



February 25, 2020

Mr. Todd Davis
Site Assessment Manager
U.S. Environmental Protection Agency, Region 7
11201 Renner Blvd.
Lenexa, Kansas 66219

**Subject: Targeted Brownfields Assessment
Hazardous Materials Survey
Oak Street City Hall Site
Poplar Bluff, Butler County, Missouri
U.S. EPA Region 7 START 5, Contract No. 68HE0719D0001
Task Order No. 19F0101.005
Task Monitor: Todd Davis, Site Assessment Manager**

Dear Mr. Davis:

Tetra Tech, Inc. is submitting the enclosed Hazardous Materials Survey report regarding the Oak Street City Hall site in Poplar Bluff, Missouri. If you have any questions or comments regarding this submittal, please call the Project Manager at (417) 257-9977.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Michelle Handley'.

Michelle Handley
START Project Manager

A handwritten signature in blue ink, appearing to read 'Ted Faile'.

Ted Faile, PG, CHMM
START Program Manager

Enclosures

cc: Randy Brown, EPA On-Scene Coordinator
Whitney Bynum, EPA Brownfields and Land Revitalization Branch

**TARGETED BROWNFIELDS ASSESSMENT
HAZARDOUS MATERIALS SURVEY**

PHASE II ENVIRONMENTAL SITE ASSESSMENT

**OAK STREET CITY HALL
POPLAR BLUFF, BUTLER COUNTY, MISSOURI**



**Superfund Technical Assessment and Response Team (START) 5 Contract
Contract No. 68HE0719D0001, Task Order 19F0101.005**

Prepared For:

U.S. Environmental Protection Agency
Region 7
Superfund Division
11201 Renner Boulevard
Lenexa, Kansas 66219

February 25, 2020

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EXECUTIVE SUMMARY

The U.S. Environmental Protection Agency (EPA) Region 7 Superfund Division tasked the Tetra Tech, Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) to conduct a Hazardous Materials Survey (survey) of the Oak Street City Hall (formerly Poplar Bluff City Hall) and associated evidence building at 101 Oak Street, Poplar Bluff, Missouri (subject property). The current owner, City of Poplar Bluff, has indicated the buildings will be demolished. The two-story City Hall encompasses approximately 35,932 square feet (SF), and the single-story evidence building (warehouse) encompasses approximately 2,970 SF.

The scope of the survey included an inspection of the subject property buildings for presence of asbestos-containing materials (ACM) and lead-based paint (LBP), and sampling of caulk suspected to contain polychlorinated biphenyls (PCB). As part of the survey, Tetra Tech also inventoried containerized hazardous waste (HW) and other hazardous materials.

The following findings and recommendations are based on observations during the survey and analytical results from samples collected at the buildings on the subject property:

ACM:

City Hall – First Floor

- Regulated ACM was identified in black mastic associated with 12" X 12" white with black streaks floor tile (approximately 600 square feet [SF]) in the southwest hallway. The black mastic was represented by samples FT1-1, -2, and -3. Laboratory results indicated that the mastic contained 8% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" grey with red and brown streaks floor tile (approximately 300 SF) in Rooms 12 and 23. The floor tile was represented by samples FT6-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" red floor tile and mastic (approximately 600 SF) in Rooms 21 and 22 under 12" X 12" white floor tile. The floor tile and mastic were represented by samples FT8-1, -2, and -3. Laboratory results indicated that the floor tile contained 5% chrysotile and the mastic contained 10% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" black floor tile and mastic (approximately 600 SF) in Rooms 21 and 22 under 12" X 12" white floor tile. The floor tile and mastic were represented by samples FT9-1, -2, and -3. Laboratory results indicated that the floor tile contained 6% chrysotile and the mastic contained 10% chrysotile asbestos.

- Regulated ACM was identified in 12" X 12" grey, white, and green cobblestone floor tile and black mastic (approximately 500 SF) in Rooms 14 and 15 under FT10 and FT11. The floor tile and mastic were represented by samples FT12-1, -2, and -3. Laboratory results indicated that the floor tile contained 4% chrysotile asbestos and the mastic contained 8% chrysotile asbestos.
- Regulated ACM was identified in 12" X 12" beige with tan cobblestone floor tile and black mastic (approximately 500 SF) in Rooms 9, 11, and 13. The floor tile and mastic were represented by samples FT14-1, -2, and -3. Laboratory results indicated that the floor tile contained 4% chrysotile and the mastic contained 8% chrysotile asbestos.
- Approximately 7,000 SF of 12" X 12" white fissure and pinhole ceiling tile mastic is presumed asbestos containing in room 20 and the east office area.
- Regulated ACM was identified in 9" X 9" brown with black streaks floor tile and mastic (approximately 4,000 SF) in Rooms 43, 46, 89, 88 and hallway, hallway near Room 43, hallway north exit near elm street, hallway south of boiler room hall, hallway west of boiler room, and room south of mechanical maintenance room and hallway. The floor tile and mastic were represented by samples FT15-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile and the mastic contained 5% chrysotile asbestos.
- Regulated ACM was identified in white ceiling texture (approximately 500 SF) in Room 88 and hallway, and hallway west and south of boiler room. The ceiling texture was represented by samples CTX-1, -2, and -3. Laboratory results indicated that the ceiling texture contained 5% chrysotile asbestos.
- Regulated ACM was identified in the wall texture behind the white plastic wall paneling (approximately 350 SF) in the hallway south of the boiler room. The wall texture was represented by samples WM1-1, -2, and -3. Laboratory results indicated that the wall texture contained 4% chrysotile asbestos.
- Regulated ACM was identified in tan linoleum (approximately 700 SF) in the mechanical maintenance area and hallway under 12" X 12" white floor tile. The linoleum was represented by samples LIN1-1, -2, and -3. Laboratory results indicated that the linoleum contained 25% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" red floor tile (approximately 700 SF) in the mechanical maintenance area and hallway under 12" X 12" white floor tile and linoleum. The floor tile was represented by samples FT16-1, -2, and -3. Laboratory results indicated that the floor tile contained 5% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" tan floor tile (approximately 1,800 SF) in Rooms 36, 39-42, and 70, and under the carpet in hallway east of Room 46. The floor tile was represented by samples FT17-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile asbestos.
- Regulated ACM was identified in 12" X 12" cream with lime green and white streaks floor tile (approximately 700 SF) in the courtroom. The floor tile was represented by samples FT18-1, -2, and -3. Laboratory results indicated that the floor tile contained 4% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" cream with black and brown streaks floor tile (approximately 525 SF) in Rooms 62 and 63. The floor tile was represented by samples

FT19-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile asbestos.

- Regulated ACM was identified in airocell pipe insulation (approximately 300 linear feet [LF]) on the east side of the first floor and boiler room. The airocell was represented by samples TSI-1, -2, and -3. Laboratory results indicated that the airocell contained 60% chrysotile asbestos.
- Regulated ACM was identified in joint insulation (approximately 175 joints) on the east side of the first floor and boiler room. The joint insulation was represented by samples TSIJ-1, -2, and -3. Laboratory results indicated that the joint insulation contained 30% chrysotile asbestos.
- Regulated ACM was identified in 4" X 12" brown floor tile and mastic (approximately 10 SF) in Room 48 southwest closet. The floor tile and mastic were represented by samples FT29-1, -2, and -3. Laboratory results indicated that the floor tile contained 10% chrysotile and the mastic contained 5% chrysotile asbestos.

City Hall – Second Floor

- Regulated ACM was identified in ceramic tile mastic (approximately 1,000 SF) on the second floor in bathrooms 71, 74, 75, 77, 78, and 79. The mastic was represented by samples CTM-1, -2, and -3. Laboratory results indicated that the mastic contained 4% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" beige with brown streaks floor tile mastic (approximately 8,000 SF) on the second-floor hallway and Rooms 71, 74 through 79, and storage and maintenance area. The mastic was represented by samples FT20-1, -2, and -3. Laboratory results indicated that the mastic contained 6% chrysotile asbestos.
- Regulated ACM was identified in yellow linoleum (approximately 350 SF) in half of the narcotics room. The linoleum was represented by samples LIN2-1, -2, and -3. Laboratory results indicated that the linoleum contained 20% chrysotile asbestos.
- Regulated ACM was identified in grey linoleum (approximately 350 SF) in half of the narcotics room. The linoleum was represented by samples LIN3-1, -2, and -3. Laboratory results indicated that the linoleum contained 65% chrysotile asbestos.
- Regulated ACM was identified in black sink undercoat (approximately 5 SF) in the narcotics room. The sink undercoat was represented by samples SU-1, -2, and -3. Laboratory results indicated that the sink undercoat contained 5% chrysotile asbestos.
- Regulated ACM was identified in grey floor tile under linoleum (approximately 1,100 SF of floor tile and linoleum) in the men's locker room. The floor tile was represented by samples FT21-1, -2, and -3. Laboratory results indicated that the floor tile contained 5% chrysotile and the linoleum contained 60% asbestos.
- Regulated ACM was identified in brown and tan pattern linoleum (approximately 10 SF) in Room 81 on the bottom shelf. The linoleum was represented by samples LIN4-1, -2, and -3. Laboratory results indicated that the linoleum contained 15% chrysotile asbestos.

City Hall – Exterior

- Regulated ACM was identified in transite panels (approximately 1,000 SF) on the south exterior soffit. The transite was represented by samples TRAN-1, -2, and -3. Laboratory results indicated that the transite contained 20% chrysotile asbestos.
- Regulated ACM was identified in brown window caulk (approximately 160 LF) on the south exterior windows. The caulk was represented by samples C-1, -2, and -3. Laboratory results indicated that the caulk contained 5% chrysotile asbestos.
- Regulated ACM was identified in black expansion caulk (approximately 50 LF) on the north loading dock. The caulk was represented by samples EC2-1, -2, and -3. Laboratory results indicated that the caulk contained 10% chrysotile asbestos.
- Regulated ACM was identified in brown and off-white window caulk (approximately 450 LF) on the north loading dock. The caulk was represented by samples C2-1, -2, and -3. Laboratory results indicated that the white caulk contained 5% chrysotile asbestos.

Evidence Building - No ACM found in the evidence building.

All regulated ACM listed above should be removed by a licensed asbestos abatement contractor before demolition work disturbs the material. The removed waste must be transported to a disposal site able to accept both friable and non-friable ACM. If the building is to be renovated and any of the above ACM materials are not to be disturbed, they may remain in place.

LBP

City Hall – First Floor

- Approximately 300 SF of white ceramic floor tile in Room 3 tested positive for LBP, with x-ray fluorescence (XRF) reading of 6.72 milligrams per square centimeter (mg/cm²).
- Approximately 44 SF of green ceramic wall tile in Room 22 tested positive for LBP, with XRF reading of 8.74 mg/cm².
- Approximately 1,500 SF of white wall plaster in the maintenance area tested positive for LBP, with XRF reading of 1.21 mg/cm².
- Approximately 50 SF of beige ceramic floor tile in the south entryway tested positive for LBP, with XRF reading of 8.22 mg/cm².

City Hall – Parking Garage

- Approximately 100 LF of yellow painted concrete parking spaces in the parking garage tested positive for LBP, with XRF reading of 5.77 mg/cm².

City Hall – Second Floor

- Approximately 300 SF of yellow ceramic wall tile in Room 72 tested positive for LBP, with XRF reading of 4.19 mg/cm².
- Approximately 400 SF of light pink ceramic wall tile in Rooms 71 and 74 tested positive for LBP, with XRF reading of 4.57 mg/cm².
- Approximately 800 SF of cream ceramic wall tile in Rooms 72, 75, 77, 78, and 79 tested positive for LBP, with XRF reading of 4.81 mg/cm².
- Approximately 100 SF of green ceramic wall tile in the second-floor center hall bathroom tested positive for LBP, with XRF reading of 12.77 mg/cm².
- Approximately 50 SF of green ceramic wall tile in the narcotics room tested positive for LBP, with XRF reading of 14.26 mg/cm².
- Approximately 700 SF of cream/yellow ceramic wall tile in the narcotics bathroom tested positive for LBP, with XRF reading of 8.34 mg/cm².
- Approximately 40 SF of white ceramic floor tile in the narcotics bathroom tested positive for LBP, with XRF reading of 3.98 mg/cm².

Evidence Building

- Approximately 40 SF of white wood door in the back room of the evidence building tested positive for LBP, with XRF reading of 2.97 mg/cm².

The U.S. Department of Housing and Urban Development (HUD) considers LBP as paint with lead levels above 1.0 mg/cm². If the LBP surfaces are impacted during renovations or during demolition, Tetra Tech recommends that the contractor conducting the renovations comply with Occupational Safety and Health Administration (OSHA) Lead in Construction Standard, Title 29 of *Code of Federal Regulations* (CFR), Part 1926.62. If the materials containing LBP are removed during renovation activities, a sample should be collected from the debris pile for a Toxicity Characteristic Leaching Procedure (TCLP) analysis (40 *Code of Federal Regulations* [CFR] 261.24); representative samples should be collected and analyzed for all eight metals specified in 40 CFR Part 261.24 (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). This would allow determination of the proper method of disposal of the materials.

PCBs

Laboratory results indicated that no sampled building materials contained concentrations of PCBs above 50 parts per million (ppm).

HW

HW and other hazardous materials were inventoried during the survey. Tetra Tech recommends proper disposal of the materials based on their characteristics prior to demolition of the subject property buildings.

1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) Region 7 Superfund Division tasked the Tetra Tech, Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) to conduct a Hazardous Materials Survey (Survey) of the Oak Street City Hall (formerly Poplar Bluff City Hall) and associated evidence building (warehouse) at 101 Oak Street, Poplar Bluff, Missouri (subject property).

The two-story City Hall encompasses approximately 35,932 square feet (SF), and the single-story evidence building (warehouse) encompasses approximately 2,970 SF. The City Hall, constructed in approximately 1950, has been used for a hospital, clinic, city hall, police department, and municipal court, and has undergone numerous additions. Construction date of the evidence building is unknown, but likely around the construction date of the City Hall (SCS Engineers, Inc. [SCS] 2018). The scope of the survey included an inspection of the subject property buildings for presence of asbestos-containing materials (ACM), polychlorinated biphenyls (PCB) in caulk, and lead-based paint (LBP). As part of this survey, Tetra Tech also inventoried containerized hazardous waste (HW) and other hazardous materials. Appendix A includes a photolog of observations during the survey.

Tetra Tech's Project Manager for the survey was Ms. Michelle Handley. The field team included Ms. Megan Sawyer, State of Missouri-licensed Asbestos and LBP Inspector, and Mr. Zach Usher, State of Missouri-licensed Asbestos Inspector. Inspector certifications are in Appendix B. Because of limitations on destructive sampling methods, additional suspect materials may be present within walls, voids, or other concealed areas. Section 11.0 specifies assumptions and deviations regarding the Survey at the subject property. Prior to any renovations or demolition of the subject property building, further survey work may be needed to comply with all local, state, and federal requirements regulating ACM, LBP, PCBs, or HW.

Tetra Tech conducted the survey November 4 through 8, 2019. The purpose of the asbestos survey was to evaluate the subject property buildings for presence, quantity, locations, and characterization of ACM that may require abatement prior to any development activities, in accordance with National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations as adopted by EPA. The intent of the asbestos NESHAP regulations is to protect the public (and workers) by minimizing release of asbestos fibers during activities involving processing, handling, and disposal of ACM. Inhalation of asbestos fibers can cause cancer and other lung diseases (Agency for Toxic Substances and Disease Registry [ATSDR] 2008). The survey accorded with industry standard practice for hazardous materials surveys. Asbestos samples were collected in accordance with NESHAP regulations as adopted by the EPA.

Tetra Tech screened for presence, quantity, and locations of LBP exceeding lead hazard levels, which would require Occupational Safety and Health Administration (OSHA) worker safety precautions during development activities. The subject property buildings were constructed prior to 1978, and LBP likely was used in build-outs of the structures. The LBP survey proceeded according to protocols similar to the single-family housing inspection procedures in U.S. Department of Housing and Urban Development (HUD) guidelines (HUD 1997). Tetra Tech screened paint-covered surfaces by use of a Thermo Scientific XL3t-600 x-ray fluorescence (XRF) spectrometer. Thermo Scientific XL3t-600 is a state-of-the-art XRF spectrum analyzing system for quantitative measurement of lead in paint on various substrates.

Because portions of the subject property buildings could have been constructed between 1950 and 1978, PCBs may be present within the subject property buildings in materials such as caulk associated with windows, doors, and masonry columns. Tetra Tech collected samples of suspect materials for laboratory analysis to determine presence, quantity, and locations of PCBs exceeding the action level, which would require OSHA worker safety precautions during development remodeling activities.

Finally, as part of the survey, Tetra Tech completed an inventory of HW and hazardous materials within the subject property buildings. The inventory included but was not limited to the following types of materials: thermostats and fluorescent light bulbs possibly containing mercury, fluorescent light ballasts potentially containing PCBs, emergency lighting and exit signs that house batteries containing heavy metals, appliances containing Freon (e.g., old refrigerators), product containers holding hazardous materials (such as cleaning supplies, paints, etc.), and any other HW items that may have to be removed during renovation/demolition of the buildings. Tetra Tech made every effort to provide a complete inventory of these items; however, given the large size of the subject property buildings and the disorderly distribution of these items inside the buildings, Tetra Tech cannot guarantee an accounting of every item.

Tetra Tech submitted to EPA a site-specific quality assurance project plan (QAPP) in support of Survey activities in August 2019; EPA approved the QAPP via email in October 2019, prior to the Survey at the subject property (Tetra Tech 2019). Field activities accorded with the QAPP, except where noted.

Tetra Tech prepared this report in accordance with generally accepted industrial hygiene practices and procedures. This report does not cover or comment on structural areas not assessed either visibly or by sample collection. The data evaluation and assessment stated herein constitute a professional opinion; no

other warranty is expressed or implied. Section 11.0 specifies assumptions and deviations regarding the Survey at the subject property.

Tetra Tech provided these services consistent with the level and skill ordinarily exercised by members of the profession currently practicing under similar conditions. This statement is in lieu of other statements either expressed or implied. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users, and use or re-use of this document, the findings, conclusions, or recommendations is at the risk of said user. This survey report does not warrant against future operations or conditions that may not be consistent with its recommendations. Moreover, because of some limitations on destructive sampling during the survey, completion of the Survey does not guarantee identification of all ACMs or PCBs—hazardous materials may be present in voids of walls or ceilings.

Section 2.0 of this report describes the structure at the subject property. Section 3.0 specifies field and analytical protocols for the ACM survey. Section 4.0 presents field and analytical protocols for the PCB survey. Section 5.0 presents field protocols for the HW and hazardous materials inventory. Section 6.0 presents asbestos findings. Section 7.0 describes LBP findings. Section 8.0 conveys PCB findings. Section 9.0 describes HW and hazardous materials inventory findings. Section 10.0 offers recommendations based on survey findings. Section 11.0 specifies assumptions and deviations. Section 12.0 lists sources referenced during development of this report.

2.0 SUBJECT PROPERTY BUILDING

The subject property includes two buildings—a single-story evidence building and the two-story City Hall. Since its construction in approximately 1950, the former City Hall building was used for various purposes, including a hospital, clinic, city hall, police department, and municipal court. It is currently vacant in in disrepair. The current function of the evidence building is to hold evidence for criminal investigations. Its construction date is unknown, but is it presumed to have been constructed at the same time as City Hall. Combined square footage of the two buildings is approximately 38,722 SF (SCS 2018). The buildings are within an industrial and commercial setting with retail development. The City Hall is constructed of brick, mortar, and concrete, and a parking garage is in its basement. Interior finishes include drywall and plaster walls and ceilings, and lay-in acoustical tile ceilings. Flooring materials include terrazzo, carpet, vinyl floor tile, linoleum, and concrete. The evidence building consists of metal walls and concrete floors, with one back room with vinyl sheet flooring and lay-in acoustical ceiling tiles.

3.0 ACM FIELD SURVEY AND ANALYTICAL PROTOCOLS

Tetra Tech made every effort to inspect all areas of the interior of the subject property buildings. Minor demolition of materials (destructive sampling) was required during the survey effort. The inspector took care to ensure that the subject property remained unoccupied during sample collection. Collection of samples of suspect ACM accorded with National Emission Standards for Hazardous Air Pollutants (NESHAP) as adopted by EPA, and with Asbestos Hazard and Emergency Response Act of 1986 (AHERA) protocols. AHERA defines “asbestos-containing material” (ACM) as any material or product that contains more than 1 percent (%) asbestos. Suspected ACMs were grouped as homogeneous areas if the material was similar in appearance and texture; however, if the inspector decided that a material (for example, wall texturing) was not similar in appearance and texture to other materials in the subject property buildings, the inspector distinguished the material as unique and collected samples of each unique material accordingly. Because of limitations on destructive sampling methods, additional suspect materials not detected may be present in walls, voids, or other concealed areas. Section 11.0 specifies assumptions and deviations regarding the Survey of the subject property buildings.

Bulk samples of suspected ACM were collected to ensure that each distinct layer of material was represented in the sample. A wetting agent was applied to friable surfaces prior to sample collection to reduce potential for fiber release. All samples collected were placed in plastic bags, labeled, and sealed immediately upon collection. To prevent cross-contamination between samples, the sampling instruments were wiped clean by use of a wet, lint-free cloth after collection of each sample. A unique sample identification number was assigned to each sample.

The samples remained in the inspector’s custody until sent to the laboratory. Upon completion of sampling activities, the bulk samples were sent, along with Tetra Tech’s chain-of-custody documentation, to Quantem Laboratories (Quantem). Suspect ACM samples were analyzed per EPA Method 600/R-93/116 by Quantem via polarized light microscopy (PLM) analysis. Approximately 3% of samples determined by PLM analysis to contain less than 3% asbestos were analyzed via EPA Point Count 400 (EPA Method 600/R-93/116). Quantem is a National Voluntary Laboratory Accreditation Program (NVLAP)-certified laboratory. Section 6.0 of this report summarizes ACM analytical results. Sample locations are shown on Figures 1A, 1B, and 1C in Appendix C. Appendix D presents ACM analytical results and chain-of-custody forms for the bulk samples.

4.0 LBP SCREENING AND ANALYTICAL PROTOCOLS

Tetra Tech made every effort to inspect all areas of the buildings. HUD *Guidelines for the Evaluation and Control of LBP in Housing* (1997) suggests that paint applied before 1978 could contain lead.

An XRF screening of suspected LBP was performed according to protocols similar to the single-family housing inspection procedures in the HUD *Guidelines*. Tetra Tech utilized a Thermo Scientific XL3t-600 XRF analyzer to perform the LBP screening. The Thermo Scientific XL3t-600 is a state-of-the-art XRF spectrum analyzing system for quantitative measurement of lead in paint on various substrates. Tetra Tech performed XRF screening of suspect painted surfaces that possibly would be impacted during renovation activities.

Tetra Tech utilized the XRF “Lead Paint Mode” for testing, standardized per the equipment instruction manual, and programmed the unit with an action level of 1.0 milligram per square centimeter (mg/cm^2). The XL3t-600 XRF spectrometer automatically adjusts the measurement time to be the least time needed to make a definitive measurement based on the action level. Paint containing greater than or equal to $1.0 \text{ mg}/\text{cm}^2$ lead by XRF testing or $1.0 \text{ mg}/\text{cm}^2$ lead by laboratory analysis is considered LBP.

Tetra Tech performed XRF calibration checks on the XL3t-600 XRF spectrometer according to Thermo Scientific’s recommended protocol and the HUD *Guidelines*. These quality control readings were used to monitor performance of the XL3t-600 XRF spectrometer. Calibration-check readings were taken after every hour of operation from a Standard Reference Material (SRM) paint film, developed by the National Institute of Standards and Technology (NIST). Section 8.0 of this report summarizes results from XRF screening of samples of painted surfaces collected at the subject property.

5.0 PCB FIELD SURVEY AND ANALYTICAL PROTOCOLS

Tetra Tech made every effort to inspect all areas of the subject property buildings. Minor demolition of materials (destructive sampling) was required during the survey effort. The inspector took care to ensure that the areas remained unoccupied during sample collection. Samples of caulk possibly containing PCBs were collected following EPA guidance. EPA has set an action level of 50 parts per million (ppm) for PCBs in materials, and that was the benchmark used for this survey. Suspected PCB-containing caulk materials were grouped as homogeneous areas if the material was similar in appearance and texture; however, if the inspector decided that a material was not similar in appearance and texture to other materials in the building, or that the material was associated with a different building construction date, the inspector distinguished the material as unique and collected samples of each unique material accordingly. Section 11.0 specifies assumptions and deviations regarding the Survey of the subject property buildings.

Bulk samples were collected to ensure that only suspect PCB-containing caulk materials were represented in the sample. A wetting agent was applied to the material prior to sample collection to reduce potential for particulate release. All samples collected were placed in plastic bags, labeled, and sealed immediately upon collection. To prevent cross-contamination between samples, the sampling instruments were wiped clean by use of a wet, lint-free cloth after collection of each sample. A unique sample identification number was assigned to each sample.

The samples remained in the inspector's custody until sent to the laboratory. Upon completion of sampling activities, the bulk samples were sent, along with Tetra Tech's chain-of-custody documentation, to ALS Environmental (ALS) laboratory in Holland, Michigan. Bulk samples of suspect PCB-containing caulk materials were analyzed via EPA Method 8082 by ALS. Appendix E includes PCB analytical results and chain-of-custody forms for those bulk samples, and Section 8.0 summarizes analytical results from those samples.

6.0 HAZARDOUS WASTE AND OTHER HAZARDOUS MATERIALS INVENTORY

Tetra Tech completed an inventory of HW and other potentially hazardous materials in the subject property buildings. This inventory included but was not limited to the following types of materials: thermostats and fluorescent light bulbs possibly containing mercury, fluorescent light ballasts potentially containing PCBs, emergency lighting and exit signs that house batteries containing heavy metals, appliances containing Freon, product containers holding hazardous materials (such as cleaning supplies, paint, etc.), and any other HW items that may have been present.

Tetra Tech used an inventory field sheet and went through every room in the subject property buildings identifying, categorizing, and quantifying HW and hazardous materials. Tetra Tech made every effort to provide a complete inventory of these items; however, Tetra Tech cannot guarantee an accounting of every item. The exterior of the building was not included in this inventory (excluding air conditioning units), based on professional judgment of the assessment team. Items at the subject property that would not be affected during any renovation activities—for example, pole-mounted transformers that may contain PCBs—were not included in the inventory. Notably, the assessment team walked the perimeter of the subject property buildings to identify any drums or other large containers that may contain hazardous waste; at the time of this assessment, no materials fitting this description had been identified outside the subject property building. A summary of HW and hazardous materials inventoried during the survey is in Section 9.0 of this report.

7.0 ACM FINDINGS

The laboratory report in Appendix D presents PLM results, summarized in Table 1 below, from samples of suspect ACM collected at the buildings on the subject property. Bolded results in Table 1 indicate where asbestos was detected at concentration greater than 1%, and italicized results indicate presumed ACM. Sample locations and confirmed ACM areas are shown on Figures 1A, 1B, and 1C in Appendix C.

