

WORK SCOPE DOCUMENTS
FOR
CITY OF SOUTH LYON
ASBESTOS REMOVAL PROJECT

JANUARY 13, 2020

HRC JOB NO. 20190971



555 Hulet Drive • P.O. Box 824
Bloomfield Hills, Michigan 48303-0824

ADVERTISEMENT FOR BIDS
MCHATTIE PARK HOUSE AND PARKS & REC BUILDING
ASBESTOS REMOVAL PROJECT
CITY OF SOUTH LYON

Sealed proposals for the Asbestos Removal Project will be received by the South Lyon City Clerk at South Lyon City Hall, located at 335 S. Warren Street, South Lyon, MI 48178, until **2:00 p.m.**, Local Time on **Tuesday, February 4, 2020**.

Bidders shall review and comply with the Instructions to Bidders, which are incorporated by reference, and carefully review all Contract Documents, as defined in the Instructions to Bidders. Bids submitted after the exact time specified for, receipt will not be considered.

The Contracts will consist of the following principal items of work and appurtenances as specified herein and shown on the attached Contract Documents.

Description of Work

Removal of hazardous materials delineated in the attached scope documents at the following two sites:

1. McHattie Park House – 461 Washington Street, South Lyon, MI
2. Former Parks & Recreation Building – 318 West Lake Street, South Lyon, MI

Work Scope to include:

1. Removal of floor slab as required to remove duct insulation at 318 West Lake Street. Removal is to be done in such a way as to not impair the structural integrity of the building as well as to not adversely impact future demolition operations at the building.
2. Temporarily boarding up any open holes with securely fastened 3/4" thick exterior grade painted plywood at any openings created by abatement activities (doors, windows, etc.) at 318 West Lake Street. Fasteners to be stainless steel and tamper-proof.

Proposals submitted by Bidders who have been debarred, suspended, or made ineligible by any Federal Agency will be rejected.

Each bidder agrees to waive any claim it has or may have against the Owner, the Architect/Engineer, and their respective employees, arising out of or in connection with the administration, evaluation, or recommendation of any bid.

The successful bidder will be required to furnish satisfactory Performance Bond.

A mandatory pre-bid meeting and walkthrough will be held on **Friday, January 24, 2020 at 9:00am** at the Former Parks & Rec Bldg. at 318 West Lake Street, South Lyon, MI. Meeting attendees will also be able to visit the McHattie Park House as part of the meeting.

Bidders are to submit any questions via email to Adrianna Melchior at Hubbell, Roth & Clark, Inc. at amelchior@hrcengr.com by **5:00pm on Wednesday, January 29, 2020**. Responses to all questions will be issued to bidders no later than **2:00pm on Friday, January 31, 2020**.

CITY OF SOUTH LYON

Published on January 13, 2020.

SECTION 00120
INSTRUCTIONS TO BIDDERS

SCOPE OF WORK

The work under this Contract shall consist of the furnishing of all labor, material, equipment, services, and all incidental items necessary to complete the project in accordance with the Contract Documents.

Refer to attached Limited Asbestos NESHAP Survey Reports provided by BDS Environmental for 318 West Lake Street and 461 Washington, in South Lyon, MI for required removals of Asbestos Containing Materials at both properties.

OBSERVATION OF SITE

Before submitting a Proposal, each bidder shall personally inspect the site of the proposed work to arrive at a clear understanding of the conditions under which the work is to be done.

He shall be held to have compared the premises with the Drawings and Specifications and to have satisfied himself as to the conditions of the premises, existing constructions, and any other conditions affecting the carrying out of the work, before delivery of his Proposal.

No allowance or extra consideration on behalf of the Bidder will subsequently be allowed by reason of error or oversight on the part of the Bidder or on account of interferences by the Owner's or by other Bidder's activities.

ADVERTISEMENT

The published Advertisement for the proposed work contains information necessary to bidders. A copy of the Advertisement shall be considered a part of the Instructions to Bidders as fully as if repeated herein.

PROPOSALS

Proposals will be received in accordance with the Advertisement for Bids, and shall be submitted only on forms provided by the Engineer.

Proposals shall be enclosed in sealed envelopes marked with the name of the project and bidder and shall be delivered to the designated location on or before the bid time as specified in the Advertisement for Bids.

Proposals shall be made in full conformity with all the conditions set forth in the drawings and in these specifications. Bids are firm and cannot be withdrawn for a period of 60 days after opening of the bids, unless otherwise specified in the Advertisement for Bids.

NAME AND STATUS OF BIDDER

The name and legal status of the bidder, either as a corporation, partnership, or individual, shall be stated in the Proposal.

Anyone signing a Proposal as an agent of another or others, must submit with the Proposal, legal evidence of his authority to do so.

The place of residence of each bidder, or the office address and telephone number in the case of a firm or company, with County and State, must be given after his signature.

BIDDER'S QUALIFICATIONS

It is the intention of the Owner to award this Contract to a Bidder fully capable, both financially and with regard to experience to perform and complete the work in a satisfactory manner. Each bidder under consideration is required to furnish the Owner the following information sworn to under oath by him:

1. Performance record.
2. The address and description of the bidder's plant and place of business.
3. Itemized list of demolition equipment available for use on the project.
4. Such additional information as will satisfy the Owner that the bidder is adequately prepared, in technical experience and otherwise, to fulfill the Contract.
5. Be a fully licensed contractor in MIOSHA's Asbestos Program
6. Have trained and qualified personnel performing the abatement work, accredited through MIOSHA's asbestos removal training program.
7. Have a minimum of 5 years' documented experience in providing asbestos and other hazardous material removal for similar projects in the State of Michigan.
8. Maintain Insurance limits no less than: Asbestos Related General Liability - \$1 million (occurrence based).
9. Provide a post-abatement air monitoring check upon completion of the asbestos removal. This air monitoring check must be performed by an independent qualified testing agency and documentation of results must be provided to the Owner.
10. References and contact information for (3) three similar projects completed in the last 10 years.

EXPLANATION TO BIDDERS BY ADDENDUMS

Neither the Owner nor the Engineer will give verbal answers to inquiries, regarding the meaning of the Drawings or Specifications, or give verbal instructions, previous to the award of the Contract. Any verbal statements regarding same by any persons, previous to the award, shall be unauthoritative.

Explanations desired by bidders shall be requested of the Engineer in writing and, if explanations are necessary, a reply will be made in the form of an addendum, a copy of which will be forwarded to each bidder whose work is affected.

Addendums issued to bidders prior to date of receipt of proposals shall become a part of the Specifications, and all proposals shall include the work described in the addendums.

No inquiry received within 4 days of the date fixed for the opening of bids will be given consideration.

Failure of the Engineer to send, or of the bidder to receive, any such interpretations shall not relieve the bidder from obligation under his bid as submitted.

RIGHT TO ACCEPT, TO REJECT, AND TO WAIVE DEFECTS

The Owner reserves the right to accept any Proposal, to reject any or all Proposals, and to waive any defects or irregularity in the Proposal if it appears advantageous to the Owner to do so.

Each bidder agrees to waive any claim it has or may have against the Owner, the Architect/Engineer, and their respective employees, arising out of or in connection with the administration, evaluation, or recommendation of any bid.

TIME OF COMPLETION

The Owner and the individual citizens of the municipality affected by this project are vitally concerned with the prompt completion of the construction together with the cleanup and restoration of roads and lawns within the time allowed in the Proposal.

The Bidder shall use sufficient labor and equipment to complete and place in service all of the work being constructed within this Contract within the time specified in the Proposal. The surface cleanup shall follow closely behind construction with earth spoil removed from lawns and roads and any trenches neatly finished by the end of each work day. Failure of the Bidder to comply with this type of workmanlike job will result in the suspension of construction operations until the cleanup is effected.

If the Bidder shall be unavoidably delayed in beginning or fulfilling this Contract by reason of excessive storms or floods, or by Acts of Providence, or by strikes, or by court injunction, or by stopping of the work by the Owner because of any emergency or public necessity, or by reason of alterations ordered by the Owner, the Bidder shall have no valid claim for damages on account of any cause or delay; but he shall in such case be entitled to such an extension of the above time limit herein, as the Engineer shall adjudge to be just and reasonable; provided, however, that formal claim for such extension shall be made in writing by the Bidder within a week after the date upon which such alleged cause or delay shall have occurred.

FAIR EMPLOYMENT PRACTICES

Section 4 of the Fair Employment Practices Act PA 1955, No. 251, provides:

Section 4. Every Contract to which the State or any of its political or civil subdivisions is a party shall contain a provision requiring the Bidder and his subcontractors not to discriminate against any employee or applicant for employment, to be employed in the performance of said contract, with respect to his hire, tenure, terms, conditions, or privileges of employment, or any matter directly or indirectly related to employment, because of his race, color, religion, national origin or ancestry. Breach of this covenant may be regarded as a material breach of the Contract.

Section 4A of the Act provides:

Section 4A. Every contract which the State or any of its political or civil subdivisions is a party shall contain a provision requiring the Bidder and his subcontractors not to discriminate against any employee or applicant for employment to be employed in the performance of such contract with respect to his hire, tenure, terms, conditions or privileges of employment or any matter directly or indirectly related to employment because of his age or sex, except where based on a bona fide occupational qualification.

END OF SECTION

PROPOSAL
FOR
ASBESTOS REMOVAL
CITY OF SOUTH LYON

City of South Lyon
335 S. Warren Street
South Lyon, MI

Bids Due: Tuesday, February 4, 2020
On or Before 2:00 pm, Local Time
HRC Job No. 20190971

To Prospective Bidders:

Name of Bidder: _____

Address: _____

Date: _____ Telephone: _____ Fax: _____

The above, as Bidder, hereby declares this bid is made in good faith without fraud or collusion with any persons bidding, and that the Drawings, Specifications, and all other information referenced in the Instructions to Bidders have been examined. Further, the Bidder is familiar with the location of the work described herein and is fully informed as to the nature of the work and the conditions relating to the performance of the Contract.

The Bidder acknowledges that no representations or warranties of any nature whatsoever have been received, or are relied upon from the City of South Lyon, its agents or employees, as to any conditions to be encountered in accomplishing the work and that the bid is based solely upon the Bidder's own independent judgment.

The above, as Bidder, hereby certifies that the Drawings, Specifications, and other data provided by the Owner for bidding purposes have been examined. Further, the undersigned certifies that the proposed construction methods have been reviewed and found acceptable for the conditions which can be anticipated from the information provided for bidding.

