From: Parag Amin
To: Fevre, Stephen B. Le
CC: Crosby, David
Date: 12/28/2012 2:16 PM
Subject: Supplemental Site Inv. Work Plan - 1333 E. Dominick St., Rome

I have no further comments. Please provide week notice prior to commencing field work.

>>> "Stephen B. Le Fevre" <slefevre@bartonandloguidice.com> 12/28/2012 2:05 PM >>>

Hi Parag,

Okay, agreed. B&L will collect two soil samples each from borings SB-18 and SB-19 at depths of 0 - 4 ft and 4 - 8 ft, and submit the soil samples for the analysis of PCBs.

Steve

Stephen B. Le Fevre, P.G., C.P.G.

Barton & Loguidice, P.C.

From: Parag Amin [mailto:pbamin@gw.dec.state.ny.us]
Sent: Friday, December 28, 2012 2:01 PM
To: Stephen B. Le Fevre
Cc: David Crosby
Subject: RE: Supplemental Site Inv. Work Plan - 1333 E. Dominick St., Rome

Steve,

In SB-18 and 19, we need shallow sample too (0-4') since as I have mentioned most of the PCB contamination in the vicinity is observed at those depths.

-Parag

Parag B. Amin P.E.
NYSDEC, DER

Remedial Bureau C

Section B

625 Broadway
Albany, NY, 12233-7014
(518) 402-9662 (Phone)
(518) 402-9679 (Fax)
E-Mail Address: pbamin@gw.dec.state.ny.us
www.dec.state.ny.us

>>> "Stephen B. Le Fevre" <slefevre@bartonandloguidice.com> 12/28/2012 1:48 PM >>>

Hi Parag,

Thank you for your quick review of the above referenced Work Plan. My response to your comments are provided below in the same order as your questions:

1. The five (5) soil borings to be performed inside the building structure (SB-20 through SB-24) will be advanced to a depth of 8 ft each. Two (2) soil samples will be collected from each boring (0 – 4 ft depth interval and 4 – 8 ft depth interval) and the soil samples submitted for the analysis of PCBs. The two (2) soil borings to be performed outside in the courtyard area (SB-18 and SB-19) will also be advanced to a depth of 8 ft each. As stated in Section 4.2 (Recommendations) of the June 2012 Remedial Investigation Report prepared by B&L, "it is intended that a single subsurface soil sample be collected from each soil boring at a depth of 6 to 8 feet bgs (which is equivalent to the depth of the former 7,000 gallon UST), and the two (2) soil samples submitted

for the laboratory analysis of total PCBs."
2. Comment noted. We will make sure that borings SB-18 and SB-19 are offset a sufficient distance from the former UST pit so that we are sampling native soils and not fill material.
3. Comment noted. The concrete chip/dust sample to be collected from the boiler room will be collected at a depth of 0.5 to 1 inch.
Assuming that the above stated responses are satisfactory to the Department, please notify us of such so that we may contact the driller and schedule the work. I look forward to hearing from you. Happy new Year!

Steve

Stephen B. Le Fevre, P.G., C.P.G.

Barton & Loguidice, P.C.

From: Parag Amin [mailto:pbamin@gw.dec.state.ny.us]
Sent: Friday, December 28, 2012 9:13 AM
To: Stephen B. Le Fevre
Cc: David Crosby; cmercurio@romecitygov.com
Subject: Re: Supplemental Site Inv. Work Plan - 1333 E. Dominick St., Rome

Hi Steve,

Following are my comments on the sampling plan:

1. The plan does not specify the depths of the soil boring and the sampling depths. Looking at the pervious soil borings, majority of PCB exceedances were observed in 0-4' depth. Also, you may consider performing PCB field screening to target the sample to be sent to the lab.

2. Ensure that SB-18 and SB-19 are not within UST pit, we don't want to sample fill material.

3. CONC_BOILERROOM-2 had 20 ppm PCB. The concrete floor sample to be taken on boiler room, you may want to sample at deeper depth too.

- Parag

>>> "Stephen B. Le Fevre" <slefevre@bartonandloguidice.com> 12/27/2012 3:28 PM >>>

Hi Parag,

Please refer to the attached Work Plan for the performance of a supplemental investigation at 1333 E. Dominick St. Please feel free to give me a call if you have any questions or would like to discuss.

