

**Asbestos and Lead-based Paint Assessment Report
Colleton County Recreation Center
280 Recreation Lane
Walterboro, South Carolina
S&ME Project No. 4213-17-116**

Assessment Performed by and Report Prepared by:



5/9/17

William R. Seaborn (SCDHEC Accreditation# BI-01317) Date



Prepared for:
Colleton County
113 Mable T. Willis Boulevard
Walterboro, SC 28472

Prepared by:
S&ME, Inc.
620 Wando Park Boulevard
Mt Pleasant, SC 29464

May 9, 2017



May 9, 2017

Colleton County
113 Mable T. Willis Boulevard
Walterboro, South Carolina 29488

Attention: Mr. John T. Stieglitz, III, Capital Projects and Purchasing Director
jstieglitz@colletoncounty.org

Reference: **Limited Asbestos and Lead-Based Paint Assessment Report
Colleton County Recreation Center**
280 Recreation Lane
Walterboro, South Carolina
S&ME Project No. 4213-17-116

Dear Mr. Stieglitz:

S&ME, Inc. (S&ME) is pleased to provide the enclosed report detailing the limited asbestos and lead-based paint assessment of the referenced facility. The assessment was performed in general accordance with S&ME Proposal 42-1700465 dated April 18, 2017. The enclosed report includes the executive summary, project background, assessment procedures, findings and results, and conclusions and recommendations for the proper treatment of asbestos containing materials and lead-based paint.

This report is provided for the sole use of Colleton County. Use of this report by any other parties will be at such party's sole risk and S&ME, Inc. disclaims liability for any such use or reliance by third parties. The results presented in this report are indicative of conditions only during the time of the assessment and of the specific areas referenced. The information provided in this assessment report should not be used as a bidding document, and field conditions should be verified.

We appreciate the opportunity to provide you with our industrial hygiene services. If you have any questions concerning this report, please call us at (843) 884-0005.

Sincerely,

S&ME, Inc.

Terry W. Richburg
Environmental Group Leader

James L. Killingsworth, CHMM
Environmental Services Area Manager, V.P.

Attachments



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Executive Summary

An asbestos and lead-based paint assessment was conducted on April 21, 2017 and May 5, 2017 of the Colleton County Recreation Center located at 280 Recreation Lane in Walterboro, South Carolina, limited to interior and exterior areas of the facility, excluding roofing materials. The purpose of the assessment was to identify the presence of asbestos containing materials (ACMs) and lead-based paint associated with the interior and exterior of the referenced structure, excluding roofing materials, to support renovation activities. The assessment also complies with federal, state, and local asbestos requirements regarding identification of asbestos containing building materials that may be disturbed due to renovation or demolition.

The structure is one story, approximately 16,500 square feet in size, constructed on a concrete slab on-grade, and was constructed in 1978. The exterior is finished with brick and the roof is flat. Interior finishes include concrete masonry unit (CMU) walls, limited drywall walls, suspended ceilings, and terrazzo floors. The structure was occupied on the day of our site visit and was comprised of offices, classrooms, locker rooms, restrooms, and a large gymnasium.

Asbestos

The suspect ACMs sampled and analyzed as part of this assessment included drywall and associated joint compound, ceiling tiles (three types), mastics associated with ductwork (three types), and mastics associated with rubber cove bases (two types). Based on the bulk samples collected and analyzed as part of this assessment, the following ACMs were identified:

Table 1: Summary of Confirmed ACMs

Material	HA	Location	Asbestos Type	Percent	Condition	Potential for Disturbance	*Approx. Quantity
Mastic (tan) associated with ductwork	DM1 (tan)	See Fig. 1	Chrysotile	9.1	G, NF	PD	850 SF

*Note: The quantities are estimated and should be field verified for bidding purposes.

Abbreviations:

HA = homogeneous area	SF = square feet	LF = linear feet
G = good	D = damaged	NF = non-friable
F = friable	PD = potential for disturbance	PSD = potential for sig. disturbance

The identified asbestos containing mastic is classified as a Category I non-friable ACM, in good condition, with a potential for disturbance. The remaining bulk samples collected did not exhibit the presence of asbestos. The Environmental Protection Agency (EPA) and the South Carolina Department of Health and Environmental Control (SCDHEC) defines a material an ACM if an asbestos content greater than one percent (>1%) is detected in a representative sample.

If the planned renovation activities will disturb the identified ACM, we recommend proper removal and disposal of the ACM, by a SCDHEC licensed asbestos abatement contractor, prior to any destructive



activities to the ACM, as required by SCDHEC and EPA. If additional suspect ACMs not addressed in this report are discovered during the planned renovation activities, bulk samples must be collected by a SCDHEC licensed inspector and analyzed for asbestos content prior to disturbance or disposal of the suspect materials. This report should also be provided to the contractor(s) that will perform the renovation activities to assist with compliance with applicable State and Federal regulations.

Lead-based Paint Assessment

A lead-based paint assessment was performed of representative painted components associated with the interior and exterior of the subject facility. The components were analyzed using direct measurement X-Ray Fluorescence (XRF) technology using a Thermo Scientific XLp 302 (serial #25910). For the purpose of this assessment, painted surfaces with lead concentrations meeting the SCDHEC disposal limit (0.7 mg/cm²) are considered lead-based paint.

Based on the assessment and testing performed, no lead levels meeting the SCDHEC disposal level (0.7 mg/cm²) were identified. Low levels of lead were present which may be applicable to the standards of Occupational Safety and Health Administration (OSHA) 29 CFR 1926.62 (Lead in Construction) depending upon the tasks impacting those painted surfaces.

Destructive actions to paint containing low levels of lead (e.g. component removal, demolition, sanding, grinding, burning, paint preparation, etc.) will require the contractor comply with the standards of the OSHA regulation 29 CFR 1926.62 (Lead in Construction), including but not limited to training, initial exposure monitoring, the use of personal protective equipment, and medical surveillance.

Paint coatings may be present that contain low levels of lead that cannot be detected by X-ray fluorescence, and may be applicable to OSHA regulations 29 CFR 1926.62. The quantities reported by XRF may be useful in determining the relative risk associated with various demolition tasks, for example disturbances to paints with low lead levels may be less likely to result in airborne lead exposures in excess of the OSHA Action Level.



1.0 Background

S&ME, Inc. (S&ME) was contracted by Colleton County to perform an asbestos and lead-based paint assessment of the Colleton County Recreation Center located at 280 Recreation Lane in Walterboro, South Carolina, limited to interior and exterior areas of the facility, excluding roofing materials. The assessment was subsequently conducted on April 21, 2017 and May 5, 2017. The purpose of the assessment was to identify the presence of asbestos containing materials (ACMs) and lead-based paint associated with the interior and exterior of the facility, excluding roofing materials, to support planned renovations. The assessment also complies with federal, state, and local asbestos requirements regarding identification of asbestos containing building materials that may be disturbed due to renovation or demolition.

The structure is one story, approximately 16,500 square feet in size, constructed on a concrete slab on-grade, and was constructed in 1978. The exterior is finished with brick and the roof is flat. Interior finishes include concrete masonry unit (CMU) walls, limited drywall walls, suspended ceilings, and terrazzo floors. The structure was occupied on the day of our site visit and was comprised of offices, classrooms, locker rooms, restrooms, and a large gymnasium.

1.1 Asbestos Assessment

The asbestos assessment was conducted to assess, sample, and identify ACMs that will be disturbed, in accordance with regulatory requirements. The identification of ACMs will aid in the prevention of occupational exposures and/or environmental releases of airborne asbestos. Identification of ACMs also complies with Title 40 Code of the Federal Regulations, part 61, and State regulation 61-86.1 enforced by the South Carolina Department of Health and Environmental Control (SCDHEC), along with Title 29 Code of Federal Regulations, part 1926 enforced by the Occupational Safety and Health Administration (OSHA). The following sections describe the assessment procedures used, results of the suspect ACMs sampled and analyzed, and conclusions and recommendations related to ACMs.

1.2 Lead-based Paint Assessment

The purpose of the testing was to assess and identify lead-based paint coatings associated with the interior and exterior of the referenced structure. The identification of these materials will aid in the compliance of occupational exposure (OSHA) and/or environmental releases of airborne lead dust in accordance with OSHA 29 CFR 1926.62 (Lead in Construction) and provide information to determine proper disposal of lead-based paint coated components and debris in accordance with the SCDHEC and the Environmental Protection Agency (EPA).