The Bidder hereby affirms that the site of work has been inspected and further declares that no charges in addition to the Individual Unit Prices shall be made on account of any job circumstances or field conditions which were present and/or ascertainable prior to the bidding. In addition, The Contractor, as such and as Bidder, shall make the determination as to existing soil conditions and shall also complete the work under whatever conditions created by the Contractor/Bidder's sequence of construction, construction methods, or other conditions the Contractor/Bidder may create, at no additional cost to the Owner.

The above, as Bidder, confirms knowledge of the location of the proposed Asbestos Removal Project and appurtenant construction in the City of South Lyon, Michigan, and the conditions under which it must be performed; and also declares to have carefully examined the Drawings, Specifications, and Contract Documents which the Bidder understands and accepts as sufficient for the purpose of providing services for said Project, and appurtenant work, and agrees to contract with the City of South Lyon to furnish all labor, materials, tools, equipment, facilities and supervision necessary to do all the work specified and prescribed, in strict accordance with the Owner's General Conditions, and with the full intent of the Drawings and Specifications, and will accept in full payment therefore the sum of:

Hubbell, Roth & Clark, Inc.
Job 20190971

BASE BID

<u>Item</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Total Cost</u>
1. Hazardous Material Removal – McHattie Park House	1	@ Lump Sum	= \$ _____
2. Hazardous Material Removal – Parks & Rec Bldg	1	@ Lump Sum	= \$ _____
3. Removal of Floor Slab at Parks & Rec Bldg	1	@ Lump Sum	= \$ _____
4. Covering of Wall Openings at Parks & Rec Bldg	1	@ Lump Sum	= \$ _____
Total Amount of Bid			\$ _____

The Owner, at its sole discretion, reserves the right to award to the Bidder who, in the sole determination of the Owner, will best serve the interest of the Owner. The Owner reserves the right to accept any bid, to reject any or all bids, to waive any and all informalities involving price, time, or changes in the work, and to negotiate contract terms with the successful Bidder, and the right to disregard all nonconforming, nonresponsive, unbalanced or conditional bids. However, it is the intention of the Owner to award to the low total bid to one bidder. Also, the Owner reserves the right to reject the bid of any Bidder if the Owner believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the bid is not responsive or the Bidder is unqualified, of doubtful financial ability, or fails to meet any other pertinent standard or criteria established by the Owner.

Each bidder agrees to waive any claim it has or may have against the Owner, the Architect/Engineer, and their respective employees, arising out of or in connection with the administration, evaluation, or recommendation of any bid.

TAXES

The Bidder affirms that all applicable Federal, State and Local taxes of whatever character and description are included in all prices stated in this Form of Proposal.

ADDENDA

The Bidder acknowledges the following Addenda, covering revisions to the drawings or specifications and the cost, if any, of such revision has been included in the quoted proposal:

Addendum No. _____	Dated _____
Addendum No. _____	Dated _____
Addendum No. _____	Dated _____
Addendum No. _____	Dated _____

FEES

The Bidder shall refer to the General Conditions for allowable Fees for additional work performed, upon Owner's written authorization, by Bidder's own forces and/or for additional work, upon Owner's written authorization, by Bidder's subcontractors.

TIME OF COMPLETION

If awarded the Contract for the Asbestos Removal Project, we agree to have all work substantially completed by May 31, 2020.

BIDS TO REMAIN FIRM

The price stated in this Proposal shall be guaranteed for a period of not less than (60) days from the bid due date and if authorized to proceed within that period, the bidder agrees to complete the work covered by the Proposal at said price.

If this Proposal is accepted by the Owner and the undersigned shall fail to contract as aforesaid and to furnish the required surety bonds within fifteen (15) days after being notified of the acceptance of their bid, then the undersigned shall be considered to have abandoned the contract.

Company Name: _____

Signature: _____ Title: _____

Address: _____

County: _____ State: _____

Telephone No.: _____ Fax No.: _____

Email Address: _____

LEGAL STATUS OF BIDDER

This Bid is submittal in the name of:

(Print) _____

The undersigned hereby designates below the business address to which all notices, directions or other communications may be served or mailed:

Street _____

City _____

State _____ Zip Code _____

The undersigned hereby declares the legal status checked below:

- ☐ INDIVIDUAL
- ☐ INDIVIDUAL DOING BUSINESS UNDER AN ASSUMED NAME
- ☐ CO-PARTNERSHIP
The Assumed Name of the Co-Partnership is registered in the County of _____, Michigan
- ☐ CORPORATION INCORPORATED UNDER THE LAWS OF THE STATE OF _____
_____. The Corporation is
- ☐ LICENSED TO DO BUSINESS IN MICHIGAN
- ☐ NOT NOW LICENSED TO DO BUSINESS IN MICHIGAN

The name, titles, and home addresses of all persons who are officers or partners in the organization are as follows:

A corporation duly organized and doing business under the laws of the State of _____

NAME AND TITLE

HOME ADDRESS

Signed and Sealed this _____ day of _____, 20__.

By (Signature) _____

Printed Name of Signer _____

Title _____

END OF SECTION

CONTRACT

ARTICLES OF AGREEMENT, Made and entered into this _____

day of _____, 20__, by and between

(A Michigan Municipal Corporation),

Party of the first part, hereinafter called the Owner, and _____

in the _____, County of _____

and State of Michigan, Party of the second part, hereinafter called the Contractor, to wit:

Item 1) That all proposals, specifications, plans, bonds, etc., hereto attached or herein referred to, shall be and are made a part of this agreement and contract.

Item 2) That the Contractor, under penalty of bond attached, shall furnish all labor, materials, and appliances necessary, and do all the work as set forth in the proposal.

HRC Job No. 20190971

according to the specifications, plans, etc., which have been made a part of this contract in a manner, time, and place, all and singular, as herein set forth.

IN CONSIDERATION WHEREOF, said Party of the First Part, for it and its successors, promises and agrees to pay to said Party of the Second Part, the sum of:

_____ Dollars (\$_____)

as provided in the attached proposal, all in the time and manner indicated in the specifications.

For the faithful performance of all and singular of the stipulations, terms and conditions of this Agreement, said parties respectfully bind themselves, their successors, heirs, executors, administrators and assigns.

Hubbell, Roth & Clark, Inc.
Job 20190971

IN WITNESS WHEREOF, Said Parties have signed this Contract, in duplicate, on the date first above written.

WITNESS:

(A Michigan Municipal Corporation)

Party of the First Part

By: _____

WITNESS:

(A Michigan Corporation)

Party of the Second Part

By: _____

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, That we, the undersigned _____

_____ as Principal,

and _____

_____ of _____ as Sureties,

are hereby held and firmly bound unto the "Owner" _____

_____ in the full and just sum of _____ Dollars

(\$ _____) for the payment of which well and truly to be made, we hereby jointly and severally

bind ourselves, our heirs, executors, administrators, successors and assigns.

Signed and sealed this _____ day of _____ 20____.

The condition of the above obligation is such that if said _____

_____ shall well and faithfully do and perform the things agreed by _____

to be done and performed by the annexed contract, according to the terms thereof, then this obligation shall be void; otherwise, the same shall remain in full force and effect.

It is mutually understood and agreed that in cases where changes are required, either by order of the Engineer, or Owner, or by mutual agreement, such changes or changes shall not modify, discharge or release this bond.

(A Michigan Corporation)

(Seal)

Principal

(Seal)

Surety

Signed, Sealed and Delivered
in the Presence of:



www.bdsenvironmental.com

13845 East Nine Mile
Warren, Michigan
48089

Tel: (586) 755-9030
Fax: (586) 755-9068

LIMITED ASBESTOS NESHAP SURVEY REPORT

BUILDING LOCATION

Former Parks and Recreation Building
318 West Lake Street
South Lyon, Michigan 48178

INSPECTION DATE

August 27, 2019

CLIENT

City of South Lyon
335 South Warren
South Lyon, Michigan 48178

BDS PROJECT NUMBER

19-711

INTRODUCTION

The city of South Lyon has retained BDS Environmental to conduct an asbestos inspection on a located at 318 West Lake Street, South Lyon, Oakland County, Michigan. The objective of the survey was to confirm the presence or absence of non-friable and friable asbestos-containing materials present in the building. BDS's scope of work was based on the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as they relate to asbestos-containing materials present in building structures that are to be renovated or demolished. This inspection is "limited" in scope because it was not practical to penetrate all floors, walls and ceiling surfaces in order to identify potential ACM. However, reasonable efforts were made to try to identify all currently inaccessible ACM within the building.

This is a 1,950 square foot commercial structure built on a slab with a single floor. This structure is heated with forced air heating and has an original build date circa 1950.

METHODOLOGY

BDS's Asbestos Inspector Kevin T. Vayko (MLARA Accreditation No. A52844) performed the inspection on August 27, 2019. BDS's Inspector collected thirty-three (33) bulk samples during the inspection. The inspection was performed in a manner to attempt to identify all suspect asbestos materials, i.e. "Hammer in Hand". However, potential suspect materials within or above hard plaster or cinder block walls, partitions, and ceilings may not have been identified due to the lack of access to those potential suspect materials.

BDS's inspector began by identifying building materials, which possibly contain asbestos. These materials can be floor tiles, mastic, wallboard, ceiling tiles, thermal system insulation, et cetera. Once these were located, homogeneous sampling areas were delineated and the suspect materials were sampled and analyzed from representative areas.

A homogeneous area is a material that is similar in color, texture, construction, or general appearance. Bulk samples of suspected asbestos-containing building materials were collected using the recommended procedures outlined in the EPA guidance publication Simplified Sampling Scheme for Friable Surfacing Materials (EPA 560/5-85-030a-Oct. 1985). The methods described in the publication were adapted to include the sampling of thermal system insulations. Samples were collected utilizing plastic containers which were sealed air tight and labeled with a unique sample number. Chain of custody forms were then completed and priority mailed along with the samples to the laboratory for analysis.

Collected bulk samples were analyzed by SanAir Technologies Laboratory, Inc. using Polarized Light Microscopy (PLM) technique according to EPA Method 600/R-93/116. This method requires that each heterogeneous layer of a bulk sample be analyzed for the presence of asbestos. Analysis of floor tiles and other resin bound materials by PLM may yield false negative results because of method limitations in separating closely bound fibers and in detecting fibers of short length and smaller diameter. When analysis of such materials by PLM yields negative results for the presence of asbestos, BDS may recommend utilizing confirmatory methods of identification, i.e. point counting.