TABLE 1

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
City Hall - First Floor							
1	FT-1	12" X 12" Grey Stick on Floor Tile with Associated Mastic	Main Entrance	NF	ND	NA	NA
2	FT-2	12" X 12" Grey Stick on Floor Tile with Associated Mastic	Main Entrance	NF	ND	NA	NA
3	FT-3	12" X 12" Grey Stick on Floor Tile with Associated Mastic	Main Entrance	NF	ND	NA	NA
4	FT1-1	12" X 12" White with Black Streaks Floor Tile	Southwest Hallway, Rooms 16 (front), 17, 18, 19, 21, 22, 27, 28, 29, 30, 39, 86, and 87. Black Mastic in Southwest Hallway Only	NF	Floor Tile – ND, Black Mastic – 8% Chry	NA	Black Mastic – 600 SF
5	FT1-2	12" X 12" White with Black Streaks Floor Tile	Southwest Hallway, Rooms 16 (front), 17, 18, 19, 21, 22, 27, 28, 29, 30, 39, 86, and 87	NF	Floor Tile – ND, Yellow Mastic – ND	NA	NA
6	FT1-3	12" X 12" White with Black Streaks Floor Tile	Southwest Hallway, Rooms 16 (front), 17, 18, 19, 21, 22, 27, 28, 29, 30, 39, 86, and 87	NF	Floor Tile – ND, Yellow Mastic – ND	NA	NA
7	FT2-1	12" X 12" Pink with Black Dots Floor Tile with Associated Mastic	Room 16	NF	ND	NA	NA
8	FT2-2	12" X 12" Pink with Black Dots Floor Tile with Associated Mastic	Room 16	NF	ND	NA	NA
9	FT2-3	12" X 12" Pink with Black Dots Floor Tile with Associated Mastic	Room 16	NF	ND	NA	NA
10	Terrazzo-1	Tan Terrazzo	West Side of First Floor	NF	ND	NA	NA
11	Terrazzo-2	Tan Terrazzo	West Side of First Floor	NF	ND	NA	NA
12	Terrazzo-3	Tan Terrazzo	West Side of First Floor	NF	ND	NA	NA
13	CB-1	4" Black Cove Base/Mastic	Rooms 16, 27, 28, 31, and 32	NF	ND	NA	NA
14	CB-2	4" Black Cove Base/Mastic	Rooms 16, 27, 28, 31, and 32	NF	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
15	CB-3	4" Black Cove Base/Mastic	Rooms 16, 27, 28, 31, and 32	NF	Black Cove Base – ND, Yellow Mastic – ND, Brown Mastic – ND, Tan Joint Compound – 2% Chry ³	NA	NA
16	CT-1	2' X 4' Fissured and Pinhole Ceiling Tile	Throughout First Floor	F	ND	NA	NA
17	CT-2	2' X 4' Fissured and Pinhole Ceiling Tile	Throughout First Floor	F	ND	NA	NA
18	CT-3	2' X 4' Fissured and Pinhole Ceiling Tile	Throughout First Floor	F	ND	NA	NA
19	WM-1	Wood Wall Panel Mastic	Rooms 16 and 10	NF	ND	NA	NA
20	WM-2	Wood Wall Panel Mastic	Rooms 16 and 10	NF	ND	NA	NA
21	WM-3	Wood Wall Panel Mastic	Rooms 16 and 10	NF	ND	NA	NA
22	CM-1	Yellow Carpet Mastic	Throughout First Floor	NF	ND	NA	NA
23	CM-2	Yellow Carpet Mastic	Throughout First Floor	NF	ND	NA	NA
24	CM-3	Yellow Carpet Mastic	Throughout First Floor	NF	ND	NA	NA
25	FT3-1	Beige 12" X 12" Floor Tile with Associated Mastic	North Section of Room 16	NF	ND	NA	NA
26	FT3-2	Beige 12" X 12" Floor Tile with Associated Mastic	North Section of Room 16	NF	ND	NA	NA
27	FT3-3	Beige 12" X 12" Floor Tile with Associated Mastic	North Section of Room 16	NF	ND	NA	NA
28	FT4-1	12" X 12" Beige with Pink Streaks Floor Tile with Associated Mastic	Room 25	NF	ND	NA	NA
29	FT4-2	12" X 12" Beige with Pink Streaks Floor Tile with Associated Mastic	Room 25	NF	ND	NA	NA
30	FT4-3	12" X 12" Beige with Pink Streaks Floor Tile with Associated Mastic	Room 25	NF	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
31	FT5-1	12" X 12" Thin Brown with Tan Streaks Floor Tile with Associated Mastic	Elevator	NF	Floor Tile – 3% Chry, Mastic – ND	Floor Tile – 0.75	NA
32	FT5-2	12" X 12" Thin Brown with Tan Streaks Floor Tile with Associated Mastic	Elevator	NF		Floor Tile – <0.25	NA
33	FT5-3	12" X 12" Thin Brown with Tan Streaks Floor Tile with Associated Mastic	Elevator	NF		Floor Tile – <0.25	NA
34	FT6-1	9" X 9" Grey with Red and Brown Streaks Floor Tile with Associated Mastic	Rooms 12 and 23	NF	Floor Tile – 8% Chry, Mastic – ND	NA	Floor Tile-300 SF
35	FT6-2	9" X 9" Grey with Red and Brown Streaks Floor Tile with Associated Mastic	Rooms 12 and 23	NF		NA	
36	FT6-3	9" X 9" Grey with Red and Brown Streaks Floor Tile with Associated Mastic	Rooms 12 and 23	NF		NA	
37	FT7-1	12" X 12" White with Black Dots Floor Tile with Associated Mastic	Room 20	NF	ND	NA	NA
38	FT7-2	12" X 12" White with Black Dots Floor Tile with Associated Mastic	Room 20	NF	ND	NA	NA
39	FT7-3	12" X 12" White with Black Dots Floor Tile with Associated Mastic	Room 20	NF	ND	NA	NA
40	<i>CT1-1</i>	<i>12" X 12" White Fissured and Pinhole with Glue Pucks⁴ Ceiling Tile</i>	<i>Room 20 and East Office Area</i>	<i>NF</i>	<i>ND</i>	<i>NA</i>	<i>7,000 SF</i>
41	<i>CT1-2</i>	<i>12" X 12" White Fissured and Pinhole with Glue Pucks⁴ Ceiling Tile</i>	<i>Room 20 and East Office Area</i>	<i>NF</i>	<i>ND</i>	<i>NA</i>	

TABLE 1 (Continued)

SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
42	CT1-3	12" X 12" White Fissured and Pinhole with Glue Pucks ⁴ Ceiling Tile	Room 20 and East Office Area	NF	ND	NA	
43	CT2-1	2' X 4' Gypsum Ceiling Tile	Room 21 Bathroom, Room 22, and Storage Hall South of Elm Street	F	ND	NA	NA
44	CT2-2	2' X 4' Gypsum Ceiling Tile	Room 21 Bathroom, Room 22, and Storage Hall South of Elm Street	F	ND	NA	NA
45	CT2-3	2' X 4' Gypsum Ceiling Tile	Room 21 Bathroom, Room 22, and Storage Hall South of Elm Street	F	ND	NA	NA
46	CTM-1	Green Ceramic Wall Tile Mastic	Room 22	NF	ND	NA	NA
47	CTM-2	Green Ceramic Wall Tile Mastic	Room 22	NF	ND	NA	NA
48	CTM-3	Green Ceramic Wall Tile Mastic	Room 22	NF	ND	NA	NA
49	FT8-1	9" X 9" Red Floor Tile with Associated Mastic	Rooms 21 and 22 Under 12" X 12" White Floor Tile	NF	Floor Tile – 5% Chry, Mastic – 10% Chry	NA	Floor Tile and Mastic- 600 SF
50	FT8-2	9" X 9" Red Floor Tile with Associated Mastic	Rooms 21 and 22 Under 12" X 12" White Floor Tile	NF		NA	
51	FT8-3	9" X 9" Red Floor Tile with Associated Mastic	Rooms 21 and 22 Under 12" X 12" White Floor Tile	NF		NA	
52	FT9-1	9" X 9" Black Floor Tile with Associated Mastic	Rooms 21 and 22 Under 12" X 12" White Floor Tile	NF	Floor Tile – 6% Chry, Mastic – 10% Chry	NA	Floor Tile and Mastic- 600 SF
53	FT9-2	9" X 9" Black Floor Tile with Associated Mastic	Rooms 21 and 22 Under 12" X 12" White Floor Tile	NF		NA	
54	FT9-3	9" X 9" Black Floor Tile with Associated Mastic	Rooms 21 and 22 Under 12" X 12" White Floor Tile	NF		NA	
55	FT10-1	12" X 12" Hot Pink Floor Tile with Associated Mastic	Rooms 14 and 15	NF	ND	NA	NA
56	FT10-2	12" X 12" Hot Pink Floor Tile with Associated Mastic	Rooms 14 and 15	NF	ND	NA	NA
57	FT10-3	12" X 12" Hot Pink Floor Tile with Associated Mastic	Rooms 14 and 15	NF	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
58	FT11-1	12" X 12" Turquoise Floor Tile with Associated Mastic	Rooms 14 and 15	NF	ND	NA	NA
59	FT11-2	12" X 12" Turquoise Floor Tile with Associated Mastic	Rooms 14 and 15	NF	ND	NA	NA
60	FT11-3	12" X 12" Turquoise Floor Tile with Associated Mastic	Rooms 14 and 15	NF	ND	NA	NA
61	FT12-1	12" X 12" Grey, White, and Green Cobblestone Floor Tile with Associated Mastic	Rooms 14 and 15 – Under FT10 and FT11	NF	Yellow Mastic – ND, Floor Tile – 4% Chry, Black Mastic- 8% Chry	NA	Floor Tile and Mastic- 500 SF
62	FT12-2	12" X 12" Grey, White, and Green Cobblestone Floor Tile with Associated Mastic	Rooms 14 and 15 – Under FT10 and FT11	NF		NA	
63	FT12-3	12" X 12" Grey, White, and Green Cobblestone Floor Tile with Associated Mastic	Rooms 14 and 15 – Under FT10 and FT11	NF		NA	
64	FT13-1	12" X 12" Tan with Brown Streaks Floor Tile with Associated Mastic	Room 10 and Hallway Near Room 48	NF	Floor Tile – 3% Chry, Yellow Mastic – ND, Grey Leveling Compound – ND	Floor tile- 0.50 Chry	NA
65	FT13-2	12" X 12" Tan with Brown Streaks Floor Tile with Associated Mastic	Room 10 and Hallway Near Room 48	NF		Floor tile- 0.75 Chry	NA
66	FT13-3	12" X 12" Tan with Brown Streaks Floor Tile with Associated Mastic	Room 10 and Hallway Near Room 48	NF		Floor tile- 0.25 Chry	NA
67	FT14-1	12" X 12" Beige with Tan Cobblestone Floor Tile with Associated Mastic	Rooms 9, 11, and 13	NF	Floor Tile – 4% Chry, Black Mastic – 8% Chry	NA	Floor Tile and Mastic- 500 SF
68	FT14-2	12" X 12" Beige with Tan Cobblestone Floor Tile with Associated Mastic	Rooms 9, 11, and 13	NF		NA	
69	FT14-3	12" X 12" Beige with Tan Cobblestone Floor Tile with Associated Mastic	Rooms 9, 11, and 13	NF		NA	

TABLE 1 (Continued)

SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
70	SU-1	White Sink Undercoat	Room 48	F	ND	NA	NA
71	SU-2	White Sink Undercoat	Room 48	F	ND	NA	NA
72	SU-3	White Sink Undercoat	Room 48	F	ND	NA	NA
73	CTG-1	White Ceramic Tile Grout	Room 3	NF	ND	NA	NA
74	CTG-2	White Ceramic Tile Grout	Room 3	NF	ND	NA	NA
75	CTG-3	White Ceramic Tile Grout	Room 3	NF	ND	NA	NA
76	LIN-1	Brown Linoleum	Room 48, B67 and 68	F	ND	NA	NA
77	LIN-2	Brown Linoleum	Room 48, B67 and 68	F	ND	NA	NA
78	LIN-3	Brown Linoleum	Room 48, B67 and 68	F	ND	NA	NA
79	FT15-1	9" X 9" Brown with Black Streaks Floor Tile with Associated Mastic	Rooms 43, 46, 89, Room 88 and Hallway, Hallway Near Room 43, Hallway North Exit Near Elm Street, Hallway South of Boiler Room Hall, Hallway West of Boiler Room, and Room South of Mechanical Maintenance Room and Hallway	NF	Floor Tile – 8% Chry, Brown Mastic – ND, Black Mastic – 5% Chry	NA	Floor Tile and Black Mastic-4,000 SF
80	FT15-2	9" X 9" Brown with Black Streaks Floor Tile with Associated Mastic	Rooms 43, 46, 89, Room 88 and Hallway, Hallway Near Room 43, Hallway North Exit Near Elm Street, Hallway South of Boiler Room Hall, Hallway West of Boiler Room, and Room South of Mechanical Maintenance Room and Hallway	NF		NA	
81	FT15-3	9" X 9" Brown with Black Streaks Floor Tile with Associated Mastic	Rooms 43, 46, 89, Room 88 and Hallway, Hallway Near Room 43, Hallway North Exit Near Elm Street, Hallway South of Boiler Room Hall, Hallway West of Boiler Room, and Room South of Mechanical Maintenance Room and Hallway	NF		NA	
82	CTX-1	White Ceiling Texture	Room 88 and Hallway, and Hallway West and South of Boiler Room	F		5% Chry	
83	CTX-2	White Ceiling Texture	Room 88 and Hallway, and Hallway West and South of Boiler Room	F	NA		
84	CTX-3	White Ceiling Texture	Room 88 and Hallway, and Hallway West and South of Boiler Room	F	NA		
85	FP-1	Brown Fireproofing	Southeast Side of Building	F	ND	NA	NA
86	FP-2	Brown Fireproofing	Southeast Side of Building	F	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
87	FP-3	Brown Fireproofing	Southeast Side of Building	F	ND	NA	NA
88	CTG1-1	White Tile Grout	Bathrooms B34, B35, B45, B65, and B66	NF	ND	NA	NA
89	CTG1-2	White Tile Grout	Bathrooms B34, B35, B45, B65, and B66	NF	ND	NA	NA
90	CTG1-3	White Tile Grout	Bathrooms B34, B35, B45, B65, and B66	NF	ND	NA	NA
91	CB1-1	4" Tan Cove Base/Mastic	Bathrooms B67 and B68	NF	ND	NA	NA
92	CB1-2	4" Tan Cove Base/Mastic	Bathrooms B67 and B68	NF	ND	NA	NA
93	CB1-3	4" Tan Cove Base/Mastic	Bathrooms B67 and B68	NF	ND	NA	NA
94	CT2-1	12" X 12" White Pinhole Ceiling Tile	Hallway North Exit Near Elm Street, East Room 41, and Hallway North of Room 20	F	ND	NA	NA
95	CT2-2	12" X 12" White Pinhole Ceiling Tile	Hallway North Exit Near Elm Street, East Room 41, and Hallway North of Room 20	F	ND	NA	NA
96	CT2-3	12" X 12" White Pinhole Ceiling Tile	Hallway North Exit Near Elm Street, East Room 41, and Hallway North of Room 20	F	ND	NA	NA
97	WM1-1	White Plastic Wall Paneling	Hallway South of Boiler Room	F	Yellow Mastic – ND, Wall Texture – 4% Chry	NA	Wall Texture- 350 SF
98	WM1-2	White Plastic Wall Paneling	Hallway South of Boiler Room	F		NA	
99	WM1-3	White Plastic Wall Paneling	Hallway South of Boiler Room	F		NA	
100	CB2-1	4" Brown Cove Base/Mastic	Second-floor Hallway	NF	ND	NA	NA
101	CB2-2	4" Brown Cove Base/Mastic	Second-floor Hallway	NF	ND	NA	NA
102	CB2-3	4" Brown Cove Base/Mastic	Second-floor Hallway	NF	ND	NA	NA
103	LIN1-1	Tan Linoleum	Mechanical Maintenance Area and Hallway Under 12" X 12" White Floor Tile	F	25% Chry	NA	700 SF
104	LIN1-2	Tan Linoleum	Mechanical Maintenance Area and Hallway Under 12" X 12" White Floor Tile	F		NA	
105	LIN1-3	Tan Linoleum	Mechanical Maintenance Area and Hallway Under 12" X 12" White Floor Tile	F		NA	
106	FT16-1	9" X 9" Red Floor Tile with Associated Mastic	Mechanical Maintenance Area and Hallway Under White 12" X 12" Floor Tile and LIN1-1, 2, and 3	NF	Floor Tile – 5% Chry, Mastic – ND	NA	Floor Tile- 700 SF
107	FT16-2	9" X 9" Red Floor Tile with Associated Mastic	Mechanical Maintenance Area and Hallway Under White 12" X 12" Floor Tile and LIN1-1, 2, and 3	NF		NA	

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
108	FT16-3	9" X 9" Red Floor Tile with Associated Mastic	Mechanical Maintenance Area and Hallway Under White 12" X 12" Floor Tile and LIN1-1, 2, and 3	NF		NA	
109	CM1-1	Wall Carpet Mastic	Room 20	NF	ND	NA	NA
110	CM1-2	Wall Carpet Mastic	Room 20	NF	ND	NA	NA
111	CM1-3	Wall Carpet Mastic	Room 20	NF	ND	NA	NA
112	CB3-1	Grey Cove Base/Mastic	Rooms 39 and 46	NF	ND	NA	NA
113	CB3-2	Grey Cove Base/Mastic	Rooms 39 and 46	NF	ND	NA	NA
114	CB3-3	Grey Cove Base/Mastic	Rooms 39 and 46	NF	ND	NA	NA
115	FT17-1	9" X 9" Tan Floor Tile with Associated Mastic	Rooms 36, 39-42, and 70, and Under Carpet in Hallway East of Room 46	NF	Floor Tile – 8% Chry, Mastic – ND	NA	Floor Tile- 1,800 SF
116	FT17-2	9" X 9" Tan Floor Tile with Associated Mastic	Rooms 36, 39-42, and 70, and Under Carpet in Hallway East of Room 46	NF		NA	
117	FT17-3	9" X 9" Tan Floor Tile with Associated Mastic	Rooms 36, 39-42, and 70, and Under Carpet in Hallway East of Room 46	NF		NA	
118	CT3-1	12" X 12" White Divot Ceiling Tile	Room 39	F	ND	NA	NA
119	CT3-2	12" X 12" White Divot Ceiling Tile	Room 39	F	ND	NA	NA
120	CT3-3	12" X 12" White Divot Ceiling Tile	Room 39	F	ND	NA	NA
121	CT4-1	12" X 12" Smooth White Ceiling Tile	Lower West Side of Room 39, West Side of Room 41, and Room 90	F	ND	NA	NA
122	CT4-2	12" X 12" Smooth White Ceiling Tile	Lower West Side of Room 39, West Side of Room 41, and Room 90	F	ND	NA	NA
123	CT4-3	12" X 12" Smooth White Ceiling Tile	Lower West Side of Room 39, West Side of Room 41, and Room 90	F	ND	NA	NA
124	FT18-1	12" X 12" Cream Floor Tile with Lime Green and White Specks with Associated Mastic	Courtroom	NF	Yellow Mastic – ND, Floor Tile – 4% Chry, Yellow Mastic – ND	NA	Floor Tile- 700 SF
125	FT18-2	12" X 12" Cream Floor Tile with Lime Green and White Specks with Associated Mastic	Courtroom	NF		NA	

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
126	FT18-3	12" X 12" Cream Floor Tile with Lime Green and White Specks with Associated Mastic	Courtroom	NF		NA	
127	CTX1-1	Ceiling Texture on Drywall	Courtroom	F	ND	NA	NA
128	CTX1-2	Ceiling Texture on Drywall	Courtroom	F	ND	NA	NA
129	CTX1-3	Ceiling Texture on Drywall	Courtroom	F	ND	NA	NA
130	CT4-1	12" X 12" Fissured and Pinhole with No Glue Pucks	Hallway to Courtroom	F	ND	NA	NA
131	CT4-2	12" X 12" Fissured and Pinhole with No Glue Pucks	Hallway to Courtroom	F	ND	NA	NA
132	CT4-3	12" X 12" Fissured and Pinhole with No Glue Pucks	Hallway to Courtroom	F	ND	NA	NA
133	CT5-1	12" X 12" Bubbled Ceiling Tile	Room 90	F	ND	NA	NA
134	CT5-2	12" X 12" Bubbled Ceiling Tile	Room 90	F	ND	NA	NA
135	CT5-3	12" X 12" Bubbled Ceiling Tile	Room 90	F	ND	NA	NA
136	CM2-1	Black Carpet Mastic	Northeast Section	NF	ND	NA	NA
137	CM2-2	Black Carpet Mastic	Northeast Section	NF	ND	NA	NA
138	CM2-3	Black Carpet Mastic	Northeast Section	NF	ND	NA	NA
139	FT19-1	9" X 9" Cream with Black and Brown Streaks Floor Tile with Associated Mastic	Rooms 62 and 63	NF	Floor Tile – 8% Chry, Yellow Mastic – ND	NA	Floor Tile- 525 SF
140	FT19-2	9" X 9" Cream with Black and Brown Streaks Floor Tile with Associated Mastic	Rooms 62 and 63	NF		NA	
141	FT19-3	9" X 9" Cream with Black and Brown Streaks Floor Tile with Associated Mastic	Rooms 62 and 63	NF		NA	
142	TSI-1	Airocell Pipe Insulation	East Side of the First Floor and Boiler Room	F	60% Chry	NA	300 LF
143	TSI-2	Airocell Pipe Insulation	East Side of the First Floor and Boiler Room	F		NA	

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
144	TSI-3	Airocell Pipe Insulation	East Side of the First Floor and Boiler Room	F		NA	
145	TSIJ-1	Joint Insulation	East Side of the First Floor and Boiler Room	F	30% Chry	NA	175 Joints
146	TSIJ-2	Joint Insulation	East Side of the First Floor and Boiler Room	F		NA	
147	TSIJ-3	Joint Insulation	East Side of the First Floor and Boiler Room	F		NA	
148	FT29-1	4" X 12" Brown Floor Tile with Associated Mastic	Room 48 Southwest Closet	NF	Brown Floor Tile – 10% Chry, Black Mastic – 5% Chry	NA	Floor Tile and Mastic- 10 SF
149	FT29-2	4" X 12" Brown Floor Tile with Associated Mastic	Room 48 Southwest Closet	NF		NA	
150	FT29-3	4" X 12" Brown Floor Tile with Associated Mastic	Room 48 Southwest Closet	NF		NA	
151	DWJC-1	Drywall with Joint Compound	West Side	NF	ND	NA	NA
152	DWJC-2	Drywall with Joint Compound	West Side	NF	ND	NA	NA
153	DWJC-3	Drywall with Joint Compound	West Side	NF	ND	NA	NA
154	DWJC1-1	Drywall with Joint Compound	East Side	NF	<1% Chry	NA	NA
155	DWJC1-2	Drywall with Joint Compound	East Side	NF	<1% Chry	NA	NA
156	DWJC1-3	Drywall with Joint Compound	East Side	NF	ND	NA	NA
157	DWJC1-4	Drywall with Joint Compound	East Side	NF	ND	NA	NA
158	DWJC1-5	Drywall with Joint Compound	East Side	NF	ND	NA	NA
159	PLSC-1	Plaster with Skim Coat	Throughout First Floor	NF	ND	NA	NA
160	PLSC-2	Plaster with Skim Coat	Throughout First Floor	NF	ND	NA	NA
161	PLSC-3	Plaster with Skim Coat	Throughout First Floor	NF	ND	NA	NA
162	PLSC-4	Plaster with Skim Coat	Throughout First Floor	NF	ND	NA	NA
163	PLSC-5	Plaster with Skim Coat	Throughout First Floor	NF	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
164	PLSC-6	Plaster with Skim Coat	Throughout First Floor	NF	ND	NA	NA
165	PLSC-7	Plaster with Skim Coat	Throughout First Floor	NF	ND	NA	NA
166	SPLSC-1	Spray on Plaster Ceiling	Throughout First Floor	NF	ND	NA	NA
167	SPLSC-2	Spray on Plaster Ceiling	Throughout First Floor	NF	ND	NA	NA
168	SPLSC-3	Spray on Plaster Ceiling	Throughout First Floor	NF	ND	NA	NA
169	CB6-1	4" Pink Cove Base/Mastic	Room 48 Southwest Closet	NF	ND	NA	NA
170	CB6-2	4" Pink Cove Base/Mastic	Room 48 Southwest Closet	NF	ND	NA	NA
171	CB6-3	4" Pink Cove Base/Mastic	Room 48 Southwest Closet	NF	ND	NA	NA
City Hall – Second Floor							
172	CB4-1	8" Grey Cove Base/Mastic	Room 71	NF	ND	NA	NA
173	CB4-2	8" Grey Cove Base/Mastic	Room 71	NF	ND	NA	NA
174	CB4-3	8" Grey Cove Base/Mastic	Room 71	NF	ND	NA	NA
175	CTG2-1	Grey Ceramic Tile Grout	Bathrooms in Rooms 71, 72, 74, 75, 77, 78, and 79	NF	ND	NA	NA
176	CTG2-2	Grey Ceramic Tile Grout	Bathrooms in Rooms 71, 72, 74, 75, 77, 78, and 79	NF	ND	NA	NA
177	CTG2-3	Grey Ceramic Tile Grout	Bathrooms in Rooms 71, 72, 74, 75, 77, 78, and 79	NF	ND	NA	NA
178	CTM1-1	Ceramic Tile Mastic	Bathrooms in Rooms 71, 72, 74, 75, 77, 78, and 79	NF	4% Chry	NA	Mastic- 1,000 SF
179	CTM1-2	Ceramic Tile Mastic	Bathrooms in Rooms 71, 72, 74, 75, 77, 78, and 79	NF		NA	
180	CTM1-3	Ceramic Tile Mastic	Bathrooms in Rooms 71, 72, 74, 75, 77, 78, and 79	NF		NA	
181	FT20-1	9" X 9" Beige with Brown Streaks Floor Tile with Associated Mastic	Hallway, Rooms 71, 74-79, and Storage and Maintenance Area	NF	Floor Tile – 2% Chry, Black Mastic – 6% Chry	Floor Tile – 0.25 Chry	Floor Tile and Mastic- 8,000 SF
182	FT20-2	9" X 9" Beige with Brown Streaks Floor Tile with Associated Mastic	Hallway, Rooms 71, 74-79, and Storage and Maintenance Area	NF		Floor Tile – <0.25 Chry	
183	FT20-3	9" X 9" Beige with Brown Streaks Floor Tile with Associated Mastic	Hallway, Rooms 71, 74-79, and Storage and Maintenance Area	NF		Floor Tile – <0.25 Chry	

TABLE 1 (Continued)

SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
184	CM3-1	Carpet Mastic	Throughout	NF	ND	NA	NA
185	CM3-2	Carpet Mastic	Throughout	NF	ND	NA	NA
186	CM3-3	Carpet Mastic	Throughout	NF	ND	NA	NA
187	CM4-1	Wall Carpet Mastic	Interview Room 79	NF	ND	NA	NA
188	CM4-2	Wall Carpet Mastic	Interview Room 79	NF	ND	NA	NA
189	CM4-3	Wall Carpet Mastic	Interview Room 79	NF	ND	NA	NA
190	WM2-1	Wood Wall Panel Mastic	Storage/Maintenance Room	NF	ND	NA	NA
191	WM2-2	Wood Wall Panel Mastic	Storage/Maintenance Room	NF	ND	NA	NA
192	WM2-3	Wood Wall Panel Mastic	Storage/Maintenance Room	NF	ND	NA	NA
193	CT6-1	12" X 12" White Divot Ceiling Tile	Narcotics Room	F	ND	NA	NA
194	CT6-2	12" X 12" White Divot Ceiling Tile	Narcotics Room	F	ND	NA	NA
195	CT6-3	12" X 12" White Divot Ceiling Tile	Narcotics Room	F	ND	NA	NA
196	LIN2-1	Yellow Linoleum	Half of the Narcotics Room	F	Yellow Mastic – ND, Linoleum – 20% Chry	NA	Linoleum- 350 SF
197	LIN2-2	Yellow Linoleum	Half of the Narcotics Room	F		NA	
198	LIN2-3	Yellow Linoleum	Half of the Narcotics Room	F		NA	
199	LIN3-1	Grey Linoleum	Half of the Narcotics Room	F	65% Chry	NA	350 SF
200	LIN3-2	Grey Linoleum	Half of the Narcotics Room	F		NA	
201	LIN3-3	Grey Linoleum	Half of the Narcotics Room	F		NA	
202	SU1-1	Black Sink Undercoat	Narcotics Room	F	5% Chry	NA	5 SF
203	SU1-2	Black Sink Undercoat	Narcotics Room	F		NA	
204	SU1-3	Black Sink Undercoat	Narcotics Room	F		NA	
205	CTM2-1	Green Ceramic Tile Mastic	Narcotics Room Kitchen	NF	ND	NA	NA
206	CTM2-2	Green Ceramic Tile Mastic	Narcotics Room Kitchen	NF	ND	NA	NA
207	CTM2-3	Green Ceramic Tile Mastic	Narcotics Room Kitchen	NF	ND	NA	NA
208	FT21-1	Grey Floor Tile Under Linoleum	Men's Locker Room	F	Tan Sheet Vinyl Backing – 60% Chry, Grey Floor Tile – 5% Chry, Black Mastic – ND	NA	Linoleum and Floor Tile - 1,100 SF
209	FT21-2	Grey Floor Tile Under Linoleum	Men's Locker Room	F		NA	
210	FT21-3	Grey Floor Tile Under Linoleum	Men's Locker Room	F		NA	

TABLE 1 (Continued)

SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
211	CT7-1	2' X 4' Cream Pinhole and Texture Ceiling Tile	Men's Locker Room	F	ND	NA	NA
212	CT7-2	2' X 4' Cream Pinhole and Texture Ceiling Tile	Men's Locker Room	F	ND	NA	NA
213	CT7-3	2' X 4' Cream Pinhole and Texture Ceiling Tile	Men's Locker Room	F	ND	NA	NA
214	FT22-1	12" X 12" Grey with White and Black Specks Floor Tile with Associated Mastic	Room 81	NF	Floor Tile – ND, Brown Mastic – 3% Chry	Mastic- 0.50 Chry	NA
215	FT22-2	12" X 12" Grey with White and Black Specks Floor Tile with Associated Mastic	Room 81	NF		Mastic- <0.25 Chry	NA
216	FT22-3	12" X 12" Grey with White and Black Specks Floor Tile with Associated Mastic	Room 81	NF		Mastic- 0.75 Chry	NA
217	LIN4-1	Brown with Tan Pattern Linoleum	Bottom of Shelf in Room 81	F	15% Chry	NA	10 SF
218	LIN4-2	Brown with Tan Pattern Linoleum	Bottom of Shelf in Room 81	F		NA	
219	LIN4-3	Brown with Tan Pattern Linoleum	Bottom of Shelf in Room 81	F		NA	
220	FT23-1	12" X 12" Blue with Black and White Specks Floor Tile with Associated Mastic	Hallway East of Room 85, Rooms 81 and 84	NF	Brown Mastic – 3% Chry, Floor Tile – ND, Brown Mastic – ND	Mastic- <0.25 Chry	NA
221	FT23-2	12" X 12" Blue with Black and White Specks Floor Tile with Associated Mastic	Hallway East of Room 85, Rooms 81 and 84	NF		Mastic- <0.25 Chry	NA
222	FT23-3	12" X 12" Blue with Black and White Specks Floor Tile with Associated Mastic	Hallway East of Room 85, Rooms 81 and 84	NF		Mastic- 0.25 Chry	NA
223	LIN5-1	Brown Linoleum Strips	Women's Locker Room and Room 84	F	Linoleum – ND, Brown Mastic – 3% Chry	Mastic- <0.25 Chry	NA
224	LIN5-2	Brown Linoleum Strips	Women's Locker Room and Room 84	F		Mastic- <0.25 Chry	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
225	LIN5-3	Brown Linoleum Strips	Women's Locker Room and Room 84	F		Mastic- <0.25 Chry	NA
226	FT24-1	12" X 12" Tan with Black, Grey and White Specks Floor Tile with Grid Pattern on Bottom	Rooms 82, 83, and 85; Second-floor Central Hallway; Hallway Near Room 85; Armory; and Women's Locker Room	NF	ND	NA	NA
227	FT24-2	12" X 12" Tan with Black, Grey and White Specks Floor Tile with Grid Pattern on Bottom	Rooms 82, 83, and 85; Second-floor Central Hallway; Hallway Near Room 85; Armory; and Women's Locker Room	NF	ND	NA	NA
228	FT24-3	12" X 12" Tan with Black, Grey and White Specks Floor Tile with Grid Pattern on Bottom	Rooms 82, 83, and 85; Second-floor Central Hallway; Hallway Near Room 85; Armory; and Women's Locker Room	NF	ND	NA	NA
229	CB5-1	4" Light Blue Cove Base/Mastic	Room 85 and South of North Stairwell	NF	ND	NA	NA
230	CB5-2	4" Light Blue Cove Base/Mastic	Room 85 and South of North Stairwell	NF	ND	NA	NA
231	CB5-3	4" Light Blue Cove Base/Mastic	Room 85 and South of North Stairwell	NF	ND	NA	NA
232	FT26-1	9" X 9" Grey with White and Black Specks Floor Tile	North Stairwell	NF	Floor Tile – ND, Brown Mastic – 3% Chry	Mastic- 0.50 Chry	NA
233	FT26-2	9" X 9" Grey with White and Black Specks Floor Tile	North Stairwell	NF		Mastic- 0.75 Chry	NA
234	FT26-3	9" X 9" Grey with White and Black Specks Floor Tile	North Stairwell	NF		Mastic- <0.25 Chry	NA
235	FT27-1	12" X 12" Thin Tan Floor Tile (Top Layer) with Associated Mastic	Elevator	NF	Floor Tile – 3% Chry, Yellow Mastic – ND	Floor tile- 0.75 Chry	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
236	FT27-2	12" X 12" Thin Tan Floor Tile (Top Layer) with Associated Mastic	Elevator	NF		Floor tile- 0.25 Chry	NA
237	FT27-3	12" X 12" Thin Tan Floor Tile (Top Layer) with Associated Mastic	Elevator	NF		Floor tile- <0.25 Chry	NA
238	FT28-1	Green Unknown Size Floor Tile (Bottom Layer)	Elevator	NF	ND	NA	NA
239	FT28-2	Green Unknown Size Floor Tile (Bottom Layer)	Elevator	NF	ND	NA	NA
240	FT28-3	Green Unknown Size Floor Tile (Bottom Layer)	Elevator	NF	ND	NA	NA
241	PLSC1-1	Plaster System with Skim Coat	Throughout	NF	ND	NA	NA
242	PLSC1-2	Plaster System with Skim Coat	Throughout	NF	ND	NA	NA
243	PLSC1-3	Plaster System with Skim Coat	Throughout	NF	ND	NA	NA
244	PLSC1-4	Plaster System with Skim Coat	Throughout	NF	ND	NA	NA
245	PLSC1-5	Plaster System with Skim Coat	Throughout	NF	ND	NA	NA
City Hall – Exterior							
246	TRAN-1	Transite Panels	South Soffit	NF	20% Chry	NA	1,000 SF
247	TRAN-2	Transite Panels	South Soffit	NF		NA	
248	TRAN-3	Transite Panels	South Soffit	NF		NA	
249	C-1	Brown Caulk	South Windows	NF	5% Chry	NA	160 LF
250	C-2	Brown Caulk	South Windows	NF		NA	
251	C-3	Brown Caulk	South Windows	NF		NA	
252	EC-1	Black Expansion Caulk	East and West Entrances	NF	ND	NA	NA
253	EC-2	Black Expansion Caulk	East and West Entrances	NF	ND	NA	NA
254	EC-3	Black Expansion Caulk	East and West Entrances	NF	ND	NA	NA
255	EC1-1	White Expansion Caulk	Southside	NF	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
256	EC1-2	White Expansion Caulk	Southside	NF	ND	NA	NA
257	EC1-3	White Expansion Caulk	Southside	NF	ND	NA	NA
258	EC2-1	Black Expansion Caulk	North Loading Dock	NF	10% Chry	NA	50 LF
259	EC2-2	Black Expansion Caulk	North Loading Dock	NF		NA	
260	EC2-3	Black Expansion Caulk	North Loading Dock	NF		NA	
261	C1-1	Grey Metal Door Caulk	North Metal Door	NF	ND	NA	NA
262	C1-2	Grey Metal Door Caulk	North Metal Door	NF	ND	NA	NA
263	C1-3	Grey Metal Door Caulk	North Metal Door	NF	ND	NA	NA
264	STUCCO-1	Tan Stucco	North Awning, Southwest Entrance, Northwest Entrance, West Entrance Wall, and Awning	NF	ND	NA	NA
265	STUCCO-2	Tan Stucco	North Awning, Southwest Entrance, Northwest Entrance, West Entrance Wall, and Awning	NF	ND	NA	NA
266	STUCCO-3	Tan Stucco	North Awning, Southwest Entrance, Northwest Entrance, West Entrance Wall, and Awning	NF	ND	NA	NA
267	SS-1	Siding Shingles	Westside	NF	ND	NA	NA
268	SS-2	Siding Shingles	Westside	NF	ND	NA	NA
269	SS-3	Siding Shingles	Westside	NF	ND	NA	NA
270	VP-1	Vapor Barrier	Westside	F	ND	NA	NA
271	VP-2	Vapor Barrier	Westside	F	ND	NA	NA
272	VP-3	Vapor Barrier	Westside	F	ND	NA	NA
273	EC3-1	Tan Expansion Caulk	Westside	NF	ND	NA	NA
274	EC3-2	Tan Expansion Caulk	Westside	NF	ND	NA	NA
275	EC3-3	Tan Expansion Caulk	Westside	NF	ND	NA	NA
276	C2-1	Brown and Off-White Caulk	Windows on the Second Floor West and Southwest Sides	NF	Brown Caulk – ND, White Caulk – 5% Chry	NA	White Caulk- 450 LF
277	C2-2	Brown and Off-White Caulk	Windows on the Second Floor West and Southwest Sides	NF		NA	
278	C2-3	Brown and Off-White Caulk	Windows on the Second Floor West and Southwest Sides	NF		NA	
279	C3-1	Clear Caulk	Windows on the First Floor West Side	NF	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM¹)	PLM 400 Point Count Results²	Quantity
280	C3-2	Clear Caulk	Windows on the First Floor West Side	NF	ND	NA	NA
281	C3-3	Clear Caulk	Windows on the First Floor West Side	NF	ND	NA	NA
282	C4-1	Grey Caulk	Doors on the Northwest Side	NF	ND	NA	NA
283	C4-2	Grey Caulk	Doors on the Northwest Side	NF	ND	NA	NA
284	C4-3	Grey Caulk	Doors on the Northwest Side	NF	ND	NA	NA
285	G-1	Black Glazing	Southside Windows	NF	ND	NA	NA
286	G-2	Black Glazing	Southside Windows	NF	ND	NA	NA
287	G-3	Black Glazing	Southside Windows	NF	ND	NA	NA
288	C6-1	Light Brown Caulk	South Side Door	NF	ND	NA	NA
289	C6-2	Light Brown Caulk	South Side Door	NF	ND	NA	NA
290	C6-3	Light Brown Caulk	South Side Door	NF	ND	NA	NA
City Hall – Roof							
291	RC-1	Roof Core	Northwest Roof	NF	ND	NA	NA
292	RC-2	Roof Core	Northwest Roof	NF	ND	NA	NA
293	RC-3	Roof Core	Northwest Roof	NF	ND	NA	NA
294	FL-1	Roof Flashing	Northwest Roof	NF	ND	NA	NA
295	FL-2	Roof Flashing	Northwest Roof	NF	ND	NA	NA
296	FL-3	Roof Flashing	Northwest Roof	NF	ND	NA	NA
297	CS-1	Curb Sealant	Northwest Roof	NF	ND	NA	NA
298	CS-2	Curb Sealant	Northwest Roof	NF	ND	NA	NA
299	CS-3	Curb Sealant	Northwest Roof	NF	ND	NA	NA
Evidence Building							
300	FT30-1	12" X 12" White Floor Tile with Associated Mastic	Back Room	NF	ND	NA	NA
301	FT30-2	12" X 12" White Floor Tile with Associated Mastic	Back Room	NF	ND	NA	NA
302	FT30-3	12" X 12" White Floor Tile with Associated Mastic	Back Room	NF	ND	NA	NA
303	G1-1	White Window Glaze	Back Room	NF	ND	NA	NA
304	G1-2	White Window Glaze	Back Room	NF	ND	NA	NA
305	G1-3	White Window Glaze	Back Room	NF	ND	NA	NA
306	CB7-1	4" Brown Cove Base/Mastic	Back Room	NF	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
307	CB7-2	4" Brown Cove Base/Mastic	Back Room	NF	ND	NA	NA
308	CB7-3	4" Brown Cove Base/Mastic	Back Room	NF	ND	NA	NA
No suspect asbestos samples found on roof or exterior of Evidence Building							

Notes:

Bolded result indicates detection of ACM.

Italicized result indicates PACM.

Color description of a material may vary between field observation and laboratory description.

Samples are in a different order than the chain of custody. The report and figure were written for clarity to the reader.

Room numbers were developed by Tetra Tech.

¹ AHERA defines ACM as any material or product that contains more than 1% asbestos.

² EPA defines ACM as greater than 1% asbestos. These materials contain <1% asbestos; therefore, the materials are not regulated for disposal purposes. However, the materials do contain asbestos, so if the materials are disturbed, OSHA regulations must be followed, and personal protective equipment must be used.

³ Joint compound was sampled with the cove base. The joint compound is homogenous with sample DWJC1, and is considered a system (drywall and joint compound) by EPA. Based on professional opinion, the joint compound and the homogenous sample DWJC1 can be treated as non-ACM.

⁴ Ceiling tile with associated mastic (glue puck) was sampled together; however, the lab did not analyze the mastic. Therefore, the mastic is considered PACM.

" Inches

' Feet

ACM Asbestos-containing material

AHERA Asbestos Hazard and Emergency Response Act of 1986

Chry Chrysotile asbestos

EPA U.S. Environmental Protection Agency

ID Identification

LF

NA

ND

OSHA

PACM

PLM

SF

Linear feet

Not applicable

Not detected

Occupational Safety and Health Administration

Presumed asbestos-containing material

Polarized light microscopy

Square feet

8.0 LBP FINDINGS

A summary of screening results for LBP by use of the XRF spectrometer at the subject property buildings appears in Table 2 below. Bolded results in Table 2 indicate where LBP was detected at concentration greater than 1.0 mg/cm². Positive (greater than 1.0 mg/cm²) results for LBP are shown on Figures 2A, 2B, and 2C in Appendix C.

TABLE 2

**SUMMARY OF LBP SCREENING RESULTS
101 OAK STREET, POPLAR BLUFF, MISSOURI**

XRF Screening No.	Paint Color	Location	Component	Substrate	XRF Reading (mg/cm ²)	Damaged ¹	Quantity
City Hall – First Floor							
1	White	Room 3	Door Frame	Wood	0.01	NA	NA
2	Blue	Room 4	Wall Board	Wood	0.01	NA	NA
3	White	Room 4	Window Trim	Wood	0.01	NA	NA
4	Yellow	Room 4	Window Frame	Wood	0.01	NA	NA
5	White	Room 6	Wall	Drywall	0.01	NA	NA
6	White	Room 16	Door	Wood	0.01	NA	NA
7	White	Room 15	Door Frame	Metal	0.01	NA	NA
8	White	Room 16	Wall	Drywall	0.01	NA	NA
9	Cream	West Exit Hall	Wall	Drywall	0.01	NA	NA
10	Cream	West Exit Hall	Wall	Cinderblock	0.01	NA	NA
11	White	Under Stairs	Wall	Plaster	0.01	NA	NA
12	White	Elevator	Door Frame	Metal	0.01	NA	NA
13	Cream	West Police Department Hall	Wall	Cinderblock	0.01	NA	NA
14	White	Room 3	Floor	Ceramic	6.72	YES	300 SF
15	Red	Boiler Room	Door	Metal	0.13	NA	NA
16	Red	Boiler Room	Door Frame	Metal	0.16	NA	NA
17	Blue	Boiler Room	Boiler	Metal	0.01	NA	NA
18	Varnish	Utilities Room	Door	Wood	0.03	NA	NA
19	White	Boiler Room	Wall	Cinderblock	0.01	NA	NA
20	White	Room 21	Wall	Drywall	0.01	NA	NA
21	White	Room 21	Pillar	Metal	0.01	NA	NA
22	Green	Room 22	Wall	Ceramic	8.74	YES	44 SF
23	White	Room 22	Pillar	Metal	0.01	NA	NA
24	Grey	Room 22 Storage	Wall	Concrete	0.01	NA	NA
25	Red	Room 22	Floor	Wood	0.01	NA	NA
26	Light Blue	Room 22	Door Frame	Metal	0.01	NA	NA
27	Grey	Room 20	Door	Metal	0.01	NA	NA
28	Grey	Room 20	Wall	Plaster	0.01	NA	NA
29	Grey	Room 20	Floor	Concrete	0.01	NA	NA
30	White	Maintenance Area	Wall	Drywall	0.04	NA	NA

TABLE 2 (Continued)

SUMMARY OF LBP SCREENING RESULTS
101 OAK STREET, POPLAR BLUFF, MISSOURI

XRF Screening No.	Paint Color	Location	Component	Substrate	XRF Reading (mg/cm ²)	Damaged ¹	Quantity
31	Blue	Maintenance Area	Wall	Plaster	0.09	NA	NA
32	Blue	Maintenance Area	Door Frame	Wood	0.28	NA	NA
33	Blue	Maintenance Area	Door	Wood	0.31	NA	NA
34	White	Maintenance Area	Wall	Plaster	1.21	YES	1,500 SF
35	Yellow	North Hall Elm Street	Wall	Drywall	0.01	NA	NA
36	Grey	North Hall Elm Street	Door Frame	Metal	0.01	NA	NA
37	Blue	Courtroom	Wall	Drywall	0.01	NA	NA
38	White	Courtroom	Wall	Drywall	0.01	NA	NA
39	Varnish	Courtroom	Pillar	Wood	0.01	NA	NA
40	Blue	Courtroom	Door	Wood	0.01	NA	NA
41	Blue	Courtroom	Door Frame	Metal	0.01	NA	NA
42	Green	Courtroom Hall	Door	Metal	0.06	NA	NA
43	White	Room 39	Entryway	Wood	0.01	NA	NA
44	White	Electrical Room 39	Closet Door	Wood	0.01	NA	NA
45	White	Room 39 Upper	Ductwork	Metal	0.01	NA	NA
46	Light Blue	Room 43	Wall	Drywall	0.01	NA	NA
47	White	Room 43	Baseboard	Wood	0.01	NA	NA
48	Cream	Room 46	Wall	Drywall	0.01	NA	NA
49	Varnish	Room 46 Hallway	Entryway	Wood	0.02	NA	NA
50	Blue	Room B45	Floor	Ceramic	0.01	NA	NA
51	Green	Room 52	Wall	Drywall	0.01	NA	NA
52	Green	Room 53	Wall	Wood	0.01	NA	NA
53	Tan	East Offices Hallway	Wall	Drywall	0.01	NA	NA
54	Blue	Room 54	Wall	Drywall	0.01	NA	NA
55	White	Room 54	Wall	Wood	0.01	NA	NA
56	Varnish	Room 54	Windowsill	Wood	0.01	NA	NA
57	Yellow	Room 55	Wall	Drywall	0.01	NA	NA
58	Green	Room 55	Wall	Drywall	0.01	NA	NA
59	Varnish	Room 55	Door Frame	Wood	0.01	NA	NA
60	Varnish	Room 55	Door	Wood	0.02	NA	NA
61	Green	Room 56	Windowsill	Wood	0.01	NA	NA
62	Pink	Room 60	Wall	Drywall	0.01	NA	NA
63	Blue	Room B66	Floor	Ceramic	0.01	NA	NA

TABLE 2 (Continued)

SUMMARY OF LBP SCREENING RESULTS
101 OAK STREET, POPLAR BLUFF, MISSOURI

XRF Screening No.	Paint Color	Location	Component	Substrate	XRF Reading (mg/cm ²)	Damaged ¹	Quantity
64	Cream	Room 61	Wall	Cinderblock	0.01	NA	NA
65	White	Room 63	Wall	Drywall	0.01	NA	NA
66	White	Council Chambers	Wall	Brick	0.01	NA	NA
67	Beige	South Entryway	Floor	Ceramic	8.22	YES	50 SF
City Hall – Parking Garage							
68	Grey	Garage Stairwell	Floor	Metal	0.01	NA	NA
69	Green	Garage Stairwell	Handrail	Metal	0.09	NA	NA
70	Green	Garage Stairwell	Baseboard	Metal	0.05	NA	NA
71	Green	Garage	Door	Metal	0.06	NA	NA
72	Green	Garage	Door Frame	Metal	0.03	NA	NA
73	Red	Garage	Support Beam	Metal	0.04	NA	NA
74	Yellow	Garage	Support Beam	Metal	0.04	NA	NA
75	Yellow	Garage Parking Lines	Floor	Concrete	5.77	YES	100 LF
76	Red	Garage	Support Beam	Metal	0.01	NA	NA
77	Grey	Garage	Door	Metal	0.03	NA	NA
78	Grey	Garage	Door Frame	Metal	0.01	NA	NA
City Hall – Second Floor							
79	Red	Southwest Stairwell	Door Frame	Metal	0.03	NA	NA
80	Black	Southwest Stairwell	Handrail	Metal	0.01	NA	NA
81	Cream	Southwest Stairwell	Windowsill	Ceramic	0.08	NA	NA
82	White	Southwest Hall	Door	Metal	0.01	NA	NA
83	White	Southwest Hall	Door Frame	Metal	0.04	NA	NA
84	Yellow	Room 71	Wall	Plaster	0.01	NA	NA
85	Yellow	Room 72	Wall	Ceramic	4.19	YES	300 SF
86	Multicolor	Room 73	Floor	Ceramic	0.01	NA	NA
87	White	Southwest Hall	Wall	Plaster	0.01	NA	NA
88	Light Blue	Room 71	Wall	Plaster	0.01	NA	NA
89	Light Pink	Room 71 Bathrooms Room 74 Bathroom	Wall	Ceramic	4.57	YES	400 SF
90	White	South Hall	Wall	Plaster	0.01	NA	NA
91	Cream	Room 75	Windowsill	Ceramic	0.02	NA	NA
92	Cream	Rooms 72, 74, 75, 77, 78 and 79 Bathrooms	Wall	Ceramic	4.81	YES	800 SF

TABLE 2 (Continued)

SUMMARY OF LBP SCREENING RESULTS
101 OAK STREET, POPLAR BLUFF, MISSOURI

XRF Screening No.	Paint Color	Location	Component	Substrate	XRF Reading (mg/cm ²)	Damaged ¹	Quantity
93	Brown	Room 75 Bathroom	Floor	Ceramic	0.01	NA	NA
94	Tan	Room 74	Wall	Plaster	0.01	NA	NA
95	Varnish	HVAC	Door	Wood	0.01	NA	NA
96	Blue	HVAC	Floor	Concrete	0.01	NA	NA
97	White	Room 77	Wall	Plaster	0.01	NA	NA
98	Green	Center Hall Bathroom	Wall	Ceramic	12.77	YES	100 SF
99	Tan	Room 79	Floor	Ceramic	0.01	NA	NA
100	Cream	Narcotics	Wall	Brick	0.01	NA	NA
101	Green	Narcotics	Wall	Ceramic	14.26	YES	50 SF
102	Light Blue	Narcotics	Door Frame	Wood	0.01	NA	NA
103	Light Blue	Narcotics	Door	Metal	0.01	NA	NA
104	Cream w/ Yellow	Narcotics Bathroom	Wall	Ceramic	8.34	YES	700 SF
105	White	Narcotics Bathroom	Floor	Ceramic	3.98	YES	40 SF
106	Grey	Men's Locker Room	Floor	Ceramic	0.01	NA	NA
107	Blue	Room 81	Door Frame	Metal	0.01	NA	NA
108	White	Room 81	Door	Wood	0.02	NA	NA
109	White	Elevator	Door	Metal	0.11	NA	NA
110	Cream	Room 84	Wall	Plaster	0.02	NA	NA
111	White	East Hall	Wall	Plaster	0.01	NA	NA
City Hall and Evidence Building – Exterior							
112	Brown	Oak Street City Hall – Exterior	Rainspout	Metal	0.03	NA	NA
113	White	Oak Street City Hall – Garage	Door	Metal	0.01	NA	NA
114	White	Oak Street City Hall – Garage	Door Frame	Metal	0.08	NA	NA
115	Brown	Oak Street City Hall – Garage	Door	Metal	0.01	NA	NA
116	Brown	Oak Street City Hall – Garage	Door Frame	Metal	0.07	NA	NA
117	Green	Exterior Evidence Building	Wall	Metal	0.01	NA	NA
118	White	Oak Street City Hall – Exterior	Wall	Cinderblock	0.01	NA	NA
119	Green	Exterior Evidence Building	Wall	Metal	0.01	NA	NA
120	Brown	Evidence Building Garage	Door Frame	Metal	0.01	NA	NA
121	White	Evidence Building Garage	Door	Metal	0.01	NA	NA
122	Tan	Oak Street City Hall – North	Awning Pillar	Metal	0.02	NA	NA
123	Tan	Oak Street City Hall – North	Retaining Wall	Concrete	0.01	NA	NA

TABLE 2 (Continued)

**SUMMARY OF LBP SCREENING RESULTS
101 OAK STREET, POPLAR BLUFF, MISSOURI**

XRF Screening No.	Paint Color	Location	Component	Substrate	XRF Reading (mg/cm²)	Damaged¹	Quantity
124	Tan	Oak Street City Hall – North	Wall	Cinderblock	0.03	NA	NA
125	Tan	Oak Street City Hall – North	Handrail	Metal	0.01	NA	NA
126	Grey	Oak Street City Hall – Northwest	Door	Metal	0.06	NA	NA
127	Red	Oak Street City Hall – South	Rainspout	Metal	0.78	NA	NA
Evidence Building – Interior							
128	Cream	Back Room	Door	Metal	0.01	NA	NA
129	Cream	Back Room	Door Frame	Metal	0.01	NA	NA
130	White	Back Room	Ductwork	Metal	0.01	NA	NA
131	White	Back Room	Windowsill	Metal	0.01	NA	NA
132	White	Back Room	Pipe	Metal	0.01	NA	NA
133	White	Back Room	Wall	Wood	0.01	NA	NA
134	White	Back Room	Door	Wood	2.97	YES	40 SF
135	White	Back Room	Door Frame	Wood	0.01	NA	NA
136	White	Bathroom	Wall	Wood	0.01	NA	NA
137	Varnish	Bathroom	Wall	Wood	0.01	NA	NA
138	Red	Garage	Support Beam	Metal	0.01	NA	NA
139	Red	Garage	Support Beam	Metal	0.01	NA	NA

Notes:

Room numbers were designated by Tetra Tech.

Calibration checks were conducted hourly in accordance to NIST standards and were within range of the standards provided. The results were not logged, but all results were within a 3-5% variance of the standards provided.

1 This column identifies damaged LBP surfaces. If no damage is present before renovation activities, preliminary removal of chipping and peeling paint is not necessary prior to the encapsulation process.

mg/cm² Milligrams per square centimeter
 HVAC Heating, ventilation, and air conditioning
 LBP Lead-based paint
 LF Linear feet

NA Not applicable
 No. Number
 SF Square feet
 XRF X-ray fluorescence

9.0 PCB FINDINGS

The laboratory report in Appendix E conveys analytical results from bulk samples of suspect PCB-containing caulk materials, and results are summarized in Table 3 below. Sample locations are shown on Figures 1A and 1B in Appendix C.

TABLE 3
SUMMARY OF PCB FINDINGS
101 OAK STREET, POPLAR BLUFF, MISSOURI

Figure Key	Sample ID	Material Description	Material Locations	Analytical Result (ppm)	Quantity
PCB-1	PCB-1-Black	Window Caulk	Exterior – Second Floor, Northwest Side of City Hall	ND	NA
PCB-2	PCB-2-Grey	Door Caulk	Exterior – First Floor, Northwest Side of City Hall	ND	NA

Notes:

ID Identification
NA Not applicable
ND Not detected
PCB Polychlorinated biphenyl
ppm Parts per million

10.0 HAZARDOUS MATERIALS INVENTORY FINDINGS

The HW and hazardous materials inventory is summarized in Table 4 below.

TABLE 4
SUMMARY OF HAZARDOUS MATERIALS INVENTORY
101 OAK STREET, POPLAR BLUFF, MISSOURI

Type of Household Hazardous Waste	Assessed Quantity
White Goods:	2 water heaters, 5 microwaves, 3 refrigerators, 5 air conditioning units
Lamps	
Fluorescent	2,500
Compact Fluorescent (CFL)	None Observed
Tires	
Small	None Observed
Large	25
Paints(Cans)	
Latex	12
Oil-Based	10
Polychlorinated Biphenyl (PCB) Ballasts	
Fluorescent	700
Aerosols	
Flammable	40
Other	1
Heating, Ventilation, and Air Conditioning	
Mercury-containing Thermostats	35
Chlorofluorocarbons (CFC) and Hydrochlorofluorocarbons (HCFC) Refrigerants	
Water Fountains	5
Fire Extinguishers	20
Others	None observed
Other: misc. hazardous wastes, household hazardous wastes, oils	
Computers/Monitors	10 crates of computers and monitors. Each crate holds approximately 30 computers
Copy Machines, Printers, Fax Machines, and Scanners	30
Poisons/Pesticides	3
Elevator	1
Household size generator (5,000 kilowatts)	1
30 Gallon Diesel Tank	1
Others (describe) Miscellaneous Cleaning Products	20 containers
Others (describe) Exit Signs with Batteries	25
Others (describe) Emergency Lighting with Batteries	50

11.0 FINDINGS AND RECOMMENDATIONS

The following findings and recommendations are based on observations during the survey and analytical results from samples collected at the City Hall and evidence building on the subject property:

ACM:

- Regulated ACM was identified in black mastic associated with 12" X 12" white with black streaks floor tile (approximately 600 square feet [SF]) in the southwest hallway. The black mastic was represented by samples FT1-1, -2, and -3. Laboratory results indicated that the mastic contained 8% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" grey with red and brown streaks floor tile (approximately 300 SF) in Rooms 12 and 23. The floor tile was represented by samples FT6-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" red floor tile and mastic (approximately 600 SF) in Rooms 21 and 22 under 12" X 12" white floor tile. The floor tile and mastic were represented by samples FT8-1, -2, and -3. Laboratory results indicated that the floor tile contained 5% chrysotile and the mastic contained 10% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" black floor tile and mastic (approximately 600 SF) in Rooms 21 and 22 under 12" X 12" white floor tile. The floor tile and mastic were represented by samples FT9-1, -2, and -3. Laboratory results indicated that the floor tile contained 6% chrysotile and the mastic contained 10% chrysotile asbestos.
- Regulated ACM was identified in 12" X 12" grey, white, and green cobblestone floor tile and black mastic (approximately 500 SF) in Rooms 14 and 15 under FT10 and FT11. The floor tile and mastic were represented by samples FT12-1, -2, and -3. Laboratory results indicated that the floor tile contained 4% chrysotile asbestos and the mastic contained 8% chrysotile asbestos.
- Regulated ACM was identified in 12" X 12" beige with tan cobblestone floor tile and black mastic (approximately 500 SF) in Rooms 9, 11, and 13. The floor tile and mastic were represented by samples FT14-1, -2, and -3. Laboratory results indicated that the floor tile contained 4% chrysotile and the mastic contained 8% chrysotile asbestos.
- Approximately 7,000 SF of 12" X 12" white fissure and pinhole ceiling tile mastic is presumed asbestos containing in room 20 and the east office area.
- Regulated ACM was identified in 9" X 9" brown with black streaks floor tile and mastic (approximately 4,000 SF) in Rooms 43, 46, 89, 88 and hallway, hallway near Room 43, hallway north exit near elm street, hallway south of boiler room hall, hallway west of boiler room, and room south of mechanical maintenance room and hallway. The floor tile and mastic were represented by samples FT15-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile and the mastic contained 5% chrysotile asbestos.
- Regulated ACM was identified in white ceiling texture (approximately 500 SF) in Room 88 and hallway, and hallway west and south of boiler room. The ceiling texture was represented by samples CTX-1, -2, and -3. Laboratory results indicated that the ceiling texture contained 5% chrysotile asbestos.

