Pre-Demolition Asbestos-Containing Material Survey Report

Tonawanda Coke Site 108
3800 River Road
Tonawanda, New York

CHA Project Number: 35547

Prepared for:
Parsons
301 Plainfield Road
Syracuse, New York 13212

Prepared by:

III Winners Circle
Albany, New York 12205
Phone: (518) 453-4500

January 20, 2020

V:\Projects\ANY\K5\35547\Reports\Draft\Asbestos Survey Report (Revised 1-20-2020).doc

QUALIFICATIONS AND CERTIFICATION STATEMENT

This Pre-Demolition Asbestos-Containing Materials Survey Report was compiled by a qualified environmental scientist who is also an EPA-trained and a NYSDOL certified asbestos building inspector employed by CHA.

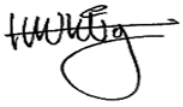
This report has been prepared expressly for the use of the Parsons and Honeywell. No other parties are entitled to rely upon this report unless our express written consent is first obtained. All conclusions drawn were based on CHA's review of available historical data, field inspection and analytical results from sampling performed during the course of this project. Recommendations are submitted based on CHA's knowledge, experience, and professional judgment.

This inspection report shall not solely serve as an asbestos abatement design document for obtaining bids from abatement contractors. It is recommended that specific abatement design documents be prepared in order to specify procedures and protocols that must be observed in order to ensure that abatement activities are completed in a manner consistent with local, state and federal regulations and requirements.

Inspection and Report Completed By:

Scott Rosecrans
Environmental Scientist IV

Report Reviewed By:



Henry Uhlig
Principal Scientist VI

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1.0 INTRODUCTION

CHA performed a Pre-Demolition Asbestos-Containing Material Survey of the pipeline at the Tonawanda Coke Site 108 located at 3800 River Road, Tonawanda, New York. This survey was completed to ensure the proper handling and disposal of all confirmed asbestos-containing materials (ACMs) prior to the demolition project.

2.0 SCOPE OF WORK

2.1 PRE-DEMOLITION ASBESTOS-CONTAINING MATERIALS SURVEY

This Pre-Demolition Asbestos-Containing Material Survey Report was compiled by qualified environmental scientists who are also an Environmental Protection Agency (EPA) trained and New York State Department of Labor (NYSDOL) certified asbestos building inspectors (Scott Rosecrans #00-20439 and John Roche #16-03885) employed by CHA. All work associated with this survey was performed in accordance with applicable federal and state regulations. The inspector recorded, documented material condition, and collected bulk samples of identified suspect asbestos-containing material following the protocols referenced in 40 CFR Part 763.86 Subpart E (AHERA) and following NYSDOH analysis requirements. Abatement recommendations in this report were prepared by a NYSDOL certified asbestos management planner (Henry Uhlig #88-06550). Personnel and laboratory certifications can be found in Appendix A.

2.2 LIMITATIONS

The Pre-Demolition Asbestos-Containing Material Survey was limited to an exterior pipeline that extends from River Road to the Niagara River that will be impacted by a renovation project. In addition, Mr. Tom Wollen of Parsons, requested that CHA collect samples of suspect asbestos-containing roofing associated with the Pump House while CHA was on-site.

CHA noted heavy vegetation immediately below and adjacent to the pipeline between Point B on the Pipeline and Point D, the Niagara River. Parsons cleared two to three locations of vegetation for this asbestos inspection to access the piping rack for sample collection. Also, due to the approximately 5’ of standing water in a Brick Structure where the pipeline originated, this area was inaccessible.

3.0 ASBESTOS-CONTAINING MATERIALS SURVEY

CHA's background research and field observations during the site inspection for suspect ACM's associated with the pipeline and Pump House are discussed below.

3.1 RECORD REVIEW

CHA was provided a Pre-Demolition Building Material Sampling Memorandum for the Tonawanda Site completed by Parsons, dated March 11, 2019. Parsons completed asbestos sampling of the Pump House and piping associated with aboveground storage tanks. The asbestos-containing materials confirmed during this sampling event are summarized in section 4.0 Asbestos-Containing Material Results, Table 4-2. The full report can be found in Appendix E.

3.2 ASBESTOS-CONTAINING MATERIALS SURVEY

CHA performed an Asbestos-Containing Material Survey of the pipeline, Pump House roof, and exterior of a Brick Structure at the Tonawanda Coke Site 108 located at 3800 River Road in Tonawanda, New York. The objective of this survey was to identify and sample all suspect ACMs prior to the renovation project. The following paragraphs detail the observations made and samples collected during the inspection of the pipeline, Pump House roof, and Brick Structure. See Figure 1 for asbestos bulk sample locations and locations of the pipeline, Brick Structure, and Pump House Roof.

All suspect ACMs identified below were quantified by area. Each suspect material was then sampled for asbestos laboratory analysis via the applicable Environmental Laboratory Approval Program (ELAP)-approved method (198.1 friable, 198.4 TEM confirmation, 198.6 non-friable organically bound) at AmeriSci New York.

In order to distinguish separate segments within the Site, CHA designated the following locations on Figure 1:

- Brick Structure – Point A
- Piping Branch near Pump House – Point B
- Pump House – Point C
- Western End of Pipeline – Point D

3.2.1 Brick Structure

The Brick Structure located at designated letter A is adjacent to the access gate and River Road at the east side of the property. The structure has concrete foundation with brick walls and suspect asbestos-containing brick mortar located aboveground. The roof is constructed of corrugated plexiglass.

Two suspect asbestos-containing 4" and 8" diameter pipes with white pre-molded plaster pipe insulation and black bituminous felt pipe insulation wrap were observed within the brick structure. The 4" and 8" diameter pipes with suspect asbestos-containing white pre-molded plaster pipe insulation and black bituminous felt pipe insulation wrap located terminate at the west end of the brick structure and two un-insulated pipes extend along a pipe rack to Point B toward the West side of the site. Approximately 90 linear feet of suspect asbestos-containing pipe insulation was observed within the Brick Structure. It appears the two suspect asbestos-containing insulate pipes continue East of the Brick Structure and pass underground below River Road and extend to the Main Plant.

CHA observed damaged pipe insulation within the Brick Structure. Also, CHA noted approximately 5' of standing water within the brick structure which prevented entry.

3.2.2 Pipeline

The pipeline originates in the Brick Structure which is Point A, east side of the property. CHA observed the two pipes (4" and 8" diameter) with suspect asbestos-containing white pre-molded plaster pipe insulation and black bituminous felt pipe insulation wrap. The pipe rack extends approximately 1,000' West to the Corrugated Metal Building which is designated as Point B. Also, CHA observed suspect asbestos-containing grey asphaltic sealant on the black bituminous pipe felt wrap at the metal hangars between points A and B.

At Point B, two pipes (4" and 8" diameter) with suspect asbestos-containing white pre-molded plaster pipe insulation and black bituminous felt pipe insulation wrap continues West toward the Niagara River designated as Point D. Also, suspect asbestos-containing 12" diameter white pre-molded plaster pipe insulation and 12" diameter black bituminous felt pipe insulation wrap was observed parallel to the 4" and 8" diameter pipes and extends West approximately 360' along a pipe rack and terminates before the Niagara River at Point D.

On the exterior of the Pump House, CHA observed two pipes (8" diameter pipes) with suspect asbestos-containing white job-molded plaster pipe fitting insulation, white pre-molded plaster pipe

insulation, and black bituminous felt pipe insulation wrap that are attached to a pipe rack on the South, East, and West sides of the building. Suspect asbestos-containing 4" diameter pipe with white job-molded plaster pipe fitting insulation, white pre-molded plaster pipe insulation, and black bituminous felt pipe insulation wrap was noted on one pipe (bottom pipe) that is attached to a pipe rack on the south and west side of the Pump House. Also, a suspect asbestos-containing 12" diameter pipe with white job-molded plaster pipe fitting insulation, white pre-molded plaster pipe insulation, and black bituminous felt pipe insulation wrap was observed on one pipe on the west side of the Pump House. The four suspect asbestos-containing pipes extend north along a pipe bridge and connect to the 4", 8", and 12" diameter pipes with suspect asbestos-containing pipes adjacent to the Point B.

3.2.3 Pipe Insulation Debris

Eight areas of suspect asbestos-containing white pipe insulation and/or black felt pipe insulation wrap debris was noted below the pipeline between Points A and B. An overhead wooden walkway covered the two pipes between A and B and suspect asbestos-containing white pipe insulation and black felt wrap were in relatively good condition compared to other areas. Each of the eight debris areas were approximately 100 square feet in area on the ground.

Similar to the pipe run located between Points A and B, CHA observed several areas of suspect asbestos-containing white pipe insulation and/or black felt pipe insulation wrap debris located underneath the two pipe runs between Points B and D. These two pipes were not protected by an overhead walkway and the suspect asbestos-containing white pipe insulation and/or black felt pipe insulation wrap was in poor condition. A majority of white pipe insulation was missing; however, the pipe insulation was not observed on the ground surface. CHA believes the white pipe insulation may have been covered by the vegetation and/or soil. Black felt pipe insulation wrap debris was, however, noted on the ground surface. The area of debris is approximately 360 feet long by 10 feet wide. Also, CHA observed heavy vegetation along the pipeline between the B and D which could prevent observation of the debris.

In addition, suspect asbestos-containing white pipe insulation debris was observed on the ground immediately adjacent to the South, East, and West sides of the Pump House. The area of debris is approximately 36 feet long by 10 feet wide. CHA, observed no asbestos suspect asbestos-containing white pipe insulation debris associated with the pipe bridge between Points B and C.

3.2.4 Pump House Roof

As mentioned in Section 3.1, Parsons completed an asbestos survey of the Pump House in March 2019, however, the roof was inaccessible. As a result, Tom Wollen of Parsons requested that CHA collect samples of the roof from the boom lift provided by Parsons.

CHA observed a multiple layer suspect asbestos-containing asphaltic built-up roof on a concrete deck. In addition, suspect asbestos-containing black sealant and black pitch were noted on a rooftop vent. The suspect asbestos-containing asphaltic built-up roof, black sealant, and black pitch were sampled and analyzed for asbestos.

4.0 ASBESTOS-CONTAINING MATERIAL RESULTS

CHA identified 31 suspect ACMs during the Pre-Demolition Asbestos-Containing Material Survey associated with the pipeline and Pump House Roof and a total of 61 individual bulk samples were collected. Of the 31 suspect ACMs, 29 confirmed ACMs were identified through laboratory analysis. All confirmed ACMs are summarized in Table 4-1 below.