SAMPLE COLLECTION AND IDENTIFICATION

A total thirty-three (33) bulk samples of suspected asbestos-containing materials were collected from selected locations identified throughout the site. The bulk samples were further delineated into forty-eight (48) distinct layers which were all analyzed for asbestos content. **Drywall joint compound and white aluminum window frame caulk samples were further analyzed using the "Point Count Method" to confirm accuracy of the initial testing results. This additional analysis confirmed that these homogeneous areas are asbestos-containing materials.** The approximate sample location, material type, and asbestos content for each sample are listed on the following page.

BULK SAMPLE DATA

SAMPLE NUMBER	HOMOGENEOUS AREA	SAMPLE LOCATION	ASBESTOS CONTENT
01A	White Aluminum Frame Caulk	South - Front Entry	2% Chrysotile (PC 1.25% Chrysotile)
01B	White Aluminum Frame Caulk	South - Front Entry	DNA
01C	White Aluminum Frame Caulk	South - Front Entry	DNA
02A	Black Aluminum Frame Caulk	Southwest	NAD
02B	Black Aluminum Frame Caulk	North	NAD
02C	Black Aluminum Frame Caulk	East	NAD
03A	White Brick Ledge Caulk	Southwest - Front Entry	NAD
03B	White Brick Ledge Caulk	Southeast - Front Entry	NAD
04A	Black Foundation Caulk	Southwest - Front Entry	10% Chrysotile
04B	Black Foundation Caulk	Southeast - Front Entry	DNA
05A	Metal Door Frame Caulk	East	5% Chrysotile
05B	Metal Door Frame Caulk	East	DNA
06A	Transite Duct	South - Reception Area	40% Chrysotile
06B	Transite Duct	North - Stock/Play Area	DNA
07A	2' x 2' Suspended Ceiling Grid - Pinhole-Gouge	East - Reception Area	NAD
07B	2' x 2' Suspended Ceiling Grid - Pinhole-Gouge	West - Conference Room	NAD
08A	12" x 12" Pinhole Ceiling Tile with Brown Glue Pod	South - Reception Area	NAD/NAD
08B	12" x 12" Pinhole Ceiling Tile with Brown Glue Pod	North - Stock/Play Area	NAD/NAD
08C	12" x 12" Pinhole Ceiling Tile with Brown Glue Pod	West - Conference Room	NAD/NAD
09A	12" x 12" Rainbow Pattern Floor Tile/Yellow Glue	South - Reception Area	NAD/NAD
09B	12" x 12" Rainbow Pattern Floor Tile/Yellow Glue	North - Stock/Play Area	NAD/NAD

NAD = No Asbestos Detected

DNA = Did Not Analyze

PC = Point Count

BULK SAMPLE DATA

(Continued)

SAMPLE NUMBER	HOMOGENEOUS AREA	SAMPLE LOCATION	ASBESTOS CONTENT
10A	9" x 9" Light Brown Floor Tile/Black Mastic	East - Mechanical Room	5% Chrysotile/ NAD
10B	9" x 9" Light Brown Floor Tile/Black Mastic	East - Mechanical Room	DNA/NAD
11A	Brown Vinyl Base Cove/ Brown Adhesive	East - Mechanical Room	NAD/NAD
11B	Brown Vinyl Base Cove/ Brown Adhesive	North - Stock/Play Area	NAD/NAD
12A	Navy Blue Vinyl Base Cove/ Brown Adhesive	South - Reception Area	NAD/NAD
12B	Navy Blue Vinyl Base Cove/ Brown Adhesive	North - Stock/Play Area	NAD/NAD
13A	Drywall/Drywall Joint Compound	South - Reception Area	NAD/NAD
13B	Drywall/Drywall Joint Compound	North - Stock/Play Area	NAD/NAD
13C	Drywall/Drywall Joint Compound	East - Mechanical Room	NAD/2% Chrysotile (PC 1.25% Chrysotile)
14	Drywall Joint Compound - Patch	East - Mechanical Room	NAD
15A	Black Sink Undercoating	North - Stock/Play Area	5% Chrysotile
15B	Black Sink Undercoating	North - Stock/Play Area	DNA

NAD = No Asbestos Detected

DNA = Did Not Analyze

PC = Point Count

INTERPRETATION OF SURVEY RESULTS

The Environmental Protection Agency defines an asbestos-containing material (ACM) as any material containing more than one percent asbestos as determined using Polarized Light Microscopy. Asbestos materials are further defined as Friable ACM, Category I Nonfriable ACM, and Category II Nonfriable ACM.

All friable ACM must be removed prior to building renovation/demolition and any Category I or II nonfriable ACM must be removed prior to building renovation/demolition if these materials have a high probability of becoming friable during the renovation/demolition process.

The visual inspection of the interior and exterior of the building indicated that sixteen (16) building materials, known as homogeneous areas, were determined to be Presumed Asbestos Containing Materials (PACM), of which fifteen (15) were therefore were sampled to determine definitively whether the materials were asbestos or non-asbestos. The fire door and frame doors were assumed to be asbestos-containing. The subsequent sample analysis, as listed in the previous **Bulk Sample Data** tables, indicated that eight (8) of those building materials were proven to be non-asbestos and seven (7) were proven to be asbestos-containing.

The materials listed in bold print on the following table are asbestos-containing building materials (ACBM).

HOMOGENEOUS AREA DATA

Homogeneous Area Number	Homogeneous Area Description	Asbestos-Containing?
HA #1	White Aluminum Frame Caulk	YES
HA #2	Black Aluminum Frame Caulk	NO
HA #3	White Brick Ledge Caulk	NO
HA #4	Black Foundation Caulk	YES
HA #5	Metal Door Frame Caulk	YES
HA #6	Transite Duct Under Floor Slab	YES
HA #7	2' x 2' Suspended Ceiling Grid – Pinhole-Gouge	NO
HA #8	12" x 12" Pinhole Ceiling Tile with Brown Glue Pod	NO/NO
HA #9	12" x 12" Rainbow Pattern Floor Tile/ Yellow Glue	NO/NO
HA #10	9" x 9" Light Brown Floor Tile/ Black Mastic	YES/NO
HA #11	Brown Vinyl Base Cove/Brown Adhesive	NO/NO

HOMOGENEOUS AREA DATA
(Continued)

Homogeneous Area Number	Homogeneous Area Description	Asbestos-Containing?
HA #12	Navy Blue Vinyl Base Cove/Brown Adhesive	NO/NO
HA #13	Drywall/Drywall Joint Compound	NO/YES
HA #14	Drywall Joint Compound - Patch	NO
HA #15	Black Sink Undercoating	YES

CONCLUSION

The locations, type of asbestos materials and approximate quantities present in the building is listed in the table below.

LOCATION	TYPE OF MATERIAL	QUANTITY	REQUIRED ASBESTOS RESPONSE ACTION
South – Front Entry	White Aluminum Frame Caulk	2 SF (28 LF)	Category II Non-friable ACM door frame caulk requires removal if renovation/demolition activities will disturb the caulk.
South – Front Entry	Black Foundation Caulk	1 SF (18 LF)	Category II Non-friable ACM door frame caulk requires removal if renovation/demolition activities will disturb the caulk.
East Man Door	Metal Door Frame Caulk	3 SF (21 LF) [1 Double Door]	Category II Non-friable ACM door frame caulk requires removal if renovation/demolition activities will disturb the caulk.
Interior perimeter underneath concrete slab	Transite Duct	505 SF	Category II Non-friable ACM Transite duct requires removal after concrete floor slab has been removed.
East – Mechanical Room	9" x 9" Light Brown Floor Tile	36 SF	Category I Non-friable ACM floor tile requires removal if rendered non-intact during renovation/demolition activities.
East – Mechanical Room	Drywall Joint Compound	350 SF	Friable ACM drywall joint compound must be removed if renovation/demolition activities will disturb the drywall.
North - Stock/Play Area	Black Sink Undercoating	1 Sink	Category II Non-friable ACM black sink undercoating must be removed if demolition activities will disturb the undercoating on the sink.
North - Stock/Play Area	Fire Door & Frame	2 Doors; 1 Frame	Category II Non-friable ACM fire door & frame requires removal if renovation/demolition activities will puncture the fire door & frame.

SF = Square Feet

All asbestos-containing response activities must be conducted in accordance to the requirements of the OSHA Class II Asbestos work requirements found in 29 CFR 1926.1101 prior to renovation or demolition activities.

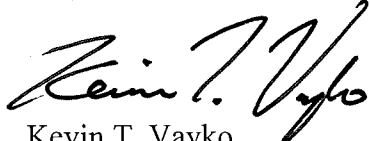
Intact means that the ACM has not crumbled, been pulverized, or otherwise deteriorated so that it is no longer likely to be bound with its matrix. Each contractor will have to make the decision on whether they feel that they can renovate/demolish the building while maintaining the asbestos-containing materials in good condition (intact). It is the opinion of BDS Environmental that the liability of the building owner and renovation/demolition contractor is much lower if the asbestos-containing materials, excluding bituminous roofing, are removed prior to renovation/demolition activities.

The information and opinions rendered in this report are exclusively for use by the city of South Lyon and it's agents. BDS will not distribute this report without your consent except as required by law or court order. The information and opinions are given in light of a limited assignment and should be implemented in light of that assignment. BDS accepts responsibility for the competent performance of its duties in execution of the assignment and preparing reports in accordance with the normal standards of the profession, but disclaims any responsibility for consequential damages.

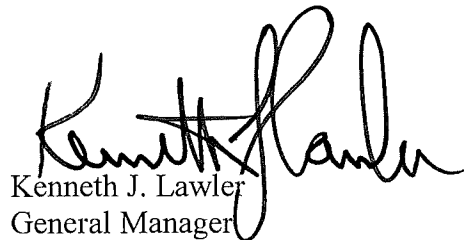
It has been a pleasure to be of service to you. If you have any questions, or require additional information, please contact us at (586) 755-9030.

Thank You,

BDS ENVIRONMENTAL



Kevin T. Vayko
MI Asbestos Inspector A#52844



Kenneth J. Lawler
General Manager

CERTIFICATE OF LABORATORY ANALYSIS

SanAir Technologies Laboratory

Analysis Report

prepared for

BDS Environmental

Report Date: 8/29/2019
Project Name: 318 West Lake, South
Lyon
Project #: 19-711B
SanAir ID#: 19043572



NVLAP LAB CODE 200870-0



Certification # 652931



License # LAB0166



804.897.1177

www.sanair.com



SanAir Technologies Laboratory, Inc.