Thanks, Steve

Stephen B. Le Fevre, P.G., C.P.G.
Managing Hydrogeologist

Barton & Loguidice, P.C.
Engineers, Environmental Scientists, Planners, Landscape Architects

10 Airline Drive s Suite 200 s Albany, NY 12205 s Phone: (518) 218-1801
www.bartonandloguidice.com

December 27, 2012

Parag Amin, P. E.
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C, 11th Floor
625 Broadway
Albany, New York 12233-7014

Re: Supplemental Site Investigation Work Plan
1333 East Dominick St., Site E633060
City of Rome, Oneida County, New York

File: 245.005

Dear Mr. Amin:

As discussed and agreed to during our telephone conversation on August 28, 2012, Barton & Loguidice, P.C. (B&L) has prepared this Supplemental Site Investigation Work Plan in support of the proposed collection of approximately 73 concrete chip/dust samples from the concrete flooring inside the building structure at 1333 East Dominick Street for the analysis of PCBs (refer to Figure 1). In conjunction with the performance of this activity, a total of seven (7) soil borings will be advanced at strategic locations both inside and outside of the building footprint in order to further characterize and delineate the extent of PCB contamination in the subsurface soils at the site. Specifically, as indicated on attached Figure 2, five (5) of the soil borings will be performed inside the building structure in order to investigate the subsurface soils underneath the floor slab, while the remaining two (2) soil borings will be drilled in the outdoor courtyard area in the immediate vicinity of the former underground storage tank (UST).

As indicated on the attached proposed concrete floor sample location plan (Figure 1), the location of the proposed 73 concrete chip/dust samples were determined based on the layout of a 20 foot by 20 foot grid system over the entire areal extent of the first floor and basement areas, which encompass a total area of approximately 28,500 square feet. For your information, B&L has already discussed the proposed 20 foot by 20 foot sample location grid spacing with U.S. Environmental Protection Agency (EPA) Region 2 staff, and they concur that the enclosed sample location plan provides adequate coverage for the characterization of PCB contamination within the concrete flooring.

Similar to the above, the location of the five (5) soil borings to be performed inside the building structure (designated as SB-20 through SB-24 on enclosed Figure 2) were chosen to provide a more complete spatial coverage of the soils underlying the concrete slab in the first floor area, while the purpose of the two (2) soil borings in the courtyard area (designated as SB-18 and SB-19) is to verify that all of the previously encountered PCB contaminated soil has been removed from the location of the former UST.

10 Airline Drive • Suite 200 • Albany, New York 12205
Telephone: 518-218-1801 • Facsimile: 518-218-1805 • www.BartonandLoguidice.com

Concrete Floor Chip/Dust Sample Collection Method

The general protocol to be followed by B&L personnel in the collection of concrete chip/dust samples is described in the enclosed EPA publication entitled "Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs)" dated May 2011. This document, which was prepared by EPA Region 1 staff, also includes a description of the health and safety and equipment decontamination methods to be generally followed by B&L field staff.

In accordance with the concrete sample collection protocol described in the above referenced EPA publication (refer specifically to Section 9.1.3), 67 of the 73 proposed concrete samples will be collected at a depth of 0 to 0.5 inches, as these are the initial concrete samples to be collected at these sampling locations. However, as noted on Figure 2, at six (6) of the proposed concrete sampling locations, the concrete samples will be collected at a depth of 0.5 to 1.0 inch. This is due to the fact that concrete dust samples were previously collected by B&L staff in close proximity and the detected PCB concentrations at the initial sampling locations warrant that additional concrete samples be collected at the next depth interval, which is 0.5 to 1.0 inch.

Advancement of Soil Borings

The drilling of the seven (7) proposed soil borings will be performed in accordance with the NYSDEC and EPA-approved Site Investigation Work Plan prepared by B&L dated May 2008. Specifically, B&L will adhere to the field investigation procedures described in the Sampling and Analysis Plan (SAP), which is included in Appendix A of the Site Investigation Work Plan.

B&L is prepared to commence immediately with the performance of the above described Supplemental Site Investigation at 1333 East Dominick Street upon receipt of Department approval of this Work Plan. Please feel free to contact me at (518) 218-1801 Ext. 2029 should you have any questions regarding the information presented herein.

Very truly yours,

BARTON & LOGUIDICE, P.C.

Stephen B. Le Fevre P.G., C.P.G.
Managing Hydrogeologist

SBL/akg
Enclosure
cc: C. Mercurio, City of Rome w/copy of enc.

N

NOTE: INTERIOR WALL LOCATIONS AND SAMPLE LOCATIONS ARE APPROXIMATE.