2.0 Asbestos Assessment

2.1 Assessment Procedures

The assessment was performed by observing and sampling suspect ACMs associated with the referenced structure, excluding roofing materials. Significant destructive testing was not performed, therefore the possibility exists that suspect materials were undetected in inaccessible areas such as inside pipe chases, wall voids, or flooring overlays. If additional suspect materials are discovered during the planned



destructive activities, bulk samples must be collected by a SCDHEC licensed inspector and analyzed for asbestos content.

A sampling strategy was developed to provide representative samples in accordance with the SCDHEC and EPA. Bulk samples of suspect ACMs were collected by a SCDHEC licensed inspector. The bulk samples were then extracted from suspect ACMs and recorded on a chain of custody record and submitted to CEI Labs of Cary, North Carolina for analysis by Polarized Light Microscopy (PLM), and confirmation analysis by Transmission Electron Microscopy (TEM), for non-friable organically bound materials reported negative by PLM. The laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), which is administered by the National Institute of Standards and Technology.

Polarized Light Microscopy (PLM)

The suspect materials were analyzed by trained microscopists using PLM techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I (1-1-87 edition), Part 763, Subpart F-APPENDIX A. This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sign of elongation and dispersion staining colors. The laboratory analysis reports the specific type of asbestos identified (there are six asbestos minerals) and the percentage of asbestos present.

Transmission Electron Microscopy (TEM)

Suspect non-friable organically bound materials, exhibiting negative results via PLM analysis, were analyzed by trained microscopists via TEM, in accordance with SCDHEC requirements.

2.2 Findings and Results

The assessment was performed on April 21, 2017 and May 5, 2017, and included the bulk sampling of suspect asbestos containing drywall and associated joint compound, ceiling tiles (three types), mastics associated with ductwork (three types), and mastics associated with rubber cove bases (two types). Based on the bulk samples collected and analyzed as part of this assessment, the following ACMs were identified:

Table 1: Summary of Confirmed ACMs

Material	HA	Location	Asbestos Type	Percent	Condition	Potential for Disturbance	*Approx. Quantity
Mastic (tan) associated with ductwork	DM1 (tan)	See Fig. 1	Chrysotile	9.1	G, NF	PD	850 SF

*Note: The quantities are estimated and should be field verified for bidding purposes.

Abbreviations:

HA = homogeneous area

G = good D = damaged

LPD = low potential for disturbance

SF = square feet

NF = non-friable

PD = potential for disturbance

LF = linear feet

F = friable

PSD = potential for sig. disturbance



The identified asbestos containing mastic is classified as a Category I non-friable ACM, in good condition, with a potential for disturbance. The remaining bulk samples collected did not exhibit the presence of asbestos. The EPA and the SCDHEC defines a material an ACM if an asbestos content of greater than one percent is detected in a representative sample.

A summary of asbestos results is provided in Appendix I, and exhibits the sample number, location, type of material tested, approximate quantity of the material sampled, condition of the material, and corresponding result for each sample. Diagrams of bulk sample locations are provided in Attachment II, and a copy of the inspector’s SCDHEC license is provided in Attachment III. Copies of the laboratory analyses and chain-of-custody records are provided in Attachment IV.

2.3 Abbreviations and Hazard Assessment Key

In accordance with the EPA and SCDHEC, confirmed ACM is assigned a hazard assessment based on its present condition and potential for disturbance. The hazard assessment is used as a tool for prioritization in remedial actions regarding ACM(s) as noted in Appendix I, Table 3.

Present Condition

F = Friable

NF = Non-friable

G = Good (Very localized limited damage)

D = Damaged (Damage of less than 10% distributed and less than 25% localized)

SD = Significantly Damaged (Damage equal to or greater than 10% distributed, 25% localized)

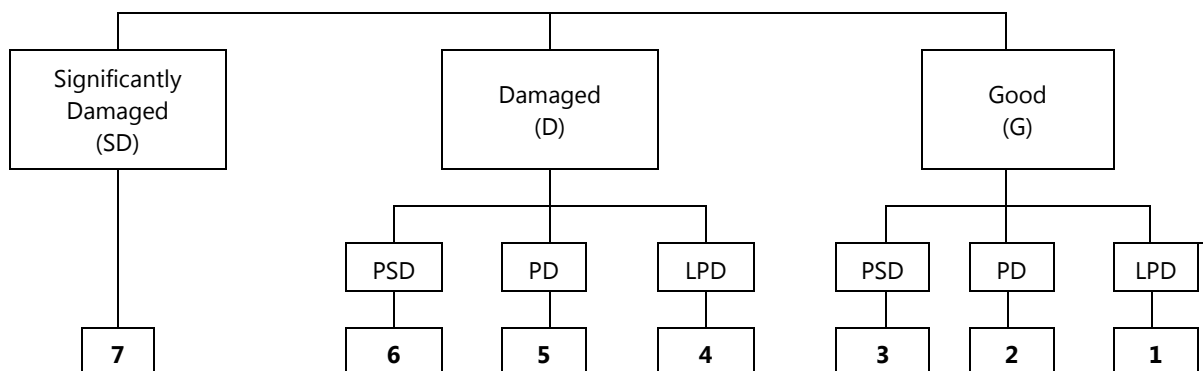
Potential for Future Disturbance

LPD = Low Potential for Disturbance (Contact, Vibration, and Air Erosion all of Low Concern)

PD = Potential for Damage (Contact, Vibration, or Air Erosion of Moderate Concern)

PSD = Potential for Significant Damage (Contact, Vibration, or Air Erosion of High Concern)

Hazard Assessment



3.0 Lead-Based Paint Assessment

3.1 Procedures

Lead-based paint testing was performed on representative interior and exterior painted components associated with the referenced structure. The components were analyzed with a Thermo Scientific XLP-302 XRF spectrum analyzer (serial #25910). The suspect painted finishes were selected based on the color of the topcoat and the underlying paint layers and/or the substrate on which it was applied. The possibility exists that lead-based paint finishes are present in those inaccessible areas such as pipe chases, wall voids, etc. The SCDHEC defines a lead-based paint as any paint containing lead at concentrations equaling 0.7 mg/cm² or greater by XRF testing. For the purpose of the assessment, paint containing 0.7 mg/cm² or greater was considered lead-based paint due to the planned activities.

The OSHA does not recognize a threshold level of lead for definition purposes, only the airborne concentration of lead a worker is exposed. The current OSHA regulations recognize an airborne action level of 30 micrograms per cubic meter (µg/m³) during an eight-hour day and a permissible exposure limit of 50 µg/m³.

3.2 Findings

Based on the assessment and testing performed on April 21, 2017, of the painted components associated with the subject structure, no lead levels meeting the SCDHEC disposal level (0.7 mg/cm²) were identified. Low levels of lead were present in various paints and may be applicable to the standards of the OSHA 29 CFR 1926.62 (Lead in Construction) dependent upon the planned treatments of those painted surfaces.

The summary of XRF readings is provided in Appendix V, and should be reviewed in full.

4.0 Conclusions and Recommendations

The asbestos and lead-based paint assessment performed on April 21, 2017 and May 5, 2017 of the Colleton County Recreation Center located at 280 Recreation Lane in Walterboro, South Carolina identified the presence of a Category I non-friable ACM. No lead-based paint, applicable to SCDHEC and EPA disposal standards, was identified. Low levels of lead were identified that may be applicable to the standards of the OSHA, depending upon the tasks impacting those painted surfaces. This report should be provided to the contractor(s) to assist with compliance with applicable State and Federal regulations.

4.1 Asbestos Recommendations

If the planned renovation activities will disturb the identified ACM, we recommend proper removal and disposal of the ACM, by a SCDHEC licensed asbestos abatement contractor, prior to any destructive activities to the ACM, as required by SCDHEC and EPA. If additional suspect ACMs not addressed in this report are discovered during the planned renovation activities, bulk samples must be collected by a SCDHEC licensed inspector and analyzed for asbestos content prior to disturbance or disposal of the suspect materials.



4.2 Lead-based Paint Recommendations

Destructive actions to paint containing low levels of lead (e.g. component removal, demolition, sanding, grinding, burning, paint preparation, etc.) will require the contractor comply with the standards of the OSHA regulation 29 CFR 1926.62 (Lead in Construction), including but not limited to training, initial exposure monitoring, the use of personal protective equipment, and medical surveillance.

Paint coatings may be present that contain low levels of lead that cannot be detected by X-ray fluorescence, and may be applicable to OSHA regulations 29 CFR 1926.62. The quantities reported by XRF may be useful in determining the relative risk associated with various demolition tasks, for example disturbances to paints with low lead levels may be less likely to result in airborne lead exposures in excess of the OSHA Action Level.