1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: <http://www.sanair.com> E-mail: iaq@sanair.com

BDS Environmental
13845 E. Nine Mile Road
Warren, MI 48089

August 29, 2019

SanAir ID # 19043572
Project Name: 318 West Lake, South Lyon
Project Number: 19-711B

Dear Ron Lawler,

We at SanAir would like to thank you for the work you recently submitted. The 33 sample(s) were received on Wednesday, August 28, 2019 via FedEx. The final report(s) is enclosed for the following sample(s): 01A, 01B, 01C, 02A, 02B, 02C, 03A, 03B, 04A, 04B, 05A, 05B, 06A, 06B, 07A, 07B, 08A, 08B, 08C, 09A, 09B, 10A, 10B, 11A, 11B, 12A, 12B, 13A, 13B, 13C, 14, 15A, 15B.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

Sandra Sobrino
Asbestos & Materials Laboratory Manager
SanAir Technologies Laboratory

Final Report Includes:

- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

sample conditions:

33 sample(s) in Good condition



1551 Oakbridge Drive Suite B
Powhatan, VA 23139
804-897-1177 / 888-895-1177
Fax 804-897-0070
www.sanair.com

Asbestos Chain of Custody

SanAir ID Number

19043572

Company: BDS Environmental		Project #: 19-711B	Collected by: Kevin Vayko
Address: 13845 East Nine Mile Rd.		Project Name: 318 West Lake, South Lyon	Phone #: 586-755-9030
City, St., Zip: Warren, MI 48089		Date Collected: 08/27/2019	Fax #: 586-755-9068
State of Collection: MI	Account#: 2451	P.O. Number:	Email: rlawler@BDSenvironmental.com

Bulk			Air			Soil/Vermiculite		
ABB	PLM EPA 600/R-93/116	<input checked="" type="checkbox"/>	ABA	PCM NIOSH 7400	<input type="checkbox"/>	ABSE	PLM EPA 600/R-93/116 (Qual.)	<input type="checkbox"/>
	Positive Stop	<input checked="" type="checkbox"/>	ABA-2	OSHA w/ TWA*	<input type="checkbox"/>	ABSP	PLM CARB 435 (LOD <1%)	<input type="checkbox"/>
ABEPA	PLM EPA 400 Point Count	<input type="checkbox"/>	ABTEM	TEM AHERA	<input type="checkbox"/>	ABSP1	PLM CARB 435 (LOD 0.25%)	<input type="checkbox"/>
ABB1K	PLM EPA 1000 Point Count	<input type="checkbox"/>	ABATN	TEM NIOSH 7402	<input type="checkbox"/>	ABSP2	PLM CARB 435 (LOD 0.1%)	<input type="checkbox"/>
ABBEN	PLM EPA NOB	<input type="checkbox"/>	ABT2	TEM Level II	<input type="checkbox"/>			
ABBCH	TEM Chatfield	<input type="checkbox"/>						
ABBTM	TEM EPA NOB	<input type="checkbox"/>						
Water			New York ELAP			Dust		
ABHE	EPA 100.2	<input type="checkbox"/>	PLM NY	PLM 600/M4 82 020	<input type="checkbox"/>	ABWA	TEM Wipe ASTM D-6480	<input type="checkbox"/>
			ABEPA2	NY ELAP 198.1	<input type="checkbox"/>	ABDMV	TEM Microvac ASTM D-5755	<input type="checkbox"/>
			ABENY	NY ELAP 198.6 PLM NOB	<input type="checkbox"/>	Matrix Other		
			ABBNY	NY ELAP 198.4 TEM NOB	<input type="checkbox"/>	<input type="checkbox"/>		

Turn Around Times	3 HR (4 HR TEM) <input type="checkbox"/>	6 HR (8HR TEM) <input type="checkbox"/>	12 HR <input type="checkbox"/>	24 HR <input checked="" type="checkbox"/>
	2 Days <input type="checkbox"/>	3 Days <input type="checkbox"/>	4 Days <input type="checkbox"/>	5 Days <input type="checkbox"/>

Special Instructions

Sample #	Sample Identification/Location	Volume or Area	Sample Type	Flow Rate*	Time* Start - Stop
	See Sheet				

Relinquished by	Date	Time	Received by	Date	Time
<i>[Signature]</i>	08/27/2019	18:30			

Unless scheduled, the turn around time for all samples received after 3 pm EST Friday will begin at 8 am Monday morning. Weekend or Holiday work must be scheduled ahead of time and is charged for rush turn around time.

Work with standard turn around time sent Priority Overnight and Billed to Recipient will be charged a \$10 shipping fee.

19043572

SAMPLE NUMBER	HOMOGENEOUS AREA	SAMPLE LOCATION
01A	White Aluminum Frame Caulk	South - Front Entry
01B	White Aluminum Frame Caulk	South - Front Entry
01C	White Aluminum Frame Caulk	South - Front Entry
02A	Black Aluminum Frame Caulk	Southwest
02B	Black Aluminum Frame Caulk	North
02C	Black Aluminum Frame Caulk	East
03A	White Brick Ledge Caulk	Southwest - Front Entry
03B	White Brick Ledge Caulk	Southeast - Front Entry
04A	Black Foundation Caulk	Southwest - Front Entry
04B	Black Foundation Caulk	Southeast - Front Entry
05A	Metal Door Frame Caulk	East
05B	Metal Door Frame Caulk	East
06A	Transite Duct	South - Reception Area
06B	Transite Duct	North - Stock/Play Area
07A	2' x 2' Suspended Ceiling Grid - Pinhole-Gouge	East - Reception Area
07B	2' x 2' Suspended Ceiling Grid - Pinhole-Gouge	West - Conference Room
08A	12" x 12" Pinhole Ceiling Tile with Brown Glue Pod	South - Reception Area
08B	12" x 12" Pinhole Ceiling Tile with Brown Glue Pod	North - Stock/Play Area
08C	12" x 12" Pinhole Ceiling Tile with Brown Glue Pod	West - Conference Room
09A	12" x 12" Rainbow Pattern Floor Tile	South - Reception Area
09B	12" x 12" Rainbow Pattern Floor Tile	North - Stock/Play Area
10A	9" x 9" Light Brown Floor Tile	East - Mechanical Room
10B	9" x 9" Light Brown Floor Tile	East - Mechanical Room
11A	Brown Vinyl Base Cove	East - Mechanical Room
11B	Brown Vinyl Base Cove	North - Stock/Play Area
12A	Navy Blue Vinyl Base Cove	South - Reception Area
12B	Navy Blue Vinyl Base Cove	North - Stock/Play Area
13A	Drywall Joint Compound	South - Reception Area
13B	Drywall Joint Compound	North - Stock/Play Area
13C	Drywall Joint Compound	East - Mechanical Room
14	Drywall Joint Compound - Patch	East - Mechanical Room
15A	Black Sink Undercoating	North - Stock/Play Area
15B	Black Sink Undercoating	North - Stock/Play Area

Relinquished by

Ken V

Date 08/27/2019

Time 18:30

Received by

Date

Time

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Midlothian, VA 23112 • 804-739-1751 • fax: 804-739-1753

ASBESTOS 400 POINT COUNT ANALYSIS SUMMARY

CLIENT: SanAir Technologies Laboratory, Inc.
1551 Oakbridge Dr, Suite B
Powhatan, VA 23139

TESC LOGIN #: 190829Y

DATE OF RECEIPT: 08/28/2019

DATE OF ANALYSIS: 08/29/2019

DATE OF REPORT: 08/29/2019

CLIENT JOB #: 19043572

JOB SITE: 19-711B

ANALYST: M. Steiniger

REPORTING LIMIT 0.25% Asbestos

TESC SAMPLE #	CLIENT SAMPLE #	GROSS DESCRIPTION	% ASBESTOS
1	01A	White chalky	1.25% Chrysotile
2	13C - Joint compound	White chalky	1.25% Chrysotile

Total Sample(s) Analyzed: 2

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
Yuedong Fang, Senior Geologist

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples," EPA/600/R-93-116, July 1993 (EPA-600/M4-82-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested. NVLAP Lab Code: 200794-0 [LEGEND NAD = No Asbestos Detected]

TESC LOGIN NUMBER:

~~190828T~~ 190829Y

TRIANGLE ENVIRONMENTAL SERVICE CENTER

13509 East Boundary Road, Suite B • Midlothian • VA • 23112 • Tel: 804-739-1751 • Fax: 804-739-1753

CHAIN OF CUSTODY FORM

LAB CUSTOMER: SanAir Technologies Laboratory

ADDRESS:

1551 Oakbridge Drive, Suite B

CITY, STATE, ZIP:-Powhatan, Virginia, 23139

TAT: 2 Hour:

6 Hour:

24 Hour: X

48 Hour:

Day:

3

CONTACT METHOD: Phone: 804-897-1177

Fax:

DATE:08/28/2019

CONTACT NAME: Sandra Sobrino

PROJECT #:

PROJECT SITE: 19-711B

Email: iaq@sanair.com ssobrinho@sanair.com

Sample number			
See Attached	8/27/19		
		X Bulk ID by PLM	Asbestos
		PCM Fiber Count	
		PLM Point Count 400	
		PLM Point Count 1000	
		PLM Gravimetric	
		CARB 435 (Soil only)	
		TEM AHERA Air	Lead
		TEM Bulk Chatfield	
		Air	
		Paint(% & PPM)	
		Soil(PPM)	
		Wipe	
		TCLP (Pb)	Other Metals
		Waster Water	
		Drinking Water (Pb)	
		TCLP RCRA 8	
		CAM 17	
		Weiding Furn e	
		Toxic Metal Profile	Air Quality/Mold
		Biocassette	
		Slice	
		Surface Tape	
		Surface Swab	
		Bulk	
		Air Volume (L.)	
		Wipe Area (ft ²)	
		Scrape Area (cm ²)	
		Point Count 3% or Less	Comments

Prepared by TE80

AUG 29 2000

30

Abstract

U2

ABB	PLM EPA 600/H-93/116	<input checked="" type="checkbox"/>
	Positive Stop	<input checked="" type="checkbox"/>
ABEPA	PLM EPA 400 Point Count	<input type="checkbox"/>
ABB1K	PLM EPA 1000 Point Count	<input type="checkbox"/>
ABBEY	PLM EPA NO3	<input type="checkbox"/>
ABBEH	TEM Chaffic	<input type="checkbox"/>
ABBEV	TEM EPA NO3	<input type="checkbox"/>

Air

ABA	PCM NIOSH 7400	<input type="checkbox"/>
ABA-2	OSHA w/ TWA*	<input type="checkbox"/>
ABTEM	TEM AHERA	<input type="checkbox"/>
ABATN	TEM NIOSH 7402	<input type="checkbox"/>
ABT2	TEM Level II	<input type="checkbox"/>