- Regulated ACM was identified in the wall texture behind the white plastic wall paneling (approximately 350 SF) in the hallway south of the boiler room. The wall texture was represented by samples WM1-1, -2, and -3. Laboratory results indicated that the wall texture contained 4% chrysotile asbestos.
- Regulated ACM was identified in tan linoleum (approximately 700 SF) in the mechanical maintenance area and hallway under 12" X 12" white floor tile. The linoleum was represented by samples LIN1-1, -2, and -3. Laboratory results indicated that the linoleum contained 25% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" red floor tile (approximately 700 SF) in the mechanical maintenance area and hallway under 12" X 12" white floor tile and linoleum. The floor tile was represented by samples FT16-1, -2, and -3. Laboratory results indicated that the floor tile contained 5% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" tan floor tile (approximately 1,800 SF) in Rooms 36, 39-42, and 70, and under the carpet in hallway east of Room 46. The floor tile was represented by samples FT17-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile asbestos.
- Regulated ACM was identified in 12" X 12" cream with lime green and white streaks floor tile (approximately 700 SF) in the courtroom. The floor tile was represented by samples FT18-1, -2, and -3. Laboratory results indicated that the floor tile contained 4% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" cream with black and brown streaks floor tile (approximately 525 SF) in Rooms 62 and 63. The floor tile was represented by samples FT19-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile asbestos.
- Regulated ACM was identified in airocell pipe insulation (approximately 300 linear feet [LF]) on the east side of the first floor and boiler room. The airocell was represented by samples TSI-1, -2, and -3. Laboratory results indicated that the airocell contained 60% chrysotile asbestos.
- Regulated ACM was identified in joint insulation (approximately 175 joints) on the east side of the first floor and boiler room. The joint insulation was represented by samples TSIJ-1, -2, and -3. Laboratory results indicated that the joint insulation contained 30% chrysotile asbestos.
- Regulated ACM was identified in 4" X 12" brown floor tile and mastic (approximately 10 SF) in Room 48 southwest closet. The floor tile and mastic were represented by samples FT29-1, -2, and -3. Laboratory results indicated that the floor tile contained 10% chrysotile and the mastic contained 5% chrysotile asbestos.

City Hall – Second Floor

- Regulated ACM was identified in ceramic tile mastic (approximately 1,000 SF) on the second floor in bathrooms 71, 74, 75, 77, 78, and 79. The mastic was represented by samples CTM-1, -2, and -3. Laboratory results indicated that the mastic contained 4% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" beige with brown streaks floor tile mastic (approximately 8,000 SF) on the second-floor hallway and Rooms 71, 74 through 79, and storage and maintenance area. The mastic was represented by samples FT20-1, -2, and -3. Laboratory results indicated that the mastic contained 6% chrysotile asbestos.

- Regulated ACM was identified in yellow linoleum (approximately 350 SF) in half of the narcotics room. The linoleum was represented by samples LIN2-1, -2, and -3. Laboratory results indicated that the linoleum contained 20% chrysotile asbestos.
- Regulated ACM was identified in grey linoleum (approximately 350 SF) in half of the narcotics room. The linoleum was represented by samples LIN3-1, -2, and -3. Laboratory results indicated that the linoleum contained 65% chrysotile asbestos.
- Regulated ACM was identified in black sink undercoat (approximately 5 SF) in the narcotics room. The sink undercoat was represented by samples SU-1, -2, and -3. Laboratory results indicated that the sink undercoat contained 5% chrysotile asbestos.
- Regulated ACM was identified in grey floor tile under linoleum (approximately 1,100 SF of floor tile and linoleum) in the men's locker room. The floor tile was represented by samples FT21-1, -2, and -3. Laboratory results indicated that the floor tile contained 5% chrysotile and the linoleum contained 60% asbestos.
- Regulated ACM was identified in brown and tan pattern linoleum (approximately 10 SF) in Room 81 on the bottom shelf. The linoleum was represented by samples LIN4-1, -2, and -3. Laboratory results indicated that the linoleum contained 15% chrysotile asbestos.

City Hall – Exterior

- Regulated ACM was identified in transite panels (approximately 1,000 SF) on the south exterior soffit. The transite was represented by samples TRAN-1, -2, and -3. Laboratory results indicated that the transite contained 20% chrysotile asbestos.
- Regulated ACM was identified in brown window caulk (approximately 160 LF) on the south exterior windows. The caulk was represented by samples C-1, -2, and -3. Laboratory results indicated that the caulk contained 5% chrysotile asbestos.
- Regulated ACM was identified in black expansion caulk (approximately 50 LF) on the north loading dock. The caulk was represented by samples EC2-1, -2, and -3. Laboratory results indicated that the caulk contained 10% chrysotile asbestos.
- Regulated ACM was identified in brown and off-white window caulk (approximately 450 LF) on the north loading dock. The caulk was represented by samples C2-1, -2, and -3. Laboratory results indicated that the white caulk contained 5% chrysotile asbestos.

Evidence Building- No ACM found in the evidence building.

All regulated ACM listed above should be removed by a licensed asbestos abatement contractor before demolition work disturbs the material. The removed waste must be transported to a disposal site able to accept both friable and non-friable ACM. If the building is to be renovated and any of the above ACM materials are not to be disturbed, they may remain in place.

LBP

City Hall – First Floor

- Approximately 300 SF of white ceramic floor tile in Room 3 tested positive for LBP, with x-ray fluorescence (XRF) reading of 6.72 milligrams per square centimeter (mg/cm²).
- Approximately 44 SF of green ceramic wall tile in Room 22 tested positive for LBP, with XRF reading of 8.74 mg/cm².
- Approximately 1,500 SF of white wall plaster in the maintenance area tested positive for LBP, with XRF reading of 1.21 mg/cm².
- Approximately 50 SF of beige ceramic floor tile in the south entryway tested positive for LBP, with XRF reading of 8.22 mg/cm².

City Hall – Parking Garage

- Approximately 100 LF of yellow painted concrete parking spaces in the parking garage tested positive for LBP, with XRF reading of 5.77 mg/cm².

City Hall – Second Floor

- Approximately 300 SF of yellow ceramic wall tile in Room 72 tested positive for LBP, with XRF reading of 4.19 mg/cm².
- Approximately 400 SF of light pink ceramic wall tile in Rooms 71 and 74 tested positive for LBP, with XRF reading of 4.57 mg/cm².
- Approximately 800 SF of cream ceramic wall tile in Rooms 72, 75, 77, 78, and 79 tested positive for LBP, with XRF reading of 4.81 mg/cm².
- Approximately 100 SF of green ceramic wall tile in the second-floor center hall bathroom tested positive for LBP, with XRF reading of 12.77 mg/cm².
- Approximately 50 SF of green ceramic wall tile in the narcotics room tested positive for LBP, with XRF reading of 14.26 mg/cm².
- Approximately 700 SF of cream/yellow ceramic wall tile in the narcotics bathroom tested positive for LBP, with XRF reading of 8.34 mg/cm².
- Approximately 40 SF of white ceramic floor tile in the narcotics bathroom tested positive for LBP, with XRF reading of 3.98 mg/cm².

Evidence Building

- Approximately 40 SF of white wood door in the back room of the evidence building tested positive for LBP, with XRF reading of 2.97 mg/cm².

HUD considers LBP as paint with lead levels above 1.0 mg/cm². If the LBP surfaces are impacted during renovations or during demolition, Tetra Tech recommends that the contractor conducting the renovations comply with OSHA Lead in Construction Standard, Title 29 of *Code of Federal Regulations* (CFR), Part 1926.62. If the materials containing LBP are removed during renovation activities, a sample should be collected from the debris pile for a Toxicity Characteristic Leaching Procedure (TCLP) analysis (40 CFR 261.24); representative samples should be collected and analyzed for all eight metals specified in 40 CFR Part 261.24 (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). This would allow determination of the proper method of disposal of the materials.

PCBs

Laboratory results indicated that no sampled building materials contained concentrations of PCBs above 50 parts per million (ppm).

HW

HW and other hazardous materials were inventoried during the survey. Tetra Tech recommends proper disposal of the materials based on their characteristics prior to demolition of the subject property buildings.

12.0 ASSUMPTIONS AND DEVIATIONS

The entire interior and exterior of the subject property buildings were inspected for suspect ACM, LBP, and PCB-containing caulk. In addition, Tetra Tech inventoried all hazardous waste and other hazardous materials. Because of limitations on destructive sampling methods, additional suspect materials may be present but not detected in walls, voids, or other concealed areas. Suspected asbestos-containing elevator equipment and fire doors were identified in the City Hall. To preserve the integrity of these materials, no samples of these materials were collected. Moreover, because of lack of structural integrity of the roof above the first floor of the City Hall, no samples were collected from this roof area. Tetra Tech recommends that if the suspected asbestos-containing roofing materials, fire doors, and/or elevator equipment are to be disturbed during renovations or demolition, these materials should be sampled to determine their asbestos content. All other areas of the subject property buildings were inspected.

13.0 REFERENCES

- Agency for Toxic Substance and Disease Registry (ATSDR). 2008. Asbestos: Health Effects. Accessed December 13, 2012. http://www.atsdr.cdc.gov/asbestos/asbestos/health_effects/
- SCS Engineers, Inc. (SCS). 2018. Phase I Environmental Site Assessment: Poplar Bluff City Hall, 101 Oak Street, Poplar Bluff, Missouri. July 19.
- Tetra Tech, Inc. (Tetra Tech). 2019. Quality Assurance Project Plan Regarding a Survey of Poplar Bluff City Hall, 101 Oak Street, Poplar Bluff, Missouri. October.
- U.S. Department of Housing and Urban Development (HUD). 1997. *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

APPENDIX A

PHOTOLOG

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**

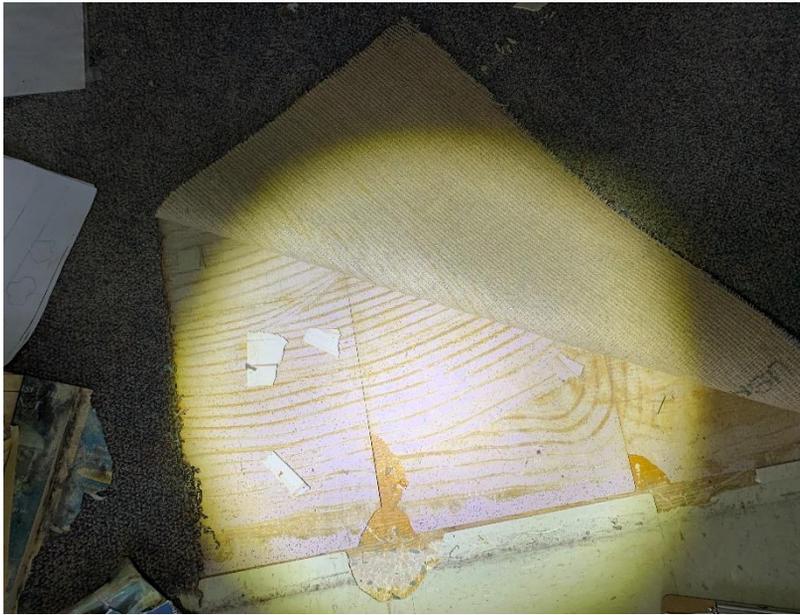


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" stick on grey floor tile and mastic in the south main entrance and Room 2.	1
	CLIENT	U.S. Environmental Protection Agency (EPA)	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" white and black streak floor tile typical of the southwest hallway, Rooms 16 (front), 17, 18, 19, 21, 22, 27, 28, 29, 30, 39, 86, and 87.	2
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" pink and black dots floor tile in Room 16.	3
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 9" X 9" beige and tan streak floor tile in Room 16.	4
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows terrazzo flooring in the west side of the first floor.	5
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 4" black cove base typical of Rooms 16, 27, 28, 31, and 32.	6
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 2' X 4' pinhole-fissured ceiling tile of a type found throughout the first floor.	7
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows wood wall panel mastic typical of Room 10 and Room 16.	8
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows yellow carpet mastic of a type found throughout the first floor.	9
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" thin brown and tan streak floor tile in the elevator.	10
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 9" X 9" grey with red and brown streak floor tile typical of Room 12 and Room 23.	11
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" white and black dot floor tile in the holding cell area.	12
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**

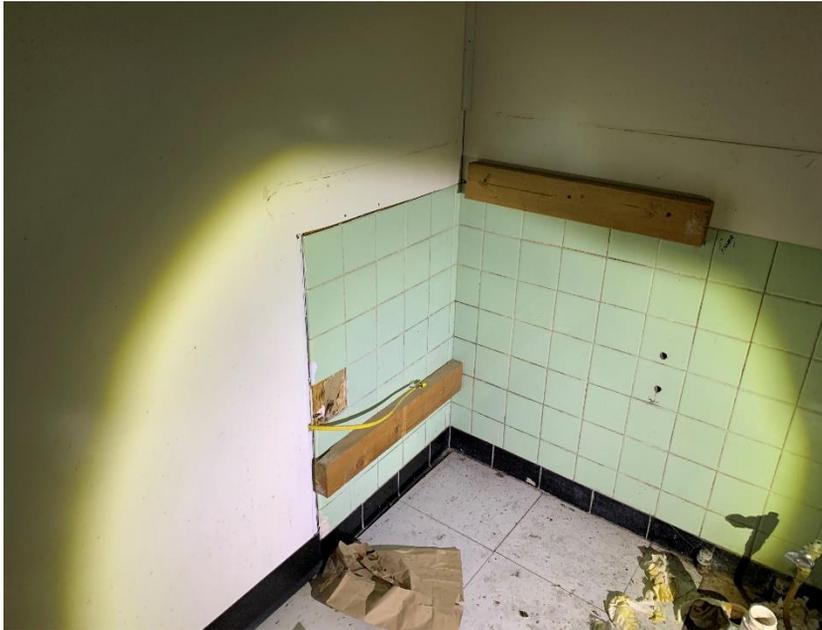


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" white fissured ceiling tile and mastic typical of the east office area and holding cell area.	13
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

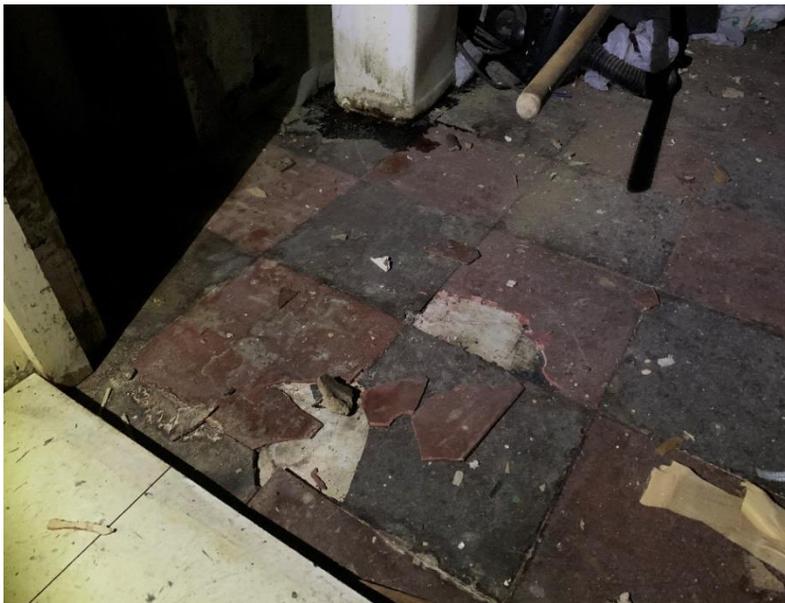


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 2' X 4' white gypsum ceiling typical of Room 21 bathroom, Room 22, and hallway storage near Elm Street entrance.	14
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows green ceramic wall tile mastic in Room 22.	15
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 9" X 9" red floor tile and 9" X 9" black floor tile under 12" X 12" white floor tile typical of Rooms 21 and 22.	16
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" hot pink floor tile and 12" X 12" turquoise floor tile typical of Room 14 and Room 15.	17
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" tan and brown streak floor tile typical of the hallway outside Room 48 and Room 10.	18
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" beige and tan cobblestone floor tile typical of Rooms 9, 11, and 13.	19
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows white sink coating in Room 48.	20
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows white ceramic tile grout in Room 3.	21
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows brown linoleum typical of Rooms 48, B67, and 68.	22
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: Southwest	DESCRIPTION	This photograph shows 9" X 9" brown and black streak floor tile typical of Rooms 43, 46, 89, 88 and hallway; the hallway near Room 43; the hallway of the north exit near Elm Street; the hallway south of the boiler room; and the hallway west of the boiler room.	23
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

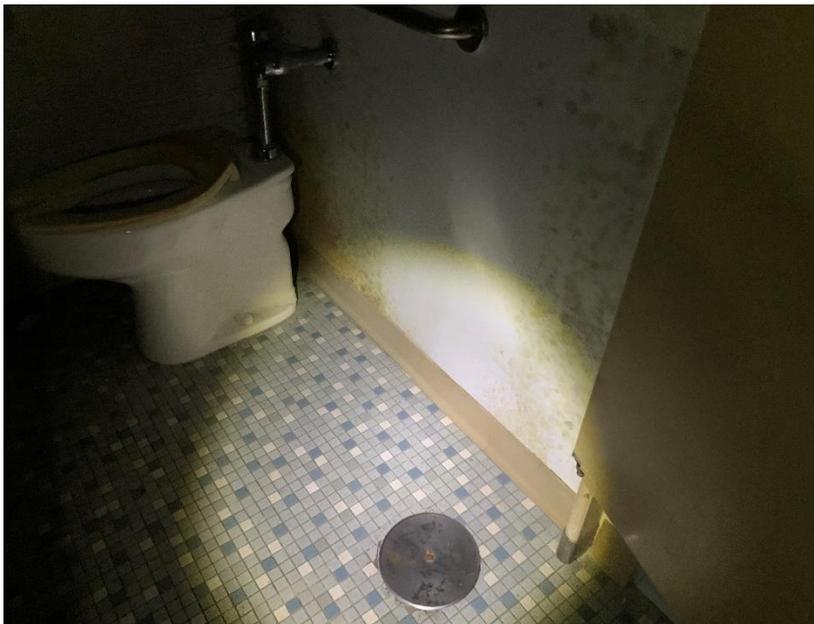


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: North	DESCRIPTION	This photograph shows white ceiling texture typical of Room 88 and hallway and the hallway west of the boiler room.	24
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: North	DESCRIPTION	This photograph shows brown fireproofing of a type found throughout the first floor.	25
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

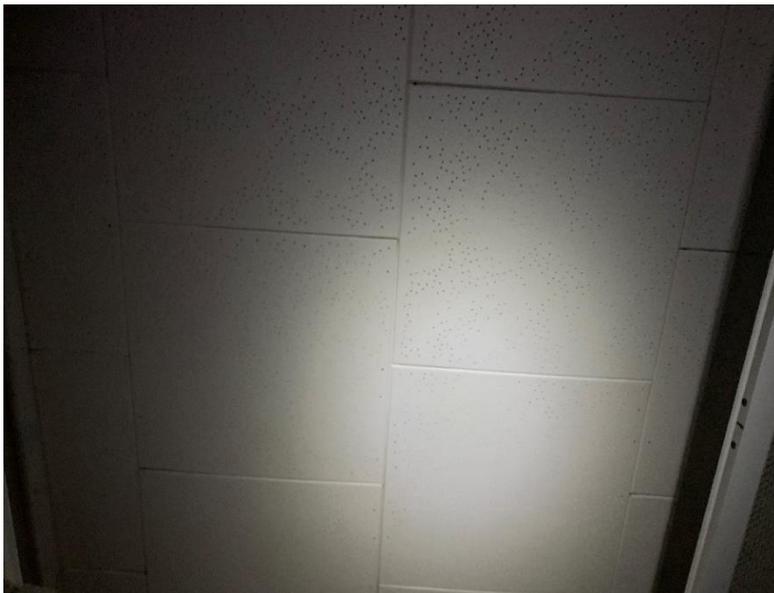


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows ceramic tile grout typical of Rooms B34, B35, B45, B65, and B66.	26
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 4" tan cove base typical of Rooms B67 and B68.	27
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

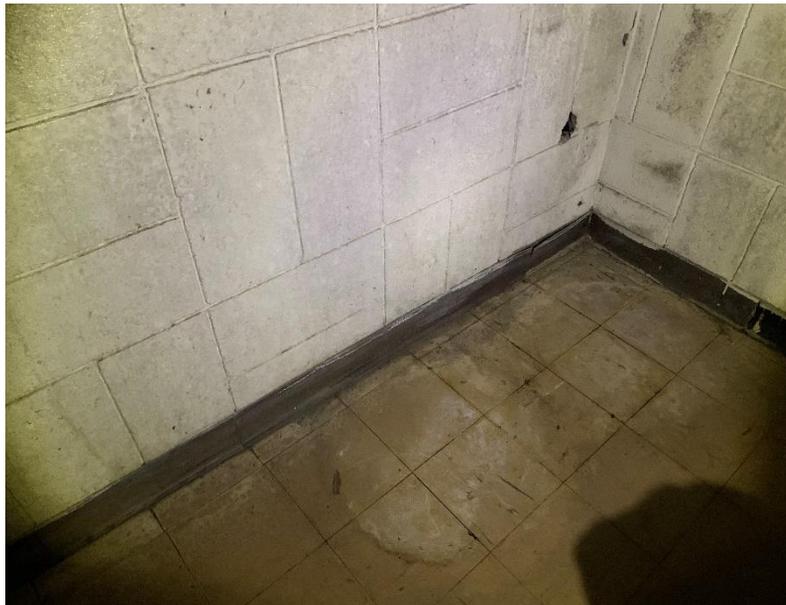


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" white pinhole ceiling tile typical of the north hallway, the hallway east of Room 41, and the hallway north of Room 70.	28
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows white plastic wall panel mastic in the hallway south of the boiler Room.	29
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 4" brown cove base in the second floor hallway.	30
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows tan linoleum on top of 12" X 12" white floor tile and 9" X 9" red floor tile typical of the mechanical maintenance area and the hallway west of the mechanical maintenance area.	31
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows wall carpet mastic in the holding cell area.	32
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 4" grey cove base typical of Room 39 and Room 46.	33
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

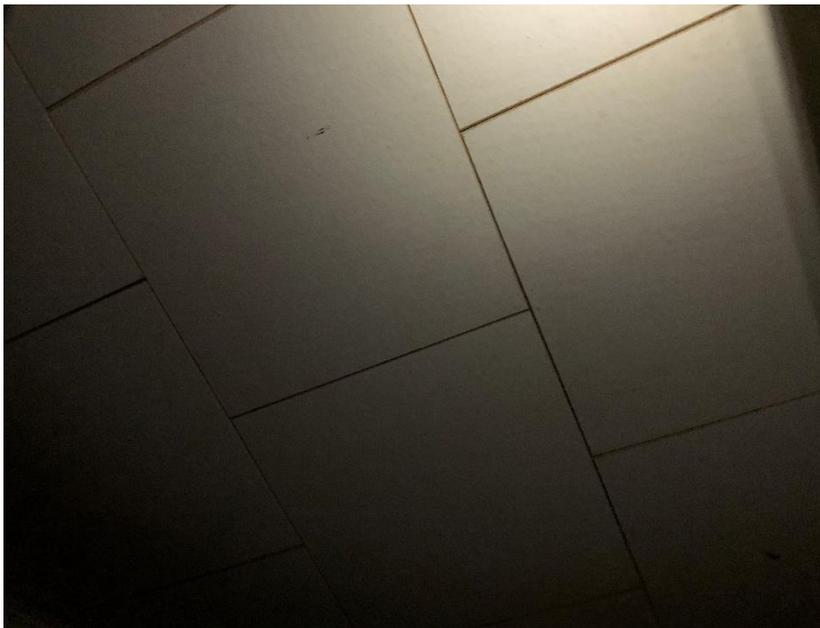


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 9" X 9" tan floor tile under carpet typical of the hallway east of Room 46 and of Rooms 39, 40, 41, 42, and 70.	34
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**

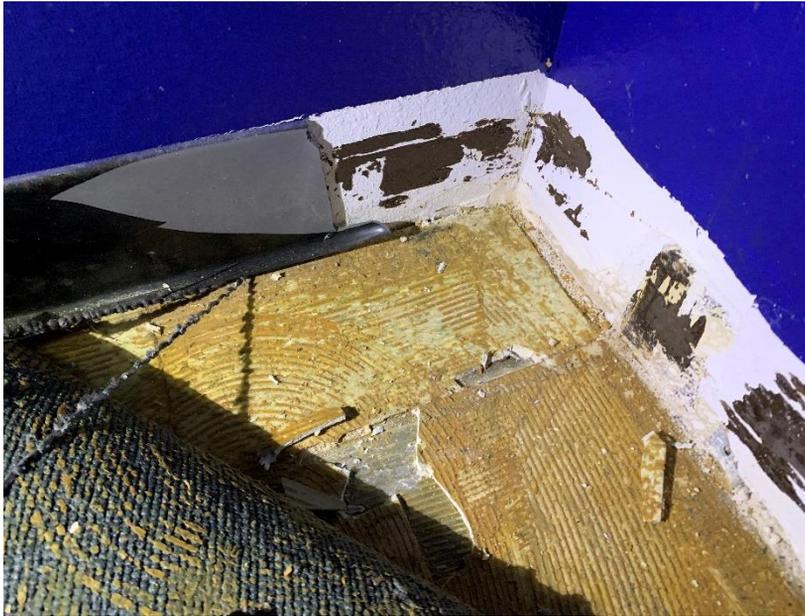


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" white divot ceiling tile in Room 39.	35
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" white smooth ceiling tile typical of Room 39 and Room 90.	36
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" cream with green and white speck floor tile in the courtroom.	37
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows ceiling texture on drywall in the courtroom.	38
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" fissured pinhole ceiling tile in the courtroom hallway.	39
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" bubbled ceiling tile in Room 90.	40
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows black carpet mastic in the northeast section of the building.	41
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows aircell pipe insulation in the west building area.	42
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows mudded pipe joints in the west building area.	43
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 8" grey cove base in Room 71.	44
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows grey grout and ceramic tile mastic in the second floor bathrooms.	45
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 9" X 9" beige and brown streak floor tile typical of the second floor hallway and of Rooms 74, 75, 76, and 78.	46
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows carpet mastic on top of yellow linoleum and grey linoleum in the narcotics room.	47
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows wall carpet mastic typical of the interview room and Room 79.	48
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows wood wall panel mastic in the storage room off of main second floor hallway.	49
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