Appendix I – Summary of Asbestos Results



Table I: Summary of Asbestos Results

Sample No.	Location	Material	² Approx. Quantity	Asbestos Type	¹ Percent	Condition	Potential for Disturbance	Hazard Assessment
RC-DW-01	Room 104	Drywall Joint Compound	400 SF	ND	NA	NA	NA	NA
RC-DW-02	Room 104			ND	NA			
RC-DW-03	Room 107			ND	NA			
RC-CB1-01	Room 117	Mastic (beige and brown) associated with rubber cove base	600 LF	ND	NA	NA	NA	NA
RC-CB1-02	Room 104			ND	NA			
³ RC-CB1-03	Room 21			ND	NA			
RC-CB2-01	Room 118	Mastic (beige) associated with rubber cove base	200 LF	ND	NA	NA	NA	NA
RC-CB2-02	Room 109			ND	NA			
³ RC-CB2-03	Room 118			ND	NA			
RC-CT1-01	Lobby	Ceiling Tile 1 (2'x4')	440 SF	ND	NA	NA	NA	NA
RC-CT1-02	Lobby			ND	NA			
RC-CT1-03	Lobby			ND	NA			
RC-CT2-01	Room 116	Ceiling Tile 2 (2'x2')	3,335 SF	ND	NA	NA	NA	NA
RC-CT2-02	Room 104			ND	NA			
RC-CT2-03	Room 21			ND	NA			
RC-CT3-01	Room 118	Ceiling Tile 3 (2'x2')	400 SF	ND	NA	NA	NA	NA
RC-CT3-02	Room 118			ND	NA			
RC-CT3-03	Room 111			ND	NA			



Table I: Summary of Asbestos Results

Sample No.	Location	Material	² Approx. Quantity	Asbestos Type	¹ Percent	Condition	Potential for Disturbance	Hazard Assessment
RC-DM1-01	Room 118	Mastic (beige and grey) associated with overhead ductwork	2,500 SF	ND (beige) ND (grey)	NA NA	NA	NA	NA
RC-DM1-02	Room 117			ND (beige) ND (grey)	NA NA	NA	NA	NA
³ RC-DM1-03A	Room 104			ND (beige)	NA	NA	NA	NA
RC-DM2-01	Room 118	Mastic (grey) associated with overhead ductwork		ND (grey)	NA	NA	NA	NA
RC-DM2-02	Room 118			ND (grey)	NA	NA	NA	NA
³ RC-DM2-03	Room 118			ND (grey)	NA	NA	NA	NA
³ RC-DM1-03	Closet in gym	Mastic (tan) associated with overhead ductwork	850 SF	Chrysotile	9.1	G, NF	PD	2

ND = No Asbestos Detected

NA = Not Applicable

SF = square feet

LF = linear feet

LPD = low potential for disturbance

PD = potential for disturbance

PSD = potential for significant disturbance

G = good

D = damaged

SD = significantly damaged

F= friable

NF = non-friable

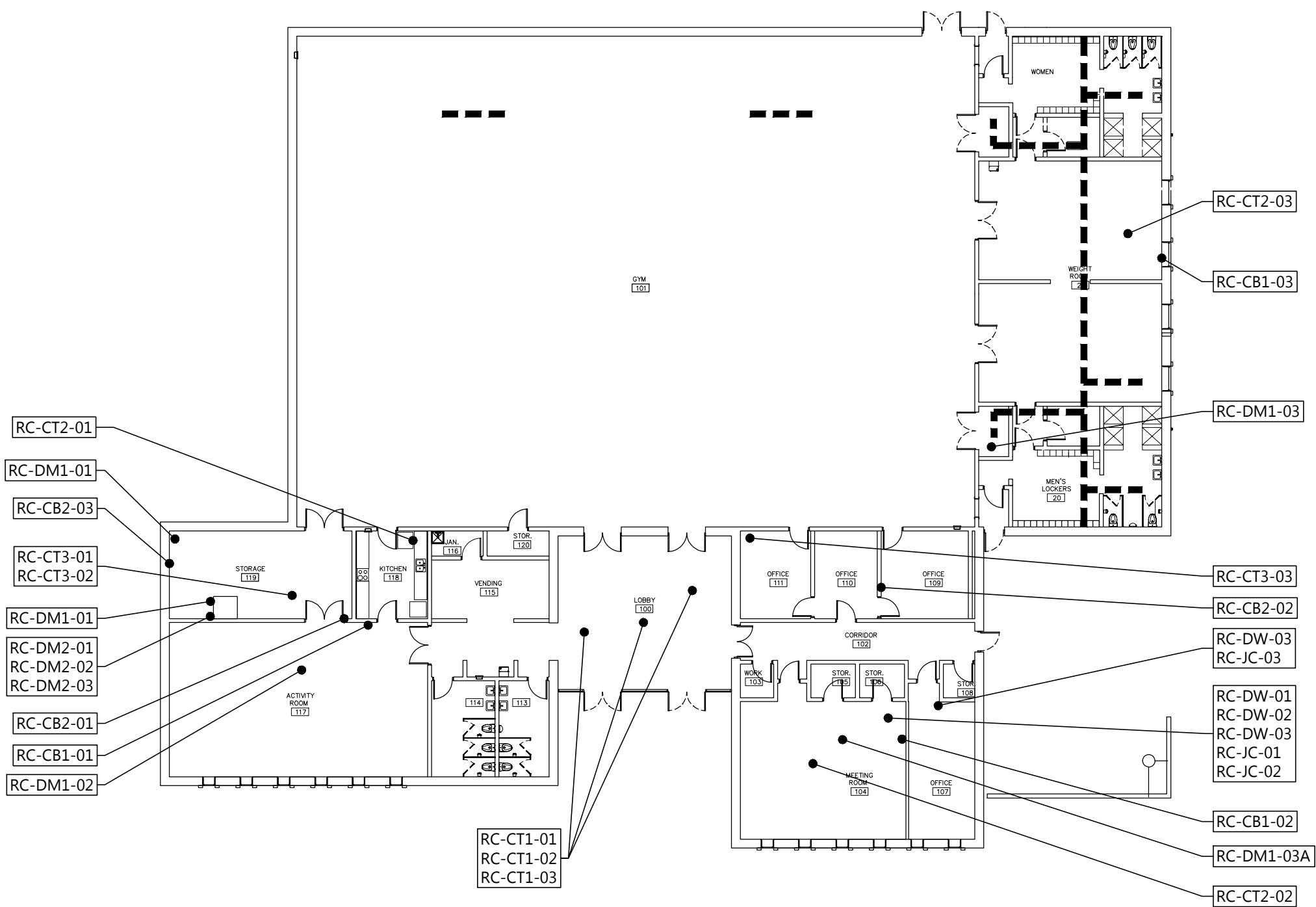
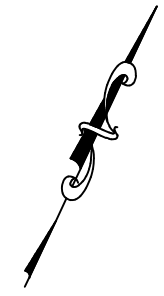
EA = each

¹EPA, SCDHEC and OSHA defines a material as asbestos containing if an asbestos content greater than one percent (>1%) is detected in a representative sample.

²Quantities are estimated, and should not be used for bidding purposes, as field conditions should be verified.

³Samples analyzed by TEM to confirm negative results reported by PLM analysis.

Appendix II – Diagram of Bulk Sample Locations and Confirmed ACMs



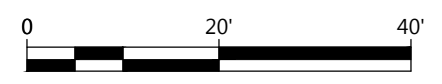
LEGEND

● RC-XX-XX BULK SAMPLE LOCATION

ASBESTOS CONTAINING MATERIALS

▬ MASTIC (TAN) ASSOCIATED WITH DUCTWORK -APPROXIMATELY 850 SQUARE FEET

NOTES: NO PAINTED SURFACES MEETING THE SCDHEC DISPOSAL LIMIT OF 0.7 mg/cm² WERE DETECTED.



LIMITED ASBESTOS & LEAD-BASED PAINT ASSESSMENT		
COLLETON COUNTY RECREATION CENTER		
280 RECREATION LANE WALTERBORO, SOUTH CAROLINA		
SCALE: AS SHOWN	DRAWN BY: LAJ	APPROVED BY: TWR
PROJECT NO. 4213-17-116	DATE: 5-09-2017	FIGURE NO. 1

C:\drawings\4213\2017\116\Rec-Ctr\4213-17-116.dwg

Appendix III – Copy of Inspector’s SCDHEC License




**South Carolina
Department of Health and Environmental Control
Asbestos License**

William Seaborn

SCDHEC ISSUED
Asbestos ID Card

William Seaborn

	AIR SAMPLER AS-00416	01/16/18
	CONSULT BI	BI-01317 01/17/18

*Air Sampler AS-00416
Building Inspector BI-01317*

Appendix IV – Laboratory Analysis Sheets and Chain of Custody Records



April 28, 2017

S&ME, Inc.
620 Wando Park Boulevard
Mt. Pleasant, SC 29464

CLIENT PROJECT: Colleton Co. Rec Center; 4213-17-116
CEI LAB CODE: A17-5879

Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on April 24, 2017. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600 Method is <1% asbestos by weight as determined by visual estimation.