LEGEND

- × PCB SAMPLE LOCATION (CONCRETE DUST OR WIPE)
- FLOOR DRAIN SEDIMENT SAMPLE LOCATION
- (W) PCB WOOD SAMPLE LOCATION
- PROPOSED CONCRETE FLOOR SAMPLE LOCATION (0 – 0.5 INCH DEPTH)
- PROPOSED CONCRETE FLOOR SAMPLE LOCATION (0.5 – 1.0 INCH DEPTH)

1333ED_WIPE_SHOPD–2
3.39 UG/WIPE PCBS

1333ED_WIPE_SHOPD–1
2.2 UG/WIPE PCBS

1333ED_CONC_SHOPC–2
FIELD DUPLICATE
5.1/3.8 PPM PCBS

1333ED_CONC_SHOPC–1
MS/MSD
8.6 PPM PCBS

1333ED_CONC_STORAGE–2
1.1 PPM PCBS

1333ED_CONC_STORAGE–1
1.9 PPM PCBS

1333ED_CONC_SHOPB–2
70.0 PPM PCBS

1333ED_CONC_SHOPA–2
2.63 PPM PCBS

1333ED_CONC_SHOPB–1
30.1 PPM PCBS

1333ED_CONC_BOILERROOM–2
20.0 PPM PCBS

1313ED_SED–01
10.2 PPM PCBS (MAX)

1333ED_CONC_BOILERROOM–1
0.37 PPM PCBS

1333ED_CONC_SHOPADRAIN
MS/MSD
14.0 PPM PCBS

1333ED_CONC_SHOPA–1
21.0 PPM PCBS

1333ED_CONC_MACHROOM–1
140.0 PPM PCBS

1333ED_WOOD_BASEMENT–2
210.0 PPM PCBS

1313ED_CONC_01COMP
76.0 PPM PCBS

1333ED_WOOD_BASEMENT–1
73.0 PPM PCBS

1333ED_CONC_BASEMENT–1
1.0 PPM PCBS

1333ED_CONC_BASEMENT–3
5.4 PPM PCBS

1333ED_WOOD_BASEMENT–3
17.0 PPM PCBS

1333ED_WOOD_BASEMENT–4
9.4 PPM PCBS

1333ED_CONC_BASEMENT–2
1.5 PPM PCBS

NOCK STREET
HOLLAND AVE.
GANSEVOORT STREET
PORCH
RES
445
S40°46'34"W
68.56'

40' 0 40'
1"=40'

Plotted: Sep 06, 2012 – 2:41PM SYR By: jgs
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CITY OF ROME
PCB INTERIM REMEDIAL WORK PLAN

1333 EAST DOMINICK STREET
PROPOSED CONCRETE FLOOR SAMPLE LOCATIONS
ONEIDA COUNTY, NEW YORK
CITY OF ROME

Barton & Loguidice, P.C.

Date
SEPTEMBER, 2012

Scale
1" = 40'–0"

Figure Number
1

Project Number
245.005

N

NOTE: INTERIOR WALL LOCATIONS AND SAMPLE LOCATIONS ARE APPROXIMATE.

LEGEND

- × PCB SAMPLE LOCATION (CONCRETE DUST OR WIPE)
- FLOOR DRAIN SEDIMENT SAMPLE LOCATION
- (W) PCB WOOD SAMPLE LOCATION
- PROPOSED SOIL BORING LOCATION

NOCK STREET

HOLLAND AVE.

GANSEVOORT STREET

1333ED_WIPE_SHOPD-2
3.39 UG/WIPE PCBS

1333ED_WIPE_SHOPD-1
2.2 UG/WIPE PCBS

1333ED_CONC_SHOPC-2
FIELD DUPLICATE
5.1/3.8 PPM PCBS

1333ED_CONC_SHOPC-1
MS/MSD
8.6 PPM PCBS

1333ED_CONC_STORAGE-2
1.1 PPM PCBS

1333ED_CONC_STORAGE-1
1.9 PPM PCBS

1333ED_CONC_SHOPB-2
70.0 PPM PCBS

1333ED_CONC_SHOPA-2
2.63 PPM PCBS

1333ED_CONC_SHOPB-1
30.1 PPM PCBS

1333ED_CONC_BOILERROOM-2
20.0 PPM PCBS

1333ED_CONC_SHOPADRAIN
MS/MSD
14.0 PPM PCBS

1313ED_SED-01
10.2 PPM PCBS (MAX)

1333ED_CONC_BOILERROOM-1
0.37 PPM PCBS

1333ED_CONC_SHOPA-1
21.0 PPM PCBS

1333ED_CONC_MACHROOM-1
140.0 PPM PCBS

1333ED_WOOD_BASEMENT-2
210.0 PPM PCBS

1313ED_CONC_01COMP
76.0 PPM PCBS

1333ED_WOOD_BASEMENT-1
73.0 PPM PCBS

1333ED_CONC_BASEMENT-1
1.0 PPM PCBS

1333ED_CONC_BASEMENT-3
5.4 PPM PCBS

1333ED_WOOD_BASEMENT-3
17.0 PPM PCBS

1333ED_WOOD_BASEMENT-4
9.4 PPM PCBS

1333ED_CONC_BASEMENT-2
1.5 PPM PCBS

SB-18
SB-19
SB-20
SB-21
SB-22
SB-23
SB-24

445
445
S40°46'34"W
68.56'

PORCH
RES

40' 0 40'
1"=40'

1333 EAST DOMINICK STREET
PROPOSED SOIL BORING LOCATIONS
ONEIDA COUNTY, NEW YORK

PCB INTERIM REMEDIAL WORK PLAN
CITY OF ROME

CITY OF ROME

Barton Loguidice, P.C.

