

Laboratory Contract Requirements

August 8, 2002

1) Three Analytical results are required

1. PCM count by method 7400
2. TEM analysis
 - a. TEM total count per the AHERA counting method, fibers >0.5 um
 - b. PCM Equivalent for asbestos only, fibers >5 um that meet the length and width ratio

2) The laboratory shall scan analytical data using a high speed scanner to enable the transfer of data electronically for rapid turnarounds (i.e. 24 hours). Data to be scanned is identified in Table 1.

3) All analytical data shall be reported electronically unless specified. In addition, all analytical data shall be reported in the order identified below, exceptions shall be approved by EPA Region 2. Complete data packages is requested for 20% of the Residential Clean-up wipe samples analyzed for metals, mercury, and dioxins. These packages will be selected randomly. Upon receipt of notification, the laboratory shall send complete hardcopy data as described in Table 1 within five (5) business days. Upon request, complete data packages shall be sent to QATS at:

Shaw Environmental & Infrastructure
 Attn: Mike Lenkauskas
 2700 Chandler Bldg C
 Las Vegas, Nevada 89120

4) The laboratory shall communicate with EPA and the QATS contractor to document sample tracking. The laboratory shall identify a point of contact with telephone number for each facility for this information along with an alternate. The laboratory shall inform QATS via electronic transmission of the samples received and which facility will analyze the samples by noon the following day of receipt of samples. This information shall be documented on the laboratory's signed chain-of-custody, scanned and sent to QATS via email. The laboratory shall also notify QATS if any changes are implemented after such notification.

5) The laboratory shall report analytical results with the following applicable units. All results shall be submitted to Region 2 and QATS via electronic submission unless otherwise approved by Region 2.

Analyte Code	Micro Vacuum	Wipes	Air	Bulk
Dioxin	NA	ng/m ²	ng/m ³	ng/g
PAHs	NA	ug/m ²	ug/m ³	ug/kg
Total Dust	NA	ug/m ²	ug/m ³	ug/kg
Asbestos/MMVF	f/cm ²	f/cm ²	f/cc	% by weight
Metals ¹ & Mercury	ug/m ²	ug/m ²	ug/m ³	mg/kg
Silica, calcite, gypsum	N/A	mg/m ²	mg/m ³	% by weight

¹ Report lead as both ug/m² and ug/ft².

6) Due to the sensitive nature of this project, all data is to be reported on time. Should data be received beyond the due date the laboratory shall assume the appropriate late charges as agreed between the Contracting Officer and Region 2.

7) Data turnaround times shall be as follows.

Analyte Code	Analysis Fields Background and Residential	Collection Method	Data Turnaround
Asbestos*	NIOSH 7400 PCM > 5 um	Micro vacuum-ASTM D 5755-95, wipe-ATSM D 6480-99, air-NIOSH 7400, and bulk	24 hours
	PCMe by TEM asbestos only > 5 um		Standard (3 days)
	TEM by AHERA > 0.5 um		
Dioxins	EPA Method SW-846 8290	Wipe ASTM D 6661-01 and bulk	14 days
Total Dust	EPA Method SW-846 8290	Wipe HUD Appendix 13.1	14 days
PAH	EPA Method SW-846 8270C	Wipe ASTM D 6661-01, bulk	14 days
Metals	EPA Method SW-846 6010B	Micro-Vacuum ASTM E 1973-99, Wipe HUD Appendix 13.1, Air NIOSH 7300, and bulk	14 days
Mercury	EPA Method SW-846 7471A	Wipe HUD Appendix 13.1,	14 days
Silica, Calcite, Gypsum	NIOSH 7500 (XRD)	Wipe HUD Appendix 13.1, Air NIOSH 7500, and bulk	21 days
MMVF	EMSL MSD.0300	Collected with asbestos, Micro-Vacuum ASTM D 5755-95, Wipe ATSM D 6480-99, NIOSH 7400	14 days
MMVF	PLM NYS 198.1/EMSL MSD.0300	Collected with asbestos, Bulk	14 days

*PCM NIOSH 7400, TEM by AHERA method reporting both TEM and PCMe. Samples are collected using a 0.8 um filter pore size.

