UNIVERSITY OF CALIFORNIA, SANTA BARBARA

DESIGN AND CONSTRUCTION SERVICES SANTA BARBARA, CALIFORNIA 93106-5132

March 24, 2011

Asbestos and Pb (Lead) Survey UCSB Carrillo/Santa Cruz Boilers Bldgs. 562/548

The University of California Santa Barbara (UCSB), Design and Construction Services (DC&S) has compiled this report to disclose existing knowledge of asbestos and Pb (Lead) containing building components located at Buildings 562 and 548 on the UCSB Campus.

Asbestos Sampling

Table 1.0 Asbestos Laboratory Reports lists the reports attached by Report Number, Date, Laboratory, Analysis Type, and Comments.

Table 1.0 - Asbestos Laboratory Reports

Report #	Report Date	Laboratory	Analysis Type	Comments
B143829	01/07/2011	Forensic Analytical	PLM EPA Method 600/R-93-116	Various samples on the boilers and related equipment in Bldg. 548.
B142810	12/08/2010	Forensic Analytical	PLM EPA Method 600/R-93-116	Samples 01-06 are various samples in the boiler room of Bldg. 562.

Lead Paint Sampling Results

Table 2.0 Pb (Lead) Laboratory Reports lists the reports attached by Report Number, Date, Laboratory, Analysis Type, and Comments.

Table 2.0 – Pb (Lead) Laboratory Reports

Report #	Report Date	Laboratory	Analysis Type	Comments
M115353	12/09/2010	Forensic Analytical	TTLC Metal Analysis Flame AA	Various Samples in the boiler room of Bldg. 562.

UCSB's industrial wastewater permit[1] local limit for lead is 1.040 mg/l. The California Code of Regulations, Title 22 classifies waste containing more than 50 ppm lead as hazardous[2] without further waste characterization. If you have any question regarding this report please contact me at 805-451-1918 or *gene.horstin@dcs.ucsb.edu*

Sincerely,

Digitally signed by Gene Horstin
DN: cn=Gene Horstin, o=UCSB, ou=Design and Construction, email=gene.horstin@dcs.ucsb.edu
Reason: I am the author of this document
Date: 2011.03.28 13:31:04 -07'00'

Gene Horstin
University of California Santa Barbara
Asbestos and Pb Clerk of the Works
Asbestos Abatement Project Designer Cert# PD39-11
Asbestos Inspector & Management Planner Cert# BIMP91-11
Asbestos Contractor & Supervisor Cert# CS182-11
CDPH Lead Inspector/Assessor ID# 20134

[1] Industrial Wastewater Discharge Permit Number IV-413, Part I, Wastewater Discharge Limitations and Monitoring Requirements – Local Limits

[2] TITLE 22. Social Security, Division 4.5. Environmental Health Standards for the Management of Hazardous Waste, Chapter 11. Identification and Listing of Hazardous Waste, Article 3. Characteristics of Hazardous Waste, §66261.24, Characteristic of Toxicity

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

U.C. Santa Barbara
Project Manager
Design and Construction Svcs
Building 370
Santa Barbara, CA 93106

Client ID: 5151
Report Number: B143829
Date Received: 01/07/11
Date Analyzed: 01/10/11
Date Printed: 01/10/11
First Reported: 01/10/11

Job ID/Site: Santa Cruz Dorm Boiler Replacement - Bldg 548, Boiler Room

FALI Job ID: 5151-6556

Date(s) Collected: 01/05/2011

Total Samples Submitted: 16
Total Samples Analyzed: 16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
20110105-548-PLM-1	11067268						
Layer: White Plaster			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
20110105-548-PLM-2	11067269						
Layer: White Plaster			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
20110105-548-PLM-3	11067270						
Layer: White Plaster			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
20110105-548-PLM-4	11067271						
Layer: Tan Semi-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (5 %)							
20110105-548-PLM-5	11067272						
Layer: Tan Semi-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (5 %)							
20110105-548-PLM-6	11067273						
Layer: Tan Semi-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (5 %)							
20110105-548-PLM-7	11067274						
Layer: Orange Foam			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Client Name: U.C. Santa Barbara