Thank you for your business and we look forward to continuing good relations. If you have any questions, please feel free to call our office at 919-481-1413.

Kind Regards,

A handwritten signature in black ink, appearing to read "Tianbao Bai".

Tianbao Bai, Ph.D., CIH
Laboratory Director





AMENDED

ASBESTOS ANALYTICAL REPORT
By: Polarized Light Microscopy

Prepared for

S&ME, Inc.

CLIENT PROJECT: Colleton Co. Rec Center; 4213-17-116

CEI LAB CODE: A17-5879

TEST METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORT DATE: 04/28/17

TOTAL SAMPLES ANALYZED: 20

SAMPLES >1% ASBESTOS:

TEL: 866-481-1412

www.ceilabs.com



AMENDED

Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: Colleton Co. Rec Center; 4213-17-116

CEI LAB CODE: A17-5879

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
RC-DW-01	Layer 1	A2384181	Off-white	Drywall	None Detected
	Layer 2	A2384181	White	Joint Compound	None Detected
RC-DW-02	Layer 1	A2384182	Off-white	Drywall	None Detected
	Layer 2	A2384182	White	Joint Compound	None Detected
RC-DW-03	Layer 1	A2384183	Off-white	Drywall	None Detected
	Layer 2	A2384183	White	Joint Compound	None Detected
RC-CB1-01	Layer 1	A2384184	Beige	Covebase Mastic	None Detected
	Layer 2	A2384184	Brown	Covebase Mastic	None Detected
RC-CB1-02	Layer 1	A2384185	Beige	Covebase Mastic	None Detected
	Layer 2	A2384185	Brown	Covebase Mastic	None Detected
RC-CB1-03		A2384186		Sample Submitted for TEM Analysis	
RC-CB2-01		A2384187	Beige	Covebase Mastic	None Detected
RC-CB2-02		A2384188	Beige	Covebase Mastic	None Detected
RC-CB2-03		A2384189		Sample Submitted for TEM Analysis	
RC-CT1-01		A2384190	White,Gray	Ceiling Tile	None Detected
RC-CT1-02		A2384191	White,Gray	Ceiling Tile	None Detected
RC-CT1-03		A2384192	White,Gray	Ceiling Tile	None Detected
RC-CT2-01		A2384193	White,Gray	Ceiling Tile	None Detected
RC-CT2-02		A2384194	White,Gray	Ceiling Tile	None Detected
RC-CT2-03		A2384195	White,Gray	Ceiling Tile	None Detected
RC-CT3-01		A2384196	White,Gray	Ceiling Tile	None Detected
RC-CT3-02		A2384197	White,Gray	Ceiling Tile	None Detected
RC-CT3-03		A2384198	White,Gray	Ceiling Tile	None Detected
RC-DM1-01	Layer 1	A2384199	Beige	Duct Mastic	None Detected
	Layer 2	A2384199	Gray	Duct Mastic	None Detected
RC-DM1-02	Layer 1	A2384200	Beige	Duct Mastic	None Detected
	Layer 2	A2384200	Gray	Duct Mastic	None Detected
RC-DM1-03		A2384201		Sample Submitted for TEM Analysis	
RC-DM2-01		A2384202	Gray	Duct Mastic	None Detected



AMENDED

Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: Colleton Co. Rec Center; 4213-17-116

CEI LAB CODE: A17-5879

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
RC-DM2-02		A2384203	Gray	Duct Mastic	None Detected
RC-DM2-03		A2384204		Sample Submitted for TEM Analysis	



AMENDED

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME, Inc.
620 Wando Park Boulevard
Mt. Pleasant, SC 29464

CEI Lab Code: A17-5879
Date Received: 04-24-17
Date Analyzed: 04-28-17
Date Reported: 04-28-17

Project: Colleton Co. Rec Center; 4213-17-116

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS				ASBESTOS %
			Fibrous		Non-Fibrous		
RC-DW-01 Layer 1 A2384181	Drywall	Heterogeneous	15%	Cellulose	75%	Gypsum	None Detected
		Off-white			10%	Silicates	
		Fibrous					
		Bound					
Layer 2 A2384181	Joint Compound	Heterogeneous	<1%	Cellulose	85%	Calc Carb	None Detected
		White			10%	Binder	
		Fibrous			5%	Paint	
		Bound					
RC-DW-02 Layer 1 A2384182	Drywall	Heterogeneous	15%	Cellulose	75%	Gypsum	None Detected
		Off-white			10%	Silicates	
		Fibrous					
		Bound					
Layer 2 A2384182	Joint Compound	Heterogeneous	<1%	Cellulose	85%	Calc Carb	None Detected
		White			10%	Binder	
		Fibrous			5%	Paint	
		Bound					
RC-DW-03 Layer 1 A2384183	Drywall	Heterogeneous	15%	Cellulose	75%	Gypsum	None Detected
		Off-white			10%	Silicates	
		Fibrous					
		Bound					
Layer 2 A2384183	Joint Compound	Heterogeneous	<1%	Cellulose	85%	Calc Carb	None Detected
		White			10%	Binder	
		Fibrous			5%	Paint	
		Bound					
RC-CB1-01 Layer 1 A2384184	Covebase Mastic	Heterogeneous	<1%	Cellulose	90%	Mastic	None Detected
		Beige			10%	Binder	
		Fibrous			<1%	Non-Fibrous	
		Bound				Debris	



AMENDED

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME, Inc.
620 Wando Park Boulevard
Mt. Pleasant, SC 29464

CEI Lab Code: A17-5879
Date Received: 04-24-17
Date Analyzed: 04-28-17
Date Reported: 04-28-17

Project: Colleton Co. Rec Center; 4213-17-116

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS				ASBESTOS %
			Fibrous		Non-Fibrous		
Layer 2 A2384184	Covebase Mastic	Heterogeneous Brown Fibrous Bound	<1%	Cellulose	90%	Mastic 10% Binder	None Detected
RC-CB1-02 Layer 1 A2384185	Covebase Mastic	Heterogeneous Beige Fibrous Bound	<1%	Cellulose	90%	Mastic 10% Binder <1% Non-Fibrous Debris	None Detected
Layer 2 A2384185	Covebase Mastic	Heterogeneous Brown Fibrous Bound	<1%	Cellulose	90%	Mastic 10% Binder	None Detected
RC-CB1-03 A2384186	Sample Submitted for TEM Analysis						
RC-CB2-01 A2384187	Covebase Mastic	Heterogeneous Beige Fibrous Bound	<1%	Cellulose	90%	Mastic 10% Binder <1% Non-Fibrous Debris	None Detected
RC-CB2-02 A2384188	Covebase Mastic	Heterogeneous Beige Fibrous Bound	<1%	Cellulose	90%	Mastic 10% Binder <1% Non-Fibrous Debris	None Detected
RC-CB2-03 A2384189	Sample Submitted for TEM Analysis						
RC-CT1-01 A2384190	Ceiling Tile	Heterogeneous White, Gray Fibrous Bound	60% 15%	Cellulose Fiberglass	5% 15% 5%	Binder Perlite Paint	None Detected



AMENDED

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME, Inc.
620 Wando Park Boulevard
Mt. Pleasant, SC 29464

CEI Lab Code: A17-5879
Date Received: 04-24-17
Date Analyzed: 04-28-17
Date Reported: 04-28-17

Project: Colleton Co. Rec Center; 4213-17-116

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS				ASBESTOS %
			Fibrous		Non-Fibrous		
RC-CT1-02 A2384191	Ceiling Tile	Heterogeneous	60%	Cellulose	5%	Binder	None Detected
		White,Gray	15%	Fiberglass	15%	Perlite	
		Fibrous			5%	Paint	
		Bound					
RC-CT1-03 A2384192	Ceiling Tile	Heterogeneous	60%	Cellulose	5%	Binder	None Detected
		White,Gray	15%	Fiberglass	15%	Perlite	
		Fibrous			5%	Paint	
		Bound					
RC-CT2-01 A2384193	Ceiling Tile	Heterogeneous	60%	Cellulose	5%	Binder	None Detected
		White,Gray	15%	Fiberglass	15%	Perlite	
		Fibrous			5%	Paint	
		Bound					
RC-CT2-02 A2384194	Ceiling Tile	Heterogeneous	60%	Cellulose	5%	Binder	None Detected
		White,Gray	15%	Fiberglass	15%	Perlite	
		Fibrous			5%	Paint	
		Bound					
RC-CT2-03 A2384195	Ceiling Tile	Heterogeneous	60%	Cellulose	5%	Binder	None Detected
		White,Gray	15%	Fiberglass	15%	Perlite	
		Fibrous			5%	Paint	
		Bound					
RC-CT3-01 A2384196	Ceiling Tile	Heterogeneous	60%	Cellulose	5%	Binder	None Detected
		White,Gray	15%	Fiberglass	15%	Perlite	
		Fibrous			5%	Paint	
		Bound					
RC-CT3-02 A2384197	Ceiling Tile	Heterogeneous	60%	Cellulose	5%	Binder	None Detected
		White,Gray	15%	Fiberglass	15%	Perlite	
		Fibrous			5%	Paint	
		Bound					