Soil/Vermiculite

ABSE	PLM EPA 600/R-93/116 (Qual.)	<input type="checkbox"/>
ABSP	PLM CARB 435 (LOD <1%)	<input type="checkbox"/>
ABSP1	PLM CARB 435 (LOD 0.25%)	<input type="checkbox"/>
ABSP2	PLM CARB 435 (LOD 0.1%)	<input type="checkbox"/>

Dust

ABWA	TEM Wipe ASTM D-6480	<input type="checkbox"/>
ABDMV	TEM Microvac ASTM D-5755	<input type="checkbox"/>

New York ELAP

PLM NY	PLM 600/M4 82 020	<input type="checkbox"/>
ABEP A2	NY ELAP 198.1	<input type="checkbox"/>
ABENY	NY ELAP 198.6 PLM NOB	<input type="checkbox"/>
ABBNY	NY ELAP 198.4 TEM NOB	<input type="checkbox"/>

Writer

ADHE	EPA 1002	<input type="checkbox"/>
------	----------	--------------------------

Other

--	--	--

Turn Around Times	3 HR (4 HR TEM) <input type="checkbox"/>	6 HR (8HR TEM) <input type="checkbox"/>	12 HR <input type="checkbox"/>	24 HR <input checked="" type="checkbox"/>
	2 Days <input type="checkbox"/>	3 Days <input type="checkbox"/>	4 Days <input type="checkbox"/>	5 Days <input type="checkbox"/>

Special Instructions

[illegible]

AUG 28 2019

2:30pm

AUG 29 2019

2:30 PM

190828 1908294

19043572

HOMOGENEOUS AREA		SAMPLE LOCATION
01A	White Aluminum Frame Caulk	South - Front Entry
01B	White Aluminum Frame Caulk	South - Front Entry
01C	White Aluminum Frame Caulk	South - Front Entry
02A	Black Aluminum Frame Caulk	Southwest
02B	Black Aluminum Frame Caulk	North
02C	Black Aluminum Frame Caulk	East
03A	White Brick Ledge Caulk	Southwest - Front Entry
03B	White Brick Ledge Caulk	Southeast - Front Entry
04A	Black Foundation Caulk	Southwest - Front Entry
04B	Black Foundation Caulk	Southeast - Front Entry
05A	Metal Door Frame Caulk	East
05B	Metal Door Frame Caulk	East
06A	Transite Duct	South - Reception Area
06B	Transite Duct	North - Stock/Play Area
07A	2' x 2' Suspended Ceiling Grid - Pinhole-Gouge	East - Reception Area
07B	2' x 2' Suspended Ceiling Grid - Pinhole-Gouge	West - Conference Room
08A	12" x 12" Pinhole Ceiling Tile with Brown Glue Pod	South - Reception Area
08B	12" x 12" Pinhole Ceiling Tile with Brown Glue Pod	North - Stock/Play Area
08C	12" x 12" Pinhole Ceiling Tile with Brown Glue Pod	West - Conference Room
09A	12" x 12" Rainbow Pattern Floor Tile	South - Reception Area
09B	12" x 12" Rainbow Pattern Floor Tile	North - Stock/Play Area
10A	9" x 9" Light Brown Floor Tile	East - Mechanical Room
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11A	Brown Vinyl Base Cove	East - Mechanical Room
11B	Brown Vinyl Base Cove	North - Stock/Play Area
12A	Navy Blue Vinyl Base Cove	South - Reception Area
12B	Navy Blue Vinyl Base Cove	North - Stock/Play Area
13A	Drywall Joint Compound	South - Reception Area
13B	Drywall Joint Compound	North - Stock/Play Area
13C	Drywall Joint Compound	East - Mechanical Room
14	Drywall Joint Compound - Patch	East - Mechanical Room
15A	Black Sink Undercoating	North - Stock/Play Area
15B	Black Sink Undercoating	North - Stock/Play Area

Thomas King
Ming Lee

AUG 28 2019

2:30pm

AUG 29 2019

2:30pm

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Midlothian, VA 23112
804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: SanAir Technologies Laboratory, Inc.
1551 Oakbridge Dr, Suite B
Powhatan, VA 23139

TESC LOGIN #: 190828T

DATE OF RECEIPT: 08/28/2019
DATE OF ANALYSIS: 08/29/2019
DATE OF REPORT: 08/29/2019

CLIENT JOB/ #: 19043572

JOB SITE: 19-711B

ANALYST: M. Steiniger

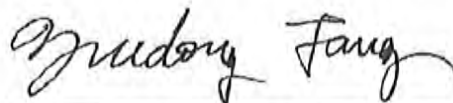
TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
1	01A / White chalky	2% Chrysotile		98%
2	01B /	Positive Stop		100%
3	01C /	Positive Stop		100%
4	02A / Black vinyl	NAD		100%
5	02B / Black vinyl	NAD		100%
6	02C / Black vinyl	NAD		100%
7	03A / White chalky	NAD		100%
8	03B / White chalky	NAD		100%
9	04A / Black tar-like	10% Chrysotile		90%
10	04B /	Positive Stop		100%
11	05A / Gray vinyl	5% Chrysotile		95%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M4-82-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

[LEGEND NAD=No Asbestos Detected, Lino.=Linoleum, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
Yuedong Fang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Midlothian, VA 23112
804-739-1751 • fax: 804-739-1753

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CLIENT: SanAir Technologies Laboratory, Inc.
1551 Oakbridge Dr, Suite B
Powhatan, VA 23139

TESC LOGIN #: 190828T

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ANALYST: M. Steiniger

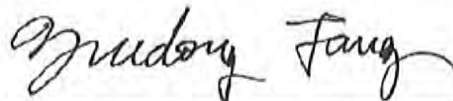
TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
12	05B /	Positive Stop		100%
13	06A / Gray cement	40% Chrysotile		60%
14	06B /	Positive Stop		100%
15	07A / Tan fibers	NAD	40% Cellulose 40% Fiberglass	20%
16	07B / Tan fibers	NAD	40% Cellulose 40% Fiberglass	20%
17A	08A - Ceiling tile / Brown fibers	NAD	95% Cellulose	5%
17B	08A - Mastic / Brown adhesive	NAD	3% Cellulose	97%
18A	08B - Ceiling tile / Brown fibers	NAD	95% Cellulose	5%
18B	08B - Mastic / Brown adhesive	NAD	3% Cellulose	97%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M4-82-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

[LEGEND NAD=No Asbestos Detected, Lino.=Linoleum, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
Yuedong Fang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

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804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: SanAir Technologies Laboratory, Inc.
1551 Oakbridge Dr, Suite B
Powhatan, VA 23139

TESC LOGIN #: 190828T

DATE OF RECEIPT: 08/28/2019
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CLIENT JOB/ #: 19043572

JOB SITE: 19-711B

ANALYST: M. Steiniger

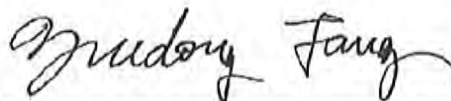
TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
19A	08C - Ceiling tile / Brown fibers	NAD	95% Cellulose	5%
19B	08C - Mastic / Brown adhesive	NAD	3% Cellulose	97%
20A	09A - Tile / Tan vinyl	NAD		100%
20B	09A - Mastic / Yellow/black adhesive	NAD		100%
21A	09B - Tile / Tan vinyl	NAD		100%
21B	09B - Mastic / Yellow/black adhesive	NAD		100%
22A	10A - Tile / Beige tile	5% Chrysotile		95%
22B	10A - Mastic / Black adhesive	NAD		100%
23A	10B - Tile /	Positive Stop		100%
23B	10B - Mastic / Black adhesive	NAD		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M4-82-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected; not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

[LEGEND NAD=No Asbestos Detected, Lino.=Linoleum, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
Yuedong Fang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

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BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: SanAir Technologies Laboratory, Inc.
1551 Oakbridge Dr, Suite B
Powhatan, VA 23139

TESC LOGIN #: 190828T

DATE OF RECEIPT: 08/28/2019
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CLIENT JOB/ #: 19043572

JOB SITE: 19-711B

ANALYST: M. Steiniger

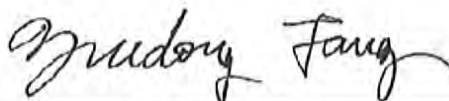
TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
24A	11A - Basecove / Brown vinyl	NAD		100%
24B	11A - Mastic / Yellow/brown adhesive	NAD		100%
25A	11B - Basecove / Brown vinyl	NAD		100%
25B	11B - Mastic / Yellow/brown adhesive	NAD		100%
26A	12A - Basecove / Blue vinyl	NAD		100%
26B	12A - Mastic / Yellow/brown adhesive	NAD		100%
27A	12B - Basecove / Blue vinyl	NAD		100%
27B	12B - Mastic / Yellow/brown adhesive	NAD		100%
28A	13A - Drywall / White chalky, tan fibers	NAD	10% Cellulose	90%
28B	13A - Joint compound / White chalky	NAD		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M4-82-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHA (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

[LEGEND NAD=No Asbestos Detected, Lino.=Linoleum, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
Yuedong Fang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Midlothian, VA 23112
804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: SanAir Technologies Laboratory, Inc.
1551 Oakbridge Dr, Suite B
Powhatan, VA 23139

TESC LOGIN #: 190828T

DATE OF RECEIPT: 08/28/2019
DATE OF ANALYSIS: 08/29/2019
DATE OF REPORT: 08/29/2019

CLIENT JOB/ #: 19043572

JOB SITE: 19-711B

ANALYST: M. Steiniger

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
29A	13B - Drywall / White chalky, tan fibers	NAD	10% Cellulose	90%
29B	13B - Joint compound / White chalky	NAD		100%
30A	13C - Drywall / White chalky, tan fibers	NAD	20% Cellulose	80%
30B	13C - Joint compound / White chalky	2% Chrysotile		98%
31A	14A - Drywall / White chalky, tan fibers	NAD	20% Cellulose	80%
31B	14A - Joint compound / White chalky	NAD		100%
32	15A / Black tar-like	5% Chrysotile		95%
33	15B /	Positive Stop		100%

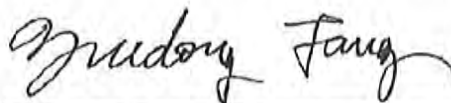
Total Samples/Layers Analyzed: 41

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M4-82-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

