does not constitute approval or endorsement of analytical results by AIHA.

If there are questions concerning this report, please contact the data validator 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. Results for such samples will be reported as 'indeterminate'. Confirmatory analysis by TEM is strongly recommended.

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Group #: 20080527

Sample #	Client ID	Test Performed	Range	Result	Units	Analyst	Sampled	Received	Analyzed
W08IM00401	J16B58	<u>The following are the results of this test-</u>		<u>Bulk Asbestos Layer 1</u>					
		Synthetic		1-4	%	sdB	03/13/08	03/13/08	03/18/08
		Cellulose		3-7	%	sdB	03/13/08	03/13/08	03/18/08
		Mineral Wool		5-15	%	sdB	03/13/08	03/13/08	03/18/08
		SAMPLE COMMENT---	NON-HOMOGENOUS WHITE FIBROUS GRANULAR MATERIAL. PER COC,						
		SAMPLE COMMENT---	TAKEN FROM 184N UPPER STACK AND STEAM DRUM PACM.						
		SAMPLE COMMENT---	NO ASBESTOS FOUND IN THIS SAMPLE.						
W08IM00402	J16B59	<u>The following are the results of this test-</u>		<u>Bulk Asbestos Layer 1</u>					
		Synthetic		1-4	%	sdB	03/13/08	03/13/08	03/17/08
		Cellulose		3-7	%	sdB	03/13/08	03/13/08	03/17/08
		Mineral Wool		5-15	%	sdB	03/13/08	03/13/08	03/17/08
		SAMPLE COMMENT---	NON-HOMOGENOUS WHITE FIBROUS GRANULAR MATERIAL. PER COC,						
		SAMPLE COMMENT---	TAKEN FROM 184N UPPER STACK AND STEAM DRUM PACM.						
		SAMPLE COMMENT---	NO ASBESTOS FOUND IN THIS SAMPLE.						
W08IM00403	J16B60	<u>The following are the results of this test-</u>		<u>Bulk Asbestos Layer 1</u>					
		Synthetic		1-4	%	sdB	03/13/08	03/13/08	03/17/08
		Cellulose		3-7	%	sdB	03/13/08	03/13/08	03/17/08
		Mineral Wool		5-15	%	sdB	03/13/08	03/13/08	03/17/08
		SAMPLE COMMENT---	NON-HOMOGENOUS WHITE FIBROUS GRANULAR MATERIAL. PER COC,						
		SAMPLE COMMENT---	TAKEN FROM 184N UPPER STACK AND STEAM DRUM PACM.						
		SAMPLE COMMENT---	NO ASBESTOS FOUND IN THIS SAMPLE.						

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## ANALYTICAL LABORATORY REPORT

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Group #: 20080527

Sample #	Client ID	Test Performed	Range	Result	Units	Analyst	Sampled	Received	Analyzed	
W08IM00404	J16DJ3	The following are the results of this test- Bulk Asbestos Layer 1		Cellulose	<	1 %	sdb	03/13/08	03/13/08	03/17/08
		SAMPLE COMMENT---		NON-HOMOGENOUS BLACK TAR WITH SOME WHITE GRANULAR MATERIAL.						
		SAMPLE COMMENT---		PER COC, TAKEN FROM 184N UPPER STACK AND STEAM DRUM PACM.						
		SAMPLE COMMENT---		NO ASBESTOS FOUND IN THIS SAMPLE.						
W08IM00405	J16DJ4	The following are the results of this test- Bulk Asbestos Layer 1		Cellulose	<	1 %	sdb	03/13/08	03/13/08	03/17/08
		SAMPLE COMMENT---		NON-HOMOGENOUS WHITE AND GREEN GRANULAR MATERIAL WITH BLACK						
		SAMPLE COMMENT---		TAR. PER COC, TAKEN FROM 184N UPPER STACK AND STEAM DRUM						
		SAMPLE COMMENT---		PACM.						
		SAMPLE COMMENT---		NO ASBESTOS FOUND IN THIS SAMPLE.						
W08IM00406	J16DK0	The following are the results of this test- Bulk Asbestos Layer 1		Cellulose	<	1 %	sdb	03/13/08	03/13/08	03/17/08
		SAMPLE COMMENT---		NON-HOMOGENOUS BLACK TAR COATED WITH TAN GRANULAR MATERIAL.						
		SAMPLE COMMENT---		PER COC, TAKEN FROM 184N S SIDE UNDERGROUND PIPE COVERING.						
		SAMPLE COMMENT---		NO ASBESTOS FOUND IN THIS SAMPLE.						