AMENDED

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME, Inc.
620 Wando Park Boulevard
Mt. Pleasant, SC 29464

CEI Lab Code: A17-5879
Date Received: 04-24-17
Date Analyzed: 04-28-17
Date Reported: 04-28-17

Project: Colleton Co. Rec Center; 4213-17-116

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS				ASBESTOS %
			Fibrous		Non-Fibrous		
RC-CT3-03 A2384198	Ceiling Tile	Heterogeneous	60%	Cellulose	5%	Binder	None Detected
		White, Gray	15%	Fiberglass	15%	Perlite	
		Fibrous			5%	Paint	
		Bound					
RC-DM1-01 Layer 1 A2384199	Duct Mastic	Heterogeneous	10%	Cellulose	70%	Mastic	None Detected
		Beige	5%	Fiberglass	10%	Binder	
		Fibrous			5%	Metal Foil	
		Bound					
Layer 2 A2384199	Duct Mastic	Heterogeneous	15%	Cellulose	80%	Mastic	None Detected
		Gray			5%	Binder	
		Fibrous					
		Bound					
RC-DM1-02 Layer 1 A2384200	Duct Mastic	Heterogeneous	10%	Cellulose	70%	Mastic	None Detected
		Beige	5%	Fiberglass	10%	Binder	
		Fibrous			5%	Metal Foil	
		Bound					
Layer 2 A2384200	Duct Mastic	Heterogeneous	15%	Cellulose	80%	Mastic	None Detected
		Gray			5%	Binder	
		Fibrous					
		Bound					
RC-DM1-03 A2384201	Sample Submitted for TEM Analysis						
RC-DM2-01 A2384202	Duct Mastic	Heterogeneous	10%	Cellulose	70%	Mastic	None Detected
		Gray	5%	Fiberglass	10%	Binder	
		Fibrous			5%	Metal Foil	
		Bound					
RC-DM2-02 A2384203	Duct Mastic	Heterogeneous	10%	Cellulose	70%	Mastic	None Detected
		Gray	5%	Fiberglass	10%	Binder	
		Fibrous			5%	Metal Foil	
		Bound					



AMENDED

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME, Inc.
620 Wando Park Boulevard
Mt. Pleasant, SC 29464

CEI Lab Code: A17-5879
Date Received: 04-24-17
Date Analyzed: 04-28-17
Date Reported: 04-28-17

Project: Colleton Co. Rec Center; 4213-17-116

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS		ASBESTOS %
			Fibrous	Non-Fibrous	
RC-DM2-03 A2384204	Sample Submitted for TEM Analysis				



107 New Edition Court, Cary, NC 27511
 Tel: 866-481-1412; Fax: 919-481-1442

ASBESTOS CHAIN OF CUSTODY

24 A17-5879
 A2384181-
 A2384204

LAB USE ONLY:
CEI Lab Code:
CEI Lab I.D. Range:

COMPANY INFORMATION	PROJECT INFORMATION
CEI CLIENT #: 26558	Job Contact: Bill Seaborn, Terry Richburg
Company: S&ME Inc.	Email / Tel: bseaborn@smeinc.com, trichburg@smeinc.com
Address: 620 Wando Park Blvd. Mt. Pleasant, SC, 29464	Project Name: Colleton Co. Rec Center
Email: bseaborn@smeinc.com	Project ID# 4213-17-116
Tel: 843-884-0005 Fax:	PO #: 40876
	STATE SAMPLES COLLECTED IN: SC

GENERAL INSTRUCTIONS		
POSITIVE STOP ANALYSIS	<input type="checkbox"/>	PLM DUE DATE: / /
ANALYZE NOB'S BY TEM	<input type="checkbox"/>	TEM DUE DATE: / /

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	24 HR	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PLM POINT COUNT (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (1000)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM GRAV w POINT COUNT	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR AHERA	EPA AHERA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR NIOSH	NIOSH 7402	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	CHATFIELD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TEM DUST WIPE	ASTM D6480-05	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM DUST MICROVAC	ASTM D5755-09	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM SOIL	ASTM D7521-13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM VERMICULITE	CINCINNATI METHOD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHER:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

REMARKS: If both PLMs are positive do not run TEM Do not analyze rubber cove base Do not analyze brown mastic on CB2		<input checked="" type="checkbox"/> Accept Samples <input type="checkbox"/> Reject Samples	
Relinquished By:	Date/Time	Received By:	Date/Time
<i>[Signature]</i>	4-21-17 18:00	VH	4-24 9am

Samples will be disposed of 30 days after analysis

4175879



ASBESTOS SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: S&ME, Inc.	Job Contact: Bill Seaborn
Project Name: Colleton Co. Rec Center	
Project ID #: 4213-16-116	Tel: 843-697-2510

SAMPLE ID#	DESCRIPTION/LOCATION	VOLUME/ AREA	TEST	
RC-DW-01	Drywall & Joint Comp		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-DW-02	"		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-DW-03	"		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-CB1-01	Cove Base Mastic		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-CB1-02	"		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-CB1-03	"		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
RC-CB2-01	Cove Base Mastic		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-CB2-02	"		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-CB2-03	"		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
RC-CT1-01	Ceiling Tile		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-CT1-01	"		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-CT1-03	"		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-CT2-01	Ceiling Tile		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-CT2-01	"		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-CT2-03	"		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-CT3-01	Ceiling Tile		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-CT3-01	"		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-CT3-03	"		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-DM1-01	Duct Mastic		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-DM1-02	"		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-DM1-03	"		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
RC-DM2-01	Duct Mastic		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-DM2-02	"		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
RC-DM2-03	"		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
			PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
			PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
			PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
			PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
			PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
			PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
			PLM <input type="checkbox"/>	TEM <input type="checkbox"/>



May 3, 2017

S&ME, Inc.
620 Wando Park Boulevard
Mt. Pleasant, SC 29464

CLIENT PROJECT: Colleton Co. Rec Center; 4213-17-116
CEI LAB CODE: T17-0797

Dear Customer:

Enclosed are asbestos analysis results for TEM bulk samples received at our laboratory on April 28, 2017. The samples were analyzed for asbestos using transmission electron microscopy (TEM) per Chatfield Method.

Sample results containing > 1% asbestos are considered asbestos-containing materials (ACMs) per the EPA regulatory requirements. The detection limit for the TEM Chatfield method is <1% depending on the processed weight and constituents of the sample.

Thank you for your business and we look forward to continuing good relations. If you have any questions, please feel free to call our office at 919-481-1413.

Kind Regards,

A handwritten signature in black ink, appearing to read "Tianbao Bai".

Tianbao Bai, Ph.D., CIH
Laboratory Director



ASBESTOS ANALYTICAL REPORT
By: Transmission Electron Microscopy

Prepared for

S&ME, Inc.

CLIENT PROJECT: Colleton Co. Rec Center; 4213-17-116

CEI LAB CODE: T17-0797

TEST METHOD: Bulk Chatfield
EPA 600 / R93 / 116

REPORT DATE: 05/03/17

TEL: 866-481-1412

www.ceilabs.com



ASBESTOS BULK ANALYSIS

By: TRANSMISSION ELECTRON MICROSCOPY

Client: S&ME, Inc.
620 Wando Park Boulevard
Mt. Pleasant, SC 29464

CEI Lab Code: T17-0797
Date Received: 04-28-17
Date Analyzed: 05-01-17
Date Reported: 05-03-17

Project: Colleton Co. Rec Center; 4213-17-116

TEM BULK CHATFIELD / EPA 600 / R93 / 116

Client ID Lab ID	Material Description	Sample Weight (g)	Organic Material %	Acid Soluble Material %	Acid Insoluble Material %	Asbestos %
RC-CB1-03 T61760	Beige Covebase Mastic	0.288	41.3	6.3	52.4	None Detected
RC-CB1-03 T61761	Brown Covebase Mastic	0.42	35.2	43.3	21.5	None Detected
RC-CB2-03 T61762	Beige Covebase Mastic	0.11	40.9	27.3	31.8	None Detected
RC-DM1-03 T61764	Gray, Tan Duct Mastic	0.179	60.9	8.9	30.2	9.1% Chrysotile
The third sample in this group (RC-DM1-03) contains a different duct mastic than the first two samples (RC-DM1-01 and RC-DM1-02) that were NSD by PLM.						
RC-DM2-03 T61765	Gray Duct Mastic	0.357	30.5	51.8	17.7	None Detected



LEGEND: None

METHOD: CHATFIELD & EPA/600/R-93/116

LIMIT OF DETECTION: Varies with the weight and constituents of the sample (<1%)

REGULATORY LIMIT: >1% by weight

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by CEI Labs, Inc. CEI Labs makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Estimated measurement of uncertainty is available on request. Samples were received in acceptable condition unless otherwise noted.

