Carnow, Conibear & Assoc., Ltd.
Environmental Consulting Services
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t: 312.782.4486 f: 312.782.5145
www.ccaltd.com

January 25, 2010

Diane Myer, D.D.S.
Dentistry for the Health Conscious
412 W. 63rd Street, Suite 102
Downers Grove, Illinois 60516 catherine@dentistryforthehealthconsious.com

RE: Indoor Air Quality Investigation - Mercury
Project # A15273-0001

Dear Dr. Myer:

The following letter report presents the results of the indoor air quality investigation for mercury performed by Carnow, Conibear & Assoc., Ltd. (Carnow Conibear) on January 6, 2010 at the Dentistry for the Health Conscious office in Downers Grove, Illinois. The investigation was conducted by Heather Eckard, Industrial Hygienist under the direction of John M. Dobby, CIH, CSP. Mr. Dobby is a Certified Industrial Hygienist (CIH). The investigation was conducted in accordance with the proposal P2009490 dated November 9, 2009.

Scope of Work

The investigation consisted of a visual inspection for visible mercury droplets. Air samples were collected for mercury vapor using two testing methods. Specifically, short term samples were obtained using a portable direct reading mercury vapor monitor to determine ambient levels and sources of vapor i.e., contamination that may be present due to micro-droplets not visible to the naked eye. In addition, long-term air samples were collected to evaluate levels over an extended time period that would be representative of employee exposures.

Sampling Methodology

Short Term (Direct Reading) Air Sampling Method

Direct reading air samples were obtained with a portable VM-3000 Mercury Vapor Monitor manufactured by Mercury Instruments. The Monitor detects mercury vapor by ultraviolet (UV) absorption by measuring the resonance of mercury atoms when exposed to UV light from a UV lamp at a wavelength of 25.7 nanometers. The UV light passes through an optical cell and is then measured by a solid-state detector. The attenuation of the light reaching the detector depends on the number of mercury atoms in the optical cell. An internal computer performs quantitative evaluation of the mercury concentration in the sample in real-time. In order to obtain an extremely stable baseline, the UV detector is thermostatically controlled. Heating of the optical cell makes the VM-3000 insensitive to water vapor. The VM-3000 has a sensitivity of 1.0 microgram (µg) of mercury per cubic meter of air (µg/m^3).

With one exception, the readings were obtained in every room in the dentist office (which was unoccupied on January 6); the office by the lab was inaccessible during the inspection.

Long Term Air Sampling Method

Long term air samples for mercury vapor were collected using portable SKC battery-powered air sampling pumps connected by Tygon tubing to glass tubes containing Carolite (Hydrar) sorbent. Pump air flow rate was established at a rate of 0.2 liters per minute (Lpm) before, during, and after the monitoring using a precision rotameter that was calibrated using a Gilian Gilibrator, an electronic flow meter. Following sample collection, the samples were shipped along with a blank (control) sample and a chain-of-custody record to Galson Laboratories in East Syracuse, New York for analysis by National Institute for Occupational Safety and Health Method 6009, cold vapor atomic absorption. Galson Laboratories is accredited by the American Industrial Hygiene Association (AIHA)

Sampling locations for the long term samples were determined based in part upon a strategy to monitor ambient air for mercury in areas where mercury was thought to be used and in the areas frequented by staff or patients. Thus, samples were collected in the exam rooms, lab area where the mercury vacuum is located and the waiting area/reception area. A total of

Results

Visual Inspection Results

No visible mercury droplets were observed in any of the inspected areas.

Short Term (Direct Reading) Air Sampling Results

A table showing the recorded VM-3000 direct readings is attached.

Long Term Air Sampling Method Results

The long term mercury air sample results are summarized in Table 1. Based on the volumes of air sampled, the results ranged from less than (<) the limit of analytical detection <0.0005 milligrams per cubic meter of air (mg/m^3) to 0.00092 mg/m^3. The laboratory report for the long term mercury air samples is attached in Appendix II.

Conclusions

All results were below the OSHA Permissible Exposure Limit (PEL) of 0.1 mg/m^3. All results were below the NIOSH Recommended Exposure Limit (REL) of 0.05 mg/m^3. All results were also below the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV) of 0.025 mg/m^3. A description of these limits and guideline values is contained in the attached Appendix I.

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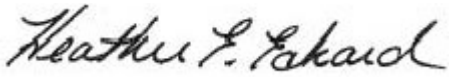
Recommendation

Continue to exercise care when handling mercury-containing amalgams and maintain good practices to avoid mercury exposure and contamination.