# WSCF ANALYTICAL COMMENT REPORT

Attention: Joan Kessner MSIN: H4-21

Group #: 20080527

Sample #	Client ID	Lab Area	Test	Comment
W08IM00401	J16B58	VALGROUP LOGSAMP		Validated 3/31/08 by SD Bolling, IH Technical Manager. Samples Rec'd & Logged by T Frazier on 03/13/08. OK Upon Receipt. Media: Bulk.
		TESTDATA	Bulk Asbestos Layer 1	NON-HOMOGENOUS WHITE FIBROUS GRANULAR MATERIAL. PER COC, TAKEN FROM 184N UPPER STACK AND STEAM DRUM PACM. NO ASBESTOS FOUND IN THIS SAMPLE.
W08IM00402	J16B59	TESTDATA	Bulk Asbestos Layer 1	NON-HOMOGENOUS WHITE FIBROUS GRANULAR MATERIAL. PER COC, TAKEN FROM 184N UPPER STACK AND STEAM DRUM PACM. NO ASBESTOS FOUND IN THIS SAMPLE.
W08IM00403	J16B60	TESTDATA	Bulk Asbestos Layer 1	NON-HOMOGENOUS WHITE FIBROUS GRANULAR MATERIAL. PER COC, TAKEN FROM 184N UPPER STACK AND STEAM DRUM PACM. NO ASBESTOS FOUND IN THIS SAMPLE.
W08IM00404	J16DJ3	TESTDATA	Bulk Asbestos Layer 1	NON-HOMOGENOUS BLACK TAR WITH SOME WHITE GRANULAR MATERIAL. PER COC, TAKEN FROM 184N UPPER STACK AND STEAM DRUM PACM. NO ASBESTOS FOUND IN THIS SAMPLE.
W08IM00405	J16DJ4	TESTDATA	Bulk Asbestos Layer 1	NON-HOMOGENOUS WHITE AND GREEN GRANULAR MATERIAL WITH BLACK TAR. PER COC, TAKEN FROM 184N UPPER STACK AND STEAM DRUM PACM. NO ASBESTOS FOUND IN THIS SAMPLE.
W08IM00406	J16DK0	TESTDATA	Bulk Asbestos Layer 1	NON-HOMOGENOUS BLACK TAR COATED WITH TAN GRANULAR MATERIAL. PER COC, TAKEN FROM 184N S SIDE UNDERGROUND PIPE COVERING. NO ASBESTOS FOUND IN THIS SAMPLE.

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

VALTEST - Test Validation  
LOGTEST - Login for Tests

TESTDATA - Test Data Entry

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-006-167		Page 1 of 1														
Collector Tom Edmundson		Company Contact Amy Hood		Telephone No. 373-6621		Project Coordinator KESSNER, JH		Price Code 9K      Data Turnaround														
Project Designation 100-N Ancillary Facilities & 190-DR Other Solid Sampling f		Sampling Location 184 N.S. Side Underground Pipe Covering		SAF No. RC-006		7 Days JRE 24hr RUSH 3-13-08																
Ice Chest No. AFS-04039		Field Logbook No. EL-1516-12		COA RD4MXX2F00						Method of Shipment Gov't Vehicle												
Shipped To Waste Sampling & Characterization		Offsite Property No.		Bill of Lading/Air Bill No. SEE OSPC																		
POSSIBLE SAMPLE HAZARDS/REMARKS  Potential ACM  Special Handling and/or Storage N/A, Non-Rad				Preservation	None																	
				Type of Container	G/P																	
				No. of Container(s)	1																	
				Volume	10g																	
SAMPLE ANALYSIS				Asbestos-BULK-EPA																		
Sample No.	Matrix *	Sample Date	Sample Time																			
J16DK0 WCH-00406	OTHER SOLID	3-13-08	0900																			
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS								Matrix *						
Relinquished By/Removed From Tom Edmundson 3-13-08 1320		Date/Time		Received By/Stored In T.A. Puzik 3-13-08		Date/Time										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						
Relinquished By/Removed From Storage		Date/Time		Received By/Stored In SO Bolling 3/17/08		Date/Time																
Relinquished By/Removed From SO Bolling 3/17/08		Date/Time		Received By/Stored In Storage		Date/Time																
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time																
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time																
LABORATORY SECTION		Received By				Title				Date/Time												
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time												

Washington Closure Hanford 03/18/08		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-006-163	Page 1 of 1
Collector Amy Hood/Tom Edmundson 20080527		Company Contact Amy Hood		Telephone No. 373-6621		Project Coordinator KESSNER, JH	
Project Designation 100-N Ancillary Facilities & 190-DR Other Solid Sampling f		Sampling Location 184 N Upper Stack & Steam Drum PACM		SAF No. RC-006		Price Code 9K Data Turnaround 7 Days Rusk 3-13-08 TRK	
Ice Chest No. AFS-04-039		Field Logbook No. EL-1516-12		COA RD4MXX2F00		Method of Shipment <del>Fed Ex</del> gov't vehicle TRK 3-13-08	
Shipped To Waste Sampling & Characterization		Offsite Property No.		Bill of Lading/Air Bill No. SEE OSPC			
POSSIBLE SAMPLE HAZARDS/REMARKS Potential ACM				Preservation	None		
Special Handling and/or Storage N/A NON Rad				Type of Container	G/P		
				No. of Container(s)	1		
				Volume	10g		
SAMPLE ANALYSIS				Asbestos- BULK-EPA			
Sample No.	Matrix *	Sample Date	Sample Time				
J16B58 401	OTHER SOLID	3-13-08	1020	✓			
J16B59 402	OTHER SOLID	3-13-08	1230	✓			
J16B60 403	OTHER SOLID	3-13-08	1240	✓			
J16DJ3 404	OTHER SOLID	3-13-08	1030	✓			
J16DJ4 405	OTHER SOLID	3-13-08	1245	✓			
CHAIN OF POSSESSION			Sign/Print Names		SPECIAL INSTRUCTIONS		
Relinquished By/Removed From WHA 3/13/08 1520		Received By/Stored In TA FRAZIER 3-13-08 1520					Matrix * S=Soil SE=Sediment SO=Solid SL=Sludge W = Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From Storage		Received By/Stored In SO Bolling 3/17/08 1320					
Relinquished By/Removed From SO Bolling 3/17/08 1305		Received By/Stored In Storage					
Relinquished By/Removed From Storage		Received By/Stored In SO Bolling 3/18/08 750					
Relinquished By/Removed From SO Bolling 3/18/08 830		Received By/Stored In Storage					
Relinquished By/Removed From		Received By/Stored In					
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	