Date
SEPTEMBER, 2012

Scale
1" = 40'-0"

Figure Number
2

Project Number
245.005

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

STANDARD OPERATING PROCEDURE FOR SAMPLING POROUS SURFACES FOR POLYCHLORINATED BIPHENYLS (PCBs)

May 2011

STANDARD OPERATING PROCEDURE FOR SAMPLING POROUS SURFACES FOR POLYCHLORINATED BIPHENYLS (PCBs)

The Office of Environmental Measurement and Evaluation
EPA New England – Region 1
11 Technology Dr.
North Chelmsford, MA 01863

Prepared by: Dan Granz, Environmental Engineer — Date: 5/5/11

Reviewed by: Kim Tisa, TSCA PCB Coordinator — Date: 5/5/11

Reviewed by: Jerry Keefe – EIA Team Leader — Date: 05/23/11

Approved by: Dan Boudreau, EIA Chemistry Team Leader — Date: 5/23/11

Revision Page

Date	Rev#	Summary of Changes	Sections
12/97	1	Initial Approval, draft	
3/20/08	2	Major update, only for PCBs, added TSCA sampling	All sections
7/17/08	3	Disposal of dust filter and decon of vac hose	11.0 and 14.0
5/04/11	4	Vacuum Trap Design and Clean-out	9.4

Table of Contents

1.0 Scope and Application

1.1 This Standard Operating Procedure (SOP) is suitable for collection of a porous matrix sample for analysis of Polychlorinated Biphenyls (PCBs).

1.2 This SOP describes sampling techniques for both hard and soft porous surfaces.

1.2.1 Hard surfaces, and most soft surfaces, can be sampled using an impact hammer drill to generate a uniform, finely ground, powder to be extracted and analyzed for PCBs. This procedure is primarily geared at providing enough sample quantity for two analyses. Hard porous surfaces include concrete, brick, asphalt, cement, sandstone, limestone, unglazed ceramics, and other possible PCB suspected material. This procedure may also be used on other softer porous surfaces, such as wood.

1.2.2 Soft surfaces can be sampled using a chisel or sharp knife to generate a representative sample to be extracted and analyzed for PCBs. Soft porous surfaces include wood, wall plasterboard, low density plastics, rubber, caulking, and other PCB suspected material.

1.3 This SOP provides for collection of surface samples (0 – 0.5 inches) and delineation of PCB contamination throughout the core of the porous surface. The procedure can be used to sample the porous surface at distinctly different depth zones.

2.0 Method Summary

A one-inch or other sized diameter carbide drill bit is used in a rotary impact hammer drill to generate a fine powder, or other representative sample, suitable for extraction and analysis of PCBs from porous surfaces. This method also allows the use of chisels or knives for the collection of samples from soft porous surfaces for PCB analysis.

3.0 Definitions

3.1 Field/Bottle Blank: A sample container of the same lot as the containers used for the environmental samples. This evaluates PCB contamination introduced from the sample container(s) from a common lot.

3.2 Equipment/Rinse/Rinsate Blanks: A sample that is collected by pouring hexane over the sample collection equipment after decontamination and before sample collection. The sample is collected in the appropriate sample container identical to the sample containers. This represents background contamination resulting from the field equipment, sampling procedure, sample container, and shipment.

3.3 Field Replicates/Duplicates: Two or more samples collected at the same sampling location. Field replicates should be samples collected side by side. Field replicates represent the precision of the whole method, site heterogeneity, field sampling, and the laboratory analysis.

3.4 Field Split Samples: Two or more representative subsamples taken from one environmental sample in the field. Prior to splitting, the environmental sample is homogenized to correct for sample heterogeneity that would adversely impact data comparability. Field split samples are usually analyzed by different laboratories (interlaboratory comparison) or by the same laboratory (intralaboratory comparison). Field splits are used to assess sample handling procedures from field to laboratory and laboratory comparability.

3.5 Laboratory Quality Samples: Additional samples that will be collected for the laboratory's quality control program: matrix spike, matrix spike duplicate, laboratory duplicates, etc.

3.6 Proficiency Testing (PT)/Performance Evaluation (PE) Sample: A sample, the composition of which is unknown to the laboratory or analyst, provided to the analyst or laboratory to assess the capability to produce results within acceptable criteria. This is optional depending on the data quality objectives. If possible, it is recommended that the PE sample be of similar matrix as the porous surface(s) being sampled.