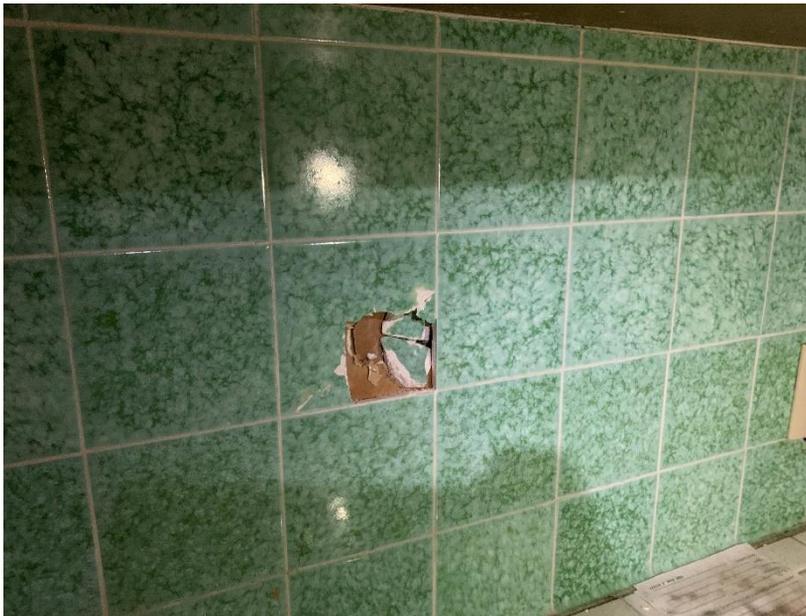


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" white square divot ceiling tile typical of the narcotics room and bathroom.	50
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows black sink coating in the narcotics room.	51
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows green ceramic tile mastic in the narcotics room.	52
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows grey floor tile under linoleum in the men's locker room.	53
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows cream 2' X 4' pinhole texture ceiling tile in the men's locker room.	54
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" grey with white and black speck floor tile in Room 81.	55
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows brown and tan pattern linoleum in Room 81.	56
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" blue with black and white speck floor tile under 12" X 12" white floor tile on linoleum typical of the second floor north hallway; the hallway east of Room 85; the hallway closet bathroom; Rooms 84 and 81; the armory; and women's locker room.	57
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows brown linoleum under 12" X 12" white floor tile and 12" X 12" blue with black and white speck floor tile typical of all second floor hallway entry strips.	58
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" tan with black, grey and white pattern floor tile with grid bottom typical of the second floor north and central hallway; the hallway near Room 85; the hallway south of the north stairwell; and Rooms 82, 83, and 85.	59
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 9" X 9" grey with white and black streak floor tile and 4" light blue cove base typical of the north stairwell, second floor hallway south of the north stairwell, and Room 85.	60
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" thin tan floor tile on top of grey floor tile in the elevator.	61
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows transite panels on south soffit of the building.	62
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows drywall in the original west side of the building.	63
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows drywall in the east side of the first floor.	64
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows plaster on the first floor.	65
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

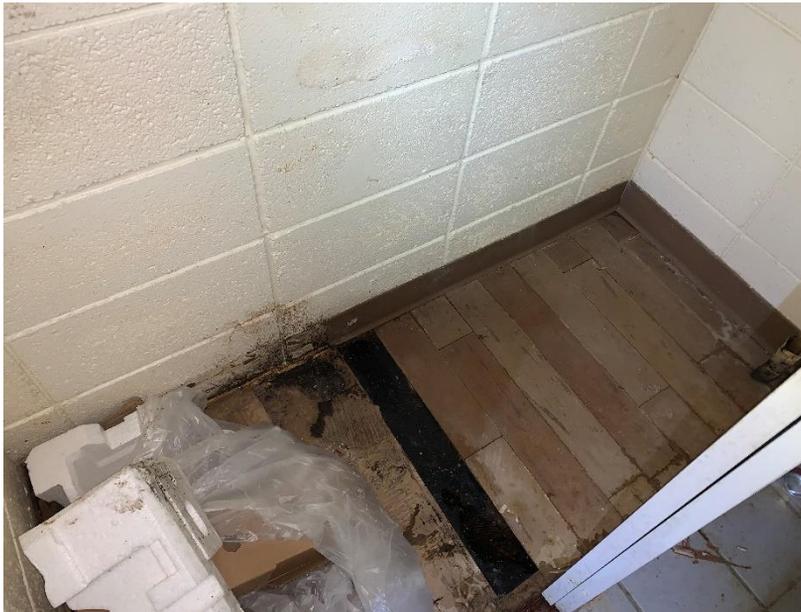


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows spray-on plaster ceiling in west side of first floor.	66
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows plaster on the second floor.	67
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 4" X 12" brown floor tile and pink cove base in the closet southwest of Room 48.	68
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows brown caulk typical of south exterior windows.	69
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows black expansion caulk typical of the east exterior and west entrance of the building.	70
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows white expansion caulk on the south exterior of the evidence building.	71
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

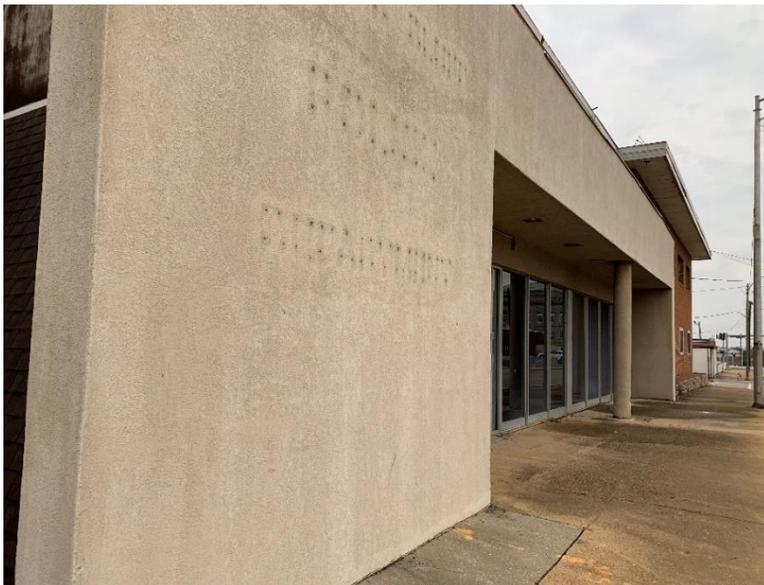


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows black expansion caulk on the exterior loading dock on the north side of the building.	72
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows grey caulk typical of north exterior doors.	73
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows tan stucco on the west exterior police department entrance and the northwest entrance wall and awning.	74
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows siding shingles on top of the vapor barrier on the west exterior of the building.	75
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

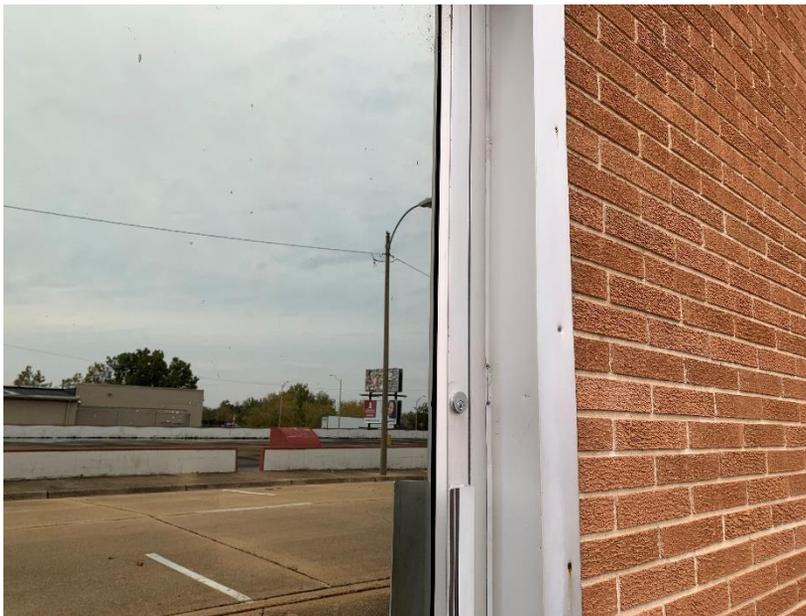


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows tan expansion caulk on the west exterior of the building.	76
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows clear caulk typical of exterior first floor west windows.	77
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows grey caulk typical of south exterior police department doors.	78
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows black glazing typical of south exterior windows.	79
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows light brown caulk on south exterior door.	80
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows the built-up asphalt roof on the police department.	81
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows the various layers of the built-up asphalt roof, including asphalt shingles, tar, and a loose tar and rock mix.	82
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows tar curb sealant on the police department roof.	83
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows the built-up roof on the north side of the police station.	84
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" floor tile and 4" brown cove base in the back room of the evidence building.	85
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows white window glaze on the southeast window of the evidence building.	86
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows green ceramic wall tile in Room 22.	87
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows white wall plaster in the maintenance area.	88
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows beige ceramic floor tile in the south entryway.	89
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows yellow parking lines on concrete in the garage.	90
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows yellow ceramic wall tile in Room 72.	91
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

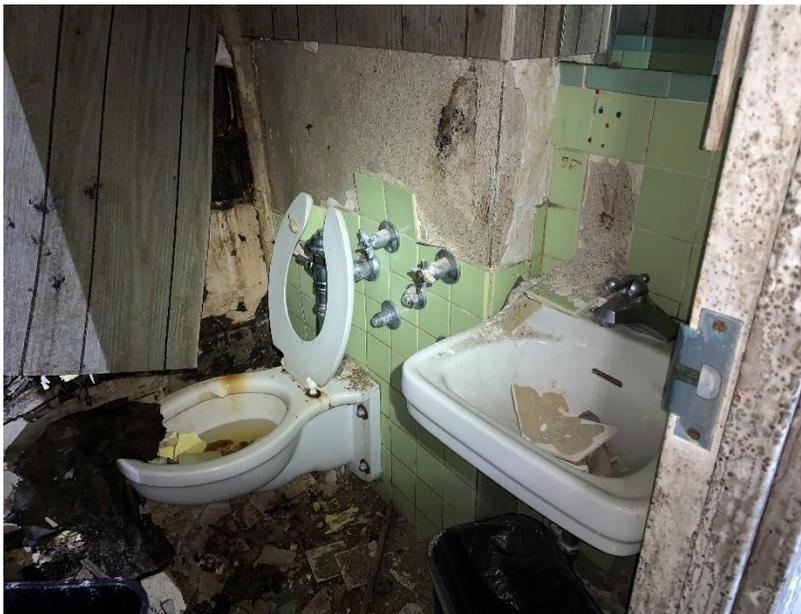


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows light pink ceramic wall tile typical of the Room 71 and Room 74 bathrooms.	92
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows cream ceramic wall tile typical of the bathrooms of Rooms 75, 77, 78, and 79.	93
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

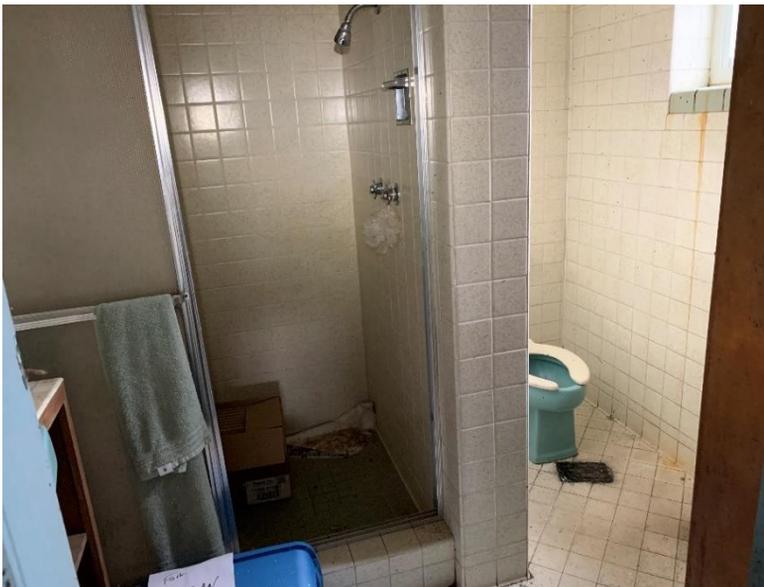


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows green ceramic wall tile in the second floor center hall bathroom.	94
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows green ceramic wall tile in the narcotics room.	95
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows cream with yellow ceramic wall tile and white ceramic floor tile in the narcotics bathroom.	96
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows white ceramic floor tile in Room 3.	97
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows the white wood door in the back room of the evidence building.	98
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

APPENDIX B
INSPECTOR CERTIFICATIONS

CERTIFICATION NUMBER:

7011112918MOIR17534

THIS CERTIFIES

Megan B Sawyer

HAS COMPLETED THE CERTIFICATION

REQUIREMENTS FOR

Inspector



APPROVED: **01/17/2019**

TRAINING DATE: **11/29/2018**

EXPIRES: **11/29/2019**


Director of Air Pollution Control Program



**Missouri Department of Health
and Senior Services**

**Lead Occupation License - ID Badge
License Number: 150427-300004651**

Lead Inspector



**Megan
Sawyer**

Expiration Date: 06/12/2021

CERTIFICATION NUMBER:

7136080519MOIR18920

THIS CERTIFIES

Zachary S Usher

HAS COMPLETED THE CERTIFICATION

REQUIREMENT'S FOR

Inspector



TRAINING DATE: **08/05/2019**

APPROVED: **08/30/2019**

EXPIRES: **08/30/2020**

Zachary S Usher
Director of Air Pollution Control Program

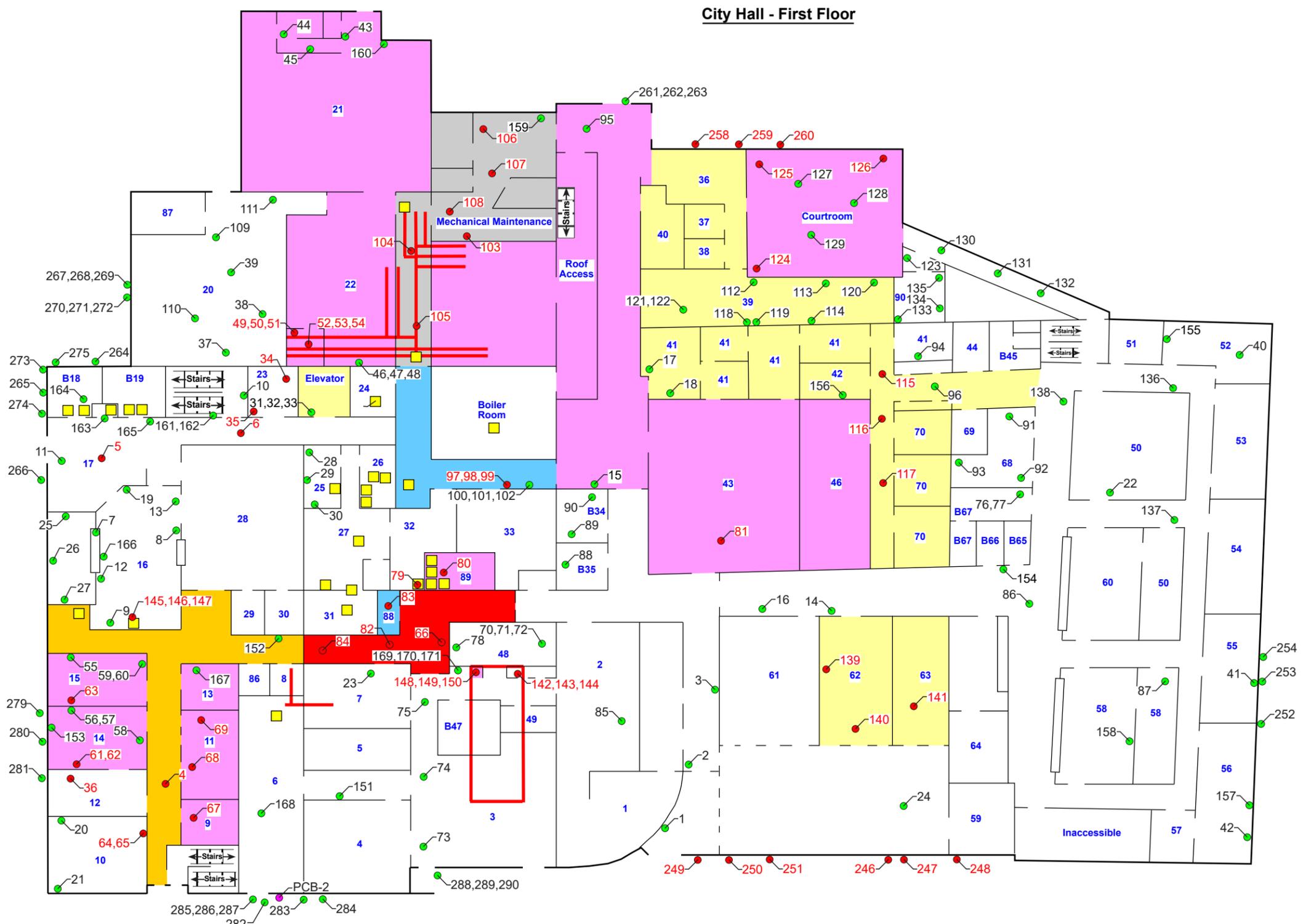
APPENDIX C

FIGURES

Sample Key Table				
Key	Sample No.			
Asbestos				
City Hall - First Floor				
1	FT-1	57	FT10-3	115
2	FT-2	58	FT11-1	116
3	FT-3	59	FT11-2	117
4	FT1-1	60	FT11-3	118
5	FT1-2	61	FT12-1	119
6	FT1-3	62	FT12-2	120
7	FT2-1	63	FT12-3	121
8	FT2-2	64	FT13-1	122
9	FT2-3	65	FT13-2	123
10	Terrazzo-1	66	FT13-3	124
11	Terrazzo-2	67	FT14-1	125
12	Terrazzo-3	68	FT14-2	126
13	CB-1	69	FT14-3	127
14	CB-2	70	SU-1	128
15	CB-3	71	SU-2	129
16	CT-1	72	SU-3	130
17	CT-2	73	CTG-1	131
18	CT-3	74	CTG-2	132
19	WM-1	75	CTG-3	133
20	WM-2	76	LIN-1	134
21	WM-3	77	LIN-2	135
22	CM-1	78	LIN-3	136
23	CM-2	79	FT15-1	137
24	CM-3	80	FT15-2	138
25	FT3-1	81	FT15-3	139
26	FT3-2	82	CTX-1	140
27	FT3-3	83	CTX-2	141
28	FT4-1	84	CTX-3	142
29	FT4-2	85	FP-1	143
30	FT4-3	86	FP-2	144
31	FT5-1	87	FP-3	145
32	FT5-2	88	CTG1-1	146
33	FT5-3	89	CTG1-2	147
34	FT6-1	90	CTG1-3	148
35	FT6-2	91	CB1-1	149
36	FT6-3	92	CB1-2	150
37	FT7-1	93	CB1-3	151
38	FT7-2	94	CT2-1	152
39	FT7-3	95	CT2-2	153
40	CT1-1	96	CT2-3	154
41	CT1-2	97	WM1-1	155
42	CT1-3	98	WM1-2	156
43	CT2-1	99	WM1-3	157
44	CT2-2	100	CB2-1	158
45	CT2-3	101	CB2-2	159
46	CTM-1	102	CB2-3	160
47	CTM-2	103	LIN1-1	161
48	CTM-3	104	LIN1-2	162
49	FT8-1	105	LIN1-3	163
50	FT8-2	106	FT16-1	164
51	FT8-3	107	FT16-2	165
52	FT9-1	108	FT16-3	166
53	FT9-2	109	CM1-1	167
54	FT9-3	110	CM1-2	168
55	FT10-1	111	CM1-3	169
56	FT10-2	112	CB3-1	170
		113	CB3-2	171
		114	CB3-3	171

Polychlorinated biphenyl	
PCB-1	Additional
PCB-2	Original

Exterior (All Buildings)		
245	TRAN-1	273
247	TRAN-2	274
248	TRAN-3	275
249	C-1	276
250	C-2	277
251	C-3	278
252	EC-1	279
253	EC-2	280
254	EC-3	281
255	EC1-1	282
256	EC1-2	283
257	EC1-3	284
258	EC2-1	285
259	EC2-2	286
260	EC2-3	287
		288
		289
		290



Legend	
●	Asbestos-containing material sample location Non-
●	Asbestos-containing material sample location
●	Polychlorinated biphenyl (PCB) sample location
■	Asbestos-containing joint
—	Asbestos-containing thermal system insulation (TSI)

■	Asbestos-containing floor tile
■	Asbestos-containing floor tile and linoleum
■	Asbestos-containing floor tile and mastic
■	Asbestos-containing floor tile, mastic, and texture
■	Asbestos-containing mastic
■	Asbestos-containing texture

Oak Street City Hall
Poplar Bluff, Missouri

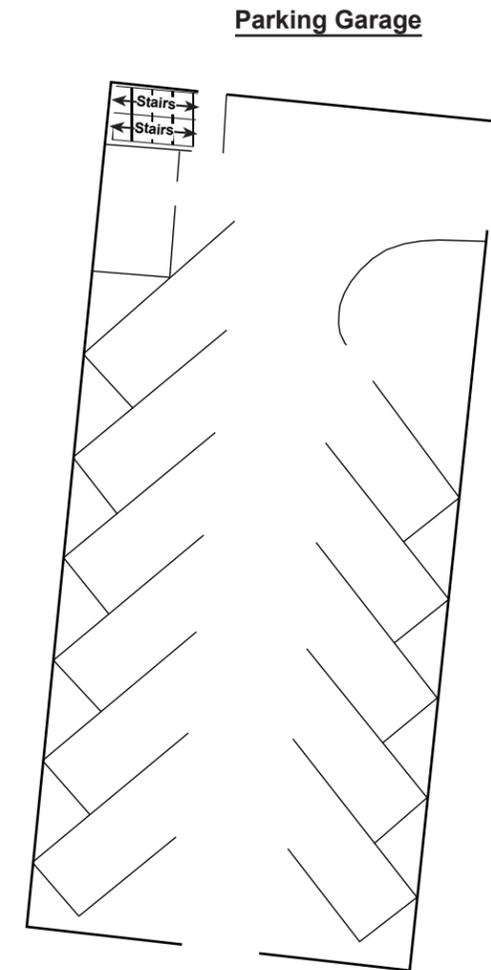
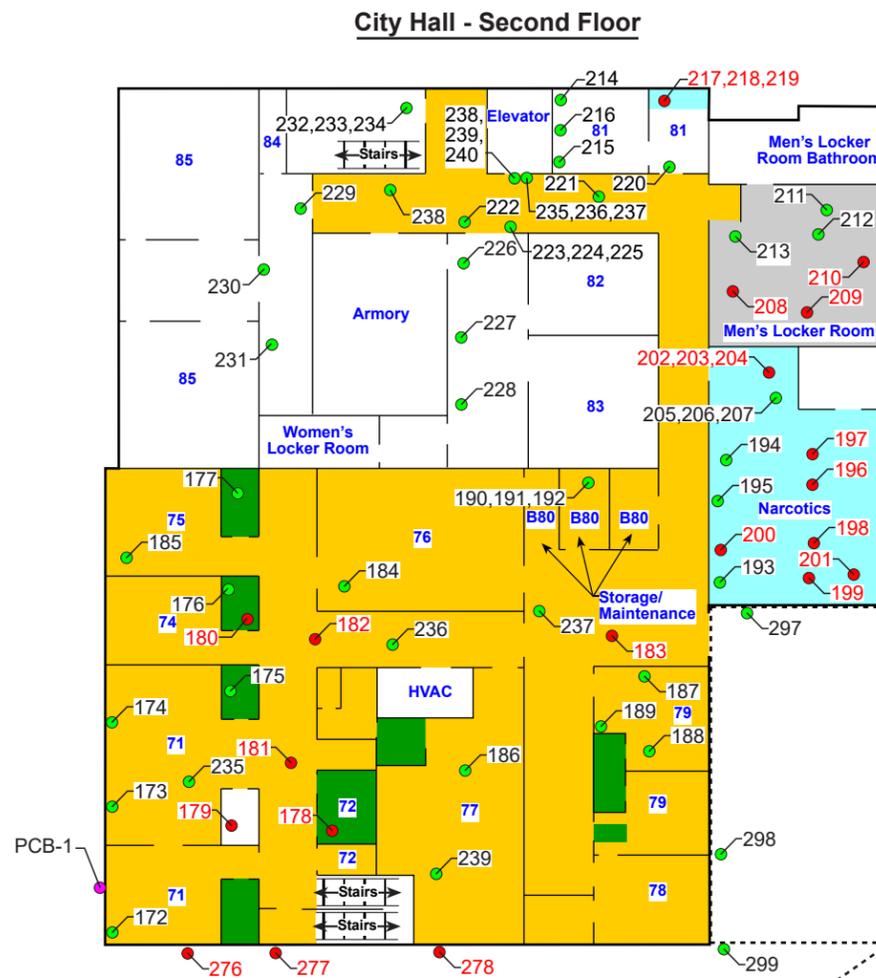
Figure 1A
Asbestos and PCB Sample Location Map

TETRA TECH

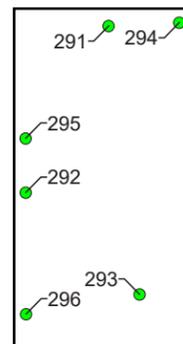
Note: Room numbers were developed by Tetra Tech.

Date: 1/31/2020 Drawn By: Nick Wiederholt Project No: X903019F0101.005

Sample Key Table		Exterior (All Buildings)	
Key	Sample No.		
Asbestos			
City Hall - Second Floor			
172	CB4-1	246	TRAN-1
173	CB4-2	247	TRAN-2
174	CB4-3	248	TRAN-3
175	CTG2-1	249	C-1
176	CTG2-2	250	C-2
177	CTG2-3	251	C-3
178	CTM1-1	252	EC-1
179	CTM1-2	253	EC-2
180	CTM1-3	254	EC-3
181	FT20-1	255	EC1-1
182	FT20-2	256	EC1-2
183	FT20-3	257	EC1-3
184	CM3-1	258	EC2-1
185	CM3-2	259	EC2-2
186	CM3-3	260	EC2-3
187	CM4-1	261	C1-1
188	CM4-2	262	C1-2
189	CM4-3	263	C1.3
190	WM2-1	264	STUCCO-1
191	WM2-2	265	STUCCO-2
192	WM2-3	266	STUCCO-3
193	CT6-1	267	SS-1
194	CT6-2	268	SS-2
195	CT6-3	269	SS-3
196	LIN2-1	270	VP-1
197	LIN2-2	271	VP-2
198	LIN2-3	272	VP-3
199	LIN3-1	273	EC3-1
200	LIN3-2	274	EC3-2
201	LIN3-3	275	EC3-3
202	SU1-1	276	C2-1
203	SU1-2	277	C2-2
204	SU1-3	278	C2-3
205	CTM2-1	279	C3-1
206	CTM2-2	280	C3-2
207	CTM2-3	281	C3-3
208	FT21-1	282	C4-1
209	FT21-2	283	C4-2
210	FT21-3	284	C4-3
211	CT7-1	285	G-1
212	CT7-2	286	G-2
213	CT7-3	287	G-3
214	FT22-1	288	C6-1
215	FT22-2	289	C6-2
216	FT22-3	290	C6-3
Oak St. City Hall - Roof			
217	LIN4-1	291	RC-1
218	LIN4-2	292	RC-2
219	LIN4-3	293	RC-3
220	FT23-1	294	FL-1
221	FT23-2	295	FL-2
222	FT23-3	296	FL-3
223	LIN5-1	297	CS-1
224	LIN5-2	298	CS-2
225	LIN5-3	299	CS-3
Polychlorinated biphenyl			
226	FT24-1	PCB-1	Additional
227	FT24-2	PCB-2	Original
228	FT24-3		
229	CB5-1		
230	CB5-2		
231	CB5-3		
232	FT26-1		
233	FT26-2		
234	FT26-3		
235	FT27-1		
236	FT27-2		
237	FT27-3		
238	FT28-1		
239	FT28-2		
240	FT28-3		
241	PLSC1-1		
242	PLSC1-2		
243	PLSC1-3		
244	PLSC1-4		
245	PLSC1-5		



Lower Level Roof



Legend

- Asbestos-containing material sample location
- Non-asbestos-containing material sample location
- Polychlorinated biphenyl (PCB) sample location
- 72 Room number/name
- Asbestos-containing ceramic tile mastic
- Asbestos-containing floor tile and linoleum
- Asbestos-containing linoleum
- Asbestos-containing mastic

Note: Room numbers were developed by Tetra Tech.