[LEGEND NAD=No Asbestos Detected, Lino.=Linoleum, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
Yuedong Fang, Senior Geologist

Bulk

ABB	PLM EPA 600/R-93/116	<input checked="" type="checkbox"/>
	Positive Stop	<input checked="" type="checkbox"/>
ABEPA	PLM EPA 400 Point Count	<input type="checkbox"/>
ABB1K	PLM EPA 1000 Point Count	<input type="checkbox"/>
ABBEN	PLM EPA NOB	<input type="checkbox"/>
ABBCH	TEM Chatfield	<input type="checkbox"/>
ABBTH	TEM EPA NOB	<input type="checkbox"/>

Air

ABA	PCM NIOSH 7400	
ABA-2	OSHA w/ TWA*	
ABTEM	TEM AHERA	
ABATN	TEM NIOSH 7402	
ABT2	TEM Level II	

Soil/Vermiculite

ABSE	PLM EPA 600/R-93/116 (Qual.)	<input type="checkbox"/>
ABSP	PLM CARB 435 (LOD <1%)	<input type="checkbox"/>
ABSP1	PLM CARB 435 (LOD 0.25%)	<input type="checkbox"/>
ABSP2	PLM CARB 435 (LOD 0.1%)	<input type="checkbox"/>

Water

ABHE	EPA 100.2		
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New York ELAP

PLM NY	PLM 600/M4 32	020	<input type="checkbox"/>
ABEPA2	NY ELAP 198.1		<input type="checkbox"/>
ABENY	NY ELAP 198.6 PLM NOB		<input type="checkbox"/>
ABBNY	NY ELAP 198.4 TEM NOB		<input type="checkbox"/>

Dust

ABWA	TEM Wipe ASTM D-6480	<input type="checkbox"/>
ABDMV	TEM Microvac ASTM D-5755	<input type="checkbox"/>

Matrix

Other

--	--	--

Turn Around Times	3 HR (4 HR TEM) <input type="checkbox"/>	6 HR (8HR TEM) <input type="checkbox"/>	12 HR <input type="checkbox"/>	24 HR <input checked="" type="checkbox"/>
	2 Days <input type="checkbox"/>	3 Days <input type="checkbox"/>	4 Days <input type="checkbox"/>	5 Days <input type="checkbox"/>

Special Instructions

[illegible]

AUG 28 2019

2:30pm

190828 T

19043572

SAMPLE NUMBER	HOMOGENEOUS AREA	SAMPLE LOCATION
01A	White Aluminum Frame Caulk	South - Front Entry
01B	White Aluminum Frame Caulk	South - Front Entry
01C	White Aluminum Frame Caulk	South - Front Entry
02A	Black Aluminum Frame Caulk	Southwest
02B	Black Aluminum Frame Caulk	North
02C	Black Aluminum Frame Caulk	East
03A	White Brick Ledge Caulk	Southwest - Front Entry
03B	White Brick Ledge Caulk	Southeast - Front Entry
04A	Black Foundation Caulk	Southwest - Front Entry
04B	Black Foundation Caulk	Southeast - Front Entry
05A	Metal Door Frame Caulk	East
05B	Metal Door Frame Caulk	East
06A	Transite Duct	South - Reception Area
06B	Transite Duct	North - Stock/Play Area
07A	2' x 2' Suspended Ceiling Grid - Pinhole-Gouge	East - Reception Area
07B	2' x 2' Suspended Ceiling Grid - Pinhole-Gouge	West - Conference Room
08A	12" x 12" Pinhole Ceiling Tile with Brown Glue Pod	South - Reception Area
08B	12" x 12" Pinhole Ceiling Tile with Brown Glue Pod	North - Stock/Play Area
08C	12" x 12" Pinhole Ceiling Tile with Brown Glue Pod	West - Conference Room
09A	12" x 12" Rainbow Pattern Floor Tile	South - Reception Area
09B	12" x 12" Rainbow Pattern Floor Tile	North - Stock/Play Area
10A	9" x 9" Light Brown Floor Tile	East - Mechanical Room
10B	9" x 9" Light Brown Floor Tile	East - Mechanical Room
11A	Brown Vinyl Base Cove	East - Mechanical Room
11B	Brown Vinyl Base Cove	North - Stock/Play Area
12A	Navy Blue Vinyl Base Cove	South - Reception Area
12B	Navy Blue Vinyl Base Cove	North - Stock/Play Area
13A	Drywall Joint Compound	South - Reception Area
13B	Drywall Joint Compound	North - Stock/Play Area
13C	Drywall Joint Compound	East - Mechanical Room
14	Drywall Joint Compound - Patch	East - Mechanical Room
15A	Black Sink Undercoating	North - Stock/Play Area
15B	Black Sink Undercoating	North - Stock/Play Area

Thomas King AUG 28 2019 2:30pm



www.bdsenvironmental.com

13845 East Nine Mile
Warren, Michigan
48089

Tel: (586) 755-9030
Fax: (586) 755-9068

LIMITED ASBESTOS NESHAP SURVEY REPORT

BUILDING LOCATION

McHattie Park House
461 Washington
South Lyon, Michigan 48178

INSPECTION DATE

August 27, 2019

CLIENT

City of South Lyon
335 South Warren
South Lyon, Michigan 48178

BDS PROJECT NUMBER

19-711



INTRODUCTION

The city of South Lyon has retained BDS Environmental to conduct an asbestos inspection on the McHattie Park house located at 461 Washington Street, South Lyon, Oakland County, Michigan. The objective of the survey was to confirm the presence or absence of non-friable and friable asbestos-containing materials present in the building. BDS's scope of work was based on the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as they relate to asbestos-containing materials present in building structures that are to be renovated or demolished. This inspection is "limited" in scope because it was not practical to penetrate all floors, walls and ceiling surfaces in order to identify potential ACM. However, reasonable efforts were made to try to identify all currently inaccessible ACM within the building.

This structure is a 625 square foot single-story residence with a crawlspace and attic. This structure is heated with forced air heating and has an original build date of circa 1940.

METHODOLOGY

BDS's Asbestos Inspector Kevin T. Vayko (MLARA Accreditation No. A52844) performed the inspection on August 27, 2019. BDS's Inspector collected twenty-four (24) bulk samples during the inspection. The inspection was performed in a manner to attempt to identify all suspect asbestos materials, i.e. "Hammer in Hand". However, potential suspect materials within or above hard plaster or cinder block walls, partitions, and ceilings may not have been identified due to the lack of access to those potential suspect materials.

BDS's inspector began by identifying building materials, which possibly contain asbestos. These materials can be floor tiles, mastic, wallboard, ceiling tiles, thermal system insulation, et cetera. Once these were located, homogeneous sampling areas were delineated and the suspect materials were sampled and analyzed from representative areas.

A homogeneous area is a material that is similar in color, texture, construction, or general appearance. Bulk samples of suspected asbestos-containing building materials were collected using the recommended procedures outlined in the EPA guidance publication Simplified Sampling Scheme for Friable Surfacing Materials (EPA 560/5-85-030a-Oct. 1985). The methods described in the publication were adapted to include the sampling of thermal system insulations. Samples were collected utilizing plastic containers which were sealed air tight and labeled with a unique sample number. Chain of custody forms were then completed and priority mailed along with the samples to the laboratory for analysis.

Collected bulk samples were analyzed by SanAir Technologies Laboratory, Inc. using Polarized Light Microscopy (PLM) technique according to EPA Method 600/R-93/116. This method requires that each heterogeneous layer of a bulk sample be analyzed for the presence of asbestos. Analysis of floor tiles and other resin bound materials by PLM may yield false negative results because of method limitations in separating closely bound fibers and in detecting fibers of short length and smaller diameter. When analysis of such materials by PLM yields negative results for the presence of asbestos, BDS may recommend utilizing confirmatory methods of identification, i.e. point counting.

SAMPLE COLLECTION AND IDENTIFICATION

A total twenty-four (24) bulk samples of suspected asbestos-containing materials were collected from selected locations identified throughout the site. The bulk samples were further delineated into thirty-two (32) distinct layers which were all analyzed for asbestos content. **Drywall joint compound and window glazing samples were further analyzed using the “Point Count Method” to confirm accuracy of the initial testing results. This additional analysis confirmed that these homogeneous areas are asbestos-containing materials.** The approximate sample location, material type, and asbestos content for each sample are listed on the following page.

BULK SAMPLE DATA

SAMPLE NUMBER	HOMOGENEOUS AREA	SAMPLE LOCATION	ASBESTOS CONTENT
01A	Exterior Trim Caulk	West	NAD
01B	Exterior Trim Caulk	South	NAD
01C	Exterior Trim Caulk	East	NAD
02A	Brick Kote Flashing	West	NAD
02B	Brick Kote Flashing	South	NAD
02C	Brick Kote Flashing	East	NAD
03A	Window Glazing	West	3% Chrysotile (PC 2.75% Chrysotile)
03B	Window Glazing	East	DNA
03C	Window Glazing	Garage - Southside	DNA
04A	Textured Ceiling	Northwest Room	NAD
04B	Textured Ceiling	Southwest Room	NAD
04C	Textured Ceiling	East Room with Furnace	NAD
04D	Textured Ceiling	Bathroom	NAD
05A	Drywall Joint Compound/Drywall	Northwest Room	2% Chrysotile (PC 1.75% Chrysotile)/ NAD
05B	Drywall Joint Compound/Drywall	Southeast Room	DNA / NAD
05C	Drywall	East Room with Furnace	NAD
06A	12" x 12" White Floor Tile/Yellow Glue	Kitchen	NAD/NAD
06B	12" x 12" White Floor Tile/Yellow Glue	Kitchen	NAD/NAD
07A	Beige Linoleum/Yellow Glue	East Room with Furnace	NAD/NAD
07B	Beige Linoleum/Yellow Glue	East Room with Furnace	NAD/NAD
08A	12" x 12" Grey Spotted Floor Tile/Yellow Glue	Bathroom	NAD/NAD
08B	12" x 12" Grey Spotted Floor Tile/Yellow Glue	Bathroom	NAD/NAD
09A	Roofing	House - Eastside	NAD
09B	Roofing	Garage - Southside	NAD

NAD = No Asbestos Detected

DNA = Did Not Analyze

PC = Point Count

INTERPRETATION OF SURVEY RESULTS

The Environmental Protection Agency defines an asbestos-containing material (ACM) as any material containing more than one percent asbestos as determined using Polarized Light Microscopy. Asbestos materials are further defined as Friable ACM, Category I Nonfriable ACM, and Category II Nonfriable ACM. All friable ACM must be removed prior to building renovation/demolition and any Category I or II nonfriable ACM must be removed prior to building renovation/demolition if these materials have a high probability of becoming friable during the renovation/demolition process.

The visual inspection of the interior and exterior of the building indicated that nine (9) building materials, known as homogeneous areas, were determined to be Presumed Asbestos Containing Materials (PACM) and therefore were sampled to determine definitively whether the materials were asbestos or non-asbestos. The subsequent sample analysis, as listed in the previous **Bulk Sample Data** tables, indicated that seven (7) of those building materials were proven to be non-asbestos and two (2) were proven to be asbestos-containing.

The materials listed in bold print on the following table are asbestos-containing building materials (ACBM).

HOMOGENEOUS AREA DATA

Homogeneous Area Number	Homogeneous Area Description	Asbestos-Containing?
HA #1	Exterior Trim Caulk	NO
HA #2	Brick Kote Flashing	NO
HA #3	Window Glazing	YES
HA #4	Textured Ceiling	NO
HA #5	Drywall Joint Compound/Drywall	YES/NO
HA #6	12" x 12" White Floor Tile/Yellow Glue	NO/NO
HA #7	Beige Linoleum/Yellow Glue	NO/NO
HA #8	12" x 12" Grey Spotted Floor Tile/ Yellow Glue	NO/NO
HA #9	Roofing	NO

CONCLUSION

The locations, type of asbestos materials and approximate quantities present in the building is listed in the table below.

LOCATION	TYPE OF MATERIAL	QUANTITY	REQUIRED ASBESTOS RESPONSE ACTION
Exterior Windows of House and Garage	Window Glazing	16 SF (196 LF) [10 Windows]	Windows containing friable ACM window glazing must be removed if demolition activities will disturb the window glazing.
Throughout House	Drywall Joint Compound	1,692 SF	Friable ACM drywall joint compound must be removed prior to demolition.

SF = Square Feet

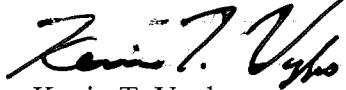
All asbestos-containing response activities must be conducted in accordance to the requirements of the OSHA Class II Asbestos work requirements found in 29 CFR 1926.1101 prior to renovation or demolition activities.

The information and opinions rendered in this report are exclusively for use by the City of South Lyon and it's agents. BDS will not distribute this report without your consent except as required by law or court order. The information and opinions are given in light of a limited assignment and should be implemented in light of that assignment. BDS accepts responsibility for the competent performance of its duties in execution of the assignment and preparing reports in accordance with the normal standards of the profession, but disclaims any responsibility for consequential damages.


It has been a pleasure to be of service to you. If you have any questions, or require additional information, please contact us at (586) 755-9030.

Thank You,

BDS ENVIRONMENTAL



Kevin T. Vayko
MI Asbestos Inspector A#52844



Kenneth J. Lawler
General Manager

CERTIFICATE OF LABORATORY ANALYSIS

SanAir Technologies Laboratory

Analysis Report

prepared for

BDS Environmental

Report Date: 8/29/2019
Project Name: McHattie Park House
(461 Washington), South Lyon
Project #: 19-711A
SanAir ID#: 19043569



NVLAP LAB CODE 200870-0



Certification # 652931



License # LAB0166



804.897.1177

www.sanair.com



SanAir Technologies Laboratory, Inc.

1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: <http://www.sanair.com> E-mail: iaq@sanair.com

BDS Environmental
13845 E. Nine Mile Road
Warren, MI 48089

August 29, 2019

SanAir ID # 19043569
Project Name: McHattie Park House (461 Washington), South Lyon
Project Number: 19-711A

Dear Ron Lawler,

We at SanAir would like to thank you for the work you recently submitted. The 24 sample(s) were received on Wednesday, August 28, 2019 via FedEx. The final report(s) is enclosed for the following sample(s): 01A, 01B, 01C, 02A, 02B, 02C, 03A, 03B, 03C, 04A, 04B, 04C, 04D, 05A, 05B, 05C, 06A, 06B, 07A, 07B, 08A, 08B, 09A, 09B.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

Sandra Sobrino
Asbestos & Materials Laboratory Manager
SanAir Technologies Laboratory

Final Report Includes:

- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

sample conditions:

24 sample(s) in Good condition



1551 Oakbridge Drive Suite B
Powhatan, VA 23139
804-897-1177 / 888-895-1177
Fax 804-897-0070
www.sanair.com

Asbestos Chain of Custody

SanAir ID Number

19043569

Company: BDS Environmental		Project #: 19-711A	Collected by: Kevin Vayko
Address: 13845 East Nine Mile Rd.		Project Name: McHattie Park House (461 Washington), South Lyon	Phone #: 586-755-9030
City, St., Zip: Warren, MI 48089		Date Collected: 08/27/2019	Fax #: 586-755-9068
State of Collection: MI	Account#: 2451	P.O. Number:	Email: rlawler@BDSenvironmental.com

Bulk			Air			Soil/Vermiculite		
ABB	PLM EPA 600/R-93/116	<input checked="" type="checkbox"/>	ABA	PCM NIOSH 7400	<input type="checkbox"/>	ABSE	PLM EPA 600/R-93/116 (Qual.)	<input type="checkbox"/>
	Positive Stop	<input checked="" type="checkbox"/>	ABA-2	OSHA w/ TWA*	<input type="checkbox"/>	ABSP	PLM CARB 435 (LOD <1%)	<input type="checkbox"/>
ABEPA	PLM EPA 400 Point Count	<input type="checkbox"/>	ABTEM	TEM AHERA	<input type="checkbox"/>	ABSP1	PLM CARB 435 (LOD 0.25%)	<input type="checkbox"/>
ABB1K	PLM EPA 1000 Point Count	<input type="checkbox"/>	ABATN	TEM NIOSH 7402	<input type="checkbox"/>	ABSP2	PLM CARB 435 (LOD 0.1%)	<input type="checkbox"/>
ABBEN	PLM EPA NOB	<input type="checkbox"/>	ABT2	TEM Level II	<input type="checkbox"/>			
ABBCH	TEM Chatfield	<input type="checkbox"/>						
ABBTM	TEM EPA NOB	<input type="checkbox"/>						

Water			New York ELAP			Dust		
ABHE	EPA 100.2	<input type="checkbox"/>	PLM NY	PLM 600/M4 82 020	<input type="checkbox"/>	ABWA	TEM Wipe ASTM D-6480	<input type="checkbox"/>
			ABEPA2	NY ELAP 198.1	<input type="checkbox"/>	ABDMV	TEM Microvac ASTM D-5755	<input type="checkbox"/>
			ABENY	NY ELAP 198.6 PLM NOB	<input type="checkbox"/>			
			ABBNY	NY ELAP 198.4 TEM NOB	<input type="checkbox"/>	Matrix	Other	<input type="checkbox"/>

Turn Around Times	3 HR (4 HR TEM) <input type="checkbox"/>	6 HR (8HR TEM) <input type="checkbox"/>	12 HR <input type="checkbox"/>	24 HR <input checked="" type="checkbox"/>
	2 Days <input type="checkbox"/>	3 Days <input type="checkbox"/>	4 Days <input type="checkbox"/>	5 Days <input type="checkbox"/>

Special Instructions

Sample #	Sample Identification/Location	Volume or Area	Sample Type	Flow Rate	Time Start - Stop
	See Sheet				

Relinquished by	Date	Time	Received by	Date	Time
<i>[Signature]</i>	08/27/2019	18:30	<i>[Signature]</i>	8/28/19	9:50am

Unless scheduled, the turn around time for all samples received after 3 pm EST Friday will begin at 8 am Monday morning. Weekend or Holiday work must be scheduled ahead of time and is charged for rush turn around time. Work with standard turn around time sent Priority Overnight and Billed to Recipient will be charged a \$10 shipping fee.

19043569

SAMPLE NUMBER	HOMOGENEOUS AREA	SAMPLE LOCATION
01A	Exterior Trim Caulk	West
01B	Exterior Trim Caulk	South
01C	Exterior Trim Caulk	East
02A	Brick Kote Flashing	West
02B	Brick Kote Flashing	South
02C	Brick Kote Flashing	East
03A	Window Glazing	West
03B	Window Glazing	East
03C	Window Glazing	Garage - Southside
04A	Textured Ceiling	Northwest Room
04B	Textured Ceiling	Southwest Room
04C	Textured Ceiling	East Room with Furnace
04D	Textured Ceiling	Bathroom
05A	Drywall Joint Compound	Northwest Room
05B	Drywall Joint Compound	Southeast Room
05C	Drywall Joint Compound	East Room with Furnace
06A	12" x 12" White Floor Tile	Kitchen
06B	12" x 12" White Floor Tile	Kitchen
07A	Beige Linoleum	East Room with Furnace
07B	Beige Linoleum	East Room with Furnace
08A	12" x 12" Grey Spotted Floor Tile	Bathroom
08B	12" x 12" Grey Spotted Floor Tile	Bathroom
09A	Roofing	House - Eastside
09B	Roofing	Garage - Southside

Relinquished by

Ken Vyle

Date 08/27/2019

Time 10:30

Received by

Date

Time

Page 2 of 2

CB 8/28/19 9:50am

Page 4 of 12

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Midlothian, VA 23112 • 804-739-1751 • fax: 804-739-1753

ASBESTOS 400 POINT COUNT ANALYSIS SUMMARY

CLIENT: SanAir Technologies Laboratory, Inc.
1551 Oakbridge Dr, Suite B
Powhatan, VA 23139

TESC LOGIN #: 190829T

DATE OF RECEIPT: 08/28/2019

DATE OF ANALYSIS: 08/29/2019

DATE OF REPORT: 08/29/2019

CLIENT JOB #: 19043569

JOBSITE: 19-711A

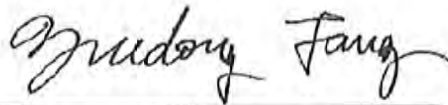
ANALYST: M. Steiniger

REPORTING LIMIT 0.25% Asbestos

TESC SAMPLE #	CLIENT SAMPLE #	GROSS DESCRIPTION	% ASBESTOS
1	3A	White chalky	2.75% Chrysotile
2	5A - Joint compound	White chalky	1.75% Chrysotile

Total Sample(s) Analyzed: 2

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
Yuedong Fang, Senior Geologist

Samples are analyzed in accordance with "interim Method for the Determination of Asbestos in Bulk Insulation Samples," EPA/600/R-93-116, July 1993 (EPA-600/M4-82-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested. NVLAP Lab Code: 200794-0 [LEGEND NAD = No Asbestos Detected]

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Midlothian, VA 23112
804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: SanAir Technologies Laboratory, Inc.
1551 Oakbridge Dr, Suite B
Powhatan, VA 23139

TESC LOGIN #: 190828S

DATE OF RECEIPT: 08/28/2019
DATE OF ANALYSIS: 08/29/2019
DATE OF REPORT: 08/29/2019

CLIENT JOB/ #: 19043569

JOB SITE: 19-711A

ANALYST: M. Steiniger

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
1	01A / White vinyl, black adhesive	NAD		100%
2	01B / White vinyl, black adhesive	NAD		100%
3	01C / White vinyl, black adhesive	NAD		100%
4	02A / Black tar-like, brown fibers	NAD	45% Cellulose	55%
5	02B / Black tar-like, brown fibers	NAD	45% Cellulose	55%
6	02C / Black tar-like, brown fibers	NAD	45% Cellulose	55%
7	3A / White chalky	3% Chrysotile		97%
8	3B /	Positive Stop		100%
9	3C /	Positive Stop		100%
10	04A / White chalky	NAD	3% Cellulose	97%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M4-82-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

[LEGEND NAD=No Asbestos Detected, Lino.=Linoleum, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
Yuedong Fang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Midlothian, VA 23112
804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: SanAir Technologies Laboratory, Inc.
1551 Oakbridge Dr, Suite B
Powhatan, VA 23139

TESC LOGIN #: 190828S

DATE OF RECEIPT: 08/28/2019
DATE OF ANALYSIS: 08/29/2019
DATE OF REPORT: 08/29/2019

CLIENT JOB/ #: 19043569

JOB SITE: 19-711A

ANALYST: M. Steiniger

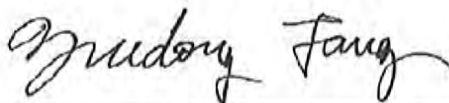
TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
11	04B / White chalky	NAD	3% Cellulose	97%
12	04C / White chalky	NAD	3% Cellulose	97%
13	04D / White chalky	NAD	3% Cellulose	97%
14A	05A - Drywall / White chalky, brown fibers	NAD	35% Cellulose	65%
14B	05A - Joint compound / White chalky	2% Chrysotile		98%
15A	05B - Drywall / White chalky, brown fibers	NAD	35% Cellulose	65%
15B	05B - Joint compound /	Positive Stop		100%
16	05C / White chalky, brown fibers	NAD	25% Cellulose	75%
17A	08A - Tile / Off-white vinyl	NAD		100%
17B	08A - Mastic / Yellow adhesive	NAD		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M4-82-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

[LEGEND NAD=No Asbestos Detected, Lino.=Linoleum, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
Yuedong Fang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Midlothian, VA 23112
804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: SanAir Technologies Laboratory, Inc.
1551 Oakbridge Dr, Suite B
Powhatan, VA 23139

TESC LOGIN #: 190828S

DATE OF RECEIPT: 08/28/2019
DATE OF ANALYSIS: 08/29/2019
DATE OF REPORT: 08/29/2019

CLIENT JOB/ #: 19043569

JOB SITE: 19-711A

ANALYST: M. Steiniger

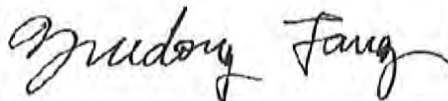
TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
18A	08B - Tile / Off-white vinyl	NAD		100%
18B	08B - Mastic / Yellow adhesive	NAD		100%
19A	07A - Tile / Off-white vinyl	NAD		100%
19B	07A - Mastic / Yellow adhesive	NAD		100%
20A	07B - Tile / Off-white vinyl	NAD		100%
20B	07B - Mastic / Yellow adhesive	NAD		100%
21A	08A - Tile / Light gray vinyl	NAD		100%
21B	08A - Mastic / Yellow adhesive	NAD		100%
22A	08B - Tile / Light gray vinyl	NAD		100%
22B	08B - Mastic / Yellow adhesive	NAD		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M4-82-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

[LEGEND NAD=No Asbestos Detected, Lino.=Linoleum, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
Yuedong Fang, Senior Geologist

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804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: SanAir Technologies Laboratory, Inc.
1551 Oakbridge Dr, Suite B
Powhatan, VA 23139

TESC LOGIN #: 190828S

DATE OF RECEIPT: 08/28/2019
DATE OF ANALYSIS: 08/29/2019
DATE OF REPORT: 08/29/2019

CLIENT JOB/ #: 19043569

JOB SITE: 19-711A

ANALYST: M. Steiniger

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
23	09A / Black tar-like	NAD	15% Cellulose 10% Fiberglass	75%
24	08B / Black tar-like	NAD	15% Cellulose 10% Fiberglass	75%

Total Samples/Layers Analyzed: 29

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M4-82-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

[LEGEND NAD=No Asbestos Detected, Lino.=Linoleum, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
Yuedong Fang, Senior Geologist

1908285

TRIANGLE ENVIRONMENTAL SERVICE CENTER

13509 East Boundary Road, Suite B • Midlothian • VA • 23112 • Tel: 804-739-1751 • Fax: 804-739-1753

CHAIN OF CUSTODY FORM

LAB CUSTOMER: SanAir Technologies Laboratory

ADDRESS:

1551 Oakbridge Drive, Suite B
00400

CITY, STATE, ZIP: Powhatan, Virginia, 23139

TAT: 2 Hour:

6 Hour: _____

24 Hour: X

48 Hour:

For:

3 Day: _____ 5 Day: _____

5 Day:

1

DATE:08/28/2019

CONTACT NAME: Sandra Sobrino

PROJECT #: 19043569

PROJECT SITE: 19-711A

Email: iaq@sanair.com ssobrinho@sanair.com

		Asbestos						Lead				Other Metals		Air Quality/Mold						
See Attached	Sample number																			Comments Point Count 3% or Less
	Sample Date																			
	X Bulk ID by PLM																			
	PCM Fiber Count																			
	PLM Point Count 400																			
	PLM Point Count 1000																			
	PLM Gravimetric																			
	CARB 435 (Soil only)																			
	TEM AHERA Air																			
	TEM Bulk Chatfield																			
	Air																			
	Paint(% & PPM)																			
	Soil(PPM)																			
	Wipe																			
	TCLP (Pb)																			
	Waster Water																			
	Drinking Water (Pb)																			
	TCLP RCRA 8																			
	CAM 17																			
	Welding Fume																			
Toxic Metal Profile																				
Biocassette																				
Slide																				
Surface Tape																				
Surface Swab																				
Bulk																				
Air Volume (L)																				
Wipe Area (ft ²)																				
Scrape Area (cm ²)																				

Released by _____
 Received by _____

Signature: _____
 Signature: _____
 Date/Time: AUG 28 2019 2:30 pm

Prepared by TESC

Pages: 1 of 1

1908285

19043569

SAMPLE NUMBER	HOMOGENEOUS AREA	SAMPLE LOCATION
01A	Exterior Trim Caulk	West
01B	Exterior Trim Caulk	South
01C	Exterior Trim Caulk	East
02A	Brick Kote Flashing	West
02B	Brick Kote Flashing	South
02C	Brick Kote Flashing	East
03A	Window Glazing	West
03B	Window Glazing	East
03C	Window Glazing	Garage - Southside
04A	Textured Ceiling	Northwest Room
04B	Textured Ceiling	Southwest Room
04C	Textured Ceiling	East Room with Furnace
04D	Textured Ceiling	Bathroom
05A	Drywall Joint Compound	Northwest Room
05B	Drywall Joint Compound	Southeast Room
05C	Drywall Joint Compound	East Room with Furnace
06A	12" x 12" White Floor Tile	Kitchen
06B	12" x 12" White Floor Tile	Kitchen
07A	Beige Linoleum	East Room with Furnace
07B	Beige Linoleum	East Room with Furnace
08A	12" x 12" Grey Spotted Floor Tile	Bathroom
08B	12" x 12" Grey Spotted Floor Tile	Bathroom
09A	Roofing	House - Eastside
09B	Roofing	Garage - Southside

Thomas Jung

AUG 28 2019 2:30 pm

Bulk			Air			Soil/Vermiculite		
ABBS	PLM EPA 600/R-93/116	<input checked="" type="checkbox"/>	ABA	PCM NIOSH 7400	<input type="checkbox"/>	ABSE	PLM EPA 600/R-93/116 (Qual.)	<input type="checkbox"/>
	Positive Stop	<input checked="" type="checkbox"/>	ABA-2	OSHA w/ TWA'	<input type="checkbox"/>	ABSP	PLM CARB 435 (LOD <1%)	<input type="checkbox"/>
ABEPA	PLM EPA 400 Point Count	<input type="checkbox"/>	ABTEM	TEM AHERA	<input type="checkbox"/>	ABSP1	PLM CARB 435 (LOD 0.25%)	<input type="checkbox"/>
ABBTK	PLM EPA 1000 Point Count	<input type="checkbox"/>	ABATN	TEM NIOSH 7402	<input type="checkbox"/>	ABSP2	PLM CARB 435 (LOD 0.1%)	<input type="checkbox"/>
ABSEN	PLM EPA NOB	<input type="checkbox"/>	ABT2	TEM Level II	<input type="checkbox"/>			
ABBCB	TEM Chatfield	<input type="checkbox"/>						
ABBTM	TEM EPA NOB	<input type="checkbox"/>						
Water			New York ELAP			Dust		
ABHE	EPA 100.2	<input type="checkbox"/>	PLM NY	PLM 600/M4 82 020	<input type="checkbox"/>	ABWA	TEM Wipe ASTM D-6480	<input type="checkbox"/>
			ABEPA2	NY ELAP 198.1	<input type="checkbox"/>	ABDMV	TEM Microvac ASTM D-5755	<input type="checkbox"/>
			ABENY	NY ELAP 198.6 PLM NOB	<input type="checkbox"/>	Matrix	Other	
			ABBNY	NY ELAP 198.4 TEM NOB	<input type="checkbox"/>			

Turn Around Times	3 HR (4 HR TEM) <input type="checkbox"/>	6 HR (8HR TEM) <input type="checkbox"/>	12 HR <input type="checkbox"/>	24 HR <input checked="" type="checkbox"/>
	2 Days <input type="checkbox"/>	3 Days <input type="checkbox"/>	4 Days <input type="checkbox"/>	5 Days <input type="checkbox"/>

[illegible]

Shane Perry

AUG 28 2019

2:30 pm