ANALYST: Abigail Nails
Abigail Nails

APPROVED BY: Tianbao Bai
Tianbao Bai, Ph.D., CIH
Laboratory Director



107 New Edition Court, Cary, NC 27511
 Tel: 866-481-1412; Fax: 919-481-1442

ASBESTOS CHAIN OF CUSTODY

(24) A17-5879
 A2384181-
 A2384204

LAB USE ONLY: (6)
 CEI Lab Code: T17-0797
 CEI Lab I.D. Range: T61760-61765

COMPANY INFORMATION	PROJECT INFORMATION
CEI CLIENT #: 26558	Job Contact: Bill Seaborn, Terry Richburg
Company: S&ME Inc.	Email / Tel: bseaborn@smeinc.com, trichburg@smeinc.com
Address: 620 Wando Park Blvd. Mt. Pleasant, SC, 29464	Project Name: Colleton Co. Rec Center
Email: bseaborn@smeinc.com	Project ID# 4213-17-116
Tel: 843-884-0005 Fax:	PO #: 40876
	STATE SAMPLES COLLECTED IN: SC

GENERAL INSTRUCTIONS		
POSITIVE STOP ANALYSIS	<input type="checkbox"/>	PLM DUE DATE: / /
ANALYZE NOB'S BY TEM	<input type="checkbox"/>	TEM DUE DATE: / /

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	24 HR	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PLM POINT COUNT (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (1000)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM GRAV w POINT COUNT	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR AHERA	EPA AHERA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR NIOSH	NIOSH 7402	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	CHATFIELD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TEM DUST WIPE	ASTM D6480-05	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM DUST MICROVAC	ASTM D5755-09	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM SOIL	ASTM D7521-13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM VERMICULITE	CINCINNATI METHOD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHER:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

REMARKS: If both PLMs are positive do not run TEM		<input checked="" type="checkbox"/> Accept Samples
Do not analyze rubber cove base Do not analyze brown mastic on CB2		<input type="checkbox"/> Reject Samples
Relinquished By:	Date/Time	Received By:
<i>[Signature]</i>	4-21-17 18:00	VH
<i>[Signature]</i>	4/28/17 11:35AM	
Date/Time	4-24 9am	

Samples will be disposed of 30 days after analysis



May 9, 2017

S&ME, Inc.
620 Wando Park Boulevard
Mt. Pleasant, SC 29464

CLIENT PROJECT: Colleton Co. Rec Center; 4213-17-116
CEI LAB CODE: T17-0861

Dear Customer:

Enclosed are asbestos analysis results for TEM bulk samples received at our laboratory on May 8, 2017. The samples were analyzed for asbestos using transmission electron microscopy (TEM) per Chatfield Method.

Sample results containing > 1% asbestos are considered asbestos-containing materials (ACMs) per the EPA regulatory requirements. The detection limit for the TEM Chatfield method is <1% depending on the processed weight and constituents of the sample.

Thank you for your business and we look forward to continuing good relations. If you have any questions, please feel free to call our office at 919-481-1413.

Kind Regards,

A handwritten signature in black ink, appearing to read "Tianbao Bai".

Tianbao Bai, Ph.D., CIH
Laboratory Director



ASBESTOS ANALYTICAL REPORT
By: Transmission Electron Microscopy

Prepared for

S&ME, Inc.

CLIENT PROJECT: Colleton Co. Rec Center; 4213-17-116

CEI LAB CODE: T17-0861

TEST METHOD: Bulk Chatfield
EPA 600 / R93 / 116

REPORT DATE: 05/09/17

TEL: 866-481-1412

www.ceilabs.com



ASBESTOS BULK ANALYSIS

By: TRANSMISSION ELECTRON MICROSCOPY

Client: S&ME, Inc.
620 Wando Park Boulevard
Mt. Pleasant, SC 29464

CEI Lab Code: T17-0861
Date Received: 05-08-17
Date Analyzed: 05-09-17
Date Reported: 05-09-17

Project: Colleton Co. Rec Center; 4213-17-116

TEM BULK CHATFIELD / EPA 600 / R93 / 116

Client ID Lab ID	Material Description	Sample Weight (g)	Organic Material %	Acid Soluble Material %	Acid Insoluble Material %	Asbestos %
RC-DM1-03A T62143	Duct Mastic	0.209	31.6	63.6	4.8	None Detected



LEGEND: None

METHOD: CHATFIELD & EPA/600/R-93/116

LIMIT OF DETECTION: Varies with the weight and constituents of the sample (<1%)

REGULATORY LIMIT: >1% by weight

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by CEI Labs, Inc. CEI Labs makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Estimated measurement of uncertainty is available on request. Samples were received in acceptable condition unless otherwise noted.

ANALYST:

Kamila Reichert

Kamila Reichert

APPROVED BY:

Tianbao Bai

Tianbao Bai, Ph.D., CIH
Laboratory Director



107 New Edition Court, Cary, NC 27511
 Tel: 866-481-1412; Fax: 919-481-1442

ASBESTOS CHAIN OF CUSTODY

LAB USE ONLY:
CEI Lab Code:
CEI Lab I.D. Range:

COMPANY INFORMATION	PROJECT INFORMATION
CEI CLIENT #: 26558	Job Contact: Bill Seaborn, Terry Richburg
Company: S&ME Inc.	Email / Tel: bseaborn@smeinc.com, trichburg@smeinc.com
Address: 620 Wando Park Blvd. Mt. Pleasant, SC, 29464	Project Name: <i>Colleton Co. Rec Center</i>
Email: bseaborn@smeinc.com	Project ID# <i>4213-17-116</i>
Tel: 843-884-0005 Fax:	PO #: <i>40907</i>
	STATE SAMPLES COLLECTED IN: <i>SC</i>

GENERAL INSTRUCTIONS		
POSITIVE STOP ANALYSIS	<input type="checkbox"/>	PLM DUE DATE: / /
ANALYZE NOB'S BY TEM	<input type="checkbox"/>	TEM DUE DATE: / /

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	24 HR	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (1000)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM GRAV w POINT COUNT	EPA 600		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR AHERA	EPA AHERA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR NIOSH	NIOSH 7402	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	CHATFIELD		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM DUST WIPE	ASTM D6480-05	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM DUST MICROVAC	ASTM D5755-09	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM SOIL	ASTM D7521-13			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM VERMICULITE	CINCINNATI METHOD			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHER:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

REMARKS: if both PLMs are positive do not run TEM		<input checked="" type="checkbox"/> Accept Samples
		<input type="checkbox"/> Reject Samples
Relinquished By:	Date/Time	Received By:
<i>[Signature]</i>	<i>5-5-17 / 8:30</i>	<i>DC</i>
		Date/Time
		<i>5-8 9:20</i>