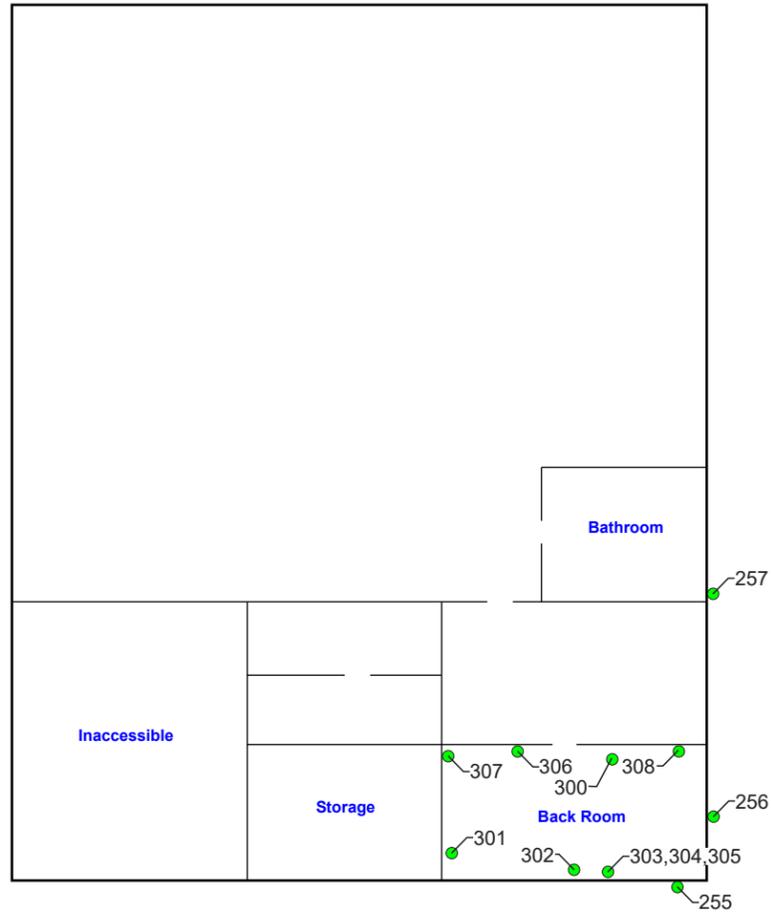
Oak Street City Hall Poplar Bluff, Missouri	
Figure 1B Asbestos and PCB Sample Location Map	
TETRA TECH	
Date: 1/31/2020	Drawn By: Nick Wiederholt
Project No: X903019F0101.005	

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Evidence Building	
300	FT30-1
301	FT30-2
302	FT30-3
303	G1-1
304	G1-2
305	G1-3
306	CB7-1
307	CB7-2
308	CB7-3

Exterior (All Buildings)	
246	TRAN-1
247	TRAN-2
248	TRAN-3
249	C-1
250	C-2
251	C-3
252	EC-1
253	EC-2
254	EC-3
255	EC1-1
256	EC1-2
257	EC1-3
258	EC2-1
259	EC2-2
260	EC2-3
261	C1-1
262	C1-2
263	C1-3
264	STUCCO-1
265	STUCCO-2
266	STUCCO-3
267	SS-1
268	SS-2
269	SS-3
270	VP-1
271	VP-2
272	VP-3
273	EC3-1
274	EC3-2
275	EC3-3
276	C2-1
277	C2-2
278	C2-3
279	C3-1
280	C3-2
281	C3-3
282	C4-1
283	C4-2
284	C4-3
285	G-1
286	G-2
287	G-3
288	C6-1
289	C6-2
290	C6-3

Evidence Building



Legend

- Non-asbestos-containing material sample location
- 72 Room number/name

Note: Room numbers were developed by Tetra Tech.

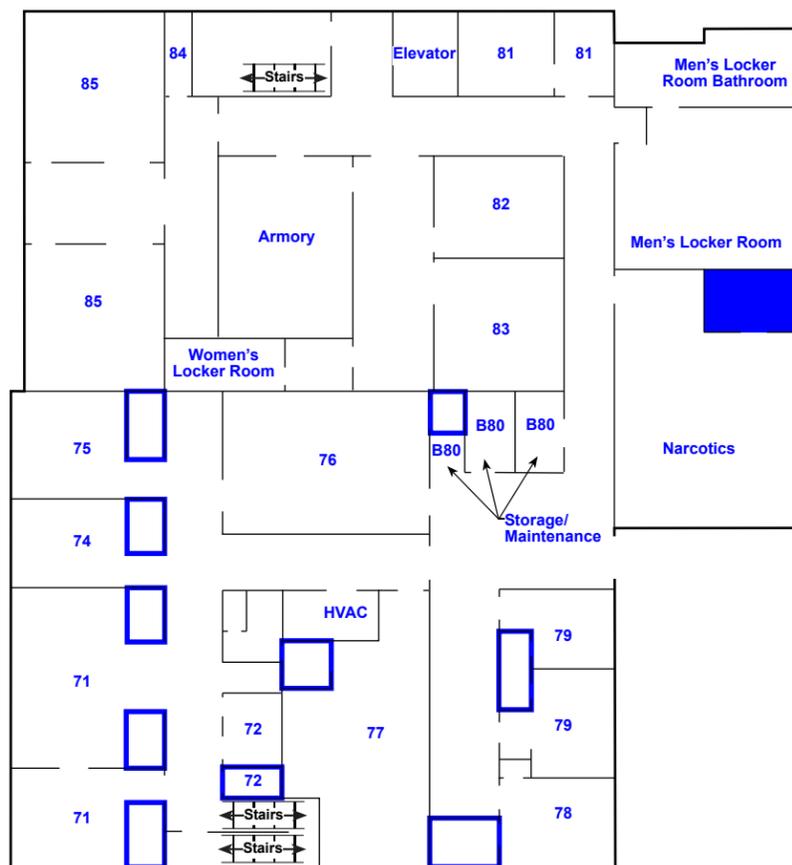


Oak Street City Hall
Poplar Bluff, Missouri

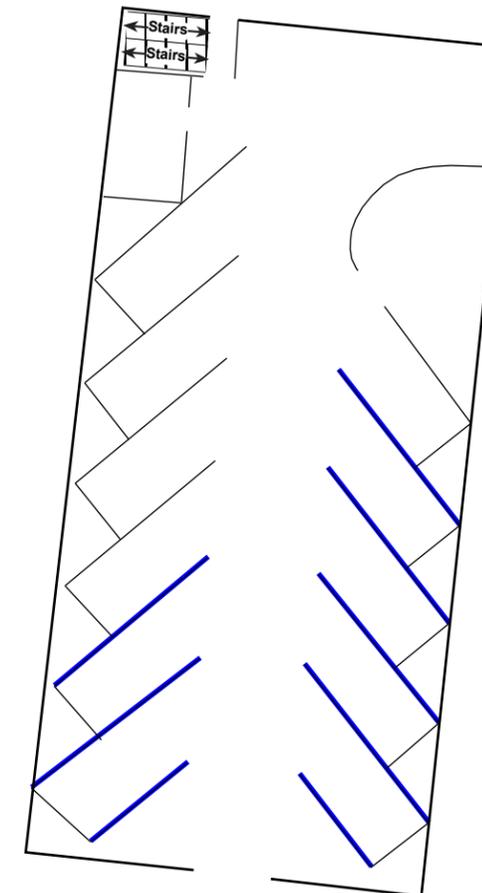
Figure 1C
Asbestos Sample Location Map



City Hall - Second Floor



Parking Garage



Legend

- Area containing lead-based paint (LBP)
- 75 Room number/name

Note: Room numbers were developed by Tetra Tech.



Oak Street City Hall
Poplar Bluff, Missouri

Figure 2B
LBP Location Map



Date: 1/31/2020

Drawn By: Nick Wiederholt

Project No: X903019F0101.005

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APPENDIX D

ACM ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY FORMS



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

QuantEM Lab No. 316871	Client: Tetra Tech EM, Inc.
Account Number: B229	415 Oak Street
	Kansas City, MO 64106
Date Received: 11/13/2019	
Received By: Elena LaFarge	
Date Analyzed: 11/19/2019	Project: 103X903019F0101.005
Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	FT-1	Layered	Gray Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
001a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
002	FT-2	Layered	Gray Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
002a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
003	FT-3	Layered	Gray Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
003a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
004	FT1-1	Layered	Beige Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
004a		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
005	FT1-2	Layered	Beige Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
005a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
006	FT1-3	Layered	Beige Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
006a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
007	FT2-1	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3

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Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
007a		Layered	Pink Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
007b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
008	FT2-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
008a		Layered	Pink Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
008b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
009	FT2-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
009a		Layered	Pink Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3

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Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
009b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
010	Terrazzo-1	Homogeneous	Tan Terrazzo	Asbestos Not Present	NA	CaCO3 Quartz Binder
011	Terrazzo-2	Homogeneous	Tan Terrazzo	Asbestos Not Present	NA	CaCO3 Quartz Binder
012	Terrazzo-3	Homogeneous	Tan Terrazzo	Asbestos Not Present	NA	CaCO3 Quartz Binder
013	CB-1	Layered	Black Cove Base	Asbestos Not Present	NA	Vinyl CaCO3
013a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3

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Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
014	CB-2	Layered	Black Cove Base	Asbestos Not Present	NA	Vinyl CaCO3
014a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
015	CB-3	Layered	Black Cove Base	Asbestos Not Present	NA	Vinyl CaCO3
015a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
015b		Layered	Brown Mastic	Asbestos Not Present	Talc 4	Glue
015c		Layered	Tan Joint Compound	Asbestos Present Chrysotile 2	NA	CaCO3
016	CT-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 30	Perlite Paint

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Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
017	CT-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 30	Perlite Paint
018	CT-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 30	Perlite Paint
019	WM-1	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue
020	WM-2	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue
021	WM-3	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue
022	CM-1	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3

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Polarized Light Microscopy Asbestos Analysis Report

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	Kansas City, MO 64106
Date Received: 11/13/2019	
Received By: Elena LaFarge	
Date Analyzed: 11/19/2019	Project: 103X903019F0101.005
Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
023	CM-2	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
024	CM-3	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
025	FT4-1	Layered	Beige Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
025a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
026	FT4-2	Layered	Beige Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
026a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
027	FT4-3	Layered	Beige Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3

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	Kansas City, MO 64106
Date Received: 11/13/2019	
Received By: Elena LaFarge	
Date Analyzed: 11/19/2019	Project: 103X903019F0101.005
Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
027a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
028	FT5-1	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	Vinyl CaCO3
028a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
029	FT5-2	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	Vinyl CaCO3
029a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
030	FT5-3	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	Vinyl CaCO3

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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Polarized Light Microscopy Asbestos Analysis Report

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Date Received: 11/13/2019	
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Date Analyzed: 11/19/2019	Project: 103X903019F0101.005
Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
030a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
031	FT6-1	Layered	Gray Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO3
031a		Layered	Black Mastic	Asbestos Not Present	NA	Tar
032	FT6-2	Layered	Gray Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO3
032a		Layered	Black Mastic	Asbestos Not Present	NA	Tar
033	FT6-3	Layered	Gray Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO3
033a		Layered	Black Mastic	Asbestos Not Present	NA	Tar

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Polarized Light Microscopy Asbestos Analysis Report

QuantEM Lab No. 316871	Client: Tetra Tech EM, Inc.
Account Number: B229	415 Oak Street
	Kansas City, MO 64106
Date Received: 11/13/2019	
Received By: Elena LaFarge	
Date Analyzed: 11/19/2019	Project: 103X903019F0101.005
Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
034	FT7-1	Layered	Gray Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3 Sand
034a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
034b		Layered	Gray Leveling Compound	Asbestos Not Present	NA	Sand CaCO3
035	FT7-2	Layered	Gray Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3 Sand
035a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
036	FT7-3	Homogeneous	Gray Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3

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Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
037	CT1-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 10 Glass Fiber 80	Paint
038	CT1-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 10 Glass Fiber 80	Paint
039	CT1-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 10 Glass Fiber 80	Paint
040	CT2-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
041	CT2-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
042	CT2-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
043	CTM-1	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue

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Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
044	CTM-2	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue
045	CTM-3	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue
046	FT8-1	Layered	Red Floor Tile	Asbestos Present Chrysotile 5	NA	Vinyl CaCO3
046a		Layered	Black Mastic	Asbestos Present Chrysotile 10	NA	Tar
047	FT8-2	Layered	Red Floor Tile	Asbestos Present Chrysotile 5	NA	Vinyl CaCO3
047a		Layered	Black Mastic	Asbestos Present Chrysotile 10	NA	Tar

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
048	FT8-3	Layered	Red Floor Tile	Asbestos Present Chrysotile 5	NA	Vinyl CaCO3
048a		Layered	Black Mastic	Asbestos Present Chrysotile 10	NA	Tar
049	FT9-1	Layered	Brown Floor Tile	Asbestos Present Chrysotile 6	NA	Vinyl CaCO3
049a		Layered	Black Mastic	Asbestos Present Chrysotile 10	NA	Tar
050	FT9-2	Layered	Brown Floor Tile	Asbestos Present Chrysotile 6	NA	Vinyl CaCO3
050a		Layered	Black Mastic	Asbestos Present Chrysotile 10	NA	Tar
051	FT9-3	Layered	Brown Floor Tile	Asbestos Present Chrysotile 6	NA	Vinyl CaCO3

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
051a		Layered	Black Mastic	Asbestos Present Chrysotile 10	NA	Tar
052	FT10-1	Layered	Red Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
052a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
053	FT10-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
053a		Layered	Red Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
053b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3

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Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
054	FT10-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
054a		Layered	Red Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
054b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
055	FT11-1	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
055a		Layered	Green Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
055b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
056	FT11-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
056a		Layered	Green Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
056b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
057	FT11-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
057a		Layered	Green Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
057b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
058	FT12-1	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3

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Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
058a		Layered	Beige Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO3
058b		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
059	FT12-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
059a		Layered	Beige Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO3
059b		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
060	FT12-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
060a		Layered	Beige Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO3

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
060b		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
061	FT13-1	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	Vinyl CaCO3
061a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
061b		Layered	Gray Leveling Compound	Asbestos Not Present	NA	CaCO3
062	FT13-2	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	Vinyl CaCO3
062a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue

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Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
062b		Layered	Gray Leveling Compound	Asbestos Not Present	NA	CaCO3
063	FT13-3	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	Vinyl CaCO3
063a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
063b		Layered	Gray Leveling Compound	Asbestos Not Present	NA	CaCO3
064	FT14-1	Layered	Beige Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO3
064a		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
065	FT14-2	Layered	Beige Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO3

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
065a		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
066	FT14-3	Layered	Beige Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO3
066a		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
067	SU-1	Homogeneous	White Sink Undercoat	Asbestos Not Present	Cellulose 10	CaCO3 Binder
068	SU-2	Homogeneous	White Sink Undercoat	Asbestos Not Present	Cellulose 10	CaCO3 Binder
069	SU-3	Homogeneous	White Sink Undercoat	Asbestos Not Present	Cellulose 10	CaCO3 Binder

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Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
070	CTG-1	Homogeneous	Gray Grout	Asbestos Not Present	NA	Sand Binder
071	CTG-2	Homogeneous	Gray Grout	Asbestos Not Present	NA	Sand Binder
072	CTG-3	Homogeneous	Gray Grout	Asbestos Not Present	NA	Sand Binder
073	LIN-1	Layered	Brown Sheet Vinyl	Asbestos Not Present	Cellulose 10 Synthetic 15	Vinyl Binder
073a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
073b		Layered	Black Leveling Compound	Asbestos Not Present	NA	CaCO3 Sand
074	LIN-2	Layered	Brown Sheet Vinyl	Asbestos Not Present	Cellulose 10 Synthetic 15	Vinyl Binder

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
074a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
074b		Layered	Black Leveling Compound	Asbestos Not Present	NA	CaCO3 Sand
075	LIN-3	Layered	Brown Sheet Vinyl	Asbestos Not Present	Cellulose 10 Synthetic 15	Vinyl Binder
075a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
076	FT15-1	Layered	Brown Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO3
076a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
077	FT15-2	Layered	Brown Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO3
077a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
078	FT15-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
078a		Layered	Brown Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO3
078b		Layered	Black Mastic	Asbestos Present Chrysotile 5	NA	Tar
079	CTX-1	Homogeneous	White Ceiling Texture	Asbestos Present Chrysotile 5	NA	CaCO3 Perlite Paint

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
080	CTX-2	Homogeneous	White Ceiling Texture	Asbestos Present Chrysotile 5	NA	CaCO3 Perlite Paint
081	CTX-3	Homogeneous	White Ceiling Texture	Asbestos Present Chrysotile 5	NA	CaCO3 Perlite Paint
082	FP-1	Homogeneous	Brown Fireproofing	Asbestos Not Present	Cellulose 100	
083	FP-2	Homogeneous	Brown Fireproofing	Asbestos Not Present	Cellulose 100	
084	FP-3	Homogeneous	Brown Fireproofing	Asbestos Not Present	Cellulose 100	
085	CTG1-1	Homogeneous	White Grout	Asbestos Not Present	NA	CaCO3 Sand
086	CTG1-2	Homogeneous	White Grout	Asbestos Not Present	NA	CaCO3 Sand

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Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
087	CTG1-3	Homogeneous	White Grout	Asbestos Not Present	NA	CaCO3 Sand
088	CB1-1	Layered	Tan Cove Base	Asbestos Not Present	NA	Vinyl CaCO3
088a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
088b		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
089	CB1-2	Layered	Tan Cove Base	Asbestos Not Present	NA	Vinyl CaCO3
089a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3

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Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 316871	Client: Tetra Tech EM, Inc.
Account Number: B229	415 Oak Street
	Kansas City, MO 64106
Date Received: 11/13/2019	
Received By: Elena LaFarge	
Date Analyzed: 11/19/2019	Project: 103X903019F0101.005
Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
089b		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
090	CB1-3	Layered	Tan Cove Base	Asbestos Not Present	NA	Vinyl CaCO3
090a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
090b		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
091	CT2-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
092	CT2-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
093	CT2-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint

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Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
094	WM1-1	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
094a		Layered	White Texture	Asbestos Present Chrysotile 4	NA	CaCO3 Paint
095	WM1-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
095a		Layered	White Texture	Asbestos Present Chrysotile 4	NA	CaCO3 Paint
096	WM1-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
096a		Layered	White Texture	Asbestos Present Chrysotile 4	NA	CaCO3 Paint

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Received By: Elena LaFarge	
Date Analyzed: 11/19/2019	Project: 103X903019F0101.005
Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
097	CB2-1	Homogeneous	Brown Mastic	Asbestos Not Present	NA	Glue
098	CB2-2	Homogeneous	Brown Mastic	Asbestos Not Present	NA	Glue
099	CB2-3	Homogeneous	Brown Mastic	Asbestos Not Present	NA	Glue CaCO3
100	LIN1-1	Homogeneous	Brown Sheet Vinyl	Asbestos Present Chrysotile 25	NA	Vinyl Binder
101	LIN1-2	Homogeneous	Brown Sheet Vinyl	Asbestos Present Chrysotile 25	NA	Vinyl Binder
102	LIN1-3	Homogeneous	Brown Sheet Vinyl	Asbestos Present Chrysotile 25	NA	Vinyl Binder
103	FT16-1	Layered	Tan Floor Tile	Asbestos Present Chrysotile 5	NA	Vinyl CaCO3

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Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
103a		Layered	Black Mastic	Asbestos Not Present	NA	Tar CaCO3
104	FT16-2	Layered	Tan Floor Tile	Asbestos Present Chrysotile 5	NA	Vinyl CaCO3
104a		Layered	Black Mastic	Asbestos Not Present	NA	Tar CaCO3
105	FT16-3	Layered	Tan Floor Tile	Asbestos Present Chrysotile 5	NA	Vinyl CaCO3
105a		Layered	Black Mastic	Asbestos Not Present	NA	Tar CaCO3
106	CM1-1	Layered	Gray Carpet	Asbestos Not Present	Synthetic 100	

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Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
106a		Layered	White Mastic	Asbestos Not Present	NA	Glue CaCO3
107	CM1-2	Layered	Gray Carpet	Asbestos Not Present	Synthetic 100	
107a		Layered	White Mastic	Asbestos Not Present	NA	Glue CaCO3
108	CM1-3	Layered	Gray Carpet	Asbestos Not Present	Synthetic 100	
108a		Layered	White Mastic	Asbestos Not Present	NA	Glue CaCO3
109	CB3-1	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue
110	CB3-2	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue

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Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
111	CB3-3	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue
112	FT17-1	Layered	Tan Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO3
112a		Layered	Black Mastic	Asbestos Not Present	NA	Tar
113	FT17-2	Layered	Tan Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO3
113a		Layered	Black Mastic	Asbestos Not Present	NA	Tar
114	FT17-3	Layered	Tan Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO3

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
114a		Layered	Black Mastic	Asbestos Not Present	NA	Tar
115	CT3-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Foam
116	CT3-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Foam
117	CT3-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Foam
118	CT4-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 40 Glass Fiber 30	Perlite Paint
119	CT4-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 40 Glass Fiber 30	Perlite Paint
120	CT4-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 40 Glass Fiber 30	Perlite Paint

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Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
121	FT18-1	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
121a		Layered	Cream Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO3
121b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
122	FT18-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
122a		Layered	Cream Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO3
122b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
123	FT18-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
123a		Layered	Cream Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO3
123b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
124	CTX1-1	Layered	White Ceiling Texture	Asbestos Not Present	NA	CaCO3 Mica Paint
124a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 25	Gypsum
125	CTX1-2	Layered	White Ceiling Texture	Asbestos Not Present	NA	CaCO3 Mica Paint
125a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 25	Gypsum

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Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
126	CTX1-3	Layered	White Ceiling Texture	Asbestos Not Present	NA	CaCO3 Mica Paint
126a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 25	Gypsum
127	CT4-1	Homogeneous	Tan Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
128	CT4-2	Homogeneous	Tan Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
129	CT4-3	Homogeneous	Tan Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
130	CT5-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Foam

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Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
131	CT5-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Foam
132	CT5-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Foam
133	CM2-1	Homogeneous	Black Mastic	Asbestos Not Present	NA	Glue CaCO3
134	CM2-2	Homogeneous	Black Mastic	Asbestos Not Present	NA	Glue CaCO3
135	CM2-3	Homogeneous	Black Mastic	Asbestos Not Present	NA	Glue CaCO3
136	FT19-1	Layered	Cream Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO3
136a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
137	FT19-2	Layered	Cream Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO3
137a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
138	FT19-3	Layered	Cream Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO3
138a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
139	TSI-1	Homogeneous	Gray Insulation	Asbestos Present Chrysotile 60	Cellulose 30	Binder
140	TSI-2	Homogeneous	Gray Insulation	Asbestos Present Chrysotile 60	Cellulose 30	Binder

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QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
141	TSI-3	Homogeneous	Gray Insulation	Asbestos Present Chrysotile 60	Cellulose 30	Binder
142	TSIJ-1	Homogeneous	Light Gray Insulation	Asbestos Present Chrysotile 30	NA	CaCO3
143	TSIJ-2	Homogeneous	Light Gray Insulation	Asbestos Present Chrysotile 30	NA	CaCO3
144	TSIJ-3	Homogeneous	Light Gray Insulation	Asbestos Present Chrysotile 30	NA	CaCO3
145	CB4-1	Layered	Gray Cove Base	Asbestos Not Present	NA	Vinyl CaCO3
145a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
146	CB4-2	Layered	Gray Cove Base	Asbestos Not Present	NA	Vinyl CaCO3

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
146a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
146b		Layered	White Texture	Asbestos Not Present	NA	CaCO3 Paint
147	CB4-3	Layered	Gray Cove Base	Asbestos Not Present	NA	Vinyl CaCO3
147a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
147b		Layered	White Texture	Asbestos Not Present	NA	CaCO3 Paint
148	CTG2-1	Homogeneous	Gray Grout	Asbestos Not Present	NA	CaCO3 Sand

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
149	CTG2-2	Homogeneous	Gray Grout	Asbestos Not Present	NA	CaCO3 Sand
150	CTG2-3	Homogeneous	Gray Grout	Asbestos Not Present	NA	CaCO3 Sand
151	CTM1-1	Homogeneous	Tan Mastic	Asbestos Present Chrysotile 4	NA	Glue CaCO3
152	CTM1-2	Homogeneous	Tan Mastic	Asbestos Present Chrysotile 4	NA	Glue CaCO3
153	CTM1-3	Homogeneous	Tan Mastic	Asbestos Present Chrysotile 4	NA	Glue CaCO3
154	FT20-1	Layered	Beige/Brown Floor Tile	Asbestos Present Chrysotile 2	NA	CaCO3 Vinyl
154a		Layered	Black Mastic	Asbestos Present Chrysotile 6	NA	Tar

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Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
155	FT20-2	Layered	Beige/Brown Floor Tile	Asbestos Present Chrysotile 2	NA	CaCO3 Vinyl
155a		Layered	Black Mastic	Asbestos Present Chrysotile 6	NA	Tar
156	FT20-3	Layered	Beige/Brown Floor Tile	Asbestos Present Chrysotile 2	NA	CaCO3 Vinyl
156a		Layered	Black Mastic	Asbestos Present Chrysotile 6	NA	Tar
157	CM3-1	Homogeneous	Yellow Carpet Mastic	Asbestos Not Present	NA	Glue
158	CM3-2	Homogeneous	Yellow Carpet Mastic	Asbestos Not Present	NA	Glue

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Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 316871	Client: Tetra Tech EM, Inc.
Account Number: B229	415 Oak Street
	Kansas City, MO 64106
Date Received: 11/13/2019	
Received By: Elena LaFarge	
Date Analyzed: 11/19/2019	Project: 103X903019F0101.005
Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
159	CM3-3	Homogeneous	Yellow Carpet Mastic	Asbestos Not Present	NA	Glue
160	CM4-1	Layered	Gray Carpet	Asbestos Not Present	Synthetic 100	
160a		Layered	Tan Mastic	Asbestos Not Present	NA	Glue
161	CM4-2	Layered	Gray Carpet	Asbestos Not Present	Synthetic 100	
161a		Layered	Tan Mastic	Asbestos Not Present	NA	Glue
162	CM4-3	Layered	Gray Carpet	Asbestos Not Present	Synthetic 100	
162a		Layered	Tan Mastic	Asbestos Not Present	NA	Glue

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Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
163	WM2-1	Homogeneous	Tan Mastic	Asbestos Not Present	NA	Glue CaCO3
164	WM2-2	Homogeneous	Tan Mastic	Asbestos Not Present	NA	Glue CaCO3
165	WM2-3	Layered	Tan Mastic	Asbestos Not Present	NA	Glue CaCO3
165a		Layered	White Texture	Asbestos Not Present	NA	CaCO3 Sand
166	CT6-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Perlite Binder Paint
167	CT6-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Perlite Binder Paint

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Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
168	CT6-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Perlite Binder Paint
169	LIN2-1	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
169a		Layered	Yellow Linoleum	Asbestos Present Chrysotile 20	NA	Vinyl CaCO3
170	LIN2-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
170a		Layered	Yellow Linoleum	Asbestos Present Chrysotile 20	NA	Vinyl CaCO3
171	LIN2-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
171a		Layered	Yellow Linoleum	Asbestos Present Chrysotile 20	NA	Vinyl CaCO3

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Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
172	LIN3-1	Homogeneous	Gray Backing	Asbestos Present Chrysotile 65	NA	Binder
173	LIN3-2	Homogeneous	Gray Backing	Asbestos Present Chrysotile 65	NA	Binder
174	LIN3-3	Homogeneous	Gray Backing	Asbestos Present Chrysotile 65	NA	Binder
175	SU1-1	Homogeneous	Black Sink Undercoat	Asbestos Present Chrysotile 5	NA	CaCO3 Tar
176	SU1-2	Homogeneous	Black Sink Undercoat	Asbestos Present Chrysotile 5	NA	CaCO3 Tar
177	SU1-3	Homogeneous	Black Sink Undercoat	Asbestos Present Chrysotile 5	NA	CaCO3 Tar

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
178	CTM2-1	Layered	Green Ceramic Tile	Asbestos Not Present	NA	Clay Sand
178a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
179	CTM2-2	Layered	Green Ceramic Tile	Asbestos Not Present	NA	Clay Sand
179a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
180	CTM2-3	Layered	Green Ceramic Tile	Asbestos Not Present	NA	Clay Sand
180a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
181	FT21-1	Layered	Tan Sheet Vinyl Backing	Asbestos Present Chrysotile 60	NA	CaCO3

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Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
181a		Layered	Gray Floor Tile	Asbestos Present Chrysotile 5	NA	CaCO3 Vinyl
181b		Layered	Black Mastic	Asbestos Not Present	NA	Tar
182	FT21-2	Layered	Tan Sheet Vinyl Backing	Asbestos Present Chrysotile 60	NA	CaCO3
182a		Layered	Gray Floor Tile	Asbestos Present Chrysotile 5	NA	CaCO3 Vinyl
182b		Layered	Black Mastic	Asbestos Not Present	NA	Tar
183	FT21-3	Layered	Tan Sheet Vinyl Backing	Asbestos Present Chrysotile 60	NA	CaCO3