Table 4-1
Asbestos-Containing Material Summary

Material	Locations(s)	Estimated Quantity	Friability/Condition
4-inch White Pre-Molded Plaster Pipe Insulation with Black Bituminous Felt Pipe Insulation Wrap	Within Brick Structure	90 lf	Friable/Poor
8-inch White Pre-Molded Plaster Pipe Insulation with Black Bituminous Felt Pipe Insulation Wrap	Within Brick Structure	90 lf	Friable/Poor
4-inch White Pre-Molded Plaster Pipe Insulation with Black Bituminous Felt Pipe Insulation Wrap	Between A and B	1,000 lf	Friable/Fair
8-inch White Pre-Molded Plaster Pipe Insulation with Black Bituminous Felt Pipe Insulation Wrap	Between A and B	1,000 lf	Friable/ Fair

Two pipes with 8-inch White Job-Molded Plaster Pipe Fitting Insulation	Between B and C	2 x 215 lf = 430 lf	Friable/Poor
Two pipes with 8-inch White Pre-Molded Plaster Pipe Insulation			Friable/Poor
Two pipes with 8-inch Black Bituminous Felt Pipe Insulation Wrap			Non-Friable/Poor
4-inch White Job-Molded Plaster Pipe Fitting Insulation	Between B and C	210 lf	Friable/Poor
4-inch White Pre-Molded Plaster Pipe Insulation			Friable/Poor
4-inch Black Bituminous Felt Pipe Insulation Wrap			Non-Friable/Poor
12-inch White Job-Molded Plaster Pipe Fitting Insulation	Between B and C	175 lf	Friable/Poor
12-inch White Pre-Molded Plaster Pipe Insulation			Friable/Poor
12-inch Black Bituminous Felt Pipe Insulation Wrap			Non-Friable/Poor
4-inch White Pre-Molded Plaster Pipe Insulation with Black Bituminous Felt Pipe Insulation Wrap	Between B and D	360 lf	Friable/Poor
8-inch White Pre-Molded Plaster Pipe Insulation with Black Bituminous Felt Pipe Insulation Wrap	Between B and D	360 lf	Friable/Poor
12-inch White Pre-Molded Plaster Pipe Insulation with Black Bituminous Felt Pipe Insulation Wrap	Between B and D	360 lf	Friable/Poor
Debris- White Pipe Insulation and/or Black Felt Wrap and impacted soils	Between A and B - 65' West of A, 210' West of A, 305' West of A, 356' West of A, 403' West of A, 477' West of A, 621' West of A, 966' West of A	8 locations x 100 sf = 800 sf	Friable/Poor

Debris – White Plaster Pipe Insulation and impacted soils	Between B and D - B to 181' West, 250' to 360' West of B	3,600 sf	Friable/Poor
Debris – Black Bituminous Felt Pipe Insulation Wrap and impacted soils	180' West of B, 265' West B		Non-Friable/Poor
Debris – White Pipe Insulation and impacted soils	West, South, and East Sides of Pump House	360 sf	Friable/Poor
Gray Asphaltic Sealant on Black Bituminous Pipe Felt Paper at Hangar	265' West of B,	110 sf	Non-Friable/Poor
Black Sealant on Top of Vent	Pump House Roof	2 sf	Non-Friable/Poor
Black Pitch on Vent	Pump House Roof	16 sf	Non-Friable/Poor

sf – square feet
lf – linear feet

All bulk samples collected throughout the pipeline and Pump House are summarized in Table B-1 located in Appendix B. Table B-1 lists each bulk sample, the location from which it was collected, and also provides the analytical result for each sample. Table B-1 is not intended to outline all locations within the two areas where ACMs exist. If the asbestos content is greater than 1.0% asbestos by weight the material is considered an ACM. Asbestos analytical results can be found in Appendix C.

Table 4-2
Parsons Asbestos-Containing Material Summary
(Report Can Be Found in Appendix E)

Material	Sample ID	Description / Location	ASBESTOS CONTENT (%)	For ACM only:	
				Condition, Friability	Approx. Quantity
Roofing Materials	Inaccessible - Presumed ACM	Built-up roofing and associated flashing	PACM	Unknown, Non-friable	600 SF
Electric wire insulation	Inaccessible - Presumed ACM	Gray cloth material	PACM	Fair, Friable	Unknown
Gaskets	Inaccessible - Presumed ACM	At pumps and other equipment	PACM	Fair, Non-friable	Unknown
Gray window glazing	HWT-WGZ-1-1	Hard tan / gray material	1.2% Chrysotile	Poor, Non-friable	25 SF
	HWT-WGZ-1-2				

Gray door caulk	HWT-DCK-2-1 HWT-DCK-2-2	Gray, at perimeter of door frames	12% Chrysotile	Poor, Non-friable	12 SF
Gray window caulk	HWT-WCK-3-1 HWT-WCK-3-2	Gray / tan, at perimeter of window frame	8.8% Chrysotile	Poor, Non-friable	14 SF
Pipe insulation on 1" and 2" lines	HWT-PI-4-1 HWT-PI-4-2 HWT-PI-4-3	Black cloth pipe jacket on pipes and fittings, smaller lines (over #5)	1.7% Amosite	Poor, Non-friable	Interior: 35 LF Exterior: 200 LF[a]
Pipe insulation on 1" and 2" lines	HWT-PI-5-1 HWT-PI-5-2 HWT-PI-5-3	White, chalky, fibrous material on smaller lines (under #4)	27% Amosite, Tr. Chrysotile	Poor, Friable	
Fitting insulation on 1" and 2" lines	HWT-FI-6-1 HWT-FI-6-2 HWT-FI-6-3	Gray, mudded material on all lines (under mtl. #4 & #9)	5.6% Chrysotile	Poor, Friable	Interior: 28 each Exterior: 25 each
Pipe insulation on 4" and 8" lines	HWT-PI-7-1 HWT-PI-7-2 HWT-PI-7-3	Thick, black tar-paper-like outer layer over pipe and fitting ins., larger lines (over #8)	15% Chrysotile, 4.9% Amosite	Poor, Non-friable	Interior: 37 LF Exterior: 800 LF[a]
Pipe insulation on 4" and 8" lines	HWT-PI-8-1 HWT-PI-8-2 HWT-PI-8-3	White, chalky, fiberous material, larger lines (under #7)	29% Amosite, Tr. Chrysotile	Poor, Friable	
Fitting insulation on 4" and 8" lines	HWT-FI-9-1 HWT-FI-9-2 HWT-FI-9-3	Black tar-like wrap w/ chicken wire, larger lines (over #6)	13% Chrysotile, 4.3% Amosite	Poor, Non-friable	Interior: 9 each Exterior: 20 each
ACM debris	ACM	Debris from ACM pipe and fitting insulation	ACM	Poor, Friable	Interior: 600 SF Exterior: unknown

Notes:
[a]Exterior quantities based on 150 feet distance between pump house and conveyor area via overheard rack; also 50 feet distance from pump house to tank area.
Condition: Fair is up to 10% localized damage or 25% distributed damage; Poor is >10 or >25%.
Tr. Indicates trace amount, <1%.
Condition, friability, and quantity for inaccessible materials are estimated.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations have been developed in accordance with the scope of work outlined in Section 2.1 of this report. Each conclusion and recommendation are based upon CHA's review of the analytical results and observations made during the inspection of the subject buildings.

- A total of 5 confirmed asbestos-containing materials were identified in association with the Brick Structure, pipeline, and Pump House located at the Tonawanda Coke Site 108, 3800 River Road in Tonawanda, New York by CHA. All confirmed ACMs were identified via the appropriate laboratory analysis. No asbestos was detected in the brick mortar associated with the brick structure (Point A) and no asbestos was detected in the asphaltic built-up roof material associated with the Pump House roof (Point C), however, asbestos-containing black sealant and black pitch are located on a roof top vent.

- A total of 5 confirmed asbestos-containing materials were identified in association with the Pump House by Parsons. Window glazing, window caulk, door caulk, pre-molded plaster pipe insulation and bituminous felt wrap were confirmed via appropriate laboratory analysis. Two (2) presumed asbestos-containing materials were also identified by Parsons, electric wire insulation and pump gaskets.

- CHA recommends that the asbestos-containing pipe fitting insulation, white plaster pipe insulation, and black felt pipe insulation wrap be removed throughout the entire pipeline, including inside and outside the Pump House. Pump House window glazing and caulk, door caulk, wire insulation, gaskets, roof vent sealant and black pitch will need to be addressed as part of any building renovation or demolition project.

- Based on the discovery of the confirmed asbestos-containing debris on the ground surface underneath and adjacent to the pipeline, and immediately adjacent to the Pump House, CHA recommends that the asbestos-containing debris be removed. Based on the heavy vegetation located between Points B and D, additional quantities of asbestos-containing debris are possible. In addition, soil removal will most likely be necessary to completely remove asbestos-containing debris from the ground surface. Given the debris is greater than 10 square feet, a site specific variance will be required from NYSDOL.

- In order to remove the white pipe insulation and black felt wrap within the Brick Structure, approximately 5’ of standing water in the brick structure will require filtering to remove asbestos-containing debris.

- All confirmed and presumed asbestos-containing materials associated with the Brick Structure, pipeline, and Pump House that will be impacted by the demolition project, must be removed prior to any work that would disturb them. All asbestos abatement work must be

performed by a licensed asbestos abatement contractor in accordance with all local, state, and federal regulations.

- If additional suspect materials are discovered during demolition activities, those materials should be assumed to be asbestos-containing and treated as such until they have been sampled by a licensed asbestos building inspector and analyzed for asbestos.

- Per New York State Code Rule 56-5.1(g) Transmittal of Building/Structure Asbestos Survey Information, the completed asbestos survey report shall be immediately transmitted by the owner or their agent to the local government entity charged with issuing a permit for such demolition, renovation, remodeling, or repair work under applicable State or local laws. New York State considers any removal of load bearing structural supports as a demolition activity. The local district office contact information is provided below.