8) All laboratories analyzing asbestos samples shall be available seven (7) days a week to receive and analyze samples requested within 24 hours. Results of these analyses must be submitted electronically to Region 2 and QATS within the 24 requirement.

Table 1

Analytical Method	Information Needed from the Laboratory for Data Validation		
	Limited Validation		Full Validation
	Electronic (F2L)	Scanned	Hardcopy Data
PCM (NIOSH 7400)	Sample Volume Result w/units Sample Number Lab Sample ID	Result Form: Volume collected Sample Number Lab Sample ID Result Units	N/A
		Count Sheet: Fibers counted Fields analyzed Field area Filter size	
		Signed COC	
TEM (AHERA)	Sample Volume/Area Result w/units Sample Number Lab Sample ID Fiber Type	Result Form: Volume collected or area wiped Sample Number Lab Sample ID Result Units	N/A
		Count Sheet: Volume used (microvac) Grids openings counted Structures counted Asbestos type Average size of grid openings Filter size	
		Signed COC	
MMVF (NYS 198.1/EMSL MSD.0300)	Sample Volume Result w/units Sample Number Lab Sample ID Fiber Type	Result Form: Sample Number Lab Sample ID Result Units Volume Structures Structure Type(s)	Result Form: Sample Number Lab Sample ID Result Units Volume Structures Structure Type(s)
		Other: Volume used for SEM Prep Optical properties Structures counted Asbestos type	Other: Volume used for SEM Prep Optical properties Structures counted Asbestos type coc
		Signed COC	QC Results: Duplicates Replicates Blanks
XRD (NIOSH 7500)	Sample Volume Result w/units Sample Number Lab Sample ID	Result Form: Sample Number Lab Sample ID Result Units Volume	Result Form: Sample Number Lab Sample ID Result Units Volume
		Other: Preparation volumes Signed COC	Other: Preparation volumes Calibration data Standard prep logs coc

		QC Results: Duplicates Blanks Control Sample	QC Results: Duplicates Blanks Controls Sample
Inorganics (metals, mercury)	Sample Volume/Area Result w/units Sample Number Lab Sample ID	Result Forms: Sample Number Lab Sample ID Result Date Collected Prep Date Date Analyzed Detection Limits Lab Qualifiers Dilution Factor Units	Result Forms: Sample Number Lab Sample ID Result Date Collected Prep Date Date Analyzed Detection Limits Lab Qualifiers Dilution Factor Units
		QC Summary: MB results LCS recoveries MS recoveries DUP RPD's Serial dilution %Ds PS %Rs	QC Summary: MB results LCS recoveries MS recoveries DUP RPD's Serial dilution %Ds PS %Rs
		Signed COC	Calib.Summary: (ICV, CCV, ICB, CCB, ICSA&B, LDR and IDLs) Other: COC Prep Logs Run Logs Raw data
Organics (Dioxins, PAH)	Sample Voume/Area Result w/units Sample Number Lab Sample ID	Result Forms: Sample Number Lab Sample ID Result Date Collected Prep Date Date Analyzed Detection Limits Lab Qualifiers Dilution Factor Units	Result Forms: Sample Number Lab Sample ID Result Date Collected Prep Date Date Analyzed Detection Limits Lab Qualifiers Dilution Factor Units
Organics (dioxins, PAH)		QC Summary: MB results LCS recoveries MS/MSD Recoveries and RPDs Surrogate rcoveries Internal Standards	QC Summary: MB results LCS recoveries MS/MSD recoveries and RPDs Surrogate recoveries Internal Standards
		Signed COC	Calib.Summary: Tune Initial Cal Continuing Cal Other: COC Prep Logs Run Logs Raw data