

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:

Tom Edmundson

X5-50

KW 10/15/08
INITIAL/DATE

COMMENTS:

SDG 08-AT-5529

SAF-RC-006

Rad only

Chem only

Rad & Chem

Complete

Partial

Waste Site(s): 181-NA Guard Tower

RECEIVED
OCT 20 2008
EDMC



10/14/08
Page 1 of 2

SUBMITTED TO:

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

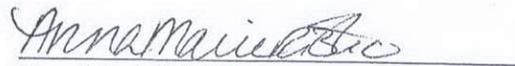


REFERENCE DATA:

Client Sample No.:	J17K85-A
P.O. No.:	Not Available
Sample Location:	181- NA Guard Tower
Sample Type:	Bulk
Method Reference:	EPA-600/R-93/116
DCL Set ID No.:	08-A-5529
DCL Sample ID No.:	08-31110
Sample Receipt Date:	10/14/08
Analysis Date:	10/14/08

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. DataChem Laboratories 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.

DataChem Laboratories 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.

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NOVATO, CALIFORNIA 94945
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10/14/08

**DataChem Laboratories
Polarized Light Microscopy
Asbestos Analytical Report**

Client: Washington Closure Hanford
Location: 181- NA Guard Tower
Set ID: 08-A-5529

Client Sample ID: J17K85-A
DCL Sample ID: 08-31110

Macroscopic Examination

Accepted/Rejected: Accepted
Homogeneity: Homog.
Color: Black
Texture: Resinous
Description: Mastic
Analysis: PLM

Asbestiform Minerals

% Chrysotile:
% Amosite:
% Crocidolite:
% Tremolite - Actinolite:
% Anthophyllite:
% Total Asbestos: ND

Other Materials

% Cellulose: >3 ≤ 5
% Fiberglass:
% Other Fibers:

% Resin/Binder: >70 ≤ 80
% Non Fibrous: >10 ≤ 20

ND = None Detected Trace = <1%

Special Prep Procedures: None.

*Notes: P. O. #: Not Available.



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.



10/15/08
Page 1 of 2

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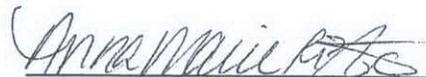
REFERENCE DATA

Client Sample Nos.:	J17K85-A
P.O. Number:	Not Available
Sample Location:	181- NA Guard Tower
Sample Type:	Bulk
Method Reference:	EPA/600/R-93/116, Asbestos by TEM
DCL Set ID No.:	08-T-5529
DCL Sample ID Nos.:	08-31110
Date Received:	10/14/2008
Preparation Date:	10/14/2008
Analysis Date:	10/15/2008

We certify that the samples indicated on the following data sheet(s) were analyzed by Transmission Electron Microscopy (TEM) using the method, EPA/600/R-93/116, for determining the amount and type of asbestos present in bulk building materials. After an initial examination by stereomicroscope and/or polarized light microscopy, representative portions of the samples were ground with a mortar and pestle, suspended in acetone or other solvents, then mounted on a TEM grid for analysis. Analysis was performed on a Philips CM-12 TEM with EDAX Genesis System. Selected area electron diffraction (SAED) patterns and EDXA spectra were used to determine fiber species. Estimates of asbestos concentration are made on an area basis. Representative EDXA spectra of asbestos types detected are included. Results apply only to portions of samples analyzed and are tabulated on the following data sheet(s). DataChem Laboratories will dispose of bulk samples after 60 days unless other arrangements are made.



Angela Sohn
Analyst



Anna Marie Ristich
Section Manager

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DataChem Laboratories
TEM Bulk Asbestos Test Report

DCL Sample Set ID: 08-T-5529
Client: Washington Closure Hanford
Sample Location: 181- NA Guard Tower

ANALYSIS DATA

Calibration Date:	9/26/2008	Magnification:	9,970 X
EDXA Resolution:	152.73 eV	Calibration Constant:	1 cm = 1.00 μ m
Accelerating Voltage:	100 keV	Camera Constant:	31.97 mm-Å

SAMPLE ID

Client Sample ID	J17K85-A
DCL Sample ID	08-31110

MACROSCOPIC EXAMINATION

Accepted/Rejected	Accepted
Homogeneity	Homog.

Color	Gray
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Texture	Compact
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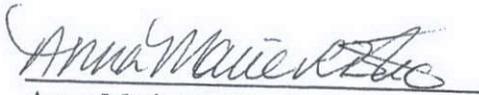
Description	Tile
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ASBESTIFORM MINERALS

% Chrysotile	
% Amosite	
% Crocidolite	
% Tremolite - Actinolite	
% Anthophyllite	
% TOTAL ASBESTOS	ND

NOTES: ND = None Detected TRACE = <1%


Angela Sohn
Analyst


Anna Marie Ristich
Section Manager

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