3.7 Porous Surface: Any surface that allows PCBs to penetrate or pass into itself including, but not limited to, paint or coating on metal; corroded metal; fibrous glass or glass wool; unglazed ceramics; ceramics with porous glaze; porous building stone such as sandstone, travertine, limestone, or coral rock; low density plastics such as Styrofoam and low density polyethylene; coated (varnished or painted) or uncoated wood; painted or unpainted concrete or cement; plaster; plasterboard; wallboard; rubber; caulking; fiberboard; chipboard; asphalt; or tar paper.

3.8 Shipping Container Temperature Blank: A water sample that is transported to the laboratory to measure the temperature of the samples in the cooler.

4.0 Health and Safety

4.1 Eye, respiratory, and hearing protection are required at all times during sample drilling. A properly fitted respirator is required for hard porous surface sampling. A respirator is recommended whenever there is a risk of inhalation of either particulate or volatilized PCBs during sampling.

4.2 All proper personal protection clothing and equipment must be worn.

4.3 When working with potentially hazardous materials or situations, follow EPA, OSHA, and specific health or safety procedures.

4.4 Care must be exercised when using an electrical drill and sharp cutting objects.

5.0 Interferences and Potential Problems

5.1 This sampling technique produces a finely ground uniform powder, which minimizes the physical matrix effects from variations in the sample consistency (i.e., particle size, uniformity, homogeneity, and surface condition). Matrix spike analysis of a sample is highly recommended to monitor for any matrix related interferences.

5.2 Nitrile gloves are recommended. Latex gloves must not be used due to possible phthalate contamination.

5.3 Interferences may result from using contaminated equipment, solvents, reagents, sample containers, or sampling in a disturbed area. The drill bit must be decontaminated between samples. (see Section 11.0.)

5.4 Cross contamination problems can be eliminated or minimized through the use of dedicated sampling equipment.

6.0 Personnel Qualifications

6.1 All field samplers working at hazardous materials/waste sites are required to take a 40 hour health and safety training course prior to engaging in any field activities. Subsequently, an 8 hour refresher health and safety course is required annually.

6.2 The field sampler should be trained by an experienced sampler before initiating this procedure.

6.3 All personnel shall be responsible for complying with all quality assurance/quality control requirements that pertain to their organizational/technical function.

7.0 Equipment and Supplies

7.1 This list varies with the matrix and if depth profiling is required

Rotary impact hammer variable speed drill
1-inch or other suitable (1/2, 3/4, etc.) diameter carbide tip drill bits
Steel chisel or sharp cutting knife, and hammer
Brush and cloths to clean area
Stainless steel scoopulas

Aluminum foil to collect the powder sample
1 quart Cubitainer with the top cut out to collect the powder sample
Aluminum weighing pans to collect the powder sample
Cleaned glass container (2 oz or 40 mL) with Teflon lined cap
Decontamination supplies: hexane, two small buckets, a scrub brush, detergent, deionized water, hexane squirt bottle, and paper towels
Dedicated vacuum cleaner with a disposable filter or a vacuum pump with a dust filter
Polyethylene tubing and Pasteur pipettes
Sample tags/labels, custody seals, and Chain-of-Custody form

8.0 Sampling Design

8.1 A sufficient number of samples must be collected to meet the data quality objectives of the project. If the source of the PCB contamination is regulated under the federal TSCA PCB Regulations at 40 CFR Part 761, the sampler should insure that the sampling design is sufficient to meet any investigation or verification sampling requirements. At a minimum, the following is recommended:

8.1.1 Suspected stained area (s) should be sampled.

8.1.2 At each separate location, collect at least 3 samples of each type of porous surface, regardless of the amount of each type of porous surface present.

8.1.3 In areas where PCB equipment was used or where PCBs were stored, samples should be collected at a frequency of 1 sample/100 square feet (ft^2).

9.0 Sample Collection

9.1 Hard Porous Surfaces

9.1.1 Lock a 1-inch or another size diameter carbide drill bit into the impact hammer drill and plug the drill into an appropriate power source. For easy identification, sample locations may be pre-marked using a marker or paint. (Note: the actual drilling point must not be marked.) Remove any debris with a clean brush or cloth prior to drilling. All sampling decisions of this nature should be noted in the sampling logbook.

9.1.2 Use a Cubitainer with the top cut off or aluminum foil to contain the powdered sample. Begin drilling in the designated location. Apply steady even pressure and let the drill do the work. Applying too much pressure will generate excessive heat and dull the drill bit prematurely. The drill will provide a finely ground powder that can be easily collected.