Report Number: B143829
Date Printed: 01/10/11

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
20110105-548-PLM-8	11067275						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
20110105-548-PLM-9	11067276						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
20110105-548-PLM-10	11067277						
Layer: White Joint Compound			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
20110105-548-PLM-11	11067278						
Layer: White Joint Compound			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
20110105-548-PLM-12	11067279						
Layer: White Joint Compound			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
20110105-548-PLM-13	11067280						
Layer: Grey Semi-Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (10 %) Fibrous Glass (30 %)							
20110105-548-PLM-14	11067281						
Layer: Grey Semi-Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (10 %) Fibrous Glass (30 %)							
20110105-548-PLM-15	11067282						
Layer: Grey Semi-Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (10 %) Fibrous Glass (30 %)							
20110105-548-PLM-16	11067283						
Layer: Grey Semi-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (10 %) Fibrous Glass (30 %)							

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Report Number: B143829

Client Name: U.C. Santa Barbara **Date Printed:** 01/10/11

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer

James Flores, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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University of California, Santa Barbara — Bulk Sample Log
Environmental Health and Safety - Client # 5151 — Asbestos
Asbestos and Lead Program – Contact J. Ripley 805-893-7984 jerome.ripley@dcs.ucsb.edu

Project: Santa Cruz Dorm Boiler Replacement Date: 01/05/2011 W.O.#: 292-62

Sampler Name: G. Horstin Building Name/Number: Bldg. 548 Boiler Room

Sample Analysis	Turn Around		
PLM	12 HR	24 HR	Other
Lab Instructions:	Due Date: 01/10/11		

Sample No.	Material(s)	HID No.	Location
20110105-548-PLM-01	White plaster.		Bldg. 548, boiler room, ceiling, on north/south beam.
20110105-548-PLM-02	White plaster.		Bldg. 548, boiler room, ceiling, on east/west beam.
20110105-548-PLM-03	White plaster.		Bldg. 548, boiler room, ceiling, on east/west beam.
20110105-548-PLM-04	Block insulation		Bldg. 548, boiler room, on inside of Raypak boiler #2.
20110105-548-PLM-05	Block insulation.		Bldg. 548, boiler room, on inside of Raypak boiler #1.
20110105-548-PLM-06	Block insulation.		Bldg. 548, boiler room, on inside of Raypak boiler #1.
20110105-548-PLM-07	Firestopping.		Bldg. 548, boiler room, on ceiling, around pipe south of door.
20110105-548-PLM-08	Grey caulking.		Bldg. 548, boiler room, around door frame.
20110105-548-PLM-09	Black mastic.		Bldg. 548, boiler room, south wall, above switch boxes.
20110105-548-PLM-10	Joint compound.		Bldg 548, boiler room, on west wall, west of tanks.
20110105-548-PLM-11	Joint compound.		Bldg. 548, boiler room, on west wall, west of tanks.
20110105-548-PLM-12	Joint compound.		Bldg. 548, boiler room, on west wall, west of tanks.
20110105-548-PLM-13	Grey insulation.		Bldg. 548, boiler room, on tank #2 at south end of room.
20110105-548-PLM-14	Grey insulation.		Bldg. 548, boiler room, on tank #1 at south end of room.
20110105-548-PLM-15	Grey insulation.		Bldg. 548, boiler room, on tank #2 at south end of room.
20110105-548-PLM-16	Grey insulation. (down to metal tank)		Bldg. 548, boiler room, on tank #2 at south end of room.

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Betty Fedex 1630 1/7/11

University of California, Santa Barbara
Environmental Health and Safety - Client # 5151
Asbestos and Lead Program – Contact J. Ripley 805-893-7984 jerome.ripley@dcs.ucsb.edu

Bulk Sample Log
Asbestos

Chain of Custody

Relinquished by Name: G. Horstin Company: UCSB Date/Time: [illegible]

Received by Name: Betty Feola Company: FASI Date/Time: 1/7/11 1030am

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Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

U.C. Santa Barbara
Project Manager
Design and Construction Svcs
Building 370
Santa Barbara, CA 93106

Client ID: 5151
Report Number: B142810
Date Received: 12/07/10
Date Analyzed: 12/08/10
Date Printed: 12/08/10
First Reported: 12/08/10

Job ID/Site: Santa Rosa/Carrillo Dining Boiler Replacement, Bldgs 527 & 562 boiler rooms

FALI Job ID: 5151-6571

Date(s) Collected: 12/06/2010

Total Samples Submitted: 7
Total Samples Analyzed: 7

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
20101206-562-PLM-01	11058644						
Layer: Beige Plaster			**ND**				
Layer: White Plaster			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
20101206-562-PLM-02	11058645						
Layer: Off-White Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
20101206-562-PLM-03	11058646						
Layer: Yellow Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace) Fibrous Glass (95 %)							
20101206-562-PLM-04	11058647						
Layer: Beige Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace) Fibrous Glass (80 %)							
20101206-562-PLM-05	11058648						
Layer: Off-White Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
20101206-562-PLM-06	11058649						
Layer: Grey Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
20101206-562-PLM-07	11058650						
Layer: Beige Plaster			**ND**				
Layer: Off-White Plaster			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							