Carnow Conibear appreciates the opportunity to assist the Dentistry for the Health Conscious in completing this important project. If you have any questions, please do not hesitate to contact me at 312-762-2912.

Sincerely,

CARNOW, CONIBEAR & ASSOC., LTD.



John M. Dobby, CIH, CSP
Senior Technical Consultant

Heather Eckard
Industrial Hygienist

attachments

TABLES

TABLE 1
SUMMARY OF LONG TERM MERCURY AIR SAMPLE RESULTS
DENTISTRY FOR THE HEALTH CONSCIOUS
JANUARY 6, 2010

Sample #	Sample Location	Mercury Concentration (mg/m^3)[c]
1	Exam Room #1	0.00092
2	Exam Room #2	0.00050
3	Lab Area	0.00060
4	Waiting Room / Reception Area	<0.00050
5	Field Blank	N/A

Notes: a. mg/m^3 denotes milligrams per cubic meter
b. < denotes less than the analytical detection limit

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TABLE 2
SUMMARY OF VM-3000 MERCURY READINGS
DENTISTRY FOR THE HEALTH CONSCIOUS
JANUARY 6, 2010

Sample Location	VM-3000 Reading ($\mu g/m^3$)	Converted Reading (mg/m^3)	Temperature
Waiting Room/Reception Area	0.0	0.0	70º F
Exam Room #1	0.0-0.1	0.0-0.0001	70º F
Exam Room #2	0.0-0.1	0.0-0.0001	70º F
Hallway and Bathroom	0.0	0.0	70º F
Lab Area	0.0	0.0	70º F
Cafeteria	0.0	0.0	70º F
Therapy Room	0.0	0.0	70º F

Notes: a. $\mu g/m^3$ denotes micrograms per cubic meter
b. mg/m^3 denotes milligrams per cubic meter (results obtained by dividing VM-3000 readings in $\mu g/m^3$ by 1,000)

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APPENDIX I

OCCUPATIONAL HEALTH & SAFETY REGULATORY LIMITS & GUIDELINE LEVELS

Air Contaminants

Workers' exposures were evaluated with respect to the OSHA Permissible Exposure Limits (PELs). The PELs are regulatory limits that are contained in 29 CFR 1910.1000. For a small number of chemical substances, OSHA has established a comprehensive health standard contained in 1910.1001 and beyond. The PELs are based on health effects, but also consider technological and economic feasibility to achieve compliance. OSHA requires employers to implement feasible engineering or administrative controls when employees are exposed above the PEL. Until such time that such controls are implemented or in the interim period where controls are being established, personal protective equipment (respiratory protection) must be used. The employer is not permitted to rely on respiratory protection as the sole means of control, however.

The National Institute for Occupational Safety and Health (NIOSH) has recommended occupational exposure limits to OSHA. These values are Recommended Exposure Limits (RELs). OSHA is not obligated to adopt the NIOSH-recommended RELs.

The American Conference of Governmental Industrial Hygienists (ACGIH) has established Threshold Limit Values (TLVs) for chemical substances which are guideline levels. TLVs are airborne concentrations of chemicals under which it is believed that a worker can be repeatedly exposed eight hours a day for a working lifetime without adverse health effects. TLVs are revised annually to incorporate the latest scientific data. TLVs are used by professionals as guidelines and do not represent a strict separation between safe and hazardous environmental conditions. The guidelines are based upon the best available information from industrial experience, experimental human and animal studies and, when possible, a combination of the three. In 1971, OSHA adopted the then current TLVs as PELs. Since that time, OSHA has established individual standards for approximately 25 compounds. Because so many of the PELs have not been reviewed for over twenty-five years, the TLVs represent a more scientifically valid basis to evaluate worker exposures.

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APPENDIX II

LABORATORY REPORT

Mr. John Dobby
Carnow, Conibear & Assoc. Ltd
300 West Adams Street
Suite 1200
Chicago, IL 60606

January 25, 2010

DOH ELAP# 11626 Account# 13893 Login# L206772

Dear Mr. Dobby:

Enclosed are the revised analytical results for the samples received by our laboratory on January 08, 2010. The report was revised in order to remove reference to Shaw preparation. This version of the report replaces any previously issued versions. All test results meet the quality control requirements of AIHA and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

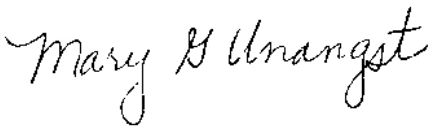
Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report.