9.1.3 Samples should be collected at ½-inch depth intervals. Thus, the initial surface sample should be collected from 0 – 0.5 inches. A ½-inch deep hole generates about 10 grams (20 mL) of powder. Multiple holes located closely adjacent to each other, may be needed to generate sufficient sample volumes for a PCB determination. It is strongly recommended that the analytical laboratory be consulted on the minimum sample size needed for PCB extraction and analysis.

9.1.4 Wall and Ceiling Sampling: A team of two samplers will be required for wall and ceiling sampling. The second person will hold a clean catch surface (e.g. an aluminum pan) below the drill to collect the falling powder. Alternatively, use the chuck-end of the drill bit and punch a hole through the center of the collection pan. The drill bit is then mounted through the pan and into the drill. For ceilings, the drill may be held at an angle to collect the powder. Thus the driller can be drilling at an angle while the assistant steadies the pan to catch the falling powder. As a precaution, it may be advantageous to tape a piece of plastic around the drill, just below the chuck, to avoid dust contaminating the body of the drill and entering the drill's cooling vents. Caution must be taken to prevent obstruction of the drill's cooling vents.

9.2 Soft Porous Surfaces

9.2.1 The procedure for the hard porous surface may be used for certain soft porous surfaces, such as wood.

9.2.2 Samples should be collected at no more than ½-inch depth intervals using a metal chisel or sharp cutting knife. Thus, the initial surface sample should be collected from 0 – 0.5 inches. It is important to collect at least 10 grams for analysis.

9.2.3 For soft porous surfaces, such as caulking and rubber, a representative sample can be collected using a metal chisel or sharp cutting knife.

9.3 Multiple Depth Sampling

9.3.1 Multiple Depth Sampling may not be applicable to certain porous surfaces, such as caulking.

9.3.2 Collect the surface sample as outlined in Section 9.1 or 9.2.

9.3.3 Use the vacuum pump or cleaner to clean out the hole.

9.3.4 To collect multiple depths there are two options.

9.3.4.1 Option one: drill sequentially ½-inch increments with the 1 inch drill.

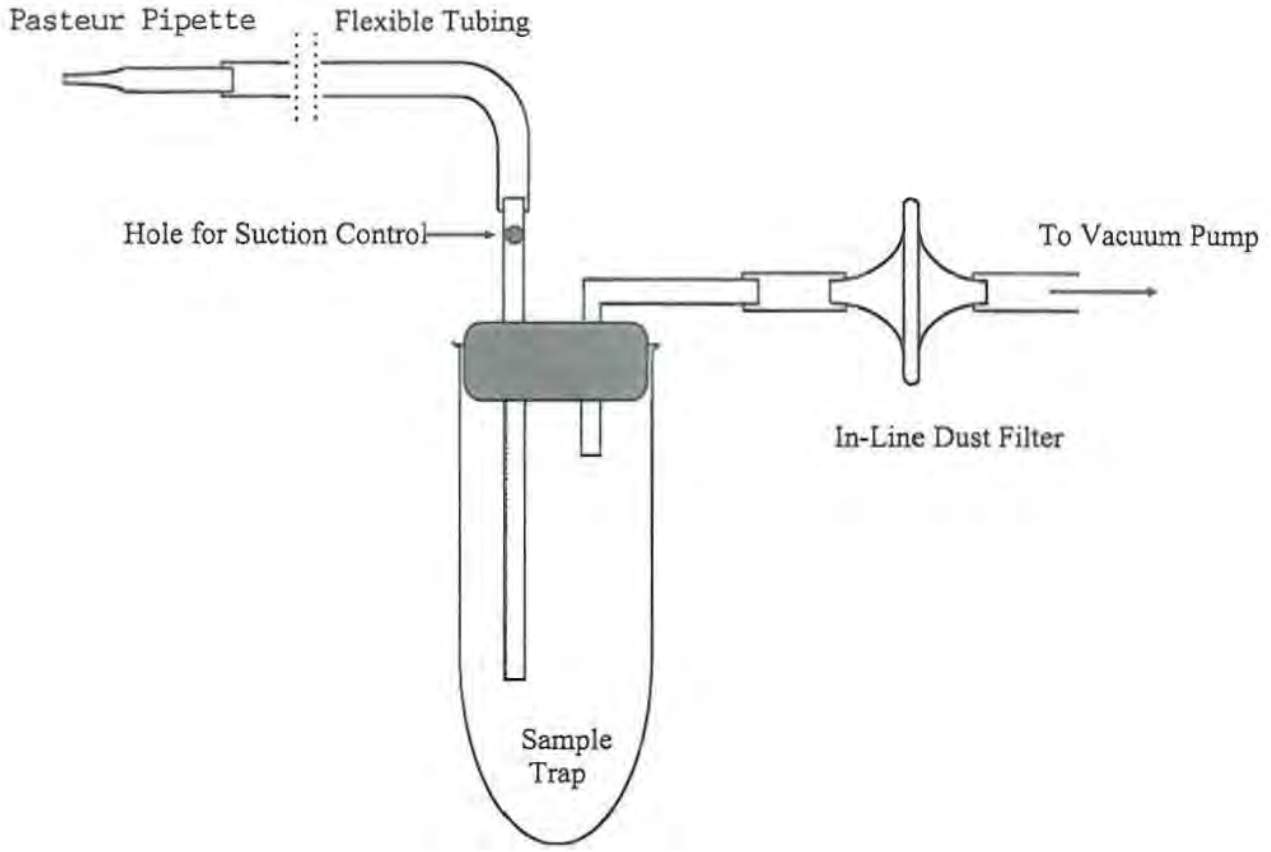
9.3.4.2 Option two: drill with the 1 inch bit and either make the hole larger or use a smaller bit to take the next ½- inch sample.