Asbestos Control Bureau – Buffalo District
65 Court Street, Room 405, Buffalo, NY 14202
(716) 847-7601, (716) 847-7126 (FAX)

FIGURE 1

102319JR-16A
102319JR-16B
102319JR-20A
102319JR-13A
102319JR-13B
102319JR-13C
102319JR-14A
102319JR-14B
102319JR-15A
102319JR-15B
102319JR-15C

966' WEST OF RIVER ROAD

102319JR-26A

621' WEST OF RIVER ROAD

102319JR-25A

403' WEST OF RIVER ROAD

356' WEST OF RIVER ROAD

102319JR-27A
102319JR-27B

102319JR-24A

210' WEST OF RIVER ROAD

65' WEST OF RIVER ROAD

102319JR-23A

102319JR-22A

102319JR-21A

102319JR-11A
102319JR-11B
102319JR-11C

102319JR-10A
102319JR-10B
102319JR-10C
102319JR-12A
102319JR-12B

102319JR-19A

102319JR-01A
102319JR-01B
102319JR-01C
102319JR-04A
102319JR-04B
102319JR-04C
102319JR-07A
102319JR-07B
102319JR-07C
102319JR-17A

102319JR-02A
102319JR-02B
102319JR-02C
102319JR-03A
102319JR-03B
102319JR-05A
102319JR-05B
102319JR-05C
102319JR-06A
102319JR-06B
102319JR-08A
102319JR-08B
102319JR-08C

102319JR-09A
102319JR-09B
102319JR-18A

102319JR-28A
102319JR-28B
102319JR-29A
102319JR-29B
102319JR-30A

477' WEST OF RIVER ROAD

305' WEST OF RIVER ROAD

102319JR-31A
102319JR-31B

N

DRAWING IS NOT TO SCALE

LEGEND

ASBESTOS BULK SAMPLE LOCATION ● 102319JR-01A

APPROXIMATE LOCATION OF ASBESTOS-CONTAINING DEBRIS ON GROUND

CHA
III Winners Circle, PO Box 5269
Albany, NY 12205-0269
518.453.4500 • www.chacompanies.com

PRE-RENOVATION ASBESTOS-CONTAINING MATERIALS SURVEY

BULK SAMPLE LOCATION PLAN

TONAWANDA COKE SITE

3800 RIVER ROAD

TONAWANDA, NEW YORK 14151

PROJECT NO. 35547

DATE: 11/15/19

FIGURE 1

APPENDIX A

Personnel and Laboratory Certifications

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

CHA Consulting, Inc.

III Winners Circle

Albany, NY 12205

FILE NUMBER: 11-60318
LICENSE NUMBER: 60318
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 10/03/2019
EXPIRATION DATE: 10/31/2020

Duly Authorized Representative – Seth Fowler:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

HENRY A UHLIG
CLASS(EXPIRES)
C ATEC(03/20) D INSP(03/20)
E MGPL(03/20) H PM (03/20)
I PD (03/20)

CERT# 88-06550
DMV# 711227376

MUST BE CARRIED ON ASBESTOS PROJECTS

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

SCOTT F ROSECRANS
CLASS(EXPIRES)
C ATEC(07/20) D INSP(07/20)
H PM (07/20)

CERT# 00-20439
DMV# 884156968

MUST BE CARRIED ON ASBESTOS PROJECTS

EYES BRO

HAIR BRO

HGT 6' 01"

IF FOUND RETURN TO:

NYSDOL - L&C UNIT

ROOM 161A BUILDING 12

STATE OFFICE CAMPUS

ALBANY NY 12240

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

JOHN P ROCHE JR
CLASS(EXPIRES)
C ATEC(01/20) D INSP(01/20)
H PM (01/20)

CERT# 16-03885
DMV# 162594318

MUST BE CARRIED ON ASBESTOS PROJECTS

01213 00487631226

EYES BLU
HAIR BRO
HGT 5' 10"

IF FOUND RETURN TO:
NYSDOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

NEW YORK STATE OF OPPORTUNITY. | Department of Health

ANDREW M. CUOMO
Governor

HOWARD A. ZUCKER, M.D., J.D.
Commissioner

SALLY DRESLIN, M.S., R.N.
Executive Deputy Commissioner

LAB ID: 11480

April 01, 2019

MR. PAUL J. MUCHA
AMERICA SCIENCE TEAM NEW YORK, INC
117 EAST 30TH ST
NEW YORK, NY 10016

Certificate Expiration Date:
April 01, 2020

Dear Mr. Mucha,

Enclosed are certificate(s) of approval issued to your environmental laboratory for the current permit year. The certificate(s) supersede(s) any previously issued one(s) and is(are) in effect through the expiration date listed. Please carefully examine the certificate(s) to insure that the categories, subcategories, analytes, and methods for which your laboratory is approved are correct. In addition, verify that your laboratory's name, address, lead technical director, and identification number are accurate.

Pursuant to NYCRR Subpart 55-2.2, original certificates must be posted conspicuously in the laboratory and copies shall be made available to any client of the laboratory upon request.

Pursuant to NYCRR Subpart 55-2.6, any misrepresentation of the fields of accreditation (category - method - analyte) for which your laboratory is approved may result in denial, suspension, or revocation of your certification. Any use of the Environmental Laboratory Approval Program (ELAP) or National Environmental Laboratory Accreditation Program (NELAP) name, reference to the laboratory's approval status, and/or using the NELAP logo in any catalogs, advertising, business solicitations, proposals, quotations, laboratory analytical reports, or other materials must include the laboratory's ELAP identification number and distinguish between testing for which the laboratory is approved and testing for which the laboratory is not approved.

If you have any questions, please contact ELAP at the New York State Department of Health (NYS DOH), Wadsworth Center, PO Box 509, Albany NY, 12201-0509; by phone at (518) 485-5570; by facsimile at (518) 485-5568; and by email at elap@health.ny.gov.

Sincerely,

Victoria Pretti

Victoria Pretti
Director and QA Officer
Environmental Laboratory Approval Program

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2020
Issued April 01, 2019

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. PAUL J. MUCHA
AMERICA SCIENCE TEAM NEW YORK, INC
117 EAST 30TH ST
NEW YORK, NY 10016

NY Lab Id No: 11480

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material	Item 198.1 of Manual
	EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	Item 198.4 of Manual

Serial No.: 59674

APPENDIX B

Asbestos Bulk Sample Summary Table B-1

TABLE B-1
ASBESTOS BULK SAMPLE SUMMARY
TONAWANDA COKE SITE
3800 RIVER ROAD
TONAWANDA, NEW YORK

SAMPLE NUMBER	SAMPLE LOCATION	SUSPECT MATERIAL DESCRIPTION	ASBESTOS CONTENT (%)
102319JR-01A	South Side of Pump House	8" White Job-Molded Plaster Pipe Fitting Insulation- 1st Pipe (Top)	2.0% Chrysotile, 5.0% Amosite
102319JR-01B	South Side of Pump House	8" White Job-Molded Plaster Pipe Fitting Insulation- 1st Pipe (Top)	NA/PS
102319JR-01C	South Side of Pump House	8" White Job-Molded Plaster Pipe Fitting Insulation- 1st Pipe (Top)	NA/PS
102319JR-02A	South Side of Pump House	8" White Pre-Molded Plaster Pipe Insulation - 1st Pipe (Top)	12.5% Chrysotile, 4.2% Amosite
102319JR-02B	South Side of Pump House	8" White Pre-Molded Plaster Pipe Insulation - 1st Pipe (Top)	NA/PS
102319JR-02C	South Side of Pump House	8" White Pre-Molded Plaster Pipe Insulation - 1st Pipe (Top)	NA/PS
102319JR-03A	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 1st Pipe (Top)	13.1% Chrysotile
102319JR-03B	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 1st Pipe (Top)	NA/PS
102319JR-04A	South Side of Pump House	8" White Job-Molded Plaster Pipe Fitting Insulation- 2nd Pipe (Middle)	5.0% Chrysotile, 15.0% Amosite
102319JR-04B	South Side of Pump House	8" White Job-Molded Plaster Pipe Fitting Insulation- 2nd Pipe (Middle)	NA/PS
102319JR-04C	South Side of Pump House	8" White Job-Molded Plaster Pipe Fitting Insulation- 2nd Pipe (Middle)	NA/PS
102319JR-05A	South Side of Pump House	8" White Pre-Molded Plaster Pipe Insulation - 2nd Pipe (Middle)	3.3% Chrysotile, 10.0% Amosite
102319JR-05B	South Side of Pump House	8" White Pre-Molded Plaster Pipe Insulation - 2nd Pipe (Middle)	NA/PS
102319JR-05C	South Side of Pump House	8" White Pre-Molded Plaster Pipe Insulation - 2nd Pipe (Middle)	NA/PS
102319JR-06A	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 2nd Pipe (Middle)	6.8% Chrysotile
102319JR-06B	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 2nd Pipe (Bottom)	NA/PS
102319JR-07A	South Side of Pump House	4" White Job-Molded Plaster Pipe Fitting Insulation- 3rd Pipe (Bottom)	2.9% Chrysotile, 8.8% Amosite
102319JR-07B	South Side of Pump House	4" White Job-Molded Plaster Pipe Fitting Insulation- 3rd Pipe (Bottom)	NA/PS
102319JR-07C	South Side of Pump House	4" White Job-Molded Plaster Pipe Fitting Insulation- 3rd Pipe (Bottom)	NA/PS
102319JR-08A	South Side of Pump House	4" White Pre-Molded Plaster Pipe Insulation - 3rd Pipe (Bottom)	2.9% Chrysotile, 8.8% Amosite
102319JR-08B	South Side of Pump House	4" White Pre-Molded Plaster Pipe Insulation - 3rd Pipe (Bottom)	NA/PS
102319JR-08C	South Side of Pump House	4" White Pre-Molded Plaster Pipe Insulation - 3rd Pipe (Bottom)	NA/PS
102319JR-09A	South Side of Pump House	4" Black Bituminous Felt Pipe Insulation Wrap- 3rd Pipe (Bottom)	9.2% Chrysotile
102319JR-09B	South Side of Pump House	4" Black Bituminous Felt Pipe Insulation Wrap- 3rd Pipe (Bottom)	NA/PS

TABLE B-1
ASBESTOS BULK SAMPLE SUMMARY
TONAWANDA COKE SITE
3800 RIVER ROAD
TONAWANDA, NEW YORK

SAMPLE NUMBER	SAMPLE LOCATION	SUSPECT MATERIAL DESCRIPTION	ASBESTOS CONTENT (%)
102319JR-10A	West Side of Pump House	12" White Job-Molded Plaster Pipe Fitting Insulation (4th Pipe)	3.3% Chrysotile, 10.0% Amosite
102319JR-10B	West Side of Pump House	12" White Job-Molded Plaster Pipe Fitting Insulation (4th Pipe)	NA/PS
102319JR-10C	West Side of Pump House	12" White Job-Molded Plaster Pipe Fitting Insulation (4th Pipe)	NA/PS
102319JR-11A	Above Access Road, adjacent to Pump house	12" White Pre-Molded Plaster Pipe Insulation (4th Pipe)	2.0% Chrysotile, 6.3% Amosite
102319JR-11B	Above Access Road, adjacent to Pump house	12" White Pre-Molded Plaster Pipe Insulation (4th Pipe)	NA/PS
102319JR-11C	Above Access Road, adjacent to Pump house	12" White Pre-Molded Plaster Pipe Insulation (4th Pipe)	NA/PS
102319JR-12A	West Side of Pump House	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	12.3% Chrysotile
102319JR-12B	West Side of Pump House	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	NA/PS
102319JR-13A	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) White Pre-Molded Plaster Pipe Insulation	40.0% Chrysotile
102319JR-13B	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) White Pre-Molded Plaster Pipe Insulation	NA/PS
102319JR-13C	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) White Pre-Molded Plaster Pipe Insulation	NA/PS
102319JR-14A	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) Black Bituminous Felt Pipe Insulation Wrap	NAD
102319JR-14B	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) Black Bituminous Felt Pipe Insulation Wrap	NAD
102319JR-15A	Pipe Rack adjacent to Corrugated Metal Building	12" White Pre-Molded Plaster Pipe Insulation	2.8% Chrysotile, 8.3% Amosite
102319JR-15B	Pipe Rack adjacent to Corrugated Metal Building	12" White Pre-Molded Plaster Pipe Insulation	NA/PS
102319JR-15C	Pipe Rack adjacent to Corrugated Metal Building	12" White Pre-Molded Plaster Pipe Insulation	NA/PS
102319JR-16A	Pipe Rack adjacent to Corrugated Metal Building	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	8.8% Chrysotile
102319JR-16B	Pipe Rack adjacent to Corrugated Metal Building	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	NA/PS
102319JR-17A	SW Corner of Pump House	Debris - White Pre-Molded Plaster Pipe Insulation	0.3% Chrysotile, 6.0% Amosite
102319JR-18A	South Side of Pump House (Center)	Debris - White Pre-Molded Plaster Pipe Insulation	2.9% Chrysotile, 8.8% Amosite
102319JR-19A	West Side of Pump House (adjacent to Window)	Debris - White Pre-Molded Plaster Pipe Insulation	3.4% Chrysotile, 10.3% Amosite
102319JR-20A	Pipe Rack (Corrugated Metal Building West to River): (3')	Debris - White Pre-Molded Plaster Pipe Insulation	2.9% Chrysotile, 8.8% Amosite
102319JR-21A	Pipe Rack (Corrugated Metal Building West to River): (111')	Debris - White Pre-Molded Plaster Pipe Insulation	0.3% Chrysotile, 5.0% Amosite
102319JR-22A	Pipe Rack (Corrugated Metal Building West to River): 265' (7' South of Pipe Rack)	Debris - Black Bituminous Felt Pipe Insulation Wrap	10.3% Chrysotile
102319JR-23A	Pipe Rack (Corrugated Metal Building West to River): 322'	Debris - White Pre-Molded Plaster Pipe Insulation	<0.25% Chrysotile, 7.0% Amosite
102319JR-24A	Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 210'	Debris - White Pre-Molded Plaster Pipe Insulation	<0.25% Chrysotile, 8.0% Amosite

TABLE B-1
ASBESTOS BULK SAMPLE SUMMARY
TONAWANDA COKE SITE
3800 RIVER ROAD
TONAWANDA, NEW YORK

SAMPLE NUMBER	SAMPLE LOCATION	SUSPECT MATERIAL DESCRIPTION	ASBESTOS CONTENT (%)
102319JR-25A	**Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 403'**	**Debris - Black Bituminous Felt Pipe Insulation Wrap**	**4.8% Chrysotile**
102319JR-26A	**Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 621'**	**Debris - White Pre-Molded Plaster Pipe Insulation**	**0.5% Chrysotile, 7.0% Amosite**
102319JR-27A	**Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 356'**	**Gray Asphaltic Sealant on Black Bituminous Pipe Felt Paper @ Hanger**	**8.3% Chrysotile**
102319JR-27B	**Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 356'**	**Gray Asphaltic Sealant on Black Bituminous Pipe Felt Paper @ Hanger**	**NA/PS**
102319JR-28A	**Pump House Roof**	**Black Sealant on Top of Vent**	**9.0% Chrysotile**
102319JR-28B	**Pump House Roof**	**Black Sealant on Top of Vent**	**NA/PS**
102319JR-29A	**Pump House Roof**	**Black Pitch on Vent**	**7.1% Chrysotile**
102319JR-29B	**Pump House Roof**	**Black Pitch on Vent**	**NA/PS**
102319JR-30A	Pump House Roof	Built-Up	NAD
102319JR-31A	Brick Structure adjacent to Access Road near Gate: 0'	Brick Mortar	NAD
102319JR-31B	Brick Structure adjacent to Access Road near Gate: 0'	Brick Mortar	NAD

Notes:

NAD = No Asbestos Detected

NA/PS = Not Analyzed/Positive Stop

APPENDIX C

Asbestos Sample Analytical Report

Please Reply To:

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

FACSIMILE TELECOPY TRANSMISSION P. Mecha

To: James Morey
CHA Consulting, Inc.

Fax #:

Email: JMorey@chacompanies.com,srosecrans@chacompanies.com,jroche@chacompanies.com,huhlig@chacompanies.com

From: ~~Bo Sun~~

AmeriSci Job #: 219103859 EE

Subject: ELAP-PLM/TEM 5 day Results

Client Project: 35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108

Date: Wednesday, October 30, 2019

Time: 16:26:32

Comments:

Number of Pages: 22 (including cover sheet)

Amended PLM/TEM

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

PLM Bulk Asbestos Report

CHA Consulting, Inc.
Attn: James Morey
111 Winners Circle

Albany, NY 12205

Date Received 10/25/19 **AmeriSci Job #** 219103859
Date Examined 10/28/19 **P.O. #**
ELAP # 11480 **Page** 1 **of** 11
RE: 35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-01A	219103859-01	*Yes*	7 % [1]
1	**Location:** South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)		(EPA 400 PC) by Bo Sun on 10/28/19
Analyst Description: Brown, Heterogeneous, Fibrous, Cementitious, Bulk Material **Asbestos Types:** Chrysotile 2.0 %, Amosite 5.0 % **Other Material:** Fibrous glass 30 %, Non-fibrous 63 %			
102319JR-01B	219103859-02		NA/PS
1	**Location:** South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-01C	219103859-03		NA/PS
1	**Location:** South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-02A	219103859-04	*Yes*	16.7 %
2	**Location:** South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 12.5 %, Amosite 4.2 % **Other Material:** Non-fibrous 83.3 %			
102319JR-02B	219103859-05		NA/PS
2	**Location:** South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-02C	219103859-06		NA/PS
2	**Location:** South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-03A	219103859-07	***Yes***	13.1 %
3	**Location:** South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 1st Pipe (Top)		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 13.1 % **Other Material:** Non-fibrous 19.7 %			
102319JR-03B	219103859-08		NA/PS
3	**Location:** South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 1st Pipe (Top)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-04A	219103859-09	***Yes***	20 %
4	**Location:** South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 5.0 %, Amosite 15.0 % **Other Material:** Non-fibrous 80 %			
102319JR-04B	219103859-10		NA/PS
4	**Location:** South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-04C	219103859-11		NA/PS
4	**Location:** South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-05A	219103859-12	***Yes***	13.3 %
5	**Location:** South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 3.3 %, Amosite 10.0 % **Other Material:** Non-fibrous 86.7 %			
102319JR-05B	219103859-13		NA/PS
5	**Location:** South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-05C	219103859-14		NA/PS
5	**Location:** South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-06A	219103859-15	***Yes***	6.8 %
6	**Location:** South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 2nd Pipe (Middle)		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 6.8 % **Other Material:** Non-fibrous 17 %			
102319JR-06B	219103859-16		NA/PS
6	**Location:** South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 2nd Pipe (Bottom)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-07A	219103859-17	***Yes***	11.8 %
7	**Location:** South Side Of Pump House - 4" White Job-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.9 %, Amosite 8.8 % **Other Material:** Non-fibrous 88.2 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-07B	219103859-18		NA/PS
7	**Location:** South Side Of Pump House - 4" White Job-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-07C	219103859-19		NA/PS
7	**Location:** South Side Of Pump House - 4" White Job-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-08A	219103859-20	***Yes***	11.8 % (by NYS ELAP 198.1) by Bo Sun on 10/28/19
8	**Location:** South Side Of Pump House - 4" White Pre-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)		
Analyst Description: White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.9 %, Amosite 8.8 % **Other Material:** Non-fibrous 88.2 %			
102319JR-08B	219103859-21		NA/PS
8	**Location:** South Side Of Pump House - 4" White Pre-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-08C	219103859-22		NA/PS
8	**Location:** South Side Of Pump House - 4" White Pre-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-09A	219103859-23	***Yes***	9.2 % (by NYS ELAP 198.6) by Bo Sun on 10/28/19
9	**Location:** South Side Of Pump House - 4" Black Bituminous Felt Pipe Insulation Wrap - 3rd Pipe (Bottom)		
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 9.2 % **Other Material:** Non-fibrous 27.7 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-09B	219103859-24		NA/PS
9	**Location:** South Side Of Pump House - 4" Black Bituminous Felt Pipe Insulation Wrap - 3rd Pipe (Bottom)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-10A	219103859-25	***Yes***	13.3 % (by NYS ELAP 198.1) by Bo Sun on 10/28/19
10	**Location:** South Side Of Pump House - 12" White Job-Molded Plaster Pipe Fitting Insulation - (4th Pipe)		
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 3.3 %, Amosite 10.0 % **Other Material:** Non-fibrous 86.7 %			
102319JR-10B	219103859-26		NA/PS
10	**Location:** South Side Of Pump House - 12" White Job-Molded Plaster Pipe Fitting Insulation - (4th Pipe)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-10C	219103859-27		NA/PS
10	**Location:** South Side Of Pump House - 12" White Job-Molded Plaster Pipe Fitting Insulation - (4th Pipe)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-11A	219103859-28	***Yes***	8.3 % (EPA 400 PC) by Bo Sun on 10/28/19
11	**Location:** Above Access Road, Adjacent To Pump House - 12" White Pre-Molded Plaster Pipe Fitting Insulation - (4th Pipe)		
Analyst Description: White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.0 %, Amosite 6.3 % **Other Material:** Non-fibrous 91.7 %			
102319JR-11B	219103859-29		NA/PS
11	**Location:** Above Access Road, Adjacent To Pump House - 12" White Pre-Molded Plaster Pipe Fitting Insulation - (4th Pipe)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-11C	219103859-30		NA/PS
11	**Location:** Above Access Road, Adjacent To Pump House - 12" White Pre-Molded Plaster Pipe Fitting Insulation - (4th Pipe)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-12A	219103859-31	***Yes***	12.3 %
12	**Location:** West Side Of Pump House - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 12.3 % **Other Material:** Non-fibrous 30.9 %			
102319JR-12B	219103859-32		NA/PS
12	**Location:** West Side Of Pump House - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-13A	219103859-33	***Yes***	40 %
13	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) White Pre-Molded Plaster Pipe Insulation		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Grey, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 40.0 % **Other Material:** Non-fibrous 60 %			
102319JR-13B	219103859-34		NA/PS
13	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) White Pre-Molded Plaster Pipe Insulation		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-13C	219103859-35		NA/PS
13	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) White Pre-Molded Plaster Pipe Insulation		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-14A	219103859-36	***No***	NAD
14	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) Black Bituminous Felt Pipe Insulation Wrap		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 3 %			
102319JR-14B	219103859-37	***No***	NAD
14	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) Black Bituminous Felt Pipe Insulation Wrap		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 2.9 %			
102319JR-15A	219103859-38	***Yes***	11.1 %
15	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 12" White Pre-Molded Plaster Pipe Fitting Insulation		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.8 %, Amosite 8.3 % **Other Material:** Non-fibrous 88.9 %			
102319JR-15B	219103859-39		NA/PS
15	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 12" White Pre-Molded Plaster Pipe Fitting Insulation		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-15C	219103859-40		NA/PS
15	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 12" White Pre-Molded Plaster Pipe Fitting Insulation		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-16A	219103859-41	***Yes***	8.8 %
16	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 8.8 % **Other Material:** Non-fibrous 32.8 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-16B	219103859-42		NA/PS
16	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-17A	219103859-43	***Yes***	6.3 %[2]
	Location: SW Corner Of Pump House - Debris - White Pre-Molded Plaster Pipe Insulation		(EPA 400 PC) by Bo Sun on 10/28/19
Analyst Description: White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 0.3 %, Amosite 6.0 % **Other Material:** Non-fibrous 93.7 %			
102319JR-18A	219103859-44	***Yes***	11.8 %[2]
	Location: South Side Of Pump House (Center) - Debris - White Pre-Molded Plaster Pipe Insulation		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.9 %, Amosite 8.8 % **Other Material:** Non-fibrous 88.2 %			
102319JR-19A	219103859-45	***Yes***	13.8 %[2]
	Location: West Side Of Pump House Adjacent To Window) - Debris - White Pre-Molded Plaster Pipe Insulation		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 3.4 %, Amosite 10.3 % **Other Material:** Non-fibrous 86.2 %			
102319JR-20A	219103859-46	***Yes***	11.8 %[2]
	Location: Pipe Rack (Corrugated Metal Building West To River): (3') - Debris - White Pre-Molded Plaster Pipe Insulation		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.9 %, Amosite 8.8 % **Other Material:** Non-fibrous 88.2 %			
102319JR-21A	219103859-47	***Yes***	5.3 %[2]
	Location: Pipe Rack (Corrugated Metal Building West To River): (111') - Debris - White Pre-Molded Plaster Pipe Insulation		(EPA 400 PC) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 0.3 %, Amosite 5.0 % **Other Material:** Non-fibrous 94.7 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-22A	219103859-48	*Yes*	10.3 % [2] (by NYS ELAP 198.6) by Bo Sun on 10/28/19
Location: Pipe Rack (Corrugated Metal Building West To River): 265' (7' South Of Pipe Rack) - Debris - Black Bituminous Felt Pipe Insulation Wrap			
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 10.3 % **Other Material:** Non-fibrous 25.6 %			
102319JR-23A	219103859-49	*Yes*	7 % [2] (EPA 400 PC) by Bo Sun on 10/28/19
Location: Pipe Rack (Corrugated Metal Building West To River): 322' - Debris - White Pre-Molded Plaster Pipe Insulation			
Analyst Description: White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile <0.25 % pc, Amosite 7.0 % **Other Material:** Non-fibrous 93 %			
102319JR-24A	219103859-50	*Yes*	8 % [2] (EPA 400 PC) by Bo Sun on 10/28/19
Location: Pipe Rack (Corrugated Metal Building West To River): 210' - Debris - White Pre-Molded Plaster Pipe Insulation			
Analyst Description: White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile <0.25 % pc, Amosite 8.0 % **Other Material:** Non-fibrous 92 %			
102319JR-25A	219103859-51	*Yes*	4.8 % [2] (by NYS ELAP 198.6) by Bo Sun on 10/28/19
Location: Pipe Rack (Corrugated Metal Building West To River): 403' - Debris - Black Bituminous Felt Pipe Insulation Wrap			
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 4.8 % **Other Material:** Non-fibrous 17 %			
102319JR-26A	219103859-52	*Yes*	7.5 % [2] (EPA 400 PC) by Bo Sun on 10/28/19
Location: Pipe Rack (Corrugated Metal Building West To River): 621' - Debris - White Pre-Molded Plaster Pipe Insulation			
Analyst Description: White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 0.5 %, Amosite 7.0 % **Other Material:** Non-fibrous 92.5 %			
102319JR-27A 27	219103859-53	*Yes*	8.3 % (by NYS ELAP 198.6) by Bo Sun on 10/28/19
Location: Pipe Rack (Corrugated Metal Building West To River): 356' - Gray Asphaltic Sealant On Black Bituminous Pipe Felt Paper @ Hanger			
Analyst Description: Black/Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 8.3 % **Other Material:** Non-fibrous 33.2 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-27B	219103859-54		NA/PS
27	**Location:** Pipe Rack (Corrugated Metal Building West To River): 356' - Gray Asphaltic Sealant On Black Bituminous Pipe Felt Paper @ Hanger		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-28A	219103859-55	***Yes***	9 %
28	**Location:** Pump House Roof - Black Sealant On Top Of Vent		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 9.0 % **Other Material:** Non-fibrous 13.5 %			
102319JR-28B	219103859-56		NA/PS
28	**Location:** Pump House Roof - Black Sealant On Top Of Vent		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-29A	219103859-57	***Yes***	7.1 %
29	**Location:** Pump House Roof - Black Pitch On Vent		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 7.1 % **Other Material:** Non-fibrous 14.2 %			
102319JR-29B	219103859-58		NA/PS
29	**Location:** Pump House Roof - Black Pitch On Vent		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-30A	219103859-59	***No***	NAD
	Location: Pump House Roof - Built-Up		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 16.5 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-31A	219103859-60	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 10/28/19
Location: Brick Structure Adjacent To Access Road Near Gate: 0' - Brick Mortar			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
102319JR-31B	219103859-61	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 10/28/19
Location: Brick Structure Adjacent To Access Road Near Gate: 0' - Brick Mortar			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

Reporting Notes:

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

(2) Analysis Results For Soil, Dust, Or Debris May Be Highly Variable Because Of The Heterogeneous Nature Of These Samples

Analyzed by: Bo Sun

*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 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

Table I
Summary of Bulk Asbestos Analysis Results

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
01	102319JR-01A	1	----	----	----	----	Chrysotile 2.0	NA
Location:	South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)						Amosite 5.0	
02	102319JR-01B	1	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)							
03	102319JR-01C	1	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)							
04	102319JR-02A	2	----	----	----	----	Chrysotile 12.5	NA
Location:	South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)						Amosite 4.2	
05	102319JR-02B	2	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)							
06	102319JR-02C	2	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)							
07	102319JR-03A	3	0.320	59.7	7.5	19.7	Chrysotile 13.1	NA
Location:	South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 1st Pipe (Top)							
08	102319JR-03B	3	0.283	59.7	6.0	34.3	NA/PS	NA
Location:	South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 1st Pipe (Top)							
09	102319JR-04A	4	----	----	----	----	Chrysotile 5.0	NA
Location:	South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)						Amosite 15.0	
10	102319JR-04B	4	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)							
11	102319JR-04C	4	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)							
12	102319JR-05A	5	----	----	----	----	Chrysotile 3.3	NA
Location:	South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)						Amosite 10.0	
13	102319JR-05B	5	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)							
14	102319JR-05C	5	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)							
15	102319JR-06A	6	0.281	73.7	2.5	17.0	Chrysotile 6.8	NA
Location:	South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 2nd Pipe (Middle)							
16	102319JR-06B	6	0.227	74.0	1.8	24.2	NA/PS	NA
Location:	South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 2nd Pipe (Bottom)							

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
17	102319JR-07A	7	----	----	----	----	Chrysotile 2.9	NA
Location:	South Side Of Pump House - 4" White Job-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)						Amosite 8.8	
18	102319JR-07B	7	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 4" White Job-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)							
19	102319JR-07C	7	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 4" White Job-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)							
20	102319JR-08A	8	----	----	----	----	Chrysotile 2.9	NA
Location:	South Side Of Pump House - 4" White Pre-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)						Amosite 8.8	
21	102319JR-08B	8	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 4" White Pre-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)							
22	102319JR-08C	8	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 4" White Pre-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)							
23	102319JR-09A	9	0.396	54.8	8.3	27.7	Chrysotile 9.2	NA
Location:	South Side Of Pump House - 4" Black Bituminous Felt Pipe Insulation Wrap - 3rd Pipe (Bottom)							
24	102319JR-09B	9	0.426	52.3	9.9	37.8	NA/PS	NA
Location:	South Side Of Pump House - 4" Black Bituminous Felt Pipe Insulation Wrap - 3rd Pipe (Bottom)							
25	102319JR-10A	10	----	----	----	----	Chrysotile 3.3	NA
Location:	South Side Of Pump House - 12" White Job-Molded Plaster Pipe Fitting Insulation - (4th Pipe)						Amosite 10.0	
26	102319JR-10B	10	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 12" White Job-Molded Plaster Pipe Fitting Insulation - (4th Pipe)							
27	102319JR-10C	10	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 12" White Job-Molded Plaster Pipe Fitting Insulation - (4th Pipe)							
28	102319JR-11A	11	----	----	----	----	Chrysotile 2.0	NA
Location:	Above Access Road, Adjacent To Pump House - 12" White Pre-Molded Plaster Pipe Fitting Insulation - (4th Pipe)						Amosite 6.3	
29	102319JR-11B	11	----	----	----	----	NA/PS	NA
Location:	Above Access Road, Adjacent To Pump House - 12" White Pre-Molded Plaster Pipe Fitting Insulation - (4th Pipe)							
30	102319JR-11C	11	----	----	----	----	NA/PS	NA
Location:	Above Access Road, Adjacent To Pump House - 12" White Pre-Molded Plaster Pipe Fitting Insulation - (4th Pipe)							
31	102319JR-12A	12	0.285	54.4	2.5	30.9	Chrysotile 12.3	NA
Location:	West Side Of Pump House - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)							
32	102319JR-12B	12	0.485	60.0	7.8	32.2	NA/PS	NA
Location:	West Side Of Pump House - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)							

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results
35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
33	102319JR-13A	13	----	----	----	----	Chrysotile 40.0	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) White Pre-Molded Plaster Pipe Insulation							
34	102319JR-13B	13	----	----	----	----	NA/PS	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) White Pre-Molded Plaster Pipe Insulation							
35	102319JR-13C	13	----	----	----	----	NA/PS	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) White Pre-Molded Plaster Pipe Insulation							
36	102319JR-14A	14	0.266	98.9	-1.9	3.0	NAD	NAD
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) Black Bituminous Felt Pipe Insulation Wrap							
37	102319JR-14B	14	0.209	97.1	0.0	2.9	NAD	NAD
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) Black Bituminous Felt Pipe Insulation Wrap							
38	102319JR-15A	15	----	----	----	----	Chrysotile 2.8	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 12" White Pre-Molded Plaster Pipe Fitting Insulation						Amosite 8.3	
39	102319JR-15B	15	----	----	----	----	NA/PS	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 12" White Pre-Molded Plaster Pipe Fitting Insulation							
40	102319JR-15C	15	----	----	----	----	NA/PS	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 12" White Pre-Molded Plaster Pipe Fitting Insulation							
41	102319JR-16A	16	0.269	49.1	9.3	32.8	Chrysotile 8.8	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)							
42	102319JR-16B	16	0.357	49.9	10.1	40.1	NA/PS	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)							
43	102319JR-17A		----	----	----	----	Chrysotile 0.3	NA
Location:	SW Corner Of Pump House - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 6.0	
44	102319JR-18A		----	----	----	----	Chrysotile 2.9	NA
Location:	South Side Of Pump House (Center) - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 8.8	
45	102319JR-19A		----	----	----	----	Chrysotile 3.4	NA
Location:	West Side Of Pump House Adjacent To Window) - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 10.3	
46	102319JR-20A		----	----	----	----	Chrysotile 2.9	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): (3') - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 8.8	
47	102319JR-21A		----	----	----	----	Chrysotile 0.3	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): (111') - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 5.0	
48	102319JR-22A		0.320	56.9	7.2	25.6	Chrysotile 10.3	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): 265' (7' South Of Pipe Rack) - Debris - Black Bituminous Felt Pipe Insulation Wrap							

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
49	102319JR-23A		----	----	----	----	Chrysotile <0.25	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): 322' - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 7.0	
50	102319JR-24A		----	----	----	----	Chrysotile <0.25	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): 210' - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 8.0	
51	102319JR-25A		0.362	76.0	2.2	17.0	Chrysotile 4.8	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): 403' - Debris - Black Bituminous Felt Pipe Insulation Wrap							
52	102319JR-26A		----	----	----	----	Chrysotile 0.5	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): 621' - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 7.0	
53	102319JR-27A	27	0.422	55.7	2.8	33.2	Chrysotile 8.3	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): 356' - Gray Asphaltic Sealant On Black Bituminous Pipe Felt Paper @ Hanger							
54	102319JR-27B	27	0.582	53.3	4.1	42.6	NA/PS	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): 356' - Gray Asphaltic Sealant On Black Bituminous Pipe Felt Paper @ Hanger							
55	102319JR-28A	28	0.289	49.5	28.0	13.5	Chrysotile 9.0	NA
Location:	Pump House Roof - Black Sealant On Top Of Vent							
56	102319JR-28B	28	0.333	53.5	26.1	20.4	NA/PS	NA
Location:	Pump House Roof - Black Sealant On Top Of Vent							
57	102319JR-29A	29	0.348	53.2	25.6	14.2	Chrysotile 7.1	NA
Location:	Pump House Roof - Black Pitch On Vent							
58	102319JR-29B	29	0.275	48.7	27.6	23.6	NA/PS	NA
Location:	Pump House Roof - Black Pitch On Vent							
59	102319JR-30A		0.322	73.0	10.6	16.5	NAD	NAD
Location:	Pump House Roof - Built-Up							
60	102319JR-31A		----	----	----	----	NAD	NA
Location:	Brick Structure Adjacent To Access Road Near Gate: 0' - Brick Mortar							
61	102319JR-31B		----	----	----	----	NAD	NA
Location:	Brick Structure Adjacent To Access Road Near Gate: 0' - Brick Mortar							

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM

Analyzed by: Marik Peysakhov; Date Analyzed 10/29/2019

**Quantitative Analysis (Semi/Full); Bulk Asbestos Analysis - PLM by Appd E to Subpt E, 40 CFR 763 or ELAP 198.1 for New York friable samples or ELAP 198.6 for New York NOB samples; TEM (Semi/Full) by EPA 600/R-93/116 (or ELAP 198.4; for New York samples; NAD = no asbestos detected during a quantitative analysis; NA = not analyzed; Trace = <1%; (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only; Qualitative Analysis: Asbestos analysis results of "Present" or "NVA = No Visible Asbestos" represents results for Qualitative PLM or TEM Analysis only (no accreditation coverage available from any regulatory agency for qualitative analyses): NVLAP (PLM) 200546-0, NYSDOH ELAP Lab 11480, AIHA-LAP, LLC (PLM) Lab ID 102843.

Warning Note: PLM limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris for which PLM evaluation is recommended (i.e. soils and other heterogenous materials).

Reviewed By:

Relinquished By: _____ Date/Time: 10/24/19 1600

Received By: _____ Date/Time: 10/25/19 945

Relinquished By: _____ Date/Time:

Received By: _____ Date/Time:

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Fax Results? Y Fax #:

Email Results? Y Email: JRoche@Chacompanies.com

Results to: John Roche, Henry Uhlig, Scott Rosecrans

Project: ACM Survey – Tonawanda Coke

Proj Mgr: Henry Uhlig Proj #: 35547

Proj Address: 3800 River Rd - Tonawanda Proj State: NY

Analysis: X PLM; X Positive Stop; X TEM; X NY ELAP PLM/TEM w/ NOB Prep.

ASTM Dust ☐ (Microvac) ☐ (Wipe); ☐ Qualitative; ☐ NY ELAP 198.8 Vermiculite

Turnaround Time: 5 Day Material Type: X Bulk ☐ Dust ☐ Water

Sampled By: John Roche/Scott Rosecrans Date Sampled: 10/23/19

Special Instructions or Comments: Tonawanda Coke Corp. – Site 108

- Please ADD "102319JR-" to ALL Field IDs

Lab ID	Field ID	Location	Sample Description (dust area)	Homogenous Area
	01A	South Side of Pump House	8" White Job-molded Plaster Pipe Fitting Insulation- 1st Pipe (Top)	+ Stop
	01B	South Side of Pump House	8" White Job-molded Plaster Pipe Fitting Insulation- 1st Pipe (Top)	
	01C	South Side of Pump House	8" White Job-molded Plaster Pipe Fitting Insulation- 1st Pipe (Top)	
	02A	South Side of Pump House	8" White Pre-molded Plaster Pipe Insulation - 1st Pipe (Top)	
	02B	South Side of Pump House	8" White Pre-molded Plaster Pipe Insulation - 1st Pipe (Top)	
	02C	South Side of Pump House	8" White Pre-molded Plaster Pipe Insulation - 1st Pipe (Top)	
	03A	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 1st Pipe (Top)	
	03B	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 1st Pipe (Top)	
	04A	South Side of Pump House	8" White Job-molded Plaster Pipe Fitting Insulation- 2nd Pipe (Middle)	+ Stop
	04B	South Side of Pump House	8" White Job-molded Plaster Pipe Fitting Insulation- 2nd Pipe (Middle)	
	04C	South Side of Pump House	8" White Job-molded Plaster Pipe Fitting Insulation- 2nd Pipe (Middle)	
	05A	South Side of Pump House	8" White Pre-molded Plaster Pipe Insulation - 2nd Pipe (Middle)	
	05B	South Side of Pump House	8" White Pre-molded Plaster Pipe Insulation - 2nd Pipe (Middle)	
	05C	South Side of Pump House	8" White Pre-molded Plaster Pipe Insulation - 2nd Pipe (Middle)	
	06A	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 2nd Pipe (Middle)	
	06B	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 2nd Pipe (Bottom)	

Relinquished By: _____ Date/Time: 10-24-19 1600

Received By: _____ Date/Time: 10/25/19945

Relinquished By: _____ Date/Time:

Received By: _____ Date/Time:

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BULK CHAIN OF CUSTODY

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FAX: (212) 679-9392

Company: CHA Consulting, Inc.

Street Address: 3 Winners Circle

City: Albany State: NY Zip: 12205

Phone: Cell: (518) 598-6689

Fax Results? Y ☐ Fax #:

Email Results? Y ☒ Email: JRoche@Chacompanies.com

Results to: John Roche, Henry Uhlig, Scott Rosecrans

AMERISCI #: #219103859

Project: ACM Survey – Tonawanda Coke

Proj Mgr: Henry Uhlig Proj #: 35547

Proj Address: 3800 River Rd - Tonawanda Proj State: NY

Analysis: ☒ PLM; ☒ Positive Stop; ☒ TEM; ☒ NY ELAP PLM/TEM w/ NOB Prep.