Samples will be disposed of 30 days after analysis

Appendix V – Summary of XRF Lead Analyzer Readings



XLN No.	Site	Floor	Side	Room	Structure	Component	Color	Substrate	Condition	Results	Action Level	Lead	Units
1									Shutter Cal			2.71	
2									Calibrate			1	mg/cm ²
3									Calibrate			1	mg/cm ²
4									Calibrate			1	mg/cm ²
5									Calibrate			1.1	mg/cm ²
6									Calibrate			1.1	mg/cm ²
7	Recreation Center	1	A	Outside	Down Spout		Brown	Metal	Intact	Negative	0.7	0	mg/cm ²
8	Recreation Center	1	A	Outside	Window	Casing	Brown	Metal	Intact	Negative	0.7	0	mg/cm ²
9	Recreation Center	1	A	Outside	Facade		Brown	Metal	Intact	Negative	0.7	0	mg/cm ²
10	Recreation Center	1	A	Outside	Door	Casing	Brown	Metal	Intact	Negative	0.7	0	mg/cm ²
11	Recreation Center	1	C	Outside	Door roll	Rail	Beige	Metal	Intact	Negative	0.7	0.02	mg/cm ²
12	Recreation Center	1	C	Outside	Down Spout		Beige	Metal	Intact	Negative	0.7	0.01	mg/cm ²
13	Recreation Center	1	C	Outside	Door		Grey	Metal	Intact	Negative	0.7	0	mg/cm ²
14	Recreation Center	1	C	Outside	Door	Casing	Grey	Metal	Intact	Negative	0.7	0.07	mg/cm ²
15	Recreation Center	1	C	Outside	Door	Casing	Grey	Metal	Intact	Negative	0.7	0.04	mg/cm ²
16	Recreation Center	1	C	Outside	Door		Grey	Metal	Intact	Negative	0.7	0.04	mg/cm ²
17	Recreation Center	1	D	Outside	Window	Casing	Brown	Metal	Intact	Negative	0.7	0	mg/cm ²
18	Recreation Center	1	D	Outside	Door	Casing	Grey	Metal	Intact	Negative	0.7	0.02	mg/cm ²
19	Recreation Center	1	D	Outside	Door		Grey	Metal	Intact	Negative	0.7	0	mg/cm ²
20	Recreation Center	1	D	Outside	Door		Grey	Metal	Intact	Negative	0.7	0.4	mg/cm ²
21	Recreation Center	1	D	117	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.06	mg/cm ²
22	Recreation Center	1	C	117	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.01	mg/cm ²
23	Recreation Center	1	C	117	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.03	mg/cm ²
24	Recreation Center	1	C	117	Louver		Beige	Wood	Intact	Negative	0.7	0	mg/cm ²
25	Recreation Center	1	D	117	Wall		Beige	CMU	Intact	Negative	0.7	0	mg/cm ²
26	Recreation Center	1	C	118	Wall		Beige	CMU	Intact	Negative	0.7	0	mg/cm ²
27	Recreation Center	1	C	118	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.08	mg/cm ²
28	Recreation Center	1	C	116	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.01	mg/cm ²



XLN No.	Site	Floor	Side	Room	Structure	Component	Color	Substrate	Condition	Results	Action Level	Lead	Units
29	Recreation Center	1	C	115	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.03	mg/cm ²
30	Recreation Center	1	C	Lobby	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.06	mg/cm ²
31	Recreation Center	1	D	Lobby	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.02	mg/cm ²
32	Recreation Center	1	D	Lobby	Window	Casing	Beige	Wood	Intact	Negative	0.7	0	mg/cm ²
33	Recreation Center	1	D	Lobby	Window	Sill	Beige	Wood	Intact	Negative	0.7	0	mg/cm ²
34	Recreation Center	1	C	Jan Closet	I-Beam		Beige	Metal	Intact	Negative	0.7	0.02	mg/cm ²
35	Recreation Center	1	C	104	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.08	mg/cm ²
36	Recreation Center	1	C	104	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.06	mg/cm ²
37	Recreation Center	1	C	104	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.05	mg/cm ²
38	Recreation Center	1	C	104	Door	Casing	Beige	Wood	Intact	Negative	0.7	0	mg/cm ²
39	Recreation Center	1	C	104	Door		Beige	Wood	Intact	Negative	0.7	0	mg/cm ²
40	Recreation Center	1	C	104	Wall		Beige	CMU	Intact	Negative	0.7	0	mg/cm ²
41	Recreation Center	1	B	104	Wall		Beige	Drywall	Intact	Negative	0.7	0	mg/cm ²
42	Recreation Center	1	D	107	Wall		Beige	Drywall	Intact	Negative	0.7	0	mg/cm ²
43	Recreation Center	1	D	107	Wall		Beige	Drywall	Intact	Negative	0.7	0	mg/cm ²
44	Recreation Center	1	A	107	Door	Casing	Beige	Wood	Intact	Negative	0.7	0	mg/cm ²
45	Recreation Center	1	C	111	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.06	mg/cm ²
46	Recreation Center	1	C	111	Door		Beige	Wood	Intact	Negative	0.7	0	mg/cm ²
47	Recreation Center	1	D	111	Electric Cabinet		Beige	Metal	Intact	Negative	0.7	0	mg/cm ²
48	Recreation Center	1	D	111	Cabinet elec		Beige	Metal	Intact	Negative	0.7	0	mg/cm ²
49	Recreation Center	1	D	111	Cabinet elec		Beige	Metal	Intact	Negative	0.7	0	mg/cm ²
50	Recreation Center	1	D	111	Wall		Beige	CMU	Intact	Negative	0.7	0	mg/cm ²
51	Recreation Center	1	D	Men's Bath	Wall		Beige	Ceramic	Intact	Negative	0.7	0.6	mg/cm ²
52	Recreation Center	1	C	Men's Bath	Stall	Wall	Black	Wood	Intact	Negative	0.7	0	mg/cm ²
53	Recreation Center	1	C	Men's Bath	Sink		White	Ceramic	Intact	Negative	0.7	0.01	mg/cm ²
54	Recreation Center	1	C	Men's Bath	Floor		Brown	Ceramic	Intact	Negative	0.7	0.01	mg/cm ²
55	Recreation Center	1	B	21	Door		Grey	Metal	Intact	Negative	0.7	0	mg/cm ²
56	Recreation Center	1	B	21	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.01	mg/cm ²



XLN No.	Site	Floor	Side	Room	Structure	Component	Color	Substrate	Condition	Results	Action Level	Lead	Units
57	Recreation Center	1	B	21	Wall		Beige	CMU	Intact	Negative	0.7	0	mg/cm ²
58	Recreation Center	1	D	Men's Locker	Wall		Blue	CMU	Intact	Negative	0.7	0	mg/cm ²
59	Recreation Center	1	C	Men's Locker	Door		Beige	Wood	Intact	Negative	0.7	0	mg/cm ²
60	Recreation Center	1	C	Men's Locker	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.01	mg/cm ²
61	Recreation Center	1	C	Men's Locker	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.01	mg/cm ²
62	Recreation Center	1	C	Men's Locker	Wall		Beige	Ceramic	Intact	Negative	0.7	0.4	mg/cm ²
63	Recreation Center	1	C	Men's Locker	Floor		Brown	Ceramic	Intact	Negative	0.7	0.01	mg/cm ²
64	Recreation Center	1	C	Men's Locker	Sink		White	Ceramic	Intact	Negative	0.7	0.03	mg/cm ²
65	Recreation Center	1	C	Men's Locker	Stall	Wall	Black	Wood	Intact	Negative	0.7	0	mg/cm ²
66	Recreation Center	1	C	Men's Locker	Locker		Grey	Metal	Intact	Negative	0.7	0.06	mg/cm ²
67	Recreation Center	1	A	Men's Locker	Locker		Grey	Metal	Intact	Negative	0.7	0.1	mg/cm ²
68	Recreation Center	1	D	Gym	Door		Beige	Wood	Intact	Negative	0.7	0.01	mg/cm ²
69	Recreation Center	1	D	Gym	Door	Casing	Beige	Metal	Intact	Negative	0.7	0.09	mg/cm ²
70	Recreation Center	1	D	Gym	Wall	Casing	Blue	CMU	Intact	Negative	0.7	0	mg/cm ²
71	Recreation Center	1	D	Gym	I-Beam		Blue	Metal	Intact	Negative	0.7	0.04	mg/cm ²
72	Recreation Center	1	B	Gym	Door		Beige	Wood	Intact	Negative	0.7	0	mg/cm ²
73	Recreation Center	1	B	Gym	Door	Casing	Beige	Metal	Intact	Negative	0.7	0	mg/cm ²
74	Recreation Center	1	B	Gym	Floor	Casing	Blue	Metal	Intact	Negative	0.7	0.01	mg/cm ²
75	Recreation Center	1	B	Gym	Floor		Beige	Rubber	Intact	Negative	0.7	0.04	mg/cm ²
76	Recreation Center	1	B	Gym	Basketball Goal		Beige	Metal	Intact	Negative	0.7	0	mg/cm ²
77	Recreation Center	1	C	Gym	Basketball Goal		Beige	Metal	Intact	Negative	0.7	0	mg/cm ²
78									Calibrate			0.9	mg/cm ²
79									Calibrate			1	mg/cm ²
80									Calibrate			1.2	mg/cm ²

mg/cm² = milligram per square centimeter

SCDHEC requires special disposal for paint containing lead >0.7 mg/cm¹

OSHA does not recognize a concentration of lead for definition purposes, only the airborne concentration a worker is exposed.