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
183a		Layered	Gray Floor Tile	Asbestos Present Chrysotile 5	NA	CaCO3 Vinyl
183b		Layered	Black Mastic	Asbestos Not Present	NA	Tar
184	CT7-1	Homogeneous	Cream Ceiling Tile	Asbestos Not Present	Glass Fiber 90	Vinyl
185	CT7-2	Homogeneous	Cream Ceiling Tile	Asbestos Not Present	Glass Fiber 90	Vinyl
186	CT7-3	Homogeneous	Cream Ceiling Tile	Asbestos Not Present	Glass Fiber 90	Vinyl
187	FT22-1	Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
187a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue

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Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
188	FT22-2	Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
188a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
189	FT22-3	Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
189a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
190	LIN4-1	Homogeneous	Tan Sheet Vinyl	Asbestos Present Chrysotile 15	Cellulose 5	CaCO3 Vinyl
191	LIN4-2	Homogeneous	Tan Sheet Vinyl	Asbestos Present Chrysotile 15	Cellulose 5	CaCO3 Vinyl

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Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
192	LIN4-3	Homogeneous	Tan Sheet Vinyl	Asbestos Present Chrysotile 15	Cellulose	5 CaCO3 Vinyl
193	FT23-1	Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
193a		Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
193b		Layered	Black Mastic	Asbestos Not Present	NA	Tar
194	FT23-2	Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
194a		Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
194b		Layered	Brown Mastic	Asbestos Not Present	NA	Glue

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
195	FT23-3	Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
195a		Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
195b		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
196	LIN5-1	Layered	Brown Linoleum	Asbestos Not Present	Cellulose 35	CaCO3 Vinyl Tar
196a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
197	LIN5-2	Layered	Brown Linoleum	Asbestos Not Present	Cellulose 35	CaCO3 Vinyl Tar

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
197a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
198	LIN5-3	Layered	Brown Linoleum	Asbestos Not Present	Cellulose 35	CaCO3 Vinyl Tar
198a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
199	FT24-1	Layered	Tan Flooring	Asbestos Not Present	NA	CaCO3 Vinyl
199a		Layered	Yellow Mastic	Asbestos Not Present	NA	CaCO3 Glue
200	FT24-2	Layered	Tan Flooring	Asbestos Not Present	NA	CaCO3 Vinyl
200a		Layered	Yellow Mastic	Asbestos Not Present	NA	CaCO3 Glue

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
201	FT24-3	Layered	Tan Flooring	Asbestos Not Present	NA	CaCO3 Vinyl
201a		Layered	Yellow Mastic	Asbestos Not Present	NA	CaCO3 Glue
202	CB5-1	Layered	Light Blue Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
202a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
203	CB5-2	Layered	Light Blue Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
203a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue

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Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
204	CB5-3	Layered	Light Blue Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
204a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
205	FT26-1	Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
205a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
206	FT26-2	Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
206a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
207	FT26-3	Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl

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Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
207a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
208	FT27-1	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	CaCO3 Vinyl
208a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
209	FT27-2	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	CaCO3 Vinyl
209a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
210	FT27-3	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	CaCO3 Vinyl

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Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
210a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
211	FT28-1	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
211a		Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
211b		Layered	Brown Mastic	Asbestos Not Present	NA	CaCO3 Glue
212	FT28-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
212a		Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
212b		Layered	Brown Mastic	Asbestos Not Present	NA	CaCO3 Glue

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Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
213	FT28-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
213a		Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
213b		Layered	Brown Mastic	Asbestos Not Present	NA	CaCO3 Glue
214	TRAN-1	Homogeneous	White Transite	Asbestos Present Chrysotile 20	NA	CaCO3 Paint
215	TRAN-2	Homogeneous	White Transite	Asbestos Present Chrysotile 20	NA	CaCO3 Paint
216	TRAN-3	Homogeneous	White Transite	Asbestos Present Chrysotile 20	NA	CaCO3 Paint

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Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 316871	Client: Tetra Tech EM, Inc.
Account Number: B229	415 Oak Street
	Kansas City, MO 64106
Date Received: 11/13/2019	
Received By: Elena LaFarge	
Date Analyzed: 11/19/2019	Project: 103X903019F0101.005
Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
217	DWJC-1	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3
217a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 10 Glass Fiber 5	Gypsum
218	DWJC-2	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3
218a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 10 Glass Fiber 5	Gypsum
219	DWJC-3	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3
219a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 10 Glass Fiber 5	Gypsum
220	DWJC1-1	Layered	Tan Joint Compound	Asbestos Present Chrysotile 3	NA	CaCO3

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Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
220a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
221	DWJC1-2	Layered	Tan Joint Compound	Asbestos Present Chrysotile 3	NA	CaCO3
221a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
222	DWJC1-3	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3
222a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
223	DWJC1-4	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
223a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
224	DWJC1-5	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3
224a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
225	PLSC-1	Homogeneous	Tan Plaster	Asbestos Not Present	NA	Gypsum Sand Paint
226	PLSC-2	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint
226a		Layered	Tan Plaster	Asbestos Not Present	NA	Gypsum Sand
227	PLSC-3	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
227a		Layered	Tan Plaster	Asbestos Not Present	NA	Gypsum Sand
228	PLSC-4	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint
228a		Layered	Tan Plaster	Asbestos Not Present	NA	Gypsum Sand
229	PLSC-5	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint
229a		Layered	Tan Plaster	Asbestos Not Present	NA	Gypsum Sand
230	PLSC-6	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint

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Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
230a		Layered	Tan Plaster	Asbestos Not Present	NA	Gypsum Sand
231	PLSC-7	Homogeneous	White Plaster	Asbestos Not Present	NA	Gypsum Mica
232	SPLSC-1	Homogeneous	White Plaster	Asbestos Not Present	NA	CaCO3 Gypsum Mica
233	SPLSC-2	Homogeneous	White Plaster	Asbestos Not Present	NA	CaCO3 Gypsum Mica
234	SPLSC-3	Homogeneous	White Plaster	Asbestos Not Present	NA	CaCO3 Gypsum Mica
235	PLSC1-1	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint

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Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
235a		Layered	Tan Plaster	Asbestos Not Present	Cellulose <1	CaCO3 Gypsum Sand
236	PLSC1-2	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint
236a		Layered	Tan Plaster	Asbestos Not Present	Cellulose <1	CaCO3 Gypsum Sand
237	PLSC1-3	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint
237a		Layered	Tan Plaster	Asbestos Not Present	Cellulose <1	CaCO3 Gypsum Sand
238	PLSC1-4	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
238a		Layered	Tan Plaster	Asbestos Not Present	Cellulose <1	CaCO3 Gypsum Sand
239	PLSC1-5	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint
239a		Layered	Tan Plaster	Asbestos Not Present	Cellulose <1	CaCO3 Gypsum Sand
240	CB6-1	Layered	Pink Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
240a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
241	CB6-2	Layered	Pink Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
241a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
242	CB6-3	Layered	Pink Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
242a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
243	C-1	Homogeneous	Gray Caulk	Asbestos Present Chrysotile 5	NA	CaCO3 Binder
244	C-2	Homogeneous	Gray Caulk	Asbestos Not Present	NA	CaCO3 Binder
245	C-3	Homogeneous	Gray Caulk	Asbestos Present Chrysotile 5	NA	CaCO3 Binder
246	EC-1	Homogeneous	Black Caulk	Asbestos Not Present	Cellulose 10	Tar

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
247	EC-2	Homogeneous	Black Caulk	Asbestos Not Present	Cellulose 10	Tar
248	EC-3	Homogeneous	Black Caulk	Asbestos Not Present	Cellulose 10	Tar
249	EC1-1	Homogeneous	White Caulk	Asbestos Not Present	NA	CaCO3 Binder
250	EC1-2	Homogeneous	White Caulk	Asbestos Not Present	NA	CaCO3 Binder
251	EC1-3	Homogeneous	White Caulk	Asbestos Not Present	NA	CaCO3 Binder
252	EC2-1	Homogeneous	Black Caulk	Asbestos Present Chrysotile 10	Cellulose 10	Tar
253	EC2-2	Homogeneous	Black Caulk	Asbestos Present Chrysotile 10	Cellulose 10	Tar

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
254	EC2-3	Homogeneous	Black Caulk	Asbestos Present Chrysotile 10	Cellulose 10	Tar
255	C1-1	Homogeneous	Gray Caulk	Asbestos Not Present	NA	Silicone
256	C1-2	Homogeneous	Gray Caulk	Asbestos Not Present	NA	Silicone
257	C1-3	Homogeneous	Gray Caulk	Asbestos Not Present	NA	Silicone
258	STUCCO-1	Layered	Beige Stucco	Asbestos Not Present	NA	Sand Binder
258a		Layered	Gray Stucco	Asbestos Not Present	Glass Fiber 5	CaCO3 Sand Foam

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
259	STUCCO-2	Layered	Beige Stucco	Asbestos Not Present	NA	Sand Binder
259a		Layered	Gray Stucco	Asbestos Not Present	NA	CaCO3 Sand Foam
260	STUCCO-3	Layered	Beige Stucco	Asbestos Not Present	NA	Sand Binder
260a		Layered	Gray Stucco	Asbestos Not Present	Glass Fiber	5 CaCO3 Sand Foam
261	SS-1	Layered	Tan/Black Shingle	Asbestos Not Present	Glass Fiber	25 Tar Sand
261a		Layered	Black Tar	Asbestos Not Present	NA	Tar
262	SS-2	Layered	Tan/Black Shingle	Asbestos Not Present	Glass Fiber	25 Tar Sand

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
262a		Layered	Black Tar	Asbestos Not Present	NA	Tar
263	SS-3	Homogeneous	Tan/Black Shingle	Asbestos Not Present	Glass Fiber	25 Tar Sand
264	VP-1	Homogeneous	Black Vapor Barrier	Asbestos Not Present	Cellulose	70 Tar
265	VP-2	Homogeneous	Black Vapor Barrier	Asbestos Not Present	Cellulose	70 Tar
266	VP-3	Homogeneous	Black Vapor Barrier	Asbestos Not Present	Cellulose	70 Tar
267	EC3-1	Homogeneous	Tan Caulk	Asbestos Not Present	NA	CaCO3 Binder

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Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
268	EC3-2	Homogeneous	Tan Caulk	Asbestos Not Present	NA	CaCO3 Binder
269	EC3-3	Homogeneous	Tan Caulk	Asbestos Not Present	NA	CaCO3 Binder
270	C2-1	Layered	Brown Caulk	Asbestos Not Present	NA	Silicone
270a		Layered	White Caulk	Asbestos Present Chrysotile 5	NA	CaCO3
271	C2-2	Layered	Brown Caulk	Asbestos Not Present	NA	Silicone
271a		Layered	White Caulk	Asbestos Present Chrysotile 5	NA	CaCO3
272	C2-3	Layered	Brown Caulk	Asbestos Not Present	NA	Silicone

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272a		Layered	White Caulk	Asbestos Present Chrysotile 5	NA	CaCO3
273	C3-1	Homogeneous	Clear Caulk	Asbestos Not Present	NA	Silicone
274	C3-2	Homogeneous	Clear Caulk	Asbestos Not Present	NA	Silicone
275	C3-3	Homogeneous	Clear Caulk	Asbestos Not Present	NA	Silicone
276	C4-1	Homogeneous	Gray Caulk	Asbestos Not Present	NA	Silicone
277	C4-2	Homogeneous	Gray Caulk	Asbestos Not Present	NA	Silicone

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
278	C4-3	Homogeneous	Gray Caulk	Asbestos Not Present	NA	Silicone
279	G-1	Homogeneous	Brown Caulk	Asbestos Not Present	NA	CaCO3 Binder
280	G-2	Homogeneous	Black Caulk	Asbestos Not Present	NA	CaCO3 Binder
281	G-3	Homogeneous	Black Caulk	Asbestos Not Present	NA	CaCO3 Binder
282	C6-1	Homogeneous	Tan Caulk	Asbestos Not Present	NA	CaCO3 Binder
283	C6-2	Homogeneous	Brown Caulk	Asbestos Not Present	NA	CaCO3 Binder
284	C6-3	Homogeneous	Brown Caulk	Asbestos Not Present	NA	CaCO3 Binder

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Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
285	FT30-1	Layered	White Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
285a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
286	FT30-2	Layered	White Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
286a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
287	FT30-3	Layered	White Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
287a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue

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2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

QuantEM Lab No. 316871	Client: Tetra Tech EM, Inc.
Account Number: B229	415 Oak Street
	Kansas City, MO 64106
Date Received: 11/13/2019	
Received By: Elena LaFarge	
Date Analyzed: 11/19/2019	Project: 103X903019F0101.005
Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
288	G1-1	Homogeneous	Gray Window Glazing	Asbestos Not Present	NA	CaCO3
289	G1-2	Homogeneous	Gray Window Glazing	Asbestos Not Present	NA	CaCO3
290	G1-3	Homogeneous	Gray Window Glazing	Asbestos Not Present	NA	CaCO3
291	CB7-1	Layered	Brown Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
291a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
292	CB7-2	Layered	Brown Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
292a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue

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Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
293	CB7-3	Layered	Brown Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
293a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
294	RC-1	Layered	Black Roofing	Asbestos Not Present	Synthetic	25 Tar CaCO3
294a		Layered	Black Roofing	Asbestos Not Present	NA	Tar Gravel
295	RC-2	Layered	Black Roofing	Asbestos Not Present	Synthetic	25 Tar CaCO3
295a		Layered	Black Roofing	Asbestos Not Present	NA	Tar Gravel

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2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 316871	Client: Tetra Tech EM, Inc.
Account Number: B229	415 Oak Street
	Kansas City, MO 64106
Date Received: 11/13/2019	
Received By: Elena LaFarge	
Date Analyzed: 11/19/2019	Project: 103X903019F0101.005
Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
296	RC-3	Layered	Black Roofing	Asbestos Not Present	Synthetic 25	Tar CaCO3
296a		Layered	Black Roofing	Asbestos Not Present	NA	Tar Gravel
297	FL-1	Layered	White/Black Roofing	Asbestos Not Present	Cellulose 40	Tar Sand
297a		Layered	Black Roofing	Asbestos Not Present	Synthetic 25	Tar CaCO3
297b		Layered	Black Tar	Asbestos Not Present	NA	Tar
297c		Layered	Red Brick	Asbestos Not Present	NA	Clay Sand
298	FL-2	Layered	White/Black Roofing	Asbestos Not Present	Cellulose 40	Tar Sand

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Polarized Light Microscopy Asbestos Analysis Report

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Account Number: B229	415 Oak Street
	Kansas City, MO 64106
Date Received: 11/13/2019	
Received By: Elena LaFarge	
Date Analyzed: 11/19/2019	Project: 103X903019F0101.005
Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
298a		Layered	Black Tar	Asbestos Not Present	NA	Tar
299	FL-3	Layered	Black Roofing	Asbestos Not Present	Cellulose Glass Fiber	40 Tar 5
299a		Layered	Black Tar	Asbestos Not Present	NA	Tar
299b		Layered	Black Roofing	Asbestos Not Present	Synthetic	25 Tar CaCO3
299c		Layered	Black Tar	Asbestos Not Present	Cellulose	10 Tar
300	CS-1	Homogeneous	Black Sealant	Asbestos Not Present	Cellulose	5 Tar

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Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
301	CS-2	Homogeneous	Black Sealant	Asbestos Not Present	Cellulose	5 Tar
302	CS-3	Homogeneous	Black Sealant	Asbestos Not Present	Cellulose	5 Tar
303	FT3-1	Layered	Beige Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
303a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
304	FT3-2	Layered	Beige Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
304a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
305	FT3-3	Layered	Beige Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl

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Received By: Elena LaFarge	
Date Analyzed: 11/19/2019	Project: 103X903019F0101.005
Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
305a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
306	FT29-1	Layered	Brown Floor Tile	Asbestos Present Chrysotile 10	NA	CaCO3 Vinyl
306a		Layered	Black Mastic	Asbestos Present Chrysotile 5	NA	Tar
307	FT29-2	Layered	Brown Floor Tile	Asbestos Present Chrysotile 10	NA	CaCO3 Vinyl
307a		Layered	Black Mastic	Asbestos Present Chrysotile 5	NA	Tar
308	FT29-3	Layered	Brown Floor Tile	Asbestos Present Chrysotile 10	NA	CaCO3 Vinyl

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Polarized Light Microscopy Asbestos Analysis Report

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Date Received: 11/13/2019	
Received By: Elena LaFarge	
Date Analyzed: 11/19/2019	Project: 103X903019F0101.005
Analyzed By: Carter W. Cox	Project Location: N/A
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
308a		Layered	Black Mastic	Asbestos Present Chrysotile 5	NA	Tar

Cassie Sanborn

Cassie Sanborn, Analyst

11/21/2019

Date of Report

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316871

Asbestos Bulk Building Material Chain of Custody



Company: Tetra Tech		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 415 oak street		Third Party Billing requires written authorization from third party	
City: Kansas City	State/Province: MO	Zip/Postal Code: 64106	Country: US
Report To (Name): Michelle Handley		Telephone #: 3143796336	
Email Address: michelle.Handley@tetrattech.com		Fax #:	Purchase Order:
Project Name/Number: 103X903019F0101.005		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: MO		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options* - Please Check

3 Hour
 6 Hour
 24 Hour
 48 Hour
 72 Hour
 96 Hour
 1 Week
 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NIOSH 9002 (<1%) <input type="checkbox"/> NY ELAP Method 198.1 (friable in NY) <input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY) <input type="checkbox"/> OSHA ID-191 Modified <input type="checkbox"/> Standard Addition Method	TEM - Bulk <input type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1 <input type="checkbox"/> NY ELAP Method 198.4 (TEM) <input type="checkbox"/> Chatfield Protocol (semi-quantitative) <input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2 <input type="checkbox"/> TEM Qualitative via Filtration Prep Technique <input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique Other <input type="checkbox"/>
---	---

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled: 11/8/2019

Samplers Name: Megan Sawyer Samplers Signature: Megan Sawyer

Sample #	HA #	Sample Location	Material Description
1	FT-1	1	12x12 Gray Stick on
2	1-2	1	floor tile
3	1-3	1	↓
4	FT1-1	2	12x12 white w/black
5	1-2	2	streaks floor tile
6	1-3	2	↓
7	FT2-1	3	12x12 Pink w/black
8	1-2	3	dots floor tile
9	1-3	3	↓
10	Terrazzo-1	4	Terrazzo, Tan

Client Sample # (s): 1 → H#100 Total # of Samples: 3/0

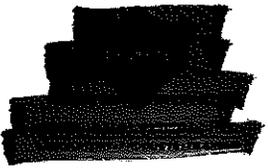
Relinquished (Client): Megan Sawyer (TE) Date: 11/11/2019 Time: 1400

Received (Lab): Date: 11/13/19 Time: 8:30 AM

Comments/Special Instructions: *Elena Sawyer*

316871

Asbestos Bulk Building Material Chain of Custody



[Redacted]

[Redacted]

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
11	Terrazzo-2	4	NA
12	↓ -3	4	
13	CB-1	5	4" Black Cove Base
14	↓ -2	5	↓
15	↓ -3	5	
16	CT-1	6	2x4 White Lissore & Pinhole
17	↓ -2	6	↓
18	↓ -3	6	
19	NM-1	7	Wall Panel Mastic, Wood Walls
20	↓ -2	7	↓
21	↓ -3	7	
22	CM-1	8	Yellow Carpet Mastic
23	↓ -2	8	↓
24	↓ -3	8	
25	FT4-1	9	12x12 Beige w/Pink Streaks floor tile
26	↓ -2	9	↓
27	↓ -3	9	
28	FT5-1	10	12x12 thin brown w/tan streaks floor tile
29	↓ -2	10	
30	↓ -3	10	
31	FT6-1	11	9x9 gray w/red & brown streaks floor tile
32	↓ -2	11	↓
33	↓ -3	11	
34	FT7-1	12	9x9 gray ^{M.S.} white &

*Comments/Special Instructions:

316871

Asbestos Bulk Building Material Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
35	FT7-2	12	NA
36	↓-3	12	
37	CT1-1	13	12" x 12" fissure & pinhole
38	↓-2	13	ceiling tile, white, w/
39	↓-3	13	glue pucks
40	CT2-1	14	2x4 gypsum white
41	↓-2	14	ceiling tile
42	↓-3	14	↓
43	CTM-1	15	Ceramic tile mastic,
44	↓-2	15	green wall tile
45	↓-3	15	↓
46	FT8-1	16	9x9 Red floor tile
47	↓-2	16	↓
48	↓-3	16	
49	FT9-1	17	9x9 Black floor tile
50	↓-2	17	↓
51	↓-3	17	
52	FT10-1	18	12x12 Hot Pink floor
53	↓-2	18	tile
54	↓-3	18	↓
55	FT11-1	19	12x12 Turquoise floor
56	↓-2	19	tile
57	↓-3	19	↓
58	FT12-1	20	↓
*Comments/Special Instructions:			

316871
**Asbestos Bulk Building Material
 Chain of Custody**

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
59	FT12-2	20	NA
60	-3	20	Green cobblestone floor tile
61	FT13-1	21	12x12 tan w/brown streaks floor tile
62	↓ -2	21	↓
63	↓ -3	21	↓
64	^{MS} FT14-1	22	12x12 beige w/tan cobblestone floor tile
65	↓ -2	22	↓
66	↓ -3	22	↓
67	SD-1	23	White Sink Undercoat
68	↓ -2	23	↓
69	↓ -3	23	↓
70	CT4-1	24	White Ceramic tile grout
71	↓ -2	24	↓
72	↓ -3	24	↓
73	LIN-1	25	Brown linoleum
74	↓ -2	25	↓
75	↓ -3	25	↓
76	FT15-1	26	9x9 Brown w/black streaks floor tile
77	↓ -2	26	↓
78	↓ -3	26	↓
79	CTX-1	27	White ceiling Textolite
80	↓ -2	27	↓
81	↓ -3	27	↓
82	FP-1	28	Brown fireproofing

*Comments/Special Instructions:

316871

Asbestos Bulk Building Material
Chain of Custody

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Sample #	HA #	Sample Location	Material Description
83-82	FP-2 28	NA	
84 \$	-3 28		
85 4	CTE1-1 29		Tan Ceramic tile
86 \$	↓ -2 29		grout
87 6	↓ -3 29		
88 7	CBL-1 30		4" Tan Cove Base
89 \$	↓ -2 30		↓
90 9	↓ -3 30		
91 0	CT2-1 31		12"x12" white pinhole ceiling tile
92	↓ -2 31		↓
93 2	↓ -3 31		
94 3	WML-1 32		White Plastic wall paneling mastic
95 #	↓ -2 32		↓
96 \$	↓ -3 32		
97 6	CB2-1 33		4" Brown Cove Base
98	↓ -2 33		↓
99 8	↓ -3 33		
100 9	LFIN-1 34		Tan linoleum
101 0	↓ -2 34		↓
102	↓ -3 34		
103 2	FT16-1 35		9x9 maroon floor tile
104 3	↓ -2 35		↓
105 4	↓ -3 35		
106 \$	CML-1 36		Wall Carpet Mastic

*Comments/Special Instructions:

316871
Asbestos Bulk Building Material
Chain of Custody
 EMSL Order Number (Lab Use Only):

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
107	CMI-2 36	NA	
108	-3 36		
109	CB3-1 37		4" Gray Cove Base
110	↓ -2 37		↓
111	↓ -3 37		
112	FT17-1 38		9x9 Tan floor tile
113	↓ -2 38		↓
114	↓ -3 38		
115	CT3-1 39		12" x 12" White Divot Ceiling tile
116	↓ -2 39		↓
117	↓ -3 39		
118	CT4-1 40		12" x 12" Smooth white ceiling tile
119	↓ -2 40		↓
120	↓ -3 40		
121	FT18-1 41		12" x 12" Cream w/lime green & white specks floor tile
122	↓ -2 41		
123	↓ -3 41		
124	CTX1-1 42		Ceiling texture on drywall
125	↓ -2 42		↓
126	↓ -3 42		
127	CT4-1 43		12" x 12" fissure & pinhole no glue ceiling tile
128	↓ -2 43		white
129	↓ -3 43		
130	CT5-1 44		12" x 12" bubbled ceiling

*Comments/Special Instructions:

316871

**Asbestos Bulk Building Material
Chain of Custody**

EMSL Order Number (Lab Use Only):

[Empty box for EMSL Order Number]

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
131	CT6-2	44	NA
132	-3	44	
133	M2-1	45	Black, carpet mastic
134	↓ -2	45	↓
135	↓ -3	45	
136	FT19-1	46	9x9 cream w/black
137	↓ -2	46	& brown streaks
138	↓ -3	46	Floor tile
139	T5I-1	47	Aircell
140	↓ -2	47	↓
141	↓ -3	47	
142	T5EJ-1	48	Joints
143	↓ -2	48	↓
144	↓ -3	48	
145	CB4-1	49	8" Gray cove base
146	↓ -2	49	↓
147	↓ -3	49	
148	CT6-1	50	Gray ceramic tile grout
149	↓ -2	50	↓
150	↓ -3	50	
151	CTM-1	51	Ceramic tile mastic,
152	↓ -2	51	Bathrooms-2nd FLR
153	↓ -3	51	↓
154	FT20-1	52	9x9 beige w/brown

*Comments/Special Instructions:

316871

**Asbestos Bulk Building Material
Chain of Custody**

EMSL Order Number (Lab Use Only):

[Empty Box]

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
155	FT20-2	52	NA
156	-3	52	↓
157	CM3-1	53	Carpet Mastic (2nd Flr)
158	↓ -2	53	↓
159	↓ -3	53	
160	CM4-1	54	Wall Carpet Mastic
161	↓ -2	54	↓
162	↓ -3	54	
163	WM2-1	55	Wood Wall Mastic
164	↓ -2	55	↓
165	↓ -3	55	
166	CT6-1	56	12" x 12" Small Divot
167	↓ -2	56	White ceiling tile
168	↓ -3	56	↓
169	LTN2-1	57	Gray ^{m-s} Linoleum, yellow
170	↓ -2	57	↓
171	↓ -3	57	
172	LTN3-1	58	Gray Linoleum
173	↓ -2	58	↓
174	↓ -3	58	
175	SU1-1	59	Black sink undercoat
176	↓ -2	59	↓
177	↓ -3	59	
178	CTN2-1	60	Green Ceramic tile mastic

*Comments/Special Instructions:

316871

**Asbestos Bulk Building Material
Chain of Custody**

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Sample #	HA #	Sample Location	Material Description
179	CTM2-2	60	NA
180	↓ -3	60	
181	FT21-1	61	Gray floor tile under linoleum
182	↓ -2	61	
183	↓ -3	61	↓
184	CT7-1	62	Cream 2x4 pinhole & texture ceiling tile
185	↓ -2	62	
186	↓ -3	62	↓
187	FT22-1	63	12x12 Gray w/white & black specks
188	↓ -2	63	
189	↓ -3	63	↓
190	LIN4-1	64	Brown & tan pattern Linoleum
191	↓ -2	64	
192	↓ -3	64	↓
193	FT23-1	65	12x12 Blue w/black & white specks floor tile
194	↓ 2	65	
195	↓ 3	65	
196	LIN5-1	66	Brown Linoleum, entry way strips
197	↓ -2	66	
198	↓ -3	66	↓
199	FT24-1	67	12x12 Tan w/black, gray & white pattern, Grid bottom
200	↓ 2	67	
201	↓ 3	67	
202	CBS-1	68	4" light blue cove base

*Comments/Special Instructions:

316871

Asbestos Bulk Building Material
Chain of Custody

[Redacted]

[Redacted]

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
203	CBS-2	68	NA
204	-3	68	
205	FT26-1	69	9x9 Gray w/white & black streaks floor tile
206	↓ -2	69	
207	↓ -3	69	
208	FT27-1	70	12x12 thin tan floor tile
209	↓ -2	70	
210	↓ -3	70	
211	FT28-1	71	Grey, unknown size floor tile
212	↓ -2	71	
213	↓ -3	71	
214	TRAN-1	72	Transite panel
215	↓ -2	72	
216	↓ -3	72	
217	DWSCP-1	73	Drywall w/joint Compound
218	↓ -2	73	↓ Original Building
219	↓ -3	73	
220	DWSCP-1	74	Drywall w/joint Compound East side, 1st floor
221	↓ -2	74	
222	↓ -3	74	
223	↓ -4	74	
224	↓ -5	74	
225	PLSC-1	75	Plaster w/skim coat, 1st floor
226	-2	75	

*Comments/Special Instructions:

316871
**Asbestos Bulk Building Material
 Chain of Custody**

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
2 27	PLSC-3 75	NA	
2 28	-4 75		
2 29	-5 75		
2 30	-6 75		
2 31	√ -7 75		
2 32	SPLSC-1 76		Spray on plaster ceiling
2 33	-2 76		1st floor
2 34	√ -3 76		↓
2 35	PLSCL-1 77		Plaster w/skim coat,
2 36	-2 77		2nd floor
2 37	-3 77		↓
2 38	-4 77		↓
2 39	√ -5 77		↓
2 40	CB6-1 78		4" Pink Cove base
2 41	-2 78		↓
2 42	√ -3 78		↓
2 43	C-1 79		Brown window & door
2 44	-2 79		caulk
2 45	√ -3 79		↓
2 46	EC-1 80		Black Expansion caulk
2 47	-2 80		↓
2 48	√ -3 80		↓
2 49	EC-1 81		White Expansion caulk
2 50	-2 81	√	↓
*Comments/Special Instructions:			

316871
**Asbestos Bulk Building Material
 Chain of Custody**

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
251	EC1-3	81	NA
252	EC2-1	82	Black Expansion
253	↓ -2	82	Caulk
254	↓ -3	82	↓
255	CI-1	83	Gray Door caulk
256	↓ -2	83	↓
257	↓ -3	83	↓
258	STUCCO-1	84	Exterior wall stucco
259	↓ -2	84	↓
260	↓ -3	84	↓
261	SS-1	85	Siding Shingles
262	↓ -2	85	↓
263	↓ -3	85	↓
264	VP-1	86	Vapor Barrier
265	↓ -2	86	↓
266	↓ -3	86	↓
267	EC3-1	87	Tan Expansion caulk
268	↓ -2	87	↓
269	↓ -3	87	↓
270	C2-1	88	Brown & white
271	↓ -2	88	Window caulk
272	↓ -3	88	↓
273	C3-1	89	Clear window caulk
274	↓ -2	89	↓

*Comments/Special Instructions:

316871
**Asbestos Bulk Building Material
 Chain of Custody**

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
275	C3-3	89	NA
276	C4-1	90	Gray Door Caulk
277	↓-2	90	↓
278	↓-3	90	↓
279	G-1	91	Black window
280	↓-2	91	Glazing
281	↓-3	91	↓
282	C6-1	92	Light brown door
283	↓-2	92	caulk
284	↓-3	92	↓
285	ET30-1	93	1/2x12 white floor
286	↓-2	93	lin, evidence building
287	↓-3	93	↓
288	G1-1	94	White Window Glazing
289	↓-2	94	↓
290	↓-3	94	↓
291	CB1-1	95	4" Brown Cove Base
292	↓-2	95	↓
293	↓-3	95	↓
294	RC-1	96	Roof Core
295	↓-2	96	↓
296	↓-3	96	↓
297	FL-1	97	Flashing
298	↓-2	97	↓

*Comments/Special Instructions:

*Analyze ALL layers of roof cores individually ± RC-1, 2+3



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

QuantEM Lab No. 317283	Client: Tetra Tech EM, Inc.
Account Number: B229	415 Oak Street
	Kansas City, MO 64106
Date Received: 11/25/2019	
Received By: Christiana Younge	
Date Analyzed: 12/09/2019	Project: 103X903019F0101.005
Analyzed By: Cassie Sanborn	Project Location: Additional Testing for 316871
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	DWJC1-1	Composite	White Joint Compound / Sheetrock	Asbestos Present Chrysotile <1	Cellulose 15	CaCO3 Gypsum
002	DWJC1-2	Composite	White Joint Compound / Sheetrock	Asbestos Present Chrysotile <1	Cellulose 15	CaCO3 Gypsum
003	FT5-1	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile 0.75 400 Point Count	NA	
004	FT5-2	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
005	FT5-3	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
006	FT13-1	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile 0.50 400 Point Count	NA	

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QuantEM is a NVLAP accredited PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.