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Report Number: B142810

Client Name: U.C. Santa Barbara **Date Printed:** 12/08/10

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer

James Flores, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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University of California, Santa Barbara
Environmental Health and Safety - Client # 5151
Asbestos and Lead Program -- Contact J. Ripley 805-893-7984 jerome.ripley@dcs.ucsb.edu

Bulk Sample Log
Asbestos

Project: Santa Rosa/Carrillo Dining Boiler Replacement **Date:** 12/06/2010 **W.O.#:** 292-62

Sampler Name: G. Horstin **Building Name/Number:** Bldgs. 527 & 562 boiler rooms

Sample Analysis	Turn Around		
PLM	12 HR	24 HR	Other
Lab Instructions:	Due Date: 12/08/2010		

Sample No.	Material(s)	HID No.	Location
20101206-562-PLM-01	White stucco, plaster.		Bldg. 562, boiler room, south wall.
20101206-562-PLM-02	White debris.		Bldg. 562, boiler room, on 12" run in middle of room.
20101206-562-PLM-03	Rope gasket.		Bldg. 562, boiler room, on boiler #1, north side of boiler.
20101206-562-PLM-04	Tank insulation.		Bldg. 562, boiler room, on boiler #2, on east side.
20101206-562-PLM-05	White debris.		Bldg. 562, boiler room, on top of 12" east/west run, middle of room.
20101206-562-PLM-06	Grey paint.		Bldg. 562, boiler room, floor, between boilers #1 & 2.
20101206-527-PLM-07	White plaster.		Bldg. 527, south boiler room, on beam on east side of room.

Chain of Custody

Relinquished by Name: G. Horstin Company: UCSB Date/Time:

Received by Name: Betty Fields Company: FASI Date/Time: 12/7/10 11am

Forensic Analytical Laboratories

Final Report

Metals Analysis of Paints

U.C. Santa Barbara
Jerome Ripley
Design and Construction Svcs
Building 370
Santa Barbara, CA 93106

Client ID: 5151
Report Number: M115353
Date Received: 12/07/10
Date Analyzed: 12/09/10
Date Printed: 12/09/10
First Reported: 12/09/10

Job ID / Site: Santa Rosa/Carrillo Dining Boiler Replacement, Bldgs. 527 & 562 boiler rooms
Date(s) Collected: 12/06/10

FALI Job ID: 5151-6571
Total Samples Submitted: 3
Total Samples Analyzed: 3

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
20101206-562-PB-01	30389348	Pb	720	ppm	80	EPA 3050B/7420
20101206-562-PB-02	30389349	Pb	70	ppm	60	EPA 3050B/7420
20101206-562-PB-03	30389350	Pb	60	ppm	60	EPA 3050B/7420

* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.

Dave Sandusky, CIH, Laboratory Supervisor, Hayward Laboratory

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University of California, Santa Barbara
Environmental Health and Safety - Client # 5151
Asbestos and Lead Program -- Contact J. Ripley 805-893-7984 jerome.ripley@dcs.ucsb.edu

Bulk Sample Log
Pb (Lead)

Project: Santa Rosa/Carrillo Dining Boiler Replacement **Date:** 12/06/2010 **W.O.#:** 292-62

Sampler Name: G. Horstin **Building Name/Number:** Bldgs. 527 & 562 boiler rooms

Sample Analysis	Turn Around		
TTLC Pb	12 HR	24 HR	Other
Lab Instructions:	Due Date: 12/09/2010		

Sample No.	Material(s)	HID No.:	Location
20101206-562-Pb-01	Blue paint on metal substrate.		Bldg. 562, boiler room, on boiler #2.
20101206-562-Pb-02	Grey paint on concrete substrate.		Bldg. 562, boiler room, on floor east of boiler #1.
20101206-562-Pb-03	White paint on concrete substrate.		Bldg. 562, boiler room, on south wall.

Chain of Custody

Relinquished by Name: G. Horstin Company: UCSB Date/Time: 12/7/10 1149

Received by Name: Betty Fecht Company: FASI Date/Time: 12/7/10 1149