9.3.5 A stainless steel scoopula will make it easier to collect the sample from the bottom of the hole.

9.4 Vacuum Trap Design and Clean-out

The trap presented in Figure 1 is a convenient and thorough way for collecting and removing concrete powder from drilled holes. The trap system is designed to allow for control of the suction from the vacuum pump and easy trap clean-out between samples. Note, by placing a hole in the inlet tube (see Figure 1), a finger on the hand holding the trap can be used to control the suction at the sampling tip. Thus, when this hole is left completely open, there will be no suction, and the sampler can have complete control over where and what to sample. To change-out between samples the following steps should be taken: 1) the Pasteur pipette and piece of polyethylene tubing at the sample inlet should be replaced with new materials, 2) the portion of the rubber stopper and glass tubing that was in the trap should be wiped down with a clean damp paper towel (wetted with deionized water) and then dried with a fresh paper towel, 3) a clean pipe cleaner should be drawn through the glass inlet tube to remove any concrete dust present, and 4) the glass tube or flask used to collect the sample should swapped out with a clean decontaminated sample trap. Having several clean tubes or flasks on hand will facilitate change-out between samples.

Figure 1



Note: the holes should be vacuumed thoroughly to minimize any cross-contamination between sample depths and the bits should be decontaminated between samples. (See Section 11.0)

10.0 Sample Handling, Preservation, and Storage

10.1 Samples must be collected in glass containers for PCB analyses. In general, a 2-ounce sample container with a Teflon-lined cap (wide-mouth jars are preferred) will hold sufficient mass for most analyses. A 2-ounce jar can hold roughly 90 grams of sample.

10.2 Samples are to be shipped refrigerated and maintained at $\leq 6°C$ until the time of extraction and analysis.

10.3 The suggested holding time for PCB samples is 14 days to extraction.

11.0 Decontamination

11.1 Assemble two decontamination buckets. The first bucket contains a detergent and potable water solution, and the second bucket is for rinsate. Place all used drill bits, hose for the vacuum cleaner, and utensils in the detergent and water bucket. Scrub each piece thoroughly using the scrub brush. Note, the powder does cling to the metal surfaces, so care should be taken during this step, especially with the twists and curves of the drill bits. Next, rinse each piece with water and hexane. Place the rinsed pieces on clean paper towels and individually dry and inspect each piece. Note: all pieces should be dry prior to reuse.

11.2 Lightly contaminated drill bits and utensils may be wiped with a hexane soaked cloth and hexane rinsed for decontamination.

12.0 Data and Record Management

12.1 All data and information collection should follow a Field Data Management SOP or Quality Assurance Project Plan (QAPP).

12.2 Follow the chain of custody procedures to release the samples to the laboratory. A copy is kept with the sampling records.

12.3 The field data is stored for at least 3 years.

13.0 Quality Control and Quality Assurance

13.1 Representative samples are required. The sampler will evaluate the site specific conditions to assure the sample will be representative.

13.2 All sampling equipment must be decontaminated prior to use and between each discrete sample.

13.3 All field Quality Control (QC) sample requirements in a Sample and Analysis Plan (SAP) or QAPP must be followed. The SAP or QAPP may involve field blanks, equipment blanks, field duplicates and/or the collection of extra samples for the laboratory's quality control program.

13.4 Field duplicates should be collected at a minimum frequency of 1 per 20 samples or 1 per non-related porous matrix, whichever is greater.

14.0 Waste Management and Pollution Prevention

14.1 During field sampling events there may be PCB and/or hazardous waste produced from the sample collection. The waste must be handled and disposed of in accordance with federal, state, and local regulations. The dust filter, and tubing if a vacuum pump is used, is disposed after each site investigation. This waste will be treated as PCB waste if the samples are positive for PCBs. It may be possible to manage or dispose of the waste produced at the site where the work was performed. If the site does not meet regulatory requirements for these types of activities, the waste must be transported to a facility permitted to manage and/or dispose of the waste.

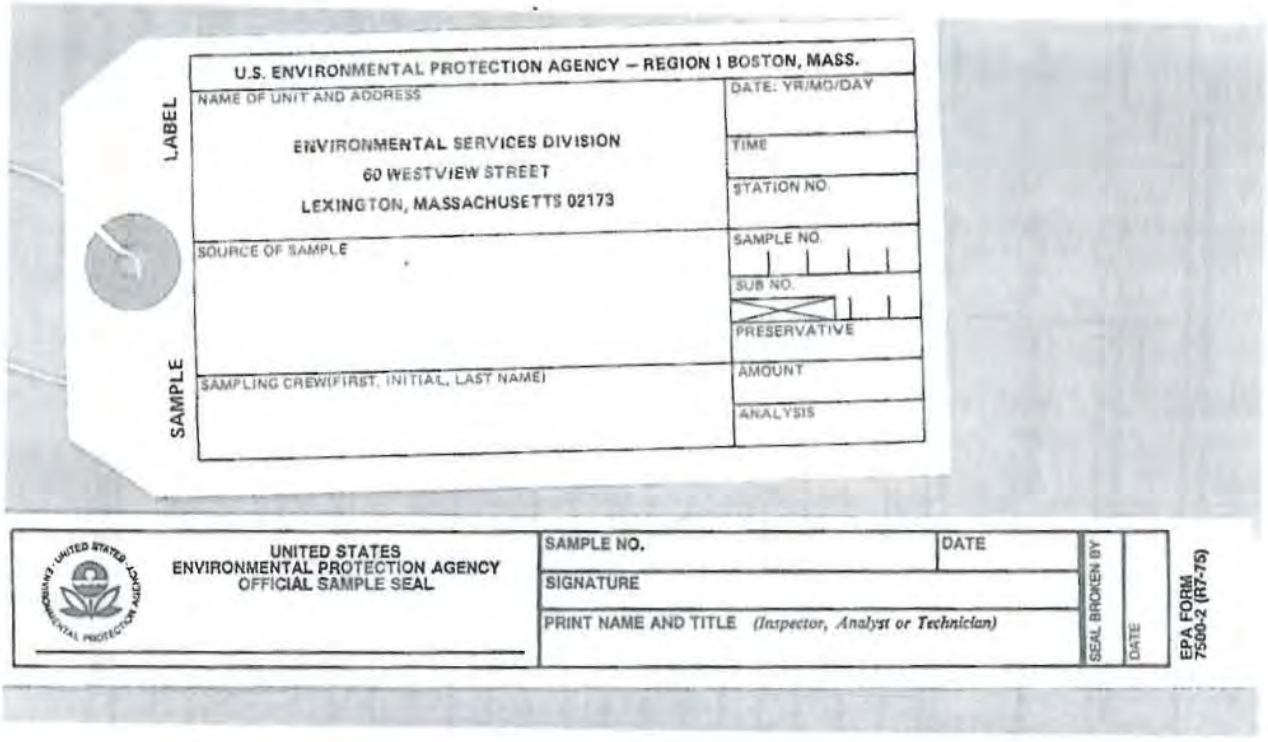
15.0 References

1. Guidance for the Preparation of Standard Operating Procedures for Quality-Related Operations, QA/G-6, EPA/600/R-96/027, November 1995.

2. 40 CFR Part 761 – Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution In Commerce, and Use Prohibitions

3. Sample Container and Holding Time: RCRA SW 846, Chapter 4, Table 4.1, Revision 4, February, 2007.

Example of Sample Label and Custody Seal



LABEL

U.S. ENVIRONMENTAL PROTECTION AGENCY – REGION I BOSTON, MASS.

NAME OF UNIT AND ADDRESS

ENVIRONMENTAL SERVICES DIVISION
60 WESTVIEW STREET
LEXINGTON, MASSACHUSETTS 02173

DATE: YR/MO/DAY

TIME

STATION NO.

SAMPLE

SOURCE OF SAMPLE

SAMPLE NO.

SUB NO.

PRESERVATIVE

SAMPLING CREW(FIRST, INITIAL, LAST NAME)

AMOUNT

ANALYSIS

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
OFFICIAL SAMPLE SEAL

SAMPLE NO.

DATE

SIGNATURE

PRINT NAME AND TITLE *(Inspector, Analyst or Technician)*

SEAL BROKEN BY

DATE

EPA FORM 7500-2 (R7-75)

ENVIRONMENTAL PROTECTION AGENCY

REGION 1

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
SAMPLERS: *(Signature)*	

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CON-TAINERS							REMARKS

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

U.S. GOVERNMENT PRINTING OFFICE: 2004—750-025

1-16940

Example of Chain of Custody Form