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Analyzed By: Cassie Sanborn	Project Location: Additional Testing for 316871
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
007	FT13-2	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile 0.75 400 Point Count	NA	
008	FT13-3	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile 0.25 400 Point Count	NA	
009	FT20-1	Homogeneous	Beige Floor Tile	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
010	FT20-2	Homogeneous	Beige Floor Tile	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
011	FT20-3	Homogeneous	Beige Floor Tile	Asbestos Present Chrysotile <0.25 400 Point Count	NA	

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Analyzed By: Cassie Sanborn	Project Location: Additional Testing for 316871
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
012	FT22-1	Homogeneous	Brown Mastic	Asbestos Present Chrysotile 0.50 400 Point Count	NA	
013	FT22-2	Homogeneous	Brown Mastic	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
014	FT22-3	Homogeneous	Brown Mastic	Asbestos Present Chrysotile 0.75 400 Point Count	NA	
015	FT23-1	Homogeneous	Brown Mastic	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
016	FT23-2	Homogeneous	Brown Mastic	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
017	FT23-3	Homogeneous	Brown Mastic	Asbestos Present Chrysotile 0.25 400 Point Count	NA	

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Analyzed By: Cassie Sanborn	Project Location: Additional Testing for 316871
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
018	LIN5-1	Homogeneous	Brown Mastic	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
019	LIN5-2	Homogeneous	Brown Mastic	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
020	LIN5-3	Homogeneous	Brown Mastic	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
021	FT26-1	Homogeneous	Brown Mastic	Asbestos Present Chrysotile 0.50 400 Point Count	NA	
022	FT26-2	Homogeneous	Brown Mastic	Asbestos Present Chrysotile 0.75 400 Point Count	NA	

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Analyzed By: Cassie Sanborn	Project Location: Additional Testing for 316871
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
023	FT26-3	Homogeneous	Brown Mastic	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
024	FT27-1	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile 0.75 400 Point Count	NA	
025	FT27-2	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile 0.25 400 Point Count	NA	
026	FT27-3	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile <0.25 400 Point Count	NA	

Cassie Sanborn

Cassie Sanborn, Analyst

12/9/2019

Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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316871

Asbestos Bulk Building Material Chain of Custody

Company: Tetra Tech		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 415 oak street		<i>Third Party Billing requires written authorization from third party</i>	
City: Kansas City	State/Province: MO	Zip/Postal Code: 64106	Country: US
Report To (Name): Michelle Handley		Telephone #: 3143796336	
Email Address: michelle.Handley@tetratech.com		Fax #:	Purchase Order:
Project Name/Number: 10AX903019F0101.005		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: MO		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options* - Please Check

3 Hour
 6 Hour
 24 Hour
 48 Hour
 72 Hour
 96 Hour
 1 Week
 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NIOSH 9002 (<1%) <input type="checkbox"/> NY ELAP Method 198.1 (friable In NY) <input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY) <input type="checkbox"/> OSHA ID-191 Modified <input type="checkbox"/> Standard Addition Method	TEM - Bulk <input type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1 <input type="checkbox"/> NY ELAP Method 198.4 (TEM) <input type="checkbox"/> Chatfield Protocol (semi-quantitative) <input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2 <input type="checkbox"/> TEM Qualitative via Filtration Prep Technique <input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique Other <input type="checkbox"/>
---	---

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled: 11/8/2019

Samplers Name: *Megan Sawyer* Samplers Signature: *Megan Sawyer*

Sample #	HA #	Sample Location	Material Description
1	FT-1	1	12x12 Gray Stick on
2	1-2	1	floor tile
3	1-3	1	↓
4	FT1-1	2	12x12 white w/black
5	1-2	2	streaks floor tile
6	1-3	2	↓
7	FT2-1	3	12x12 Pink w/black
8	1-2	3	dots floor tile
9	1-3	3	↓
10	Terrazzo	4	Terrazzo, Tan

Client Sample # (s): 1 → #100 Total # of Samples: 3/10

Relinquished (Client) *Megan Sawyer (TE)* Date: 11/11/2019 Time: 1400

Received (Lab): Date: 11/13/19 Time: 8:30AM

Comments/Special Instructions: *Elena Sawyer*

316871

Asbestos Bulk Building Material Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
11	Terrazzo-2	4	NA
12	↓ -3	4	
13	CB-1	5	4" Black Cove Base
14	↓ -2	5	↓
15	↓ -3	5	
16	CT-1	6	2x4 White Lissora & Pinhole
17	↓ -2	6	↓
18	↓ -3	6	
19	NM-1	7	Wall Panel Mastic, Wood Walls
20	↓ -2	7	↓
21	↓ -3	7	
22	CM-1	8	Yellow Carpet Mastic
23	↓ -2	8	↓
24	↓ -3	8	
25	FT4-1	9	12x12 Beige w/Pink Streaks Floor tile
26	↓ -2	9	↓
27	↓ -3	9	
28	FT5-1	10	12x12 thin brown w/tan streaks floor tile
29	↓ -2	10	
30	↓ -3	10	
31	FT6-1	11	9x9 gray w/red & brown streaks floor tile
32	↓ -2	11	
33	↓ -3	11	
34	FT7-1	12	9x9 gray w/white &

*Comments/Special Instructions:

316871
**Asbestos Bulk Building Material
 Chain of Custody**

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description	
35	FT7-2	12	NA	black dots floor tile
36	↓-3	12		
37	CT1-1	13		12x12" fissure & pinhole
38	↓-2	13		ceiling tile, white, w/
39	↓-3	13		glue pucks
40	CT2-1	14		12x4 gypsum white
41	↓-2	14		ceiling tile
42	↓-3	14		↓
43	CTM-1	15		Ceramic tile mastic,
44	↓-2	15		green wall tile
45	↓-3	15		↓
46	FT8-1	16		9x9 Red floor tile
47	↓-2	16		↓
48	↓-3	16		
49	FT9-1	17		9x9 Black floor tile
50	↓-2	17		↓
51	↓-3	17		
52	FT10-1	18		12x12 Hot Pink floor
53	↓-2	18		tile
54	↓-3	18		↓
55	FT11-1	19		12x12 Turquoise floor
56	↓-2	19		tile
57	↓-3	19		↓
58	FT12-1	20	↓	12x12 gray white &

*Comments/Special Instructions:

316871
**Asbestos Bulk Building Material
 Chain of Custody**

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
59	FT12-2	20	MA Green cobblestone
60	-3	20	Floor tile
61	FT13-1	21	12x12 tan w/brown
62	↓ -2	21	streaks floor tile
63	↓ -3	21	↓
64	MS FT14-1	22	12x12 beige w/tan
65	↓ -2	22	cobblestone floor tile
66	↓ -3	22	↓
67	SD-1	23	White Sink Undercoat
68	↓ -2	23	↓
69	↓ -3	23	
70	CT1-1	24	White Ceramic tile grout
71	↓ -2	24	↓
72	↓ -3	24	
73	LEN-1	25	Brown linoleum
74	↓ -2	25	↓
75	↓ -3	25	
76	FT15-1	26	9x9 Brown w/black
77	↓ -2	26	streaks floor tile
78	↓ -3	26	↓
79	CTX-1	27	White ceiling Textolite
80	↓ -2	27	↓
81	↓ -3	27	
82	FP-1	28	Brown fireproofing

*Comments/Special Instructions:

316871

Asbestos Bulk Building Material Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

83-82
84 3
85 4
86 5
87 6
88 7
89 8
90 9
91 0
92 1
93 2
94 3
95 4
96 5
97 6
98 7
99 8
100 9
101 0
102 1
103 2
104 3
105 4
106 5

Sample #	HA #	Sample Location	Material Description
FP-2	28	NA	
-3	28		
CT1-1	29		Tan Ceramic tile
↓ -2	29		grout
↓ -3	29		
CB1-1	30		4" Tan Cove Base
↓ -2	30		↓
↓ -3	30		
CT2-1	31		12"x12" white pinhole ceiling tile
↓ -2	31		↓
↓ -3	31		
WM1-1	32		White Plastic wall paneling mastic
↓ -2	32		↓
↓ -3	32		
CB2-1	33		4" Brown Cove Base
↓ -2	33		↓
↓ -3	33		
LI1-1	34		Tan linoleum
↓ -2	34		↓
↓ -3	34		
FT1-1	35		9x9 maroon floor tile
↓ -2	35		↓
↓ -3	35		
CM1-1	36		Wall Carpet Mastic

*Comments/Special Instructions:

316871
Asbestos Bulk Building Material
Chain of Custody
 EMSL Order Number (Lab Use Only):

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
107	CM1-2	36	NA
108	-3	36	
109	CB3-1	37	4" Gray Cove Base
110	↓ -2	37	↓
111	↓ -3	37	9x9 Tan floor tile
112	FT1-1	38	
113	↓ -2	38	↓
114	↓ -3	38	
115	CT3-1	39	12" x 12" White Divot Ceiling tile
116	↓ -2	39	↓
117	↓ -3	39	
118	CT4-1	40	12" x 12" Smooth white ceiling tile
119	↓ -2	40	↓
120	↓ -3	40	
121	FT18-1	41	12" x 12" Cream w/ lime green & white specks floor tile
122	↓ -2	41	
123	↓ -3	41	
124	CTX1-1	42	Ceiling texture on dry wall
125	↓ -2	42	↓
126	↓ -3	42	
127	CT4-1	43	12" x 12" fissure & pinhole no glue ceiling tile
128	↓ -2	43	white
129	↓ -3	43	
130	CT5-1	44	12" x 12" bubbled ceiling

*Comments/Special Instructions:

316871
Asbestos Bulk Building Material
Chain of Custody
EMSL Order Number (Lab Use Only):

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
131	CTB-2	44	
132	-3	44	
133	M2-1	45	Black, carpet mastic.
134	↓ -2	45	↓
135	↓ -3	45	
136	FT9-1	46	9x9 cream w/black
137	↓ -2	46	& brown streaks
138	↓ -3	46	Floor tile
139	TSE-1	47	Acrocell
140	↓ -2	47	↓
141	↓ -3	47	
142	TSEJ-1	48	Joints
143	↓ -2	48	↓
144	↓ -3	48	
145	CB4-1	49	8" Gray cove base.
146	↓ -2	49	↓
147	↓ -3	49	
148	CTA-1	50	Gray ceramic tile grout
149	↓ -2	50	↓
150	↓ -3	50	
151	CTM-1	51	Ceramic tile mastic,
152	↓ -2	51	Bathrooms-2nd FLR
153	↓ -3	51	↓
154	FT20-1	52	9x9 beige w/brown

*Comments/Special Instructions:

316871

Asbestos Bulk Building Material
Chain of Custody

EMSL Order Number (Lab Use Only):

[Redacted]

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
155	FT20-2 52	NA	streaked floor tile
156	-3 52		↓
157	CM3-1 53		Carpet Mastic (2nd Flr)
158	↓ -2 53		↓
159	↓ -3 53		
160	CM4-1 54		Wall Carpet Mastic
161	↓ -2 54		↓
162	↓ -3 54		
163	WM2-1 55		Wood Wall Mastic
164	↓ -2 55		↓
165	↓ -3 55		
166	CT6-1 56		12" x 12" Small Divot white ceiling tile
167	↓ -2 56		↓
168	↓ -3 56		
169	LFN2-1 57		Gray ^{m.s} Linoleum, yellow
170	↓ -2 57		↓
171	↓ -3 57		
172	LFN3-1 58		Gray Linoleum
173	↓ -2 58		↓
174	↓ -3 58		
175	SV1-1 59		Black sink undercoat
176	↓ -2 59		↓
177	↓ -3 59		
178	CTM2-1 60		Green Ceramic tile mastic

*Comments/Special Instructions:

316871
**Asbestos Bulk Building Material
 Chain of Custody**

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
179	CTM2-7	6e0	NA
180	↓ -3	6e0	
181	FT21-1	6e1	Gray floor tile under linoleum
182	↓ -2	6e1	↓
183	↓ -3	6e1	
184	CTF-1	6e2	Cream 2x4 pinhole & texture ceiling tile
185	↓ -2	6e2	↓
186	↓ -3	6e2	
187	FT22-1	6e3	12x12 Gray w/white & black specks
188	↓ -2	6e3	↓
189	↓ -3	6e3	
190	LIN4-1	6e4	Brown & tan patterned linoleum
191	↓ -2	6e4	↓
192	↓ -3	6e4	
193	FT23-1	6e5	12x12 Blue w/black & white speckled floor tile
194	↓ -2	6e5	
195	↓ -3	6e5	
196	LIN5-1	6e6	Brown linoleum, entry way strips
197	↓ -2	6e6	↓
198	↓ -3	6e6	
199	FT24-1	6e7	12x12 Tan w/black, gray & white patterned, Grid bottom
200	↓ -2	6e7	
201	↓ -3	6e7	
202	CB5-1	6e8	4" light blue cove base

*Comments/Special Instructions:

316871

Asbestos Bulk Building Material
Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
203	CBS-2	68	NA
204	-3	68	
205	FT210-1	69	9x9 Gray w/white & black streaks floor tile
206	↓ -2	69	
207	↓ -3	69	
208	FT27-1	70	12x12 thin tan floor tile
209	↓ -2	70	
210	↓ -3	70	
211	FT28-1	71	Grey, unknown size floor tile
212	↓ -2	71	
213	↓ -3	71	
214	TRAN-1	72	Transite panel
215	↓ -2	72	
216	↓ -3	72	
217	DWSC1	73	Drywall w/joint Compound
218	↓ -2	73	↓ Original Building
219	↓ -3	73	
220	DWSC1-1	74	Drywall w/joint Compound East side, 1st floor
221	↓ -2	74	
222	↓ -3	74	
223	↓ -4	74	
224	↓ -5	74	
225	PLSC-1	75	Plaster w/skim coat, 1st floor
226	-2	75	

*Comments/Special Instructions:

316871
**Asbestos Bulk Building Material
 Chain of Custody**

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
2 27	PLSC-3 75	NA	
2 28	1-4 75		
2 29	1-5 75		
2 30	1-6 75		
2 31	1-7 75		
2 32	SPLSC-1 76		Spray on plaster ceiling
2 33	1-2 76		1st floor
2 34	1-3 76		↓
2 35	PLSC-1 77		Plaster w/skim coat,
2 36	1-2 77		2nd floor
2 37	1-3 77		↓
2 38	1-4 77		↓
2 39	1-5 77		↓
2 40	CBLO-1 78		4" Pink Cove base
2 41	1-2 78		↓
2 42	1-3 78		↓
2 43	C-1 79		Brown window & door
2 44	1-2 79		caulk
2 45	1-3 79		↓
2 46	EL-1 80		Black Expansion caulk
2 47	1-2 80		↓
2 48	1-3 80		↓
2 49	EL-1 81		White Expansion caulk
2 50	-2 81	↓	↓

*Comments/Special Instructions:

316871
**Asbestos Bulk Building Material
 Chain of Custody**

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
251	EC1-3	81	NA
252	EC2-1	82	Black Expansion Caulk
253	↓ -2	82	↓
254	↓ -3	82	↓
255	CI-1	83	Grey Door caulk
256	↓ -2	83	↓
257	↓ -3	83	↓
258	STUCCO-1	84	Exterior wall stucco
259	↓ -2	84	↓
260	↓ -3	84	↓
261	SS-1	85	Siding Shingles
262	↓ -2	85	↓
263	↓ -3	85	↓
264	VP-1	86	Vapor Barrier
265	↓ -2	86	↓
266	↓ -3	86	↓
267	EC3-1	87	Tan Expansion Caulk
268	↓ -2	87	↓
269	↓ -3	87	↓
270	C2-1	88	Brown & white window caulk
271	↓ -2	88	↓
272	↓ -3	88	↓
273	C3-1	89	Clear window caulk
274	↓ -2	89	↓

*Comments/Special Instructions:

316871
Asbestos Bulk Building Material
Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
275	C3-3	89	NA
276	C4-1	90	Gray Door Caulk
277	↓-2	90	↓
278	↓-3	90	↓
279	G-1	91	Black window
280	↓-2	91	Glazing
281	↓-3	91	↓
282	C6-1	92	Light brown door
283	↓-2	92	caulk
284	↓-3	92	↓
285	FT30-1	93	1/2 x 1/2 white floor
286	↓-2	93	lin, evidence building
287	↓-3	93	↓
288	G1-1	94	White Window Glazing
289	↓-2	94	↓
290	↓-3	94	↓
291	CB7-1	95	4" Brown Cove Base
292	↓-2	95	↓
293	↓-3	95	↓
294	RC-1	96	Roof Core
295	↓-2	96	↓
296	↓-3	96	↓
297	FL-1	97	Flashing
298	↓-2	97	↓

*Comments/Special Instructions:

*Analyze ALL layers of roof cores individually ± RC-1,2,3

APPENDIX E

PCB ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY FORMS



21-Nov-2019

Emily Fisher
Tetra Tech
415 Oak Street
Kansas City, MO 64106

Re: **Oak Street City Hall (103X903019F0101.005)**

Work Order: **19110911**

Dear Emily,

ALS Environmental received 2 samples on 12-Nov-2019 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 9.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

A handwritten signature in black ink that reads "Ehrland Bosworth".

Electronically approved by: Ehrland Bosworth

Ehrland Bosworth
Project Manager

Report of Laboratory Analysis

Certificate No: MN 026-999-449

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental ALS

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Tetra Tech
Project: Oak Street City Hall (103X903019F0101.005)
Work Order: 19110911

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
19110911-01	PCB-1-Black	Solid		11/8/2019 12:00	11/12/2019 11:00	<input type="checkbox"/>
19110911-02	PCB-2-Gray	Solid		11/8/2019 13:00	11/12/2019 11:00	<input type="checkbox"/>

Client: Tetra Tech
Project: Oak Street City Hall (103X903019F0101.005)
WorkOrder: 19110911

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCS D	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
µg/Kg	Micrograms per Kilogram

Client: Tetra Tech
Project: Oak Street City Hall (103X903019F0101.005)
Work Order: 19110911

Case Narrative

Samples for the above noted Work Order were received on 11/12/19. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Extractable Organics:

No deviations or anomalies were noted.

ALS Group, USA

Date: 21-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall (103X903019F0101.005)
Sample ID: PCB-1-Black
Collection Date: 11/8/2019 12:00 PM

Work Order: 19110911
Lab ID: 19110911-01
Matrix: SOLID

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			Method: SW8082		Prep: SW3550 / 11/14/19		Analyst: KB
Aroclor 1016	U		290	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1221	U		290	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1232	U		290	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1242	U		290	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1248	U		290	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1254	U		200	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1260	U		200	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1262	U		200	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1268	U		200	740	µg/Kg	1	11/19/2019 21:05
Surr: Decachlorobiphenyl	101			40-140	%REC	1	11/19/2019 21:05
Surr: Tetrachloro-m-xylene	85.1			45-124	%REC	1	11/19/2019 21:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 21-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall (103X903019F0101.005)
Sample ID: PCB-2-Gray
Collection Date: 11/8/2019 01:00 PM

Work Order: 19110911
Lab ID: 19110911-02
Matrix: SOLID

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			Method: SW8082		Prep: SW3550 / 11/14/19		Analyst: KB
Aroclor 1016	U		330	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1221	U		330	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1232	U		330	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1242	U		330	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1248	U		330	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1254	U		230	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1260	U		230	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1262	U		230	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1268	U		230	840	µg/Kg	1	11/19/2019 21:21
Surr: Decachlorobiphenyl	107			40-140	%REC	1	11/19/2019 21:21
Surr: Tetrachloro-m-xylene	86.1			45-124	%REC	1	11/19/2019 21:21

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Work Order: 19110911
Project: Oak Street City Hall (103X903019F0101.005)

QC BATCH REPORT

Batch ID: **145605** Instrument ID **GC14** Method: **SW8082**

MBLK		Sample ID: PBLKS1-145605-145605				Units: µg/Kg		Analysis Date: 11/15/2019 03:57 A			
Client ID:		Run ID: GC14_191114A				SeqNo: 6058092		Prep Date: 11/14/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	33	83								
Aroclor 1221	U	33	83								
Aroclor 1232	U	33	83								
Aroclor 1242	U	33	83								
Aroclor 1248	U	33	83								
Aroclor 1254	U	23	83								
Aroclor 1260	U	23	83								
Aroclor 1262	U	23	83								
Aroclor 1268	U	23	83								
<i>Surr: Decachlorobiphenyl</i>	33.67	0	0	33.3	0	101	40-140	0			
<i>Surr: Tetrachloro-m-xylene</i>	25.67	0	0	33.3	0	77.1	45-124	0			

LCS		Sample ID: PLCSS1-145605-145605				Units: µg/Kg		Analysis Date: 11/15/2019 04:13 A			
Client ID:		Run ID: GC14_191114A				SeqNo: 6058093		Prep Date: 11/14/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	859.3	33	83	833	0	103	50-130	0			
Aroclor 1260	927	23	83	833	0	111	50-130	0			
<i>Surr: Decachlorobiphenyl</i>	35	0	0	33.3	0	105	40-140	0			
<i>Surr: Tetrachloro-m-xylene</i>	28.33	0	0	33.3	0	85.1	45-124	0			

LCSD		Sample ID: PLCSDS1-145605-145605				Units: µg/Kg		Analysis Date: 11/15/2019 04:28 A			
Client ID:		Run ID: GC14_191114A				SeqNo: 6058094		Prep Date: 11/14/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	869	33	83	833	0	104	50-130	859.3	1.12	0	
Aroclor 1260	914.3	23	83	833	0	110	50-130	927	1.38	0	
<i>Surr: Decachlorobiphenyl</i>	37	0	0	33.3	0	111	40-140	35	5.56	0	
<i>Surr: Tetrachloro-m-xylene</i>	30.33	0	0	33.3	0	91.1	45-124	28.33	6.82		

The following samples were analyzed in this batch:

19110911-01A	19110911-02A
--------------	--------------



Cincinnati, OH
+1 513 733 5336

Fort Collins, CO
+1 970 490 1511

Everett, WA
+1 425 356 2600

Holland, MI
+1 616 399 6070

Chain of Custody Form

Page of

COC ID: 194175

Houston, TX
+1 281 530 5656

Spring City, PA
+1 610 948 4903

South Charleston, WV
+1 304 356 3168

Middletown, PA
+1 717 944 5541

Salt Lake City, UT
+1 801 266 7700

York, PA
+1 717 505 5280

ALS Project Manager: EB

ALS Work Order #: 19110911

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order		Project Name	<u>Oak Street City Hall</u>	A	<u>PCB-EPA SW-846 Method 8082</u>											
Work Order		Project Number	<u>103X903069F0101.005</u>	B												
Company Name	<u>Tetra Tech</u>	Bill To Company	<u>Tetra Tech</u>	C												
Send Report To	<u>Michelle Handley</u>	Invoice Attn	<u>Accounts Payable</u>	D												
Address	<u>415 Oak Street</u>	Address	<u>415 Oak Street</u>	E												
				F												
City/State/Zip	<u>Kansas City, MO 64106</u>	City/State/Zip	<u>Kansas City, MO 64106</u>	G												
Phone	<u>(816) 412-1755</u>	Phone	<u>(816) 412-1755</u>	H												
Fax	<u>(816) 410-1748</u>	Fax	<u>(816) 410-1748</u>	I												
e-Mail Address	<u>michelle.handley@tetra</u>	e-Mail Address		J												

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	<u>PCB-1 - Black</u>	<u>11/8/19</u>	<u>1200</u>	<u>Solid</u>	<u>-</u>	<u>1</u>	<input checked="" type="checkbox"/>										
2	<u>PCB-2 - Gray</u>	<u>11/8/19</u>	<u>1300</u>	<u>Solid</u>	<u>-</u>	<u>1</u>	<input checked="" type="checkbox"/>										
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign <u>Megan Sawyer</u> <u>Megan Sawyer</u>		Shipment Method <u>Fedex</u>		Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> Std 10 WK Days <input type="checkbox"/> 5 WK Days <input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24 Hour				Results Due Date:								
Relinquished by: <u>Megan Sawyer</u>	Date: <u>11/11/19</u>	Time: <u>1500</u>	Received by:		Notes:											
Relinquished by:	Date: <u>11/12/19</u>	Time: <u>11:00</u>	Received by (Laboratory):		Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)									
Logged by (Laboratory): <u>MTG</u>	Date: <u>11/12/19</u>	Time: <u>15:21</u>	Checked by (Laboratory): <u>EB</u>			<u>2.9°C</u> <u>50.2</u>	<input type="checkbox"/> Level II Std QC	<input type="checkbox"/> TRRP CheckList								
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035							<input type="checkbox"/> Level III Std QC/Raw Data	<input type="checkbox"/> TRRP Level IV								
							<input type="checkbox"/> Level IV SW846/CLP									
							<input type="checkbox"/> Other									

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

Sample Receipt Checklist

Client Name: **TETRATECH - MO**

Date/Time Received: **12-Nov-19 00:00**

Work Order: **19110911**

Received by: **MJG**

Checklist completed by Matthew Gaylord 12-Nov-19
eSignature Date

Reviewed by: Eheland Bramworth 12-Nov-19
eSignature Date

Matrices: **Solid**

Carrier name: **FedEx**

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No
- Sample(s) received on ice? Yes No

Temperature(s)/Thermometer(s):

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage:

Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by:

Login Notes:



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction: