

Prepared for: City of Ansonia Ansonia, Connecticut Prepared by: AECOM April 2022

REQUEST FOR PROPOSALS

Abatement and Building Demolition

Pandel Property (Former SHW/Farrel Foundry) 35 North Main Street, Ansonia, Connecticut



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Ansonia RFP – April 2022 SHW Building Demolition 35 North Main Street, Ansonia, Connecticut

INSTRUCTIONS TO BIDDERS

The City of Ansonia is seeking a contractor to remove and properly dispose of hazardous building materials (HBM), followed by partial building demolition at a former industrial property located at 35 North Main Street, Ansonia, Connecticut (the former SHW site).

1. Statement of Work.

The project objective is to provide selective demolition and abatement services as needed to remove as much of the building structures as possible from the site. The city funding is not unlimited; therefore, the costs and sequencing for site restoration are important considerations. Figure 1 attached shows the areas that are considered part of this scope and the proposed sequence of work.

1. Mobilize including administrative items such as completion of required forms, notifications and health & safety plan.

2. Abate remaining materials and demolish the remaining roof and eastern portions of former Building 11 to the west of the main crane rail, plus remove all structures from the northeast open storage yard.

3. Abate and demolish Building 11A, leaving the lower level floor slab and brick portion of outside wall along North Main Street. Take particular note of the power lines adjacent to the outside of the building.

4. Abate and demolish Building 32, leaving floor slab and brick outside wall along North Main Street.

5. Conduct interior abatement of Building 8.

6. Conduct demolition of Building 8 and 10 down to the lower level floor slabs.

7. Abate and demolish shaker building adjacent to Building 10.

All steel is considered property of the contractor. Any estimated scrap value should be considered in the bid pricing.

Because of the dilapidated condition of the buildings and the distribution of ACM throughout, Alternative Work Practice (AWP) approvals have been requested from the Connecticut Department of Public Health (DPH). A copy of the proposed AWP is attached to the Scope of Work; the approval will be added when received. The Contractor shall follow the requirements and procedures as stated in the approved AWP when performing the abatement work. More details are provided in the Scope of Work document attached to this RFP.

Each firm will attend an initial site walk. Other visits will be allowed as scheduled by the Engineer or by appointment.



The project is funded in part by the State of Connecticut and prevailing wages apply. Invoicing must demonstrate adherence to certified payroll completion.

2. Minimum Qualifications Required

The successful bidder will meet all requirements set forth including but not limited to those for bonding, insurance, safety, and schedule.

- a. Safety ratings and qualifications indicating an EMR below industry average in the current year and each of the prior 3 years.
- b. Minimum of 7 years providing similar project specific experience.
- c. Ability to prepare for and start physical work within 4 weeks of the notice to proceed and obtain substantial completion within 160 days based on current project conditions.
- d. Ability to bond and insure project work.
- 3. Notices
 - A. CHRO

The contractor who is selected to perform this State project must comply with CONN. GEN. STAT. §§ 4a-60, 4a-60a, 4a-60g, and 46a-68b through 46a-68f, inclusive, as amended by June 2015 Special Session Public Act 15-5.

State law requires a minimum of twenty-five (25%) percent of the state-funded portion of the contract for award to subcontractors holding current certification from the Connecticut Department of Administrative Services ("DAS") under the provisions of CONN. GEN. STAT. § 4a-60g. (25% of the work with DAS certified Small and Minority owned businesses and 25% of that work with DAS certified Minority, Women and/or Disabled owned businesses.) **The contractor must demonstrate good faith effort to meet the 25% set-aside goals.**

For municipal public works contracts and quasi-public agency projects, the contractor must file a written or electronic non-discrimination certification with the Commission on Human Rights and Opportunities. Forms can be found at:

http://www.ct.gov/chro/lib/chro/pdf/notificationtobidders.pdf

All bidders must complete, sign and return the: "CHRO Contract Compliance Regulations Notification to Bidders" form to the grantee at the time of bid opening. Bids not including this form may be considered incomplete and rejected.

B. DAS

The firm must demonstrate compliance with the State of Connecticut DAS qualification requirements.

C. Project Schedule and Timing

It is anticipated that this Project will have a duration of 120-160 days.

4. Affirmative Action Plan

The Affirmative Action plan must be filed with CHRO within 30 days following the intent to award notice and must be approved prior to the award of the construction contract.



5. Bid Bond

Each firm submitting a price proposal must deliver with the proposal a bid bond in the amount of <u>5%</u> of the estimated project cost.

6. Evaluation Criteria

The City, as part of its selection process, will review the adequacy of the pricing schedule, proposal technical approach, proposed schedule, and ability to meet State requirements.

DAS pre-qualification is a prerequisite for selecting the Lowest Responsible and Qualified Bidder.

- 7. Each bidder must review this entire RFP package for completeness. There are references to other information included in this bid package. Each bidder must also be familiar with site conditions.
- 8. Liquidated Damages

The selected Contractor will provide an anticipated construction duration period in days within the project manual that will be used in the bid package. If the Contractor neglects, fails or refuses to achieve substantial completion of work by the substantial completion date in the executed contract, and such delay is not otherwise excused under this contract, then the Contractor shall agree to pay the Owner a liquidated damage for breach of contract for each and every calendar day that the Contractor shall be in default of the project work. See the DECD Bidding, Contracting and Construction Guidelines (DECD Guidelines), Section 16 for more details.

9. Insurance

The selected Contractor shall provide a Certificate of Insurance. The "Hold Harmless" indemnification endorsement of the insurance shall include the interest of the municipality and the State of Connecticut. See the DECD Guidelines, Section 17 for more detail.

10. RESPONSE DUE DATE

Responses must be returned by:

Date: May 25, 2022

Time: 4:00 PM

Location: Emailed with delivery receipt

Submissions can be made via email to:

SOMalley@ansoniact.org

Each response must include the required completed forms (see checklist) along with the pricing schedule. Any alternatives to approach may be included but must be in addition to the base bid and clearly marked. Scanned, signed documents may be submitted via email. A return receipt is required to demonstrate delivery by time and date required.



11. Questions

Questions for this RFP may be accepted until 5 business days before the bid due date. Questions must be submitted to Sheila O'Malley (<u>SOMalley@ansoniact.org</u>) and Neil Thurber of AECOM (<u>neil.thurber@aecom.com</u>).

- 12. Refer to bid package requirements and attachments that follow.
- 13. The site will be open for review on May 10, 2022 from 10 AM-2 PM. Bidders must contact the city if conducting a site walk and must sign in at the site walk. Contractors must attend a site walk in order to bid.

Each bidder must email the City to inform them of their planned attendance.

14. An Affirmative Action/Equal Opportunity Employer.

Minority/Women Business Enterprises are encouraged to apply. This contract is subject to setaside and contract compliance requirements.



Ansonia RFP Abatement and Building Demolition 35 North Main Street

ATTACHMENTS



ATTACHMENT 1

PROPOSAL CHECKLIST

By submission of the cover letter signed by an officer of the firm, the following information has been included as part of the firm's submission for consideration of its qualifications:

- Cover letter signed by an officer of the firm, with statement of availability, experience to complete the project, ability to meet project requirements including affirmative action plans (see next item)
- The Cover letter must include a description of the firms approach to the project (conceptual approach) and proposed schedule based on actual construction work anticipated.
- Commission on Human Rights and Opportunities, Contract Compliance Regulations, Notification To Bidders (Attachment 2)
- Bonding capacity information (Attachment 3)
- Insurance types and limits note that the State of Connecticut must be listed as additionally insured (Attachment 4)
- Demonstration of pre-qualification with State of Connecticut DAS, or the ability to meet this requirement prior to April 30th, 2022.
- Project price form (signed) (Attachment 5)
- Proposed schedule (with cover letter)

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES CONTRACT COMPLIANCE REGULATIONS NOTIFICATION TO BIDDERS

(Revised 09/3/15)

The contract to be awarded is subject to contract compliance requirements mandated by <u>Sections 4a-60</u> and <u>4a-60a</u> of the Connecticut General Statutes; and, when the awarding agency is the State, <u>Sections 46a-71(d)</u> and <u>46a-81i(d)</u> of the Connecticut General Statutes. There are Contract Compliance Regulations codified at <u>Section</u> <u>46a-68j-21 through 43</u> of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by <u>Sections 4a-60</u> and <u>46a-71(d)</u> of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4)Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . ." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

- (a) the bidder's success in implementing an affirmative action plan;
- (b) the bidder's success in developing an apprenticeship program complying with <u>Sections 46a-68-1 to</u> <u>46a-68-17</u> of the Administrative Regulations of Connecticut State Agencies, inclusive;
- (c) the bidder's promise to develop and implement a successful affirmative action plan;
- (d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
- (e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. <u>See Section 46a-68j-30(10)(E)</u> of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following <u>BIDDER CONTRACT COMPLIANCE MONITORING REPORT</u> must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to <u>Sections 4a-60</u> and <u>4a-60a</u> CONN. GEN. STAT., and <u>Sections 46a-68j-23</u> of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder's good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision $\frac{4a-60g}{4a-60g}$ CONN. GEN. STAT.

MANAGEMENT: Managers plan, organize, direct, and BUILDING AND GROUNDS CLEANING AND control the major functions of an organization through MAINTENANCE: This category includes occupations subordinates who are at the managerial or supervisory level. involving landscaping, housekeeping, and janitorial They make policy decisions and set objectives for the services. Job titles found in this category include company or departments. They are not usually directly supervisors of landscaping or housekeeping, janitors, involved in production or providing services. Examples maids, grounds maintenance workers, and pest control include top executives. public relations managers. managers of operations specialties (such as financial, CONSTRUCTION AND human resources, or purchasing managers), and construction category includes construction trades and related and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: occupations include managers and professionals who work laborers, electricians, plumbers (and related trades), with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, painters. Paving, surfacing, and tamping equipment credit, and financial analysts.

MARKETING AND SALES: Occupations related to the floor and tile installers and finishers are also included in act or process of buying and selling products and/or this category. First line supervisors, foremen, and helpers services such as sales engineer, retail sales workers and in these trades are also grouped in this category. sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists, systems analysts, and computer support specialists

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers. surveyors, architects, drafters, mechanical engineers. materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving o f written miscellaneous material moving workers. communications and records; collecting accounts; gathering **PRODUCTION WORKERS:** The job titles included in and distributing information: operating office machines and electronic data processing equipment; and distributing mail Job titles listed in this category include telephone operators. bill and account collectors, customer service representatives dispatchers. secretaries and administrative assistants computer operators and clerks (such as payroll, shipping, stock, mail and file).

workers.

EXTRACTION: This occupations. Job titles found in this category include These boilermakers, masons (all types), carpenters, construction roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and

operators; drywall and ceiling tile installers; and carpet,

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators: refuse and recyclable material collectors: and

this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; precious stone/metal workers; painting workers; cementing/gluing machine operators and tenders; etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information) (Page 3)

<u>White</u> (not of Hispanic Origin)-All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East. <u>Black (not of Hispanic Origin)-All persons having origins</u> in any of the Black racial groups of Africa. <u>Hispanic</u> - All persons of Mexican, Puerto Rican, Cuban, <u>Central or South American</u> or other Spanish culture or	<u>Asian or Pacific Islander</u> - All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa. <u>American Indian or Alaskan Native</u> - All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.
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BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART 1 – Bidder Information

Company Name:	Bidder Federal Employer
Street Address:	Identification Number:
City & State:	Or
Chief Executive:	Social Security Number:
Major Business Activity:	Bidder Identification
(brief description)	(response optional/definitions on page 1)
	-Bidder is a small contractor? Yes No
	-Bidder is a minority business enterprise? Yes No
	(If yes, check ownership category)
	Black Hispanic Asian American
	American Indian/Alaskan Native Iberian Peninsula
	Individual(s) with a Physical Disability Female
	-Bidder is certified as above by State of CT? Yes No
Bidder Parent Company:	
(If any)	
Other Locations in CT:	
(If any)	

PART II - Bidder Nondiscrimination Policies and Procedures

FART II - Diddel Nondiscrimination Foncies and Flocedures	
1. Does your company have a written Affirmative	7. Do all of your company contracts and purchase orders contain
Action/Equal Employment Opportunity statement posted on	non-discrimination statements as required by Sections 4a-60 &
company bulletin boards?	4a-60a Conn. Gen. Stat.?
Yes No	Yes No
2. Does your company have the state-mandated sexual	8. Do you, upon request, provide reasonable accommodation
harassment prevention in the workplace policy posted on	to employees, or applicants for employment, who have
company bulletin boards?	physical or mental disability?
Yes No	Yes No
3. Do you notify all recruitment sources in writing of your	9. Does your company have a mandatory retirement age for all
company's Affirmative Action/Equal Employment Opportunity	employees?
employment policy? Yes No	Yes No
4. Do your company advertisements contain a written statement	10. If your company has 50 or more employees, have you provided at
that you are an Affirmative Action/Equal Opportunity Employer?	least two (2) hours of sexual harassment training to all of your
Yes No	supervisors? Yes No N/A
5. Do you notify the Ct. State Employment Service of all	11. If your company has apprenticeship programs, do they meet the
employment openings with your company?	Affirmative Action/Equal Employment Opportunity requirements of
Yes No	the apprenticeship standards of the Ct. Dept. of Labor?
	Yes No N/A
6. Does your company have a collective bargaining	12. Does your company have a written affirmative action Plan?
agreement with workers?	Yes No
Yes No	If no, please explain.
6a. If yes, do the collective bargaining agreements contain	
non-discrimination clauses covering all workers? Yes No	
	13. Is there a person in your company who is responsible for equal
6b. Have you notified each union in writing of your	employment opportunity? Yes No
commitments under the nondiscrimination requirements	If yes, give name and phone number:
of contracts with the state of CT?	If yes, give name and phone number.
Yes No	

Will the work of this contract include subcontractors or suppliers? Yes No

 If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business
 enterprise. (defined on page 1 / use additional sheet if necessary)

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above? Yes No

PART IV - Bidder E	mployment	Informat	ion		Date	:					
JOB CATEGORY *	OVERALL TOTALS	WHITE (Hispanic o	not of		not of Hispanic rigin)	HISI	PANIC	PA	IAN or CIFIC ANDER	AMERICAN ALASKAN	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
	FORM	IAL ON THE J	OB TRAINEES (ENTER FIGUF	RES FOR THE SA	ME CATEGO	ORIES AS AF	RE SHOWN A	BOVE)		
Apprentices											
Trainees											

*NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

PART V - Bidder Hiring and Recruitment Practices

TAKT V - Diduci II	uning a	nu ree	Turtinent Tractic	0.5		(1 age 5)			
 Which of the following recruitment sources are used by you? (Check yes or no, and report percent used) 				any of the below listed its that you use as alification	3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination				
SOURCE	YES	NO	% of applicants provided by source						
State Employment Service					Work Experience				
Private Employment Agencies					Ability to Speak or Write English				
Schools and Colleges					Written Tests				
Newspaper Advertisement					High School Diploma				
Walk Ins					College Degree				
Present Employees					Union Membership				
Labor Organizations					Personal Recommendation				
Minority/Community Organizations					Height or Weight				
Others (please identify)					Car Ownership				
					Arrest Record				
					Wage Garnishments				

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.

(Signature)	(Title)	(Date Signed)	(Telephone)

Attachment 3 Bonding Capacity

Please indicate your firm's ability to provide bonding for your firm's estimated value for this project.

A Performance Bond and a Labor & Materials Bond will be required. Each must be for 100% of the value of work.

By submitting a response to this RFP, the firm acknowledges that it can provide the bonds listed above for the project if deemed qualified and selected for award after the price proposal phase of the process.

Bonding reference

Agent Name:

Surety Name:

Contact:

Phone Number:

Address:

Capacity

Single limit:

Total program bonding limit:

Net Capacity available:

Attachment 4 Insurance Requirement Sheet

<u>Insurance Requirements</u>: Before starting and until final completion and acceptance of the work called for in the Contract, the Contractor and its subcontractors, if any, shall procure and maintain insurance of the types and amounts checked in paragraphs A through F below for all Contract operations.

- A. General Liability, with minimum coverage for combined bodily injury and property damage liability of \$2,000,000 general aggregate, \$1,000,000 per occurrence including:
 - 1. Commercial General Liability.
 - 2. City as additional insured.
 - 3. State of Connecticut as additional insured.
- B. Comprehensive Automobile Liability, with minimum coverage of \$1,000,000 combined single limit for bodily injury and property damage, including, where applicable, coverage for any vehicle, all owned vehicles, scheduled vehicles, hired vehicles, non-owned vehicles and garage liability.
- C. Excess Liability, with minimum coverage of \$5,000,000 in umbrella form, or such other form as approved by the City.
- D. Workers' Compensation and Employer's Liability, with minimum coverage as provided by Connecticut State Statutes.
- E. Professional Liability (for design and other professionals for Errors and Omissions), with minimum coverage of \$1,000,000. If the policy is on a claims-made basis, coverage shall be continually renewed or extended for three (3) years after work is completed under the Contract.
- F. Pollution Liability Insurance.
- G. CERTIFICATE HOLDER: City of Ansonia; State of Connecticut

The Acord certificate of insurance form must be executed by your insurance agent/broker and returned to this office. <u>Company name and address must conform on all documents including insurance documentation</u>. It is required that agent/broker note the individual insurance companies providing coverage, rather than the insurance group, on the Acord form. The Contract number (provided to the awarded vendor), project name and a brief description must be inserted in the "Description of Operations" field. It must be confirmed on the Acord Form that the City of Ansonia is endorsed as an additional insured by having the appropriate box checked off and stating such in the "Description of Operations" field. A letter from the <u>awarded vendor's agent/broker certifying that the City of Ansonia</u> and the <u>State of Connecticut</u> have been endorsed onto the general liability policy as additional insureds is also <u>mandatory</u>. This letter <u>must follow exactly</u> the format provided by the Purchasing Department and must be signed by the same individual authorized representative who signed the Acord form. If the insurance coverage required is provided on more than one Acord certificate of insurance, then additional endorsement letters are also required. Contract development will begin upon receipt of complete, correct insurance documentation.

The Contractor shall be responsible for maintaining the above insurance coverage in force to secure all of the Contractor's obligations under the Contract with an insurance company or companies with an AM Best Rating of B+:VII or better, licensed to write such insurance in Connecticut and acceptable to the City of Ansonia. For excess liability only, non-admitted insurers are acceptable, provided they are permitted to do business through Connecticut excess line brokers per listing on the current list of Licensed Insurance Companies, Approved Reinsurers, Surplus Lines Insurers and Risk Retention Groups issued by the State of Connecticut Insurance Department.

Note additional requirements for subcontractors and disposal facilities in the Supplemental Terms and Conditions of the agreement.



ATTACHMENT 5 BID FORM 35 North Main Street

Bid prices listed in this Schedule are based on performance of the Work as specified in these Specifications and shall include all overhead, profit, handling, taxes and all other related charges. The estimated quantities in this form are based on the best judgment of the Engineer and may vary from actual site conditions. Engineer believes the actual quantities may likely be greater than the quantities provided herein. No adjustment of unit prices will be allowed for any Bid Item due to any change in quantities.

	Bid Item	Unit	Estimated Quantity	Unit Price \$	Total Amount \$
1	Mobilization including administrative items and coordination with the city, vendors and utility entities.	L.S.	1		
2	Demolish remaining portion of Building 11 and the courtyard area.	L.S.	1		
3	Abate and demolish Building 11A (leave building slab and eastern brick wall)	L.S.	1		
4	Abate and demolish Building 32 (leave building slab and eastern brick wall)	L.S.	1		
5*	Conduct interior abatement of Building 8	L.S.	1		
6*	Demolish Buildings 8 and 10 (leave building slab)	L.S.	1		
7*	7* Abate and demolish shaker building adjacent to Building 10.		1		
<u>*Starr</u>	ed items are considered additional items	should fu	unding allow.		
	SUBTOTAL PRIORITY ITEMS ABOVE (1,2,3 and 4)				
	SUBTOTAL ADDITIONAL ITEMS ABOVE (5, 6, and 7)*				
8	Performance bond	L.S.	1		
9	Labor and Material Payment bond	L.S.	1		



TOTAL COST (Items 1 to 9)

\$_____

Please include firm name, authorized person name, signature and date:

Firm:	

Name:

Date: _____

Signature:_____



Appendix A

Supplemental Terms and Conditions

Supplement Terms and Conditions to City of Ansonia Agreement Pandel Property Asbestos Abatement Project

CONTRACTOR RESPONSIBILITY

- Contractor represents that it has and commits the expertise, experience, personnel and resources to properly
 perform the Contracted Services and that all personnel engaged in the Contracted Services shall be fully
 qualified, authorized, licensed, trained and permitted as required by applicable Law or the requirements of this
 Agreement to perform the Contracted Services. Contractor shall remove any employee or lower-tier
 subconsultant or subcontractor ("subcontractor"), from performance of the Contracted Services if so directed in
 writing by the City.
- 2. By executing this Agreement, Contractor warrants that for the duration of this Agreement, Contractor meets and will continue to meet all disclosure obligations and certifications ("Certifications") required for proper performance of the Contracted Services. Contractor shall immediately provide notice to the City of any changes to such Certifications. If equipment and materials are provided under this Agreement, Contractor further warrants to the City and its Client that all materials and equipment furnished shall be new unless otherwise specified, and that such equipment and materials shall be of good quality, free from faults and defects, in conformance with this Agreement and that any related warranties shall pass to the City's Client.
- 3. Contractor shall perform the Contracted Services in accordance with the degree of care and skill ordinarily exercised by members of the same profession currently performing the same or similar services under the same or similar circumstances or required by applicable Law, in which case that higher standard shall apply. Contractor shall be solely responsible for the professional quality, technical accuracy and the coordination of all designs, drawings, specifications, calculations, reports, documents or other Data to be provided under this Agreement, and shall, without additional compensation, correct any errors or deficiencies promptly upon notice or discovery thereof. Review, inspection, approval, acceptance or payment by the City of or for the Contracted Services does not release or otherwise waive Contractor's sole responsibility for the proper performance of the Contracted Services.
- 4. All communications with the Client and/or applicable governmental regulatory agencies will be exclusively through or pursuant to the express written direction of the City. Contractor shall direct inquiries from Client and/or governmental regulatory agencies to the City for appropriate response. Should the Client and/or the governmental regulatory agency insist on communications directly with Contractor, Contractor shall promptly advise the City of the nature, extent and substance of such communications.
- 5. Contractor shall attend periodic meetings or events as may reasonably be required by the City for the proper coordination of the Contracted Services. Contractor shall be prepared to accurately report on the current and projected status of the Contracted Services at those meetings or events and at such other times as requested by the City.
- For purposes of this Agreement, CONTRACTOR shall work under the direction of the the City-assigned Project Manager or his/her designee(s). Any conflict in the scheduling of work for the CONTRACTOR shall be settled by the Project Manager.
- 7. CONTRACTOR shall not submit any proposal, bid for the Work separately or with others, take any action or make any agreement or representation inconsistent with this Agreement, or applicable Purchase Order or CONTRACTOR performing the services as set out in herein. CONTRACTOR hereby agrees that for a period continuing of four (4) years after the termination date of this Agreement it shall not perform any advisory or consulting services for, or enter into any agreement relating to the City's Clients.

TERMINATION

- 8. The City shall have the right to terminate this Agreement pursuant to the provisions of this Article.
- 9. The City shall have the right to terminate this Agreement in whole or in part for its convenience at any time by written notice to Contractor. Upon receipt of such notice, Contractor shall immediately discontinue performance of the Contracted Services on the date and to the extent specified in writing by the City.
- 10. This Agreement may be immediately terminated by the City in whole or in part in the event of a default consisting of substantial failure by the CONTRACTOR to fulfill its obligations under this Agreement through no fault of the City,

provided, that no such termination may be effected unless the CONTRACTOR is given written notice of default and, except for any failure to expeditiously cure defaults involving safety compliance, five (5) days to cure the default.

- 11. If termination is effected under Article 7(a) above, in whole or in part, for the City's convenience, and CONTRACTOR is not in default, the City will pay CONTRACTOR all reimbursable costs which are due as of the effective date of termination, and in addition, those reimbursable costs incurred in good faith by CONTRACTOR after the effective date of termination in connection with demobilization of equipment and personnel. the City shall not be liable for unabsorbed overhead or anticipatory profit on unperformed services and in no event shall the amount total payable to CONTRACTOR exceed the approved amount of the Purchase Order.
- 12. Upon receipt of termination notice pursuant to Paragraphs 7(a) or 7(b) above, CONTRACTOR shall (1) promptly discontinue all Work affected (unless the notice directs otherwise), and (2) deliver to the City all data, drawings, specifications, reports, summaries, and such other information and materials as may have been accumulated by CONTRACTOR in performing the Work, whether completed or in process, with the exception of one record copy of such information which shall be kept by CONTRACTOR.
- 13. If the City terminates this Agreement for cause and it is subsequently determined that Contractor was not in default, then the termination shall be deemed to have been issued for the convenience of the City as set forth above.
- 14. The rights and remedies of the City and CONTRACTOR provided in this Article are in addition to any other rights and remedies provided by law or under this Agreement.

INSURANCE

15. CONTRACTOR agrees to provide and maintain at its own expense, the following types and amounts of insurance covering the Work and all liabilities assumed under this Agreement and to furnish certificates of insurance.

(a) Required insurance for all scopes of work:

(i) Worker's Compensation, including coverage under United States Longshoremen's and Harbor Worker's Act where applicable, at the statutory limits for the state or states in which the Work is to be performed. Employer's Liability insurance in the amount of \$1,000,000 each accident/employee.

(ii) Commercial General Liability (CGL) insurance in the amount of \$1,000,000 per occurrence and \$2,000,000 in the aggregate for bodily injury, property damage, including product liability, independent contractors, contractual liability, personal injury and advertisement injury and, where applicable, coverage for damage caused by blasting, collapse or structural injury and/or damage to underground utilities, with additional insured endorsements for on-going and completed operations,

(iii) Automobile Liability insurance for any vehicle used in conjunction with the WORK, with limits of liability not less than \$1,000,000 coverage each accident combined single limit for both bodily injury and property damage.

(iv) An Umbrella or Excess Policy may be used to meet the Commercial General Liability and Automobile Liability insurance requirements.

(v) CONTRACTOR shall also carry **Asbestos**, **Lead and/or Mold** Liability Insurance in an amount not less than \$1,000,000 per occurrence/annual aggregate. The policy should be written on an "Occurrence Basis" with no sunset clause. Such insurance shall name the City and the City's Client specified in the Agreement and their subsidiaries and affiliates as Additional Insureds. The Certificates of Insurance must provide clear evidence that CONTRACTOR's Insurance Policies contain the minimum limits of coverage and the special provisions prescribed in this clause. Upon request, contractors must also provide a certified copy of their insurance policy which provides specific coverage(s) for working with asbestos, lead and/or mold.

(vi) For **transporting hazardous substances**, CONTRACTOR shall also carry, or require from its SUBCONTRACTOR, Business Automobile Insurance covering liability arising out of the transportation of hazardous materials in an amount not less than \$1,000,000 per occurrence. Such policy shall include Motor Carrier Endorsement MCS-90.

(vii) For **treatment**, **storage or disposal of hazardous wastes**, CONTRACTOR shall furnish an insurance certificate from the designated disposal facility establishing that the facility operator maintains current Pollution Legal Liability Insurance in the amount of not less than \$5,000,000 per occurrence/annual aggregate.

(viii) Should any of the Work involve **investigation, removal or remedial** action concerning the actual or threatened escape of hazardous substances, CONTRACTOR shall also carry Contractors Pollution Liability Insurance in an amount not less than \$2,000,000 per occurrence/annual aggregate. Such insurance shall be written on an occurrence basis with no sunset clause and provide coverage for both sudden and gradual occurrences arising from the Work performed under this Agreement. If Completed Operations is limited in the policy, such Completed Operation Coverage shall be for a period of not less than three (3) years. Such insurance shall name the City and the City's Client, specified in each Purchase Order, and their subsidiaries and affiliates as Additional Insureds.

(ix) For the Work involve professional services, CONTRACTOR shall also carry or require from its SUBCONTRACTOR Professional Liability Insurance in an amount not less than \$2,000,000 per claim and in the annual aggregate). Such insurance shall be written on a claims made basis with no sunset clause and provide coverage for CONTRACTOR's acts, errors and omissions arising from the Work performed under this Agreement. Coverage must be maintained uninterrupted period of at least five (5) years following completion of the Work.

- 16. All insurance, other than Professional Liability, Workers' Compensation and Employer Liability insurance(s), shall be primary, waive subrogation, and name the City and the State of Connecticut Department of Economic and Community Development as additional insureds.
- 17. CONTRACTOR shall require its lower-tier Contractor, if any, to maintain the insurance specified above, naming the City and the Client as additional insureds.
- 18. Prior to commencing the Contracted Services and upon any renewal of CONTRACTOR's insurance policies, CONTRACTOR shall promptly provide the City with updated certificates of insurance evidencing continued compliance with the foregoing requirements, accompanied by copies of the applicable endorsements. Acceptance of an incomplete or improper certificate when requested, or failure to identify a deficiency in coverage, shall not be construed as a waiver of CONTRACTOR's obligation to maintain in effect the coverages required by this Article. Certificates of insurance shall reference the applicable the City Project Name and Number and be mailed to the City.
- 19. CONTRACTOR shall provide the City with 30 days' advance written notice, 10 days for non-payment of premium, prior to cancellation or material change in policy coverage(s).
- 20. The insurance coverage limits required herein are minimum limits and shall not be construed as limits on CONTRACTOR's liability, limits on CONTRACTOR's indemnity obligations, or as adequate insurance coverage for CONTRACTOR's obligations under this Contract. Any failure by CONTRACTOR to comply with the insurance coverage requirements set forth above shall constitute a material breach of this Agreement and the City may withhold payment to CONTRACTOR pending cure of such breach.

HEALTH AND SAFETY

- 21. Work performed under this Agreement shall comply with all applicable federal, state and local safety and occupational health laws and regulations. This includes, but is not limited to Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response.
- 22. The environmental, health and safety of any CONTRACTOR's employees and activities are solely the responsibility of that CONTRACTOR, who shall evaluate the hazards and/or potential hazards to their employees and activities and shall adhere to the CONTRACTOR'S own Plan. All CONTRACTOR'S Plans will, at a minimum conform to the requirements of the City's Plan. the City's Plan does not, nor is it intended to, address procedures of CONTRACTORS, or their SUBCONTRACTORS throughout the execution of this Agreement.
- 23. Before CONTRACTOR'S personnel are allowed on the job, CONTRACTOR must furnish proper documentation to the City representative a copy of the CONTRACTOR's Plan (to document completion, not approval), any required OSHA Training, identification of all Competent Persons, Drug Testing, Medical Surveillance and Respirator Fit-Testing for all CONTRACTOR personnel on the job.

BONDS

- 24. CONTRACTOR shall furnish performance and payment bonds, whenever required as part of the Work, each in an amount equal to the price for the Work as security for the faithful performance and payment of all CONTRACTOR's obligations under the Agreement. These bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by laws or regulations, whichever time period is greater. CONTRACTOR shall also furnish such other bonds as are required by the City. All bonds shall be in the form prescribed by the City except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department. All bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.
- 25. If the surety on any bond furnished by CONTRACTOR is declared bankrupt or becomes solvent or its right to do business is terminated in any state where any part of the project is located, CONTRACTOR shall not later than thirty (30) days thereafter substitute another bond and surety, meeting the requirements of this Article.

COMPLIANCE WITH LAWS

- 26. CONTRACTOR shall comply with all applicable federal, state, and local laws, ordinances, rules, regulations, and orders in effect throughout the term of and pertaining to the Contracted Services under this Agreement, including, but not limited to Executive Order No. 11246 of September 24, 1965, as amended (regarding Equal Employment Opportunity), and the orders of the Secretary of Labor pursuant thereto.
- 27. No party to this Agreement shall, directly or indirectly, undertake nor cause nor permit to be undertaken any activity which is 1) illegal under any applicable laws or regulations, or 2) would have the effect of causing the City or its subsidiaries or affiliates to be in violation of the U.S. Foreign Corrupt Practices Act.
- 28. In connection with this Agreement, no party shall give, offer, promise, or authorize, directly or indirectly, anything of value to 1) an official or employee of any government, state-owned enterprise, international organization or any subdivisions, agents or advisors thereto, whether paid or unpaid (any such person referred to collectively as "Official"), including the government(s) of the territories in which work will be performed hereunder; or 2) any person(s) or party(s) while knowing or having reason to know that such thing of value is to be given, offered or promised to an Official in order to:
 - i. influence any official act or decision, or;
 - ii. induce an Official to use his or her influence to affect a decision of any government or international organization, or;
 - iii. assist the parties hereto in obtaining or retaining business, or in directing business to any person, or;
 - iv. to obtain an unfair advantage for the parties in any respect.
- 29. In connection with this Agreement, no party shall make a contribution to any political party or candidate for office on behalf of or associated with the parties or in connection with the purpose of this Agreement.
- 30. CONTRACTOR shall not retain or engage a third party to carry out sales or marketing obligations in connection with the scope of this Agreement without obtaining the City's prior written consent. The City reserves the right in its sole discretion to reject a request to engage or retain any such third party.
- 31. CONTRACTOR hereby covenants that no officer, director, owners, principal shareholder, family members thereof, agent, representative or employee of CONTRACTOR is an Official and that CONTRACTOR shall not employ any Official during the term of this Agreement. CONTRACTOR further covenants that no Official is deriving any benefit, directly or indirectly, from this Agreement.
- 32. In no case shall the City be obligated to take any action or make any payment to CONTRACTOR that would cause the City to suffer a penalty or contravene applicable laws or regulations, including but not limited to the laws of the territories in which work will be performed and those of the United States.
- 33. If CONTRACTOR breaches any of the covenants contained in this section, the City shall have the right to immediately terminate this Agreement without penalty or further payment of any sums due and owing or claimed by CONTRACTOR hereunder. In such instance, CONTRACTOR shall indemnify the City for any penalties, losses and expenses resulting from such breach of the provisions of this section.



APPENDIX B PROJECT CLOSE-OUT REQUIREMENTS

PER THE STATE OF CONNECTICUT DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT, THE FOLLOWING DOCUMENTS SHALL BE SUBMITTED TO THE ENGINEER AT THE COMPLETION OF THE PROJECT:

1. Certificate of occupancy (where applicable)

- 2. Certificate of Substantial Completion (AIA form G704)
- 3. Contractor's Affidavit of Payment of Debts and Claims (AIA form G706)
- 4. Contractor's Affidavit of Release of Liens (AIA form G706A)
- 5. Subcontractors and Suppliers Release or Waiver of Liens.
- 6. Consent of Surety Company to Final Payment (AIA G707)
- 7. All of the Contractor's Application and Certificate for Payments (AIA form G702, and continuation sheet

G703).



Appendix C

Prevailing Wage Rates

County	Town	Classification	Hourly Rate	Hourly Benefit
Middlesex	Westbrook	13) Roofer (composition)	\$38.40	21.35
Middlesex	Westbrook	14) Roofer (slate & tile)	\$38.90	21.35
Middlesex	Westbrook	15) Sheetmetal Worker (Trade License required for HVAC and Ductwork: SM-1,SM-2,SM-3,SM-4,SM-5,SM-6)	\$38.90	39.46
Middlesex	Westbrook	16) Pipefitter (Including HVAC work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4, G-1, G-2, G-8 & G- 9)	\$44.63	32.95
Middlesex	Westbrook	TRUCK DRIVERS		
Middlesex	Westbrook	17a) 2 Axle	\$29.86	25.79 + a
Middlesex	Westbrook	17b) 3 Axle, 2 Axle Ready Mix	\$29.97	25.79 + a
Middlesex	Westbrook	17c) 3 Axle Ready Mix	\$30.03	25.79 + a
Middlesex	Westbrook	17d) 4 Axle, Heavy Duty Trailer up to 40 tons	\$30.08	25.79 + a
Middlesex	Westbrook	17e) 4 Axle Ready Mix	\$30.13	25.79 + a
Middlesex	Westbrook	17f) Heavy Duty Trailer (40 Tons and Over)	\$30.35	25.79 + a
Middlesex	Westbrook	17g) Specialized Earth Moving Equipment (Other Than Conventional Type on-the-Road Trucks and Semi-Trailers, Including Euclids)	\$30.13	25.79 + a
Middlesex	Westbrook	18) Sprinkler Fitter (Trade License required: F-1,2,3,4)	\$45.92	26.08 + a
Middlesex	Westbrook	19) Theatrical Stage Journeyman	\$25.76	7.34
New Haven	Ansonia	1b) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters.**See Laborers Group 7**		
New Haven	Ansonia	1c) Asbestos Worker/Heat and Frost Insulator	\$40.21	30.99
New Haven	Ansonia	2) Boilermaker	\$38.34	26.01
New Haven	Ansonia	3a) Bricklayer, Cement Mason, Concrete Finisher (including caulking), Stone Masons	\$35.71	33.31 + a

County	Town	Classification	Hourly Rate	Hourly Benefit
New Haven	Ansonia	3b) Tile Setter	\$34.90	25.87
New Haven	Ansonia	3c) Terrazzo Mechanics and Marble Setters	\$31.69	22.35
New Haven	Ansonia	3d) Tile, Marble & Terrazzo Finishers	\$26.70	21.75
New Haven	Ansonia	3e) Plasterer	\$33.48	32.06
New Haven	Ansonia	LABORERS		
New Haven	Ansonia	4) Group 1: Laborers (common or general), acetylene burners, concrete specialists, wrecking laborers, fire watchers.	\$31.00	22.15
New Haven	Ansonia	4a) Group 2: Mortar mixers, plaster tender, power buggy operators, powdermen, fireproofer/mixer/nozzleman (Person running mixer and spraying fireproof only).	\$31.25	22.15
New Haven	Ansonia	4b) Group 3: Jackhammer operators/pavement breaker, mason tender (brick), mason tender (cement/concrete), forklift operators and forklift operators (masonry).	\$31.50	22.15
New Haven	Ansonia	4c) **Group 4: Pipelayers (Installation of water, storm drainage or sewage lines outside of the building line with P6, P7 license) (the pipelayer rate shall apply only to one or two employees of the total crew who primary task is to actually perform the mating of pipe sections) P6 and P7 rate is \$26.80.	\$32.00	22.15
New Haven	Ansonia	4d) Group 5: Air track operator, sand blaster and hydraulic drills.	\$31.75	22.15
New Haven	Ansonia	4e) Group 6: Blasters, nuclear and toxic waste removal.	\$34.00	22.15
New Haven	Ansonia	4f) Group 7: Asbestos/lead removal and encapsulation (except it's removal from mechanical systems which are not to be scrapped).	\$32.00	22.15
New Haven	Ansonia	4g) Group 8: Bottom men on open air caisson, cylindrical work and boring crew.	\$29.28	22.15
New Haven	Ansonia	4h) Group 9: Top men on open air caisson, cylindrical work and boring crew.	\$28.74	22.15
New Haven	Ansonia	4i) Group 10: Traffic Control Signalman	\$18.00	22.15
New Haven	Ansonia	5) Carpenter, Acoustical Ceiling Installation, Soft Floor/Carpet Laying, Metal Stud Installation, Form Work and Scaffold Building, Drywall Hanging, Modular-Furniture Systems Installers, Lathers, Piledrivers, Resilient Floor Layers.	\$34.53	25.64
New Haven	Ansonia	5a) Millwrights	\$34.94	26.19

County	Town	Classification	Hourly Rate	Hourly Benefit
New Haven	Ansonia	6) Electrical Worker (including low voltage wiring) (Trade License required: E1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	\$39.00	29.91+3% of gross wage
New Haven	Ansonia	7a) Elevator Mechanic (Trade License required: R-1,2,5,6)	\$55.12	34.765+a+b
New Haven	Ansonia	LINE CONSTRUCTION		
New Haven	Ansonia	Groundman	\$26.50	6.5% + 9.00
New Haven	Ansonia	Linemen/Cable Splicer	\$48.19	6.5% + 22.00
New Haven	Ansonia	8) Glazier (Trade License required: FG-1,2)	\$39.18	22.55 + a
New Haven	Ansonia	9) Ironworker, Ornamental, Reinforcing, Structural, and Precast Concrete Erection	\$36.67	37.62 + a
New Haven	Ansonia	OPERATORS		
New Haven	Ansonia	Group 1: Crane handling or erecting structural steel or stone, hoisting engineer 2 drums or over, front end loader (7 cubic yards or over), work boat 26 ft. and over and Tunnel Boring Machines. (Trade License Required)	\$42.45	25.30 + a
New Haven	Ansonia	Group 2: Cranes (100 ton rate capacity and over); Excavator over 2 cubic yards; Piledriver (\$3.00 premium when operator controls hammer); Bauer Drill/Caisson. (Trade License Required)	\$42.11	25.30 + a
New Haven	Ansonia	Group 3: Excavator; Backhoe/Excavator under 2 cubic yards; Cranes (under 100 ton rated capacity), Grader/Blade; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar);Grader Operator; Bulldozer Fine Grade. (slopes, shaping, laser or GPS, etc.). (Trade License Required)	\$41.32	25.30 + a
New Haven	Ansonia	Group 4: Trenching Machines; Lighter Derrick; Concrete Finishing Machine; CMI Machine or Similar; Koehring Loader (Skooper).	\$40.91	25.30 + a
New Haven	Ansonia	Group 5: Specialty Railroad Equipment; Asphalt Paver; Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24	\$40.28	25.30 + a
New Haven	Ansonia	Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller; Pile Testing Machine.	\$40.28	25.30 + a
New Haven	Ansonia	Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	\$39.95	25.30 + a

County	Town	Classification	Hourly Rate	Hourly Benefit
New Haven	Ansonia	Group 7: Asphalt roller, concrete saws and cutters (ride on types), vermeer concrete cutter, Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24	\$39.59	25.30 + a
New Haven	Ansonia	Group 8: Mechanic, grease truck operator, hydroblaster; barrier mover; power stone spreader; welding; work boat under 26 ft.; transfer machine.	\$39.17	25.30 + a
New Haven	Ansonia	Group 9: Front end loader (under 3 cubic yards), skid steer loader regardless of attachments, (Bobcat or Similar): forklift, power chipper; landscape equipment (including Hydroseeder).	\$38.71	25.30 + a
New Haven	Ansonia	Group 10: Vibratory hammer; ice machine; diesel and air, hammer, etc.	\$36.54	25.30 + a
New Haven	Ansonia	Group 11: Conveyor, earth roller, power pavement breaker (whiphammer), robot demolition equipment.	\$36.54	25.30 + a
New Haven	Ansonia	Group 12: Wellpoint operator.	\$36.48	25.30 + a
New Haven	Ansonia	Group 13: Compressor battery operator.	\$35.86	25.30 + a
New Haven	Ansonia	Group 14: Elevator operator; tow motor operator (solid tire no rough terrain).	\$34.66	25.30 + a
New Haven	Ansonia	Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	\$34.23	25.30 + a
New Haven	Ansonia	Group 16: Maintenance Engineer/Oiler.	\$33.54	25.30 + a
New Haven	Ansonia	Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator.	\$38.11	25.30 + a
New Haven	Ansonia	Group 18: Power safety boat; vacuum truck; zim mixer; sweeper; (Minimum for any job requiring a CDL license).	\$35.53	25.30 + a
New Haven	Ansonia	PAINTERS (Including Drywall Finishing)		
New Haven	Ansonia	10a) Brush and Roller	\$35.62	22.55
New Haven	Ansonia	10b) Taping Only/Drywall Finishing	\$36.37	22.55
New Haven	Ansonia	10c) Paperhanger and Red Label	\$36.12	22.55
New Haven	Ansonia	10e) Blast and Spray	\$38.62	22.55
New Haven	Ansonia	11) Plumber (excluding HVAC pipe installation) (Trade License required: P- 1,2,6,7,8,9 J-1,2,3,4 SP-1,2)	\$44.63	32.95
New Haven	Ansonia	12) Well Digger, Pile Testing Machine	\$37.26	24.05 + a

County	Town	Classification	Hourly Rate	Hourly Benefit
New Haven	Ansonia	Roofer: Cole Tar Pitch	\$42.00	19.55 + a
New Haven	Ansonia	Roofer: Slate, Tile, Composition, Shingles, Singly Ply and Damp/Waterproofing	\$40.50	19.55 + a
New Haven	Ansonia	15) Sheetmetal Worker (Trade License required for HVAC and Ductwork: SM-1,SM-2,SM-3,SM-4,SM-5,SM-6)	\$38.90	39.46
New Haven	Ansonia	16) Pipefitter (Including HVAC work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4, G-1, G-2, G-8 & G- 9)	\$44.63	32.95
New Haven	Ansonia	TRUCK DRIVERS		
New Haven	Ansonia	17a) 2 Axle	\$29.86	25.79 + a
New Haven	Ansonia	17b) 3 Axle, 2 Axle Ready Mix	\$29.97	25.79 + a
New Haven	Ansonia	17c) 3 Axle Ready Mix	\$30.03	25.79 + a
New Haven	Ansonia	17d) 4 Axle, Heavy Duty Trailer up to 40 tons	\$30.08	25.79 + a
New Haven	Ansonia	17e) 4 Axle Ready Mix	\$30.13	25.79 + a
New Haven	Ansonia	17f) Heavy Duty Trailer (40 Tons and Over)	\$30.35	25.79 + a
New Haven	Ansonia	17g) Specialized Earth Moving Equipment (Other Than Conventional Type on-the-Road Trucks and Semi-Trailers, Including Euclids)	\$30.13	25.79 + a
New Haven	Ansonia	18) Sprinkler Fitter (Trade License required: F-1,2,3,4)	\$45.92	26.08 + a
New Haven	Ansonia	19) Theatrical Stage Journeyman	\$25.76	7.34
New Haven	Beacon Falls	1b) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters.**See Laborers Group 7**		
New Haven	Beacon Falls	1c) Asbestos Worker/Heat and Frost Insulator	\$40.21	30.99
New Haven	Beacon Falls	2) Boilermaker	\$38.34	26.01
New Haven	Beacon Falls	3a) Bricklayer, Cement Mason, Concrete Finisher (including caulking), Stone Masons	\$35.71	33.31 + a

Important Information:

For use with Building, Heavy/Highway, and Residential

Welders: Rate for craft to which welding is incidental.

*Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.

**Note: Hazardous waste premium \$3.00 per hour over classified rate.

ALL Cranes: When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra \$4.00 premium in addition to the hourly wage rate and benefit contributions:

- 1) Crane handling or erecting structural steel or stone; hoisting engineer (2 drums or over)
- 2) Cranes (100 ton rate capacity and over) Bauer Drill/Caisson
- 3) Cranes (under 100 ton rated capacity)

Crane with boom including jib, 150 feet - \$1.50 extra. Crane with boom including jib, 200 feet - \$2.50 extra. Crane with boom including jib, 250 feet - \$5.00 extra. Crane with boom including jib, 300 feet - \$7.00 extra. Crane with boom including jib, 400 feet - \$10.00 extra.

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

 Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyperson instructing and supervising the work of one apprentice in a specific trade.

Connecticut General Statute Section 31-55a: Annual Adjustments to wage rates by contractors doing state work

- The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.
- Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.
- The annual adjustments will be posted on the Department of Labor's Web page: <u>www.ctdol.state.ct.us</u>.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.
- All subsequent annual adjustments will be posted on our Web Site for contractor access.

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage.

- All Persons who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.
- All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)
- Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

Connecticut Department of Labor Wage and Workplace Standards Division FOOTNOTES

⇒ Please Note: If the "Benefits" listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the "Benefits" section for the occupation lists only a dollar amount, disregard the information below.

Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons (Building Construction) and

(Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Elevator Constructors: Mechanics

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.
- b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

a. Paid Holidays: Labor Day and Christmas Day.

Power Equipment Operators

(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

Laborers (Tunnel Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

Roofers

a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

Sprinkler Fitters

a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

Truck Drivers

(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.



Appendix D

Alternate Work Plans

35 NORTH MAIN STREET BUILDING #8, #10, #11, #11A, #32 ANSONIA, CT

ASBESTOS ALTERNATE WORK PLAN

1. Scope of Work

- 1.1 The commercial structure at 35 North Main Street in Ansonia has sat vacant for an extended period and is in poor condition. An asbestos NESHAP inspection of the building was performed in June of 2019 which identified multiple asbestos containing materials, as well as low-level and high-level PCB containing materials.
- 1.2 The scope of work is to remove any remaining friable asbestos containing materials and easily accessible non-friable accessible asbestos containing materials where the building is structurally sound. After the completion of the accessible materials, the demolition of the buildings with remaining asbestos in place.

2. Site Security

2.1 Signage and fencing has been placed at most of the entrances to the entire site. Access to the work area will be restricted by construction fencing and warning signs. During remediation an additional, properly labeled, restricted asbestos abatement zone, shall be secured around the perimeter of the structure while remediation occurs. Access to the zone shall be limited to authorized personnel with the appropriate training. Warning signs and the restriction zone, where possible, shall be placed at a minimum of 25 feet from the building footprint, and expanded as needed to accommodate the necessary equipment to complete the abatement task.

3. Personnel

- 3.1 The Owner's representative, HYGENIX, Inc., shall be always present at the site when building materials are being demolished, loaded, moved, uncovered, or otherwise disturbed.
 - 2 All persons who will handle or otherwise encounter the building materials, including equipment operators, shall be trained, and licensed in accordance with the Section 20-440-1 through 20-440-9 of the Regulations of Connecticut State Agencies (RCSA) for Asbestos Workers or Asbestos Worker Supervisors and trained in handling PCB containing materials (>1ppm<50ppm) & (>50ppm). The asbestos contractor shall document the training by providing dates of training and the name and address of the training entity. Every Worker and Worker Supervisor shall provide copies of current state licenses and evidence of respirator training, medical clearance, and respirator fit testing as required by 29

CFR 1926.1101. An asbestos abatement supervisor, with proper PCB training, will be required to be always on-site during abatement activities.

4. Worker Protection

- 4.1 The Project monitor will direct the abatement contractor to comply with the worker protection measures outlined in this section. It shall be the abatement contractor's responsibility to comply. Any deficiency that is not corrected immediately will be reported to the Owner and the CT Department of Public Health.
- 4.2 Respiratory protection shall be worn by all individuals who enter the abatement zones and those who are required to encounter any asbestos/PCB-containing materials.
- 4.3 All respiratory protection shall be provided by the abatement contractor and used by the workers and authorized visitors as directed by the Project monitor. Use of respiratory protection shall comply with 29 CFR 1926.1101. All respirators shall be NIOSH-approved in accordance with the provisions of 42 CFR Part 84.
- 4.4 The abatement contractor shall be responsible for the collection and analysis of personal air samples in accordance with OSHA requirements.
- 4.5 All workers, supervisors and authorized visitors who enter the boundaries of the Abatement Work Zones shall be equipped with OSHA approved protective clothing, including disposable coveralls, work boots, hard hats, eye protection, and gloves.
- 4.6 All workers, supervisors and authorized visitors who enter the Abatement Work Zone and are subject to asbestos/PCB exposure shall exit the work area through the worker decontamination facility (see Section 5.1) and decontaminate themselves by HEPA vacuuming asbestos residue from the outer surface of disposable coveralls and showering as necessary, before changing into street clothes.
- 4.7 Additional requirements for worker protection may be mandated by the Project monitor if other hazards are discovered at the site.

5. Decontamination Facilities

- 5.1 The abatement contractor shall establish and maintain a fully functional worker decontamination facility on site for the duration of the abatement activities. The area shall have, at a minimum, heat, an area to shower with water, liquid soap, and towels for workers to utilize when exiting regulated areas. The facility shall be equipped with a system for collecting and filtering wastewater (before discharge to a sanitary sewer). The worker decontamination facility shall be located contiguous to an access point leading into the abatement zone.
- 5.2 A system for managing drainage and controlling erosion will be installed at the site. The abatement contractor shall be responsible for maintaining the system


to ensure that contaminated wastewater is not released from the site. Water use will be continually monitored to ensure no pooling of water or water runoff is observed. If pooling or runoff is observed, work will be stopped immediately, and the water will be collected. Water use practices will then be revised to avoid future issues.

6. Work Practices

6.2

6.1 The abatement contractor shall work in a manner that will ensure that no visible emissions are generated at the site, even if the emissions are caused by smoke, soil, uncontaminated construction debris or other non-asbestos materials. The Project monitor is authorized to stop the work immediately if any visible emissions are produced or if, in his opinion, any other potentially hazardous condition exists.

Priority will be given to the elimination of safety hazards in the work area (falling rubble, etc.) and worker protection for overhead hazards shall be implemented. After safety hazards have been addressed, the contractor will proceed to remove the following materials before building demolition:

- All accessible electrical panels, electrical backer boards, and electrical boxes with insulation paper.
- Building 11A Stack Insulation (2nd Floor through 4th Floor)
- Building 11A Boiler Rope & Gasketing (3rd & 4th Floor 3 Boilers)
- Building 11A HVAC Gasketing (4th Floor 10 locations)
- Building 11A 9x9 Floor Tile & Mastic (2nd & 3rd Floor 500 square feet)
- Building 11A Sink Insulation (1 unit)
- Building 11B Oven Door Gasketing
- Building 8 12x12 Floor Tiles & Mastic (3rd Floor Bathrooms)

Remediation of electrical panels, electrical backer boards, electrical boxes with insulation paper, and sink insulation will be performed by wrapping the entire unit and removing and disposing the entire unit as asbestos containing.

Remediation of all remaining items listed above will be performed with critical barriers and a single layer tent containment. An attached decontamination unit will be at each containment, and HEPA air filtration will be installed in each work area. For boiler insulation, each boiler shall be completely dismantled under containment to remove all asbestos containing materials.

After the remediation of the above items, the contractor will remediate the remaining building materials following a demolition and sorting method.

The buildings will be slowly demolished to reduce the possibility of fiber release to surrounding areas and to enable proper identification of materials being encountered.

Debris and rubble will be misted continuously whenever it is moved or handled to the best extent possible. The project monitor on the site will pay special attention for any signs of visible emissions by visible sight and review of full shift air monitoring results. If any signs of visible emissions are detected or if air



monitoring results indicate elevated levels of fibers and/or dust more than 0.01 f/cc via PCM, work will cease, and work practices will be altered to eliminate the problem.

In addition, the project monitor will continuously monitor dust using a Mini Ram, or equivalent, to ensure that fugitive dust emissions comply with regulatory requirements. Dust action levels will be triggered at levels of 120 μ g/m3 (80% of the regulatory limit of 150 μ g/m3), at which time additional dust suppression techniques will be implemented by the Contractor.

All debris and rubble that cannot be confirmed by the independent Connecticut licensed asbestos project monitor as asbestos free must be disposed of as asbestos waste, asbestos/PCB (>1ppm<50ppm) waste, or asbestos/PCB (>50ppm) waste depending on the material and building being worked on at the time. All metal can be cleaned and separated for visual inspection by the independent Connecticut licensed asbestos project monitor. Additional specifications by AECOM will address any additional pre-cautions and disposal requirements at the site for the PCB waste.

A front-end loader, excavator or other mechanical equipment will be employed to load non-friable asbestos waste into an open top roll-off container. Where required by the authorized disposal site, the waste container will be lined with two layers of 6-mil plastic sheeting. In cases where the trailers are not required to be lined, the Owner's representative will inspect the vehicle before loading to ensure that the trailer does not have any visible holes or openings in the body where water may leak out, and the trailer shall be equipped with a leak-resistant locking back gate as specified by DOT requirements.

Loading will take place in a clean area of the work zone. All asbestos waste will be soaked with water prior to handling and misted continuously during loading. The asbestos contractor will avoid using excessive water, and steps will be taken to ensure that water does not wash any asbestos residue out of the trailer, into drains or onto the unprotected soil.

At the conclusion of the loading operation, any loose pieces of debris will be picked up by hand and placed in the trailer.

Before leaving the site, the waste conveyance vehicle will be inspected by the Owner's representative and cleaned of any surface contamination. Special attention will be focused on the tires of the vehicle. The top of the load will be covered with one layer of 6-mil plastic sheeting, tucked into the edges of the load, then covered and secured with the fabric tarp that is provided by the hauler. The vehicle will not be permitted to leave the site unless the Owner's representative is satisfied that the load is secure, the exterior of the vehicle is free of visible contamination, and there is no water leaking from the trailer. The waste trailer will be labeled with appropriate OSHA warning signs (on top of plastic covering) and DOT placards.

The contractor shall be responsible for providing a copy of the Waste Shipment Record (manifest) for every load of waste that is removed from the site. An



executed copy of the Waste Shipment Record will also be provided to the owner after the waste reaches the approved disposal site. Additional characterization sampling, if required by the waste disposal facility, shall be provided by the Owner.

- 6.3 For the boiler and pipe insulation in the basement boiler room of Building #8 the following shall apply:
 - 6.3.1 Once the building has been demolished down to the first-floor level exposing the boiler room, and all safety hazards have been addressed, the friable insulation in this area shall be abated.
 - 6.3.2 All loose and fallen insulation shall be HEPA vacuumed and wet cleaned.
 - 6.3.3 Pipe insulation shall be wrapped in a single layer of 6-mil plastic sheeting and sealed with duct tape.
 - 6.3.4 Glovebags shall then be installed so the insulation can be removed to allow for cutting of the pipes. Prior to cutting, the project monitor must confirm the setup has been properly completed.
 - 6.3.5 The insulation can then be removed in the glovebag, and the ends of the unremoved pipe insulation secured with plastic, duct tape, diplag or equivalent.
 - 6.3.6 The project monitor will confirm the removal is complete and the ends are sealed. Once confirmed the pipe can be cut.
 - 6.3.7 The wrapped pipes can then have an additional layer of 6-mil plastic sheeting added and proper labels and be disposed of.
 - 6.3.8 The sectional boiler shall the be contained in a single layer tent containment to remove the boiler insulation. The entire boiler must be completely dismantled to remove all materials. All interior materials must be disposed of as asbestos waste.

7. Contingencies

7.1 The activities at the site may be impacted by adverse weather conditions. At the beginning of the workday, the Owner's representative will review the weather forecast with the asbestos contractor. No work will take place on a day with high winds or excessive precipitation that might interfere with the safe and controlled handling of wastes, or on days when other construction or site work may create any visible emissions of non-asbestos dust. Also, if the weather is below 32 degrees Fahrenheit, the monitor will take readings four (4) times per hour. Water will only be used to adequately wet asbestos waste prior to placement in disposal containers unless the temperature rises above 32 degrees, at which time water must be used during all phases of the demolition and sorting of the building.



BOUNDARIES OF BUILDING DEMOLITION





REMAINING ASBESTOS CONTAINING MATERIALS



ACM in Work Areas

Building 11 (Foundry) ACBM			
Description	Location(s) in Building	Estimated Quantity	Comments
Electrical Panel Clips & Backer	Scattered locations on	≤150 units	
Boards	columns, units, walls,		
	etc.		
Transite Unit Panels & Pipe	Scattered throughout	Few	Most removed but some may still be present in
Pieces			isolated areas
Duct Breeching	Scattered Locations	20 square feet	
Roof Field & Flashing	All Roofs	40,000 square feet	Flashing is present around all penetrations & skylights
Corrugated Transite	Exterior Walls & Roof	Not Available	
Exterior Roofing Debris	Perimeter edge of	Unknown	Roofing debris has fallen off of the building over
_	building		time and is scattered around the building on the
			ground.
Windows Covered in Transite	North End of Building	11 windows	
Building 11A (Pattern Storage,			
Offices) ACBM Description	Location(s) in Building	Estimated Quantity	Comments
	Scattered locations on		
Electrical Panel Clips & Backer	columns, units, walls,		
Boards	etc.	<75 units	
	4th floor, East Side,		The insulation is on stacks leading to the roof under
Stack Insulation	Multiple Locations	≤300 linear feet	a metal skin. There are a total of 6 separate stacks.
			Most removed, some may still be present in isolated
Transite Unit Panels	Scattered throughout	Few	locations
Window Putty	11A – Exterior Windows	≤150 units	May not be present on top floor
	11A – 4th Floor,		Boilers must be completely dismantled to remove all
Boiler Rope & Gasketing	Multiple Locations	up to 3 boilers	asbestos
HVAC Gasketing	11A – 4th Floor	10 units	
			Flashing is present around all penetrations &
Roof Field & Flashing	All Roofs	Not Available	skylights
	All Exterior Walls &		
Corrugated & Smooth Transite	Majority of Roof	Not Available	
			Roofing debris has fallen off of the building over
	Perimeter edge of		time and is scattered around the building on the
Exterior Roofing Debris	building	Unknown	ground.
v		1	~
Building 11B (Oven Room)			
ACBM Description	Location(s) in Building	Estimated Quantity	Comments
	Scattered locations on		
Electrical Panel Clips & Backer	columns, units, walls,		
Boards	etc.	10 units	
Gasket Insulation	Oven Door	50 linear feet	

Building 11C (Blacksmith Shop)			
ACBM Description	Location(s) in Building	Estimated Quantity	Comments
	Scattered locations on		
Electrical Panel Clips & Backer	columns, units, walls,		
Boards	etc.	11 units	
			Flashing is present around all penetrations &
Roof Field & Flashing	All Roofs	520 square feet	skylights
Corrugated & Smooth Transite	Exterior Walls & Roof	Not Available	



ACM in Work Areas

Building 11D (Shaker Building)				
ACBM Description	Location(s) in Building	Estimated Quantity	Comments	
	Scattered locations on			
Electrical Panel Clips & Backer	columns, units, walls,			
Boards	etc.	15 units		
Transite Unit Panels	Isolated Locations	Not Available	Most removed, some may still be present	
Window Putty	Exterior Windows	2 units		
			Flashing is present around all penetrations &	
Roof Field & Flashing	All Roofs	1,178 square feet	skylights	
	All Exterior Walls &			
Corrugated & Smooth Transite	Majority of Roof	Not Available		
	•			
Building 10 (Weigh scale) ACBM				
Description	Location(s) in Building	Estimated Quantity	Comments	
	Scattered locations on			
Electrical Panel Clips & Backer	columns, units, walls,			
Boards	etc.	30 units		
			Flashing is present around all penetrations &	
Roof Field & Flashing	All Roofs	4,900 square feet	skylights	
		.,		
Building 32 (Sand conditioner)				
ACBM Description	Location(s) in Building	Estimated Quantity	Comments	
	Scattered locations on			
Electrical Danal Cline & Dachar				
Electrical Panel Clips & Backer	columns, units, walls,			
Boards	etc.	80 units		
Ded Callester	Baraf Laural		These are corrugated panels used for wall sheathing	
Red Galbestos	Roof Level	5,000 square feet	on building sections at the roof level	
			Flashing is present around all penetrations &	
Roof Field & Flashing	All Roofs	4,100 square feet	skylights	
Corrugated & Smooth Transite	Some Exterior Walls	Not Available		
			Roofing debris has fallen off of the building over	
	Perimeter edge of		time and is scattered around the building on the	
Exterior Roofing Debris	building	Unknown	ground.	
			•	
Building 8 (Offices, lockers,				
storage) ACBM Description	Location(s) in Building	Estimated Quantity	Comments	
	Scattered locations on			
Electrical Panel Clips & Backer	columns, units, walls,			
Boards	etc.	10 units		
			Insulation is in poor condition, room not safe for	
Pipe Insulation	1st Floor Boiler Room	40 Linear Feet	-	
ripe insulation	ISCHOOL BUILET KOOM	Ho Linear Feet	entry.	
Deiles la sulation	1 at Class Dation Date	200 0	Boiler must be completely dismantled to remove	
Boiler Insulation	1st Floor Boiler Room	300 Square Feet	insulation. Room is not safe for entry.	
12x12 Floor Tiles & Mastic	3rd Floor Bathrooms	200 Square Feet		
			Flashing is present around all penetrations &	
Roof Field & Flashing	All Roofs	3,978 square feet	skylights	
			This area not accessible (locked). Any material not	
			previously sampled must be assumed asbestos	
Miscellaneous	2nd Floor South End	Not Available	containing.	
Corrugated & Smooth Transite	Some Exterior Walls	Not Available		
conspared & onlooth traibite			Roofing debris has fallen off of the building over	
	Designator adre of		time and is scattered around the building over	
Exterior Roofing Debris	Perimeter edge of building	Unknown	ground.	



SAMPLE #	SAMPLE DESCRIPTION	SAMPLE RESULT
	Exterior South Side of Buildings 8&10	
0607-02	on Brick – Purple Paint	None Detected
	Exterior Southwest Corner of Building	• •
0607-03	10 on Wood Window – Caulk	None Detected
	Bldg. 11A Exterior 1st Floor East	
0607-04	Metal Window – Putty	0.89 PPM (PCB 1254)
0607-29	Bldg. 11 Roof – Field	43.0 PPM (PCB 1254)
0607-30	Bldg. 11 on Metal Columns - Paint	20.0 PPM (PCB 1254)
0607-33	Bldg. 11A on Steel – Green Paint	0.9 PPM (PCB 1254)
0607-37	Bldg. 32 on Steel – Orange Paint	1.9 PPM (PCB 1254)
	Bldg. 32 Exterior on Metal Hoppers –	
0607-38	Gray Paint	7.8 PPM (PCB 1254)
0607-39	Bldg. 32/8 Roof – Field	63.0 PPM (PCB 1268)
	Bldg. 32 Roof Level – Red Galbestos	
0607-40	Paneling	3,100 PPM (PCB 1268)
	Bldg. 32 Roof Level - Gray Galbestos	
0607-41	Paneling	3.6 PPM (PCB 1254)
0607-42	Duplicate Sample of 0607-03	0.92 PPM (PCB 1254)
0607-48	Duplicate Sample of 0607-40	19,000 PPM (PCB-1268)

PCB Coatings and Sealants in Work Areas



		STA	ATE USE ONLY
10000	STATE OF CONNECTICUT	Date	
AN AN	STATE OF CONNECTICUT	Received	
	DEPARTMENT OF PUBLIC HEALTH	Check #	
No of the second	DEFAMIMENT OF FODLIC HEALTH	Trans #	
ANSTULIT	APPLICATION FOR ALTERNATIVE WORK PRACTICES	Entered	
32a-11. Be	following information as required by the Regulations of Connecticut Stat sure to note if there are attachments. An incomplete application will r application is \$200, pavable to "Treasurer, State of Connecticut". Allow	esult in	a delayed

Please 19a-3. respon application, except for emergency applications. Application may only submitted by a licensed asbestos project designer.

1. PROJECT DESIGN	ER INFORMATIO	N		•	
Application Date: 04/14	/22	1	nspection Date:	06/05/19	
Name of Project Designe	r James Tw	vitchell			
License # 221		ration Date 07/30)/22 PD_	_Phone # (2	03) 554-1249
PD Address 49 Woods	side Street				
PD City, State, Zip Code	Stamford, CT (06902			
Signature		Twitchell	gned by James 0.09.29 17:59:26		
2. PROPERTY INFORM					
Facility Owner	City of An				
Owner Address	253 Main	Street, Ansonia (CT 06401		
Owner Phone (203) 4	37-1598	O_Contact	Person Shelia O	Malley	
PROJECT NAME & ADDRESS P	roject 35 l	North Main Stree	t (Building #8, #1	l0, #11, #1′	1A, & #32)
City/State /Zip	Ansonia, CT	06401			
3. ASBESTOS ABATE	MENT CONTRAC	TOR INFORMATIO	N (IF KNOWN)		
Asbestos Abatement Cor	ntractor To Be	Determined	(CT License #	
C_Address					
C_City, State Zip Code					
Contractor Phone		C_Conta	ct Person		
4. PROJECT SUMMAR	Y				
Nature of Abatement	Renovation	Demolition	Start Date (i	if known)	
Type of Asbestos Abater	nent Remova	al 🔳 Enclo	sure Encaps	sulation	Spot Repair
Type and Amount of Asbe	stos Material Port	ainingto AM/P (Us	e additional attachm	ent if necess	anu
Flooring (Specify (FT ²)					
	Mastic 700	Cement Board(FT ²)	Other Non-Friab		500 electrical items
700	700	100,000	28,000 (Roofing	J)	

	Flooring (Specify (F1 ²)	Mastic	Cement Boar	rd(FT²)	Other Non-Frid	able (specify)	500 electrical items
	700	700	100,0	000	28,000 (Roofi	ng)	
K	Caulking (LF) specify	Pipe Insulation (LF	-)	Pipe Fitting	gs (each)	Other Friable	(specify)
		360				4 boilers, 1	50 LF Gasket Ins.



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Go to next page



5. DESCRIPTION OF FACILITY

Building Data	Size	1.98 acres	Age	80+	Current Facility Use	Abandoned
		Square Feet	Estin	nate, if unknown		
6. SPECIFIC	ALTERNA	TIVE WORK REQUE	EST			
Section(s) and practice(s) is/a			s for Asb	estos Abateme	ent regulation for which	alternative work
			a-332a-	-5(d), 19a-33	32a-5(e), 19a-332a-	5(h)
		a-332a-7(c)				
	similar info	rmation in order to			onal information such as review. Please identify t	drawings, photographs, he specific work area/s
			2			
Previous Page		\mathbf{igcup}	С	lear Form		Print
			Applic	cation Status		
<u>DPH STAFF</u>	REVIE	WED BY		DATE	APPROVED/ DENIEL	D/ SET ASIDE
M	AIL COMP	LETED FORM TO:	DEPART	MENT OF PUBI	LIC HEALTH - EHS	
			BOX 340	PITOL AVE, MS 2308 280, CT 06134		

Please note, payment for all emailed applications is due within five days.

7



Appendix E

PCBs Report and Asbestos Pre-Demolition Inspection Reports

Appendix E PCBs Report and Asbestos Pre-Demolition Inspection Reports

Appendix E Notes for Bidders, April 2022

The Hazardous Building Materials inspections for the first two reports in this Appendix were completed in 2019 for the entire 35 North Main Street property. Since these inspections were done, many of the materials that were assessed have been removed during prior Scopes of Work. These reports are included as a general reference and backup for the current Scope of Work in this Invitation to Bidders. The last report documents an inspection of the upper floors of Building 8, which were previously inaccessible, completed in March 2022.

The following Tables represent the portion of the materials assessed in the earlier reports that are relevant to this current Scope of Work. Contractors responding to this Invitation to Bidders should verify that their estimates include abatement and disposal only of materials that are present in the Work Areas included in this Scope of Work, and do not include materials which are listed in the early reports, but are outside this Scope of Work. All materials listed in the latest report can be considered part of this Scope of Work (items 5 and 6 on the Bid Form).

As stated in the reports, the purpose of the inspections was to determine if asbestos-containing materials (ACM) and coatings and sealants containing PCBs were present on the site. The reports are not exhaustive inventories of all materials on the site or in the current Work Areas. Additional materials that are not listed in the following Tables may be present within the Work Areas. If additional sampling is conducted prior to the start of this Work, the results will be sent to the Contractor as an Amendment.

ASBESTOS PRE-RENOVATION INSPECTION REPORT

INSPECTION SITE:	35 Main Street
	Ansonia, CT
CLIENT:	Ann Bogucki AECOM 250 Apollo Drive
	Chelmsford, MA 01824
	Ann.Bogucki2@aecom.com
INSPECTORS:	James Twitchell (CT Insp./Mgmt. Planner #000241) Ted Tio (CT Inspector #000579)
INSPECTION DATES:	06/05/19 & 06/07/19
BUILDING TYPES:	Commercial
PLM ASBESTOS SAMPLES:	286 collected / 238 analyzed

BACKGROUND

The buildings at the above referenced location are slated for demolition. AECOM hired HYGENIX, Inc. to document the presence of asbestos-containing building materials (ACBM'S), and to comment on the impact these materials will have on the proposed renovation/demolition project. The results of the asbestos survey are presented in this report.

LIMITATIONS

There were no limitations placed on the inspection of the buildings. Structural integrity of some locations made access difficult. Some hidden locations may be present that were not accessible when on site.

ASBESTOS SAMPLING PROTOCOL

During the inspection of accessible spaces, the inspectors identified "functional spaces or building systems" (e.g. dwelling spaces, storage rooms, boiler rooms, roof systems, heating systems, etc.), and categorized the construction materials within functional spaces and/or system as "homogeneous", based on uniformity in color, age, texture and use. The inspector then compiled a list of building materials suspected to contain asbestos, and recorded the condition, location and approximate quantity of homogeneous, suspect materials.

From each homogeneous area or building system, the inspectors collected representative "bulk" samples of construction materials suspected to contain asbestos.

Samples of suspect materials were analyzed at AmeriSci New York by polarized light microscopy (PLM) in accordance with EPA procedures. The National Voluntary Laboratory Approval Program (NVLAP)

accredits AmeriSci New York to perform bulk asbestos analysis.

INTERPRETATION OF TEST RESULTS

The regulations of CT Department of Public Health and the US EPA define *asbestos containing materials* (ACM's) as materials containing greater than 1-% asbestos. If one or more bulk samples of a homogeneous material are found to contain greater than 1-% asbestos, then all of the homogeneous material is classified as ACM.

The US OSHA Asbestos Construction Industry Standard requires designation as *presumed asbestos containing materials* (PACM's), all surfacing materials and thermal system insulation which have <u>not</u> been tested, or for which the number of samples collected and analyzed was less than the previously listed minimums. This requirement does not apply if the building in which the material is found was constructed after 1980.

The results of the PLM laboratory testing are summarized in Appendix C.

GENERAL DISCUSSION - ASBESTOS ABATEMENT REGULATIONS

Asbestos management and abatement activities in the State of Connecticut are governed by the following State and federal regulations:

1. US EPA National Emission Standards for Hazardous Air Pollutants (NESHAPs)

The NESHAPs regulations for asbestos prohibit the emission of airborne asbestos dust to the environment. These regulations require notification of the regional office of US EPA at least 10 days in advance of an asbestos abatement project involving more than 260 linear feet, 160 square feet, or 35 cubic feet of material containing more than 1% asbestos. The NESHAPs regulations require the asbestos-containing materials to be kept in a wet condition during handling and removal, and specify requirements for labeling, transport and disposal of asbestos waste.

2. US OSHA Asbestos Construction Industry Standard

The OSHA Asbestos Construction Industry Standard protects workers who may be exposed to asbestos in construction. The OSHA standard specifies permissible exposure limits, and procedures for handling various forms and quantities of asbestos containing building materials. The standard describes regulated areas, exposure monitoring, respiratory protection and protective clothing, hygiene facilities, hazard communication, housekeeping, medical surveillance, record keeping, and worker training requirements.

3. CT DOPH CT Standards for Asbestos Abatement

The CT regulations describe the allowable procedures for asbestos abatement, licensing of personnel involved in asbestos abatement, and re-occupancy testing requirements. A 10-day advance notification of the agency is required for asbestos removal projects involving more than 25 square feet or 10 linear feet of interior friable and/or non-friable asbestos-containing material.

INVENTORY OF ASBESTOS CONTAINING BUILDING MATERIALS:

All asbestos containing materials must be removed from the building prior to renovation/demolition activities that will disturb them. A Connecticut licensed asbestos abatement contractor must remove the material and a clearance must be performed by a Connecticut licensed project monitor.

ACBM	Location (s) in	Estimated	
Description	Building	Quantity	Comments
Electrical Panel	Scattered locations on	170 units	
Clips & Backer	columns, units, walls, etc.		
Boards	D //1	100	
9x9 Floor Tile &	Bay #1	100 square feet	
Mastic	Bay #2	50 square feet	
	Bridge	20 square feet	
Transit Unit Panels	Scattered throughout	Unknown	The panels are in units on pallets and in boxes scattered throughout the building.
Exhaust Aircell/Fan Jacket	Bay #1	10 linear feet	
Stack Aircell	Bay #1	100 linear feet	
Exterior Window	All Windows	160 windows (perimeter)	
Caulk & Putty		250 windows (roof level)	
Block White	Bridge Above Doors	20 square feet	
Insulation			
Pipe Insulation	Ceiling level of all three bays	2,900 linear feet	The insulation is in poor condition with a lot of the insulation falling on surfaces below.
Mudded Insulation	NE Side, 2 nd Level	60 square feet	
Roof Field &	All Roofs	65,000 square feet	Flashing is present around all
Flashing			penetrations & skylights
Transite Panels	Exterior of Bridge	3,000 square feet	
Debris	Throughout all bays	65,000 square feet	Pipe, transite and roof debris is present throughout all three sections of building #2 on most horizontal surfaces.
Exterior Pipe Insulation & Debris	South Side of Building	30 linear feet	A lot of the insulation has fallen to the ground below.
Exterior Roofing Debris	Perimeter edge of building	Unknown	Roofing debris has fallen off of the building over time and is scattered around the building on the ground.

ACBM	Location (s) in	Estimated	
Description	Building	Quantity	Comments
Electrical Panel	Scattered locations on	150 units	
Clips & Backer	columns, units, walls, etc.		
Boards			
9x9 Floor Tile & Mastic	3 rd Floor	80 square feet	This area is unsafe with most of the floors caved in
Wall Panel Adhesive	3 rd Floor	200 square feet	This area is unsafe with most of the floors caved in
Transit Unit Panels & Pipe Pieces	Scattered throughout	Unknown	The panels are in units on pallets and in boxes scattered throughout the building.
Interior Window Putty	Scattered – Wood Windows	95 windows	
Brick & Pack Insulation	Oven Pits	4 Oven Pits	All insulation, debris and brick should be considered asbestos containing.
Wire, Pipe & Hose Insulation	Behind Ovens	Behind all 4 units	
Duct Breeching	Scattered Locations	20 square feet	
Water Tank Insulation	South West Boiler Room	100 square feet	The tank is elevated off the ground
Asbestos Blankets & Rolls	SW Storage Closet	20 units	
Oven Insulation	SW Section	400 square feet	The insulation is under a metal skin
Pipe Insulation	Ceiling level of all bays	650 liner feet	The insulation is in poor condition with a lot of the insulation falling on surfaces below.
Roof Field & Flashing	All Roofs	40,000 square feet	Flashing is present around all penetrations & skylights
Debris	Throughout all bays	40,000 square feet	Pipe, transite and roof debris is present throughout all three sections of building #2 on most horizontal surfaces.
Corrugated Transite	Exterior Walls & Roof	Not Available	
Exterior Roofing Debris	Perimeter edge of building	Unknown	Roofing debris has fallen off of the building over time and is scattered around the building on the ground.
Windows Covered in Transite	North End of Building	11 windows	

ACBM	Location (s) in	Estimated	
Description	Building	Quantity	Comments
Electrical Panel Clips & Backer Boards	Scattered locations on columns, units, walls, etc.	75 units	
9x9 Floor Tile & Mastic	$11A - 2^{nd} \& 3^{rd}$ Floor East Side	500 square feet	Flooring is other flooring and/or carpeting
Sink Insulation	11A – Offices East Side	1 unit	
Stack Insulation	11A – 1 st thru 4 th floor, East Side, Multiple Locations	300 linear feet	The insulation is on stacks leading to the roof under a metal skin. There are a total of 6 separate stacks.
Transit Unit Panels	Scattered throughout	Not Available	The panels are in units on pallets and in boxes scattered throughout the building.
Window Putty	11A – Exterior Windows	150 units	
Boiler Rope & Gasketing	11A – 3 rd & 4 th Floor Mezzanines, Multiple Locations	3 boilers	Boilers must be completely dismantled to remove all asbestos
HVAC Gasketing	11A – 4 th Floor	10 units	
Roof Field & Flashing	All Roofs		Flashing is present around all penetrations & skylights
Debris	Scattered Locations	Not Available	Pipe insulation debris is not an issue in this building. Mezzanine floors have more random debris than the 1 st floor. 4 th Floor has a lot of roofing debris
Corrugated &	All Exterior Walls &	Not Available	
Smooth Transite	Majority of Roof		
Exterior Roofing Debris	Perimeter edge of building	Unknown	Roofing debris has fallen off of the building over time and is scattered around the building on the ground.

Building 11B

ACBM	Location (s) in	Estimated	
Description	Building	Quantity	Comments
Electrical Panel Clips & Backer Boards	Scattered locations on columns, units, walls, etc.	10 units	
Oven Duct Insulation	Behind Metal Oven	300 square feet	
Gasket Insulation	Oven Door	50 linear feet	

Building 11C

ACBM	Location (s) in	Estimated	
Description	Building	Quantity	Comments
Electrical Panel	Scattered locations on	11 units	
Clips & Backer	columns, units, walls, etc.		
Boards			
Roof Field &	All Roofs	520 square feet	Flashing is present around all
Flashing			penetrations & skylights
Corrugated &	Exterior Walls & Roof	Not Available	
Smooth Transite			

Building 11D				
ACBM	Location (s) in	Estimated		
Description	Building	Quantity	Comments	
Electrical Panel	Scattered locations on	15 units		
Clips & Backer	columns, units, walls, etc.			
Boards				
Transit Unit Panels	Scattered throughout	Not Available	The panels are in units on pallets and	
			in boxes scattered throughout the	
			building.	
Window Putty	Exterior Windows	2 units		
Roof Field &	All Roofs	1,178 square feet	Flashing is present around all	
Flashing			penetrations & skylights	
Corrugated &	All Exterior Walls &	Not Available		
Smooth Transite	Majority of Roof			

Building 10

ACBM Description	Location (s) in Building	Estimated Quantity	Comments
Electrical Panel Clips & Backer Boards	Scattered locations on columns, units, walls, etc.	30 units	
Roof Field & Flashing	All Roofs	4,900 square feet	Flashing is present around all penetrations & skylights
Pipe Insulation	Running Along Ceiling	230 linear feet	
Debris	Throughout all bays	4,900 square feet	Pipe, transite and roof debris is present throughout all three sections of building #2 on most horizontal surfaces.

Building 32

ACBM	Location (s) in	Estimated	
Description	Building	Quantity	Comments
Electrical Panel	Scattered locations on	80 units	
Clips & Backer	columns, units, walls, etc.		
Boards			
Pipe Insulation	1 st Floor & Hidden	156 linear feet	
	Locations		
Red Galbestos	Roof Level	5,000 square feet	These are corrugated panels and make
			up a building at the roof level
Roof Field &	All Roofs	4,100 square feet	Flashing is present around all
Flashing			penetrations & skylights
Debris	Throughout all bays	4,100 square feet	Pipe, transite and roof debris is
			present throughout all three sections of building #2 on most horizontal
			surfaces.
Corrugated &	Some Exterior Walls	Not Available	
Smooth Transite			
Exterior Roofing	Perimeter edge of building	Unknown	Roofing debris has fallen off of the
Debris			building over time and is scattered
			around the building on the ground.

Building 8				
ACBM Description	Location (s) in Building	Estimated Quantity	Comments	
Electrical Panel Clips & Backer Boards	Scattered locations on columns, units, walls, etc.	45 units		
Pipe Insulation	1 st Floor & Hidden Locations	114 linear feet	The majority of the insulation has fallen.	
Roof Field & Flashing	All Roofs	3,978 square feet	Flashing is present around all penetrations & skylights	
Debris	Throughout all bays	7,956 square feet	Pipe, transite and roof debris is present throughout all three sections of building #2 on most horizontal surfaces.	
Miscellaneous	2 nd Level/Floor	Not Available	This are was locked and not available for inspection	
Corrugated & Smooth Transite	Some Exterior Walls	Not Available		
Exterior Roofing Debris	Perimeter edge of building	Unknown	Roofing debris has fallen off of the building over time and is scattered around the building on the ground.	

INVENTORY OF NON-ASBESTOS CONTAINING BUILDING MATERIALS:

Building #12 Wall Panel Glue	Building #12 Cove Base Adhesive	Building #12 Front Office Black Flooring	Building #12 – Bay #3 Concrete Floor Expansion Joint Material	Building #12 – Black Pipe
Building #12, Bay #1, 12x12 Floor Tile & Mastic	Building #12 – Ceramic Wall Adhesive	Building #12 – Ceramic Wall Mortar	Building #12 – Random Fissure Ceiling Tile	Bridge, Behind Transite – Building Paper
Building #12 – Fiberglass Pipe Insulation Paper Jacket	Building #12 – Sheet Rock	Building #12 – Wall Panel Adhesive	Bridge – Ceramic Tile Adhesive	Bridge – Ceiling Tile
Building #12, Bay #3 – Wall Glue	Building #12, Bay #3 – Ceramic Tile Glue	Building #12, Bay #3 – Sheet Rock	Building #12, Bay #3 – Joint Compound	Building #11, 3 rd Floor – Box of Debris
Building #11A, 2 nd Floor – Ceiling Paper	Building #11A – Sheet Rock	Building #11A – Plaster	Building #11A – Floor Mortar	Building #11A – Cove Basse Adhesive
Building #11A – Ceiling Tile Glue	Building #11A – Joint Compound	Building #11A – Black Mastic in Wall Unit	Building #11A – Wall Panel Glue	Building #11A – 2x4 Random Fissure Ceiling Tile
Building #10 – Sheet Rock	Building #10 – 12x12 Floor Tile & Mastic	Building #10 – 2x4 Random Fissure Ceiling Tile	Building #11 – Random Fissure Ceiling Tile	Building #11 – Sheet Rock
Building #11 Joint Compound	Building #11C – Window Putty	Building #11B – Oven Floor Debris	Building #11A – Vibration Cloth	Building #11A – Ceramic Tile Thin Set
Building #32 – Wire Insulation	Building #32 – Exterior Gray Corrugated Metal	Building #8 – Boiler Insulation	Fire Doors Are Metal on Wood	

DISCLAIMER

HYGENIX, Inc. has performed its services, within the limits prescribed by our clients, with the usual thoroughness and competence of the industrial hygiene profession.

The findings in this report are based upon observations and information available to the inspector during the time of the rendering of the services as described in this report and are based on procedures currently required by applicable laws, regulations and ordinances. HYGENIX cannot be responsible for conditions or materials the inspector did not observe due to lack of access or was not otherwise reasonably observable. The conclusions in this report are professional opinions based solely upon these findings. The findings and conclusions are intended exclusively for the purpose outlined herein within the scope of work and at the site location and project indicated.

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07/11/19 James Twitchell Date

APPENDIX A

SITE PHOTOGRAPHS

































































Bldg11—Behind Ovens

















Bldg11A-Plaster Ceiling

















































APPENDIX B

SITE SKETCHES










APPENDIX C

PLM BULK ASBESTOS ANALYSIS REPORTS

Please Reply To:

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AmeriSci New York

117 EAST 30TH ST. NEW YORK, NY 10016 TEL: (212) 679-8600 • FAX: (212) 679-3114

FACSIMILE TELECOPY TRANSMISSION

To: Robert Brown Hygenix, Inc.

Fax #:

From:Bo SunAmeriSci Job #:219062361Subject:PLM 5 day ResultsClient Project:35 N Main St., Ansonia, CT

Email: jtwitchell@hygenix.com

 Date:
 Friday, June 14, 2019

 Time:
 19:25:01

 Comments:
 Comments

Number of Pages:

(including cover sheet)

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Ameri Sci

PLM Bulk Asbestos Report

Hygenix, Inc.	Date Received	06/12/19	AmeriS	ci Jo	b #	219062361
Attn: Robert Brown	Date Examined	06/12/19	P.O. #			
49 Woodside Street			Page	1	of	50
	RE: 35 N Main S	t., Ansonia, CT	-			

Stamford, CT 06902

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
1 Locatio	219062361-01 n: 11A 4th Bath - Ceramic Tile Thin Set	Νο	NAD ¹ (by CVES) by Bo Sun
Asbestos Types:	y, Homogeneous, Non-Fibrous, Cementiti ulose Trace, Non-fibrous 100 %	ous, Bulk Material	on 06/12/19
2	219062361-02	No	NAD
	n: 11A 4th Bath - Ceramic Tile Thin Set		(by CVES) by Bo Sun on 06/12/19
Asbestos Types:	y, Homogeneous, Non-Fibrous, Cementiti ulose Trace, Non-fibrous 100 %	ous, Bulk Material	
3	219062361-03	No	NAD
Locatio	n: 11A 4th Bath - Ceramic Tile Thin Set		(by CVES) by Bo Sun on 06/12/19
Asbestos Types:	y, Homogeneous, Non-Fibrous, Cementiti	ous, Bulk Material	
Other Material: Cell	ulose Trace, Non-fibrous 100 %		
4 Locatio	219062361-04 n: 11A 4th - FL Debris	Νο	NAD ² (by CVES) by Bo Sun on 06/12/19
Asbestos Types:	te, Homogeneous, Non-Fibrous, Bulk Mat	erial	
Other Material: Cell	ulose 2 %, Non-fibrous 98 %		
5 Locatio	219062361-05 n: v - Insul. Inside Stack	Νο	NAD (by CVES) by Bo Sun on 06/12/19
Asbestos Types:	wn, Homogeneous, Non-Fibrous, Bulk Ma	terial	
Other Material: Cell	ulose Trace, Non-fibrous 100 %		

35 N Main St., Ansonia, CT

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbesto
	219062361-06 nsul. Inside Stack mogeneous, Non-Fibrous, Bulk M	No	NAD (by CVES) by Bo Sun on 06/12/19
Asbestos Types: Other Material: Cellulose 3	-		
7 Location: 11/		Νο	NAD (by CVES) by Bo Sun on 06/12/19
Analyst Description: Black, Hor Asbestos Types:	-		
Other Material: Cellulose	Trace, Fibrous glass 20 %, Non-f	fibrous 80 %	
B Location: 11/		Νο	NAD (by CVES) by Bo Sun on 06/12/19
Analyst Description: Black, Hon Asbestos Types: Other Material: Cellulose 2	nogeneous, Fibrous, Bulk Materia ? %, Fibrous glass 25 %, Non-fib		
) Location: 11/	219062361-09 A - Roof Field	Νο	NAD (by CVES) by Bo Sun on 06/12/19
Analyst Description: Black, Hon Asbestos Types: Other Material: Cellulose T	nogeneous, Fibrous, Bulk Material Trace, Fibrous glass 25 %, Non-f		
10 Location: 11/	219062361-10 A - Putty E	No	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Grey/White Asbestos Types: Other Material: Cellulose T		ementitious, Bulk Material	
11 Location: 11/	219062361-11 A - Boiler Gasket	Yes	80 % (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown/Whi Asbestos Types: Chrysotile Other Material: Cellulose T	80.0 %	Material	

Other Material: Cellulose Trace, Non-fibrous 20 %

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
12 Locat	219062361-12 ion: 11A - Boiler Rope	Yes	90 % (by CVES) by Bo Sun on 06/13/19
Asbestos Types: Ch	rey, Homogeneous, Fibrous, Bulk Material nrysotile 90.0 % ellulose Trace, Non-fibrous 10 %		01100/13/13
13 Locat	219062361-13 ion: 11A - Putty E	Yes	2 % (by CVES) by Bo Sun on 06/13/19
Analyst Description: Gr Asbestos Types: Ch Other Material: No			
14 Locati	219062361-14 ion: 11A - Vibration Cloth	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	hite, Homogeneous, Fibrous, Bulk Material Ilulose 97 %, Non-fibrous 3 %		
15 Locati	219062361-15 on: 11A - Vibration Cloth	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	nite, Homogeneous, Fibrous, Bulk Material Ilulose 97 %, Non-fibrous 3 %		
16 Locati	219062361-16 on: 11 - Roof Transite	Yes	15 % (by CVES) by Bo Sun on 06/13/19
Analyst Description: Gro Asbestos Types: Ch Other Material: No	-	k Material	
17 SI-1 Locati	219062361-17 on: 11A 4th - Stack Insulation	Yes	40 % (by CVES) by Bo Sun on 06/13/19
Analyst Description: Gre Asbestos Types: Ch Other Material: No			

Client No.	. / HGA	Lab No.	Asbestos Present	Total % Asbestos
18		219062361-18		NA/PS
SI-1	Location: 11A 4	th - Stack Insulation		
Asbe	Description: Bulk Material stos Types: er Material:			
19		219062361-19		NA/PS
SI-1	Location: 11A 4	h - Stack Insulation		
Asbe	Description: Bulk Material stos Types: er Material:			
20		219062361-20	Yes	60 %
HG	Location: 11A 4t	h - HVAC Gasket		(by CVES) by Bo Sun on 06/13/19
Asbes	Description: Brown, Homog stos Types: Chrysotile 60 er Material: Non-fibrous 40		I	
21		219062361-21		NA/PS
łG	Location: 11A 4t	h - HVAC Gasket		
Asbes	escription: Bulk Material stos Types: er Material:			
22		219062361-22	Yes	25 %
RG	Location: 32 88	Red Galbestos		(by CVES) by Bo Sun on 06/13/19
Asbes	escription: Red/Black, Ho stos Types: Chrysotile 25. er Material: Non-fibrous 75		< Material	
3		219062361-23		NA/PS
RG	Location: 32 88 -			
Asbes	escription: Bulk Material stos Types: er Material:			

Client No. /	HGA Lab No.	Asbestos Present	Total % Asbestos
24 RG	219062361-24 Location: 32 88 - Red Galbestos		NA/PS
Asbesto	cription: Bulk Material s Types: Material:		
25	219062361-25	No	NAD
	Location: 32 88 - Blk Galbestos		(by CVES) by Bo Sun on 06/13/19∞
Analyst Dese Asbesto	cription: Black, Homogeneous, Non-Fibrous, Bulk Ma s Types:	iterial	
	Material: Non-fibrous 100 %		
26	219062361-26	No	NAD
	Location: 32 88 - Blk Galbestos		(by CVES) by Bo Sun on 06/13/19
Asbesto	cription: Black, Homogeneous, Non-Fibrous, Bulk Ma s Types: faterial: Non-fibrous 100 %	terial	
27	219062361-27	No	NAD
	Location: 32 88 - Blk Galbestos		(by CVES) by Bo Sun on 06/13/19
Asbestos	c ription : Black, Homogeneous, Non-Fibrous, Bulk Ma s Types: faterial: Non-fibrous 100 %	terial	
28	219062361-28	Yes	4 %
RF	Location: 32 88 - Roof Field		(by CVES) by Bo Sun on 06/13/19
Asbestos	ription: Black, Homogeneous, Non-Fibrous, Bulk Mat s Types: Chrysotile 4.0 % faterial: Non-fibrous 96 %	terial	
29	219062361-29		NA/PS
RF	Location: 32 88 - Roof Field		
Asbestos	ription: Bulk Material 5 Types: laterial:		

Client No	. / HGA	Lab No.	Asbestos Present	Total % Asbesto
30		219062361-30		NA/PS
RF	Location: 32 88 - Ro	of Field		
Asbe	Description: Bulk Material stos Types: er Material:			
31	· · · · · · · · · · · · · · · · · · ·	219062361-31	Yes	15 %
ВТ	Location: 11A 1st - E			(by CVES) by Bo Sun on 06/13/19
Asbe	Description: Grey, Homogeneo stos Types: Chrysotile 15.0 % er Material: Non-fibrous 85 %		, Bulk Material	
32		219062361-32		NA/PS
BT	Location: 11A 1st - E	Box Transite		
Asbe	Description: Bulk Material stos Types: er Material: 	219062361-33 Box Transite		NA/PS
Analyst [Asbe	Description: Bulk Material stos Types: er Material:			
34		219062361-34	No	NAD
	Location: 32 1st - Wi	re Insul		(by CVES) by Bo Sun on 06/13/19
Asbe	Description: Black, Homogened stos Types: er Material: Cellulose 95 %, N			
35		219062361-35	No	NAD
	Location: 32 1st - Wi			(by CVES) by Bo Sun on 06/13/19
Asbe	escription: Black, Homogeneo stos Types:			
Oth	er Material: Cellulose 95 %, N	lon-fibrous 5 %		

35 N Main St., Ansonia, CT

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
36 Location: 32	219062361-36 Ist - Electrical Panel	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Black/Grey Asbestos Types: Other Material: Cellulose 9	-	aterial	01100/13/19
	219062361-37 st - Electrical Panel	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Black/Grey, Asbestos Types: Other Material: Cellulose 9	-	aterial	
38	219062361-38 st - Electrical Panel	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Black/Grey, Asbestos Types: Other Material: Cellulose 9	•	aterial	
39 Location: 32 1	219062361-39 st - Aircell Debris	Yes	15 % ² (by CVES) by Bo Sun on 06/13/19
Analyst Description: White, Hete Asbestos Types: Chrysotile Other Material: Non-fibrous	5.0 %, Amosite 10.0 %	al	
40 Location: 32 1	219062361-40 st - Aircell Debris	Yes	20 % ² (by CVES) by Bo Sun on 06/13/19
Analyst Description: White, Hom Asbestos Types: Chrysotile Other Material: Non-fibrous	10.0 %, Amosite 10.0 %	I	
41 Location: 32 1	219062361-41 st - Aircell Debris	Yes	20 % ² (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown/Whit Asbestos Types: Chrysotile & Other Material: Cellulose 10	5.0 %, Amosite 15.0 %	Material	

Other Material: Cellulose 10 %, Non-fibrous 70 %

40	/HGA Lab No.	Asbestos Present	Total % Asbestos
42 OG	219062361-42 Location: 11B 1st - Oven Door Gasket	Yes	80 % (by CVES) by Bo Sun on 06/13/19
Asbes	escription: Brown/White, Homogeneous, Fibrous, Bulk stos Types: Chrysotile 80.0 % er Material: Non-fibrous 20 %	k Material	
43	219062361-43	1911,	NA/PS
OG	Location: 11B 1st - Oven Door Gasket		
Asbes	escription: Bulk Material stos Types: er Material:		
44	219062361-44		NA/PS
OG	Location: 11B 1st - Oven Door Gasket		
	er Material: 219062361-45	Νο	NAD ²
+0	Location: 11B 1st - Oven Floor Debris	NO	(by CVES) by Bo Sun on 06/13/19
Asbes	escription: Dark Brown, Homogeneous, Fibrous, Bulk N		
Othe	er Material: Animal hair Trace, Cellulose 10 %, Fibrou	-	
	219062361-46	Νο	NAD ²
46	Location: 11B 1st - Oven Floor Debris		(by CVES) by Bo Sun on 06/13/19
Asbes	escription: Dark Brown, Homogeneous, Fibrous, Bulk M tos Types:		by Bo Sun
Analyst Do Asbes	escription: Dark Brown, Homogeneous, Fibrous, Bulk M tos Types: ar Material: Animal hair Trace, Cellulose 15 %, Synthe	etic fibers 10 %, Non-fibrous 75 %	by Bo Sun on 06/13/19
Analyst Do Asbes	escription: Dark Brown, Homogeneous, Fibrous, Bulk M tos Types:		by Bo Sun

Client No.	. / HGA	Lab No.	Asbestos Present	Total % Asbesto
48 Ol	Location: 11B 1s	219062361-48 t - Oven Duct Insulation	Yes	10 % (by CVES) by Bo Sun on 06/13/19
Asbe	Description: White, Homog stos Types: Chrysotile 10. er Material: Non-fibrous 90		iitious, Bulk Material	
49		219062361-49		NA/PS
IC	Location: 11B 1s	t - Oven Duct Insulation		
Asbe	Description: Bulk Material stos Types: er Material:			
50		219062361-50		NA/PS
IC	Location: 11B 1st	- Oven Duct Insulation		
Asbes Othe	Description: Bulk Material stos Types: er Material:			
51	Leasting 110 1a	219062361-51	Yes	20 %
Γ	Location: 11C 1s	- Transite		(by CVES) by Bo Sun on 06/13/19
Asbes	escription: Grey, Homoger stos Types: Chrysotile 20.0 er Material: Non-fibrous 80		Bulk Material	
52		219062361-52		NA/PS
Γ	Location: 11C 1st	- Transite		
Asbes	escription: Bulk Material stos Types: er Material:			
53		219062361-53		NA/PS
Г	Location: 11C 1st	- Transite		
Asbes	escription: Bulk Material stos Types: er Material:			

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
54 Location: 110	219062361-54 C 1st - Window Putty	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Grey, Hom Asbestos Types: Other Material: Non-fibrou	iogeneous, Non-Fibrous, Bulk Ma s 100 %	terial	
55	219062361-55	Νο	NAD
Location: 110	C 1st - Window Putty		(by CVES) by Bo Sun on 06/13/19
Analyst Description: Grey, Hom Asbestos Types: Other Material: Non-fibrous		terial	
56 Location: 110	219062361-56 C 1st - Window Putty	Yes	4 % (by CVES) by Bo Sun on 06/13/19
Analyst Description: White/Gree Asbestos Types: Chrysotile Other Material: Non-fibrous	4.0 %	Bulk Material	
57	219062361-57	Yes	15 % ²
Location: 11	1st - Roof Debris		(by CVES) by Bo Sun on 06/13/19
Analyst Description: Grey, Home Asbestos Types: Chrysotile Other Material: Non-fibrous	15.0 %	Bulk Material	
58 Location: 11 1	219062361-58 Ist - Roof Debris Black	Yes	10 % ² (by CVES) by Bo Sun on 06/13/19
Analyst Description: Black, Hom Asbestos Types: Chrysotile Other Material: Cellulose 1	10.0 %		
	219062361-59 Ist - Roof Debris Black	Yes	10 % ² (by CVES) by Bo Sun on 06/13/19
Analyst Description: Black, Hom Asbestos Types: Chrysotile Other Material: Cellulose 1	10.0 %		

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
60 Location: 11	219062361-60.1 1st - SR, JC - Sheetrock	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown/Gre Asbestos Types: Other Material: Cellulose (ey, Heterogeneous, Fibrous, Bulk N 60 %, Non-fibrous 40 %	<i>N</i> aterial	
	219062361-60.2 1st - SR, JC - Joint Compound	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: White, Hor Asbestos Types: Other Material: Cellulose {	nogeneous, Non-Fibrous, Bulk Ma 5 %, Non-fibrous 95 %	terial	
61 Location: 11	219062361-61.1 1st - SR, JC - Sheetrock	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown/Gre Asbestos Types: Other Material: Cellulose 8	y, Heterogeneous, Fibrous, Bulk M 35 %, Non-fibrous 15 %	laterial	
51 Location: 11	219062361-61.2 1st - SR, JC - Joint Compound	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: White, Hor Asbestos Types: Other Material: Cellulose 3	nogeneous, Non-Fibrous, Bulk Mat %, Non-fibrous 97 %	terial	
52 Location: 11	219062361-62 1st - 2 X 4 RF CT	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	nogeneous, Fibrous, Bulk Material 0 %, Fibrous glass 15 %, Non-fib		
	219062361-63 1st - 2 X 4 RF CT	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	nogeneous, Fibrous, Bulk Material 0 %, Fibrous glass 15 %, Non-fib		

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
	219062361-64 ation: 11 1st - 2 X 4 RF CT	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	Brown, Homogeneous, Fibrous, Bulk Material Cellulose 40 %, Fibrous glass 10 %, Non-fibro	ous 50 %	
65	219062361-65 ation: 11 1st - Aircell Debris	Yes	20 % ² (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	White, Homogeneous, Fibrous, Bulk Material Chrysotile 5.0 %, Amosite 15.0 % Non-fibrous 80 %		
66 Loc	219062361-66 ation: 11 1st - Aircell Debris	Yes	14 % ² (by CVES) by Bo Sun on 06/13/19
	White, Homogeneous, Fibrous, Bulk Material Chrysotile 4.0 %, Amosite 10.0 % Non-fibrous 86 %		
67 Loc	219062361-67 ation: 11 1st - Aircell Debris	Yes	10 % ² (by CVES) by Bo Sun on 06/13/19
	White, Homogeneous, Fibrous, Bulk Material Chrysotile 5.0 %, Amosite 5.0 % Non-fibrous 90 %		
68 LM Loc	219062361-68 ation: 11 1st - Loose Material Behind Oven	Yes	60 % (by CVES) by Bo Sun on 06/13/19
Analyst Description: \ Asbestos Types: (Other Material: I	•		00 00/13/19
69 LM Loc	219062361-69 ation: 11 1st - Loose Material Behind Oven		NA/PS
Analyst Description: E Asbestos Types: Other Material:	Bulk Material		~

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
70	219062361-70		NA/PS
LM Location	n: 11 1st - Loose Material Behind Oven		
Analyst Description: Bulk Asbestos Types: Other Material:	Material		
71	219062361-71	Yes	75 %
	n: 11 1st - Duct Breaching		(by CVES) by Bo Sun on 06/13/19
Analyst Description: White Asbestos Types: Chrys Other Material: Non-f			
72	219062361-72	Yes	10 %
Location	n: 11 1st - Transite Pipe		(by CVES) by Bo Sun on 06/13/19
Analyst Description: Grey, Asbestos Types: Chrys Other Material: Non-f		Bulk Material	
73	219062361-73	Yes	4 % ²
Location	i: 11 1st - Floor Debris		(by CVES) by Bo Sun on 06/13/19
Asbestos Types: Chrys	n, Homogeneous, Fibrous, Cementitious, sotile 4.0 % lose Trace, Non-fibrous 96 %	Bulk Material	
74	219062361-74	No	NAD
Location	: 11 1st - Wire Jacket		(by CVES) by Bo Sun on 06/13/19
Asbestos Types:	n/White, Homogeneous, Fibrous, Bulk Ma ose 90 %, Non-fibrous 10 %	iterial	
75 Location	219062361-75 : 11 1st - Wire Jacket	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown Asbestos Types:	n/White, Homogeneous, Fibrous, Bulk Ma	terial	
Other Material: Cellulo	ose 85 %, Non-fibrous 15 %		

	Lab No.	Asbestos Present	Total % Asbestos
76	219062361-76	No	NAD
Location	: Exterior - Brick Mortar		(by CVES) by Bo Sun
			on 06/13/19
Analyst Description: Grey, Asbestos Types: Other Material: Non-fi	Homogeneous, Non-Fibrous, Cementi	tious, Bulk Material	
77	219062361-77	No	NAD
Location	: Exterior - Brick Mortar		(by CVES) by Bo Sun
			on 06/13/19
Analyst Description: Grey,	Homogeneous, Non-Fibrous, Cementi	tious, Bulk Material	
Asbestos Types:			
Other Material: Non-fi	brous 100 %		
78	219062361-78	No	NAD
Location	Exterior - Brick Mortar		(by CVES)
			by Bo Sun
			on 06/13/19
Analyst Description: Grey, Asbestos Types:	Homogeneous, Non-Fibrous, Cementit	tious, Bulk Material	
Other Material: Cellulo	ose Trace. Non-fibrous 100 %		
<u> </u>	ose Trace, Non-fibrous 100 %		
79	219062361-79	Yes	13 %
79		Yes	(by CVES)
79	219062361-79	Yes	(by CVES) by Bo Sun
79 Location:	219062361-79 PT 1 - Insulation		(by CVES)
79 Location: Analyst Description: White,	219062361-79 PT 1 - Insulation Homogeneous, Fibrous, Bulk Material		(by CVES) by Bo Sun
'9 Location: Analyst Description: White,	219062361-79 PT 1 - Insulation Homogeneous, Fibrous, Bulk Material otile 3.0 %, Amosite 10.0 %		(by CVES) by Bo Sun
'9 Location: Analyst Description: White, Asbestos Types: Chryst Other Material: Non-fil	219062361-79 PT 1 - Insulation Homogeneous, Fibrous, Bulk Material otile 3.0 %, Amosite 10.0 %	l	(by CVES) by Bo Sun
 29 Location: Analyst Description: White, Asbestos Types: Chryst Other Material: Non-fil 30 	219062361-79 PT 1 - Insulation Homogeneous, Fibrous, Bulk Material otile 3.0 %, Amosite 10.0 % brous 87 %		(by CVES) by Bo Sun on 06/13/19 NAD
 29 Location: Analyst Description: White, Asbestos Types: Chryst Other Material: Non-fil 30 	219062361-79 PT 1 - Insulation Homogeneous, Fibrous, Bulk Material otile 3.0 %, Amosite 10.0 % brous 87 % 219062361-80	l	(by CVES) by Bo Sun on 06/13/19
 29 Location: Analyst Description: White, Asbestos Types: Chryst Other Material: Non-fil 50 Location: 	219062361-79 PT 1 - Insulation Homogeneous, Fibrous, Bulk Material otile 3.0 %, Amosite 10.0 % brous 87 % 219062361-80 PT 3 - Fire Brick	Νο	(by CVES) by Bo Sun on 06/13/19 NAD (by CVES)
79 Location: Analyst Description: White, Asbestos Types: Chryse Other Material: Non-fil 30 Location: Analyst Description: Grey, I	219062361-79 PT 1 - Insulation Homogeneous, Fibrous, Bulk Material otile 3.0 %, Amosite 10.0 % brous 87 % 219062361-80	No	(by CVES) by Bo Sun on 06/13/19 NAD (by CVES) by Bo Sun
79 Location: Analyst Description: White, Asbestos Types: Chryso Other Material: Non-fil 30 Location: Analyst Description: Grey, I Asbestos Types:	219062361-79 PT 1 - Insulation Homogeneous, Fibrous, Bulk Material otile 3.0 %, Amosite 10.0 % brous 87 % 219062361-80 PT 3 - Fire Brick Homogeneous, Non-Fibrous, Cementit	No	(by CVES) by Bo Sun on 06/13/19 NAD (by CVES) by Bo Sun
79 Location: Analyst Description: White, Asbestos Types: Chryso Other Material: Non-fil 30 Location: Analyst Description: Grey, I Asbestos Types: Other Material: Non-fil	219062361-79 PT 1 - Insulation Homogeneous, Fibrous, Bulk Material otile 3.0 %, Amosite 10.0 % brous 87 % 219062361-80 PT 3 - Fire Brick Homogeneous, Non-Fibrous, Cementit prous 100 %	No ious, Bulk Material	(by CVES) by Bo Sun on 06/13/19 NAD (by CVES) by Bo Sun on 06/13/19
79 Location: Analyst Description: White, Asbestos Types: Chryso Other Material: Non-fil 30 Location: Analyst Description: Grey, I Asbestos Types: Other Material: Non-fil 31	219062361-79 PT 1 - Insulation Homogeneous, Fibrous, Bulk Material otile 3.0 %, Amosite 10.0 % brous 87 % 219062361-80 PT 3 - Fire Brick Homogeneous, Non-Fibrous, Cementit brous 100 % 219062361-81	No	(by CVES) by Bo Sun on 06/13/19 NAD (by CVES) by Bo Sun on 06/13/19 NAD
79 Location: Analyst Description: White, Asbestos Types: Chryso Other Material: Non-fil 30 Location: Analyst Description: Grey, I Asbestos Types: Other Material: Non-fil 31	219062361-79 PT 1 - Insulation Homogeneous, Fibrous, Bulk Material otile 3.0 %, Amosite 10.0 % brous 87 % 219062361-80 PT 3 - Fire Brick Homogeneous, Non-Fibrous, Cementit prous 100 %	No ious, Bulk Material	(by CVES) by Bo Sun on 06/13/19 NAD (by CVES) by Bo Sun on 06/13/19 NAD (by CVES)
79 Location: Analyst Description: White, Asbestos Types: Chryso Other Material: Non-fil 30 Location: Analyst Description: Grey, I Asbestos Types: Other Material: Non-fil 31	219062361-79 PT 1 - Insulation Homogeneous, Fibrous, Bulk Material otile 3.0 %, Amosite 10.0 % brous 87 % 219062361-80 PT 3 - Fire Brick Homogeneous, Non-Fibrous, Cementit brous 100 % 219062361-81	No ious, Bulk Material	(by CVES) by Bo Sun on 06/13/19 NAD (by CVES) by Bo Sun on 06/13/19 NAD (by CVES) by Bo Sun
79 Location: Analyst Description: White, Asbestos Types: Chryso Other Material: Non-fil 30 Location: Analyst Description: Grey, I Asbestos Types: Other Material: Non-fil 31 Location:	219062361-79 PT 1 - Insulation Homogeneous, Fibrous, Bulk Material otile 3.0 %, Amosite 10.0 % brous 87 % 219062361-80 PT 3 - Fire Brick Homogeneous, Non-Fibrous, Cementit brous 100 % 219062361-81	No ious, Bulk Material	(by CVES) by Bo Sun on 06/13/19 NAD (by CVES) by Bo Sun on 06/13/19 NAD (by CVES)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
82 Location: 10	219062361-82 1st - 2 X 4 RF CT	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	nogeneous, Fibrous, Bulk Material 35 %, Fibrous glass 10 %, Non-fi		
83 Location: 10	219062361-83 1st - 2 X 4 RF CT	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	ogeneous, Fibrous, Bulk Material 45 %, Fibrous glass 10 %, Non-fi		
84 Location: 10	219062361-84	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: White, Ho Asbestos Types: Other Material: Cellulose	nogeneous, Non-Fibrous, Bulk Ma Frace, Non-fibrous 100 %	aterial	
35 Location: 10	219062361-85 1st - JC	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: White, Hou Asbestos Types: Other Material: Cellulose 2	nogeneous, Non-Fibrous, Bulk Ma ? %, Non-fibrous 98 %	aterial	
36 Location: 10	219062361-86 1st - JC	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: White, Hor Asbestos Types: Other Material: Cellulose	nogeneous, Non-Fibrous, Bulk Ma Frace, Non-fibrous 100 %	iterial	
37 Location: 10	219062361-87 1st - SR	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown/Wh Asbestos Types: Other Material: Cellulose 2	ite, Heterogeneous, Fibrous, Bulk	Material	

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
88 Location: 10 1s	219062361-88 t - SR	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown/White Asbestos Types: Other Material: Cellulose 10	-	Material	
89 Location: 10 1s	219062361-89 t - 12 X 12 FT & Mastic - Tile	No	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Black/Grey, H Asbestos Types: Other Material: Non-fibrous 1	-	lk Material	
90 Location: 10 1s	219062361-90 t - 12 X 12 FT & Mastic - Mastic	No	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Black, Homog Asbestos Types: Other Material: Cellulose 2 % Comment: Bag Labeled	, Non-fibrous 98 %	terial	
91 Location: 10 1s	219062361-91 t - 12 X 12 FT & Mastic - Tile	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Black/Grey, H Asbestos Types: Other Material: Non-fibrous 1 Comment: Bag Labeled :	00 %	lk Material	
92 Location: 10 1st	219062361-92 - 12 X 12 FT & Mastic - Mastic	Νο	NAD (by CVES) by Bo Sun
			on 06/13/19

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
	219062361-93 - 12 X 12 FT & Mastic - Tile	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Black/Grey, Ho Asbestos Types: Other Material: Non-fibrous 10		ılk Material	
Comment: Bag Labeled #	91		
94 Location: 10 1st	219062361-94 12 X 12 FT & Mastic - Mastic	No	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Black, Homoge Asbestos Types: Other Material: Cellulose 3 %,	Non-fibrous 97 %	terial	01100/13/13
Comment: Bag Labeled #	91		
95 Location: 10 1st -	219062361-95 SR	Νο	NAD (by CVES) by Bo Sun
Analyst Description: Brown/White, H Asbestos Types: Other Material: Cellulose 10 %			on 06/13/19
96 Location: 11A 3rd	219062361-96 - Sink Insul	Yes	5 % (by CVES) by Bo Sun on 06/13/19
Analyst Description: Black, Homoge Asbestos Types: Chrysotile 5.0 Other Material: Cellulose 5 %,	%	terial	01 00/13/19
97 Location: 11A 3rd	219062361-97 - 2 X 4 RF CT	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown/White, H Asbestos Types: Other Material: Fibrous glass 8	-	laterial	

35 N Main St., Ansonia, CT

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
	219062361-98 ion: 11A 3rd - 2 X 4 RF CT	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	own/White, Homogeneous, Fibrous, Bulk I prous glass 80 %, Non-fibrous 20 %	Material	
99	219062361-99 on: 11A 3rd - 2 X 4 RF CT	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	own/White, Homogeneous, Fibrous, Bulk N rous glass 75 %, Non-fibrous 25 %	Material	
100 Locati	219062361-100 on: 11A 3rd - Wall Panel Glue	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Bro Asbestos Types: Other Material: Nor	wn, Homogeneous, Non-Fibrous, Bulk Ma n-fibrous 100 %	aterial	
101 Locatio	219062361-101 on: 11A 3rd - Wall Panel Glue	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	wn, Homogeneous, Non-Fibrous, Bulk Ma Iulose 3 %, Non-fibrous 97 %	ıterial	
102 Locatio	219062361-102 on: 11A 3rd - Wall Panel Glue	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	wn, Homogeneous, Non-Fibrous, Bulk Ma Iulose 2 %, Non-fibrous 98 %	terial	
103 SI-2 Locatio	219062361-103 on: 11A 3rd - Stack Insul	Yes	8 % (by CVES) by Bo Sun on 06/13/19
	wn/White, Homogeneous, Fibrous, Bulk M ysotile 3.0 %, Amosite 5.0 % 1-fibrous 92 %	laterial	

Other Material: Non-fibrous 92 %

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
104	219062361-104		NA/PS
SI-2 Lo	cation: 11A 3rd - Stack Insul		
Analyst Description: Asbestos Types: Other Material:			
105	219062361-105		NA/PS
SI-2 Loo	cation: 11A 3rd - Stack Insul		
Analyst Description: Asbestos Types: Other Material:	Bulk Material		
106	219062361-106	No	NAD
Loc	cation: 11A - CB Glue		(by CVES) by Bo Sun on 06/13/19
Asbestos Types:	Yellow, Homogeneous, Non-Fibrous, Bulk Ma Non-fibrous 100 %	terial	
107 Loc	219062361-107 ation: 11A 3rd - 1 X 1 CT Glue	Yes	Trace (<1 %) (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	Dark Brown, Homogeneous, Non-Fibrous, Bu Anthophyllite <1. % Fibrous Talc Trace, Non-fibrous 100 %	lk Material	
108 Loc	219062361-108 ation: 11A 3rd - 1 X 1 CT Glue	Yes	Trace (<1 %) (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	Dark Brown, Homogeneous, Non-Fibrous, Bul Anthophyllite <1. % Fibrous Talc 2 %, Cellulose 2 %, Non-fibrous		
09	219062361-109	Yes	Trace (<1 %)
	ation: 11A 3rd - 1 X 1 CT Glue		(by CVES) by Bo Sun on 06/13/19
Asbestos Types:	Dark Brown, Homogeneous, Non-Fibrous, Bul Anthophyllite <1. % Fibrous Talc Trace, Cellulose 2 %, Non-fibro		

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
110 Locat	219062361-110 tion: 11A 3rd - Blk Mastic Wall Unit	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Bl Asbestos Types: Other Material: No	ack, Homogeneous, Non-Fibrous, Bulk Mater on-fibrous 100 %	ial	
111	219062361-111	Yes	3 %
	tion: 11A 3rd - 9 X 9 FT & Mastic - Tile		(by CVES) by Bo Sun on 06/13/19
Analyst Description: Gr Asbestos Types: Ch Other Material: No		al	
112	219062361-112	No	NAD
M-1 Locat	tion: 11A 3rd - 9 X 9 FT & Mastic - Mastic		(by CVES) by Bo Sun on 06/13/19
Analyst Description: Bla Asbestos Types: Other Material: No	ack, Homogeneous, Non-Fibrous, Bulk Materi on-fibrous 100 %	al	
113	219062361-113		NA/PS
FT-1 Locat	ion: 11A 3rd - 9 X 9 FT & Mastic - Tile		
Analyst Description: Bu Asbestos Types: Other Material:	ılk Material		
114	219062361-114	No	NAD
W-1 Locat	ion: 11A 3rd - 9 X 9 FT & Mastic - Mastic		(by CVES) by Bo Sun on 06/13/19
Analyst Description: Bla Asbestos Types: Other Material: No	ack, Homogeneous, Non-Fibrous, Bulk Materi on-fibrous 100 %	al	
115 Locati	219062361-115 ion: 11A 3rd - SR	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	own/White, Heterogeneous, Fibrous, Bulk Ma ellulose 15 %, Non-fibrous 85 %	terial	

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
116 Location: 11A		No	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown/Whi Asbestos Types: Other Material: Cellulose 2	-	Material	
117 Location: 11A	219062361-117 . 3rd - SR	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown/Whi Asbestos Types: Other Material: Cellulose 2	-	Material	
118 Location: 11A	219062361-118 . 3rd - 9 X 9 FT & Mastic - Tile	Yes	3 % (by CVES) by Bo Sun on 06/13/19
Analyst Description: Grey, Homo Asbestos Types: Chrysotile Other Material: Non-fibrous	3.0 %	erial	
119 Location: 11A	219062361-119 3rd - 9 X 9 FT & Mastic - Mastic	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Black, Hom Asbestos Types: Other Material: Non-fibrous	-	terial	
120 Location: 11A	219062361-120 3rd - JC	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown/White Asbestos Types: Other Material: Cellulose 7	-	Material	
Comment: Submitted S	Sample Appears To Be Sheetrock		

35 N Main St., Ansonia, CT

	/ HGA Lat	No.	Asbestos Present	Total % Asbestos
121 FT-2	219062 Location: 11A 2nd - FT & Mastic	2361-121 - Tile	Yes	4 % (by CVES) by Bo Sun
Asbes	escription: Grey, Homogeneous, Non-Fib tos Types: Chrysotile 4.0 % er Material: Non-fibrous 96 %	rous, Bulk Material		on 06/13/19
122	219062	361-122	No	NAD
M-2	Location: 11A 2nd - FT & Mastic			(by CVES) by Bo Sun on 06/13/19
	escription: Black, Homogeneous, Non-Fib tos Types:	rous, Bulk Materia		
	r Material: Cellulose Trace, Non-fibrous 1	00 %		
123	219062	361-123		NA/PS
FT-2	Location: 11A 2nd - FT & Mastic	- Tile		
	ros Types: Material: 219062	361-124	No	
124 M-2	2190623 Location: 11A 2nd - FT & Mastic -		Νο	NAD (by CVES)
Asbest	scription: Black, Homogeneous, Non-Fib os Types: Material: Cellulose 2 %, Non-fibrous 98			by Bo Sun on 06/13/19
25	2190623	361-125		NA/PS
	• • • • • • • • • • • • • • • • • • • •			10.01.0
T-2	Location: 11A 2nd - FT & Mastic -	Tile		
Analyst Des Asbesto	Location: 11A 2nd - FT & Mastic - scription: Bulk Material os Types: Material:	Tile		
Analyst Des Asbesto	scription: Bulk Material os Types:		No	NAD

Other Material: Cellulose 2 %, Non-fibrous 98 %

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
127 Locatio	219062361-127 on: 11A 2nd - CT Glue	Yes	Trace (<1 %) (by CVES) by Bo Sun on 06/13/19
Analyst Description: Dar Asbestos Types: Anth Other Material: Non		ulk Material	
	219062361-128 on: 11A 2nd - CT Glue	Yes	Trace (<1 %) (by CVES) by Bo Sun on 06/13/19
Analyst Description: Darl Asbestos Types: Antr Other Material: Non		ulk Material	
129 Locatio	219062361-129 n: 11A 2nd - CT Glue	Yes	Trace (<1 %) (by CVES) by Bo Sun on 06/13/19
Analyst Description: Dark Asbestos Types: Anth Other Material: Non-		ılk Material	
130 Locatio	219062361-130 n: 11A 2nd - CB Glue	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Yello Asbestos Types: Other Material: Non-	ow, Homogeneous, Non-Fibrous, Bulk Ma -fibrous 100 %	aterial	
131 Locatio	219062361-131 n: 11A 2nd - Plaster	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brow Asbestos Types: Other Material: Non-	vn, Homogeneous, Non-Fibrous, Cement -fibrous 100 %	itious, Bulk Material	
other material. Non-		No	NAD

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
133 Location: 1	219062361-133 A 2nd - FL Mortar	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Grey, Hou Asbestos Types: Other Material: Non-fibro	nogeneous, Non-Fibrous, Cementi us 100 %	tious, Bulk Material	
134 Location: 1 ⁴	219062361-134 A 2nd - Plaster White	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: White, Ho Asbestos Types: Other Material: Non-fibro	omogeneous, Non-Fibrous, Bulk Ma us 100 %	aterial	
135 Location: 11	219062361-135 A 2nd - Plaster White	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: White, Ho Asbestos Types: Other Material: Non-fibro	omogeneous, Non-Fibrous, Bulk Ma us 100 %	aterial	
136 Location: 11	219062361-136 A 2nd - SR	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown/Wi Asbestos Types: Other Material: Cellulose	nite, Heterogeneous, Fibrous, Bulk 10 %, Non-fibrous 90 %	Material	
137 Location: 11	219062361-137 A 2nd - Ceiling Paper	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown, He Asbestos Types: Other Material: Cellulose	omogeneous, Fibrous, Bulk Materia 95 %, Non-fibrous 5 %	ıl	
	219062361-138 A 2nd - Ceiling Paper	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown, Ho Asbestos Types: Other Material: Cellulose	omogeneous, Fibrous, Bulk Materia 95 %, Non-fibrous 5 %	ll -	

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
139 Location: 11/	219062361-139 A 2nd - Ceiling Paper	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown, Ho Asbestos Types: Other Material: Cellulose S	mogeneous, Fibrous, Bulk Material 96 %, Non-fibrous 4 %		
140 Location: 8 -		Yes	7 % ² (by CVES) by Bo Sun on 06/13/19
Analyst Description: White, Hor Asbestos Types: Chrysotile Other Material: Non-fibrou			
141 Location: 8 -	219062361-141 Location: 8 - Aircell Debris		8 % ² (by CVES) by Bo Sun on 06/13/19
Analyst Description: White, Hor Asbestos Types: Chrysotile Other Material: Non-fibrou			
142 Location: 8 -	219062361-142 Aircell Debris	Yes	7 % ² (by CVES) by Bo Sun on 06/13/19
Analyst Description: White, Hor Asbestos Types: Chrysotile Other Material: Non-fibrou			
143 Location: 8 -	219062361-143 Debris	Νο	NAD ² (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	nogeneous, Non-Fibrous, Bulk Mat iss 15 %, Non-fibrous 85 %	erial	
144 Location: 8 -	219062361-144 Boiler Insul	Νο	NAD (by CVES) by Bo Sun on 06/13/19
Asbestos Types:	ogeneous, Non-Fibrous, Bulk Mate ss 15 %, Non-fibrous 85 %	rial	

See Reporting notes on last page

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
145 Location: 8 -	219062361-145 Boiler Insul	Νο	NAD (by CVES) by Bo Sun
Asbestos Types:	ogeneous, Non-Fibrous, Bulk Mat ass 10 %, Non-fibrous 90 %	erial	on 06/13/19
146			
Location: 8 -		Νο	NAD (by CVES) by Bo Sun on 06/13/19
Analyst Description: White, Hor Asbestos Types:	nogeneous, Fibrous, Bulk Material		
	iss 5 %, Synthetic fibers 5 %, No	n-fibrous 90 %	
147 Location: 12	219062361-147 - Skylight Flashing	Yes	4 % (by CVES) by Bo Sun on 06/13/19
Analyst Description: Black, Hon Asbestos Types: Chrysotile Other Material: Non-fibrous		erial	01 00/13/19
148 Location: 12	219062361-148 W - Window Caulk Ext	Yes	Trace (<1 %) (by CVES) by Bo Sun on 06/13/19
Analyst Description: Green, Hor Asbestos Types: Chrysotile Other Material: Fibrous gla		terial	
149 Location: 12 \	219062361-149 V - Ext Window Putty	Yes	2 % (by CVES) by Bo Sun on 06/13/19
Analyst Description: Brown/Gree Asbestos Types: Chrysotile Other Material: Non-fibrous	2.0 %	ulk Material	0100/13/19
Location: 11 3		Yes	Trace (<1 %) (by CVES) by Bo Sun on 06/13/19
Analyst Description: Dark Brown Asbestos Types: Anthophyllit Other Material: Cellulose 3	e <1.%	k Material	

Client No. / H	GA	Lab No.	Asbestos Present	Total % Asbestos
151	Location: 11 3rd - E		Νο	NAD (by CVES) by Bo Sun on 06/13/19
Asbestos		neous, Non-Fibrous, Bulk Mate Non-fibrous 70 %	rial	
152	Location: 11 3rd - A	219062361-152 aircell Debris	Yes	60 % ² (by CVES) by Bo Sun on 06/14/19
Asbestos Other Ma	ption: White, Heteroger Types: Chrysotile 60.0 % terial: Cellulose 15 %, ment: Bag Labeled #15	Non-fibrous 25 %		
153 Analyst Descri	Location: 11 2nd - [ption: Brown, Homogen	219062361-153 Duct Wrap eous, Fibrous, Bulk Material	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Asbestos 1				
154	Location: 11 - Trans	219062361-154 former	Yes	25 % (by CVES) by Bo Sun on 06/14/19
Asbestos T	ption: White, Homogene ypes: Chrysotile 25.0 % terial: Non-fibrous 75 %		ulk Material	011 00/ 14/ 19
155	Location: 12 W Ext	219062361-155 Ext Paint Wood Window	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Asbestos T		eous, Non-Fibrous, Bulk Mate e, Non-fibrous 100 %	rial	011 00/ 14/ 19

Client No.	/ HGA	Lab No.	Asbestos Present	Total % Asbestos
156	Location: 11A	219062361-156 Ext - Window Putty	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Asbest	escription: Grey, Homo tos Types: r Material: Non-fibrous	geneous, Non-Fibrous, Bulk Mater 100 %	ial	011 00/14/10
157		219062361-157	Yes	3 %
- T-3		rd - 9 X 9 FT & Mastic - Tile		(by CVES) by Bo Sun on 06/14/19
Asbest	escription: Green, Hom tos Types: Chrysotile 3 r Material: Non-fibrous		rial	
158 M-3	Location: 11 3	219062361-158 rd - 9 X 9 FT & Mastic - Mastic	Yes	3 % (by CVES) by Bo Sun on 06/14/19
Asbest	scription: Black, Homo os Types: Chrysotile 3 Material: Cellulose 2 9		ial	
159 -T-3	Lesstien, 11.0	219062361-159 d - 9 X 9 FT & Mastic - Tile		NA/PS
Analyst Des Asbeste	scription: Bulk Materia os Types: Material:			
60		219062361-160		NA/PS
1-3	Location: 11 3r	d - 9 X 9 FT & Mastic - Mastic		
Asbesto	scription: Bulk Material os Types: Material:			
61		219062361-161	······································	NA/PS
T-3	Location: 11 3rd	1 - 9 X 9 FT & Mastic - Tile		
Asbesto	scription: Bulk Material os Types: Material:			

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
162	219062361-162		NA/PS
M-3 Location: 1	1 3rd - 9 X 9 FT & Mastic - Mastic		
Analyst Description: Bulk Mat Asbestos Types: Other Material:	erial		
163 Location: 1	219062361-163 2 - Flat Roof	Yes	3 % (by CVES) by Bo Sun on 06/14/19
Analyst Description: Black, He Asbestos Types: Chrysotil Other Material: Cellulose		terial	
	219062361-164 1 3rd - Insulation Board	Yes	20 % (by CVES) by Bo Sun on 06/14/19
	omogeneous, Fibrous, Bulk Materia e 5.0 %, Amosite 15.0 % ous 80 %	I	
165 Location: E	219062361-165 Exterior - Ext Aircell Debris	Yes	35 % ² (by CVES) by Bo Sun on 06/14/19
Asbestos Types: Chrysotil	omogeneous, Fibrous, Bulk Materia e 35.0 % e 45 %, Non-fibrous 20 %	1	
166 Location: 1	219062361-166 2 3rd - Block White Insulation	Yes	15 % (by CVES) by Bo Sun on 06/14/19
Analyst Description: Grey/Wh Asbestos Types: Chrysotil Other Material: Non-fibro		aterial	
167 Location: 1	219062361-167 1 2nd - Window Putty	No	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Brown, H Asbestos Types: Other Material: Non-fibro	lomogeneous, Non-Fibrous, Bulk Ma ous 100 %	aterial	

Client No	. / HGA	Lab No.	Asbestos Present	Total % Asbestos
Asbe	Location: 11 Interior Description: Grey, Homogeneou stos Types: Chrysotile 4.0 % er Material: Non-fibrous 96 %	219062361-168 - Interior Window Putty us, Non-Fibrous, Bulk Mate	Yes erial	4 % (by CVES) by Bo Sun on 06/14/19
169		219062361-169		NA/PS
IP	Location: 11 Interior -			NA/FS
Asbes	Description: Bulk Material stos Types: er Material:			
170		04000004 470	······································	NA/PS
		219062361-170		INA/EG
IP	Location: 11 Interior -			INAVE 3
IP Analyst D Asbes Othe	escription: Bulk Material stos Types: er Material:	Interior Window Putty 219062361-171	Νο	NAD
IP Analyst D Asbes Othe 171 Analyst D Asbes	escription: Bulk Material stos Types: er Material: Location: 11 3rd - Box escription: White, Homogeneo stos Types:	Interior Window Putty 219062361-171 C Of Stuff		
IP Analyst D Asbes Othe 171 Analyst D Asbes Othe	escription: Bulk Material stos Types: er Material: Location: 11 3rd - Box escription: White, Homogeneo	Interior Window Putty 219062361-171 Of Stuff us, Non-Fibrous, Bulk Mat	erial	NAD (by CVES) by Bo Sun on 06/14/19
IP Analyst D Asbes Othe 171 Analyst D Asbes	escription: Bulk Material stos Types: er Material: Location: 11 3rd - Box escription: White, Homogeneo stos Types:	Interior Window Putty 219062361-171 C Of Stuff us, Non-Fibrous, Bulk Mate 219062361-172		NAD (by CVES) by Bo Sun on 06/14/19 40 % (by CVES) by Bo Sun
IP Analyst D Asbes Othe 171 Analyst D Asbes Othe 172 AI Analyst D Asbes	escription: Bulk Material stos Types: er Material: Location: 11 3rd - Box escription: White, Homogeneo stos Types: er Material: Non-fibrous 100 %	Interior Window Putty 219062361-171 C Of Stuff us, Non-Fibrous, Bulk Material 219062361-172 Compound s, Fibrous, Bulk Material	erial	NAD (by CVES) by Bo Sun on 06/14/19 40 % (by CVES)

Client No.	/ HGA Lab No.	Asbestos Present	Total % Asbesto
173	219062361-1	173	NA/PS
AI	Location: 12-3 - Joint Compound		
Asbes	escription: Bulk Material tos Types: er Material:		
174	219062361-1	74 No	NAD
JC	Location: 12-3 - Joint Compound		(by CVES) by Bo Sun on 06/14/19
Asbes	escription: White, Homogeneous, Non-Fibrous, itos Types: er Material: Non-fibrous 100 %	Bulk Material	
175	219062361-1	175 No	NAD
JC	Location: 12-3 - Joint Compound		(by CVES) by Bo Sun on 06/14/19
Asbes	escription: White, Homogeneous, Non-Fibrous, tos Types: er Material: Non-fibrous 100 %	Bulk Material	
176	219062361-1	176 No	NAD
JC	Location: 12-3 - Joint Compound		(by CVES) by Bo Sun on 06/14/19
Asbes	escription: White, Homogeneous, Non-Fibrous, itos Types: er Material: Non-fibrous 100 %	Bulk Material	
177	219062361-1	177 No	NAD
	Location: 12-3 - Sheetrock		(by CVES) by Bo Sun on 06/14/19
Asbes	escription: Brown/White, Homogeneous, Non-Fi stos Types: er Material: Cellulose 3 %, Non-fibrous 97 %	brous, Bulk Material	
178	219062361-1	178 No	NAD
· -	Location: 12-3 - Sheetrock		(by CVES) by Bo Sun
			on 06/14/19
Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
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178 Location: 12-	219062361-178 3 - Sheetrock	Νο	NAD (by CVES) by Bo Sun
Asbestos Types:	te, Homogeneous, Non-Fibrous, E	Bulk Material	on 06/14/19
Other Material: Cellulose 2	%, NON-TIDIOUS 98 %		
179 Location: 12-3		Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Brown/Whi Asbestos Types: Other Material: Cellulose 4		ulk Material	
180 Location: 12-3	219062361-180 3 - Debris Pile	Νο	NAD ² (by CVES) by Bo Sun
Analyst Description: Black, Hete Asbestos Types: Other Material: Cellulose 10		terial	on 06/14/19
181 Location: 12-3	219062361-181 - Debris Pile	Νο	NAD ² (by CVES) by Bo Sun
Analyst Description: White/Tan, H Asbestos Types: Other Material: Fibrous glas		erial	on 06/14/19
82 Location: 12-3	219062361-182 - Debris Pile	No	NAD ² (by CVES) by Bo Sun
Analyst Description: Black, Heter Asbestos Types: Other Material: Cellulose 20		erial	on 06/14/19
	219062361-183 - Ceramic Tile Glue	No	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Yellow, Hom Asbestos Types: Other Material: Non-fibrous		eriai	

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
184 Location	219062361-184 12-3 - Ceramic Tile Glue	Νο	NAD (by CVES) by Bo Sun
Asbestos Types:	/, Homogeneous, Non-Fibrous, Bulk Ma	aterial	on 06/14/19
Other Material: Non-fi	brous 100 %		
185 Location:	219062361-185 12-3 - Ceramic Tile Glue	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Asbestos Types:	, Homogeneous, Non-Fibrous, Bulk Ma se Trace, Non-fibrous 100 %	terial	01 00/14/19
186 Location:	219062361-186 12-3 - Wall Glue	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Yellow, Asbestos Types: Other Material: Non-fib	Homogeneous, Non-Fibrous, Bulk Mat	terial	011 00/ 14/ 19
187 Location:	219062361-187 12-3 - Wall Glue	Νο	NAD (by CVES) by Bo Sun
Analyst Description: Yellow, Asbestos Types: Other Material: Non-fib	Homogeneous, Non-Fibrous, Bulk Mat rous 100 %	erial	on 06/14/19
88 Location:	219062361-188 12-3 - Floor Debris	Yes	35 % ² (by CVES) by Bo Sun
Asbestos Types: Chrysot	omogeneous, Fibrous, Bulk Material ile 35.0 % ie 45 %, Non-fibrous 20 %		on 06/14/19
89 Location:	219062361-189 12 - Fan Jacket	Yes	25 % (by CVES) by Bo Sun
Analyst Description: White, F Asbestos Types: Chrysoti Other Material: Non-fibr			on 06/14/19
Comment: Submitte	ed Sample Appears To Be Insulation		

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
190 Location: 12		Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Brown/Gre Asbestos Types: Other Material: Non-fibrous	y, Homogeneous, Non-Fibrous, Co s 100 %	ementitious, Bulk Material	
191	219062361-191 1 Bridge - Ceiling Tile	No	NAD (by CVES)
Location. 12-	Tonage - Cening The		by Bo Sun on 06/14/19
Analyst Description: Grey, Hom Asbestos Types:	ogeneous, Fibrous, Bulk Material		
Other Material: Fibrous gla	iss 75 %, Non-fibrous 25 %		
192	219062361-192	No	NAD
Location: 12-	1 Bridge - Ceiling Tile		(by CVES) by Bo Sun on 06/14/19
Analyst Description: Grey, Hom Asbestos Types: Other Material: Fibrous gla	ogeneous, Fibrous, Bulk Material ass 80 %, Non-fibrous 20 %		
193	219062361-193	No	NAD
	1 Bridge - Ceiling Tile		(by CVES) by Bo Sun on 06/14/19
Asbestos Types:	ogeneous, Fibrous, Bulk Material ass 75 %, Non-fibrous 25 %		
194	219062361-194	No	NAD
Location: 12-	1 - Roof		(by CVES) by Bo Sun on 06/14/19
Analyst Description: Black, Het Asbestos Types: Other Material: Cellulose	erogeneous, Non-Fibrous, Bulk M 10 %, Non-fibrous 90 %	aterial	
195	219062361-195	No	NAD
Location: 12	-1 - Roof		(by CVES) by Bo Sun on 06/14/19
	erogeneous, Non-Fibrous, Bulk M	laterial	
Asbestos Types: Other Material: Cellulose:	20 % Non-fibrous 80 %		

Other Material: Cellulose 20 %, Non-fibrous 80 %

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
196 Location: 12-1	219062361-196 - Roof	No	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Black, Hete Asbestos Types: Other Material: Cellulose 15		aterial	01100/14/19
197 Location: 12-1	219062361-197 - Wall Glue	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Yellow, Hon Asbestos Types: Other Material: Cellulose 4	-	aterial	
198 Location: 12-1	219062361-198 - Wall Glue	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Grey, Homo Asbestos Types: Other Material: Non-fibrous	-	erial	
199 Location: 12-1	219062361-199 Bridge - Ceramic Tile Glue	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Cream, Hon Asbestos Types: Other Material: Non-fibrous	-	aterial	
200 Location: 12-1	219062361-200 Bridge - Ceramic Tile Glue	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Cream, Hon Asbestos Types: Other Material: Non-fibrous	-	aterial	
201 Location: 12-1	219062361-201 Bridge - Ceramic Tile Glue	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Cream, Hom Asbestos Types: Other Material: Non-fibrous		aterial	

Client No. /	HGA Lab No.	Asbestos Present	Total % Asbestos
202	219062361-202 Location: 12-1 Office - Window Caulk	Yes	2 % (by CVES) by Bo Sun on 06/14/19
Asbest	scription: Grey, Homogeneous, Non-Fibrous, Bulk Ma os Types: Chrysotile 2.0 % r Material: Non-fibrous 98 %	terial	
203	219062361-203	Yes	3 %
WC	Location: 12-1 - Window Caulk		(by CVES) by Bo Sun on 06/14/19
Asbest	escription: Grey, Homogeneous, Non-Fibrous, Bulk Ma tos Types: Chrysotile 3.0 % r Material: Non-fibrous 97 %	iterial	
204	219062361-204		NA/PS
WC	Location: 12-1 - Window Caulk		
Asbes	escription: Bulk Material tos Types: r Material:		
205	219062361-205		NA/PS
WC	Location: 12-1 - Window Caulk		
Asbes	escription: Bulk Material tos Types: er Material:		
206	219062361-206		NA/PS
206 WC	Location: 12-1 - Window Caulk		
Asbes	escription: Bulk Material stos Types: er Material:		
207	219062361-207		NA/PS
WC	Location: 12-1 - Window Caulk		
Asbe	escription: Bulk Material stos Types: er Material:		

Client No.	/ HGA Lab No.	Asbestos Present	Total % Asbestos
208	219062361-208		NA/PS
WC	Location: 12-1 - Window Caulk		
Asbes	Description: Bulk Material stos Types: er Material:		
	219062361-209		NA/PS
209 WC	Location: 12-1 - Window Caulk		
Asbe	Description: Bulk Material stos Types: er Material:		
210	219062361-210 Location: 12-1 Bridge - Mastic 9 X 9 FT - Mastic	Yes	Trace (<1 %) (by CVES) by Bo Sun on 06/14/19
Asbe	Description: Black, Homogeneous, Non-Fibrous, Bulk Materia stos Types: Chrysotile <1. % er Material: Cellulose 5 %, Non-fibrous 95 %	1	
211	219062361-211	Yes	3 %
FT	Location: 12-1 Bridge - Mastic 9 X 9 FT - Tile		(by CVES) by Bo Sun on 06/14/19
Asbe	Description: Green, Homogeneous, Non-Fibrous, Bulk Materia stos Types: Chrysotile 3.0 % ner Material: Non-fibrous 97 %	al	
212	219062361-212	Yes	4 %
	Location: 12-1 Bridge - Mastic 9 X 9 FT - Mastic		(by CVES) by Bo Sun on 06/14/19
Asbe	Description: Black, Homogeneous, Non-Fibrous, Bulk Materia estos Types: Chrysotile 4.0 % ner Material: Cellulose 3 %, Non-fibrous 93 %	al	
213	219062361-213		NA/PS
FT	Location: 12-1 Bridge - Mastic 9 X 9 FT - Tile		
Asbe	Description: Bulk Material estos Types: her Material:		

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
214 Location: 12-	219062361-214 1 - Wall Glue	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Grey, Hom Asbestos Types: Other Material: Cellulose 3		erial	
215 Location: 12-	219062361-215 1 - Wall Glue	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Grey, Hom Asbestos Types: Other Material: Cellulose 4		erial	
216 Location: 12-	219062361-216 I - Sheetrock	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Brown/Whit Asbestos Types: Other Material: Cellulose 2	-	Material	
217 Location: 12-1	219062361-217 - Fiberglass Jacket	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Brown/Whit Asbestos Types: Other Material: Cellulose 4	e, Homogeneous, Fibrous, Bulk M) %, Fibrous glass 15 %, Non-fib		
218 Location: 12-1	219062361-218 - Transite	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Brown, Hon Asbestos Types: Other Material: Non-fibrous		itious, Bulk Material	
219 Location: 12-1	219062361-219 - Building Paper	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Black, Hom Asbestos Types: Other Material: Cellulose 4	-	erial	

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
220 Location: 12	219062361-220 -1 - Building Paper	No	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Black, Ho Asbestos Types: Other Material: Cellulose	mogeneous, Non-Fibrous, Bulk Ma 35 %, Non-fibrous 65 %	terial	
221 Location: 12	219062361-221 -1 - Building Paper	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Black, Ho Asbestos Types: Other Material: Cellulose	mogeneous, Non-Fibrous, Bulk Ma 35 %, Non-fibrous 65 %	terial	
	219062361-222 -1 - Building Paper	No	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Black, Ho Asbestos Types: Other Material: Cellulose	mogeneous, Non-Fibrous, Bulk Ma 40 %, Non-fibrous 60 %	terial	
223 Location: 12	219062361-223 2-1 - RF CT	No	NAD (by CVES) by Bo Sun on 06/14/19
Asbestos Types:	omogeneous, Fibrous, Bulk Materia 40 %, Fibrous glass 15 %, Non-fi		
224 Location: 12	219062361-224	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Asbestos Types:	omogeneous, Fibrous, Bulk Materia 35 %, Fibrous glass 15 %, Non-fi		
225 Location: 1	219062361-225	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Asbestos Types:	omogeneous, Fibrous, Bulk Materi 9 40 %, Fibrous glass 15 %, Non-f		

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
226	219062361-226	No	NAD
Locatio	n: 12-1 - Ceramic Tile Glue		(by CVES) by Bo Sun
Analyst Description: Crea	m, Homogeneous, Non-Fibrous, Bulk Ma	-42-1	on 06/14/19
Asbestos Types:	in, nonogeneous, Non-Fibrous, Buik Ma	aterial	
Other Material: Non-	fibrous 100 %		
227	219062361-227	No	NAD
Location	a: 12-1 - Ceramic Tile Glue		(by CVES)
			by Bo Sun
Analyst Description: Crea	m, Homogeneous, Non-Fibrous, Bulk Ma	iterial	on 06/14/19
Asbestos Types:			
Other Material: Non-	hbrous 100 %		
228	219062361-228	No	NAD
Location	: 12-1 - Ceramic Tile Glue		(by CVES)
			by Bo Sun
Analyst Description: Crear	n, Homogeneous, Non-Fibrous, Bulk Ma	terial	on 06/14/19
Asbestos Types:		tenai	
Other Material: Non-f	ibrous 100 %		
229	219062361-229	No	NAD
Location	: 12-1 - Ceramic Wall		(by CVES)
			by Bo Sun
Analyst Description: White	, Homogeneous, Non-Fibrous, Cementiti	ious Bulk Motorial	on 06/14/19
Asbestos Types:	, nonogeneous, non-ribious, cementia	ous, buik material	
Other Material: Non-fi	brous 100 %		
230	219062361-230	No	NAD
Location	12-1 - Ceramic Wall		(by CVES)
			by Bo Sun
Analyst Description: White	, Homogeneous, Non-Fibrous, Cementiti	ous Bulk Material	on 06/14/19
Asbestos Types:		ous, Duin Matchal	
Other Material: Non-fi	brous 100 %		
31	219062361-231	No	NAD
Location:	12-1 - Ceramic Wall		(by CVES)
			by Bo Sun
			on 06/14/19
Analyst Description White	Homogeneous Non-Eibroug Comantiti	oue Bulk Motorial	
Analyst Description: White, Asbestos Types:	Homogeneous, Non-Fibrous, Cementitie	ous, Bulk Material	

Client No. / H	GA Lab No.	Asbestos Present	Total % Asbestos
232 AS	219062361-232 Location: 12-1 - Aircell Stack	Yes	40 % (by CVES) by Bo Sun on 06/14/19
Ashestos	ription: Grey/White, Heterogeneous, Fibrous, Bulk M Types: Chrysotile 40.0 % aterial: Cellulose 50 %, Non-fibrous 10 %	1aterial	
233	219062361-233		NA/PS
AS	Location: 12-1 - Aircell Stack		
Asbestos	ription: Bulk Material 5 Types: faterial:		
	219062361-234		NA/PS
234 AS	Location: 12-1 - Aircell Stack		
Asbesto	cription: Bulk Material s Types: Material:		
005	219062361-235		NA/PS
235 AS	Location: 12-1 - Aircell Stack		
Asbesto	cription: Bulk Material s Types: Material:		
	219062361-236	Yes	30 %
236 EA	Location: 12-1 - Exhaust Aircell		(by CVES) by Bo Sun on 06/14/19
Achost	scription: Grey/White, Heterogeneous, Fibrous, Bulk os Types: Chrysotile 30.0 % Material: Cellulose 45 %, Non-fibrous 25 %	Material	
237	219062361-237		NA/PS
EA	Location: 12-1 - Exhaust Aircell		
	scription: Bulk Material		
	os Types: · Material:		

Client No	. / HGA	Lab No.	Asbestos Present	Total % Asbestos
238	· · · · · · · · · · · · · · · · · · ·	219062361-238		NA/PS
EA	Location: 12-1 - Exhau	st Aircell		
Asbe	Description: Bulk Material stos Types: er Material:			
239		219062361-239	Yes	10 %
BB	Location: 12-1 - Backer			(by CVES) by Bo Sun on 06/14/19
Asbe	escription: Black, Homogeneous stos Types: Chrysotile 10.0 % er Material: Non-fibrous 90 %	s, Fibrous, Cementitious	, Bulk Material	
240		219062361-240		NA/PS
BB	Location: 12-1 - Backer	Board		
Asbe: Oth	escription: Bulk Material stos Types: er Material:		M	4.0/
241		219062361-241	Yes	4 % (by CVES)
FT-4	Location: 12-1 - 9 X 9 F	T & Masuc - The		by Bo Sun on 06/14/19
Asbe	escription: Green, Homogeneou stos Types: Chrysotile 4.0 % er Material: Non-fibrous 96 %	s, Non-Fibrous, Bulk Ma	terial	
242		219062361-242	No	NAD
VI-4	Location: 12-1 - 9 X 9 F	T & Mastic - Mastic		(by CVES) by Bo Sun on 06/14/19
Asbes	escription: Black, Homogeneous stos Types: er Material: Non-fibrous 100 %	, Non-Fibrous, Bulk Mat	erial	
243		219062361-243		NA/PS
FT-4	Location: 12-1 - 9 X 9 F	T & Mastic - Tile		
Asbes	escription: Bulk Material stos Types: er Material:			

Page 43 of 50

PLM Bulk Asbestos Report

Client No. /	HGA Lab No	Asbestos Present	Total % Asbestos
244 M-4	219062361- Location: 12-1 - 9 X 9 FT & Mastic - M		NAD (by CVES) by Bo Sun on 06/14/19
Asbest	scription: Black, Homogeneous, Non-Fibrous, sos Types: r Material: Cellulose 4 %, Non-fibrous 96 %	, Bulk Material	
245 FT-4	219062361 Location: 12-1 - 9 X 9 FT & Mastic - Ti		NA/PS
Asbest	escription: Bulk Material tos Types: r Material:		
246 M-4	219062361 Location: 12-1 - 9 X 9 FT & Mastic - N	Aastic	NAD (by CVES) by Bo Sun on 06/14/19
Asbes	escription: Black, Homogeneous, Non-Fibrous tos Types: er Material: Cellulose 2 %, Non-fibrous 98 %	s, Bulk Material	
247	219062361 Location: 12-1 - 12 X 12 FT & Mastic		NAD (by CVES) by Bo Sun on 06/14/19
Asbes	escription: Brown/White, Homogeneous, Non- stos Types: er Material: Cellulose 5 %, Non-fibrous 95 %	-Fibrous, Bulk Material	
248	21906236 ⁴ Location: 12-1 - 12 X 12 FT & Mastic		NAD (by CVES) by Bo Sun on 06/14/19
Asbe	Description: Yellow, Homogeneous, Non-Fibro stos Types: er Material: Non-fibrous 100 %	us, Bulk Material	
249	21906236 Location: 12-1 - 12 X 12 FT & Mastic		NAD (by CVES) by Bo Sun on 06/14/19
Asbe	Description: Brown/White, Homogeneous, Nor estos Types: her Material: Cellulose 4 %, Non-fibrous 96 %		

Client No. / HO	GA Lab No.	Asbestos Present	Total % Asbestos
250	219062361-250 Location: 12-1 - 12 X 12 FT & Mastic - Mastic	No	NAD (by CVES) by Bo Sun on 06/14/19
Asbestos T	ption: Yellow, Homogeneous, Non-Fibrous, Bulk Ma Y ypes : t erial: Non-fibrous 100 %	aterial	
251	219062361-251 Location: 12-1 - 12 X 12 FT & Mastic - Tile	No	NAD (by CVES) by Bo Sun on 06/14/19
Asbestos T	otion: Brown/White, Homogeneous, Non-Fibrous, E ypes: cerial: Cellulose 2 %, Non-fibrous 98 %	Bulk Material	
252	219062361-252 Location: 12-1 - 12 X 12 FT & Mastic - Mastic	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Asbestos T	otion: Yellow, Homogeneous, Non-Fibrous, Bulk Ma ypes: rerial: Non-fibrous 100 %	aterial	
253	219062361-253	Yes	20 %
TS	Location: 12-1 - Transite In System		(by CVES) by Bo Sun on 06/14/19
Asbestos T	otion: Grey, Homogeneous, Fibrous, Cementitious, ypes: Chrysotile 20.0 % gerial: Non-fibrous 80 %	Bulk Material	
254	219062361-254		NA/PS
TS	Location: 12-1 - Transite In System		
Analyst Descrip Asbestos T Other Mat			
255	219062361-255		NA/PS
TS	Location: 12-1 - Transite In System		
Analyst Descrip Asbestos T Other Mat			

Client No.	/ HGA	Lab No.	Asbestos Present	Total % Asbestos
256 TS	Location: 12-1	219062361-256 Transite In System		NA/PS
Asbest	escription: Bulk Material tos Types: r Material:			
257	Location: 12-2	219062361-257 Transite Debris	Yes	15 % ² (by CVES) by Bo Sun on 06/14/19
Asbest	escription: Grey, Homog tos Types: Chrysotile 1 r Material: Non-fibrous 8		Bulk Material	
258	Location: 12-2		Yes	10 % ² (by CVES) by Bo Sun on 06/14/19
Asbes	escription: Grey, Homog tos Types: Chrysotile 1 r Material: Non-fibrous 9		Bulk Material	
259	Location: 12-2	219062361-259 - Transite Debris	Yes	10 % ² (by CVES) by Bo Sun on 06/14/19
Asbes	escription: Grey, Homog tos Types: Chrysotile 1 r Material: Non-fibrous	geneous, Fibrous, Cementitious, 0.0 % 90 %	, Bulk Material	
260 BP	Location: 12-2	219062361-260 - Black Pipe	Yes	15 % (by CVES) by Bo Sun on 06/14/19
Asbes	escription: Black, Homo tos Types: Chrysotile 1 er Material: Cellulose 40	geneous, Non-Fibrous, Bulk Ma 5.0 % %, Non-fibrous 45 %	ıterial	
261 BP	Location: 12-2	219062361-261 - Black Pipe		NA/PS
Asbes	escription: Bulk Materia stos Types: er Material:	1		

Client No.	/ HGA Lab No.	Asbestos Present	Total % Asbesto
262	219062361-262		NA/PS
3P	Location: 12-2 - Black Pipe		
Asbe	Description: Bulk Material stos Types: er Material:		
263	219062361-263	No	NAD
	Location: 12-2 - Expansion Joint		(by CVES) by Bo Sun on 06/14/19
Asbe	Description: Black, Homogeneous, Non-Fibrous, Bulk Materia stos Types: er Material: Cellulose 5 %, Non-fibrous 95 %	al	
264	219062361-264 Location: 12-2 - Expansion Joint	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Asbe	Description: Black, Homogeneous, Non-Fibrous, Bulk Materi stos Types: ner Material: Cellulose 4 %, Non-fibrous 96 %	al	
265	219062361-265 Location: 12-2 - Debris Pile	Yes	20 % ² (by CVES) by Bo Sun on 06/14/19
Asbe	Description: Black, Homogeneous, Non-Fibrous, Bulk Materi estos Types: Chrysotile 20.0 % ner Material: Cellulose 15 %, Non-fibrous 65 %	al	
266	219062361-266 Location: 12-2 - Debris Pile	Yes	25 % ² (by CVES) by Bo Sun on 06/14/19
Asbe	Description: Black, Homogeneous, Non-Fibrous, Bulk Materi estos Types: Chrysotile 25.0 % ner Material: Cellulose 15 %, Non-fibrous 60 %	ial	
267	219062361-267 Location: 12-2 - Debris Pile	Yes	25 % ² (by CVES) by Bo Sun on 06/14/19
Asb	Description: Black, Homogeneous, Non-Fibrous, Bulk Mater estos Types: Chrysotile 25.0 % her Material: Cellulose 10 %, Non-fibrous 65 %	ial	

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
268	219062361-268 2-2 - Debris Pile	Yes	20 % ² (by CVES) by Bo Sun on 06/14/19
Asbestos Types: Chrysotile	omogeneous, Non-Fibrous, Bulk Ma e 20.0 % 45 %, Synthetic fibers 20 %, Non		
269 Location: 1	219062361-269 2-2 - Debris Pile	Yes	15 % ² (by CVES) by Bo Sun on 06/14/19
Asbestos Types: Chrysotil	omogeneous, Non-Fibrous, Bulk Ma e 15.0 % e 50 %, Synthetic fibers 20 %, Non		
270 Location: 1	219062361-270 2-2 - Debris Pile	Yes	25 % ² (by CVES) by Bo Sun on 06/14/19
Asbestos Types: Chrysotil	mogeneous, Fibrous, Bulk Material e 25.0 % e 60 %, Synthetic fibers 5 %, Non-1	fibrous 10 %	
271 Location: 1	219062361-271 2-2 Office - Black Flooring	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Black, He Asbestos Types: Other Material: Non-fibro	omogeneous, Non-Fibrous, Cement ous 100 %	titious, Bulk Material	
272 Location: 1	219062361-272 2-2 Office - Black Flooring	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Black, He Asbestos Types: Other Material: Non-fibro	omogeneous, Non-Fibrous, Cemen ous 100 %	titious, Bulk Material	
273 Location: 1	219062361-273 2-2 Office - Black Flooring	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Black, H Asbestos Types: Other Material: Non-fibro	omogeneous, Non-Fibrous, Cemen ous 100 %	titious, Bulk Material	

35 N Main St., Ansonia, CT

219062361-274	No	NAD ²
- Rope Debris	NO	NAD ² (by CVES) by Bo Sun on 06/14/19
	aterial	
219062361-275 - Rope Debris	No	NAD ² (by CVES) by Bo Sun on 06/14/19
	aterial	
219062361-276 - Rope Debris	Νο	NAD ² (by CVES) by Bo Sun on 06/14/19
	aterial	
219062361-277 - Pressured Rock Debris	Νο	NAD ² (by CVES) by Bo Sun on 06/14/19
	iterial	
219062361-278 Office - Cove Base	Νο	NAD (by CVES) by Bo Sun on 06/14/19
	aterial	
219062361-279 9 Office - Cove Base	No	NAD (by CVES) by Bo Sun on 06/14/19
	Homogeneous, Fibrous, Bulk Ma 219062361-275 - Rope Debris Homogeneous, Fibrous, Bulk Ma 5%, Non-fibrous 15% 219062361-276 - Rope Debris Homogeneous, Fibrous, Bulk Ma 0%, Non-fibrous 10% 219062361-277 - Pressured Rock Debris ogeneous, Non-Fibrous, Bulk Ma 100% 219062361-278 Office - Cove Base ogeneous, Non-Fibrous, Bulk Ma 100%	Homogeneous, Fibrous, Bulk Material 0 %, Non-fibrous 10 % 219062361-275 No - Rope Debris Homogeneous, Fibrous, Bulk Material 5 %, Non-fibrous 15 % 219062361-276 No - Rope Debris Homogeneous, Fibrous, Bulk Material 0 %, Non-fibrous 10 % 219062361-277 No - Pressured Rock Debris ogeneous, Non-Fibrous, Bulk Material 100 % 219062361-278 No Office - Cove Base ogeneous, Non-Fibrous, Bulk Material 100 % 219062361-279 No

Other Material: Non-fibrous 100 %

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
280 Location: 12-	219062361-280 2 Office - Cove Base	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Black, Hor Asbestos Types: Other Material: Non-fibrou	nogeneous, Non-Fibrous, Bulk Mat s 100 %	terial	
281 Location: 12	219062361-281L1 2 - 9 X 9 FT & Mastic - Tile	Yes	3 % (by CVES) by Bo Sun on 06/14/19
Analyst Description: Green, Ho Asbestos Types: Chrysotile Other Material: Non-fibrou			
	219062361-281L2 2 - 9 X 9 FT & Mastic - Mastic	Yes	4 % (by CVES) by Bo Sun on 06/14/19
Analyst Description: Black, Hor Asbestos Types: Chrysotile Other Material: Non-fibrou		terial	
282 Location: 12	219062361-282 3 - Wall Glue	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Yellow, Ho Asbestos Types: Other Material: Cellulose	omogeneous, Non-Fibrous, Bulk M 3 %, Non-fibrous 97 %	aterial	
283 Location: 12	219062361-283 -2 - Transite Window	Νο	NAD (by CVES) by Bo Sun on 06/14/19
Analyst Description: Brown/Gro Asbestos Types: Other Material: Cellulose	ey, Homogeneous, Fibrous, Cemer 25 %, Non-fibrous 75 %	ntitious, Bulk Material	
284 Location: 12	219062361-284	Νο	NAD ² (by CVES) by Bo Sun on 06/14/19
Analyst Description: Grey, Hor Asbestos Types: Other Material: Cellulose	nogeneous, Non-Fibrous, Cement	itious, Bulk Material	

35 N Main St., Ansonia, CT

Client No. / HG	A Lab No.	Asbestos Present	Total % Asbestos
285 EC	219062361-285 Location: 12-2 - Electrical Unit Clip	Yes	15 % (by CVES) by Bo Sun on 06/14/19
Asbestos T	tion: Grey, Homogeneous, Fibrous, Cementitious, ypes: Chrysotile 15.0 % erial: Non-fibrous 85 %	Bulk Material	
286	219062361-286		NA/PS
EC	Location: 12-2 - Electrical Unit Clip		
Analyst Descrip Asbestos T Other Mat	, -		

Reporting Notes:

(1) This job was - Analyzed using Motic BA310 Pol Scope S/N 1190000538

(SM-V) = Surfacing Material containing Vermiculite; PLM Bulk Asbestos Analysis by Appd E to Subpt E, 40 CFR 763 (NVLAP 200546-0), ELAP PLM Method 198.1 for NY friable samples, which includes the identification and quantitation of vermiculite or 198.6 for NOB samples or EPA 400 pt ct by Appd E to Subpt E, 40 CFR 763 (NY ELAP Lab 11480); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile, FR 59,146,38970,8/1/94) National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab. This PLM report relates ONLY to the items tested. AIHA-LAP, LLC Lab ID 102843, RI Cert AAL-094, CT Cert PH-0186, Mass Cert AA000054.

Reviewed By:_

END OF REPORT_____

	·		
CLIENT:	HYGENIX, INC.	DATE RECEIVED:	• •
ADDRESS:	49 Woodside Street Stamford, CT 06902		
		EMAIL: Stwitch	ella Hysenix: Com
		<u> </u>	
SAMPLE SI	TE: 35 N Main St	SAMPLE TYPE:	PLM
	A	COLLECTED BY:	TT
	MASDIA, CI	DATE COLLECTED	-
		TURNAROUND:	stundard
	· · · · · · · ·	J TW. TOLEU	
	Email Reports to	rbrown@hygenix.com	
FIELD ID #	TYPE OF MATERIAL	SAMPLE LOCATION	COMMENTS
1,2,3	Ceramic tile thin set	11A 4Th Buth	
4	FL Debns	11A 4th	
5,6	Insul inside stulle	11A 4th	
7,8,9	Rouf field	IIA the	
10	Putty E	11A	
11	BOILER RELET	11A	
	BO; Lr rope	11A	
13	PuttyF	IIA	
14,15	Vibridian Com	11.4	
16	Rost Transite	//	
17,18,19	STack Insutation	11A 4m	
20121	HVAC Guskett	11A4th	
22,23,24	Per Gulberts	3288	
252627	BLK Gulbests	32 88	
28,29,30	Roof field	3288	
31,32,33	Box TACISITE	I IA IST	
3435	Nire Insul	32 1st	
28,29,30 31,32,33 34,35 36,37,38	Nire Insul Electical public	32117	
	12 1		

Refinquished By: ______ Date: _____

19

Received By: ______ Date: ______ 155

CLIENT: ADDRESS:	HYGENIX, INC. 49 Woodside Street Stamford, CT 06902	DATE RECEIVED: EMAIL:	nella Hysenix com
SAMPLE SI	TE: <u>35 N Main St</u> Ansonia, CT	SAMPLE TYPE: COLLECTED BY: DATE COLLECTED TURNAROUND: TU.TULU	PLM T.T Stundung
	Email Reports to	: thrown @hygenix.com	
FIELD ID #		SAMPLE LOCATION	COMMENTS
39,40,41	Aircell debns	32 / 57	
42,43,44	Over your guilet	<u> </u>	
45,46,47		1113 151	
48,49,50	OVER DUCT Insulder	11815	
51,52,53	Trusite	110 151	
54,55,56	Winders Putty	11015	
57	Root debris	11 1 st	
58,59	Roof debn's BILLE	<u> </u>	
60,61	SR, IC	<u> </u>	
62,63,64	2×4 RFCT	<u> st</u>	
65,66,67	Aircell debris		
68,64,70	loose muterial behing over		
71	Duct breaching	11 I)T	
72	Trunsite pipe	آد، ()	
73	that delong	11,57	
74,75	Wire Jucket	11 1st	
76,77,78	Brick MOREY	EXTERN	
79	Insulction	PTI	

Relinquished By:

Date:

Received By: _____ Date: ___ 1155

CLIENT: ADDRESS:	HYGENIX, INC. 49 Woodside Street Stamford, CT 06902	DATE RECEIVED: EMAIL:	ella Hysenix com
SAMPLE SI	TE: <u>35 N Main St</u> Ansonia, CT	SAMPLE TYPE: COLLECTED BY: DATE COLLECTED TURNAROUND: TURNAROUND:	PLM T.T Stundung
	Email Reports to	- rbrown@hygenix.com	
FIELD ID #	TYPE OF MATERIAL	SAMPLE LOCATION	COMMENTS
80	File brick	D73	
81,82,83	274 RF-CT	10 157	
84,85.8	16 JC	10 157	
87,88	SR	10 151	
84,90, 41,92	, 93,94 12×RI-T& Mustic	1015	
95	DEAR SR	10 11	······································
<u> 46</u>	Sink hasul	ILA 3N	
97,98,99	274 KECT	ILA 3R	
100,101,102	Wall parel stel	ILA 3rz	
103,104,105	Stuck Insul	11A 3rh	
106	CBSLUR	IIA	
107,108,105	IXI CT GLR	ILABR	
110	BLK MUSTIC WULL UNIT	ILA 3rd	
111,112,113		114 312	
115,116,1		11A 3rh	
115,119	9×9FT& MUSTIC	11A 311	
120	10	11A 3rh .	
121,122,128	124,125,126 FT & Mastic	11A 2K	

Relinquished By:

Date:

Received By: _____ Date: ____ 0 155

مستديست بسند

CLIENT: ADDRESS:	HYGENIX, INC. 49 Woodside Street Stamford, CT 06902	DATE RECEIVED: EMAIL:	ella Hysenix com
SAMPLE SI	TE: 35 N Main St Angonia, CT	SAMPLE TYPE: COLLECTED BY: DATE COLLECTED TURNAROUND: TURNAROUND: TURITULU	PLM T.T. Stundung
	Email Reports to	rbrown@hygenix.com	
FIELD ID #	TYPE OF MATERIAL	SAMPLE LOCATION	COMMENTS
127,128,124	CT Glul	11A 2nd	
130	(B She	ILA OK	
131,130	Pluse	lia ang	
133	FL MORTEN.	11A and	
134,135	Place Which	11A Jus	
136	SR	ILA 2K	· · · · · · · · · · · · · · · · · · ·
137,138,134	1 Celi pape	114 244	
140,141,142		8	
143	Petor	<u> </u>	
144,145,14		Se la companya de la	
147	Shull Shit flashing	17	
148	Window Celulk Cxt.	12 0000	
149	ext. window putty	1200	
150	wall gluc	11 3.04	
15)	Black Board	1136	
152	air cell debris	11-3rd	· ·
153	duct wrap	11-2nd	
154	duct wrap transformer	11	

Relinquished By:

Date: _____

Received By: Date: 1155 jq

مقربكامترفت الافتار منارسا

CLIENT: HYGENIX, INC. ADDRESS: 49 Woodside Street Stamford, CT 06902	EMAIL: JTWITCHOLL Hysenix. Con
SAMPLE SITE: 35 N Main St Ansonia, CT	SAMPLE TYPE: COLLECTED BY: DATE COLLECTED: TURNAROUND: Studard STUITORIU
Email Reports to	tbrown@hygenix.com
FIELD ID # TYPE OF MATERIAL 155 EXt. print wood window 156 window putty 57,158,159,160,164,162 9x9 Ft & mastic 163 Flat roof 164 Insulation board 165 Ext. air cell debris 166 Block White insulation 167 window putty 168,169,120 Intrior window putty 171 Box of Stuff	SAMPLE LOCATION COMMENTS Z w ext A ext. A ext. $ A = 3^{ra}$ $ 2 - 3^{ra}$ $ 2 - 3^{ra}$ $ 2 - 3^{ra}$ $ 1 - 3^{ra}$ $ 1 - 3^{ra}$ $ 1 - 3^{ra}$ $ 1 - 3^{ra}$

مشربتكامتدمت الجساحيا المحاسب

Relinquished By: ______ Received By: ______ Date: ______ Date: _______ Date: ______

CLIENT: ADDRESS:	HYGENIX, INC. 49 Woodside Street Stamford, CT 06902	DATE RECEIVED:	ella Hysenix com
SAMPLE SITE:	$A_{n} = a_{n} = a_{n}$	SAMPLE TYPE: COLLECTED BY: DATE COLLECTED TURNAROUND: TU.TUUU STU.TUUU 0: <u>rbrows@hygenix.com</u>	PLM T.T. Stundung
	1		
FIELD ID # TY	PE OF MATERIAL	SAMPLE LOCATION	COMMENTS
172, 173, 174, 175,	176 Joint compound	12-3	
	heetrock	12-3	
sas fat i st	bris bile	12-3	
183,184,185 Cer		12-3	
	all gloc	12-3	
188 FI	oor debris	12-3	
189	Fan jacket	12	
	ire brick		
	eiling file	12 12 - 1 Rid	
	Loof	12-1 Bridge	
	all glve	12-1	
019		12-1	
	ramic tile give	12-1 Bridge	
	indow Coulk	12-2 office	-
3 201 WI	Indow Caulk	12-1	
210,211 ma	stic 9×9 Ft	12-1 Bridge	
<u>616,213 ma</u>	stic 9x9 tt	12-1 Bridge	
214,215 Wa	stic 9×9 ft all glue utrock	12-1 Bridge 12-1 Bridge 12-1	
216 Sh	utrock	12-1	

..... VU7V2

203-324-2222

stinquished By:

Date:

Received By: _____ Date: ____ +210-1155

k219062361

CLIENT: ADDRESS: SAMPLE SITE:	HYGENIX, INC. 49 Woodside Street Stamford, CT 06902	SAMPLE TYPE: COLLECTED BY:	PLM
		DATE COLLECTED TURNAROUND:	Stundurd
		JTU. torell	
	Email Reports to	: rbrown@hygenix.com	
	PE OF MATERIAL	CAMPLE LOCATION	
		SAMPLE LOCATION	COMMENTS
218 tr	perglass jacket	12-1	
219,220,221,222	Building paper	12-1	
223,224,225 R	PCT Paper	12-1	
	ramic tile g/ve	12-1	
	ramic Wall	12-1	
232, 233, 234, 235		12-1	·
	xhaust aircell	12-1	
and the second	her Board	12-1	
240,241,242,243	,244,245,246 9×9Ft \$ mustic	12-1	
247, 248, 249, 250, 25	1,252 12×12 ft \$ mastic	12-1	
	nsite in system	12-1	
	nsite debris	12-2	
A / A	rck pipe	12-2	
	pansion joint	12-2	
	bris pile	12-2	
	Black flooring	12-2 office	
274-276 R	ope debris	12-2	

alinquished By: _____ Date: _____

Received By: _____ Date: ____ 6/1 1210 1155

205-524-2222

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№ 2 1 9 0 6 2 3 6 1

		musicy are VUJUZ 21	03-324-2222
CHAIN OF	CUSTODY FORM		
CLIENT: ADDRESS:	HYGENIX, INC. 49 Woodside Street Stamford, CT 06902	DATE RECEIVED: 	elle Hysenix com
SAMPLE SI	TE: <u>35 N Muin St</u> <u>Anspia</u> , <u>C</u> Email Reports to	SAMPLE TYPE: COLLECTED BY: DATE COLLECTED: TURNAROUND: TURNAROUND: TURNAROUND: TURNAROUND:	PLM TT Stundard
FIELD ID #	TYPE OF MATERIAL	SAMPLE LOCATION	COMMENTS
277	Pressured rock debris	12-2	
278,279,28		12-2 office	
281	9×9 ft & Mastic	12-2	
282	wall give	12-3	
283	transite window	12-2	
2 <i>8</i> 4	debris	12-2	
285,286	electrical unit clip	12 - 2	
	······································		
	· · · · · · · · · · · · · · · · · · ·		
1			
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HYGENIX, Inc.

ASBESTOS PRE-RENOVATION INSPECTION REPORT

INSPECTION SITE:	Building #8 35 Main Street Ansonia, CT
CLIENT:	Ann Bogucki AECOM 250 Apollo Drive Chelmsford, MA 01824 <u>Ann.Bogucki2@aecom.com</u>
INSPECTORS:	James Twitchell(CT Insp./Mgmt. Planner #000241)
INSPECTION DATES:	March 25, 2022
BUILDING TYPES:	Commercial
PLM ASBESTOS SAMPLES:	49 collected / 47 analyzed

BACKGROUND

The building at the above referenced location is slated for demolition. AECOM hired HYGENIX, Inc. to document the presence of asbestos-containing building materials (ACBM'S), and to comment on the impact these materials will have on the proposed renovation/demolition project. The results of the asbestos survey are presented in this report.

LIMITATIONS

A previous inspection report was performed by HYGENIX Inc. of the site complex and of the roof and lower level of building #8. The was no access during either inspection to the southern end of the middle floor.

ASBESTOS SAMPLING PROTOCOL

During the inspection of accessible spaces, the inspectors identified "functional spaces or building systems" (e.g. dwelling spaces, storage rooms, boiler rooms, roof systems, heating systems, etc.), and categorized the construction materials within functional spaces and/or system as "homogeneous", based on uniformity in color, age, texture and use. The inspector then compiled a list of building materials suspected to contain asbestos, and recorded the condition, location, and approximate quantity of homogeneous, suspect materials.

From each homogeneous area or building system, the inspectors collected representative "bulk" samples of construction materials suspected to contain asbestos.

Samples of suspect materials were analyzed at AmeriSci New York by polarized light microscopy (PLM)



in accordance with EPA procedures. The National Voluntary Laboratory Approval Program (NVLAP) accredits AmeriSci New York to perform bulk asbestos analysis.

INTERPRETATION OF TEST RESULTS

The regulations of CT Department of Public Health and the US EPA define *asbestos containing materials* (ACM's) as materials containing greater than 1-% asbestos. If one or more bulk samples of a homogeneous material are found to contain greater than 1-% asbestos, then all of the homogeneous material is classified as ACM.

The US OSHA Asbestos Construction Industry Standard requires designation as *presumed asbestos containing materials* (PACM's), all surfacing materials and thermal system insulation which have <u>not</u> been tested, or for which the number of samples collected and analyzed was less than the previously listed minimums. This requirement does not apply if the building in which the material is found was constructed after 1980.

The results of the PLM laboratory testing are summarized in Appendix C.

GENERAL DISCUSSION - ASBESTOS ABATEMENT REGULATIONS

Asbestos management and abatement activities in the State of Connecticut are governed by the following State and federal regulations:

1. US EPA National Emission Standards for Hazardous Air Pollutants (NESHAPs)

The NESHAPs regulations for asbestos prohibit the emission of airborne asbestos dust to the environment. These regulations require notification of the regional office of US EPA at least 10 days in advance of an asbestos abatement project involving more than 260 linear feet, 160 square feet, or 35 cubic feet of material containing more than 1% asbestos. The NESHAPs regulations require the asbestos-containing materials to be kept in a wet condition during handling and removal, and specify requirements for labeling, transport, and disposal of asbestos waste.

2. US OSHA Asbestos Construction Industry Standard

The OSHA Asbestos Construction Industry Standard protects workers who may be exposed to asbestos in construction. The OSHA standard specifies permissible exposure limits, and procedures for handling various forms and quantities of asbestos containing building materials. The standard describes regulated areas, exposure monitoring, respiratory protection and protective clothing, hygiene facilities, hazard communication, housekeeping, medical surveillance, record keeping, and worker training requirements.

3. CT DPH CT Standards for Asbestos Abatement

The CT regulations describe the allowable procedures for asbestos abatement, licensing of personnel involved in asbestos abatement, and re-occupancy testing requirements. A 10-day advance notification of the agency is required for asbestos removal projects involving more than 25 square feet or 10 linear feet of interior friable and/or non-friable asbestos-containing material.



INVENTORY OF ASBESTOS CONTAINING BUILDING MATERIALS:

All asbestos containing materials must be removed from the building prior to renovation/demolition activities that will disturb them. A Connecticut licensed asbestos abatement contractor must remove the material and a clearance must be performed by a Connecticut licensed project monitor.

ACBM Description	Location (s) in Building	Estimated Quantity	Comments
Electrical Panel Clips & Backer Boards	Scattered locations on columns, units, walls, etc.	10 units	
Pipe Insulation	Lower-Level Boiler Room	40 linear feet	The insulation in the area is in poor condition. The room is not safe for entry. The insulation in all other areas of the lower level were remediated by AAIS of West Haven.
Boiler Insulation	Lower-Level Boiler Room	300 square feet	The entire boiler must be completely dismantled to remove all interior and exterior materials. The room is not safe for entry.
12x12 Floor Tiles & Mastic	2 nd Floor Bathrooms	200 square feet	
Miscellaneous Materials	1 st Floor South End	Not Available	The south end is not accessible. Any material not previously sampled must be assumed asbestos containing.
Corrugated & Smooth Transite	Some Exterior Walls	Not Available	Ĩ
Exterior Roofing Debris	Perimeter edge of building	Unknown	Roofing debris has fallen off the building over time and is scattered around the building on the ground.
Roof Field & Flashing	All Roofs	3,978 square feet	Flashing is present around all penetrations & skylights
Red Galbestos	Roof Level	Unavailable	The galbestos is also PCB containing >50 PPM.

INVENTORY OF NON-ASBESTOS CONTAINING BUILDING MATERIALS:

Ceramic Adhesive	Window & Door	Bathroom Wall	Wall Panel Paper	2x4 Dimple Pattern
	Caulk	Adhesive	Coating	Ceiling Tile
Carpet Adhesive	3" White Cove Base	3" Brown Cove Base	2x4 Left Right Pattern	2x4 Random Fissure
	– Adhesive	– Adhesive	Ceiling Tile	Ceiling Tile
Sheet Rock	Joint Compound	Plaster	Fire Doors Are Metal on Wood	



DISCLAIMER

HYGENIX, Inc. has performed its services, within the limits prescribed by our clients, with the usual thoroughness and competence of the industrial hygiene profession.

The findings in this report are based upon observations and information available to the inspector during the time of the rendering of the services as described in this report and are based on procedures currently required by applicable laws, regulations and ordinances. HYGENIX cannot be responsible for conditions or materials the inspector did not observe due to lack of access or was not otherwise reasonably observable. The conclusions in this report are professional opinions based solely upon these findings. The findings and conclusions are intended exclusively for the purpose outlined herein within the scope of work and at the site location and project indicated.

This report is for the sole use of the client. The scope of work performed in execution of this inspection may not be appropriate to satisfy the needs of other users and any reuse of this document or the findings, conclusions, or recommendations presented herein is at the sole risk of said user.

04/08/2022 James Twitchell Date

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HYGENIX, INC

APPENDIX A

SITE PHOTOGRAPHS





Entrance to 2nd Floor Locker Room



2nd Floor Locker Room



Door Caulk



Window Caulk









3rd Floor North End



3rd Floor Above Ceilings



3rd Floor Hall





3rd Floor Looking Into Bathrooms



APPENDIX B

SITE SKETCHES








APPENDIX C

PLM BULK ASBESTOS ANALYSIS REPORTS



AmeriSci New York

117 EAST 30TH ST. NEW YORK, NY 10016 TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report

Hygenix, Inc. Attn: Robert Brown	Date Received 03/31/22 Date Examined 04/04/22	AmeriSci Job # P.O. #	222033712
49 Woodside Street		Page 1 of	9
	RE: AECOM; 35 North Main	Street, (Building #8), Ar	isonia, CT
Stamford, CT 06902			

AMERISCI

Client No. / HGA Lab No. Asbestos Present **Total % Asbestos** 0325-01 222033712-01 NAD No Location: Middle Level Locker Room - Ceramic Adhesive (by CVES) 1 by Valeriu Voicu on 04/04/22 Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose Trace, Non-fibrous 100% 0325-02 222033712-02 No NAD (by CVES) Location: Middle Level Locker Room - Ceramic Adhesive 1 by Valeriu Voicu on 04/04/22 Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose Trace, Non-fibrous 100% 0325-03 222033712-03 No NAD Location: Middle Level Locker Room - Ceramic Adhesive (by CVES) 1 by Valeriu Voicu on 04/04/22 Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose Trace, Non-fibrous 100% 0325-04 NAD 222033712-04 No (by CVES) 2 Location: Window - Caulk by Valeriu Voicu on 04/04/22 Analyst Description: Dark Brown, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100% 0325-05 222033712-05 NAD No 2 Location: Window - Caulk (by CVES) by Valeriu Voicu on 04/04/22 Analyst Description: Dark Brown, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100% See Reporting notes on last page



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PLM Bulk Asbestos Report

AECOM; 35 North Main Street, (Building #8), Ansonia, CT

Client No. /	HGA	Lab No.	Asbestos Present	Total % Asbestos
Asbest	os Types:	lomogeneous, Non-Fibrous, Bi	No ulk Material	NAD (by CVES) by Valeriu Voicu on 04/04/22
	Material: Non-fibrous 10	00%		
0325-07 3	Location: Third F	222033712-07 Toor Bathroom Walls - Glue	Νο	NAD (by CVES) by Valeriu Voicu on 04/04/22
Asbest	scription: Brown, Homog os Types: Material: Cellulose Trac	geneous, Non-Fibrous, Bulk Ma e, Non-fibrous 100%	aterial	
0325-08 3	Location: Third F	222033712-08 Toor Bathroom Walls - Glue	Νο	NAD (by CVES) by Valeriu Voicu on 04/04/22
Asbest	scription: Brown, Homog os Types: Material: Cellulose Trac	geneous, Non-Fibrous, Bulk Ma e, Non-fibrous 100%	aterial	
0325-09		222033712-09	No	NAD
3	Location: Third F	loor Bathroom Walls - Glue		(by CVES) by Valeriu Voicu on 04/04/22
Asbest	scription: Brown, Homog os Types: Material: Cellulose Trac	jeneous, Non-Fibrous, Bulk Ma e. Non-fibrous 100%	aterial	
0325-10		222033712-10	No	NAD
4	Location: Third F	loor Wall Panels - Paper Coati		(by CVES) by Valeriu Voicu on 04/04/22
Asbest	scription: Off-White/Beig os Types: Material: Cellulose 90%	e, Heterogeneous, Fibrous, Bi , Non-fibrous 10%	ulk Material	
0325-11		222033712-11	No	NAD
4	Location: Third F	loor Wall Panels - Paper Coati	ing	(by CVES) by Valeriu Voicu on 04/04/22
Asbest	scription: Off-White/Beig os Types: Material: Cellulose 80%	e, Heterogeneous, Fibrous, Bu	ulk Material	



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PLM Bulk Asbestos Report

AECOM; 35 North Main Street, (Building #8), Ansonia, CT

Client No. /	HGA	Lab No.	Asbestos Present	Total % Asbestos
0325-12 4		222033712-12 Floor Wall Panels - Paper Coat		NAD (by CVES) by Valeriu Voicu on 04/04/22
Asbest	scription: Off-White/Beij os Types: Material: Cellulose 85%	ge, Heterogeneous, Fibrous, B 6, Non-fibrous 15%	uik Material	
0325-13		222033712-13	No	NAD
5	Location: Third I	Floor - 2 x 4 Dimple CT		(by CVES) by Valeriu Voicu on 04/04/22
Asbest	os Types:	Homogeneous, Fibrous, Bulk N 6, Fibrous glass 25%, Non-fib		
0325-14		222033712-14	No	NAD
5	Location: Third I	Floor - 2 x 4 Dimple CT		(by CVES) by Valeriu Voicu on 04/04/22
Asbest	os Types:	Homogeneous, Fibrous, Bulk N 6, Fibrous glass 25%, Non-fib		
0325-15		222033712-15	No	NAD
5	Location: Third I	Floor - 2 x 4 Dimple CT		(by CVES) by Valeriu Voicu on 04/04/22
Asbest	os Types:	Homogeneous, Fibrous, Bulk N 6, Fibrous glass 30%, Non-fib		
0325-16	material. Ochdiose 20%	222033712-16	No	NAD
6	Location: Third I	Floor - Carpet Adhesive	NO	(by CVES) by Valeriu Voicu on 04/04/22
Asbest	scription: Yellow/Black/l os Types: Material: Cellulose Trad	Red, Heterogeneous, Non-Fibri ce, Non-fibrous 100%	ous, Bulk Material	
0325-17	1.00	222033712-17	No	NAD
6	Location: Third I	Floor - Carpet Adhesive		(by CVES) by Valeriu Voicu on 04/04/22
	scription: Yellow/Black/l os Types: Material: Cellulose Trad	Red, Heterogeneous, Non-Fibr	ous, Bulk Material	



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PLM Bulk Asbestos Report

AECOM; 35 North Main Street, (Building #8), Ansonia, CT

	HGA	Lab No.	Asbestos Present	Total % Asbesto
0325-18 6	Location: Third Floor - Ca	222033712-18 arpet Adhesive	No	NAD (by CVES) by Valeriu Voicu
Asbesto	scription: Yellow/Black/Red, Hete s Types: Material: Cellulose Trace, Non-		us, Bulk Material	on 04/04/22
0325-19		222033712-19	Yes	2%
7	Location: 3rd Floor Bathr			(by CVES) by Valeriu Voicu on 04/04/22
Asbesto	scription: Black, Homogeneous, s Types: Chrysotile 2.0 % Material: Cellulose Trace, Non-			
0325-20		222033712-20	No	NAD
8	Location: 3rd Floor Bathr	ooms - 12 x 12 FT		(by CVES) by Valeriu Voicu on 04/04/22
Asbesto	scription: Beige, Homogeneous, s Types: Material: Non-fibrous 100%	Non-Fibrous, Bulk Mat	terial	
Other	Material. Non-hbious 10078			
		222033712-21		NA/PS
0325-21 7 Analyst Des Asbesto				NA/PS
0325-21 7 Analyst Des Asbesto Other	Location: 3rd Floor Bathr scription: Bulk Material s Types: Material:	ooms - Mastic	No	
0325-21 7 Analyst Des Asbesto Other	Location: 3rd Floor Bathr scription: Bulk Material s Types: Material:	ooms - Mastic 222033712-22	Νο	NA/PS NAD (by CVES) by Valeriu Voicu on 04/04/22
0325-21 7 Analyst Des Asbesto Other 0325-22 8 Analyst Des Asbesto	Location: 3rd Floor Bathr scription: Bulk Material s Types: Material:	ooms - Mastic 222033712-22 ooms - 12 x 12 FT Non-Fibrous, Bulk Mat		NAD (by CVES) by Valeriu Voicu
0325-21 7 Analyst Des Asbesto Other 0325-22 8 Analyst Des Asbesto Other	Location: 3rd Floor Bathr scription: Bulk Material is Types: Material: Location: 3rd Floor Bathr scription: Beige, Homogeneous, is Types: Material: Cellulose Trace, Non-	ooms - Mastic 222033712-22 ooms - 12 x 12 FT Non-Fibrous, Bulk Mat fibrous 100%		NAD (by CVES) by Valeriu Voicu
0325-21 7 Analyst Des Asbesto Other 0325-22 8 Analyst Des Asbesto	Location: 3rd Floor Bathr scription: Bulk Material is Types: Material: Location: 3rd Floor Bathr scription: Beige, Homogeneous, is Types: Material: Cellulose Trace, Non-	ooms - Mastic 222033712-22 ooms - 12 x 12 FT Non-Fibrous, Bulk Mat fibrous 100% 222033712-23		NAD (by CVES) by Valeriu Voicu on 04/04/22
0325-21 7 Analyst Des Asbesto Other 1 0325-22 8 Analyst Des Asbesto Other 1 0325-23 7 Analyst Des	Location: 3rd Floor Bathr scription: Bulk Material is Types: Material: Location: 3rd Floor Bathr scription: Beige, Homogeneous, is Types: Material: Cellulose Trace, Non-	ooms - Mastic 222033712-22 ooms - 12 x 12 FT Non-Fibrous, Bulk Mat fibrous 100% 222033712-23		NAD (by CVES) by Valeriu Voicu on 04/04/22



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PLM Bulk Asbestos Report

AECOM; 35 North Main Street, (Building #8), Ansonia, CT

Client No. /	HGA Lab I	No. Asbes	tos Present	Total % Asbestos
	2220337 Location: 3rd Floor Bathrooms - 12: scription: Beige, Homogeneous, Non-Fibro	x 12 FT	Νο	NAD (by CVES) by Valeriu Voicu on 04/04/22
	os Types: Material: Cellulose Trace, Non-fibrous 100	%		
0325-25	2220337	12-25	No	NAD
9	Location: 3rd Floor 3" White Cove B	ase - Adhesive		(by CVES) by Valeriu Voicu on 04/04/22
Asbesto	scription: Black/Beige, Heterogeneous, Fibros Types: Material: Cellulose 20%, Non-fibrous 80%			010101012
0325-26	2220337	12-26	No	NAD
9	Location: 3rd Floor 3" White Cove B	ase - Adhesive		(by CVES) by Valeriu Voicu on 04/05/22
Asbesto	scription: Black/Brown, Heterogeneous, Fib s Types: Material: Cellulose 80%, Non-fibrous 20%			
0325-27	2220337		No	NAD
9	Location: 3rd Floor 3" White Cove B	ase - Adhesive		(by CVES) by Valeriu Voicu on 04/05/22
Asbesto	scription: Black/Brown, Heterogeneous, Fib os Types: Material: Cellulose 70%, Non-fibrous 30%			
0325-28	2220337	CALCE.	No	NAD
10	Location: 3rd Floor 3" Brown Cove B		(by CVES) by Valeriu Voicu on 04/05/22	
Asbesto	scription: Yellow, Homogeneous, Non-Fibro os Types: Material: Cellulose Trace, Non-fibrous 100			
0325-29	2220337	12-29	No	NAD
10	Location: 3rd Floor 3" Brown Cove E	Base - Glue		(by CVES) by Valeriu Voicu on 04/05/22
Asbesto	scription: Yellow, Homogeneous, Non-Fibro os Types: Material: Cellulose Trace, Non-fibrous 100			



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PLM Bulk Asbestos Report

AECOM; 35 North Main Street, (Building #8), Ansonia, CT

Client No. / H	IGA	Lab No.	Asbestos Present	Total % Asbestos
0325-30 10		222033712-30 Brown Cove Base - Glue	No	NAD (by CVES) by Valeriu Voicu on 04/05/22
Asbesto	cription: Yellow, Homogene s Types: Material: Cellulose Trace, N		lena	
0325-31		222033712-31	No	NAD
11	Location: 3rd Floor - 2	2 x 4 Left Right Pattern CT		(by CVES) by Valeriu Voicu on 04/05/22
Asbesto	cription: White/Beige, Homo s Types: Material: Cellulose 40%, Fit			10 20 10 10 10 10 10 10 10 10 10 10 10 10 10
0325-32		222033712-32	No	NAD
11	Location: 3rd Floor - 3	2 x 4 Left Right Pattern CT		(by CVES) by Valeriu Voicu on 04/05/22
Asbesto	cription: White/Beige, Homo s Types: Material: Cellulose 45%, Fit			
0325-33	2020	222033712-33	No	NAD
11	Location: 3rd Floor - 2	2 x 4 Left Right Pattern CT		(by CVES) by Valeriu Voicu on 04/05/22
Asbesto	cription: White/Beige, Homo s Types: /laterial: Cellulose 45%, Fil:			
0325-34		222033712-34	No	NAD
12	Location: 3rd Floor - 2	2 x 4 RF Pattern CT		(by CVES) by Valeriu Voicu on 04/05/22
Asbesto	cription: White/Beige, Homo s Types: Material: Cellulose 40%, Fil:			01104/00/22
0325-35	1.000	222033712-35	No	NAD
12	Location: 3rd Floor - 2			(by CVES) by Valeriu Voicu on 04/05/22
Asbesto	cription: White/Beige, Homo s Types: Material: Cellulose 35%, Fil:			



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PLM Bulk Asbestos Report

AECOM; 35 North Main Street, (Building #8), Ansonia, CT

Client No. /	HGA La	b No.	Asbestos Present	Total % Asbestos
Asbest	22203 Location: 3rd Floor - 2 x 4 RF Pa scription: White/Beige, Homogeneous, os Types: Material: Cellulose 40%, Fibrous glass	Fibrous, Bulk M		NAD (by CVES) by Valeriu Voicu on 04/05/22
0325-37	Shames.	33712-37	No	NAD
13	Location: 3rd Floor - Sheetrock	5712-57	NO	(by CVES) by Valeriu Voicu on 04/05/22
Asbest	scription: White/Brown, Heterogeneous os Types: Material: Cellulose 10%, Fibrous glass			
0325-38 13	22203 Location: 3rd Floor - Sheetrock	33712-38	Νο	NAD (by CVES) by Valeriu Voicu on 04/05/22
Asbest	scription: White/Brown, Heterogeneous os Types: Material: Cellulose 10%, Fibrous glass			NAD
13	Location: 3rd Floor - Sheetrock	53712-39	NO	(by CVES) by Valeriu Voicu on 04/05/22
Asbest	scription: White, Homogeneous, Fibrou os Types: Material: Cellulose 1%, Fibrous glass			
0325-40	22203	33712-40	No	NAD
14	Location: 3rd Floor - Joint Comp	bound		(by CVES) by Valeriu Voicu on 04/05/22
Asbest	scription: White, Homogeneous, Non-Fi os Types: Material: Cellulose Trace, Non-fibrous		terial	
0325-41	22203	33712-41	No	NAD
14	Location: 3rd Floor - Joint Comp scription: White, Homogeneous, Non-Fi		terial	(by CVES) by Valeriu Voicu on 04/05/22
Asbest	Stripton: White, Honogeneous, Honor S Types: Material: Cellulose Trace, Non-fibrous			



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PLM Bulk Asbestos Report

AECOM; 35 North Main Street, (Building #8), Ansonia, CT

Client No. / H	IGA Lab No	Asbestos Present	Total % Asbestos
0325-42 14	222033712 Location: 3rd Floor - Joint Compound		NAD (by CVES) by Valeriu Voicu on 04/05/22
Asbestos	cription: White, Homogeneous, Non-Fibrous, 5 Types: Iaterial: Cellulose Trace, Non-fibrous 100%	Buik Materiai	
0325-43	222033712	-43 No	NAD
14	Location: 3rd Floor - Joint Compound		(by CVES) by Valeriu Voicu on 04/05/22
Asbestos	cription: White, Homogeneous, Non-Fibrous, ; Types: laterial: Cellulose Trace, Non-fibrous 100%	Bulk Material	011010022
0325-44	222033712	-44 No	NAD
14	Location: 3rd Floor - Joint Compound		(by CVES) by Valeriu Voicu on 04/05/22
Asbestos	sription: White, Homogeneous, Non-Fibrous, 5 Types: laterial: Cellulose Trace, Non-fibrous 100%	Bulk Material	
0325-45	222033712	-45 No	NAD
14	Location: 3rd Floor - Joint Compound		(by CVES) by Valeriu Voicu on 04/05/22
Asbestos	cription:White, Homogeneous, Non-Fibrous, 5 Types: Iaterial: Cellulose Trace, Non-fibrous 100%	Bulk Material	
0325-46	222033712	-46 No	NAD
14	Location: 3rd Floor - Joint Compound		(by CVES) by Valeriu Voicu on 04/05/22
Asbestos	cription: White, Homogeneous, Non-Fibrous, 5 Types: laterial: Cellulose Trace, Non-fibrous 100%	Bulk Material	
0325-47	222033712	-47 No	NAD
15	Location: 2nd Floor Locker Rooms - Pl	aster	(by CVES) by Valeriu Voicu on 04/05/22
Asbestos	cription: Gray, Homogeneous, Non-Fibrous, (; Types: laterial: Cellulose Trace, Non-fibrous 100%	Cementitious, Bulk Material	



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PLM Bulk Asbestos Report

AECOM; 35 North Main Street, (Building #8), Ansonia, CT

Client No. / Ho	GA Lab No.	Asbestos Present	Total % Asbestos
0325-48	222033712-48	No	NAD
15	Location: 2nd Floor Locker Rooms - Plaster		(by CVES) by Valeriu Voicu on 04/05/22
Asbestos 1	i ption: Gray, Homogeneous, Non-Fibrous, Cementiti I ypes: terial: Cellulose Trace, Non-fibrous 100%	ous, Buik Material	
0325_40	222033712-40	No	NAD
	222033712-49 Location: 2nd Floor Locker Rooms - Plaster	Νο	NAD (by CVES)
0325-49 15		Νο	NAD (by CVES) by Valeriu Voicu
15	Location: 2nd Floor Locker Rooms - Plaster		(by CVES)
15	Location: 2nd Floor Locker Rooms - Plaster		(by CVES) by Valeriu Voicu

Reporting Notes:

Analyzed by: Valeriu Voicu Date: 4/4/2022



Reviewed by: Valeriu Voicu

Attois

*NAD/NSD = no asbestos detected; NA = not analyzed; NA/PS=not analyzed/positive stop, (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; PLM Bulk Asbestos Analysis using Olympus, Model BH-2 Pol Scope, Microscope, Serial #: 229915, by Appd E to Subpt E, 40 CFR 763 quantified by either CVES or 400 pt ct as noted for each analysis (NVLAP 200546-0), ELAP PLM Method 198.1 for NY friable samples, which includes the identification and quantitation of vermiculite, or ELAP 198.6 for NOB samples, or EPA 400 pt ct by EPA 600-M4-82-020 (NY ELAP Lab 11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile, FR 59,146,38970,8/1/94) National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab.This PLM report relates ONLY to the items tested. RI Cert AAL-094, CT Cert PH-0186, Mass Cert AA000054, NJ Lab ID #NY031.

END OF REPORT



Client: AECOM	A State of the second se	ASBESTOS PLA	ASBESTOS PLM BULK SAMPLE LOG	ELOG		
orth N	Client: AECOM Site: 35 North Main Street (Building #8)		Type: PLM		HYGE	HYGENIX, Inc.
	on Quantum V		Tech: JT	Environmental	Environmental Consulting & Laboratory Services	boratory Servic
Ansonia, CT	T		Date: 03/25/22	(203) 324-2	49 Woodside Street Stamford, CT 06902 (203) 324-2222 (phone) (203) 324-3876 (fax)	49 Woodside Street Stamford, CT 06902 (203) 324-3876 (fax)
LAB ID#	SAMPLE #	SAMPLING LOCATION	ON	DESCRIPTION	OTH V	
+	0325-01	Middle Level - Locker Room	koom	Ceramic Adhesive	QLY.	RESULT
+	0325-02	Middle Level - Locker Room	Room	Ceramic Adhesive		
-	0325-04	INTIGATE LEVEL - LOCKET ROOM	room	Ceramic Adhesive		
	0325-05	Window		Caulk		
_	0325-06	Door		Caulk		
-	0325-07	Third Floor Bathroom Walls	Valle	Caulk		
-	0325-08	Third Floor Bathroom Walls	Valle	Clue		
-	0325-09	Third Floor Bathroom Walls	/alls	Glue		
-	0325-10	Third Floor Wall Panels	s	Danar Contine		
-	0325-11	Third Floor Wall Panels	Is	Paner Conting		
-	0325-12	Third Floor Wall Panels	ls	Paner Coating		
-	0225-14	Third Floor		2x4 Dimple CT	,	
+	41-0200	Third Floor		2x4 Dimple CT		
-	CI-C7C0	Third Floor		2x4 Dimple CT		
-	01-020	Third Floor		Carpet Adhesive		
-	0375.19	Third Floor		Carpet Adhesive		
	0325-10	Third Floor		Carpet Adhesive		
-	0325-20	Star Floor - Bathrooms		Mastic		
	0325-21	3 rd Floor - Bathrooms		12x12 FT		
	0325-22	3 rd Floor – Bathrooms		Mastic		
	0375-22	3 rd Floor - Bathrooms		12x12 FT		
	0375-24	3rd Floor - Bathrooms		Mastic		
		3rd Floor - Bathrooms		12x12 FT		
	2 CHAIL	CHAIN OF CUSTODY	1	Notes: Till Positive. 5 Day TAT		
Weilinduished By:	Date/Time:	Received By: Date/Time		itwitchell@hvgenix com		
5		- TSyme	33122 140		0	

BHYGENIX, INC.

SBESTOS PLM BULK SAMPLE LOG Type: PLM Tech: JT Tech: JT Tech: JT Tech: JT Date: 03/25/22 Date: 03/25/22 Date: 03/25/22 Date: 03/25/22 PLNG LOCATION DESCRIPTION OR Adhesive -3" White Cove Base Adhesive -3" Brown Cove Base Adhesive -3" Brown Cove Base Adhesive -3" Brown Cove Base Glue -3" Floor 2x4 Left Right Pattern CT -3" Floor 2x4 RF Pattern CT -3" Floor 2y4 RF Right Patt	BESTOS PLM B(ILK SAMPLE LOC Type: PLM Type: PLM Tech: JT Tech: JT Tech: JT Tech: JT Tech: JT Tech: JT Tech: JT Tech: JT S" White Cove Base Adhesive S" Brown Cove Base Adhesive S" Floor 2x4 Left Right Pattern CT S" Floor 2x4 R F Pattern CT S" Floor		HYGENIX, Inc.	& Laboratory Services	49 Woodside Street Stamford CT 06902) (203) 324-3876 (fax)	RECULT	ITOCAL																							0 + 0	717000
SBESTOS PLM BULK SAMPLE LOG Type: PLM Type: PLM Tech: JT Tech: JT Tech: JT Date: 03/25/22 Date: 03/25/22 Date: 03/25/22 Description Date: 02/25/22 Description Date: 02/25/22 Description Date: 02/25/22 Description Date: 02/25/22 Description Date: 02/	ASBESTOS PLM BULK SAMPLE LOG ASBESTOS PLM BULK SAMPLE LOG (Building #8) Type: PLM (Building #8) Teeh. JT 25 3 ^{3d} Floor - 3" White Cove Base Adhesiv 26 3 ^{3d} Floor - 3" White Cove Base Adhesiv 27 3 ^{3d} Floor - 3" White Cove Base Adhesiv 28 3 ^{3d} Floor - 3" White Cove Base Adhesiv 29 3 ^{3d} Floor - 3" Brown Cove Base Adhesiv 29 3 ^{3d} Floor - 3" Brown Cove Base Adhesiv 29 3 ^{3d} Floor - 3" Brown Cove Base Adhesiv 20 3 ^{3d} Floor - 3" Brown Cove Base Glue 31 3 ^{3d} Floor - 3" Brown Cove Base Glue 33 3 ^{de} Floor - 3" Brown Cove Base Glue 33 3 ^{de} Floor - 3" Brown Cove Base Glue 33 3 ^{de} Floor - 3" Brown Cove Base Glue 33 3 ^{de} Floor - 3" Brown Cove Base Glue 34 3 ^{de} Floor - 3" Brown Cove Base Glue 33 3 ^{de} Floor - 3" Brown Cove Base Glue 34 3 ^{de} Floor - 3" Brown Cove Base Glue 33 3 ^{de} Floor - 3" Brown Cove Base Glue 34 3 ^{de} Floor - 3" Floor		HYG	ital Consulting	0	24-2222 (phone)	OTV																									# 2 2 2
ASBESTOS PLM BULK SAMPI Type: PLM Type: PLM Tech: JT Tech: JT	(Building #8) (Building #8) LE # SAM 25 3rd Floo 26 3rd Floo 27 3rd Floo 28 3rd Floo 29 3rd Floo 29 3rd Floo 20 3rd Floo 21 3rd Floo 21 3rd Floo 23 3rd Floo 23 3rd Floo 24 4 41 41 42 43 44 45 46 40 40 40 40 40 40 40 40 40 40	DOT		Environmen	(TA	(203) 32	DESCRIPTION	Adhesive	Adhesive	Adhesive	Glue	Glue	Glue	2x4 Left Right Pattern CT	2x4 Left Right Pattern CT	2x4 Left Right Pattern CT	2x4 RF Pattern CT	2X4 RF Pattern CT	Sheet Rock	Sheet Rock	Sheet Rock	Joint Compound	Joint Compound	Joint Compound	Joint Compound	Joint Compound	Joint Compound	Joint Compound	Plaster	Notes: Till Positive. 5 Day TAT	itwitchell@hvœnix.com	
ASBESTOS P SAMPLING LOCA SAMPLING LOCA 3 ^{1d} Floor - 3" White C 3 ^{1d} Floor - 3" White C 3 ^{1d} Floor - 3" Brown C 3 ^{1d} Floor - 3" Floor - 3" 3 ^{1d} Floor - 3" Floor - 3" 3 ^{1d}	(Building #8) (Building #8) LE # SAM 25 3rd Floo 26 3rd Floo 27 3rd Floo 28 3rd Floo 29 3rd Floo 29 3rd Floo 20 3rd Floo 21 3rd Floo 21 3rd Floo 23 3rd Floo 23 3rd Floo 24 4 41 41 42 43 44 45 46 40 40 40 40 40 40 40 40 40 40	M BULK SAMPI	Type: PLM	Tech: JT		Date: 03/25/22	LION	ve Base	ve Base	ve Base	ove Base	ove Base	ove Base		~													eme	oms		ite/Time:	22
	Buildi (Buildi)	ASBESTOS PL					SAMPLING LOCA	3 rd Floor – 3" White Co	3rd Floor - 3" White Co	3rd Floor – 3" White Co	3rd Floor - 3" Brown Co	3 rd Floor – 3" Brown Co	5" Floor - 3" Brown Co	3 rd Floor	Sta Floor	2rd Ploor	2rd El.co.r	3rd Floor	3rd Floor	3rd Floor	3rd Floor	3rd Floor	3rd Floor	3 rd Floor	3" Floor	3rd Filoor	2rd Eloor	2nd Floor Locker Roy	2 nd Floor Locker Roc	OF CUSTODY		۱

BHYGENIX, INC.

Environmental Consulting & Laboratory Services 49 Woodside Street Stamford, CT 06902 (203) 324-2222 (phone) (203) 324-3876 (fax) HYGENIX, Inc. RESULT QTY. Notes: Till Positive. 5 Day TAT DESCRIPTION jtwitchell@hygenix.com Plaster a de ASBESTOS PLM BULK SAMPLE LOG ŝ Date: 03/25/22 Type: PLM 331 22 Tech: JT Date/Time SAMPLING LOCATION 2nd Floor Locker Rooms Bure Received By: CHAIN OF CUSTODY Site: 35 North Main Street (Building #8) Date/Time: SAMPLE # 0325-49 Client: AECOM Ansonia, CT Relipeduished By LAB ID#

#222033712



Environmental Consultants And Laboratory Services



(203) 324-2222 Fax(203) 324-9857

49 Woodside Street Stamford, CT 06902

July 11, 2019

Ann Bogucki AECOM 250 Apollo Drive Chelmsford, MA 01824 Ann.Bogucki2@aecom.com

RE: 35 Main Street (PCB Sampling) Ansonia, CT

Dear Ms. Bogucki:

On June 5th and 7th, 2019, Ted Tio and I visited the above referenced locations to perform an investigation of the different suspect paint, caulk and glazing and ashesive materials that will be disturbed in upcoming renovations for polychlorinated biphenyls (PCBs). PCB investigations have recently been added to prerenovation and demolition inspections due to changes in the Federal and State regulations which require building Owners to determine if polychlorinated biphenyls (PCBs) are present in suspect materials prior to disposal/disturbance.

Once on site a visual inspection of the building interior and exterior components was performed to identify the different types of suspect materials that are present. From each material identified, a single sample was collected following the EPA's "Standard Operating Procedure For Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBS)" dated 05/05/11. Samples were submitted to Phoenix Environmental Laboratory for analysis by the Environmental Protection Agency (EPA) required Soxhlet method. Results for the samples collected are provided in the attached table labeled "PCB Source Material Location and Results." Additional sampling of materials is recommended to confirm low-level and negative PCB sample results. Single samples were initially collected based on the proposal and budget constraints.

Any material with total PCB concentrations >50 mg/kg are regulated by the United States Environmental Protection Agency (US EPA) and all materials >1 mg/kg and <50 mg/kg are regulated by the State of Connecticut DEEP.

If you have any questions, comments, or require additional information please call me at the office 203-324-2222. Thank you.

Regards. James Twitchell HYGENIX Inc.

ATTACHMENT A

PCB SOURCE MATERIAL LOCATION & RESULTS TABLE

SAMPLE #	SAMPLE DESCRIPTION	SAMPLE RESULT
0607-01	Pre-Sample Rinse	None Detected
0607-02	Exterior South Side of Building on Brick – Purple Paint	None Detected
0607-03	Exterior South Side of Building on Wood Window – Caulk	None Detected
0607-04	Bldg. 11A Exterior 1 st Floor East Metal Window – Putty	0.89 PPM (PCB 1254)
0607-05	Bldg. 11 2 nd Floor Interior Wood Window – Putty	4.3 PPM (PCB 1248)
0607-06	Exterior South Side of Building on Steel – Gray Paint	6.1 PPM (PCB 1254)
0607-07	Bldg. 12 Exterior West Side on Wood Window – Caulk	0.77 PPM (PCB 1254)
0607-08	Bldg. 12 Exterior West Side on Wood Window – Putty	None Detected
0607-09	Bldg. 12 Exterior West Side on Wood Window – Green Paint	2.3 PPM (PCB 1254)
0607-10	Bldg. 12 North End Roof – Field	None Detected
0607-11	Exterior South Side of Building on Steel – White Paint	1.7 PPM (PCB 1254)
0607-12	Exterior South Side of Building on Masonry – Black Paint	1.6 PPM (PCB 1254)
0607-13	Exterior South Side of Building on Masonry – Green Paint	3.9 PPM (PCB 1254)
0607-14	Exterior South Side of Building on Masonry – White Paint	2.5 PPM (PCB 1254)
0607-15	Exterior South Side of Building on Masonry – Yellow Paint	2.0 PPM (PCB 1254)
0607-16	Bldg. 12 Exterior West Side on Metal Window – Putty	1.7 PPM (PCB 1254)
0607-17	Bldg. 12 Interior on Brick – Brown Paint	17.0 PPM (PCB 1254)
0607-18	Bldg. 12 Interior on Steel – Paint	20.0 PPM (PCB 1254)
0607-19	Bldg. 12 Interior on Brick – White Paint	16.0 PPM (PCB 1248)
0607-20	Bridge Level Ceramic Tile Glue	1.2 PPM (PCB 1248)
0607-20	Bldg. 12 Under 9x9 Floor Tiles – Mastic	19.0 PPM (PCB 1248)
0607-22	Bldg. 12 Interior on Wood Stairs – Yellow Paint	15.0 PPM (PCB 1248)
0607-22	Bldg. 12 Interior on Concrete Floor – Expansion Joint	46.0 PPM (PCB 1248)
0607-23	Bidg. 12 Interior Wood Ceiling - Paint	None Detected
0607-25	Bldg. 12 Interior Wood Wall Panels – Glue	None Detected
	Bldg. 12 Interior Wood Wall Parels – Glde Bldg. 12 Exterior West Side Metal Windows – Black Paint	
0607-26		1.2 PPM (PCB 1254)
0607-27	Bldg. 12 on Steel – Yellow Paint	2.3 PPM (PCB 1248)
0607-28	Bldg. 12 on Steel – Gray Paint	5.5 PPM (PCB 1254)
0607-29	Bldg. 11 Roof – Field	43.0 PPM (PCB 1254)
0607-30	Bldg. 11 on Metal Columns - Paint	20.0 PPM (PCB 1254)
0607-31	Bldg. 11 on Metal Stairs – Yellow Paint	5.8 PPM (PCB 1248)
0607-32	Bldg. 11 on Brick – White Paint	None Detected
0607-33	Bldg. 11A on Steel – Green Paint	0.9 PPM (PCB 1254)
0607-34	Bldg. 11A 2 nd Floor Under 9x9 Floor Tiles – Mastic	0.89 PPM (PCB 1254)
0607-35	Bldg. 11A 2 nd Floor on Ceiling Tiles - Glue	1.0 PPM (PCB 1248)
0607-36	Bldg. 11 Bridge Level Behind Transite – Building Paper	4.1 PPM (PCB 1254)
0607-37	Bldg. 32 on Steel – Orange Paint	1.9 PPM (PCB 1254)
0607-38	Bldg. 32 Exterior on Metal Hoppers – Gray Paint	7.8 PPM (PCB 1254)
0607-39	Bldg. 32/8 Roof – Field	63.0 PPM (PCB 1268)
0607-40	Bldg. 32 Roof Level – Red Galbestos Paneling	3,100 PPM (PCB 1268)
0607-41	Bldg. 32 Roof Level – Gray Galbestos Paneling	3.6 PPM (PCB 1254)
0607-42	Duplicate Sample of 0607-03	0.92 PPM (PCB 1254)
0607-43	Duplicate Sample of 0607-05	4.0 PPM (PCB 1254)
0607-44	Duplicate Sample of 0607-10	None Detected
0607-45	Duplicate Sample of 0607-06	4.0 PPM (PCB 1254)
0607-46	Duplicate Sample of 0607-23	160.0 PPM (PCB 1248)
0607-47	Duplicate Sample of 0607-35	None Detected
0607-48	Duplicate Sample of 0607-40	19000 PPM (PCB-1268
0607-49	Duplicate Sample of 0607-36	2.1 PPM (PCB 1254)
	Post Sample Rinse	None Detected
0607-50		None Detected

ATTACHMENT B

PCB SAMPLE LOCATIONS



















ATTACHMENT C

SAMPLE RESULTS FOR PCBS



Monday, June 24, 2019

Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Project ID: 35 NORTH MAIN ST, ANSONIA CT SDG ID: GCD32981 Sample ID#s: CD32981 - CD33030

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

XI-lle

Phyllis/Shiller Laboratory Director

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #M-CT007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 UT Lab Registration #CT00007 VT Lab Registration #VT11301



Sample Id Cross Reference

June 24, 2019

SDG I.D.: GCD32981

Project ID: 35 NORTH MAIN ST, ANSONIA CT

Client Id	Lab Id	Matrix
0607-01	CD32981	OIL
0607-02	CD32982	BULK
0607-03	CD32983	CAULK
0607-04	CD32984	BULK
0607-05	CD32985	BULK
0607-06	CD32986	BULK
0607-07	CD32987	CAULK
0607-08	CD32988	BULK
0607-09	CD32989	BULK
0607-10	CD32990	BULK
0607-11	CD32991	BULK
0607-12	CD32992	BULK
0607-13	CD32993	BULK
0607-14	CD32994	BULK
0607-15	CD32995	BULK
0607-16	CD32996	BULK
0607-17	CD32997	BULK
0607-18	CD32998	BULK
0607-19	CD32999	BULK
0607-20	CD33000	BULK
0607-21	CD33001	CAULK
0607-22	CD33002	BULK
0607-23	CD33003	CAULK
0607-24	CD33004	BULK
0607-25	CD33005	BULK
0607-26	CD33006	BULK
0607-27	CD33007	BULK
0607-28	CD33008	BULK
0607-29	CD33009	BULK
0607-30	CD33010	BULK



Sample Id Cross Reference

June 24, 2019

SDG I.D.: GCD32981

Project ID: 35 NORTH MAIN ST, ANSONIA CT

Client Id	Lab Id	Matrix
0607-31	CD33011	BULK
0607-32	CD33012	BULK
0607-33	CD33013	BULK
0607-34	CD33014	CAULK
0607-35	CD33015	BULK
0607-36	CD33016	BULK
0607-37	CD33017	BULK
0607-38	CD33018	BULK
0607-39	CD33019	BULK
0607-40	CD33020	BULK
0607-41	CD33021	BULK
0607-42	CD33022	CAULK
0607-43	CD33023	BULK
0607-44	CD33024	BULK
0607-45	CD33025	BULK
0607-46	CD33026	CAULK
0607-47	CD33027	BULK
0607-48	CD33028	BULK
0607-49	CD33029	BULK
0607-50	CD33030	OIL



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	nation	<u>Date</u>	<u>Time</u>
Matrix:	OIL	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	CP	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

SDG ID: GCD32981 Phoenix ID: CD32981

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Waste Dilution PCB	Completed				06/13/19	J]\]]	SW3580A
Polychlorinated Biph	enyls						
PCB-1016	ND	0.49	mg/kg	1	06/15/19	SC	SW8082A
PCB-1221	ND	0.49	mg/kg	1	06/15/19	SC	SW8082A
PCB-1232	ND	0.49	mg/kg	1	06/15/19	SC	SW8082A
PCB-1242	ND	0.49	mg/kg	1	06/15/19	SC	SW8082A
PCB-1248	ND	0.49	mg/kg	1	06/15/19	SC	SW8082A
PCB-1254	ND	0.49	mg/kg	1	06/15/19	SC	SW8082A
PCB-1260	ND	0.49	mg/kg	1	06/15/19	SC	SW8082A
PCB-1262	ND	0.49	mg/kg	1	06/15/19	SC	SW8082A
PCB-1268	ND	0.49	mg/kg	1	06/15/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	97		%	1	06/15/19	SC	30 - 150 %
% DCBP (Confirmation)	106		%	1	06/15/19	SC	30 - 150 %
% TCMX	102		%	1	06/15/19	SC	30 - 150 %
% TCMX (Confirmation)	93		%	1	06/15/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noenix	x I.D.: CD32981
Client ID: 0	0607-01						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	nation	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

SDG ID: GCD32981 Phoenix ID: CD32982

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Extraction for PCB	Completed				06/12/19	XX/KL/S	BSW3540C
PCB (Soxhlet SW3540	<u>()</u>						
PCB-1016	ND	0.32	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1221	ND	0.32	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1232	ND	0.32	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1242	ND	0.32	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1248	ND	0.32	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1254	ND	0.32	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1260	ND	0.32	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1262	ND	0.32	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1268	ND	0.32	mg/Kg	10	06/13/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	93		%	10	06/13/19	SC	30 - 150 %
% DCBP (Confirmation)	103		%	10	06/13/19	SC	30 - 150 %
% TCMX	99		%	10	06/13/19	SC	30 - 150 %
% TCMX (Confirmation)	101		%	10	06/13/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD32982
Client ID: 0607-02							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	<u>nation</u>	Date	<u>Time</u>
Matrix:	CAULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

SDG ID: GCD32981 Phoenix ID: CD32983

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-03

		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference
Caulk Extraction for PCB	Completed				06/12/19	XX/KL/S	BSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1221	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1232	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1242	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1248	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1254	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1260	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1262	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1268	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	87		%	5	06/13/19	SC	30 - 150 %
% DCBP (Confirmation)	86		%	5	06/13/19	SC	30 - 150 %
% TCMX	84		%	5	06/13/19	SC	30 - 150 %
% TCMX (Confirmation)	86		%	5	06/13/19	SC	30 - 150 %

Client ID: 0607-03 RL/	Project ID: 35	NORTH MAIN ST, ANS	SONIA CT			Pł	noeni	x I.D.: CD3298	33
RL/	Client ID: 06	07-03							
			RL/						
Parameter Result PQL Units Dilution Date/Time By Reference	Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference	

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	<u>nation</u>	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:		I als anatam.			0000000

Laboratory Data

SDG ID: GCD32981 Phoenix ID: CD32984

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-04

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Extraction for PCB	Completed				06/12/19	XX/KL/S	BSW3540C
PCB (Soxhlet SW3540	C)						
PCB-1016	ND	0.75	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1221	ND	0.75	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1232	ND	0.75	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1242	ND	0.75	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1248	ND	0.75	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1254	0.89	0.75	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1260	ND	0.75	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1262	ND	0.75	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1268	ND	0.75	mg/Kg	5	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	98		%	5	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	94		%	5	06/14/19	SC	30 - 150 %
% TCMX	98		%	5	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	97		%	5	06/14/19	SC	30 - 150 %

Project ID: 35 NOR	Project ID: 35 NORTH MAIN ST, ANSONIA CT						Phoenix I.D.: CD32984		
Client ID: 0607-04									
		RL/							
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference		

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager


Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	<u>nation</u>	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-05

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19 x	(X/KL/S	BSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1221	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1232	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1242	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1248	4.3	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1254	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1260	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1262	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1268	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	82		%	5	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	80		%	5	06/14/19	SC	30 - 150 %
% TCMX	84		%	5	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	83		%	5	06/14/19	SC	30 - 150 %

Project ID: 35 N	ORTH MAIN ST, ANS	SONIA CT			Pł	noeni	x I.D.: CD32985
Client ID: 0607	-05						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	<u>nation</u>	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:		I als anatam.			0000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-06

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19	XX/KL/S	BSW3540C
PCB (Soxhlet SW3540	C)						
PCB-1016	ND	1.6	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1221	ND	1.6	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1232	ND	1.6	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1242	ND	1.6	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1248	ND	1.6	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1254	6.1	1.6	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1260	ND	1.6	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1262	ND	1.6	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1268	ND	1.6	mg/Kg	10	06/13/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	117		%	10	06/13/19	SC	30 - 150 %
% DCBP (Confirmation)	119		%	10	06/13/19	SC	30 - 150 %
% TCMX	108		%	10	06/13/19	SC	30 - 150 %
% TCMX (Confirmation)	109		%	10	06/13/19	SC	30 - 150 %

Client ID: 0607-06	Project ID: 35	NORTH MAIN ST, ANS	SONIA CT			Pł	noeni	x I.D.: CD32986	6
	Client ID: 06	07-06							
			RL/						
Parameter Result PQL Units Dilution Date/Time By Reference	Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference	

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Information
Matrix:	CAULK	Collected by:
Location Code:	HYGENIX	Received by: CP
Rush Request:	Standard	Analyzed by: see "By" below
P.O.#:		

 Date
 Time

 06/07/19
 16:46

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-07

		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	e By	Reference
Caulk Extraction for PCB	Completed				06/12/19	XX/KL/S	BSW3540C
PCB (Soxhlet SW3540	<u>C)</u>						
PCB-1016	ND	0.72	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1221	ND	0.72	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1232	ND	0.72	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1242	ND	0.72	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1248	ND	0.72	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1254	0.77	0.72	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1260	ND	0.72	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1262	ND	0.72	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1268	ND	0.72	mg/Kg	5	06/13/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	101		%	5	06/13/19	SC	30 - 150 %
% DCBP (Confirmation)	96		%	5	06/13/19	SC	30 - 150 %
% TCMX	93		%	5	06/13/19	SC	30 - 150 %
% TCMX (Confirmation)	91		%	5	06/13/19	SC	30 - 150 %

Project ID: 35 NORT	H MAIN ST, ANS	SONIA CT			Pł	noeni	x I.D.: CD32987
Client ID: 0607-07							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	nation	<u>Date</u>	<u>Time</u>	
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-08

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19 x	X/KL/S	BSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1221	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1232	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1242	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1248	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1254	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1260	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1262	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1268	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	103		%	5	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	101		%	5	06/14/19	SC	30 - 150 %
% TCMX	100		%	5	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	99		%	5	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD32988
Client ID: 0607-08							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	<u>Date</u>	<u>Time</u>	
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-09

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Extraction for PCB	Completed				06/12/19	XX/KL/S	BSW3540C	
PCB (Soxhlet SW3540)C)							
PCB-1016	ND	0.32	mg/Kg	2	06/15/19	SC	SW8082A	
PCB-1221	ND	0.32	mg/Kg	2	06/15/19	SC	SW8082A	
PCB-1232	ND	0.32	mg/Kg	2	06/15/19	SC	SW8082A	
PCB-1242	ND	0.32	mg/Kg	2	06/15/19	SC	SW8082A	
PCB-1248	ND	0.32	mg/Kg	2	06/15/19	SC	SW8082A	
PCB-1254	2.3	* 0.32	mg/Kg	2	06/15/19	SC	SW8082A	
PCB-1260	ND	0.32	mg/Kg	2	06/15/19	SC	SW8082A	
PCB-1262	ND	0.32	mg/Kg	2	06/15/19	SC	SW8082A	
PCB-1268	*	* 0.32	mg/Kg	2	06/15/19	SC	SW8082A	
QA/QC Surrogates								
% DCBP	<10		%	2	06/15/19	SC	30 - 150 %	3
% DCBP (Confirmation)	83		%	2	06/15/19	SC	30 - 150 %	
% TCMX	75		%	2	06/15/19	SC	30 - 150 %	
% TCMX (Confirmation)	80		%	2	06/15/19	SC	30 - 150 %	

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD32989
Client ID: 0607-09							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

=

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:

* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1254 and 1268. The PCB is guantitated as a timed group and is reported as the Aroclor 1254.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24. 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Information Custody Information				<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:		I als anatam.			0000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-10

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Extraction for PCB	Completed				06/12/19	XX/KL/S	BSW3540C
PCB (Soxhlet SW3540	<u>C)</u>						
PCB-1016	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1221	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1232	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1242	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1248	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1254	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1260	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1262	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1268	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	38		%	5	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	39		%	5	06/14/19	SC	30 - 150 %
% TCMX	32		%	5	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	35		%	5	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD32990
Client ID: (0607-10						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference
Falameter	Result	FQL	UTIILS	Dilution	Date/Time	Бу	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	<u>Date</u>	<u>Time</u>	
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-11

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19	XX/KL/S	BSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.72	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1221	ND	0.72	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1232	ND	0.72	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1242	ND	0.72	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1248	ND	0.72	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1254	1.7	0.72	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1260	ND	0.72	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1262	ND	0.72	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1268	ND	0.72	mg/Kg	5	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	77		%	5	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	72		%	5	06/14/19	SC	30 - 150 %
% TCMX	75		%	5	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	75		%	5	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT				Pł	noenix	(I.D.: CD32991
	RL/					
Result	PQL	Units	Dilution	Date/Time	By	Reference
		RL/	RL/	RL/	RL/	RL/

Comments:

-

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	<u>Date</u>	<u>Time</u>	
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:		I als anatam.			0000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-12

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19	XX/KL/S	BSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1221	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1232	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1242	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1248	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1254	1.6	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1260	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1262	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1268	ND	0.77	mg/Kg	5	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	83		%	5	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	79		%	5	06/14/19	SC	30 - 150 %
% TCMX	83		%	5	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	83		%	5	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD32992
Client ID: ()607-12						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference
Falameter	Result	FQL	Units	Dilution	Date/Time	Бу	Kelelelice

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	nation	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-13

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19	XX/KL/S	BSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1221	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1232	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1242	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1248	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1254	3.9	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1260	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1262	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1268	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	75		%	5	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	74		%	5	06/14/19	SC	30 - 150 %
% TCMX	73		%	5	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	73		%	5	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD32993
Client ID: (0607-13						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference
T arameter	Result	ΙQL	01113	Dilution	Date/ Hitte	Dy	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	Custody Information			
Matrix:	BULK	Collected by:		06/07/19		
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46	
Rush Request:	Standard	Analyzed by:	see "By" below			
P.O.#:					000000	

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-14

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19	(X/KL/S	BSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.76	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1221	ND	0.76	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1232	ND	0.76	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1242	ND	0.76	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1248	ND	0.76	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1254	2.5	0.76	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1260	ND	0.76	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1262	ND	0.76	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1268	ND	0.76	mg/Kg	5	06/13/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	65		%	5	06/13/19	SC	30 - 150 %
% DCBP (Confirmation)	65		%	5	06/13/19	SC	30 - 150 %
% TCMX	63		%	5	06/13/19	SC	30 - 150 %
% TCMX (Confirmation)	65		%	5	06/13/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD32994
Client ID: 0607-14							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	<u>nation</u>	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:		I als anatam			0000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-15

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19	XX/KL/S	BSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1221	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1232	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1242	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1248	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1254	2	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1260	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1262	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1268	ND	0.78	mg/Kg	5	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	91		%	5	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	86		%	5	06/14/19	SC	30 - 150 %
% TCMX	92		%	5	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	91		%	5	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD32995
Client ID: 0607-15							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	<u>nation</u>	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:		l ab anatam			0000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-16

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19	KX/KL/S	BSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.71	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1221	ND	0.71	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1232	ND	0.71	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1242	ND	0.71	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1248	ND	0.71	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1254	1.7	0.71	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1260	ND	0.71	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1262	ND	0.71	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1268	ND	0.71	mg/Kg	5	06/13/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	94		%	5	06/13/19	SC	30 - 150 %
% DCBP (Confirmation)	94		%	5	06/13/19	SC	30 - 150 %
% TCMX	93		%	5	06/13/19	SC	30 - 150 %
% TCMX (Confirmation)	96		%	5	06/13/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT				Pł	noeni	x I.D.: CD32996	
Client ID: 0607-16							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

-

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	<u>nation</u>	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-17

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19	XX/KL/S	в SW3540C
PCB (Soxhlet SW3540	(C)						
PCB-1016	ND	4	mg/Kg	25	06/15/19	SC	SW8082A
PCB-1221	ND	4	mg/Kg	25	06/15/19	SC	SW8082A
PCB-1232	ND	4	mg/Kg	25	06/15/19	SC	SW8082A
PCB-1242	ND	4	mg/Kg	25	06/15/19	SC	SW8082A
PCB-1248	ND	4	mg/Kg	25	06/15/19	SC	SW8082A
PCB-1254	17	4	mg/Kg	25	06/15/19	SC	SW8082A
PCB-1260	ND	4	mg/Kg	25	06/15/19	SC	SW8082A
PCB-1262	ND	4	mg/Kg	25	06/15/19	SC	SW8082A
PCB-1268	ND	4	mg/Kg	25	06/15/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	105		%	25	06/15/19	SC	30 - 150 %
% DCBP (Confirmation)	111		%	25	06/15/19	SC	30 - 150 %
% TCMX	110		%	25	06/15/19	SC	30 - 150 %
% TCMX (Confirmation)	104		%	25	06/15/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT						noeni	x I.D.: CD32997
Client ID: 0607-17							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	<u>Date</u>	<u>Time</u>	
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:		l ab anatam			0000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-18

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19	J/Q/KL/I	MLSW3540C
PCB (Soxhlet SW354	0C)						
PCB-1016	ND	3.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1221	ND	3.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1232	ND	3.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1242	ND	3.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1248	ND	3.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1254	20	3.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1260	ND	3.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1262	ND	3.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1268	ND	3.5	mg/Kg	10	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	120		%	10	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	124		%	10	06/14/19	SC	30 - 150 %
% TCMX	113		%	10	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	115		%	10	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT						noeni	x I.D.: CD32998
Client ID: (0607-18						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference
1 aramotor	Roodit		01110	Bliation	Bato, Time	в,	

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	<u>Date</u>	<u>Time</u>	
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-19

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	ə By	Reference
Extraction for PCB	Completed				06/12/19	J/Q/KL/	MLSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	2.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1221	ND	2.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1232	ND	2.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1242	ND	2.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1248	16	2.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1254	ND	2.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1260	ND	2.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1262	ND	2.5	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1268	ND	2.5	mg/Kg	10	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	86		%	10	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	81		%	10	06/14/19	SC	30 - 150 %
% TCMX	90		%	10	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	86		%	10	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT						noeni	x I.D.: CD32999
Client ID: (0607-19						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference
T drameter	Result	IQL	Onito	Blidton	Bate/Time	Ъу	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Information		Custody Inform	Custody Information				
Matrix:	BULK	Collected by:		06/07/19			
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46		
Rush Request:	Standard	Analyzed by:	see "By" below				
P.O.#:		l eksnetem.	Data		CCD3308		

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-20

		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Tim	e By	Reference
Extraction for PCB	Completed				06/12/19	ג/Q/KL/I	MLSW3540C
PCB (Soxhlet SW354	0C)						
PCB-1016	ND	0.37	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1221	ND	0.37	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1232	ND	0.37	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1242	ND	0.37	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1248	1.2	0.37	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1254	ND	0.37	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1260	ND	0.37	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1262	ND	0.37	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1268	ND	0.37	mg/Kg	2	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	80		%	2	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	81		%	2	06/14/19	SC	30 - 150 %
% TCMX	73		%	2	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	77		%	2	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Phoenix I.D.: CD33000		
Client ID: 0607-20							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample InformationMatrix:CAULKLocation Code:HYGENIXRush Request:Standard

P.O.#:

Custody Information Collected by: Received by: CP Analyzed by: see "By" below
 Date
 Time

 06/07/19
 06/12/19
 16:46

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-21

		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	e By	Reference
Caulk Extraction for PCB	Completed				06/12/19	J/Q/KL/	ALSW3540C
PCB (Soxhlet SW3540	<u>()</u>						
PCB-1016	ND	2.4	mg/Kg	5	06/19/19	SC	SW8082A
PCB-1221	ND	2.4	mg/Kg	5	06/19/19	SC	SW8082A
PCB-1232	ND	2.4	mg/Kg	5	06/19/19	SC	SW8082A
PCB-1242	ND	2.4	mg/Kg	5	06/19/19	SC	SW8082A
PCB-1248	19	2.4	mg/Kg	5	06/19/19	SC	SW8082A
PCB-1254	ND	2.4	mg/Kg	5	06/19/19	SC	SW8082A
PCB-1260	ND	2.4	mg/Kg	5	06/19/19	SC	SW8082A
PCB-1262	ND	2.4	mg/Kg	5	06/19/19	SC	SW8082A
PCB-1268	ND	2.4	mg/Kg	5	06/19/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	109		%	5	06/19/19	SC	30 - 150 %
% DCBP (Confirmation)	106		%	5	06/19/19	SC	30 - 150 %
% TCMX	97		%	5	06/19/19	SC	30 - 150 %
% TCMX (Confirmation)	94		%	5	06/19/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Phoenix I.D.: CD3300'		
Client ID: 0607-21							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:

For PCBs, in order to reach the desired RL, multiple cleanup steps were performed. The extract was cleaned up with a combination of sulfuric acid, potassium permanganate, copper powder and additional florisil.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	Custody Information				
Matrix:	BULK	Collected by:		06/07/19			
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46		
Rush Request:	Standard	Analyzed by:	see "By" below				
P.O.#:		1 - 1			0000000		

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-22

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed		010			,	MLSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	1.8	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1221	ND	1.8	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1232	ND	1.8	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1242	ND	1.8	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1248	15	1.8	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1254	ND	1.8	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1260	ND	1.8	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1262	ND	1.8	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1268	ND	1.8	mg/Kg	10	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	98		%	10	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	103		%	10	06/14/19	SC	30 - 150 %
% TCMX	90		%	10	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	92		%	10	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD33002
Client ID: (0607-22						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference
Parameter	Result	FQL	Units	Dilution	Date/Time	Бу	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager


Analysis Report

Project ID: Client ID:

June 24, 2019

0607-23

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Information		Custody Information					
Matrix:	CAULK	Collected by:					
Location Code:	HYGENIX	Received by:	CP				
Rush Request:	Standard	Analyzed by:	see "By" below				
P.O.#:		labaratari	Data				

35 NORTH MAIN ST, ANSONIA CT

Laboratory Data

SDG ID: GCD32981 Phoenix ID: CD33003

<u>Date</u> 06/07/19 06/12/19 Time

16:46

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Caulk Extraction for PCB	Completed	FQL	UTIIIS	Dilution			MLSW3540C
	Completed				00/12/19	J/Q/KL/I	WLOW50400
PCB (Soxhlet SW3540	<u>()()</u>						
PCB-1016	ND	7.3	mg/Kg	20	06/13/19	SC	SW8082A
PCB-1221	ND	7.3	mg/Kg	20	06/13/19	SC	SW8082A
PCB-1232	ND	7.3	mg/Kg	20	06/13/19	SC	SW8082A
PCB-1242	ND	7.3	mg/Kg	20	06/13/19	SC	SW8082A
PCB-1248	46	7.3	mg/Kg	20	06/13/19	SC	SW8082A
PCB-1254	ND	7.3	mg/Kg	20	06/13/19	SC	SW8082A
PCB-1260	ND	7.3	mg/Kg	20	06/13/19	SC	SW8082A
PCB-1262	ND	7.3	mg/Kg	20	06/13/19	SC	SW8082A
PCB-1268	ND	7.3	mg/Kg	20	06/13/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	47		%	20	06/13/19	SC	30 - 150 %
% DCBP (Confirmation)	48		%	20	06/13/19	SC	30 - 150 %
% TCMX	43		%	20	06/13/19	SC	30 - 150 %
% TCMX (Confirmation)	45		%	20	06/13/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD33003
Client ID: 06	607-23						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Information C		Custody Inforn	<u>nation</u>	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:		1 - 1			0000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-24

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Extraction for PCB	Completed				06/12/19	J/Q/KL/I	MLSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.41	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1221	ND	0.41	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1232	ND	0.41	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1242	ND	0.41	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1248	ND	0.41	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1254	ND	0.41	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1260	ND	0.41	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1262	ND	0.41	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1268	ND	0.41	mg/Kg	2	06/13/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	102		%	2	06/13/19	SC	30 - 150 %
% DCBP (Confirmation)	96		%	2	06/13/19	SC	30 - 150 %
% TCMX	93		%	2	06/13/19	SC	30 - 150 %
% TCMX (Confirmation)	87		%	2	06/13/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT						noeni	x I.D.: CD33004
Client ID: 06	607-24						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Information		Custody Inform	Custody Information				
Matrix:	BULK	Collected by:		06/07/19			
Location Code:	HYGENIX	Received by:	CP	06/12/19	16:46		
Rush Request:	Standard	Analyzed by:	see "By" below				
P.O.#:					000000		

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-25

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Extraction for PCB	Completed				06/12/19	J/Q/KL/I	MLSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.45	mg/Kg	1	06/13/19	SC	SW8082A
PCB-1221	ND	0.45	mg/Kg	1	06/13/19	SC	SW8082A
PCB-1232	ND	0.45	mg/Kg	1	06/13/19	SC	SW8082A
PCB-1242	ND	0.45	mg/Kg	1	06/13/19	SC	SW8082A
PCB-1248	ND	0.45	mg/Kg	1	06/13/19	SC	SW8082A
PCB-1254	ND	0.45	mg/Kg	1	06/13/19	SC	SW8082A
PCB-1260	ND	0.45	mg/Kg	1	06/13/19	SC	SW8082A
PCB-1262	ND	0.45	mg/Kg	1	06/13/19	SC	SW8082A
PCB-1268	ND	0.45	mg/Kg	1	06/13/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	75		%	1	06/13/19	SC	30 - 150 %
% DCBP (Confirmation)	65		%	1	06/13/19	SC	30 - 150 %
% TCMX	68		%	1	06/13/19	SC	30 - 150 %
% TCMX (Confirmation)	64		%	1	06/13/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD33005
Client ID: 0	607-25						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Information		Custody Inform	Custody Information				
Matrix:	BULK	Collected by:		06/07/19			
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46		
Rush Request:	Standard	Analyzed by:	see "By" below				
P.O.#:					000000		

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-26

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Extraction for PCB	Completed				06/12/19	/Q/KL/I	MLSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.39	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1221	ND	0.39	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1232	ND	0.39	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1242	ND	0.39	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1248	ND	0.39	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1254	1.2	0.39	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1260	ND	0.39	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1262	ND	0.39	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1268	ND	0.39	mg/Kg	2	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	80		%	2	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	83		%	2	06/14/19	SC	30 - 150 %
% TCMX	72		%	2	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	80		%	2	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD33006
Client ID: (0607-26						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference
Parameter	Result	PQL	Units	Dilution	Date/Time	БУ	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ample Information Custody Info		<u>nation</u>	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-27

_		RL/				/
Parameter	Result	PQL	Units	Dilution	Date/Time	By Reference
Extraction for PCB	Completed				06/12/19 J/	Q/KL/MLSW3540C
PCB (Soxhlet SW3540)C)					
PCB-1016	ND	2.3	mg/Kg	10	06/14/19	SC SW8082A
PCB-1221	ND	2.3	mg/Kg	10	06/14/19	SC SW8082A
PCB-1232	ND	2.3	mg/Kg	10	06/14/19	SC SW8082A
PCB-1242	ND	2.3	mg/Kg	10	06/14/19	SC SW8082A
PCB-1248	*	* 2.3	mg/Kg	10	06/14/19	SC SW8082A
PCB-1254	ND	* 2.3	mg/Kg	10	06/14/19	SC SW8082A
PCB-1260	ND	2.3	mg/Kg	10	06/14/19	SC SW8082A
PCB-1262	ND	2.3	mg/Kg	10	06/14/19	SC SW8082A
PCB-1268	ND	2.3	mg/Kg	10	06/14/19	SC SW8082A
QA/QC Surrogates						
% DCBP	78		%	10	06/14/19	SC 30 - 150 %
% DCBP (Confirmation)	74		%	10	06/14/19	SC 30 - 150 %
% TCMX	86		%	10	06/14/19	SC 30 - 150 %
% TCMX (Confirmation)	82		%	10	06/14/19	SC 30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD33007
Client ID: 0607-27							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

-

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:

* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, guantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254. The PCB is quantitated as a timed group and is reported as the Aroclor 1254.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24. 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Information		Custody Inform	Custody Information			
Matrix:	BULK	Collected by:		06/07/19		
Location Code:	HYGENIX	Received by:	CP	06/12/19		
Rush Request:	Standard	Analyzed by:	see "By" below			
P.O.#:		I shanatan i				

Laboratory Data

SDG ID: GCD32981 Phoenix ID: CD33008

<u>Time</u>

16:46

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-28

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	e By	Reference
Extraction for PCB	Completed				06/12/19	J/Q/KL/	MLSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	1.8	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1221	ND	1.8	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1232	ND	1.8	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1242	ND	1.8	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1248	ND	1.8	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1254	5.5	1.8	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1260	ND	1.8	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1262	ND	1.8	mg/Kg	10	06/13/19	SC	SW8082A
PCB-1268	ND	1.8	mg/Kg	10	06/13/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	71		%	10	06/13/19	SC	30 - 150 %
% DCBP (Confirmation)	73		%	10	06/13/19	SC	30 - 150 %
% TCMX	50		%	10	06/13/19	SC	30 - 150 %
% TCMX (Confirmation)	51		%	10	06/13/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT				Pł	noeni	x I.D.: CD33008	
Client ID: 0	607-28						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	<u>Date</u>	<u>Time</u>	
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:		1 - 1			0000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-29

Parameter	Result	RL/ PQL	Units	Dilution	Date/Tim	e By	Reference
Extraction for PCB	Completed	-			06/12/19		MLSW3540C
PCB (Soxhlet SW3540	C)						
PCB-1016	ND	3.7	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1221	ND	3.7	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1232	ND	3.7	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1242	ND	3.7	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1248	*	* 3.7	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1254	43	* 3.7	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1260	*	* 3.7	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1262	ND	3.7	mg/Kg	10	06/14/19	SC	SW8082A
PCB-1268	ND	3.7	mg/Kg	10	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	90		%	10	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	68		%	10	06/14/19	SC	30 - 150 %
% TCMX	84		%	10	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	78		%	10	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD33009
Client ID: 0607-29							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

-

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:

* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, guantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260. The PCB is quantitated as a timed group and is reported as the Aroclor 1254.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24. 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	<u>Date</u>	<u>Time</u>	
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:		1 - 1			0000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-30

Parameter	Result	RL/ PQL	Units	Dilution	Date/Tim	e By	Reference
Extraction for PCB	Completed				06/12/19	ر 2/Q/KL/I	MLSW3540C
PCB (Soxhlet SW3540	C)						
PCB-1016	ND	3	mg/Kg	10	06/15/19	SC	SW8082A
PCB-1221	ND	3	mg/Kg	10	06/15/19	SC	SW8082A
PCB-1232	ND	3	mg/Kg	10	06/15/19	SC	SW8082A
PCB-1242	ND	3	mg/Kg	10	06/15/19	SC	SW8082A
PCB-1248	*	* 3	mg/Kg	10	06/15/19	SC	SW8082A
PCB-1254	20	* 3	mg/Kg	10	06/15/19	SC	SW8082A
PCB-1260	*	* 3	mg/Kg	10	06/15/19	SC	SW8082A
PCB-1262	ND	3	mg/Kg	10	06/15/19	SC	SW8082A
PCB-1268	ND	3	mg/Kg	10	06/15/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	96		%	10	06/15/19	SC	30 - 150 %
% DCBP (Confirmation)	84		%	10	06/15/19	SC	30 - 150 %
% TCMX	98		%	10	06/15/19	SC	30 - 150 %
% TCMX (Confirmation)	87		%	10	06/15/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD33010
Client ID: 0607-30							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

-

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:

* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, guantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260. The PCB is quantitated as a timed group and is reported as the Aroclor 1254.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24. 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	<u>Date</u>	<u>Time</u>	
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:		l alı anatam			000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-31

_		RL/				_	_ /
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19	J/Q/KL/N	MLSW3540C
PCB (Soxhlet SW3540	<u>)C)</u>						
PCB-1016	ND	3.6	mg/Kg	25	06/14/19	SC	SW8082A
PCB-1221	ND	3.6	mg/Kg	25	06/14/19	SC	SW8082A
PCB-1232	ND	3.6	mg/Kg	25	06/14/19	SC	SW8082A
PCB-1242	ND	3.6	mg/Kg	25	06/14/19	SC	SW8082A
PCB-1248	ND	3.6	mg/Kg	25	06/14/19	SC	SW8082A
PCB-1254	5.8	3.6	mg/Kg	25	06/14/19	SC	SW8082A
PCB-1260	ND	3.6	mg/Kg	25	06/14/19	SC	SW8082A
PCB-1262	ND	3.6	mg/Kg	25	06/14/19	SC	SW8082A
PCB-1268	ND	3.6	mg/Kg	25	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	140		%	25	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	95		%	25	06/14/19	SC	30 - 150 %
% TCMX	78		%	25	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	79		%	25	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeniz	x I.D.: CD33011
Client ID: 0607-31							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Information		<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-32

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Extraction for PCB	Completed				06/12/19	J/Q/KL/I	MLSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1221	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1232	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1242	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1248	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1254	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1260	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1262	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1268	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	84		%	2	06/15/19	SC	30 - 150 %
% DCBP (Confirmation)	77		%	2	06/15/19	SC	30 - 150 %
% TCMX	74		%	2	06/15/19	SC	30 - 150 %
% TCMX (Confirmation)	77		%	2	06/15/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT						noeni	x I.D.: CD33012
Client ID: 060	7-32						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	<u>Date</u>	<u>Time</u>	
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-33

Parameter	Result	RL/ PQL	Units	Dilution	Date/Tim	e By	Reference
Extraction for PCB	Completed				06/12/19	J/Q/KL/I	MLSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.64	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1221	ND	0.64	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1232	ND	0.64	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1242	ND	0.64	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1248	ND	0.64	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1254	0.9	0.64	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1260	ND	0.64	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1262	ND	0.64	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1268	ND	0.64	mg/Kg	5	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	95		%	5	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	105		%	5	06/14/19	SC	30 - 150 %
% TCMX	88		%	5	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	89		%	5	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT						noeni	x I.D.: CD33013
Client ID: (0607-33						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	nation	<u>Time</u>	
Matrix:	CAULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	CP	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:		l ab anatam			0002200

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-34

		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Caulk Extraction for PCB	Completed				06/12/19	J/Q/KL/	MLSW3540C
PCB (Soxhlet SW3540	<u>)C)</u>						
PCB-1016	ND	0.33	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1221	ND	0.33	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1232	ND	0.33	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1242	ND	0.33	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1248	ND	0.33	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1254	0.89	0.33	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1260	ND	0.33	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1262	ND	0.33	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1268	ND	0.33	mg/Kg	2	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	39		%	2	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	45		%	2	06/14/19	SC	30 - 150 %
% TCMX	45		%	2	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	45		%	2	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD33014
Client ID: 0	607-34						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Information		Custody Information		<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19			
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46		
Rush Request:	Standard	Analyzed by:	see "By" below				
P.O.#:					000000		

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-35

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19	J/Q/KL/M	MLSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1221	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1232	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1242	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1248	1	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1254	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1260	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1262	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1268	ND	0.34	mg/Kg	2	06/15/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	49		%	2	06/15/19	SC	30 - 150 %
% DCBP (Confirmation)	47		%	2	06/15/19	SC	30 - 150 %
% TCMX	49		%	2	06/15/19	SC	30 - 150 %
% TCMX (Confirmation)	46		%	2	06/15/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD33015
Client ID: 0607-35							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	nation	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-36

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference	
Extraction for PCB	Completed				06/12/19	⊋/Q/KL/I	MLSW3540C	
PCB (Soxhlet SW3540)C)							
PCB-1016	ND	0.43	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1221	ND	0.43	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1232	ND	0.43	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1242	ND	0.43	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1248	*	* 0.43	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1254	4.1	* 0.43	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1260	ND	0.43	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1262	ND	0.43	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1268	ND	0.43	mg/Kg	2	06/14/19	SC	SW8082A	
QA/QC Surrogates								
% DCBP	34		%	2	06/14/19	SC	30 - 150 %	
% DCBP (Confirmation)	31		%	2	06/14/19	SC	30 - 150 %	
% TCMX	32		%	2	06/14/19	SC	30 - 150 %	
% TCMX (Confirmation)	28		%	2	06/14/19	SC	30 - 150 %	3

Project ID: 35 NORTH MA	IN ST, ANS	SONIA CT	T Phoenix I.D.: CD3				x I.D.: CD33016
Client ID: 0607-36							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Ρ

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:

* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254. The PCB is guantitated as a timed group and is reported as the Aroclor 1254.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	nation	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-37

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Extraction for PCB	Completed				06/12/19	⊋/Q/KL/I	MLSW3540C	
PCB (Soxhlet SW3540)C)							
PCB-1016	ND	0.32	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1221	ND	0.32	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1232	ND	0.32	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1242	ND	0.32	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1248	ND	0.32	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1254	1.9	* 0.32	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1260	ND	0.32	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1262	ND	0.32	mg/Kg	2	06/14/19	SC	SW8082A	
PCB-1268	*	* 0.32	mg/Kg	2	06/14/19	SC	SW8082A	
QA/QC Surrogates								
% DCBP	<10		%	2	06/14/19	SC	30 - 150 %	3
% DCBP (Confirmation)	68		%	2	06/14/19	SC	30 - 150 %	
% TCMX	66		%	2	06/14/19	SC	30 - 150 %	
% TCMX (Confirmation)	68		%	2	06/14/19	SC	30 - 150 %	

Project ID: 35 NORTH MA	IN ST, ANS	SONIA CT	CT Phoenix I.D.: CD3				
Client ID: 0607-37							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Ρ

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:

* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1254 and 1268. The PCB is guantitated as a timed group and is reported as the Aroclor 1254.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	nation	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-38

		RL/				-	D (
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19	Q/X/ML	SW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1221	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1232	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1242	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1248	*	* 0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1254	7.8	* 0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1260	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1262	ND	0.79	mg/Kg	5	06/14/19	SC	SW8082A
PCB-1268	*	* 0.79	mg/Kg	5	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	99		%	5	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	91		%	5	06/14/19	SC	30 - 150 %
% TCMX	101		%	5	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	100		%	5	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD33018
Client ID: 0607-38							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

-

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:

* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, guantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1268. The PCB is quantitated as a timed group and is reported as the Aroclor 1254.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24. 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforr	nation	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	CP	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-39

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19	Q/X/ML	SW3540C
PCB (Soxhlet SW354	0C)						
PCB-1016	ND	24	mg/Kg	50	06/14/19	SC	SW8082A
PCB-1221	ND	24	mg/Kg	50	06/14/19	SC	SW8082A
PCB-1232	ND	24	mg/Kg	50	06/14/19	SC	SW8082A
PCB-1242	ND	24	mg/Kg	50	06/14/19	SC	SW8082A
PCB-1248	ND	24	mg/Kg	50	06/14/19	SC	SW8082A
PCB-1254	ND	24	mg/Kg	50	06/14/19	SC	SW8082A
PCB-1260	ND	24	mg/Kg	50	06/14/19	SC	SW8082A
PCB-1262	ND	24	mg/Kg	50	06/14/19	SC	SW8082A
PCB-1268	63	24	mg/Kg	50	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	Diluted Out		%	50	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	Diluted Out		%	50	06/14/19	SC	30 - 150 %
% TCMX	Diluted Out		%	50	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	Diluted Out		%	50	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT				Pł	noeni	x I.D.: CD33019	
Client ID: 0607-39							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	nation	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-40

Deservator	Desult	RL/	Linita	Dilution	Data/Time	D	Deferrer
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19	Q/X/ML	SW3540C
PCB (Soxhlet SW354	<u>0C)</u>						
PCB-1016	ND	2200	mg/Kg	10000	06/14/19	SC	SW8082A
PCB-1221	ND	2200	mg/Kg	10000	06/14/19	SC	SW8082A
PCB-1232	ND	2200	mg/Kg	10000	06/14/19	SC	SW8082A
PCB-1242	ND	2200	mg/Kg	10000	06/14/19	SC	SW8082A
PCB-1248	ND	2200	mg/Kg	10000	06/14/19	SC	SW8082A
PCB-1254	ND	2200	mg/Kg	10000	06/14/19	SC	SW8082A
PCB-1260	ND	2200	mg/Kg	10000	06/14/19	SC	SW8082A
PCB-1262	ND	2200	mg/Kg	10000	06/14/19	SC	SW8082A
PCB-1268	3100	2200	mg/Kg	10000	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	Diluted Out		%	10000	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	Diluted Out		%	10000	06/14/19	SC	30 - 150 %
% TCMX	Diluted Out		%	10000	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	Diluted Out		%	10000	06/14/19	SC	30 - 150 %

Client ID: 0607-40 RL/	Project ID: 35 NORTH MAIN ST, ANSONIA CT				Pł	noeni	x I.D.: CD33020	
	Client ID: (0607-40						
			RL/					
Parameter Result PQL Units Dilution Date/Time By Reference	Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager


Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	Custody Information		
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	CP	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-41

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/12/19	Q/X/ML	SW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.4	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1221	ND	0.4	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1232	ND	0.4	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1242	ND	0.4	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1248	*	* 0.4	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1254	3.6	* 0.4	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1260	ND	0.4	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1262	ND	0.4	mg/Kg	2	06/15/19	SC	SW8082A
PCB-1268	*	* 0.4	mg/Kg	2	06/15/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	90		%	2	06/15/19	SC	30 - 150 %
% DCBP (Confirmation)	86		%	2	06/15/19	SC	30 - 150 %
% TCMX	80		%	2	06/15/19	SC	30 - 150 %
% TCMX (Confirmation)	86		%	2	06/15/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noenix	k I.D.: CD33021
Client ID: 0607-41							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

-

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:

* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1268. The PCB is quantitated as a timed group and is reported as the Aroclor 1254.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24. 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Information			<u>Time</u>
Matrix:	CAULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-42

		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference
Caulk Extraction for PCB	Completed				06/12/19	Q/X/ML	SW3540C
PCB (Soxhlet SW3540	<u>)C)</u>						
PCB-1016	ND	0.33	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1221	ND	0.33	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1232	ND	0.33	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1242	ND	0.33	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1248	ND	0.33	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1254	0.92	0.33	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1260	ND	0.33	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1262	ND	0.33	mg/Kg	2	06/13/19	SC	SW8082A
PCB-1268	ND	0.33	mg/Kg	2	06/13/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	94		%	2	06/13/19	SC	30 - 150 %
% DCBP (Confirmation)	111		%	2	06/13/19	SC	30 - 150 %
% TCMX	81		%	2	06/13/19	SC	30 - 150 %
% TCMX (Confirmation)	99		%	2	06/13/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD33022
Client ID: (0607-42						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference
T arameter	Result	IQL	Offits	Dilution	Date/Time	Dy	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	<u>Date</u>	<u>Time</u>	
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	CP	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-43

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Extraction for PCB	Completed				06/12/19	Q/X/ML	SW3540C
PCB (Soxhlet SW3540	<u>()</u>						
PCB-1016	ND	0.41	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1221	ND	0.41	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1232	ND	0.41	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1242	ND	0.41	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1248	*	* 0.41	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1254	4	* 0.41	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1260	ND	0.41	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1262	ND	0.41	mg/Kg	2	06/14/19	SC	SW8082A
PCB-1268	*	* 0.41	mg/Kg	2	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	79		%	2	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	79		%	2	06/14/19	SC	30 - 150 %
% TCMX	72		%	2	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	77		%	2	06/14/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD33023
Client ID: 0607-43							
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

-

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:

* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1268. The PCB is quantitated as a timed group and is reported as the Aroclor 1254.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24. 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	<u>nation</u>	<u>Date</u>	<u>Time</u>	
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:		I als anatam			0000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-44

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Extraction for PCB	Completed				06/19/19)/AK/ML	KSW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	ND	0.9	mg/Kg	2	06/21/19	SC	SW8082A
PCB-1221	ND	0.9	mg/Kg	2	06/21/19	SC	SW8082A
PCB-1232	ND	0.9	mg/Kg	2	06/21/19	SC	SW8082A
PCB-1242	ND	0.9	mg/Kg	2	06/21/19	SC	SW8082A
PCB-1248	ND	0.9	mg/Kg	2	06/21/19	SC	SW8082A
PCB-1254	ND	0.9	mg/Kg	2	06/21/19	SC	SW8082A
PCB-1260	ND	0.9	mg/Kg	2	06/21/19	SC	SW8082A
PCB-1262	ND	0.9	mg/Kg	2	06/21/19	SC	SW8082A
PCB-1268	ND	0.9	mg/Kg	2	06/21/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	52		%	2	06/21/19	SC	30 - 150 %
% DCBP (Confirmation)	51		%	2	06/21/19	SC	30 - 150 %
% TCMX	54		%	2	06/21/19	SC	30 - 150 %
% TCMX (Confirmation)	54		%	2	06/21/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT						noeni	x I.D.: CD33024
Client ID: 0)607-44						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	nation	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-45

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed	, dL	01110	Diation	06/12/19		SW3540C
PCB (Soxhlet SW3540)C)						
PCB-1016	 ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1221	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1232	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1242	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1248	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1254	4	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1260	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1262	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
PCB-1268	ND	0.79	mg/Kg	5	06/13/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	87		%	5	06/13/19	SC	30 - 150 %
% DCBP (Confirmation)	79		%	5	06/13/19	SC	30 - 150 %
% TCMX	80		%	5	06/13/19	SC	30 - 150 %
% TCMX (Confirmation)	80		%	5	06/13/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT						noeni	x I.D.: CD33025
Client ID: ()607-45						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Information Custody Information				<u>Date</u>	<u>Time</u>
Matrix:	CAULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:		l elsevetem	Data		6602209

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-46

		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Caulk Extraction for PCB	Completed				06/12/19	Q/X/ML	SW3540C
PCB (Soxhlet SW354	<u>0C)</u>						
PCB-1016	ND	50	mg/Kg	100	06/14/19	SC	SW8082A
PCB-1221	ND	50	mg/Kg	100	06/14/19	SC	SW8082A
PCB-1232	ND	50	mg/Kg	100	06/14/19	SC	SW8082A
PCB-1242	ND	50	mg/Kg	100	06/14/19	SC	SW8082A
PCB-1248	160	50	mg/Kg	100	06/14/19	SC	SW8082A
PCB-1254	ND	50	mg/Kg	100	06/14/19	SC	SW8082A
PCB-1260	ND	50	mg/Kg	100	06/14/19	SC	SW8082A
PCB-1262	ND	50	mg/Kg	100	06/14/19	SC	SW8082A
PCB-1268	ND	50	mg/Kg	100	06/14/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	Diluted Out		%	100	06/14/19	SC	30 - 150 %
% DCBP (Confirmation)	Diluted Out		%	100	06/14/19	SC	30 - 150 %
% TCMX	Diluted Out		%	100	06/14/19	SC	30 - 150 %
% TCMX (Confirmation)	Diluted Out		%	100	06/14/19	SC	30 - 150 %

Client ID: 0607-46 RL/ Baramatar Basult BOL Lipita Dilution Date/Time By Beforence	Project ID: 35 NORTH MAIN ST, ANSONIA CT						noeni	x I.D.: CD33026
	Client ID:	0607-46						
Peremeter Devult DOL Unite Dilution Date/Time By Reference			RL/					
ratameter Result FQL Onlis Dilution Date/Time by Reference	Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	nation	<u>Date</u>	<u>Time</u>
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	CP	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-47

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Extraction for PCB	Completed				06/14/19	Q/KL	SW3540C	
PCB (Soxhlet SW3540	(C)							
PCB-1016	ND	0.76	mg/Kg	5	06/18/19	SC	SW8082A	
PCB-1221	ND	0.76	mg/Kg	5	06/18/19	SC	SW8082A	
PCB-1232	ND	0.76	mg/Kg	5	06/18/19	SC	SW8082A	
PCB-1242	ND	0.76	mg/Kg	5	06/18/19	SC	SW8082A	
PCB-1248	ND	0.76	mg/Kg	5	06/18/19	SC	SW8082A	
PCB-1254	ND	0.76	mg/Kg	5	06/18/19	SC	SW8082A	
PCB-1260	ND	0.76	mg/Kg	5	06/18/19	SC	SW8082A	
PCB-1262	ND	0.76	mg/Kg	5	06/18/19	SC	SW8082A	
PCB-1268	ND	0.76	mg/Kg	5	06/18/19	SC	SW8082A	
QA/QC Surrogates								
% DCBP	15		%	5	06/18/19	SC	30 - 150 %	3
% DCBP (Confirmation)	14		%	5	06/18/19	SC	30 - 150 %	3
% TCMX	34		%	5	06/18/19	SC	30 - 150 %	
% TCMX (Confirmation)	31		%	5	06/18/19	SC	30 - 150 %	

Client ID: 0607-47	Phoenix I.D.: CD33027
RL/	
Parameter Result PQL Units Dilution Date/Time By Reference	ution Date/Time By Reference

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Ρ

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:

Poor surrogate recovery was observed for PCBs. Sample was re-extracted with similar results.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inform	<u>Date</u>	<u>Time</u>	
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	CP	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-48

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
	Completed		Onito	Dilation	06/12/19	Q/X/ML	
Extraction for PCB	Completed				00/12/19	Q/X/ML	30030400
PCB (Soxhlet SW354	<u>0C)</u>						
PCB-1016	ND	7900	mg/Kg	50000	06/13/19	SC	SW8082A
PCB-1221	ND	7900	mg/Kg	50000	06/13/19	SC	SW8082A
PCB-1232	ND	7900	mg/Kg	50000	06/13/19	SC	SW8082A
PCB-1242	ND	7900	mg/Kg	50000	06/13/19	SC	SW8082A
PCB-1248	ND	7900	mg/Kg	50000	06/13/19	SC	SW8082A
PCB-1254	ND	7900	mg/Kg	50000	06/13/19	SC	SW8082A
PCB-1260	ND	7900	mg/Kg	50000	06/13/19	SC	SW8082A
PCB-1262	ND	7900	mg/Kg	50000	06/13/19	SC	SW8082A
PCB-1268	19000	7900	mg/Kg	50000	06/13/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	Diluted Out		%	50000	06/13/19	SC	30 - 150 %
% DCBP (Confirmation)	Diluted Out		%	50000	06/13/19	SC	30 - 150 %
% TCMX	Diluted Out		%	50000	06/13/19	SC	30 - 150 %
% TCMX (Confirmation)	Diluted Out		%	50000	06/13/19	SC	30 - 150 %

Project ID: 35 NORTH MAIN ST, ANSONIA CT					Pł	noeni	x I.D.: CD33028	,
Client ID: 0607-48								
		RL/						
Parameter	Result	PQL	Units	Dilution	Date/Time	By	Reference	
								-

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	<u>Date</u>	<u>Time</u>	
Matrix:	BULK	Collected by:		06/07/19	
Location Code:	HYGENIX	Received by:	СР	06/12/19	16:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:		I als anatam			0000000

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-49

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Extraction for PCB	Completed				06/19/19)/AK/ML	/ĸSW3540C	
PCB (Soxhlet SW354	0C)							
PCB-1016	ND	0.92	mg/Kg	2	06/21/19	SC	SW8082A	
PCB-1221	ND	0.92	mg/Kg	2	06/21/19	SC	SW8082A	
PCB-1232	ND	0.92	mg/Kg	2	06/21/19	SC	SW8082A	
PCB-1242	ND	0.92	mg/Kg	2	06/21/19	SC	SW8082A	
PCB-1248	ND	0.92	mg/Kg	2	06/21/19	SC	SW8082A	
PCB-1254	2.1	0.92	mg/Kg	2	06/21/19	SC	SW8082A	
PCB-1260	ND	0.92	mg/Kg	2	06/21/19	SC	SW8082A	
PCB-1262	ND	0.92	mg/Kg	2	06/21/19	SC	SW8082A	
PCB-1268	ND	0.92	mg/Kg	2	06/21/19	SC	SW8082A	
QA/QC Surrogates								
% DCBP	34		%	2	06/21/19	SC	30 - 150 %	
% DCBP (Confirmation)	29		%	2	06/21/19	SC	30 - 150 %	3
% TCMX	27		%	2	06/21/19	SC	30 - 150 %	3
% TCMX (Confirmation)	20		%	2	06/21/19	SC	30 - 150 %	3

Client ID: 0607-49)
RL/	
Parameter Result PQL Units Dilution Date/Time By Reference	

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Ρ

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:

Poor surrogate recovery was observed for PCBs. Sample was re-extracted with similar results.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Analysis Report

June 24, 2019

FOR: Attn: James Twitchell Hygenix 49 Woodside St. Stamford, CT 06902

Sample Informa	ation	Custody Inforn	Custody Information					
Matrix:	OIL	Collected by:		06/07/19				
Location Code:	HYGENIX	Received by:	CP	06/12/19	16:46			
Rush Request:	Standard	Analyzed by:	see "By" below					
P.O.#:					000000			

Laboratory Data

Project ID:	35 NORTH MAIN ST, ANSONIA CT
Client ID:	0607-50

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Waste Dilution PCB	Completed				06/13/19	J]\]]	SW3580A
Polychlorinated Biph	enyls						
PCB-1016	ND	0.50	mg/kg	1	06/15/19	SC	SW8082A
PCB-1221	ND	0.50	mg/kg	1	06/15/19	SC	SW8082A
PCB-1232	ND	0.50	mg/kg	1	06/15/19	SC	SW8082A
PCB-1242	ND	0.50	mg/kg	1	06/15/19	SC	SW8082A
PCB-1248	ND	0.50	mg/kg	1	06/15/19	SC	SW8082A
PCB-1254	ND	0.50	mg/kg	1	06/15/19	SC	SW8082A
PCB-1260	ND	0.50	mg/kg	1	06/15/19	SC	SW8082A
PCB-1262	ND	0.50	mg/kg	1	06/15/19	SC	SW8082A
PCB-1268	ND	0.50	mg/kg	1	06/15/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	98		%	1	06/15/19	SC	30 - 150 %
% DCBP (Confirmation)	106		%	1	06/15/19	SC	30 - 150 %
% TCMX	109		%	1	06/15/19	SC	30 - 150 %
% TCMX (Confirmation)	97		%	1	06/15/19	SC	30 - 150 %

Project ID: 3	35 NORTH MAIN ST, ANS	Phoenix I.D.: CD33030					
Client ID: 0	0607-50						
		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Phyllis Shiller, Laboratory Director June 24, 2019 Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

June 24, 2019

QA/QC Data

SDG I.D.: GCD32981

									%	%	
		Blk	LCS	LCSD	LCS	MS	MSD	MS	Rec	RPD	
Parameter	Blank	RL	%	%	RPD	%	%	RPD	Limits	Limits	

QA/QC Batch 482996 (mg/Kg), QC Sample No: CD32330 10X (CD32982, CD32983, CD32984, CD32985, CD32986, CD32987, CD32988, CD32989, CD32990, CD32991, CD32992, CD32993, CD32994, CD32995, CD32996, CD32997)

Polychlorinated Biphenyls - Bulk

r orgeniorinated Dipricityis	Duik						
PCB-1016	ND	0.17	96	96	0.0	40 - 140	30
PCB-1221	ND	0.17				40 - 140	30
PCB-1232	ND	0.17				40 - 140	30
PCB-1242	ND	0.17				40 - 140	30
PCB-1248	ND	0.17				40 - 140	30
PCB-1254	ND	0.17				40 - 140	30
PCB-1260	ND	0.17	103	101	2.0	40 - 140	30
PCB-1262	ND	0.17				40 - 140	30
PCB-1268	ND	0.17				40 - 140	30
% DCBP (Surrogate Rec)	81	%	120	123	2.5	30 - 150	30
% DCBP (Surrogate Rec) (Confirm	83	%	122	124	1.6	30 - 150	30
% TCMX (Surrogate Rec)	76	%	114	115	0.9	30 - 150	30
% TCMX (Surrogate Rec) (Confirm	78	%	117	119	1.7	30 - 150	30
Commont							

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QA/QC Batch 483059 (mg/Kg), QC Sample No: CD32998 10X (CD32998, CD32999, CD33000, CD33001, CD33002, CD33003, CD33004, CD33005, CD33006, CD33007, CD33008, CD33009, CD33010, CD33011, CD33012, CD33013, CD33014, CD33015, CD33016, CD33016, CD33017)

Polychlorinated Biphenyls - Bulk

PCB-1016	ND	0.17	90	80	11.8	40 - 140	
PCB-1221	ND	0.17				40 - 140	
PCB-1232	ND	0.17				40 - 140	
PCB-1242	ND	0.17				40 - 140	
PCB-1248	ND	0.17				40 - 140	
PCB-1254	ND	0.17				40 - 140	
PCB-1260	ND	0.17	86	78	9.8	40 - 140	
PCB-1262	ND	0.17				40 - 140	
PCB-1268	ND	0.17				40 - 140	
% DCBP (Surrogate Rec)	91	%	104	87	17.8	30 - 150	
% DCBP (Surrogate Rec) (Confirm	112	%	128	109	16.0	30 - 150	
% TCMX (Surrogate Rec)	90	%	103	89	14.6	30 - 150	
% TCMX (Surrogate Rec) (Confirm	89	%	103	88	15.7	30 - 150	
0							

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QA/QC Batch 483064 (mg/Kg), QC Sample No: CD33018 10X (CD33018, CD33019, CD33020, CD33021, CD33022, CD33023, CD33025, CD33026, CD33028)

Polychlorinated Biphenyls - Bulk

PCB-1016	ND	0.17		107	109	1.9	40 - 140	30
PCB-1221	ND	0.17					40 - 140	30
PCB-1232	ND	0.17					40 - 140	30

QA/QC Data

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
PCB-1242	ND	0.17							40 - 140	30
PCB-1248	ND	0.17							40 - 140	30
PCB-1254	ND	0.17							40 - 140	30
PCB-1260	ND	0.17	116	121	4.2				40 - 140	30
PCB-1262	ND	0.17							40 - 140	30
PCB-1268	ND	0.17							40 - 140	30
% DCBP (Surrogate Rec)	107	%	112	121	7.7				30 - 150	30
% DCBP (Surrogate Rec) (Confirm	124	%	127	138	8.3				30 - 150	30
% TCMX (Surrogate Rec)	102	%	108	110	1.8				30 - 150	30
% TCMX (Surrogate Rec) (Confirm	109	%	117	118	0.9				30 - 150	30
Comment:										

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QA/QC Batch 483445 (mg/Kg), QC Sample No: CD33027 10X (CD33027)

Polychlorinated Biphenyls - Bulk

PCB-1016	ND	0.17	74	93	22.8	40 - 140	30
PCB-1221	ND	0.17				40 - 140	30
PCB-1232	ND	0.17				40 - 140	30
PCB-1242	ND	0.17				40 - 140	30
PCB-1248	ND	0.17				40 - 140	30
PCB-1254	ND	0.17				40 - 140	30
PCB-1260	ND	0.17	85	93	9.0	40 - 140	30
PCB-1262	ND	0.17				40 - 140	30
PCB-1268	ND	0.17				40 - 140	30
% DCBP (Surrogate Rec)	113	%	105	116	10.0	30 - 150	30
% DCBP (Surrogate Rec) (Confirm	109	%	102	111	8.5	30 - 150	30
% TCMX (Surrogate Rec)	80	%	87	117	29.4	30 - 150	30
% TCMX (Surrogate Rec) (Confirm	79	%	83	111	28.9	30 - 150	30
Comment							

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QA/QC Batch 483296 (mg/kg), QC Sample No: CD33932 (CD32981, CD33030)

Polychlorinated Bipher	-		 	,			
PCB-1016	ND	0.99				40 - 14	0 30
PCB-1221	ND	0.99				40 - 14	0 30
PCB-1232	ND	0.99				40 - 14	0 30
PCB-1242	ND	0.99				40 - 14	0 30
PCB-1248	ND	0.99				40 - 14	0 30
PCB-1254	ND	0.99				40 - 14	0 30
PCB-1260	ND	0.99	88	91	3.4	40 - 14	0 30
PCB-1262	ND	0.99				40 - 14	0 30
PCB-1268	ND	0.99				40 - 14	0 30
% DCBP	112	%	111	115	3.5	30 - 15	0 30
% DCBP (Confirmation)	127	%	124	128	3.2	30 - 15	0 30
% TCMX	102	%	103	107	3.8	30 - 15	0 30
% TCMX (Confirmation)	95	%	95	99	4.1	30 - 15	0 30
Comment:							

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QA/QC Batch 484109 (mg/Kg), QC Sample No: CD34663 10X (CD33024, CD33029)

Polychlorinated Biphenyls - Bulk

PCB-1016	ND	0.17	1	106	98	7.8	40 - 140	30
PCB-1221	ND	0.17					40 - 140	30
PCB-1232	ND	0.17					40 - 140	30

QA/QC Data

Parameter	Blank	Blk RL			LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
PCB-1242	ND	0.17									40 - 140	30
PCB-1248	ND	0.17									40 - 140	30
PCB-1254	ND	0.17									40 - 140	30
PCB-1260	ND	0.17			116	111	4.4				40 - 140	30
PCB-1262	ND	0.17									40 - 140	30
PCB-1268	ND	0.17									40 - 140	30
% DCBP (Surrogate Rec)	118	%			127	120	5.7				30 - 150	30
% DCBP (Surrogate Rec) (Confirm	111	%			121	114	6.0				30 - 150	30
% TCMX (Surrogate Rec)	67	%			106	93	13.1				30 - 150	30
% TCMX (Surrogate Rec) (Confirm	67	%			104	93	11.2				30 - 150	30
Comment:												
A LCS and LCS Duplicate were pe	rformed	instead of a	matrix spike ar	nd matrix s	spike du	plicate.						

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director June 24, 2019

Criteria: None

Sample Criteria Exceedances Report

enterial			GCD32981 - HYGENIX					
State:							RL	Analysis
SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	Units
CD32985	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	4300	790	1000	1000	ug/Kg
CD32986	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	1600	1000	1000	ug/Kg
CD32986	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	1600	1000	1000	ug/Kg
CD32986	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	1600	1000	1000	ug/Kg
CD32986	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	1600	1000	1000	ug/Kg
CD32986	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	ND	1600	1000	1000	ug/Kg
CD32986	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	6100	1600	1000	1000	ug/Kg
CD32986	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	ND	1600	1000	1000	ug/Kg
CD32986	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	1600	1000	1000	ug/Kg
CD32986	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	ND	1600	1000	1000	ug/Kg
CD32989	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	2300	320	1000	1000	ug/Kg
CD32991	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	1700	720	1000	1000	ug/Kg
CD32992	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	1600	770	1000	1000	ug/Kg
CD32993	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	3900	790	1000	1000	ug/Kg
CD32994	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	2500	760	1000	1000	ug/Kg
CD32995	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	2000	780	1000	1000	ug/Kg
CD32996	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	1700	710	1000	1000	ug/Kg
CD32997	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	17000	4000	1000	1000	ug/Kg
CD32997	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	4000	1000	1000	ug/Kg
CD32997	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	ND	4000	1000	1000	ug/Kg
CD32997	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	4000	1000	1000	ug/Kg
CD32997	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	ND	4000	1000	1000	ug/Kg
CD32997	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	4000	1000	1000	ug/Kg
CD32997	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	4000	1000	1000	ug/Kg
CD32997	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	4000	1000	1000	ug/Kg
CD32997	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	ND	4000	1000	1000	ug/Kg
CD32998	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	3500	1000	1000	ug/Kg
CD32998	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	ND	3500	1000	1000	ug/Kg
CD32998	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	3500	1000	1000	ug/Kg
CD32998	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	ND	3500	1000	1000	ug/Kg
CD32998	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	ND	3500	1000	1000	ug/Kg
CD32998	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	3500	1000	1000	ug/Kg
CD32998	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	3500	1000	1000	ug/Kg
CD32998	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	3500	1000	1000	ug/Kg

Criteria: None

Sample Criteria Exceedances Report

•			GCD32981 - HYGENIX					
State:							RL	Analysis
SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	Units
CD32998	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	20000	3500	1000	1000	ug/Kg
CD32999	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	16000	2500	1000	1000	ug/Kg
CD32999	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	ND	2500	1000	1000	ug/Kg
CD32999	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	2500	1000	1000	ug/Kg
CD32999	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	ND	2500	1000	1000	ug/Kg
CD32999	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	2500	1000	1000	ug/Kg
CD32999	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	2500	1000	1000	ug/Kg
CD32999	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	2500	1000	1000	ug/Kg
CD32999	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	2500	1000	1000	ug/Kg
CD32999	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	ND	2500	1000	1000	ug/Kg
CD33000	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	1200	370	1000	1000	ug/Kg
CD33001	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	2400	1000	1000	ug/Kg
CD33001	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	ND	2400	1000	1000	ug/Kg
CD33001	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	2400	1000	1000	ug/Kg
CD33001	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	ND	2400	1000	1000	ug/Kg
CD33001	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	ND	2400	1000	1000	ug/Kg
CD33001	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	2400	1000	1000	ug/Kg
CD33001	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	2400	1000	1000	ug/Kg
CD33001	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	2400	1000	1000	ug/Kg
CD33001	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	19000	2400	1000	1000	ug/Kg
CD33002	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33002	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	15000	1800	1000	1000	ug/Kg
CD33002	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33002	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33002	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33002	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33002	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33002	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33002	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33003	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	ND	7300	1000	1000	ug/Kg
CD33003	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	ND	7300	1000	1000	ug/Kg
CD33003	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	ND	7300	1000	1000	ug/Kg
CD33003	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	46000	7300	1000	1000	ug/Kg
CD33003	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	7300	1000	1000	ug/Kg
CD33003	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	7300	1000	1000	ug/Kg
CD33003	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	7300	1000	1000	ug/Kg
CD33003	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	7300	1000	1000	ug/Kg
CD33003	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	7300	1000	1000	ug/Kg

Monday, June 24, 2019

Criteria: None

State: CT

Sample Criteria Exceedances Report

State:	СТ		GCD32301 - HIGENIX				RL	Analysis
SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	Units
CD33006	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	1200	390	1000	1000	ug/Kg
CD33007	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	ND	2300	1000	1000	ug/Kg
CD33007	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	2300	1000	1000	ug/Kg
CD33007	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	2300	1000	1000	ug/Kg
CD33007	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	2300	1000	1000	ug/Kg
CD33007	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	2300	1000	1000	ug/Kg
CD33007	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	*	2300	1000	1000	ug/Kg
CD33007	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	ND	2300	1000	1000	ug/Kg
CD33007	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	ND	2300	1000	1000	ug/Kg
CD33007	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	2300	1000	1000	ug/Kg
CD33008	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33008	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33008	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33008	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33008	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33008	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	5500	1800	1000	1000	ug/Kg
CD33008	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33008	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33008	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	ND	1800	1000	1000	ug/Kg
CD33009	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	3700	1000	1000	ug/Kg
CD33009	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	3700	1000	1000	ug/Kg
CD33009	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	*	3700	1000	1000	ug/Kg
CD33009	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	43000	3700	1000	1000	ug/Kg
CD33009	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	*	3700	1000	1000	ug/Kg
CD33009	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	3700	1000	1000	ug/Kg
CD33009	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	3700	1000	1000	ug/Kg
CD33009	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	ND	3700	1000	1000	ug/Kg
CD33009	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	3700	1000	1000	ug/Kg
CD33010	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	20000	3000	1000	1000	ug/Kg
CD33010	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	ND	3000	1000	1000	ug/Kg
CD33010	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	3000	1000	1000	ug/Kg
CD33010	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	*	3000	1000	1000	ug/Kg
CD33010	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	3000	1000	1000	ug/Kg
CD33010	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	3000	1000	1000	ug/Kg
CD33010	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	3000	1000	1000	ug/Kg
CD33010	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	*	3000	1000	1000	ug/Kg
CD33010	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	3000	1000	1000	ug/Kg

Criteria: None

State: CT

Sample Criteria Exceedances Report

State:	СТ		OCD32301 - TH CENIX				RL	Analysis
SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	Units
CD33011	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	3600	1000	1000	ug/Kg
CD33011	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	ND	3600	1000	1000	ug/Kg
CD33011	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	3600	1000	1000	ug/Kg
CD33011	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	ND	3600	1000	1000	ug/Kg
CD33011	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	5800	3600	1000	1000	ug/Kg
CD33011	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	3600	1000	1000	ug/Kg
CD33011	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	3600	1000	1000	ug/Kg
CD33011	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	3600	1000	1000	ug/Kg
CD33011	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	ND	3600	1000	1000	ug/Kg
CD33016	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	4100	430	1000	1000	ug/Kg
CD33017	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	1900	320	1000	1000	ug/Kg
CD33018	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	7800	790	1000	1000	ug/Kg
CD33019	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	63000	24000	1000	1000	ug/Kg
CD33019	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	24000	1000	1000	ug/Kg
CD33019	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	24000	1000	1000	ug/Kg
CD33019	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	24000	1000	1000	ug/Kg
CD33019	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	24000	1000	1000	ug/Kg
CD33019	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	ND	24000	1000	1000	ug/Kg
CD33019	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	ND	24000	1000	1000	ug/Kg
CD33019	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	ND	24000	1000	1000	ug/Kg
CD33019	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	24000	1000	1000	ug/Kg
CD33020	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	3100000	2200000	1000	1000	ug/Kg
CD33020	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	2200000	1000	1000	ug/Kg
CD33020	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	ND	2200000	1000	1000	ug/Kg
CD33020	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	ND	2200000	1000	1000	ug/Kg
CD33020	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	ND	2200000	1000	1000	ug/Kg
CD33020	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	2200000	1000	1000	ug/Kg
CD33020	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	2200000	1000	1000	ug/Kg
CD33020	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	2200000	1000	1000	ug/Kg
CD33020	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	2200000	1000	1000	ug/Kg
CD33021	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	3600	400	1000	1000	ug/Kg
CD33023	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	4000	410	1000	1000	ug/Kg
CD33025	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	4000	790	1000	1000	ug/Kg
CD33026	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	50000	1000	1000	ug/Kg
CD33026	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	ND	50000	1000	1000	ug/Kg

Monday, June 24, 2019

Criteria: None

Sample Criteria Exceedances Report

GCD32981 - HYGENIX

State:	СТ		GCD32961 - HTGENIX				RL	Analysis
SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	Units
CD33026	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	ND	50000	1000	1000	ug/Kg
CD33026	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	ND	50000	1000	1000	ug/Kg
CD33026	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	160000	50000	1000	1000	ug/Kg
CD33026	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	50000	1000	1000	ug/Kg
CD33026	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	50000	1000	1000	ug/Kg
CD33026	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	50000	1000	1000	ug/Kg
CD33026	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	50000	1000	1000	ug/Kg
CD33028	\$PCB_SOXR	PCB-1221	CT / Requested PCB RL /	ND	7900000	1000	1000	ug/Kg
CD33028	\$PCB_SOXR	PCB-1232	CT / Requested PCB RL /	ND	7900000	1000	1000	ug/Kg
CD33028	\$PCB_SOXR	PCB-1242	CT / Requested PCB RL /	ND	7900000	1000	1000	ug/Kg
CD33028	\$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	ND	7900000	1000	1000	ug/Kg
CD33028	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	ND	7900000	1000	1000	ug/Kg
CD33028	\$PCB_SOXR	PCB-1260	CT / Requested PCB RL /	ND	7900000	1000	1000	ug/Kg
CD33028	\$PCB_SOXR	PCB-1262	CT / Requested PCB RL /	ND	7900000	1000	1000	ug/Kg
CD33028	\$PCB_SOXR	PCB-1268	CT / Requested PCB RL /	1900000	7900000	1000	1000	ug/Kg
CD33028	\$PCB_SOXR	PCB-1016	CT / Requested PCB RL /	ND	7900000	1000	1000	ug/Kg
CD33029	\$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	2100	920	1000	1000	ug/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



REASONABLE CONFIDENCE PROTOCOL LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name:	Phoenix Environmental Labs, Inc.	Client:	Hygenix	
Project Location:	35 NORTH MAIN ST, ANSONIA CT	Project 1	Number:	
Laboratory Sample	ID(s): CD32981-CD33030	Samplin	g Date(s):	6/7/2019

List RCP Methods Used (e.g., 8260, 8270, et cetera) 8082

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	✓ Yes □ No
1A	Were the method specified preservation and holding time requirements met?	✓ Yes □ No
1B	<u>VPH and EPH methods only:</u> Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	□ Yes □ No ☑ NA
2	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	✓ Yes □ No
3	Were samples received at an appropriate temperature (< 6 Degrees C)?	✓ Yes □ No □ NA
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	✓ Yes □ No
5	a) Were reporting limits specified or referenced on the chain-of-custody?	🗆 Yes 🗹 No
	b) Were these reporting limits met?	✓ Yes □ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	✓ Yes □ No
7	Are project-specific matrix spikes and laboratory duplicates included in the data set?	🗌 Yes 🗹 No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties knowledge and belief and based upon my personal inqu information contained in this analytical report, such inf	iry of those responsible for providing the
Authorized Signature: Rashini Makol Po	sition: Project Manager
Printed Name: Rashmi Makol	Date: Monday, June 24, 2019
Name of Laboratory Phoenix Environmental Labs, Inc.	

This certification form is to be used for RCP methods only.

CTDEP RCP Laboratory Analysis QA/QC Certification Form - November 2007 Laboratory Quality Assurance and Quality Control Guidance Reasonable Confidence Protocols





RCP Certification Report

June 24, 2019

SDG I.D.: GCD32981

PCB Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

AU-ECD1 06/13/19-1

Saadia Chudary, Chemist 06/13/19

CD32983, CD32984, CD32985, CD32987, CD32991, CD32992, CD32995, CD32996, CD33022, CD33025

The initial calibration (PC531AI) RSD for the compound list was less than 20% except for the following compounds: None. The initial calibration (PC531BI) RSD for the compound list was less than 20% except for the following compounds: None. The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

AU-ECD1 06/14/19-1

Saadia Chudary, Chemist 06/14/19

CD32989, CD32997, CD32999, CD33000, CD33006, CD33007, CD33009, CD33010, CD33012, CD33015, CD33016, CD33017, CD33018, CD33020, CD33021, CD33023, CD33026

The initial calibration (PC531AI) RSD for the compound list was less than 20% except for the following compounds: None. The initial calibration (PC531BI) RSD for the compound list was less than 20% except for the following compounds: None. The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

AU-ECD1 06/17/19-1

Saadia Chudary, Chemist 06/17/19

CD33001, CD33027

The initial calibration (PC531AI) RSD for the compound list was less than 20% except for the following compounds: None. The initial calibration (PC531BI) RSD for the compound list was less than 20% except for the following compounds: None. The continuing calibration %D for the compound list was less than 15% except for the following compounds: Samples: CD33001

Preceding CC 617B027 - None. Succeeding CC 617B056 - TCMX SURR 17%H (15%) Samples: CD33027 Preceding CC 617B056 - TCMX SURR 17%H (15%) Succeeding CC 617B068 - None.

AU-ECD24 06/13/19-1

Saadia Chudary, Chemist 06/13/19

CD33028

The initial calibration (PC528AI) RSD for the compound list was less than 20% except for the following compounds: None. The initial calibration (PC528BI) RSD for the compound list was less than 20% except for the following compounds: None. The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

AU-ECD3 06/13/19-1

Saadia Chudary, Chemist 06/13/19 CD32988, CD32993, CD32998, CD33002, CD33003, CD33004, CD33008, CD33011, CD33019

The initial calibration (PC423AI) RSD for the compound list was less than 20% except for the following compounds: None. The initial calibration (PC423BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

AU-ECD3 06/20/19-1

Saadia Chudary, Chemist 06/20/19

CD33024, CD33029

The initial calibration (PC423AI) RSD for the compound list was less than 20% except for the following compounds: None. The initial calibration (PC423BI) RSD for the compound list was less than 20% except for the following compounds: None. The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

AU-ECD5 06/14/19-1

Saadia Chudary, Chemist 06/14/19

CD32981, CD33030

The initial calibration (PC508AI) RSD for the compound list was less than 20% except for the following compounds: None.





RCP Certification Report

June 24, 2019

SDG I.D.: GCD32981

PCB Narration

The initial calibration (PC508BI) RSD for the compound list was less than 20% except for the following compounds: None. The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

AU-ECD6 06/13/19-1

Saadia Chudary, Chemist 06/13/19

CD32982, CD32986, CD32994, CD33005

The initial calibration (PC524AI) RSD for the compound list was less than 20% except for the following compounds: None. The initial calibration (PC524BI) RSD for the compound list was less than 20% except for the following compounds: None. The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

AU-ECD6 06/14/19-1

Saadia Chudary, Chemist 06/14/19

CD32990

The initial calibration (PC614AI) RSD for the compound list was less than 20% except for the following compounds: None. The initial calibration (PC614BI) RSD for the compound list was less than 20% except for the following compounds: None. The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

AU-ECD8 06/13/19-1

Saadia Chudary, Chemist 06/13/19

CD33013, CD33014

The initial calibration (PC513AI) RSD for the compound list was less than 20% except for the following compounds: None. The initial calibration (PC513BI) RSD for the compound list was less than 20% except for the following compounds: None. The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

QC (Batch Specific):

Batch 482996 (CD32330)

CD32982, CD32983, CD32984, CD32985, CD32986, CD32987, CD32988, CD32989, CD32990, CD32991, CD32992, CD32993, CD32994, CD32995, CD32996, CD32997

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Batch 483059 (CD32998)

CD32998, CD32999, CD33000, CD33001, CD33002, CD33003, CD33004, CD33005, CD33006, CD33007, CD33008, CD33009, CD33010, CD33011, CD33012, CD33013, CD33014, CD33015, CD33016, CD33017

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Batch 483064 (CD33018)

CD33018, CD33019, CD33020, CD33021, CD33022, CD33023, CD33025, CD33026, CD33028

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Batch 483296 (CD33932)

CD32981, CD33030

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.





RCP Certification Report

June 24, 2019

SDG I.D.: GCD32981

PCB Narration

All LCS/LCSD RPDs were less than 30% with the following exceptions: None. A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Batch 483445 (CD33027)

CD33027

All LCS recoveries were within 40 - 140 with the following exceptions: None. All LCSD recoveries were within 40 - 140 with the following exceptions: None. All LCS/LCSD RPDs were less than 30% with the following exceptions: None. A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Batch 484109 (CD34663)

CD33024, CD33029

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Temperature Narration

The samples were received at 1.2C with cooling initiated. (Note acceptance criteria for relevant matrices is above freezing up to 6°C)

°C Pg of enix.com	This section MUST be completed with Bottle Quantities.		The area of the second										Data Format	Excel S PDF GIS/Key	C EQuIS Cother Data Package	Phoenix Std Report	
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CHAIN OF CUSTODY RECORD East Middle Tumpike, P.O. Box 370, Manchester, CT 06040 Email: info@phoenixiabs.com Fax (860) 645-0823 Client Services (860) 645-8726	Project:35 North Main SReport to:James TwitchellInvoice to:SamePhone #:203-324-222Fax #:203-324-3876	Analysis Request		×	× ×		×	× >	< ×	×	×	× ×	Date: Time:	0)Hint 61-41-9	Turmaround:	3 Days*	Other
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PHOENIX S	HYGENIX, Inc. 49 Woodside Street Stamford, CT 06902	CHEMI Sample - Information - Identification Signature Date: Color Signature Date: Color Matrix Code: Date: Color DW=Drinking Water GW=Ground Water SW=Surface Water Water RW=Raw Water E=Sediment SL=Sludge S=Solid W=Wipe OIL=Oil B=Bulk L=Liquid Vipe Vipe	Customer Sample Sample Identification Matrix		Ext S Side on Brick Purple Paint Ext S Side Wood Window Caulk	ð	Bidg 11 2nd Fi int Wood Window Putty		Bidg 12 W Side Wood Window Putty	Bidg 12 W Side Wood Window Green Paint	Bidg 12, North End Roof Field	Ext S Side on Steel White Paint Ext S Side on Masony Black Paint			Comments, Special Requirements or Regulations:	1 PPM DETECTION LIMIT	
PHHO Environmen	Customer: H Address: A	Ctitent S Sampler's Signature Matrix Code: DW=Drinking Water GW= RW=Raw Water SE=Sedin OIL=Oil B=Bulk L=Liquid		0607-01	0607-02 0607-03		0607-05	0607-06	0607-08	0607-09 B	0607-10	0607-11	Relinguished by:		Comments, Special	-	

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CHAIN OF CUSTODY RECORD	East Middle Tumpike, P.O. Box 370, Manchester, CT 06040 Email: info@phoenixtabs.com Fax (860) 645-0823 Client Services (860) 645-8726	Project: <u>35 North Main S</u> Report to: <u>James Twitchell</u>			Analysis			×	×	×	×	×	×	×	×	×	×	×	×	Date: Time:	11.071 PIE/10		<u>Turmaround:</u> 1 Day [*] 2 Days*	☐ 3 Days* ⊠ Standard	Other
C	587 East Em				ation Date: <u> </u>	ter WW =Waste Water olid W =Wipe	Date Time Sampled Sampled		7-Jun	7-Jun	7-Jun	1-Jun	7-Jun	1-Jun	unr-2	1-Jun	7-Jun	7-Jun	7-Jun		Dal Hare				
	; Inc.				1-Identifica	Surface Wat Soil SD =So	Sample Matrix	Paint	Paint	Paint	Putty	Paint	Paint	Paint	Glue	Mastic	Paint	Exp.Joint	Paint		ANA ANA		us:		
	PHOENIX Environmental Laboratories,	HYGENIX, Inc. 49 Woodside Street	Stamford, CT 06902		Citent Sample - Information - Identification	Mátrix Code: DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water RW=Raw Water SE=Sediment SL=Sludge S=Soii SD=Solid W=Wipe OIL=Oii B=Bulk L=Liquid	Customer Sample Identification	Ext S Side on Masonry Green	Ext S Side on Masonry White	Ext S Side on Masonry Yellow	Bidg 12 Ext Metal Window	Bldg 12 Int on Brick Brown	Bidg 12 Int on Steel	Bidg 12 Int on Brick White	Bridge Level Ceramaic Tile	Bidg 12 Under 9x9 FT	Bidg 12, Int on Wood Yellow	Bldg 12 Int Concrete Floor	Bidg 12 Cwood Ceiling	Accepted by			Comments, Special Requirements or Regulations:	1 PPM DETECTION LIMIT	
	PHK Environme	Customer: Address:			Sampler's Signature	Matrix Code: DW=Drinking Water GW= RW=Raw Water SE=Sedin OIL=Oil B=Bulk L=Liquid		0607-13	0607-14	0607-15	0607-16	0607-17	0607-18	0607-19	0607-20	0607-21	0607-22	0607-23	0607-24	Relinguished by			omments, Specia		

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CHAIN OF CUSTODY RECORD	East Middle Turnpike, P.O. Box 370, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726	Project: <u>35 North Main S</u> Report to: <u>James Twitchell</u> Invoice to: <u>Same</u> Phone #: 203-324-2222 Fax #: 203-374-3876		Request		× 33(×	×	×	×	× ;	< ×	×	×	×		Date: Time: RI 6-13-15 11:0 1 0.013010 1 0.0100		Turmaround:	Standard	C Other
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	PHOENX Environmental Laboratories, Inc.	HYGENIX, Inc. 49 Woodside Street Stamford, CT 06902	Client Sample - Information - Identification	Matrix Code: DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe OIL=Oil B=Bulk L=Liquid	Customer Sample Identification	Bidg 12 int Wood Wall Panels	Bldg 12 Ext Metal Windows Black	Bidg 12 on Steel Yellow	Bidg 12 on Steel Gray	Bidg 11 Roof	Bldg 11 Metal Columns	Bidg 11 on Brick White	Bidg 11A on Steel Green	Bldg 11A 2nd Fl Under 9x9	Bldg 11A 2nd FI Under CT	Bidg 11 Bridge Behind Transite	Accepted by:		Comments, Special Requirements or Regulations:	1 PPM DETECTION LIMIT	
	PHK Environm	Customer: Address:	Sampler's Signature	Matrix Code: DW=Drinking Wa RW=Raw Water OIL=Oil B=Bulk		0607-25	0607-26	0607-27	0607-28	0607-29	0607-30 0607-31	0607-32	0607-33	0607-34	0607-35	0607-36	Relingurished by:		omments, Speci:		

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CHAIN OF CUSTODY RECORD	East Middle Turnpike, P.O. Box 370, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726	Project: <u>35 North Main S</u> Report to: <u>James Twitchell</u> Invoice to: <u>Same</u> Phone #: <u>203-324-3876</u> Fax #: <u>203-324-3876</u>	Analysis Request	le cev	×	×	×	×	×	×	×	×	×	× ,	× ×	Time:	-13-19 11205	Turnaround:	☐ 1 Day* □ 2 Days* ☐ 3 Days* Standard	
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A	Inc.		dentificatio	Sample Matrix		Paint	Field	Galbestos	Galbestos	Caulk	Paint	Field	Paint	Exp Joint	Collection of the second secon		The second	-		
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Division 1 Specifications

General Requirements

SECTION 01 11 00 SUMMARY OF WORK

PART 1 – GENERAL

1.01. SECTION INCLUDES:

- A. Defined Terms
- **B.** Existing Conditions
- C. Project Summary
- **D.** Work by Others
- E. Work Sequence

1.02. DEFINED TERMS:

- A. AECOM: AECOM, Inc., who is the owner's representative for the Project. The terms Engineer and AECOM are used interchangeably in these Specifications.
- **B. ACM:** Asbestos-Containing Materials.
- **C. Contractor:** The person, firm, or corporation who is proposing to conduct the Work specified herein.
- **D. Daily Construction Report**: The Contractor's Daily Construction Report used to document progress and issues on a daily basis for the Engineer and Owner.
- E. Decontamination Zone: Transition area between the Exclusion Zone(s) and the Support Zone(s) or other non-exclusion areas of the Secured Zone(s) where impacted soil, sediment and other undesirable materials can be cleaned from personnel and equipment.
- **F. Disturbed Areas:** Areas that have been disrupted or otherwise changed from their preconstruction conditions by the Contractor's activities that have not been restored as required by the Contract Documents.
- **G. Drawings:** The Drawings that show the scope, extent, and character of the Work to be furnished and performed by Contractor and which have been prepared or approved by the Engineer and are included within or referred to in the Contract Documents. Shop Drawings are not Drawings as so defined.
- **H. Engineer:** AECOM or its designated agent authorized to monitor conformance of the Contractor's Work with the Specifications and Drawings. The term Engineer and AECOM may be used interchangeably in this Specification.
- I. **Exclusion Zone:** An area within the Secured Zone with controlled access due to the presence of Impacted Materials and other potential threats to human health or safety.
- J. Field Order: A written notice prepared by Engineer responding to RFI, clarifying contract documents or directing Contractor to comply with the Work as detailed in the Contract Documents.
- **K. HASP:** The Site-Specific Health and Safety Plan prepared by the Contractor described in Specifications Section 01 41 50.
- **L. HBM:** Hazardous Building Materials, including materials containing asbestos and PCB.

SUMMARY OF WORK

- **M.** Impacted Materials: Demolition debris or other wastes containing hazardous or regulated materials.
- N. Laws and Regulations; Laws or Regulations: Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
- **O. Non-Conforming:** An adjective, which when modifying the word Work, refers to Work that is unsatisfactory, faulty, or deficient, in that it does not meet the requirements of a specified inspection, reference standard, test, approval, or performance requirement referred to in the Specifications or Drawings, or has been damaged prior to the Engineer's recommendation and the Owner's approval of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion).
- **P. Normal Work Hours:** The hours during which the Contractor may perform the Work as defined in the Specifications.
- **Q. Owner:** City of Ansonia. The terms City of Ansonia and Owner may be used interchangeably in the Specifications.
- **R. PCB:** Polychlorinated biphenyls.
- **S. PPE:** Personal Protective Equipment.
- **T. Project:** The project consists of the building demolition as described in the Specifications and Drawings for 35 North Main Street, Ansonia, Connecticut.
- **U. Project Engineer:** The individual who may be assigned to the Project by the Engineer to provide on-site Engineering support during construction.
- V. **Project Site:** The property located at 35 North Main Street.
- **W. Project Superintendent:** The Contractor's Project Superintendent responsible for daily site activities.
- X. Record Documents: The Record Documents and reports.
- **Y. Request for Information (RFI):** A written notice prepared by Contractor to receive clarification, direction, or explanation from the Owner or Engineer regarding the Work.
- Z. Samples: Portions of building materials collected for testing by a State-licensed laboratory.
- **AA. Secured Zone:** The area(s) within which Contractor shall perform the Work and where Contractor has primary responsibility for operation, security, and safety of materials, equipment, and personnel.
- **BB.** Site Construction Manager: The authorized representative of the Engineer who may be assigned to the Project Site or any part thereof.
- **CC. Specifications:** Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, standards, workmanship, measurement, and payment as applied to the Work and certain administrative details, applicable thereto.

SUMMARY OF WORK

- **DD. SSHO:** The Contractor's Site Safety and Health Officer described in Specifications Section 01 41 50 -Health and Safety
- **EE. Subcontractor:** An individual, firm, or corporation having a direct contract with the Contractor or with any other Subcontractor for performance of a part of the Work.
- **FF. Submittals:** The Submittals described in the Specifications that must be provided for review prior to specific job tasks.
- **GG.** Successful Bidder: The Bidder to whom the Owner awards the Contract for the Work.
- **HH. Supplier:** A manufacturer, fabricator, distributor, or vendor having a direct Contract with Contractor or with any Sub-Contractor to furnish materials or equipment to be incorporated in the Work by Contractor or any Sub-Contractor.
- **II. Support Zone:** Designated area within the Secured Zone that contains no Impacted Materials or construction hazards.
- JJ. T&M: Time and materials.
- **KK. Technical Execution Plan:** A written Work Plan, submitted by Bidder in accordance with the requirements of the Bidding Documents, and subsequently modified by Contractor in accordance with the Contract Documents, that describes methods, materials, and sequences of specific Work items.
- LL. Underground Facilities: All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities that have been installed underground.
- **MM.** Weekly Progress Meetings: The Weekly Progress Meeting used to update project team on work achieved and work planned.
- **NN.** Work: The entire completed construction and the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, performing or furnishing services or transportation, performing treatment, and furnishing documents, all as required by the Contract Documents.
- **OO.** Work Areas: Portions of the Project Site where the Work is to be conducted, as shown on the Drawings that are included with the Contract Documents.
- **PP.** Work Zones: Subdivisions of the Work Areas used for specific purposes. Work zones include, but are not limited to, the Decontamination Zone, Exclusion Zone, Secured Zone, and Support Zone.

1.03. EXISTING CONDITIONS:

- **A.** The location of the Project Site is shown on the Drawings.
- **B.** The existing surface layout of the Project Site is shown on the Drawings.

SUMMARY OF WORK

- **C.** The project consists of abatement of hazardous materials and demolition of portions of the buildings located at 35 North Main Street.
- **D.** Utilities and Facilities shown or indicated:
 - 1. The information and data shown or indicated on the Drawings with respect to existing utilities and facilities at or contiguous to the Project Site are based on information and data furnished to the Owner or the Engineer by the Owners of such utilities or facilities or by others.
 - 2. The Owner and the Engineer shall not be responsible for the accuracy or completeness of any such information or data relating to utilities or facilities. Contractor is required to verify all locations prior to subsurface Work.
 - **3.** The cost of all of the following shall be included in the Contract Price and the Contractor shall have full responsibility for:
 - **a.** Reviewing and checking all information and data regarding existing conditions.
 - **b.** Locating all existing utilities and facilities.
 - **c.** Coordination of the Work with the Owners of existing utilities and facilities during construction.
 - **d.** The safety and protection of all existing utilities and facilities designated to be protected on the Drawings, and repairing any damage resulting from the Work.

1.04. PROJECT SUMMARY:

- **A.** The Project includes work required for the following general activities required to complete the demolition including but not limited to;
 - 1. Asbestos abatement and PCB wastes removal (removal, transportation and disposal). Abatement activities may coincide with demolition activities where necessary to safely remove impacted materials.
 - **2.** Development of demolition sequence utilizing a structural engineer licensed in the State of Connecticut.
 - **3.** Removal and disposal/recycling of any remaining unregulated fixtures, equipment and materials. Solid wastes and abandoned materials shall be decontaminated (wiped clean), removed and disposed off-site.
 - 4. Regulated waste removal, transportation and recycling/disposal.
 - 5. Verify utility disconnections and utility shutoffs prior to demolition. Cut and cap any live utilities, if present.
 - 6. Protection of surrounding utilities, including storm drains.
 - 7. Safe demolition and removal (recycling and/or disposal) of building components.

SUMMARY OF WORK

- 8. Final restoration and clean-up of floor slabs within the work areas in the building interiors, exposed soil in the courtyard, and City sidewalks (if needed).
- **B.** Foundation walls along North Main Street and floor slabs are to remain following demolition. Any portion of the foundation walls must be demolished to the existing adjacent elevations.
- **C.** AECOM conducted HBM surveys of accessible ACM and PCB-containing materials at the Project Site. The HBM survey included the inspection of accessible areas of the building interiors and exteriors. Copies of the ACM and PCB reports are provided as an appendix. The specifications provide the approximate square footage and location of each ACM and PCB impacted material.

1.05. WORK BY OTHERS:

- A. AECOM has conducted characterization of the Project Site buildings for ACM and PCBs. AECOM shall conduct additional characterization as deemed necessary to support disposal requirements and acceptance determinations.
- **B.** Underground tanks and other underground utilities that may exist at the site beyond the footprints of the buildings are not part of this scope of work.

1.06. WORK SEQUENCE:

A. Refer to notes on the attached plans.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

WORK RESTRICTIONS

PART 1 – GENERAL

1.01. SECTION INCLUDES:

- A. Contractor's Use of Premises
- B. Access Roads
- C. Parking
- **D.** Work Hours
- **E.** Restrictions on Noise, Dust, and Odor Emissions
- **F.** Restrictions on Air Emissions of Toxic Chemicals
- **G.** Protection of Existing Utilities

1.02. CONTRACTOR'S USE OF PREMISES:

- A. Contractor shall confine all operations, including the storage of materials, to the designated areas of the Project Site, or as otherwise approved in writing by the Engineer. Contractor shall be responsible for arranging for, and paying the costs of, any necessary off-site storage. No Impacted Materials shall be stored or stockpiled outside of the Project Site.
- **B.** Contractor's use of the premises shall be limited to the Work being performed under the approved Alternate Work Practices (AWP) and Specifications.
- **C.** Contractor shall be responsible for the security and safety of Contractor's equipment and facilities. Owner and the Engineer shall not be liable for loss or damage of Contractor's tools, vehicles, equipment, or materials, whatever the cause. Such loss or damage shall not be sufficient reason for changes in the Project Schedule.
- **D.** Contractor shall be responsible for any damage to roadways, facilities, trees (unless otherwise marked for removal), or structures on, or adjacent to, the site due to negligence, carelessness, actions, errors, or omissions on the part of the Contractor.

1.03. ACCESS ROADS:

- **A.** Contractor vehicles shall enter and exit the site only at the locations designated on the Drawings or as otherwise proposed in a traffic management plan provided by the Contractor for review by the Engineer.
- **B.** Contractor shall be responsible for obtaining any permits and paying any fees necessary for Contractor's use of public streets or roads.
- **C.** Contractor shall abide by local, state, and federal regulations, including, but not limited to, any flaggers and signage for impeded traffic flow on public streets.
- **D.** Contractor shall, at all times, provide for unimpeded access for emergency vehicles to the Project Site and nearby properties.

1.04. PARKING:

A. Contractor shall park construction vehicles and construction equipment only in areas designated for such purpose.

WORK RESTRICTIONS

- **B.** Contractor employees shall park personal vehicles only in an employee parking area as designated by the Engineer.
- **C.** Vehicles shall not be parked in any locations where they impede traffic or access to areas where Work is being conducted.

1.05. WORK HOURS:

- A. Normal Work Hours shall be from no earlier than 7:00 AM to no later than 5:00 PM, Monday through Friday, and 8:00 AM to 4:00 PM Saturday, or as otherwise approved in advance by the Engineer, and subject to availability of adequate daylight to safely perform the Work. Work hours established by any ordinance, Law, or Regulation shall supersede the requirements of this Specification.
- **B.** Contractor shall conduct all Work between sunrise and sunset when there is adequate light so that the Work can be conducted safely and the Engineer can effectively observe the Work, or Contractor shall furnish adequate lighting for activities conducted by prior written approval of the Engineer between sunset and sunrise. Contractor shall provide adequate lighting at all times, as deemed necessary by the Engineer for safety reasons. However, the Engineer shall not require additional lighting if Contractor can demonstrate that light levels in the Work area meet or exceed OSHA Regulations.
- **C.** Contractor may conduct regular equipment maintenance during hours outside of the Normal Work Hours defined in this Section. The Contractor shall notify the Engineer of such activities.
- **D.** Contractor personnel shall not Work on site alone.
- E. Any variation from Normal Work Hours or Work on Sundays or Holidays shall be subject to approval by the Engineer; such approval shall not be unreasonably withheld. Contractor shall submit notice to the Engineer no less than 48 hours prior to requesting any necessary variation from Normal Work Hours, to allow for adequate review and coordination of staff. Contractor's notice to the Engineer shall include Work activities to be conducted outside of Normal Work Hours, the hours and days that those activities shall be conducted, and the requested duration of the change in Normal Work Hours.
- G. Emergency repairs of equipment outside of Normal Work Hours may be performed without 48-hour notice, but Contractor shall verbally notify the Engineer prior to such emergency maintenance.

1.06. RESTRICTIONS ON NOISE, DUST, AND ODOR EMISSIONS:

- **A.** Contractor is responsible for conducting all Work in accordance with Laws and Regulations concerning noise or sound levels, dust, and odor emissions including provisions of the City of Ansonia. Included is a link to the City of Ansonia Zoning regulations: <u>http://cityofansonia.com/content/8132/8142/8188/default.aspx</u>
- **B.** Contractor shall control the Work at all times such that noise, dust, and odor measurements do not exceed the Action Levels in the Health and Safety Plan.
- **C.** The Engineer shall have authority to direct Contractor to stop Work or modify Work methods or activities as necessary to enforce compliance with Health and Safety Plan, or

WORK RESTRICTIONS

if the Engineer deems odor emissions, noise or sound levels, or dust emissions are exceeded.

1.07. RESTRICTIONS ON AIR EMISSIONS OF TOXIC AND HAZARDOUS CHEMICALS:

- **A.** Contractor is responsible for conducting all Work in accordance with Laws and Regulations concerning airborne emissions of toxic chemicals including the Zoning Regulations of the City of Ansonia.
- **B.** Contractor shall control the Work at all times such that concentrations of airborne constituents measured at the Project Site fenceline are below the Action Levels set forth in the Health and Safety Plans.
- **C.** The Engineer shall have authority to direct the Contractor to stop Work or modify Work methods or activities as necessary to enforce compliance with the Action Levels for airborne emissions of toxic chemicals.

1.07. PROTECTION OF EXISTING UTILITIES:

- A. Contractor shall contact and cooperate with utility companies to locate all utilities (including pipelines, cables, power poles, and other structures) on the site prior to beginning the Work.
- **B.** Contractor shall comply with the requirements of specific utility protection Laws or Regulations.
- **C.** All utilities shall be protected from damage during construction, unless otherwise indicated to be removed or abandoned. If damaged, the utilities shall be repaired as required by the utility's Owner at the Contractor's expense.
- D. If a utility is encountered that is not shown on the Drawings or otherwise made known to the Contractor prior to beginning the Work, the Contractor shall promptly take necessary steps to assure that the utility is not damaged, and give written notice to the Engineer. The Engineer shall then review the conditions and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence of the utility.

1.08. TRAFFIC

A. Any traffic impacts including temporary road closure must be approved in concept by the Engineer and shall comply with the City Code Chapter 14.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

HEALTH AND SAFETY REQUIREMENTS

PART 1 – GENERAL

1.01. SECTION INCLUDES:

- A. Summary
- B. References
- **C.** Contractor's Responsibility for Health and Safety
- D. Submittals
- E. Notifications
- F. Equipment and Facilities
- **G.** Personal Protective Equipment
- **H.** Other Health and Safety Equipment
- I. Training
- J. Work Planning and Meetings
- **K.** Engineering Controls
- L. Monitoring
- M. Evaluation of Performance
- N. EHS Incident Report Form
- **O.** Hot Work Permit Form
- P. Job Safety and Hazard Analysis Form
- **Q.** AECOM Safety Task Analysis Review (STAR) Form
- **R.** AECOM Guidelines for BEST Observation and Feedback Process

1.02. SUMMARY:

A. This Section includes requirements for Health and Safety during performance of Work, including identification of applicable Laws and Regulations, Submittals, notification requirements, and Health and Safety execution Specifications.

1.03. REFERENCES:

- **A.** Applicable regulations and publications include, but are not limited to, the following:
 - **1.** ANSI, Emergency Eyewash and Shower Equipment, Z358.1, 1981.
 - **2.** ANSI, Practice for Occupational and Educational Eye and Face Protection, Z87.1, 1979.
 - **3.** ANSI, Protective Footwear, Z41.1, 1983.
 - 4. DOT Standards and Regulations, 49 CFR 171, 49 CFR 172 and 49 CFR 214.
 - 5. NFPA, Flammable and Combustible Liquids Code, NFPA 30, most recent revision.
 - **6.** OSHA, Title 29 CFR Part 1910, Occupational Safety and Health Standards, and Title 29 CFR Part 1926, Safety and Health Regulations for Construction Sites.
 - 7. USEPA, Health and Safety Requirements for Personnel Engaged in Field Activities, USEPA Order No. 14402.
 - **8.** USEPA, Standard Operating Safety Guidelines, November 1984.

HEALTH AND SAFETY REQUIREMENTS

B. Where two or more regulations/documents conflict, the one(s) offering the greatest degree of protection shall apply.

1.04. CONTRACTOR'S RESPONSIBILITY FOR HEALTH AND SAFETY:

- **A.** Contractor shall comply with any and all state, federal, and local ordinances, Laws and Regulations.
- **B.** Contractor shall be responsible for the Health and Safety of Contractor's employees, its Subcontractors, Suppliers, agents, inspectors, visitors, the general public, and any others associated with or interacting with Contractor who provides labor, goods, or other services on the Project site.
- **C.** Contractor shall be responsible for emergency response planning and notification, and for actual response to any and all emergencies that may occur during the course of the Work, including emergencies that may occur when Contractor is not present at the Project site.
- D. Contractor is responsible for communicating daily with the Engineer regarding Health and Safety issues for the Engineer's safe conduct of the Engineer's duties, but such communication shall not imply any duty or responsibility on the part of the Engineer with regard to Health and Safety of Contractor's employees, its Subcontractors, Suppliers, the general public, or others. The Engineer's responsibility and duty with regard to Health and Safety shall be limited to the Engineer's employees. Contractor shall have responsibility and duty to the Engineer to communicate Health and Safety issues accurately and in a timely manner to allow the Engineer to take appropriate actions to protect the Engineer's employees.
- E. Contractor shall designate a dedicated SSHO on the Project site during the Work. The SSHO duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs associated with the Contractor's activities at the Project site. The designated SSHO shall be certified in applicable OSHA Construction Safety training. At a minimum, the designated SSHO shall have at least 1 year of experience as a SSHO on demolition and construction sites. Contractor's SSHO shall be solely dedicated to Health and Safety issues from the start of the site activities through completion.
- F. The SSHO shall enforce the requirements of safety for all Contractor personnel onsite at all times. The SSHO shall ensure that all Contractor personnel, Subcontractor personnel, and Contractor visitors follow the Contractor's site HASP, including wearing the designated level of PPE. If the SSHO elects to require a higher level of protection than that specified in the Engineer's HASP, the extra costs associated with such higher level shall be borne by Contractor, unless such extra costs are approved in advance in writing by the Engineer.
- **G.** Prior to mobilization and continually through the duration of the Work, the SSHO shall inspect the Project site and document area-specific and worker-specific protection requirements.
- **H.** After mobilization, the SSHO shall monitor activities and shall document the need for additional worker protection as required, based on activities performed and Action Levels specified in the HASP.

HEALTH AND SAFETY REQUIREMENTS

- I. The SSHO shall verify that all activities are performed in accordance with the HASP and all federal, state, local, and Health and Safety standards, Laws and Regulations, and guidelines.
- J. In the event of a health or safety risk, as determined by the SSHO or by other Contractor personnel or by the Engineer, Contractor shall not proceed with the Work until a method for handling the risk has been determined in consultation with the Engineer and implemented. Any health or safety risk resulting in a stoppage of Work shall be reported immediately to the Engineer.
- **K.** Contractor shall be responsible for implementing a behavior-based safety process and providing site training, observation, and feedback for Contractor personnel employed at the Site.
- L. Contractor shall be responsible for stability of excavations and embankments caused by the Contractor's Work. Contractor shall designate one competent person as defined in 29 CFR Part 1926, Subpart P, Excavations, to inspect and document excavation safety conditions daily, and to ensure excavation safety prior to any personnel entering an excavation.
- **M.** Engineer shall provide the Contractor with a copy of the Engineer's HASP as a reference. Contractor shall be responsible for preparing their own HASP under which their employees shall work.

1.05. SUBMITTALS:

- A. Contractor shall prepare and submit a HASP to the Engineer for review prior to initiating work. The Contractor shall follow all applicable local, state, and federal Health and Safety standards, Laws and Regulations, and guidelines implemented through, but not limited to, the OSHA and USEPA. Where these are in conflict, the most stringent requirement shall be followed. The following points shall be addressed in the Contractor's HASP:
 - 1. Names of key personnel and alternates responsible for Health and Safety, including a Contractor Health and Safety Representative and SSHO. The Engineer must approve the SSHO.
 - **2.** A Health and Safety risk or Task Hazard Analysis (THA) associated with each portion of the Work (i.e., list potential hazards), including THAs for abatement, demolition, loading and transportation of demolition debris and materials, decontamination, truck traffic, and restoration.
 - **3.** A requirement that Contractor locate Underground Facilities by using "Safe Dig" procedures prior to the start of the Work.
 - **4.** PPE to be used for each of the site tasks and operations being conducted, as required by the PPE program in 29 CFR Subpart I, and 29 CFR 1926.
 - **5.** Frequency and types of dust monitoring and instrumentation to be used by the Contractor, including methods of maintenance and calibration of monitoring and sampling equipment.
 - 6. Corrective actions and upgrading of PPE based on monitoring of dust, with specific Action Levels identified.

HEALTH AND SAFETY REQUIREMENTS

- **7.** Site control measures in accordance with the control program required in 29 CFR 1926.
- **8.** Decontamination procedures in accordance with Specifications Section 02 06 00 Decontamination.
- **9.** An emergency response plan meeting federal, state, and local requirements for safe and effective responses to emergencies, including the necessary PPE and other equipment. Explanation of potential emergencies and contingency plan of action, including description of the route to the nearest appropriate hospital, hospital route map, and posting of emergency telephone numbers at the Project site.
- **10.** If confined space entry is required, include confined space entry procedures in accordance with 29 CFR 1910.146, and a list of all anticipated confined space entries required by Contractor in the course of the Work.
- **11.** A spill containment program meeting the requirements of all applicable local, state, and federal Health and Safety standards.
- **12.** A list of Health and Safety and emergency equipment available on the Site.
- **13.** A description of engineering controls used to reduce the hazards of equipment operation.
- **14.** Training for emergency response procedures.
- **15.** Heat stress program.
- **16.** Cold stress program.
- **17.** Lockout/Tagout where the operation of machinery and/or equipment in which the unexpected energization on start up or the release of stored energy could cause injury to personnel.
- **B.** Contractor's Daily Construction Report shall include a summary of daily safety issues and a summary of Contractor's Daily Safety Meeting.
- **C.** Contractor shall submit weekly safety reports that include:
 - 1. The names of all Contractor and Subcontractor personnel employed at the Site at any time during the week, and the names and duties of key personnel including Contractor's Project Manager, Project Superintendent, SSHO, and all competent personnel.
 - 2. A summary of all Health and Safety incidents describing any medical treatment that was provided during the week, the current Work status of any individuals affected the names of individuals who may have observed the incident, and actions taken by Contractor to address the unsafe act or unsafe condition.
 - **3.** A summary of all Health and Safety near-misses or observations providing an opportunity for shared learning and future hazard avoidance. For any Health or

HEALTH AND SAFETY REQUIREMENTS

Safety incident or near-miss, list the date, the nature of the incident or near-miss, and the names of individuals involved.

- **4.** The total number of labor hours worked at the Site during that week.
- **5.** Internal Health and Safety audits performed by the Contractor as part of the Contractor's HASP.
- **6.** Results of Contractor behavioral observation and feedback evaluations as described in the Engineer's HASP.
- **D.** Contractor shall submit documentation of training and experience for the designated competent persons.
- **E.** Contractor shall maintain all required and applicable training records on-site including, but not limited to those specified in Part 3.01 (A) of this Section.
- **F.** Contractor shall submit a Hot Work Permit for any welding, torch cutting, or activities that generate sparks. If the Contractor does not have a permit readily available, they may request a permit from the Engineer. In some instances the Engineer's client may require the use of their specific permit and permitting process.
- **G.** Contractor shall conduct a THA for significant activities and submit the documentation to the Engineer for review prior to the start of the activities. Contractor's THA shall be submitted on the THA forms attached to this Section, or other form acceptable to the Engineer.
- **H.** Contractor shall submit copies of all periodic equipment inspections completed.

1.06. NOTIFICATIONS:

- A. Contractor shall immediately (within 30 minutes) verbally report to the Engineer the occurrence of any and all Health and Safety incidents. A Supervisor's Accident/ Incident Report (SAIR), which may be requested from the Engineer, shall be submitted within 24 hours of occurrence of the incident or issue.
- **B.** Contractor shall immediately and fully investigate any such incident or near-miss and conduct a root cause analysis, and shall submit to the Engineer, the Contractor's written corrective action plan for such incident within one day after the incident.
- **C.** Contractor shall notify the Engineer in writing at least 3 days prior to bringing any hazardous material, equipment, or process to the site, or using the same on the Site. Contractor shall provide the Engineer with a MSDS for all chemicals brought on to the Site.
- D. Contractor shall immediately notify the Engineer in writing of any hazard that Contractor discovers or observes on the site and corrective measures planned or taken to eliminate or minimize such hazard. Hazard reporting will be completed as a Near Miss Report as described in 1.05(C)(3) of this Section.

HEALTH AND SAFETY REQUIREMENTS

PART 2 – PRODUCTS

2.01 EQUIPMENT AND FACILITIES:

A. Contractor shall provide all equipment, temporary facilities, and personnel required to perform activities onsite safely in accordance with all Laws and Regulations and standards, and with the Contractor's HASP.

2.02 PERSONAL PROTECTIVE EQUIPMENT:

- A. The appropriate level of PPE shall be determined by the Contractor for specific tasks as described in the Contractor's HASP. If hazards are identified that require a level of protection greater than Level D (defined in paragraph C below), Work shall be suspended and the Engineer notified. The Contractor's SSHO, in consultation with the Engineer, shall determine what actions are required prior to restarting Work. Contractor shall determine and document the appropriateness of suggested minimum PPE requirements for Contractor's employees and others at the Project site.
- B. Contractor shall furnish and maintain materials and equipment for the Health and Safety of Contractor employees, its Subcontractors, Suppliers, and visitor personnel. Contractor shall provide all required Health and Safety equipment, first aid equipment, tools, monitoring equipment, PPE, and ancillary equipment and methods required to ensure workers' Health and Safety and to comply with the Contractor's HASP. Engineer will furnish PPE and monitoring for Engineer's employees and Owner's employees.
- **C.** Level D protection will be required at all times while onsite by all personnel and visitors. Level D PPE consists of:
 - 1. Hard hat
 - **2.** Steel-toed boots
 - **3.** Safety glasses with permanent side shields
 - **4.** Work clothes (long pants, shirts with sleeves)
 - 5. Work gloves
 - **6.** High visibility reflective safety vests
 - 7. Hearing protection (as needed to prevent exposure exceeding 85 dB level)
- **D.** In most cases, Level D will be the maximum allowed level of PPE. Level C may be allowed provided that personnel are properly trained and certified. Contractor shall notify Engineer immediately when upgrades to Level C are employed by the Contractor.
- E. In cases where the Owner requires additional PPE, the Engineer will notify the Contractor of these additional requirements in advance of mobilization so that Contractor may obtain the necessary equipment.

2.03 OTHER HEALTH AND SAFETY EQUIPMENT:

HEALTH AND SAFETY REQUIREMENTS

- **A.** Contractor is required to have the following equipment available on the Site for the Health and Safety of Contractor, Subcontractors, Suppliers, and visitors:
 - 1. First aid kits
 - 2. Fire suppression equipment (appropriate to location and type of flammable materials present). Equipment will be certified ready for use within the previous twelve months and will also have been inspected each month; documentation supporting certification and inspections will be available for review.
 - **3.** Emergency eyewash facilities meeting OSHA specifications
 - **4.** Other equipment or supplies as determined to be necessary or prudent by Contractor or the Engineer
 - **5.** Flammable liquids storage cabinet(s), if necessary
 - **6.** Fall protection equipment appropriate for the hazards on the project
 - 7. Heavy Blankets

PART 3 – EXECUTION

3.01 WORKER QUALIFICATION:

- **A.** Contractor shall provide the following training to each worker, unless otherwise specified:
 - **1.** 40 hour OSHA HAZWOPEWR training.
 - **2.** Current cardiopulmonary resuscitation (CPR) and first aid certification for at least two workers assigned to Work on the site.
 - **3.** Confined Space Entry Training for workers entering confined spaces.
 - 4. For one who is assigned the role of a "competent person," documentation of sufficient and relevant training and experience to perform the assigned duties and responsibilities of that role. As defined in 29 CFR 1926.31, the competent person shall be "one who is capable of identifying existing and predictable hazards, and who has authority to take prompt corrective measures to eliminate them." Relevant training and experience shall be in the same type of Project activities included in the Work under this Contract.
- **B.** Contractor shall designate one "competent person" as defined by 29 CFR Part 1926.

3.02 WORK PLANNING AND MEETINGS

A. Contractor shall conduct a daily Health and Safety meeting, prior to beginning Work for that day, to address Health and Safety issues, changing site conditions, activities and personnel. All Contractor and Subcontractor employees working on the Site on that day shall attend the meeting. All meetings shall be documented and attendees shall sign acknowledgement of their presence at the meeting. Daily meetings shall include an

HEALTH AND SAFETY REQUIREMENTS

evaluation of the Work to be conducted, the hazards associated with the work, and control measures being used to reduce exposure.

- **B.** Contractor personnel who are not in attendance for the daily Health and Safety meeting shall be briefed on the meeting notes upon arrival at the Site and prior to commencing their Work activities. Employees shall sign acknowledgement of briefings prior to commencing Work.
- **C.** Contractor shall hold and document additional safety meetings at the start of each major task and whenever site conditions affecting personnel safety change. Any major task undertaken shall require the completion, or modification, of a THA as described in this Section.

3.03 ENGINEERING CONTROLS

- **A.** Contractor shall, at a minimum, provide the following engineering controls to reduce the hazards of equipment operation and exposure during demolition and asbestos abatement activities:
 - 1. Roll-over cages for bulldozers, back hoes, loaders, and tractors
 - 2. Back-up alarms for all trucks and moving equipment
 - **3.** Wetting of soil<u>, masonry</u> and other media or other means to control dust during the Work
 - **4.** Decontamination of equipment in accordance with Specifications Section 02 06 00 Decontamination.
 - 5. Barricades for open <u>pits,</u> trenches and excavations.
 - **6.** Sloping, benching, shoring, drainage systems, or other controls as necessary to ensure stability of excavations and embankments.
 - 7. Others as determined to be necessary or prudent by Contractor or as directed by the Engineer.
 - **8.** Protection from overhead power utility lines.
- **B.** Contractor shall post ground-level warning signs every 50-_feet below all overhead utilities onsite.

3.04 MONITORING:

- **A.** Contractor shall perform heat exposure and cold exposure monitoring activities as required by weather conditions.
- **B.** Contractor shall perform all dust monitoring activities described in the Contractor's HASP required to provide Health and Safety protection to the Contractor's and Subcontractor's personnel and monitor for emissions of nuisance dust to areas of the Owner's facility outside the Work limits. Results to be submitted to the Engineer within 48 hours.

HEALTH AND SAFETY REQUIREMENTS

3.05 EVALUATION OF PERFORMANCE:

- **A.** Contractor shall routinely conduct internal safety audits on Subcontract and Subsubcontract Work sites in accordance with the Contractor's HASP. The focus of these routine audits will be in compliance with OSHA and local occupational safety regulations. Submit weekly summary of auditing to Engineer.
- **B.** Contractor shall conduct routine behavioral observations and provide immediate feedback during Work activities to promote safe behavior of Contractor employees and Subcontractor employees.

END OF SECTION

HEALTH AND SAFETY FORMS FOLLOW

HEALTH AND SAFETY REQUIREMENTS

Date Reported: Site Lo Report Type (please check one): Site Lo EHS Opportunity (suggestion for improvement, good EHS idea to EHS Near-Miss (event that could have resulted in an incident under the could have									
Report Type (please check one): EHS Opportunity (suggestion for improvement, good EHS idea to EHS Near-Miss (event that could have resulted in an incident under the could have resul	share, or EHS observation)								
 EHS Opportunity (suggestion for improvement, good EHS idea to EHS Near-Miss (event that could have resulted in an incident under 									
EHS Near-Miss (event that could have resulted in an incident under									
Description:									
Describe key aspects such as the operation in progress, worker experience, potential outcome of event, and any contributing conditions. Use additional sheets as necessary.									
Possible Outcome (check all that apply):	Possible Outcome (check all that apply):								
Injury/illness Property damage Environmental rele	ease								
Hazard Category (check all that apply):									
Body mechanics/ergonomicsHand safetyChemical exposure/releaseMechanicalDrowning/engulfmentNoiseElectricalPinch pointEquipment/toolsPlants/animalsFire/explosionPressure/heatPossible Causal Factors (as identified by employee):	 Road/vehicle Security lapse Sharp/broken object Slip/trip/fall Weather Other: 								
1. Immediate Cause	2. Root Cause								
 Engineering design – inadequate Inattentiveness/awareness – inadequate Protective systems/equip. – inadequate Pre-planning – inadequate Procedure – not followed Tool/Equipment– wrong for the job Tool/Equipment – inadequate insp./maint. Worksite layout or control – inadequate Other: Corrective Action Taken and Lesson Learned:	 Behavior – rushing or frustration Behavior – fatigue or complacency Change in condition/scope of work Procedure – inadequate or not present Staffing – insufficient number of staff Staffing – inadequate physical state Staffing – inadequate supervision Training – inadequate Other: 								

Submit to:

Your supervisor or PM (review for quality then send to:)
 EHS Coordinator (review, enter in monthly report, then send to:)
 Corporate EHS

HEALTH AND SAFETY REQUIREMENTS

First Report of Occu Injury, Illness, or Ex	•	
Reported by:	Incident Date/Time:	
Date/Time Reported	Client Name/Site:	
Supervisor:	AECOM Office:	
Description:		

Describe the operation in progress, body part affected, witness names, client notifications made, potential non-work related causes, and any contributing conditions. Use additional sheets as necessary.

Resp	onse and Care Provided:							
	Taken to medical facility (provide fa	cility na	ame an	d phone):				
	First aid provided(describe):							
Incide	nt Resulted from (check all that a	oply):						
	Body mechanics/ergonomics		Hand	safety			Road/vehicle	
	Chemical exposure/release		Mech	anical			Security Lapse	
	Drowning/engulfment		Noise	;			Sharp/broken object	
	Electrical		Pinch	point			Slip/trip/fall	
	Equipment/tools		Plants/animals				Weather	
	Fire/explosion		Press	sure/heat			Other:	
Poss	Possible Causal Factors (as identified by employee							
	1. Immediate Cause						2. Root Cause	
	Engineering design – inadequate					Behavior –	rushing or frustration	
	Inattentiveness/awareness - inade	quate				Behavior –	fatigue or complacency	
	Protective Systems/Equip inadec	quate		DUE		Change in	condition/scope of work	
	Pre-planning – inadequate			TO:		Procedure	 inadequate or not present 	
	Procedure – not followed			\rightarrow		Staffing – i	nsufficient number of staff	
	Tool/Equipment– wrong for the job				Staffing – i	nadequate physical state		
	Tool/Equipment – inadequate insp.,	/maint.				Staffing – i	nadequate supervision	
					Training –	inadequate		
	Other:					Other:		
Corre	ective Action Taken and Lesso	n Leai	med:	1	L			

Submit immediately to all of the following:

□ Your supervisor □ Project Manager (if applicable) □ EHS Coordinator □ Corporate EHS

SECTION 01 41 50 HEALTH AND SAFETY REQUIREMENTS

Hot Work Permit

Permit Valid

		For 1 Work Day
Site Name:	Project Number:	
EHS Officer:	Client:	
Hot Work Description:		

Workers/Welders Conducting Hot Work:_____

Permits MUST be completed in its Entirety Before Hot Work Begins

	Yes	No
Has Project supervisor been notified of intended Hot Work?		
Does client representative need to be notified of the intended Hot Work?		
Will Hot Work impact the general public, clients, or operation employees?		
Will the intended Hot Work need to be coordinated with other contractors who may be working on the site to make them aware of any hazards and the scope of work to be performed?		
Have hazardous energy sources been identified, isolated, and locked out/tagged out before the start of the Project?		
Will Hot Work be conducted within a confined space?		
All testing equipment (i.e., CGI, oxygen meter, etc.) and firefighting equipment (i.e., extinguisher, etc.) have been checked to ensure proper operation and calibration before the start of this Project?		
Has a fire watch been designated and on station?		
Have coatings on metal surfaces been tested for ignitability and flame spread?		
Has the area been cleared of all flammable materials?		
Have all fuel sources been identified and protected?		
Has the area been restricted with proper barriers and signs?		
Has the area been tested to be certain that atmosphere is 0% LEL before starting Hot Work?		
Have flame sensitive areas and equipment (including cylinders and gas delivery lines) exposed to slag and sparks been protected by flame resistant blankets or removed from the area?		
Have all equipment and hoses been protected from falling metal structures and debris?		
Have escape routes been identified before starting work?		
Is ventilation equipment needed? Type needed:		

HEALTH AND SAFETY REQUIREMENTS

The Following Protective Equipment Will be Required:

	Yes	No		Yes	No
Welding Goggles/Shield Tint			Supplied Air Respirator		
Safety Boots			Head Protection		
Leather gloves			Safety Harness		
Hearing Protection			Welding Leathers – Top		
APR Cartridge			Welding Leathers - Bottom		

Permit Valid for 1 Work Day

The following procedures will be applicable prior to Hot Work on tanks or other types of enclosed structures. (Check all that apply and fill in appropriate information.)

└ Ventilate to 0% LEL	
□ Confined Space Entry Permit	
Mechanical Ventilation Required	
Cold Cut Only Method Allowe	d:
Hot Cutting Permitted Method Allowe	d:
nert to <% Oxygen	
Approvals:	
Date	_
Client Representative	_
AECOM Site Safety Officer	_
AECOM Site Safety Officer	

Fire Watch

Performed Hot Work Employee

File Permit in Project Work File and Health and Safety Department

SECTION 01 41 50 HEALTH AND SAFETY REQUIREMENTS

Task Hazard Analysis

THA Type: Investigation O&M Office Construction New Revised Date:									
Work Activity:									
Personal Protective Equip	Personal Protective Equipment (PPE):								
Development Team	Position/Title	Reviewed	Ву	Position/	Title	Date			
Job Steps ¹	Potential Hazards ²		Critic	cal Actions ³					

Notes

1 – Target number of job steps: six to ten 2 – Codes for Potential Hazards:

	z = coues ior Fotentiar	i lazalus.				
Caught	t Between (CBT)	Contacted By (CB)	Caught On (CO)	Fall To Below (FB)	Overexertion (O)	Struck Against (SA)
Caught	t In (CI)	Contact With (CW)	Exposure (E)	Fall - Same Level (FS)	Release To (R)	Struck By (SB)

3 – Types of Critical Actions: Administrative Controls, Engineering Controls, PPE, and/or Safe Work Practice / SOP Form Version 4/3/06

HEALTH AND SAFETY REQUIREMENTS

Safety Task Analysis Review (STAR)

Task Description:	List Additional Hazards (Hazards Not Shown with Check Box)	Signatures of Personnel on Task Analysis Review/Tailgate Meeting:
List Tasks:		
		Mentor Assigned to Work
		Lessons Learned (Based on changes in conditions, EHS Near- Incidents/ Observations Potential Emergencies)
	List Additional Controls (Controls Not Shown with Check Box)	Is there a better/safer way to perform the work/task?
Company:		
Completed By:		
Date:	Tailgate Meeting Topic	Supervisor Review (date/Time): EHS Review (date/time):
Job Location:		Comments:

HEALTH AND SAFETY REQUIREMENTS

Identify Potential Hazards

□ Abrasions Biological Hazards (Plants, Animals, Insects) Cave-in (Trench/Excavation Work) Chemical/Thermal Burn □ Cuts □ Dermatitis □ Dropping Materials/Tools to Lower Level Drowning/Flowing Water □ Dust □ Electrical Shock Elevated/Overhead Work Energized Equipment Fire □ Flammability □ Foreign Body in Eye □ Hazardous Materials (Exposure or Release) □ Heat or Cold Stress □ Heavy Equipment Operation □ Heavy Lifting □ High Noise Levels □ Impact Noise □ Inability to Maintain Communication □ Inclement Weather □ Overhead Work Overhead Utilities □Underground Utilities □ Pinch Points □ Pressurized Lines □ Slips, Trips, Falls □ Sprains/Strains □ Traffic □ Underground Utilities □ Confined Space □ New or Rental Equipment □ Surface Water Run-On/Run-Off □ Odor/VOC Emissions □ Compressed Gas Cylinders Generated Wastes (Solids/Liquids) □ Known/Unknown Visitors □ Visibility □ New Personnel □ Hoists/Rigging/Slings/Wire Rope □ Special Operations/Instructions (Attach) □ Ergonomics

Identify Controls

□ Air Monitoring Barricades/Fencing/Silt Fencing Buddy System □ Appropriate Clothing/Monitoring of Weather □ Confined Space Procedures □ Decontamination Drinking Water/Fluids □ Dust abatement Measures □ Equipment Inspection □ Exclusion Zones Exhaust Ventilation □ Fall Protection □ Fire Extinguisher/Fire Watch □ Flotation Devices/Lifelines □ Grounds on Equipment/Tanks Ground Fault Interrupter Ground Hydraulic Attachments □ Hand Signal Communication □ Hazardous/Flammable Material Storage Hazardous Plant/Animal Training □ Hearing Protection (Specify) □ Hoses, Access to Water □ Hot Work Procedures □ Insect Repellent or Precautions □ Isolation of Equipment or Process (LO/TO) □ Stormwater Control Procedures/Methods □ Machine/Equipment Guarding □ Manual Lifting Equipment (Chain Falls) □ Protective Equipment (Specify) Proper Lifting Techniques □ Proper Tool for Job □ Radio Communication □ Respirator, (Specify Type) □ Safety Harness/Lanyard/Scaffold Sloping, Shoring, Trench Box □ Vehicle Inspection □ Spill Prevention Measures/Spill Kits Equipment Manuals/Training Emergency Procedures/Incident Management Plan □ Appropriate Labels/Signage Derived Waste Management Plan □ Visitor Escort/Orientation/Security □ Window Cleaning/Defrost □ Proper Work Position/Tools

Pre-Task Review (Yes/No/NA)

- 1. Has Job Hazard Analysis been completed and reviewed?
- 2. Is Job Scope understood by all Personnel?
- 3. Proper Safety Equipment on job site?
- 4. Permit Issued? What type?
 □ Hot Work □ Confined Space
 □ Excavation □ Other:______
- 5. Proper Tools for Job on site?
- 6. Oxygen/Flammability checked?
- 7. Reviewed MSDSs for any hazardous substance that might be present?
- 8. Proper training for all personnel?
- 9. Are there any planned deviations from set procedures for equipment modifications? ___ If so, contact supervisor to check applicability of MOC procedures.
- 10. Is there any work planned that could cause activation of emergency procedures?

If so, have these procedures been discussed and communicated?

Post-Task Review

- 1. Work area cleaned up?
- 2. All locks and tags removed and signed off by individuals?____
- 3. Have Permits been turned in?
- 4. STAR submitted to EHS Department?

HEALTH AND SAFETY REQUIREMENTS

5. Were there any unplanned deviations from set procedures or equipment modifications?

If so, contact supervisor to check applicability of MOC procedures.

SECTION 01 58 00

ENVIRONMENTAL MONITORING AND CONTROLS

PART 1 – GENERAL

1.01. SECTION INCLUDES:

- A. Dust Control
- B. Noise Control

1.02. DUST CONTROL:

- A. Dust Control: Dust particles, aerosols and gaseous by-products from construction and abatement activities shall be controlled at all times including weekends, holidays, and hours when the Work is not in progress. Contractor shall maintain construction and abatement areas, excavations, staging and storage areas, and other work areas within or outside the Work area free from particulates that would cause relevant air pollution standards to be exceeded or that would cause a hazard or nuisance. Contractor must have sufficient equipment and personnel available to accomplish these tasks.
- **B.** Contractor shall provide all labor, materials, and equipment, including water trucks and dust suppressant, needed to limit visible dust generation during on-site demolition and construction activities, on-site transportation, and other work activities.
- **C.** Contractor shall provide dust control measures required by all applicable regulatory requirements that include the following:
 - **1.** Wetting agents shall be used as needed.
 - **2.** Trucks, dumpsters, bins and other containers carrying or holding materials for placement or disposal, including demolition debris, shall be covered.
 - **3.** Loose, uncovered piles of materials will not be allowed for long-term storage. Such piles may only be used temporarily as part of an active material handling process.
 - **4.** Regular and continual cleaning of sidewalk and adjacent facility parking areas and roadways shall be provided.
 - **5.** A vehicle and equipment decontamination facility that includes wheel wash station shall be provided in accordance with Section 02 06 00 Decontamination.

The roads used by the Contractor's vehicles must be maintained in clean conditions at the end of each day by either prevention of tracking soils and dirt and/or by power sweeping.

1.03. NOISE CONTROL:

- **A.** Contractor shall conduct the Work in accordance with the applicable noise ordinance concerning noise levels and hours of construction activity as specified in Specifications Section 01 14 00 Work Restrictions.
- **B.** Contractor shall control the Work at all times, such that sound levels measured at the Project site boundary comply with local ordinances and Owner requirements for the facility.

SECTION 01 58 00

ENVIRONMENTAL MONITORING AND CONTROLS

- **C.** The Engineer will have authority to direct Contractor to stop Work or modify Work methods or activities as necessary.
- **D.** Contractor equipment shall be outfitted with mufflers and other sound attenuating equipment so that sound levels do not exceed the above limits when measured at a property line or a distance of 50 feet from any vehicle or equipment. Equipment engines shall not be started prior to 7:00 AM, Monday through Friday, or 8:00 AM Saturday if weekend work is approved by the Engineer.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION



Division 2 Specifications

Site Work

HAZARDOUS MATERIAL ABATEMENT

PART 1 - GENERAL

1.01. DESCRIPTION:

- A. Provide hazardous material abatement of existing conditions as indicated, in compliance with Federal, State and local regulatory agency requirements, and in compliance with Contract Documents. Hazardous building materials will be abated prior to and during demolition of buildings. The work includes the handling, removal and disposal of building materials that contain asbestos (ACM), polychlorinated biphenyls (PCBs), and universal wastes.
- B. The Work of this contract involves activities that will disturb commingled ACM and PCB waste debris. The Engineer has attempted to identify all of the stated hazardous materials and their locations. The location and type of ACM and PCB known to be present at the worksite are described in PCBs and Asbestos inspection reports provided in Appendix E. If any previously unidentified ACM, Presumed Asbestos Containing Material (PACM), PCB, Universal Waste or Drums/Containers are found, the Contractor shall notify the Owner and the Engineer, and provide information on the location and quantities of material(s) within 24 hours of discovery.
- C. Selected wastes designated for this scope of work will be disposed as commingled asbestos and PCB Bulk Product Waste (PCB >50 ppm). Other selected wastes designated for this scope of work will be disposed as commingled asbestos and PCB Excluded Waste (PCB <50ppm, >1ppm).
- **D.** Asbestos-Containing Materials (ACMs):
 - 1. The ACMs identified within the building are presented in **Table 1** below, described in the Asbestos Pre-Renovation Inspection Report prepared by Hygenix, Inc, and included in **Appendix E**.
 - The Contractor shall be responsible for complying with applicable EPA regulations, including, but not limited to 40 CFR 61, Parts A and M, and 40 CFR 763 Subpart G; and Connecticut General Statutes 19a-332a for abatement and disposal of ACM.
 - 3. The Contractor shall be responsible for complying with applicable OSHA regulations, 29 CFR 1926.1101, while the waste is at the work site. These requirements include, but are not limited to, storage of the waste in leak tight containers and proper labeling of the waste. OSHA combines activities involving sprayed-on or troweled–on surfacing materials and thermal system insulation (TSI) into "Class I" activities.

HAZARDOUS MATERIAL ABATEMENT

Table 1. Sampled Materials Containing Asbestos

Building 11 (Foundry) ACBM Description	Location(s) in Building	Estimated Quantity	Comments
Electrical Panel Clips & Backer Boards	Scattered locations on columns, units, walls, etc.	≤150 units	
Transite Unit Panels & Pipe Pieces	Scattered throughout	Few	Most removed but some may still be present in isolated areas
Duct Breeching	Scattered Locations	20 square feet	
Roof Field & Flashing	All Roofs	40,000 square feet	Flashing is present around all penetrations & skylights
Corrugated Transite	Exterior Walls & Roof	Not Available	
Exterior Roofing Debris	Perimeter edge of building	Unknown	Roofing debris has fallen off of the building over time and is scattered around the building on the ground.
Windows Covered in Transite	North End of Building	11 windows	

Building 11A (Pattern Storage, Offices) ACBM Description	Location(s) in Building	Estimated Quantity	Comments
Electrical Panel Clips & Backer Boards	Scattered locations on columns, units, walls, etc.	<75 units	
Stack Insulation	2nd through 4th floors, East Side, Multiple Locations	≤300 linear feet	The insulation is on stacks leading to the roof under a metal skin. There are a total of 6 separate stacks.
Transite Unit Panels	Scattered throughout	Few	Most removed, some may still be present in isolated locations
Window Putty	11A – Exterior Windows	≤150 units	May not be present on top floor
Boiler Rope & Gasketing	11A –3rd and 4th Floors, Multiple Locations	up to 3 boilers	Boilers must be completely dismantled to remove all asbestos
HVAC Gasketing	11A – 4th Floor	10 units	
9x9 Floor Tile & Mastic	2nd & 3rd floor offices	500 sq feet	
Sink Insulation	3rd floor offices	1 unit	
Roof Field & Flashing	All Roofs	Not Available	Flashing is present around all penetrations & skylights

HAZARDOUS MATERIAL ABATEMENT

Building 11A (Pattern Storage, Offices) ACBM Description	Location(s) in Building	Estimated Quantity	Comments
Corrugated & Smooth Transite	All Exterior Walls & Majority of Roof	Not Available	
Exterior Roofing Debris	Perimeter edge of building	Unknown	Roofing debris has fallen off of the building over time and is scattered around the building on the ground.

Building 11B (Oven Room) ACBM Description	Location(s) in Building	Estimated Quantity	Comments
Electrical Panel Clips & Backer Boards	Scattered locations on columns, units, walls, etc.	10 units	
Gasket Insulation	Oven Door	50 linear feet	

Building 11C (Blacksmith Shop) ACBM Description	Location(s) in Building	Estimated Quantity	Comments
Electrical Panel Clips & Backer Boards	Scattered locations on columns, units, walls, etc.	11 units	
Roof Field & Flashing	All Roofs	520 square feet	Flashing is present around all penetrations & skylights
Corrugated & Smooth Transite	Exterior Walls & Roof	Not Available	

Building 11D (Shaker Building) ACBM Description	Location(s) in Building	Estimated Quantity	Comments
Electrical Panel Clips & Backer Boards	Scattered locations on columns, units, walls, etc.	15 units	
Transite Unit Panels	Isolated Locations	Not Available	Most removed, some may still be present
Window Putty	Exterior Windows	2 units	
Roof Field & Flashing	All Roofs	1,178 square feet	Flashing is present around all penetrations & skylights
Corrugated & Smooth Transite	All Exterior Walls & Majority of Roof	Not Available	

HAZARDOUS MATERIAL ABATEMENT

Building 10 (Weigh scale) ACBM Description	Location(s) in Building	Estimated Quantity	Comments
Electrical Panel Clips & Backer Boards	Scattered locations on columns, units, walls, etc.	30 units	
Roof Field & Flashing	All Roofs	4,900 square feet	Flashing is present around all penetrations & skylights

Building 32 (Sand conditioner) ACBM Description	Location(s) in Building	Estimated Quantity	Comments
Electrical Panel Clips & Backer Boards	Scattered locations on columns, units, walls, etc.	80 units	
Red Galbestos	Roof Level	5,000 square feet	These are corrugated panels used for wall sheathing on building sections at the roof level
Roof Field & Flashing	All Roofs	7,100 square feet	Flashing is present around all penetrations & skylights
Corrugated & Smooth Transite	Some Exterior Walls	Not Available	
Exterior Roofing Debris	Perimeter edge of building	Unknown	Roofing debris has fallen off of the building over time and is scattered around the building on the ground.

HAZARDOUS MATERIAL ABATEMENT

Building 8 (Offices, lockers, storage) ACBM Description	Location(s) in Building	Estimated Quantity	Comments
Electrical Panel Clips & Backer Boards	Scattered locations on columns, units, walls, etc.	10 units	
Pipe Insulation	1st Floor Boiler Room	40 Linear Feet	Insulation is in poor condition, room not safe for entry.
Boiler Insulation	1st Floor Boiler Room	300 Square Feet	Boiler must be completely dismantled to remove insulation. Room is not safe for entry.
12x12 Floor Tiles & Mastic	3rd Floor Bathrooms	200 Square Feet	
Roof Field & Flashing	All Roofs	3,978 square feet	Flashing is present around all penetrations & skylights
Miscellaneous	2nd Floor South End	Not Available	This area not accessible (locked). Any material not previously sampled must be assumed asbestos containing.
Corrugated & Smooth Transite	Some Exterior Walls	Not Available	
Exterior Roofing Debris	Perimeter edge of building	Unknown	Roofing debris has fallen off of the building over time and is scattered around the building on the ground.

- **E.** Polychlorinated Biphenyl Waste (PCB)
 - 1. PCB-containing paints and sealants identified within the work areas are presented in **Table 2** below.. A copy of the PCB sampling report for the entire property is included in **Appendix E.**
 - 2. Based on analytical results, two samples exceeded 50 ppm PCB, and are therefore classified as PCB Bulk Product Waste per 40 CFR 761, and are regulated under the Toxic Substances Control Act (TSCA): Sample 0607-40/0607-48 (Red Galbestos paneling) and Sample 0607-39 (Bldg. 32/8 Roof Field). Both of these materials are also ACM and are considered commingled wastes.
 - **3.** Five of the other sampled materials presented in **Table 2** are classified as Excluded PCB Products and are not regulated under TSCA. These materials contain > 1 ppm and < 50 ppm PCBs and must be managed in accordance with CT RCSA 22a-463 469. Two of the listed materials, the gray Galbestos paneling and the Building 11 roofing fabric, are excluded PCB products that are also ACM and are considered commingled wastes.
 - **4.** PCBs were not detected over 1 ppm in the remaining four samples.

HAZARDOUS MATERIAL ABATEMENT

Table 2. Sampled Materials Analyzed for PCB

Sample No.	Sample Description	Sample Result
0607-02	Exterior South Side of Buildings 8&10 on Brick – Purple Paint	None Detected
0607-03	Exterior Southwest Corner of Building 10 on Wood Window – Caulk	None Detected
0607-04	Bldg. 11A Exterior 1st Floor East Metal Window – Putty	0.89 PPM (PCB 1254)
0607-29	Bldg. 11 Roof – Field	43.0 PPM (PCB 1254)
0607-30	Bldg. 11 on Metal Columns - Paint	20.0 PPM (PCB 1254)
0607-33	Bldg. 11A on Steel – Green Paint	0.9 PPM (PCB 1254)
0607-37	Bldg. 32 on Steel – Orange Paint	1.9 PPM (PCB 1254)
0607-38	Bldg. 32 Exterior on Metal Hoppers – Gray Paint	7.8 PPM (PCB 1254)
0607-39	Bldg. 32/8 Roof – Field	63.0 PPM (PCB 1268)
0607-40	Bldg. 32 Roof Level – Red Galbestos Paneling	3,100 PPM (PCB 1268)
0607-41	Bldg. 32 Roof Level – Gray Galbestos Paneling	3.6 PPM (PCB 1254)
0607-42	Duplicate Sample of 0607-03	0.92 PPM (PCB 1254)
0607-48	Duplicate Sample of 0607-40	19,000 PPM (PCB-1268)

F. Universal Waste Materials (UW):

The Contractor shall be responsible for the proper handling and disposal of universal wastes during the abatement process. Waste summaries shall be provided to the Engineer. The Contractor shall be responsible for complying with applicable state and federal regulations for the segregation, management, sampling, and removal of these materials from the site.

1.02. COMPLIANCE AND INTENT:

- A. All abatement work is to be scheduled and coordinated with the Owner, Engineer and the Contractor.
- **B.** The intent is for the Contractor to protect his workers, subcontractors, authorized visitors and building occupants from exposure to hazardous materials during demolition activities that disturb ACM, PCB, Universal Waste and Drums/Containers.
- **C.** The Contractor is responsible for repair, to the satisfaction of the Owner, of surfaces and property not scheduled for demolition that become damaged as a result of the work or resulting from leakage or spillage of water or from any other intentional or negligent acts or omissions. Damage repairs and replacement of materials are to be approved by the Owner prior to project completion and shall be at no increase to the contract price.
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- **D.** The abatement workers and supervisors shall have received the appropriate EPAaccredited training and be licensed by the State of Connecticut to perform asbestos abatement work.
- E. During all work, the Contractor is to provide worker protective equipment in accordance with OSHA and as required by these specifications. Where there is conflict, the most stringent requirement shall apply
- **F.** Furnish all labor, materials, facilities, supplies, equipment, services, employee training, medical monitoring, permits and agreements necessary to remove and dispose of all ACM, PCB Universal Wastes and Drums/Containers in accordance with this specification.
- **G.** Comply with all federal, state, and local regulations pertaining to asbestos, PCB and other waste storage, transportation and disposal; employee health and safety; Contractor certifications; asbestos certifications; and all licenses, permits, and training.
- H. Work on the premises shall be confined to areas designated in the Contract Documents. Materials and equipment shall be stored within areas designated by the Owner. Should additional space be required, the Contractor shall request permission for additional space and shall adequately safeguard workers and City residents from associated health and safety hazards.
- I. Perform all work specified herein with competent persons trained, knowledgeable and qualified in state-of-the-art techniques relating to asbestos and PCB abatement, handling, and the subsequent cleaning of contaminated areas.
- J. During removal activities, the Contractor shall protect against contamination of soil, water, plant life, and adjacent building areas, and shall ensure that there is no airborne release of asbestos or nuisance dusts. Evidence of settled dust or airborne levels of contaminants above background will require the implementation of additional controls at no increase to contract price.
- **K.** The work of this section shall be performed by an entity that holds current valid asbestos removal licenses in accordance with the requirement of the State of Connecticut. Display copies of licenses and Registration in a visible location at the job site.
- L. Asbestos, PCB and other waste removed during the abatement activities shall be disposed of in an approved manner complying with all applicable federal, state, and local regulations. Appropriate waste manifests shall be furnished to the Engineer and the Owner.
- **M.** Asbestos-containing materials shall be removed using wet methods and with no visible emissions. Evidence of the release of asbestos above the background level will necessitate additional controls.
- N. All work shall be performed in full compliance with current federal and state regulations including U.S. Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), U.S. Department of Transportation (DOT) regulations, National Institute for Occupational Safety and Health (NIOSH) recommendations, Connecticut Department of Public Health (CT DPH), all other Federal, State and Local government regulations, any other accepted state-of-the-art industry standards., and, and the specifications contained herein.

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- **O.** Any conflicts or overlap of these requirements shall be governed by the more stringent regulation or standard.
- P. Neither the Owner nor their representative shall be responsible for acts or omissions of the contractor, its subcontractors, or any of its agents or employees performing any of the ACM or PCB abatement related tasks.

1.03. REFERENCES:

- A. Project specific documents of subject facility inspections and screening (provided in Appendix D and E):
 - 1. Asbestos Pre-Renovation Inspection Report, 35 Main Street, Ansonia, Connecticut. HYGENIX, Inc., July 2019.
 - 2. 35 Main Street PCB Sampling Report, 35 Main Street, Ansonia, CT. HYGENIX, Inc., July 2019.
 - **3.** Asbestos Alternate Work Plan (April 2022)
- **B.** Connecticut Department of Public Health (CT DPH)
 - 1. 19a-332a: Standards for Asbestos Abatement, Connecticut Department of Public Health
 - 2. 20-440: Licensure and Training Requirements for Persons Engaged in Asbestos Abatement and Consulting Services, Connecticut Department of Public Health
 - **3.** CGS 22a-463 through 469, inclusive, Connecticut General Statutes
 - 4. CGS 22a-449(c), Hazardous Waste Management Regulations
 - 5. RSCA Sec. 22a-209, Connecticut Solid Waste Management Regulations
- **C.** Steel Structures Painting Council (SSPC)
 - 1. Guide for Containing Debris Generated During Paint Removal Operations, Guide 61 (CON), Steel Structures Painting Council (SSPC).
- **D.** United States Environmental Protection Agency (USEPA):
 - 1. 40 CFR 61 Subparts A and M, EPA National Emission Standards for Hazardous Air Pollutants (NESHAP),
 - **2.** 40 CFR 261, Identification and Listing of Hazardous Waste
 - **3.** 40 CFR 262, Standards Applicable to Generators of Hazardous Waste
 - 4. 40 CFR 263, Standards Applicable to Transporters of Hazardous Waste
 - **5.** 40 CFR 736.92(a)(2), EPA Asbestos Model Accreditation Plan (Training of Asbestos Workers),

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- 6. 40 CFR 763 Subpart G, EPA Worker Protection Rule
- 7. 40 CFR 763, ACM in Schools
- **8.** 49 CFR 171 and 172, Transportation
- E. United States Occupational Health and Safety Administration (US OSHA)
 - 1. 29 CFR 1910.20, OSHA Access to Employee Exposure and Medical Records
 - 2. 29 CFR 1910.28, Safety Requirements for Scaffolding
 - 3. 29 CFR 1910.94 and 1926.57, Ventilation Ambient Air Quality
 - 4. 29 CFR 1910.134, OSHA Respiratory Protection
 - **5.** 29 CFR 1910.245, Specifications for Accident Prevention (Sign and Tags)
 - 6. 29 CFR 1910.1000, Air Contaminants Standard for General Industry
 - 7. 29 CFR 1910.1200, Hazard Communication
 - 8. 29 CFR 1920.20, General Safety and Health Provisions
 - 9. 29 CFR 1926.59, OSHA Hazard Communication for the Construction Industry
 - **10.** 29 CFR 1926.1101, OSHA Asbestos
 - **11.** 15 USC 2641-2656, The Asbestos School Hazard Abatement and Reauthorization Act (ASHARA)

1.04. DEFINITIONS:

- A. <u>Abatement of Asbestos</u>: Process of controlling fiber release from asbestos-containing materials, including encapsulation, enclosure, controlled renovation procedures, removal, clean up and disposal.
- **B.** <u>AHERA</u>: Asbestos Hazard Emergency Response Act (40 CFR Part 763).
- **C.** <u>Airlock:</u> A system for permitting ingress and egress with minimum air movement between a contaminated area and uncontaminated areas. Typically consists of two curtained or gasket doorways separated by a distance of at least six feet such that one passes through one doorway into the airlock, allowing the doorway to close off the opening. This airlock must be maintained in uncontaminated condition at all times.
- **D.** <u>Ambient Air Quality</u>: The quality of air (in terms of airborne fiber content) that is present in a given space.
- E. <u>Area Monitoring</u>: Sampling of airborne asbestos fiber concentrations within the work area and outside the work area. Sampling shall represent airborne concentrations that may reach the breathing zone.

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- **F.** <u>Asbestos Fibers</u>: Refers to asbestos fibers having an aspect ratio of 3:1, and those fibers longer than five (5) micrometers.
- **G.** <u>Asbestos Permissible Exposure Limit (PEL):</u> A level of airborne fibers specified by OSHA as an occupational exposure standard for asbestos. This level represents the 8-hour time-weighted average of 0.1 fibers per cubic centimeter as measured by Phase Contrast Microscopy (PCM).
- **H.** <u>Asbestos Containing Material (ACM)</u>: Those manufactured products and construction materials including structural and mechanical building materials, as well as packings and gaskets that contain greater than one percent (1.0 %) asbestos.
- I. <u>Asbestos:</u> Asbestos includes asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite) cummingtonite gunerite (amosite), anthophylite, tremolite, and actinolite. For the purposes of determining worker respiratory protection, both the asbestiform and non-asbestiform of the above minerals, and any chemically treated or altered materials shall be considered as asbestos.
- J. <u>Baseline</u>: Refers to the background levels of asbestos before abatement.
- **K.** <u>Change Rooms</u>: Refers to the two chambers in the decontamination area used to change into and out of protective clothing.
- L. <u>Certified Industrial Hygienist (CIH)</u>: An Industrial Hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene.
- **M.** <u>Clean Room</u>: An uncontaminated area or room that is part of the worker decontamination enclosure system, with provisions for storage of workers' street clothes and protective equipment.
- N. <u>Clearance Level:</u> Clearance level for samples analyzed by Phase Contrast Microscopy (PCM) will be less than 0.01 fibers per cubic centimeter of air and for Transmission Electron Microscopy (TEM) will be less than 70 structures per square millimeter (< 70 s/mm2). Samples may be collected using aggressive sampling methods and the minimum air volume shall be 1,200 liters.
- **O.** <u>Competent Person:</u> One who is capable of identifying existing and predictable asbestos hazards in the surroundings or working conditions and has the authority to take prompt corrective measures to eliminate them, as defined by 29 CFR 1926.1101
- **P.** <u>Containment:</u> A process for protecting other workers, residents and the environment by isolating areas from exposure to dust and debris created during abatement of ACM or LBP in a work area.
- **Q.** <u>Critical Barrier</u>: A unit of temporary construction that provides the only separation between asbestos work area and an adjacent potential occupied space. This includes the decontamination unit, perimeter walls, ceilings, penetrations and any temporary critical barriers between the work area and the uncontaminated environment.
- **R.** <u>CT EPLU</u>: Environmental Practitioner Licensing Unit, <u>http://www.ct.gov/dph/cwp/view.asp?a=3140&q=400000</u>

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- **S.** CT DEEP: Connecticut Department of Energy and Environmental Protection, <u>https://portal.ct.gov/deep</u>
- T. <u>CT DPH</u>: Connecticut Department of Public Health, <u>http://www.ct.gov/dph/cwp/view.asp?a=3140&q=417056&dphNav=l&dphNav_GID=1889</u>
- **U.** <u>Decontamination Area</u>: Area which is constructed to provide the means for workers to store clothing, equipment and other articles, and to properly remove asbestos contamination upon concluding work activities that result in exposure to these hazardous materials.
- V. <u>DOT:</u> Federal Department of Transportation
- W. <u>Decontamination Unit</u>: Refers to system of airlocks used to decontaminate personnel, waste bags, equipment, etc. when exiting the work area. A decontamination unit shall be set up for each containment area.
- X. <u>Disposal Bag:</u> Minimum six (6) millimeter thick leak-tight polyethelyne bags used for transporting asbestos waste from a work area to disposal or shipping container. Each disposal bag must have required labels according to 29 CFR 1926.1101, 30 CFR Part 47 (HAZCOM). RACM waste must be additionally labeled according to 49 CFR 171-179 (USDOT), and 40 CFR 61 Subpart M (NESHAP).
- Y. <u>Employee exposure:</u> That exposure to airborne asbestos that would occur if the employee were not using respiratory protective equipment.
- **Z.** <u>Encapsulant:</u> A liquid material that can be applied to asbestos-containing material that controls the possible release of asbestos fibers from the material either by creating a membrane over the surface (bridging) or by penetrating into the material and binding its components together (penetrating encapsulant).
- **AA.** <u>Equipment Room:</u> A contaminated area or room that is part of the worker decontamination enclosure system, with provisions for storage of contaminated clothing and equipment. The equipment room shall be kept clean from hazardous building material debris at all times.
- **BB.** <u>Friable Asbestos Containing Material</u>: Material that contains greater than 1.0% asbestos by weight, and that can be readily crumbled, pulverized or reduced to powder by hand pressure when dry.
- **CC.** <u>Glove bag Technique</u>: A method for removing ACM from heating, ventilating, and air conditioning (HVAC) ducts, piping runs, valves, joints, elbows, and other non-planar surfaces. The glove bag is constructed and installed in such a manner that it surrounds the object or material to be removed and contains all asbestos fibers released during the process. Secondary containment shall be provided for all glove-bag work unless noted otherwise.
- **DD.** <u>HEPA Filter:</u> A High Efficiency Particulate Air (HEPA) filter capable of trapping and retaining 99.97% of asbestos fibers greater than 0.3 microns in diameter.
- **EE.** <u>Industrial Hygienist</u>: A professional qualified by education, training, and experience to anticipate, recognize, evaluate and develop controls for occupational health hazards.
- **FF.** <u>Negative Pressure Respirator:</u> A respirator in which the air pressure inside the respiratory inlet covering is positive during exhalation in relation to the air pressure of the outside

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atmosphere, and negative during inhalation in relation to the air pressure of the outside atmosphere.

- **GG.** <u>Negative Pressure:</u> Air pressure lower than surrounding areas, generally caused by exhausting air from a sealed space (work area).
- **HH.** <u>NESHAP:</u> National Emission Standard for Hazardous Air Pollutants EPA Regulation 40 CFR Subpart M, Part 61.
- **II.** <u>NIOSH:</u> National Institute for Occupational Safety and Health: Sets test standards, analytical methods, and certifies performance of various respirator designs.
- JJ. <u>NIST:</u> National Institute of Standards and Technology: Administers the NVLAP Program.
- **KK.** <u>NVLAP</u>: National Voluntary Laboratory Accreditation Program: Evaluates and certifies laboratories doing PLM and TEM analysis.
- LL. <u>OSHA</u>: Occupational Safety & Health Administration.
- **MM.** <u>PCB:</u> Polychlorinated biphenyl. A substance regulated by CT DEEP per Connecticut General Statutes 22a-467, detected in certain coatings, sealants, oils and other materials, which requires disposal in approved facilities.
- **NN.** <u>Penetrating Encapsulant:</u> An encapsulant absorbed by the in situ asbestos matrix without leaving a discrete surface layer.
- **OO.** <u>Permissible Exposure Limits (PELs):</u> Asbestos: A level of airborne fibers specified by OSHA as an occupational exposure standard for asbestos. Represents the 8-hour time weighted average of 0.1 total fibers per cubic centimeter and 30 minute excursion limit of 1.0 fiber per cubic centimeter (1.0 f/cc) as measured by phase contrast microscopy (PCM).
- **PP.** <u>Personal Monitoring:</u> Sampling for asbestos concentrations within the breathing zone of an employee.
- **QQ.** <u>Phase Contrast Microscopy (PCM):</u> Phase contrast microscopy (PCM) is a technique using a light microscope equipped to provide enhanced contrast between the fibers and the background in a sample. Fibers are cleared with a chemical solution and viewed through the microscope at a magnification of approximately 400X. This method does not distinguish between fiber types and only counts those fibers longer than 5 micrometers and wider than approximately 0.25 micrometers. Because of these limitations, fiber counts by PCM typically provide only an index of the total concentration of airborne asbestos in the environment monitored.
- **RR.** <u>Polarized Light Microscopy (PLM):</u> An optical microscopic technique used to identify asbestos content and distinguish between different types of asbestos fibers by their shape and unique optical properties.
- **SS.** <u>Powered Air Purifying Respirator (PAPR):</u> A full face-piece respirator that has the breathing air powered to the wearer after it has been purified through a filter.
- **TT.** <u>Protection Factor:</u> The ratio of the ambient concentration of an airborne substance to the concentration of the substance inside the respirator at the breathing zone of the wearer.

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The protection factor is a measure of the degree of protection provided by a respirator to the wearer.

- **UU.** <u>Respirator:</u> A device designed to protect the wearer from the inhalation of harmful atmospheres.
- VV. <u>Shower Room:</u> A room between the clean room and the equipment room in the worker decontamination enclosure system. This room contains hot and cold or warm running water and soap suitably arranged for complete showering during decontamination. The shower room comprises an air lock between contaminated and clean areas.
- **WW.** <u>Surfactant:</u> A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.
- XX. <u>TEM:</u> Transmission Electron Microscopy: Asbestos structure analysis for a specified volume of air. TEM is a technique that focuses an electron beam onto a thin sample. As the beam transmits through certain areas of the sample, an image resulting from varying densities of the sample is projected onto a fluorescent screen. Transmission electron microscopy is the state-of-the-art analytical method for identifying asbestos fibers collected in air samples in non-industrial settings. Transmission electron microscopes equipped with selected area electron diffraction (SAED) capabilities also can provide information on the crystal structure of an individual particle.
- **YY.** Time Weighted Average (TWA): The average concentration of a contaminant in air during a specific time period.
- **ZZ.** <u>Universal Waste:</u> A category of waste materials designated as "hazardous waste", but containing materials that are common, including batteries, fluorescent (and other) lights, pesticides, thermostats and used electronic equipment.
- **AAA.** <u>Visible Emissions:</u> Any emission containing particulate material that is visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.
- **BBB.** <u>Visual Inspection:</u> A visual inspection by Engineer, of the work area under adequate lighting to ensure that the work area is free of visible hazardous material, debris, and dust.
- **CCC.** <u>Wet Cleaning:</u> The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, HEPA vacuuming, or other cleaning utensils dampened with amended water or diluted removal encapsulant and afterward thoroughly decontaminated or disposed of as asbestos contaminated waste.
- **DDD.** <u>Work Area:</u> The area where hazardous material work or removal is performed and that is defined or isolated to prevent the spread of impacted dust, fibers or debris, and entry by unauthorized personnel. Work Area is a Regulated Area as defined by 29 CFR 1926.
- **EEE.** <u>X-Ray Fluoresence (XRF)</u>: The emission of characteristic "secondary" (or fluorescent) X-rays from material that has been excited by bombarding with high-energy X-rays or gamma rays. A portable XRF can be used for onsite lead screening.

1.05. ASBESTOS CONTRACTOR/SUPERVISOR:

A. All asbestos abatement work shall be conducted using good work practices that prevent the release of fibers or dust outside the work area. If poor work practices are observed, the

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Engineer shall direct the Contractor to make the necessary corrections. Generally, airborne asbestos fiber concentrations measured by PCM inside the containment area exceeding 0.10 fibers/cc will be viewed as an indication of poor work practices, unless the fiber concentration is a direct result of design or external circumstances anticipated in the project specification. Visible dust emissions will be viewed as an indication of poor work practices.

- **B.** The Owner or their representative may issue a stop work order at any time if concerns arise regarding employee or occupant safety, the integrity of the work area, security or other related concerns. If the Owner or their representative issues a verbal or written "stop work order" due to personnel, environmental or property safety risks or due to violations of rules or regulations, the contractor shall immediately stop all work and shall have no right to project delay claims. The contractor shall not recommence work until authorized to do so in writing by the Owner or their representative. The Engineer may perform baseline air sampling in selected work areas of the buildings before the start of abatement work to establish the background total asbestos fiber concentrations.
- **C.** The background total fiber concentration (or a total fiber concentration greater than 0.01 f/cc) shall not be exceeded outside the work area during abatement work. If the total fiber concentration exceeds either background or 0.01 f/cc, the Engineer is authorized to act in accordance with the above provisions to stop work. The Contractor shall perform any and all necessary corrective actions to reduce the fiber concentrations.
- **D.** The Engineer may perform air sampling inside and outside the work area during all phases of the work. The Contractor shall cooperate fully with the Engineer and ensure the cooperation of his workers during collection of air samples and work area inspections.
- **E.** The Engineer's role in advising the Owner regarding environmental health matters does not relieve the Contractor's obligation to comply with all applicable health and safety regulations promulgated by the federal, state, or local governments.
- **F.** The contractor shall send written notification as required to federal, state and local agencies on date contract is awarded.

1.06. QUALITY ASSURANCE:

- **G.** Work shall be performed by a firm having not less than seven (7) years successful experience in comparable projects which require OSHA compliance and employ personnel who have received the appropriate asbestos training from either an accredited asbestos center or recognized environmental training center provided by the CT DPH.
- H. Asbestos contractors shall show job experience for the past seven years.

PART 2 - PRODUCTS

2.01 SIGNS AND LABELS:

A. Provide labeling in accordance with U.S. EPA requirements. Provide the required signs, labels, warnings, or posted instructions for containers used to transport hazardous materials and universal wastes to the landfill.

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- **B.** Location of Caution Signs and Labels: Provide bilingual caution signs at all approaches to work areas in languages used by the Contractor's employees. Locate signs at such a distance that personnel may read the sign and take the necessary protective steps required before entering the area. Provide labels and affix to all ACM and UW -containing materials, scrap, waste, debris, and other products.
- **C.** Warning Label Format: Provide warning labels and signage that comply with 29 CFR Part 1926.1101 and 29 CFR, Part 1926.62.

2.02 ENCAPSULANTS:

A. Encapsulants shall be U.L. Listed, in full scale E 119 fire test.

2.03 PLASTIC SHEETING:

- A. Use polyethylene sheeting with a thickness of 6-mil minimum (two layers of 4-mil acceptable for walls) that conforms to NFPA #701 and has been tested in accordance with ASTM E-84. Provide flame resistant polyethylene film that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films. Provide largest size possible to minimize seams, 6.0 mm (0.15 mm) thick, frosted, or black as indicated.
- **B.** Spray adhesive for sealing polyethylene to polyethylene shall contain no methylene chloride or methyl chloroform (1,1,1-trichloroethane) compounds. Provide spray adhesive in aerosol cans that are specifically formulated to stick tenaciously to sheet polyethylene.

2.04 LOCAL EXHAUST SYSTEM:

- A. Full negative pressure containment is required and sufficient High Efficiency Particulate Air (HEPA) ventilation units shall be used to initially achieve a negative pressure in each contained work area at 0.030 inches of water column and to maintain the negative pressure in each contained work area at 0.02 inches of water column while working. From a practical standpoint, this pressure difference should not exceed -0.06 inches of water. Any amount higher than this may damage the critical barriers. Once the required amount of pressure has been reached, the containment has been effectively contained and the only air release outside is through the HEPA equipped pressure differential units. These exhaust systems shall be in accordance with ANSI and the HEPA unit shall bear a UL 586 label.
- **B.** The ventilation system shall remain in operation 24 hours a day, until clearance of the containment is achieved. HEPA-filtered air necessary to maintain pressure differential shall be vented to non-contaminated areas outside the buildings. All HEPA units shall be operated in accordance with the manufacturer's instructions and fitted as follows:
 - 1. A two stage pre-filter as follows: 100 micron low efficiency filter and a second stage medium pre-filter for particle sizes down to 5 microns.
 - **2.** Lapsed time meter showing accumulated hours of operation.
 - **3.** Electrical interlock preventing the operation of the unit without a HEPA filter.
 - **4.** Audible alarm and automatic shutdown system in the event of filter rupture or blockage of the discharge.

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- 5. Warning lights, which indicate the status of the HEPA unit.
- 6. HEPA filters used in negative air machines shall be replaced after 600 hours of continuous use (at a minimum).
- **C.** Positioning the HEPA Units: HEPA Units should be located away from the most likely air entry routes to establish the longest possible air flow path. When there is air movement, the fibers tend to dilute in the fresh air and be pulled into the pressure differential units to be filtered before exhausting into the outside air. It is desirable that exhausted air has the least potential for contamination to reduce the risk of fiber release in case of accident, seal failure or filter failure.
- **D.** Additional HEPA units may be located free standing inside the containment to circulate air within the area to filter and trap contamination out of the air. Depending on work methods, other engineering controls, the form or type of asbestos, material characteristics, and previous treatments, the number of units may be varied as little or as much as needed to lower the airborne fiber levels in the containment.

2.05 HOURS OF OPERATION FOR HEPA FILTRATION UNITS:

- A. The ventilation system shall remain in operation 24 hours a day until the work area has passed the specified clearance criteria. HEPA filtered air necessary to maintain pressure differential shall be vented to non-contaminated areas outside the buildings. Other HEPA units shall operate within the enclosure to circulate air and control fiber counts to achieve a minimum of four (4) air exchanges per hour.
- **B.** Isolate work area, and continuously maintain the work area at an air pressure that is lower than that in any surrounding space in the building, or at any location in the immediate proximity outside of the building envelope. This pressure differential when measured across any physical or critical barrier must equal or exceed a static pressure of 0.020 inches of water column.

2.06 RESERVE EQUIPMENT:

- **A.** Contractor shall erect all barricades and signs required by Federal and State Law.
- **B.** Contractor shall supply all equipment needed for worker protection (respirators, safety equipment, etc.).
- **C.** Provide authorized visitors, Owner, Engineer or other contractors requiring access to the work area with suitable protective clothing, headgear, eye protection, as described in this specification, whenever the visitor must enter the work area. The Contractor shall have available and maintain at all times a minimum of three (3) suits and other suitable protective equipment for this purpose. All protective equipment shall be new and for the exclusive use of visitors.
- **D.** Contractor shall maintain on site at all times a minimum of one extra negative air machine for use in case of failure.

2.07 TRANSPORTATION EQUIPMENT:

A. Transportation equipment, as required, shall be lockable and suitable for loading, temporary storage, transit and unloading of contaminated waste without exposure to

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persons or property. Any vehicle used to transport hazardous waste shall be properly registered with all applicable controlling agencies.

2.08 CONNECTIONS TO WATER SUPPLY:

- A. Contractor shall assure that all connections to its water source shall include backflow protection. Valves shall be temperature and pressure rated for operation of the temperatures and pressures encountered. After use, connections and fittings shall be removed without damage or alteration to existing water piping and equipment. Leaking or dripping valves shall be contained.
- **B.** Contractor will provide water from an alternative source.

2.09 SCAFFOLDING:

- A. Provide all scaffolding, ladders and/or staging, etc. as necessary to accomplish the Work of this Contract. Scaffolding may be of suspension type or standing type such as metal tube and coupler, tubular welded frame, pole or outrigger type or cantilever type. The type, erection and use of all scaffolding shall comply with all applicable OSHA provisions. A competent person shall inspect the scaffolding prior to use.
- **B.** Equip rungs of all ladders, etc. with an abrasive non-slip surface.
- **C.** Provide a nonskid surface on all scaffold surfaces subject to foot traffic.

2.10 OTHER TOOLS AND EQUIPMENT:

- A. The Contractor shall provide other suitable tools for the stripping, removal and disposal activities. Tools shall include: hand-held scrapers, plastic brushes, sponges, rounded edge shovels, brooms, polyethylene, carts, etc. All tools shall be inspected for contamination by the Engineer prior to use. All other materials not specifically described, but required shall be provided by the Contractor subject to the approval of the Engineer.
- **B.** Prohibited Equipment: The following equipment is prohibited from use on this project unless accepted in writing by the Engineer:
 - 1. High or low pressure water blasting equipment for hosing of work areas.
 - **2.** Bead blasting or other uncontained abrasive blasting methods.
 - **3.** Vacuum-powered removal or collection equipment located outside the asbestos work area, such as a "Vacu-Loader".
 - **4.** Gasoline, propane, diesel or other fuel powered equipment inside the building, unless previously approved in writing by the Owner and the Engineer.
 - 5. Flammable solvents with a flash point below 140 degrees F or materials containing ethylene glycol ether, methylene chloride, ethyl chloroform (1,1,1-trichloroethane), or other hazardous substances.
 - 6. Polyurethane spray foam for application in fire-rated assemblies, including but not limited to penetrations into stairwells, mechanical rooms, electrical closets, rated floor-to-floor assemblies, etc.

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PART 3 - EXECUTION

3.01 INITIAL AREA ISOLATION:

- A. Shut down and disconnect and lock out all electrical power, gas, sewage, water, phone lines, fire life safety lines and sprinkler systems to the work area so that there is no possibility of reactivation and electrical shock.
- **B.** Provide all connections for temporary utilities in the work area needed throughout abatement. Any temporary electrical connections shall be the responsibility of the Contractor and performed by a licensed electrician. Temporary electrical power shall be according to OSHA and the National Electrical Code for Wet Environments. All temporary electrical connections shall be pre-approved by the Owner.
- **C.** No water supply is available on-site. Contractor shall provide a temporary water supply as needed during abatement and demolition work.
- **D.** As required, establish designated limits for the hazardous materials work area with continuous barriers. Use barrier tape (3-inch) with a pre-printed asbestos warning throughout exterior abatement activities. Provide signs around the perimeter of all work areas according to EPA and OSHA, including a warning against smoking or eating in the work area.
- E. Contractor shall conform to the Owner's lockout requirements, and secure the work area at all times. Area entrances and exits shall be secured by the Contractor throughout the abatement phase. Unauthorized visitors are strictly prohibited. Only the Contractor, Engineer, and Owner's representatives are permitted at the job site. Contractor shall ensure that all doors, gates, windows, and potential entrances to the work areas and the designated waste location areas are secured and locked at the end of each workday.
- F. The Engineer will inspect and approve all containment setups before any abatement is undertaken. If a containment area is breached (failure of polyethylene seals, visible dust emission, fiber counts above background level, etc.), the Contractor shall take immediate action to control the breach and clean the area to the satisfaction of the Engineer. Clearance for any contaminated areas will be determined by the Engineer and may include air sampling. The Contractor shall be responsible for all costs associated with the clean-up and testing (including costs associated with the Engineer) resulting from containment breaches.
- **G.** The Contractor shall be responsible for identifying all HVAC components (if applicable) that lead into or out of the work areas. All components shall be disconnected (coordinate with the Owner) and sealed airtight for the duration of the abatement work. All openings shall be sealed with two (2) layers of 6 mil polyethylene secured with duct tape, as applicable.

3.02 CONTAINMENT SET-UP PROCEDURES:

A. Prior to set-up, Contractor shall HEPA vacuum all floors and horizontal surfaces of the building interior to reduce the amount of dust otherwise generated during demolition activities.

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- **B.** All work shall be conducted within an asbestos regulated area as required by OSHA. Contractor shall seal operable windows and air intakes within the work area with two layers of 6-mil polyethylene sealed with tape. Contractor shall construct a full negative pressure containment for the removal of friable asbestos-containing materials or non-friable materials that may be rendered friable during abatement. Cover walls and floors, as appropriate, with 4-mil and/or 6-mil poly. The floors and walls shall be covered with a minimum of two layers of poly.
- **C.** Items not being removed from the work area (i.e., large machinery, metal piping, etc.) shall be wet-wiped and/or HEPA vacuumed, and then sealed with two layers of 6 mil polyethylene and duct tape. Negative pressure glove bag systems may be used to remove ACM or PACM from caulking and expansion joint seams. Glove bags shall be used in accordance with work practices set forth in 29 CFR 1926.1101(g)(5)(iii)(B)(1).
- **D.** To permit the inspector to view the majority of the work area, the Contractor shall provide easily accessible windows from the clean space into each abatement area for observation of work underway in containment without requiring work area entry. Windows must be a minimum of 12" x 12", clear, see-through plastic with no scratches, tape or glue marks.
- E. The work area(s) shall be placed under negative pressure as outlined in this specification throughout the abatement work period. The system shall be required to produce a negative pressure of 0.02 inches of water column within the enclosure. Negative air exhaust will not be vented into the building(s). The negative pressure system shall be operated in accordance with Appendix J., pages J-1 through J-8, of the EPA Guidance Manual No EPA 560/85-024, entitled "Recommended Specifications and Operating Procedures for the Use of Negative Pressure Systems for Asbestos Abatement".
- F. Approved fire extinguishers (Class ABC, multi-purpose, dry chemical type, rated: 4A; 60BC) in compliance with NFPA Standard 10 "Standard for Portable Fire Extinguishers" shall be readily available to workers (maximum travel distance of 50 feet) inside and adjacent to work area(s). Personnel and emergency exits shall be clearly indicated on the inside of the containment area. The emergency exit plan shall be approved by the Engineer prior to the set-up of any work areas.
- **G.** Temporary Lighting: Provide lighting in the work area as required supplying a 50-foot candle minimum light level. Provide a minimum of one, 200-watt incandescent lamp per 1,000 SF of floor area to provide uniform lighting throughout the work area.
- **H.** A three-chambered decontamination unit shall be required during the abatement work conducted in full containment. The unit shall be located immediately outside the contained area. A pre-fabricated unit is acceptable. Chambers shall be arranged as follows:
 - 1. Clean/change room shall be the first chamber entered from outside the work area.
 - **2.** A shower shall be located between the clean/change room and the dirty/change room. The shower shall have hot and cold water.
 - **3.** A dirty/change room shall be the last chamber before entering the work area.
- I. Worker decontamination unit walls shall be a minimum of two layers of 6-mil poly and floors shall be constructed with a minimum of three layers of fire retardant poly. All entry and exit doorways shall consist of at least two sheets of overlapping, fire resistant poly. At no time shall the flapped doors be taped open in order to expedite material or personnel load-out.

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- J. Hot Water Heater: In the absence of on-site hot water, Contractor shall provide a UL rated electric hot water heater for the decontamination unit shower. Wiring of the hot water heater will be in compliance with all applicable codes of the National Fire Protection Association National Electric Code (NEC).
- **K.** All water from the shower and bag wash area shall be filtered to the technically feasible limit but not more than five (5) microns before disposal. In addition, the Contractor shall comply with all current local, state and federal codes relating to waste water release.

3.03 SECURITY AND USE OF THE SITE:

- **A.** The Contractor shall provide 24-hour, 7 day security for the work area and equipment and to ensure that no unauthorized persons enter the work area at any time after work has begun and prior to achieving certified clearance of airborne fiber concentrations.
- **B.** Limit use of the premises to work in areas indicated. Confine operations to areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated. Keep driveways and entrances serving the premises clear and available to the Owner, the Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- **C.** The Contractor shall keep the premises and building free of accumulations of waste materials or rubbish caused by the contractor's employees or employees of the subcontractor. At the completion of the work, the contractor shall remove all rubbish, tools, scaffolding, and surplus materials from the work site. The Contractor shall thoroughly clean all walls, floors, roofs, staging, storage areas, etc. affected by its work.

3.04 WORK AREA ENTRY/EXIT:

- A. The Contractor shall provide an entry/exit log which shall be posted at the entrance to each regulated work area. All persons who enter a regulated work area shall sign the entry/exit log upon every entry and exit. All persons, before entering a regulated work area, shall read and be familiar with all posted regulations and personal protection requirements.
- **B.** The Contractor shall restrict unauthorized persons from entering regulated work areas and avoid ACM dust and contaminated debris from passing beyond the regulated work areas. Should areas beyond a regulated work area become contaminated with ACM dust or contaminated debris as a result of the work, the Contractor shall clean those areas in accordance with the applicable regulations. Such cleaning or decontamination event conducted by the Contractor shall be performed at no additional cost to the Owner.
- **C.** Abatement workers and authorized persons shall enter and exit regulated work areas through a curtained doorway. Each time a regulated work area is entered, two disposable suits/coveralls and clean respirators shall be worn. Respirators shall be inspected prior to each use and fit-tested for proper seal and operation.
- **D.** All persons shall read and be familiar with all posted regulations and personal protection requirements, including work area entry/exit procedures and emergency procedures, before entering a regulated work area. The entry/exit log headings shall indicate, and the signatures shall be used to acknowledge, that the posted regulations have been reviewed and understood by all persons prior to entry.

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E. The Contractor shall provide personal protective equipment and respiratory protection to authorized persons entering regulated work areas until the work has been completed.

3.05 PERSONNEL PROTECTION:

- A. Informed Workers: All workers shall be informed of the hazards of asbestos, PCBs and other hazardous materials exposure. Workers shall also be instructed in the use and fitting of respirators, protective clothing, decontamination procedures, and all other aspects associated with abatement work in accordance with OSHA standards.
- **B.** Provide and require the use of protective clothing, such as coveralls or similar whole-body clothing, head coverings, gloves, and foot coverings for any employee exposed to airborne concentrations of asbestos that exceed the TWA and/or excursion limit prescribed by 29 CFR 1926.1101 or for which a required negative exposure assessment is not produced, and for any employee performing Class I operations which involve the removal of over 25 linear or 10 square feet of TSI or surfacing ACM or PACM.
- **C.** Provide and require the use of respiratory and personnel protective equipment to all employees who may be exposed to airborne dust in excess of 30 ug/m3.
- **D.** Personal Hygiene Practices: The Contractor shall enforce and follow good personal hygiene practices during the abatement of hazardous materials. These practices will include but not be limited to the following: No eating, drinking, smoking or applying cosmetics in the work area. The Contractor shall provide a clean space, separated from the work area, for these activities.
- E. If air monitoring data gathered by the Contractor or Engineer in areas adjacent to the work areas shows exposure to airborne asbestos, PCB or other hazardous materials exceeding OSHA criteria, that area will become regulated and workers must wear protective clothing and approved respirators and must have a shower facility provided to them.
- **F.** Respirators: Establish a respirator program as required by OSHA. Respirator selection shall meet the requirements of 29 CFR 1926.1101 (h). Respirators selected must be approved by the Competent Person. Submit program for review a minimum of five (5) working days prior to the commencement of abatement activities.
- **G.** Respirators and Protective Equipment for Handling Asbestos: 29 CFR 1926.1101(h)(3)(iv), requires employers to provide employees with the following respiratory protection for each Class of asbestos work:
 - 1. Class I Asbestos Work
 - **a.** A tight-fitting powered air-purifying respirator or a full face-piece, suppliedair respirator operated in the pressure-demand mode and equipped with either HEPA egress cartridges or an auxiliary positive-pressure, selfcontained breathing apparatus (SCBA) whenever the employees are in a regulated area performing Class I asbestos work for which a negative exposure assessment is not available and the exposure assessment indicates that the exposure level will be at or below 1 f/cc as an 8-hour time-weighted average (TWA).
 - **b.** A full face-piece supplied-air respirator operated in the pressure-demand mode and equipped with an auxiliary positive-pressure SCBA whenever

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the employees are in a regulated area performing Class I asbestos work for which a negative exposure assessment is not available and the exposure assessment indicates that the exposure level will be above 1.0 f/cc as an 8-hour TWA.

- 2. Class II Asbestos Work
 - **a.** Employers must provide employees with an air-purifying half mask respirator, other than a filtering face-piece respirator, whenever the employees perform Class II asbestos work for which no negative exposure assessment is available.
- **H.** Respirators filters for asbestos: HEPA filter cartridges certified by NIOSH for "Radionuclides, Radon Daughters, Dust, Fumes, Mists including Asbestos-Containing Dusts and Mists" and color-coded in accordance with ANSI Z228.2.
- I. Protective Clothing: Provide potentially exposed personnel with fire retardant disposable protective whole body clothing, head coverings, gloves, and foot coverings. Provide appropriate gloves to protect workers hands from exposure to hazardous materials. Make sleeves secure at the wrists and make foot coverings secure at the ankles with tape. Ensure that all personnel entering and leaving the work area follow this procedure. Suits shall be of adequate size to accommodate the largest employee. Foot covers may be part of the coveralls. Non-disposable footwear shall be left in the work area until it is decontaminated or disposed of at the completion of the job. Protective clothing will be worn inside the work area after the area passes pre abatement inspection and shall remain in use until the area passes final clearance inspection.
- J. Disposable coveralls, head covers, and foot wear covers shall be provided by the Contractor for the Owner, Engineer, Project Administrator, and other authorized representatives who may inspect the job site.
- **K.** Gloves: Provide gloves to personnel removing or handling asbestos. Contaminated gloves shall be disposed with like waste streams.
- L. Shower Requirements: Contractor shall assure that all certified employees and visitors use protective equipment and the shower or wash down facility following each entry into the containment area after the start of the hazardous materials abatement.

3.06 PERMISSIBLE EXPOSURE LIMITS:

- A. Permissible Exposure Limits (PEL): Ensure that no worker is exposed to an airborne concentration of asbestos or PCB in excess of the Time-Weighted Average (TWA) limit, and Excursion Limit (EL) set forth below.
 - 1. Time Weighted Average (TWA) limit Asbestos Concentration of airborne asbestos fibers to which any worker may be exposed as an eight (8) hour time-weighted average shall not exceed 0.1 fibers per cubic centimeter.
 - Excursion Limit (EL) Asbestos Concentration of airborne asbestos fibers to which any worker may be exposed as averaged over a sampling period of thirty (30) minutes shall not exceed 1.0 fibers per cubic centimeter.

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- **3.** Time Weighted Average (TWA) limit PCBs Concentration of airborne PCBs to which any worker may be exposed as a time-weighted average for up to 10 hours per day shall not exceed 1 microgram per cubic meter (1 ug/m³).
- **B.** Air monitoring required by OSHA is the Contractor's responsibility and is not covered in this section.

3.07 ACM CONTAINMENT AND DECONTAMINATION AREAS/SYSTEMS:

- **A.** Prior to each work shift and continuously throughout the project, each containment and decontamination enclosure shall be inspected and repaired as needed.
- **B.** Ambient asbestos fiber levels outside each work area shall not exceed 0.01 f/cc (PCM) or 70 s/mm2 (TEM). If the asbestos fiber concentrations outside each work area should exceed those levels shown above, then abatement must stop and operations be reviewed and modified until the fiber count can be reduced to within the acceptable limits.
- **C.** Each full containment area shall provide the decontamination facilities described below.
 - 1. An Equipment Room with storage for contaminated clothing and equipment shall be required. Workers and visitors shall discard disposable protective clothing, except the respirator, as they prepare to enter the shower room.
 - 2. An Airlock system permitting ingress and egress without permitting air movement shall be required. It shall consist of two (2)-curtained doorways at least eight (8) feet apart. Each curtained doorway shall be constructed by placing three (3)-overlapping sheets of plastic over a framed doorway, securing each along the top of the doorway. The first and third sheet shall be secured on one side of the doorway and the middle sheet shall be secured on the other side of the doorway.
 - 3. Showering facilities with hot and cold water shall be required in a shower room, arranged to service workers and visitors as they exit the contaminated area. The shower shall have an overhead hot and cold mixing showerhead and measure a minimum of 4' x 6' x 7' high. Provisions to prevent any contaminated run off from the shower room shall be installed. The shower floor shall be elevated approximately 4" above the shower pan, with grooves for proper drainage into the pan. Water shall be filtered through 1) a 20 micron filter and 2) a 5 micron filter for proper filtration of contaminated water. Provisions to prevent any contaminated run off from the shower room shall be installed, including sheet rubber splashquards on both clean room and equipment room sides of the shower to minimize water splashing into adjacent decontamination areas. Soap and shampoo shall be provided. Shower room facilities and size shall be adequate to allow decontamination and thorough washing of all workers and visitors within the 15 minute escape time allowed under air compressor failure. Refer to Appendix II for illustration of shower design.
- **D.** Clear 6-mil bags of ACM contaminated material shall be washed in the personnel decontamination facility after they have been pre-washed in the work area. Provisions shall be made to prevent any contaminated run off from the decontamination area .
- E. Clear 6-mil bags of bagged ACM material shall be packed and sealed in plastic lined drums or clear doubled poly bags. Contaminated material shall be placed in drums if the hazardous material storage area is contiguous to the containment area decontamination

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exit; double bagging shall occur if the hazardous material storage area is contiguous to the decontamination exit. Bagged ACM material shall be rinsed off inside the containment area, removing gross contamination, before being carried into the decontamination unit where it shall be bagged a second time. All work shall discontinue in the containment area if visible debris is detected in the double-bagging decontamination area. Work shall not resume until the visible debris is removed from the entire bag decontamination area and air samples indicate that fiber concentrations of less than 0.010 f/cc have been re-established.

- **F.** Transfer of ACM bagged material through the decontamination area shall be performed by a minimum of three (3) workers in the following manner:
- **G.** Bagged ACM material shall be pre rinsed in the containment area and carried into the decontamination area where a second rinse shall be performed.
- **H.** The worker rinsing bagged ACM material in the decontamination area shall take great care to ensure that all rinse water is contained for filtration.
- I. Twice-rinsed ACM bags shall be carried into the clean airlock, placed in a second bag, owner labels will be included, HEPA vacuumed externally and sealed with duct tape with the gooseneck technique and in such a way as to seal the top edges of the bag.
- J. Double-bagged ACM waste shall be stored in the hazardous storage facility outside the clean room airlock. If drums are utilized, they shall be sealed when full and stored in the hazardous storage facility. The hazardous storage facility shall remain locked at all times except when bags are being transported to or from the hazardous storage facility.
- **K.** HEPA ventilation shall be required in the entire decontamination system so that air shall flow from the outside towards the workspace.

3.08 ASBESTOS REMOVAL:

- **A.** The Contractor shall abate all asbestos containing materials identified and listed in this specification.
- **B.** The Contractor shall continuously apply wetting agent throughout the removal process. The wetting agent shall be applied with a low-pressure fine spray to minimize fiber releases. The materials shall be thoroughly saturated so that there is no detectable fiber release. All ACM shall be immediately packaged in leak-tight containers following removal.
- **C.** Minimize removal activities of ACMs that generate airborne particulate. To the extent feasible, score or cut-out ACMs in sections, wetting along the scoring line continually, and misting the air with an airless sprayer to knock down suspended particulate.
- **D.** Perimeter air sample results shall not exceed 0.01 f/cc (PCM). If airborne fiber concentrations should exceed the level shown above, then abatement must stop and operations be reviewed and modified until the fiber levels can be reduced to within acceptable limits.
- E. The Contractor shall transport clear asbestos-containing waste bags to the waste debris box at designated hours approved by the Owner. RACM shall be packaged in a minimum of two (2) 6-mil clear polyethylene bags. Bags shall be properly labeled for RACM disposal

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including site-specific generator labels. Non-friable waste shall be packaged in a leak-tight container while stored on-site.

F. Asbestos-containing debris and contaminated water shall be cleaned from the work area at the end of each work shift. The Contractor shall clean the work area using wet methods and HEPA vacuum equipment.

3.09 AIR MONITORING – ASBESTOS:

- A. The Contractor will provide area monitoring as described in this specification. If sample results indicate that conditions have exceeded the baseline, as determined by the Engineer, all work shall cease. Work shall not recommence until the condition(s) causing the increase have been corrected. Monitoring shall continue both inside the work area and its contiguous environment to ensure full compliance with specifications and all applicable regulations. Air samples shall be collected inside the containment, outside the containment but inside the building, the HEPA unit exhaust, immediately outside the entrance to the decontamination unit, and outside the bag-out facility. Monitoring readings shall be submitted to the Engineer on a daily basis while monitoring is active.
- **B.** Air contamination levels shall be maintained outside the containment areas at or below 0.010 f/cc. Detection of fiber counts above 0.010 f/cc outside a containment area shall result in immediate cessation of abatement activities and decontamination of areas where elevated fiber counts have occurred. Work inside the containment area shall not resume until the contamination source has been detected and corrected and ambient air levels have been reestablished outside the containment area at 0.010 f/cc or less
- **C.** All PCM air sample analysis will be performed using NIOSH Method 7400. All TEM analysis shall be consistent with modified-AHERA protocols.
- **D.** The Owner will provide a third-party State-licensed Project Monitor to perform clearance sampling following abatement in each abatement area. The Engineer shall review all final clearance inspection and sampling reports.
- E. The method of analysis for pre-abatement, perimeter and clearance air samples shall be via Phase Contrast Microscopy (PCM) or Transmission Electron Microscopy (TEM) at the discretion of the Owner.
- F. The Contractor shall be responsible for all personal air sampling. Personal breathing zone air sampling shall be in accordance with OSHA asbestos standards. Personal sampling shall be conducted on 25% of the workers for each work task with a minimum of two samples per work shift. One thirty minute excursion sample shall be collected for each work shift. The excursion sample shall be collected at the height of the abatement activities for that shift.

3.10 WORK AREA DECONTAMINATION:

- **A.** No accumulation of debris or standing water will be permitted following the initial decontamination of ACM.
- **B.** The Contractor shall remove all asbestos-containing waste material/debris, demolition debris, and all tools and equipment from the regulated work area.

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- **C.** HEPA vacuum and clean each layer of plastic on the floors, walls, and ceilings using trisodium phosphate (TSP) detergent solution, and remove each layer of plastic after cleaning is completed.
- **D.** HEPA vacuum and clean remaining floor, wall, and ceiling surfaces using TSP detergent wash solution and continue cleaning until there is no visible dust or debris inside the regulated work area.

3.11 CLEARANCE INSPECTIONS:

- A. When visual inspections or air monitoring are specified, the Contractor shall notify the Engineer in writing 24 hours in advance of the day and time when the Contractor will be conducting such inspections or monitoring. Such requests shall be initiated by the Contractor's Competent Person or Foreman indicating that the zone has been previously inspected and is ready for inspection/testing.
- **B.** The Engineer may visually inspect work areas prior to final clearance testing, and will schedule the Project Monitor to conduct final clearance testing. Evidence of remaining asbestos or dust will require additional clean up by the Contractor. Contractor shall be responsible for re-cleaning all areas found to be deficient. If the Project Monitor determines that certain areas require additional cleaning, the Contractor shall re-clean the work area and request a second inspection of the re-cleaned area. All costs incurred by the Owner's Project Monitor for inspections required after the second inspection will be charged to the Contractor.
- **C.** Asbestos Clearance Testing: If ACM encapsulation was conducted, the Contractor shall conduct air clearance sampling following encapsulation and drying time. Clearance air sampling shall not take place until all encapsulant is dry. It is recommended that air clearance samples be collected and analyzed by the PCM method.

3.12 CLEARANCE CRITERIA – ASBESTOS:

- A. The Contractor's Air Monitoring Technician shall collect background air samples documenting ambient conditions in the abatement areas before any work begins. A minimum of three (3) background air samples, with a minimum sample volume of 1,250 liters, shall be collected on each floor in the facility.
- **B.** After removal of the poly, excluding critical barriers, the Engineer shall be notified that the area is ready for inspection and final testing. The Contractor and the Owner's Project Monitor shall visually inspect the workspace for any visible asbestos dust or contamination and to determine that no debris has accumulated behind the poly containment barriers. If evidence of accumulated debris or failed poly has occurred, the area shall be cleaned. If the visual inspection does not reveal any dust or other signs of contamination, final clearance samples shall be collected after the second layer of poly has been removed. All critical barriers shall remain intact until the area has passing final clearance samples. Results of clearance testing shall be immediately submitted to the Engineer for review.
- **C.** After removal of remaining barriers, the Engineer may conduct a final inspection of each work area. Any dust or debris found shall be cleaned by the Contractor and any repairs to existing conditions shall be made at no additional cost to the Owner. Upon review of clearance testing results and any on-site inspections indicating that clean-up criteria are met, the Engineer shall provide the Contractor with a written notice of acceptance.

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- D. All equipment, instruments and procedures used for final clearance testing shall be state of the art or better. The work area shall be considered clean when there is no visible residue present on work area surfaces, and a) For areas to be reoccupied, the clearance level for each containment and shall be less than 0.01 fibers per cubic centimeter by phase contrast microscopy (PCM). Aggressive sampling shall be used for clearance purposes to ensure that the space may be certified as asbestos safe under occupied conditions.
- E. If air samples do not pass the required clearance criteria, the area shall be re-cleaned and new samples shall be collected. The Contractor shall be responsible for all costs associated with re-sampling and re-analyses.
- **F.** Clearance sampling will be required within glove bag removal areas.

3.13 ASBESTOS AND COMMINGLED WASTE DISPOSAL:

- A. Load-Out Procedures:
 - **1.** Ensure that polyethylene bags are sealed air-tight. All bags shall be wet cleaned prior to removing them from the equipment decontamination unit.
 - 2. Ensure all disposal containers are properly labeled for asbestos (and PCB, if applicable) according to 49 CFR 171-179 (USDOT), 40 CFR 61 Subpart M (NESHAP), and any local and state regulations as required by this specification.
- **B.** Asbestos/PCB Disposal Procedures: It is the responsibility of the Contractor to determine current waste handling, labeling, and transportation and disposal regulations for the work site and for each waste disposal landfill. The Contractor must comply fully with these regulations, local, state, and federal regulations and provide documentation of the same.
- **C.** Filter all wastewater to the technically feasible limit, but not more than five (5) microns before disposal. Comply with all current local, state and federal codes relating to waste water release.
- **D.** Asbestos- or asbestos/PCB-containing waste that is properly labeled and double-bagged may be temporarily stored in areas approved by the Owner. Areas must be made secure before storing the waste. Waste is not to remain in temporary storage area for longer than four (4) days before final load-out of materials.
- E. All asbestos and asbestos/PCB waste shall be double-wrapped prior to transport from the site.
- **F.** All vehicles used to transport hazardous waste must be DOT registered with regulatory agencies and display the proper registration and expiration stickers.
- **G.** Trucks must have an enclosed cargo area with a storage compartment that is fully lined with a minimum of one (1) layer of 6-mil polyethylene on the walls and two (2) layers on the floor.
- **H.** If a debris box is used, the Contractor shall make all necessary arrangement with the Owner including obtaining all appropriate permits.
- I. Contractor is responsible for all coordination with the waste disposal site and with the waste hauling company.

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- J. Debris boxes for hazardous waste shall be fully lined with a double layer of polyethylene sheeting and must be locked at all times when unattended.
- **K.** Debris boxes shall be constructed with minimum 20-gauge steel with no windows or openings other than the door. The door of the container shall have a secure cover on the locking device with access to the lock only at the key-hole. Once a debris box is filled and the manifest is signed, Contractor must transport the debris box off the job site.
- L. Disposal shall be in a landfill that meets EPA requirements. The waste bags shall not be thrown into any landfill in a way that may cause the bags to burst open. If bags cannot be taken out of the drums undamaged, then include the disposal of the drums with the bags. Ensure that bags remain intact during this process.

3.14 FINAL JOB LOG:

- A. A final job log shall be prepared by the Abatement Contractor and presented to the Engineer in a binder before submitting final payment application. The binder shall contain a signed copy of a Final Job Log Checklist. The binder shall also contain a Table of Contents for the final submittals and tabs for each section of the final submittals. All submittals must be first-run copies of the original documents. The job log shall include, but not be limited to, the following:
 - 1. Copies of all applicable permits, notifications, and changes. The original or a legible photocopy of each certified mail return receipt shall be attached to the applicable documents.
 - 2. The Waste Shipment Record and any RCRA documents required for the project.
 - **3.** All employee medical records.
 - 4. All employee training certificates and license or registration certificates.
 - **5.** Visitors sign-in log. Containment sign-in log.
 - **6.** Daily reports, signed by the on-site Supervisor.
 - **7.** Final inspection list.
 - 8. Copies of OSHA compliance air monitoring records conducted during the work.

END OF SECTION

DECONTAMINATION

PART 1 – GENERAL

1.01. SECTION INCLUDES:

- A. Summary
- B. Submittals
- **C.** Decontamination Facilities
- **D.** Vehicle/Equipment Decontamination
- E. Personnel Decontamination
- **F.** Decontamination Methods
- **G.** Management of Decontamination Residuals

1.02. SUMMARY:

A. This section covers the decontamination of personnel and equipment as they move from the Exclusion or Work Zones to Support Zones and off site.

1.03. SUBMITTALS:

- **A.** Prior to mobilization, Contractor shall submit personnel decontamination procedures as part of the Contractor's HASP specified in Specifications Section 01 41 50. Contractor shall provide the following information:
 - **1.** Method to prevent cross contamination from personnel and vehicles.
 - 2. Procedures to prevent cross-contamination of clean areas during remedial activities.
 - **3.** Methods and procedures to minimize worker contact with contaminants during removal of personal protective equipment (PPE).
 - 4. Procedures for inspection and decontamination of vehicles leaving the Site.
 - **5.** Procedures for disposal of personal PPE.
 - 6. Procedures for the collection of all decontamination water and residuals.
 - 7. Procedures for minimizing generation of waste water.
- **B.** Contractor shall prepare and submit Daily Trucking Logs to the Engineer on a daily basis.

1.04. DECONTAMINATION FACILITIES:

- **A.** Contractor shall construct and maintain decontamination facilities for equipment and trucks as described in the Contract Documents and Drawings.
- **B.** Contractor shall construct and maintain decontamination facilities for personnel.

PART 2 – PRODUCTS

Not used.

SECTION 02 06 00 DECONTAMINATION

PART 3 – EXECUTION

3.01 VEHICLE/ EQUIPMENT DECONTAMINATION:

- **A.** Work zones shall be established as specified in the Contractor's HASP.
- **B.** Contractor shall inspect and decontaminate all vehicles and equipment that have entered the Exclusion Zone. All decontamination shall take place in Decontamination Zones.
- **C.** Decontamination of vehicles and equipment shall include removal of soil and residues from the chassis (which includes undercarriage, suspension, wheel wells, tires, and wheels) and other parts of the vehicle known to have been contaminated or visually appearing to be contaminated.
- **D.** Contractor shall take care while decontaminating vehicles to avoid contaminating personnel, other parts of the vehicle or equipment, or the surroundings. Personnel involved in vehicle and equipment decontamination shall be dressed in the appropriate level of PPE as determined by the HASP. All personnel shall follow all applicable safety procedures described in Specifications Section 01 41 50.
- E. Contractor shall decontaminate haul trucks after loading and before the haul trucks exit onto public streets if inspection indicates the presence of contaminants. Contractor shall ensure that haul trucks exit through the Decontamination Zone and receive proper decontamination and inspection.

3.02 PERSONNEL DECONTAMINATION:

A. Contractor shall ensure that personnel who have entered the Exclusion Zone perform decontamination as required in the HASP as specified in Specifications Section 01 41 50 prior to exiting the Decontamination Zone.

3.03 DECONTAMINATION METHODS:

- **A.** Physical decontamination techniques used during truck and equipment decontamination, but are not limited to brushing and spraying with a heated water pressure washer until all visible contamination and debris is removed.
- **B.** Brushing shall consist of removal of loose materials with the use of a broom and/or brushes.
- **C.** A heated water pressure washer shall be used to provide application of water of sufficient temperature, pressure, residence time, and agitation to remove soil and contaminated residuals from surfaces.
- **D.** Surfactants and detergents must be approved by the Engineer prior to use in decontamination operations. Materials which may be detrimental to water treatment, handling, or disposal shall not be allowed.
- **E.** All equipment decontamination procedures shall be performed in a decontamination facility or area.

DECONTAMINATION

- **F.** Overspray barriers shall be provided, if necessary or as directed by the Engineer on each side of the decontamination area to prevent contamination of adjacent areas.
- **G.** Contractor shall manage decontamination residuals, including water, soil, residues, used PPE, and other materials removed during decontamination as specified in paragraph 3.04.

3.04 MANAGEMENT OF DECONTAMINATION RESIDUALS

- **A.** Contractor shall collect decontamination liquids collected during personnel decontamination, truck and equipment decontamination for disposal to onsite storage tanks to be managed by Owner.
- **B.** Contractor shall dewater and collect decontamination solids. Dewatered decontamination solids shall be allowed to air dry in a stockpile pad for future disposal to Owner approved disposal facility. The Contractor will be responsible for loading this material into trucks.
- **C.** Contractor shall manage contaminated PPE as Impacted Material to be sent to an Owner approved disposal facility.

END OF SECTION

SECTION 02 41 16

STRUCTURE DEMOLITION

PART 1 - GENERAL

1.01. SECTION INCLUDES:

- A. Summary
- **B.** Project Conditions
- **C.** Coordination and Scheduling
- **D.** Preparation
- E. Asbestos Abatement and Regulated Waste Removal
- F. Demolition of Structures
- **G.** Materials Handling and Disposal

1.02. SUMMARY:

A. Section includes asbestos abatement, hazardous materials removal and building demolition. Pre-demolition abatement of asbestos, PCBs and Universal Wastes is specified in Section 02 00 00. The hazardous building materials that could not be abated prior to demolition are addressed in this section. Clean, recyclable materials, solid wastes, and non-impacted materials and equipment must not be commingled with other characterized wastes such as asbestos, PCB, and other impacted materials.

1.03. PROJECT CONDITIONS:

- **A.** Work shall comply with applicable regulations provided in Specifications Section 01 41 00.
- **B.** Demolition work shall be performed in a manner that does not disturb or damage existing utilities, or other facilities not indicated to be removed.
- **C.** Public utilities, including water, electrical power, natural gas and communications to the property have been turned off; however, the Contractor is responsible for ensuring that permanent deactivation (cutting and capping) of all utilities connected to the structures targeted for demolition is complete.
- **D.** The approximate locations and dimensions of structures to be removed are indicated in the Drawings.

1.04. SUBMITTALS

- **A.** Contractor shall submit as part of the Technical Execution Plan (see Submittal Procedures 01 33 00) or as a separate document a proposed Sequence of Demolition (see below).
- B. The Contractor shall retain a professional engineer (structural) registered in CT to review the condition of the masonry walls and steel structural components, consider the need for additional lateral support during demolition activities, determine the construction sequence for removal of the specified building sections and proposed method of backfilling safely and with minimum settlement. The plan (Sequence of Demolition) shall be submitted for review by the Engineer.

1.05. COORDINATION AND SCHEDULING:

- **A.** The Work shall be completed in the following sequence:
 - **1.** Secure site and building.

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STRUCTURE DEMOLITION

- 2. Perform asbestos/PCB abatement and regulated waste (e.g., universal waste, oil containers) removal to the extent practical prior to demolition of structural components.
- **3.** Disconnect electrical service and cut and cap other utilities.
- 4. Remove any and all salvageable material
- **5.** Issue Abatement Completion Statement
- 6. Perform building demolition in accordance with accepted Sequence of Demolition
- 7. Stockpile clean masonry debris for use as backfill against eastern basement walls; dispose or recycle other materials off-site
- **8.** Perform Backfill and compaction to grade open areas caused by the removal of structures (i.e. basements, crawl spaces or voids).

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 **PREPARATION**:

- A. Asbestos abatement shall conform to the Unified Facilities Guide Specifications, (UFGS) -13280A, dated November 2001; OSHA; EPA; NESHAP, AHERA, and all state and municipal requirements, (and regulations and documents referenced therein,) as they relate to, but not limited to, notifications, permits, removal, encapsulation, testing, engineering controls, protective materials, personnel health, personnel monitoring, documentation, hauling, dumping, manifests, inspections, and reporting requirements. The contractor shall also conform to the United States Environmental Protection Agency, 20T-2003 c, Managing Asbestos in Place, dated July 1990, as applicable. Detailed asbestos abatement specifications are provided in Specification Section 02 00 00.
- **B.** Contractor shall comply with all applicable regulations for demolition work, including 29 CFR 1910 and 29 CFR 1926 Subpart T Demolition.
- **C.** Contractor shall make the necessary notifications, secure the necessary permits, including City of Ansonia demolition permits, utility permits, and documentation that all utilities associated with the demolition of structures shown on Drawings are permanently deactivated and capped.
- **D.** Contractor shall comply with all applicable regulations for demolition work.
- **E.** Contractor shall demolish and remove the structures as shown in the Drawings and in accordance to the accepted Sequence of Demolition.

3.02 ASBESTOS ABATEMENT AND REGULATED WASTE REMOVAL

A. The Contractor shall remove all asbestos containing material identified in the Asbestos Survey Report provided by AECOM (provided in Specifications Section 02 00 00) in

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STRUCTURE DEMOLITION

accordance with the Asbestos Work Plan provided by the Contractor and approved by the Engineer as described in Specifications Section 01 33 00. The Contractor shall issue an asbestos abatement completion statement when the work is complete (Specifications Section 01 33 00).

- **B.** The Contractor shall transport and dispose of all asbestos containing material at a disposal facility approved by the Engineer prior to beginning the Work.
- **C.** The Contractor is responsible for disconnecting the electrical service to all buildings targeted for demolition.
- **D.** The Contractor shall remove all regulated waste (e.g., universal waste, polychlorinated biphenyls, oil cans, drums, refrigerant) and dispose/recycle these items at facilities approved by the Engineer.

3.03 DEMOLITION OF STRUCTURES:

- **A.** Demolition of Building shall take place as follows:
 - 1. Thoroughly wet structures prior to and during demolition activities as needed to avoid the generation of dust and/or debris emissions. Follow applicable AWP for demolition of asbestos roofing and other ACM not previously abated.
 - 2. Break up roofs, any wood flooring, interior walls, columns, steel structures, and exterior perimeter wall to grade. The existing ground-level concrete slab shall be left in-place. Demolition debris shall be broken or cut into manageable pieces to be removed and stockpiled on site or loaded directly onto trucks. The Contractor shall segregate demolition debris, if necessary, for disposal to the Owner approved disposal facilities as described in Specifications Section 02 81 00 –Transportation and Disposal.
 - **3.** Load broken or cut pieces into trucks or transportable containers for offsite transportation to Owner approved disposal or recycling facility.
 - **4.** The Contractor shall be responsible for any delays or charges from the disposal facilities due to oversize debris.
- **B.** Voids or pits in the concrete slab shall be covered with suitable steel plates or surrounded by barricades to prevent falls as specified by OSHA standards in 29 CFR 1926. Voids or pits shall not be backfilled unless approved by Engineer.

3.04 MATERIALS HANDLING AND DISPOSAL:

- A. Transportation for disposal of removed asbestos materials, steel debris, wood and other materials shall be in accordance with Specifications Section 02 81 00 Transportation and Disposal.
- **B.** If stockpiling is required prior to disposal, demolition materials shall be temporarily stockpiled on-site by the Contractor within areas approved by Engineer.

END OF SECTION

SECTION 02 81 00

TRANSPORTATION AND DISPOSAL

PART 1 – GENERAL

1.01. SECTION INCLUDES:

- A. Summary
- B. Submittals
- **C.** Coordination with Designated Waste Management Facilities
- **D.** Designated Haul Routes
- **E.** Preparation for Transport
- **F.** Hauling of Impacted Materials and Debris
- G. Manifests
- H. Transportation
- I. Permits

1.02. SUMMARY:

- **A.** Section includes transportation of demolition materials, ACM- and PCB-impacted materials, hazardous wastes and impacted and general construction debris to specified waste management facilities.
- **B.** Contractor shall comply with applicable requirements of this Section even if the Transportation and Disposal are provided by others.
- **C.** Contractor shall be solely responsible for proper loading of, and abiding by the load limits and weight limits for all vehicles leaving the Project site, and for any fines, taxes, penalties or judgments resulting from overweight or improperly loaded vehicles.

1.03. SUBMITTALS:

- **A.** Contractor shall provide a list of proposed waste haulers for approval by Engineer. Contractor shall submit copies of all necessary permits and certifications of listed waste haulers to Engineer before commencing the Work.
- **B.** The Contractor shall submit written certification of proper transport of impacted materials and debris to Engineer within one working day after receipt of the documentation. A daily and weekly summary of disposal quantities and types shall be provided to the Engineer. Contractor shall submit copies of all waste manifests, Weigh Tickets, and bills of lading.

1.04. COORDINATION WITH DESIGNATED WASTE MANAGEMENT FACILITIES:

- **A.** The Contractor shall be responsible for coordinating waste shipments with each designated waste management facility.
- **B.** The Contractor shall only ship waste to an Owner-approved waste management facility. Owner-approved waste management facilities are included at the end of this section.
- **C.** The Contractor may propose alternate disposal facilities.
- **D.** The Contractor shall obtain written approval from the Engineer before sending any waste to an off-site disposal facility.

SECTION 02 81 00 TRANSPORTATION AND DISPOSAL

1.05. SHIPPING DOCUMENTATION:

- **A.** Shipping documentation shall be performed consistent with federal, state, and local waste management and transportation requirements and the requirements of off-site disposal facilities.
- **B.** The Contractor shall prepare necessary paperwork for transportation and disposal of all materials to the appropriate waste management facilities.
- **C.** A non-hazardous/hazardous waste manifest or other tracking document shall be provided by the Contractor for each individual load depending on material classification. Each manifest shall be signed by designated authorized agent of the Owner, the truck driver as a transporter, and by the disposal facility operator.
- **D.** The Contractor shall not be paid for shipments with unsigned shipping documentation.
- E. Daily Trucking Log:
 - 1. The Contractor shall provide a Daily Trucking Log to the Engineer for approval providing information on each off-site shipment from the site, including trucking company, truck and trailer registration number, date, pre-characterization source ID, destination facility, estimated quantity, verification of decontamination and Contractor personnel's initials.
 - **2.** The Contractor shall fill in the Daily Trucking Log for each shipment at the time it leaves the Site.
 - **3.** The Contractor shall not be paid for any shipment if there are discrepancies between Daily Trucking Logs and facility weigh tickets until the discrepancy is resolved, as determined by the Engineer.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

3.01 PREPARATION FOR TRANSPORT:

- **A.** Contractor shall coordinate Transportation Work other work activities to maintain production rates for completion of the Work in accordance with the Construction Milestones. Slowing or stopping of work by Contractor for reason of lack of transportation or availability of shipping containers will not be acceptable.
- B. Loading operations and hours shall be coordinated with the operating hours of landfills or other designated off-site facilities. Loading shall be limited to the hours of operations as specified. Any vehicle loaded after disposal hours shall remain parked at the Project Site in a designated area of the Secured Zone until such time as that truck may reasonably proceed to the designated waste management facility. Cover any impacted material in truck beds to control dust and odors. Contractor shall coordinate excavation, demolition,

SECTION 02 81 00

TRANSPORTATION AND DISPOSAL

stockpiling, loading, and transportation, subject to the Engineer's approval, to efficiently utilize combined resources.

C. Contractor's operations shall be coordinated to minimize standby time and minimize truckwaiting time, and to maximize demolition and hauling production. No more than one vehicle waiting with one being loaded will be allowed within the building or in the alley. No truck parking will be allowed on North Main Street or Main Street. Additional trucks may park on East Main Street.

3.02 HAULING OF IMPACTED MATERIALS AND DEBRIS:

- **A.** Contractor shall furnish and operate all vehicles and containers for transportation of impacted materials from the Project Site.
- **B.** The Contractor shall load and transport all categories of impacted materials and debris.
- **C.** Drivers shall drive directly to disposal facility and shall not stop except in the event of an emergency.
- **D.** Transportation of impacted materials and debris shall be in compliance with all pertinent regulations.
- **E.** Each truck bound for the off-site disposal facility shall be covered with a heavy duty tarpaulin secured to the top or sides of the container.
- **F.** Trucks shall be loaded only with materials characterized and approved for off-site disposal or recycling.
- **G.** Loading of trucks shall occur only within the site boundaries.
- **H.** Contractor shall visually inspect each truck before it leaves the Site to ensure that the tailgate and tarpaulin are secure.
- I. Haul trucks shall be decontaminated on site prior to re-use for hauling anything other than material from the Site.
- J. In the event that a loaded truck is involved in an incident that results in a release of the transported materials, the cleanup shall follow local and State Department of Transportation spill response procedures.
- **K.** Contractor shall promptly clean up any spills on haul routes, if they occur, with suitable equipment at no cost to the Project.
- L. Contractor shall keep all haul routes and public rights of way free of any site materials due to the Contractor's operations. To this end, all Contractor trucks shall be covered, and all vehicles shall be carefully loaded to prevent site materials from coming in contact with the exterior truck surfaces.
- M. The load weight shall be documented by the disposal facility scale Weigh Ticket. Contractor shall submit copies of all disposal facility scale Weigh Tickets to the Engineer. Unsigned scale Weigh Tickets will be rejected and the Contractor will not be paid based on these weights.
- **N.** Contractor shall prevent the tracking of site materials onto public rights-of-way.

SECTION 02 81 00

TRANSPORTATION AND DISPOSAL

- **O.** Loaded trucks shall not leave the Site unless they shall arrive at the designated waste management facility before it closes. Loaded trucks shall discharge their loads at the designated waste management facility the same day they are loaded.
- **P.** Truck drivers shall be required to remain inside the truck cab with the windows and doors closed during loading and at all times when inside the Exclusion Zone. Drivers shall be instructed to proceed after loading through a decontamination area to a designated area outside the Exclusion Zone where they will be permitted to exit the truck cab to secure the tarpaulin over the load.
- **Q.** The Contractor shall address vehicular accidents and the possible release of transported materials in the HASP.

3.03 MANIFESTS:

- **A.** The Contractor will prepare and sign manifests, and prepare necessary paperwork for transportation and disposal of impacted materials and debris.
- **B.** A non-hazardous waste manifest or other tracking document will be provided by the Contractor for each individual load. Each manifest shall be signed by designated authorized agent of the Owner, the truck driver as a transporter, and by the waste management facility operator.
- **C.** The Contractor will not be paid for shipments with unsigned manifests.

3.04 TRANSPORTATION:

- **A.** Contractor shall obtain all required transportation permits for shipment of impacted materials and debris.
- **B.** Transportation of impacted materials and debris shall be in accordance with applicable state, RCRA, USDOT, and other applicable regulations including: 40 CFR 261, 262, 263 and 49 CFR 171 through 179.
- **C.** Truck drivers using routes other than the routes listed in the TEP or found upon investigation to be at fault of causing an accident associated with this project will be barred from working on the Site.

3.05 PERMITS:

A. Contractor shall obtain all required transportation permits for shipment of impacted materials and debris.

END OF SECTION