Please contact Caroline Hudson at (877) 386-0035, if you would like any additional information regarding this report.

Thank you for using Galson Laboratories.

Sincerely,

Galson Laboratories



Mary G. Unangst
Laboratory Director

Enclosure(s)

GALSON LABORATORIES
6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

LABORATORY ANALYSIS REPORT

Client : Carnow, Conibear & Associates, Ltd.
Site : Dentistry for the Health Cons.
Project No. : A15273-0001

Date Sampled : 06-JAN-10
Date Received : 08-JAN-10
Date Analyzed : 14-JAN-10
Report ID : 634035

Account No.: 13893
Login No. : L206772

Mercury

Sample ID	Lab ID	Air Vol liter	Total ug	Conc mg/m3
1-EXAM RM #1	L206772-1	60	0.055	0.00092
2-EXAM RM #2	L206772-2	60	0.030	0.00050
3-LAB	L206772-3	60	0.036	0.00060
4-WAITING RM/ RECEP.	L206772-4	60	<0.030	<0.00050
5-FBLK	L206772-5	NA	<0.030	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: 0.030 ug
Analytical Method : mod. NIOSH 6009;CVAA;TUBE
OSHA PEL (TWA) : 0.1 mg/m3 CEIL
Collection Media : 226-17-1A

Submitted by: PWL
Approved by : LLS
Date : 25-JAN-10 NYS DOH # : 11626
QC by: Tom Burgess

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters NS -Not Specified
NA -Not Applicable ND -Not Detected ppm -Parts per Million

GALSON LABORATORIES
6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

LABORATORY FOOTNOTE REPORT

Client Name : Carnow, Conibear & Associates, Ltd.
Site : Dentistry for the Health Cons.
Project No. : A15273-0001

Date Sampled : 06-JAN-10 Account No.: 13893
Date Received: 08-JAN-10 Login No. : L206772
Date Analyzed: 14-JAN-10

Unless otherwise noted below, all quality control results associated with the samples were within established control limits.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceeding the final result column may have been rounded in order to fit the report format and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

L206772 (Report ID: 634035):
Reported results reflect elemental analysis of the requested metals. Certain compounds may not be solubilized during digestion, resulting in data that is biased low.
SOPs: MT-SOP-8(3), im-hg(16)

< -Less Than	mg -Milligrams	m3 -Cubic Meters	kg -Kilograms
> -Greater Than	ug -Micrograms	l -Liters	NS -Not Specified
NA -Not Applicable	ND -Not Detected	ppm -Parts per Million	

GALSON LABORATORIES
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888-432-LABS (5227)
Fax: (315) 437-0571
www.galsonlabs.com

☐ Check if change of address

New Client ? ☐ yes ☒ no

Report To : John Dobby
Carnow Conibear + Assoc., Ltd.
300 W. Adams, Suite 1200
Chicago, IL 60606
Phone No. : (312) 762-2912
Fax No. : (312) 782-5145

Invoice To :
Phone No. :
Fax No. :

Site Name : Dentistry for the Health Conscious
Project : A15273-0001
Sampled By : Heather Eckard

Need Results By:	(surcharge)
☒ 5 Business Days	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same day	200%

☐ Samples submitted using the FreePumpLoan™ Program.
Client Account No. :
Purchase Order No. :
Credit Card No. :

☐ Samples submitted using the FreeSamplingBadges™ Program.
Card Holder Name : Exp. :

Email / Fax Results To : John Dobby
Email Address : JDobby@CCALtd.com
Fax No. :

	Sample Identification	Date Sampled	Collection Medium	*Air Volume (Liters)	Passive Monitors (Min)	Analysis Requested	Method Reference	Specific DL Needed
1	Exam Rm #1	1/6/10	Carulite (Hydrar) 226-17-1A	60L		Mercury	NIOSH 6009	
2	Exam Rm #2	↓	↓	↓		↓	↓	
3	Lab	↓	↓	↓		↓	↓	
4	Waiting Rm / Reception	↓	↓	↓		↓	↓	
5	Blank							

☐ Yes ☐ No **We normally add a laboratory blank for each analyte. We will charge you for this at our normal rate. If you agree please check "Yes" otherwise check "No".**

List description of industry or process / interference's present in sampling area:

Comments:

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by :	Heather Eckard	Heather Eckard	1/7/10 5pm
Received by LAB :	[illegible]		1/8/10 948

Login # :

Samples received after 3pm will be considered as next day's business.

* sample collection time X LPM = Air Vol.

LAB ORIGINAL