Bold = Paint Readings meeting or exceeding SCDHEC disposal level of 0.7 mg/cm¹



May 12, 2017

Colleton County
113 Mable T. Willis Boulevard
Walterboro, South Carolina 29488

Attention: Mr. John T. Stieglitz, III, Capital Projects and Purchasing Director
jstieglitz@colletoncounty.org

Reference: **Mercury Bulk Sampling and Analysis Report**
Colleton County Recreation Center – Gymnasium Flooring
280 Recreation Lane
Walterboro, South Carolina
S&ME Project No. 4213-17-116

Dear Mr. Stieglitz:

S&ME, Inc. (S&ME) is pleased to provide this report summarizing the mercury bulk sampling we performed at the referenced site on April 21, 2017. Our services were performed in general accordance with S&ME Proposal No. 42-1700465 dated April 18, 2017. The following sections include the project background, sampling and analysis procedures, findings and results, and conclusions and recommendations, as necessary.

❖ Project Background

S&ME performed bulk sampling of the rubber flooring in the gymnasium of the referenced facility on April 21, 2017. The Colleton County Recreation Center is approximately 16,500 square feet in size, constructed on a concrete slab on-grade, and was built in 1978. The rubber flooring in the gymnasium was applied directly to the concrete slab of the structure. We understand that the rubber flooring may be removed, therefore the purpose of the sampling was to determine the presence or absence of mercury levels in the flooring to prevent harmful exposures to workers. The Environmental Protection Agency (EPA) and the South Carolina Department of Health and Environmental Control (SCDHEC) regulate the disposal of mercury containing materials under 40 CFR 273. Rubber athletic flooring installed between 1960 and 1980 typically contains mercury that may present a health risk during renovation activities disturbing the flooring material.

❖ Procedures

Bulk samples of the rubber flooring were collected by S&ME, recorded on a chain of custody record, and shipped to Shealy Environmental Services, Inc. of West Columbia, South Carolina. The bulk samples were subsequently analyzed for total mercury, which provides an indication of potential vapor release depending on the destructive actions applied to the subject material, and provide information for disposal. Mercury levels in building materials identified at 20 parts per million (ppm) or above may present harmful levels of mercury vapor in an enclosed area, depending on the conditions.



❖ Findings and Results

The bulk sampling performed on April 21, 2017 of the rubber flooring associated with the gymnasium flooring indicated a mercury concentration over the recommended level of 20 ppm. The summary of results is presented in Table I below, and the laboratory analysis sheets and the chain of custody record is provided in the attachment.

Table 1: Summary of Results

Sample Number	Location	Material	Total Mercury (mg/kg)
RC-GF-01	Gymnasium	Rubber Flooring	190
RC-GF-02	Gymnasium	Rubber Flooring	100

Abbreviations:

mg/kg = parts per million

❖ Limitations

This report is provided for the sole use of the client. Use of this report by any other parties will be at such party's sole risk and S&ME disclaims liability for any such use or reliance by third parties. The results presented in this report are indicative of conditions only during the time of the sampling and of the specific areas referenced.

❖ Conclusions

Based on the results of the mercury sampling performed of the rubber flooring located in the gymnasium of the Colleton County Recreation Center in Walterboro, South Carolina, mercury levels were identified above the level that may cause harmful exposures (20 ppm). If the identified mercury containing rubber flooring is disturbed, we recommend that a qualified contractor perform those activities. Prior to disturbances to the identified mercury containing flooring, we recommend that a written health and safety plan be prepared to address proper handling, personal protective equipment, air monitoring, and disposal requirements. Prior to disposal of the identified flooring, the waste stream must be characterized via the Toxicity Characteristic Leachate Procedure (TCLP), as required by the EPA and SCDHEC, to determine if the waste is classified as hazardous. Leachable mercury levels identified at 0.2 ppm or above by TCLP require disposal in a Subtitle C landfill as hazardous waste. TCLP results below 0.2 ppm may be disposed in a Class III landfill as mercury contaminated waste. This report should also be provided to the contractor(s) working in the referenced areas.



❖ Closing

S&ME appreciates the opportunity to provide you with our industrial hygiene services and we look forward to our continued association. If you have any questions concerning the results, please call either of us at (843) 884-0005.

Sincerely,

S&ME, Inc.

Terry W. Richburg
Environmental Group Leader

James L. Killingsworth, CHMM
Environmental Services Area Manager/V.P.

Attachments

**Attachment – Laboratory Data Sheets and Chain of Custody
Record**

Report of Analysis

S&ME, Inc.
620 Wando Park Blvd.
Mount Pleasant, SC 29464
Attention: Bill Seaborn

Project Name: **Colleton Co. Rec Center**

Project Number: **4213-17-116**

Lot Number: **SD25010**

Date Completed: **04/25/2017**



Catherine S. Dover
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

S&ME, Inc.

Lot Number: SD25010

Project Name: Colleton Co. Rec Center

Project Number: 4213-17-116

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

S&ME, Inc.

Lot Number: SD25010

Project Name: Colleton Co. Rec Center

Project Number: 4213-17-116

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	RC-GF-01 RUBBER GYM FLOOR	Solid	04/20/2017 1130	04/25/2017
002	RC-GF-02 RUBBER GYM FLOOR	Solid	04/20/2017 1130	04/25/2017

(2 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

S&ME, Inc.

Lot Number: SD25010

Project Name: Colleton Co. Rec Center

Project Number: 4213-17-116

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	RC-GF-01 RUBBER GYM FLOOR	Solid	Mercury	7471B	190	WD	mg/kg	5
002	RC-GF-02 RUBBER GYM FLOOR	Solid	Mercury	7471B	100	WD	mg/kg	6

(2 detections)

CVAA

Client: S&ME, Inc.	Laboratory ID: SD25010-001
Description: RC-GF-01 RUBBER GYM FLOOR	Matrix: Solid
Date Sampled: 04/20/2017 1130	Project Name: Colleton Co. Rec Center
Date Received: 04/25/2017	Project Number: 4213-17-116

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	7471B	7471B	200	04/25/2017 1528	COH	04/25/2017 1312	40391

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Mercury	7439-97-6	7471B	190	WD	16	1.2	mg/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 U = Not detected at or above the detection limit J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" D = Dilution > 1

CVAA

Client: S&ME, Inc.	Laboratory ID: SD25010-002
Description: RC-GF-02 RUBBER GYM FLOOR	Matrix: Solid
Date Sampled: 04/20/2017 1130	Project Name: Colleton Co. Rec Center
Date Received: 04/25/2017	Project Number: 4213-17-116

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	7471B	7471B	100	04/25/2017 1525	COH	04/25/2017 1312	40391

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Mercury	7439-97-6	7471B	100	WD	7.2	0.54	mg/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 U = Not detected at or above the detection limit J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" D = Dilution > 1

QC Summary

CVAA - MB

Sample ID: SQ40391-001

Batch: 40391

Analytical Method: 7471B

Matrix: Solid

Prep Method: 7471B

Prep Date: 04/25/2017 1312

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Mercury	0.0063	U	1	0.083	0.0063	mg/kg	04/25/2017 1441

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

U = Not detected at or above the detection limit

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

CVAA - LCS

Sample ID: SQ40391-002

Matrix: Solid

Batch: 40391

Prep Method: 7471B

Analytical Method: 7471B

Prep Date: 04/25/2017 1312

Parameter	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	0.83	0.87		1	104	80-120	04/25/2017 1443

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

U = Not detected at or above the detection limit

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

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**Chain of Custody
and
Miscellaneous Documents**

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME0018C-08

Page 1 of 1
Effective Date: 03/07/2017
Expiry Date: 03/07/2022

Sample Receipt Checklist (SRC)

Client: S&ME, Inc Cooler Inspected by/date: JWR 4/25/17 Lot #: SD25010

Means of receipt: <input type="checkbox"/> SESI <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other _____		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 2. If custody seals were present, were they intact and unbroken?
pH strip ID: <u>NA</u> Cl strip ID: <u>NA</u>		
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>120.1 / 20.1 °C</u> / / °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: <u>6</u> IR Gun Correction Factor: <u>0</u> °C		
Method of coolant: <input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input checked="" type="checkbox"/> None		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/> 3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / <u>face-to-face</u> (circle one).
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/> 4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Was adequate sample volume available?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 16. Were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 17. Were all DRO/metals/nutrient samples received at a pH of < 2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 19. Were all applicable NH3/TKN/cyanide/phenol/BNA (< 0.5mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 20. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	22. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC > 0.5 mg/L (If #21 is No) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: _____		
SC Drinking Water Project Sample(s) pH verified to be < 2 by _____ Date: _____		
Sample(s) _____ were Not received at a pH of < 2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>JWR</u> Verified by: _____ Date: <u>4/25/17</u>		

Comments: Samples consisted of flooring from gym. No % solids made due to rubber composition.