ASTM Dust ☐ (Microvac) ☐ (Wipe); ☐ Qualitative; ☐ NY ELAP 198.8 Vermiculite

Turnaround Time: 5 Day Material Type: ☒ Bulk ☐ Dust ☐ Water

Sampled By: John Roche/Scott Rosecrans Date Sampled: 10/23/19

Special Instructions or Comments: Tonawanda Coke Corp. – Site 108

- Please ADD "102319JR-" to ALL Field IDs

Lab ID	Field ID	Location	Sample Description (dust area)	Homogenous Area
	07A	South Side of Pump House	4" White Job-molded Plaster Pipe Fitting Insulation- 3rd Pipe (Bottom)	+ Stop
	07B	South Side of Pump House	4" White Job-molded Plaster Pipe Fitting Insulation- 3rd Pipe (Bottom)	
	07C	South Side of Pump House	4" White Job-molded Plaster Pipe Fitting Insulation- 3rd Pipe (Bottom)	
	08A	South Side of Pump House	4" White Pre-molded Plaster Pipe Insulation - 3rd Pipe (Bottom)	
	08B	South Side of Pump House	4" White Pre-molded Plaster Pipe Insulation - 3rd Pipe (Bottom)	
	08C	South Side of Pump House	4" White Pre-molded Plaster Pipe Insulation - 3rd Pipe (Bottom)	
	09A	South Side of Pump House	4" Black Bituminous Felt Pipe Insulation Wrap- 3rd Pipe (Bottom)	
	09B	South Side of Pump House	4" Black Bituminous Felt Pipe Insulation Wrap- 3rd Pipe (Bottom)	
	10A	West Side of Pump House	12" White Job-Molded Plaster Pipe Fitting Insulation (4th Pipe)	+ Stop
	10B	West Side of Pump House	12" White Job-Molded Plaster Pipe Fitting Insulation (4th Pipe)	
	10C	West Side of Pump House	12" White Job-Molded Plaster Pipe Fitting Insulation (4th Pipe)	
	11A	Above Access Road, adjacent to Pump house	12" White Pre-molded Plaster Pipe Insulation (4th Pipe)	
	11B	Above Access Road, adjacent to Pump house	12" White Pre-molded Plaster Pipe Insulation (4th Pipe)	
	11C	Above Access Road, adjacent to Pump house	12" White Pre-molded Plaster Pipe Insulation (4th Pipe)	
	12A	West Side of Pump House	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	
	12B	West Side of Pump House	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	

Relinquished By: _____ Date/Time: 10-24-19 1600

Received By: _____ Date/Time: 10/25/19 945

Relinquished By: _____ Date/Time:

Received By: _____ Date/Time:

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Company: CHA Consulting, Inc.

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City: Albany State: NY Zip: 12205

Phone: Cell: (518) 598-6689

Fax Results? Y Fax #:

Email Results? Y ☒ Email: JRoche@Chacompanies.com

Results to: John Roche, Henry Uhlig, Scott Rosecrans

AmeriSci #: #219103859

Project: ACM Survey – Tonawanda Coke

Proj Mgr: Henry Uhlig Proj #: 35547

Proj Address: 3800 River Rd - Tonawanda Proj State: NY

Analysis: ☒ PLM; ☒ Positive Stop; ☒ TEM; ☒ NY ELAP PLM/TEM w/ NOB Prep.

☐ ASTM Dust ☐ (Microvac) ☐ (Wipe); ☐ Qualitative; ☐ NY ELAP 198.8 Vermiculite

Turnaround Time: 5 Day Material Type: ☒ Bulk ☐ Dust ☐ Water

Sampled By: John Roche/Scott Rosecrans Date Sampled: 10/23/19

Special Instructions or Comments: Tonawanda Coke Corp. – Site 108

- Please ADD "102319JR-" to ALL Field IDs

Lab ID	Field ID	Location	Sample Description (dust area)	Homogenous Area
	13A	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) White Pre-molded Plaster Pipe Insulation	+ Stop
	13B	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) White Pre-molded Plaster Pipe Insulation	
	13C	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) White Pre-molded Plaster Pipe Insulation	
	14A	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) Black Bituminous Felt Pipe Insulation Wrap	
	14B	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) Black Bituminous Felt Pipe Insulation Wrap	
	15A	Pipe Rack adjacent to Corrugated Metal Building	12" White Pre-molded Plaster Pipe Insulation	+ Stop
	15B	Pipe Rack adjacent to Corrugated Metal Building	12" White Pre-molded Plaster Pipe Insulation	
	15C	Pipe Rack adjacent to Corrugated Metal Building	12" White Pre-molded Plaster Pipe Insulation	
	16A	Pipe Rack adjacent to Corrugated Metal Building	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	
	16B	Pipe Rack adjacent to Corrugated Metal Building	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	
	17A	SW Corner of Pump House	Debris - White Pre-molded Plaster Pipe Insulation	
	18A	South Side of Pump House (Center)	Debris - White Pre-molded Plaster Pipe Insulation	
	19A	West Side of Pump House (adjacent to Window)	Debris - White Pre-molded Plaster Pipe Insulation	
	20A	Pipe Rack (Corrugated Metal Building West to River): (3')	Debris - White Pre-molded Plaster Pipe Insulation	
	21A	Pipe Rack (Corrugated Metal Building West to River): (111')	Debris - White Pre-molded Plaster Pipe Insulation	
	22A	Pipe Rack (Corrugated Metal Building West to River): 265' (7' South of Pipe Rack)	Debris - Black Bituminous Felt Pipe Insulation Wrap	
	23A	Pipe Rack (Corrugated Metal Building West to River): 322'	Debris - White Pre-molded Plaster Pipe Insulation	

Relinquished By: _____ Date/Time: 10-24-19 1600

Received By: _____ Date/Time: 10/25/19 945

Relinquished By: _____ Date/Time:

Received By: _____ Date/Time:

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☐ ASTM Dust ☐ (Microvac) ☐ (Wipe); ☐ Qualitative; ☐ NY ELAP 198.8 Vermiculite

Turnaround Time: 5 Day Material Type: ☒ Bulk ☐ Dust ☐ Water

Sampled By: John Roche/Scott Rosecrans Date Sampled: 10/23/19

Special Instructions or Comments: Tonawanda Coke Corp. – Site 108

- Please ADD "102319JR-" to ALL Field IDs

Lab ID	Field ID	Location	Sample Description (dust area)	Homogenous Area
	24A	Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 210'	Debris - White Pre-molded Plaster Pipe Insulation	
	25A	Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 403'	Debris - Black Bituminous Felt Pipe Insulation Wrap	
	26A	Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 621'	Debris - White Pre-molded Plaster Pipe Insulation	
	27A	Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 356'	Gray Asphaltic Sealant on Black Bituminous Pipe Felt paper @ Hanger	+ Stop ↓
	27B	Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 356'	Gray Asphaltic Sealant on Black Bituminous Pipe Felt paper @ Hanger	
	28A	Pump House Roof	Black Sealant on Top of Vent	+ Stop ↓
	28B	Pump House Roof	Black Sealant on Top of Vent	
	29A	Pump House Roof	Black Pitch on Vent	+ Stop ↓
	29B	Pump House Roof	Black Pitch on Vent	
	30A	Pump House Roof	Built-Up	
	31A	Brick Structure adjacent to Access Road near Gate: 0'	Brick Mortar	
	31B	Brick Structure adjacent to Access Road near Gate: 0'	Brick Mortar	

AmeriSci New York	**Report Amendment Explanation Form (append to amended report)**	Date Amended 10/30/19

Client: CHA

AmeriSci Job # 219103859

Client Job: 3800 River Rd. - Tonawanda, NY - Site 108

Analysis Type: EPT

AmeriSci Sample #'s affected: 219103859-01 thru 219103859-61

Amended By (print/sign): Paul J. Mucha

Original Item: Sample Pre-fix 102319JR was not entered before Field ID#'s.

Amended Item: Entered Sample Prefixes for all sample in job as well as added Site 108 to Job Site from COC.

Explanation: Sample Pre-fix 102319JR was not entered before Field ID#'s. Entered Sample Prefixes for all sample in job as well as added Site 108 to Job Site from COC. Amended the report and re-issued to client.

Attach original sheet with incorrect item or items to be amended clearly indicated or circled.

APPENDIX D

Photograph Log

Photo 1 – Typical pipe insulation with overhead protection between Points A and B

Photo 2 – Typical pipe insulation with overhead protection between Points A and B

Photo 3 – Typical pipe insulation between Points B and C

Photo 4 – Typical pipe insulation debris adjacent to Pump House

Photo 5 – Typical pipe insulation between Points B and D

Photo 6 – Typical pipe insulation debris between Points B and D

Photo 7 - Typical pipe insulation debris between Points B and D

Photo 8 - Typical pipe insulation debris between Points B and D

Photo 9 – Heavy vegetation between Points B and D

Photo 10 – Heavy vegetation between Points B and D

APPENDIX E

Parsons Pre-Demolition Building Material Sampling Memorandum

PARSONS

301 Plainfield Road, Suite 350 – Syracuse, New York 13212 – (315) 451-9560 – www.parsons.com

PRE-DEMOLITION BUILDING MATERIAL SAMPLING MEMORANDUM

March 11, 2019

TO: HONEYWELL TONAWANDA SITE

FROM: DAN DOUGLASS, Senior Scientist

SUBJECT: SAMPLING FOR ASBESTOS CONTENT IN BUILDING MATERIALS

Parsons conducted an asbestos survey of the small masonry pump house and piping associated with the aboveground storage tanks at Tonawanda Coke Corporation Site 108, 3800 River Road in the Town of Tonawanda, New York. The survey took place on February 28, 2019, by a NYSDOL-certified Asbestos Building Inspector.

The survey was completed in accordance with local, state and federal regulations, and conforms to sampling protocol detailed in the Asbestos Hazard Emergency Response Act (AHERA). Representative bulk samples of suspect-ACM were collected randomly from homogeneous surfaces. The number of samples collected was determined by the type and quantity of the material.

Laboratory services were provided by HSE Consulting Services, LLC, of Cicero, New York. HSE is accredited by the New York State Environmental Laboratory Approval Program (ELAP). Sample analysis was conducted using Polarized Light Microscopy with dispersion staining (PLM-DS) in accordance with the New York State ELAP 198.1 Method. Any building material that contains greater than one percent of asbestos is considered to be an ACM.

The pump house is a masonry block structure with a flat roof that appears to have been built in the 1940s or 1950s and is approximately 600 square feet. The building has a concrete floor and concrete panels on the ceiling. Nine suspect materials were sampled; each of the materials is considered ACM. Three additional materials were inaccessible and are Presumed ACM (PACM).

Building materials and pipe insulation determined to contain asbestos are:

- Gray window glazing found on windows; much of the material is cracked or broken and is in poor condition.

- Gray caulking on door and window frames – two similar, but separate materials, found around the perimeter of the metal door frames and the metal window frames. Materials are in poor condition.

- Pipe and fitting insulation – all pipe and fitting insulation at the building contains asbestos. Two types of black outer wrap / jacketing are ACM, as is the white, chalky, fibrous block insulation beneath the black covering. Gray, mudded fitting insulation is also ACM. ACM insulation is found on pipe sizes including 1-inch, 4-inch and 8-inch diameter lines, inside and outside the building. These materials are in poor condition.

- Debris of pipe and fitting insulation covered many surfaces in the building. Snow, ice and clutter prevented observation of the entire floor space, but ACM debris is estimated to be present on all interior surfaces; ACM debris may be present at the exterior but exterior surfaces were inaccessible under a covering of snow.

- Roofing and flashing materials are considered PACM. The roof was inaccessible on the day of the survey. It is believed to be constructed of built-up materials.

- Electric wire insulation was not sampled due to potential electrical hazard and is PACM.

- Gasket material is present on pumps and other equipment in the building. Gasket material was not accessible and any gasket at the building is PACM.

Materials that are considered non-suspect and were not sampled include brick, plastic and wood, in addition to other materials. Survey results are summarized on the following table; exterior quantities include piping at the exterior of the pump house, into the tank area to the south and on the overhead rack to the conveyor area to the northwest:

Material	Sample ID	Description / Location	Asbestos Content	For ACM only:	
				Condition, Friability	Approx. Quantity
Roofing materials	Inaccessible - presumed ACM	Built-up roofing and associated flashing	PACM	Unknown, Non-friable	600 SF
Electric wire insulation	Inaccessible - presumed ACM	Gray cloth material	PACM	Fair, Friable	Unknown
Gaskets	Inaccessible - presumed ACM	At pumps and other equipment	PACM	Fair, Non-friable	Unknown
Gray window glazing	HWT-WGZ-1-1 HWT-WGZ-1-2	Hard tan / gray material	1.2% Chrysotile	Poor, Non-friable	25 SF
Gray door caulk	HWT-DCK-2-1 HWT-DCK-2-2	Gray, at perimeter of door frames	12% Chrysotile	Poor, Non-friable	12 SF
Gray window caulk	HWT-WCK-3-1 HWT-WCK-3-2	Gray / tan, at perimeter of window frame	8.8% Chrysotile	Poor, Non-friable	14 SF
Pipe insulation on 1” and 2” lines	HWT-PI-4-1 HWT-PI-4-2 HWT-PI-4-3	Black cloth pipe jacket on pipes and fittings, smaller lines (over #5)	1.7% Amosite	Poor, Non-friable	Interior: 35 LF Exterior: 200 LF[a]
Pipe insulation on 1” and 2” lines	HWT-PI-5-1 HWT-PI-5-2 HWT-PI-5-3	White, chalky, fibrous material on smaller lines (under #4)	27% Amosite, Tr. Chrysotile	Poor, Friable	
Fitting insulation on 1” and 2” lines	HWT-FI-6-1 HWT-FI-6-2 HWT-FI-6-3	Gray, mudded material on all lines (under mtl. # 4 & #9)	5.6% Chrysotile	Poor, Friable	Interior: 28 each Exterior: 25 each
Pipe insulation on 4” and 8” lines	HWT-PI-7-1 HWT-PI-7-2 HWT-PI-7-3	Thick, black tar-paper-like outer layer over pipe and fitting ins., larger lines (over #8)	15% Chrysotile, 4.9% Amosite	Poor, Non-friable	Interior: 37 LF Exterior: 800 LF[a]
Pipe insulation on 4” and 8” lines	HWT-PI-8-1 HWT-PI-8-2 HWT-PI-8-3	White, chalky, fibrous material, larger lines (under #7)	29% Amosite, Tr. Chrysotile	Poor, Friable	
Fitting insulation on 4” and 8” lines	HWT-FI-9-1 HWT-FI-9-2 HWT-FI-9-3	Black tar-like wrap w/ chicken wire, larger lines (over #6)	13% Chrysotile, 4.3% Amosite	Poor, Non-friable	Interior: 9 each Exterior: 20 each
ACM debris	ACM	Debris from ACM pipe and fitting insulation	ACM	Poor, Friable	Interior: 600 SF Exterior: unknown

[a] Exterior quantities based on 150 feet distance between pump house and conveyor area via overhead rack; also 50 feet distance from pump house to tank area.
Condition: Fair is up to 10% localized damage or 25% distributed damage; Poor is >10 or >25%.
Tr indicates trace amount, <1%.
Condition, friability and quantity for inaccessible materials are estimated.

Photographs of the building materials are included with this report. A copy of the laboratory report for samples included in this document is attached, along with a copy of the NYSDOL certification of the laboratory, the building inspector certification and Parsons' corporate asbestos license.

Window glazing

Window caulk

Door caulk

Black cloth pipe wrap over white pipe and fitting insulation

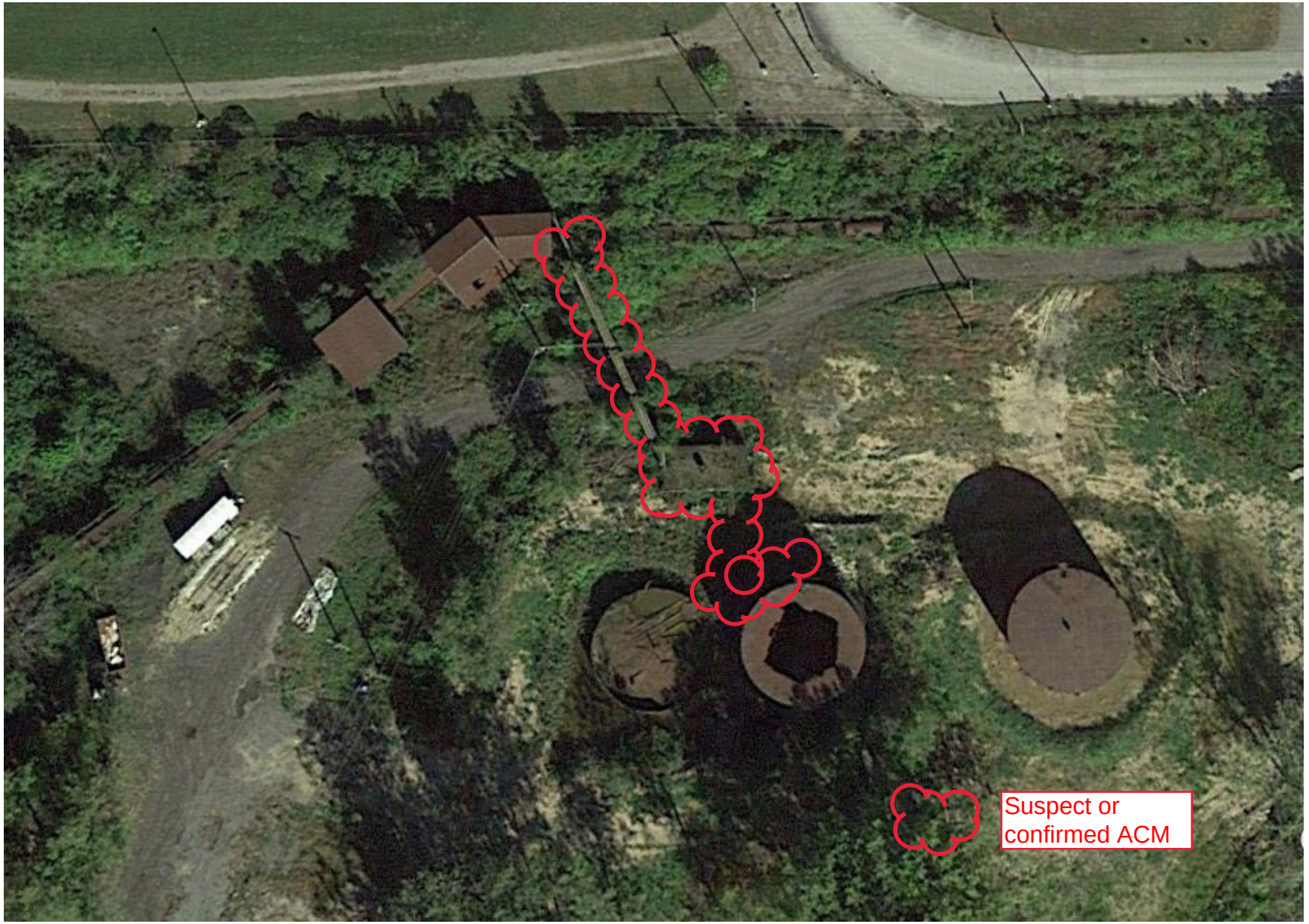
Black pipe wrap with wire (lower pipe) and tar-paper-like wrap on upper pipe

ACM pipe insulation debris on surfaces in many areas

ACM pipe and fitting insulation in poor condition near ceiling and at pump

PACM cloth wrap on electrical wiring

Exterior of building (at left) with ACM piping on overhead rack towards conveyor area


Suspect or
confirmed ACM

HSE Consulting Services, LLC

Air Quality
Asbestos / Lead / Mold
OSHA Compliance / Training
Environmental Services

ASBESTOS ANALYSIS REPORT

Non-Gravimetrically Reduced Samples

Analysis Method - NY State ELAP 198.1/EPA 600/M4/82/020

NYS DOH ELAP ID #11973

Parsons
301 Plainfield Road
Suite 350
Syracuse NY 13212

Attention: Mr. Dan Douglass

Tuesday, March 05, 2019

Batch Number: 9771
Date Received: 3/1/2019
Date Collected: 2/28/2019
Sampled By: Dan Douglass

Project # 451470.0571

Project Name: Tonawanda, NY, Site 108

Lab ID	Sample ID	Color	Total % Asbestos	% AM	% CH	% CR	% TM	% AC	% AN	% CE	% MW	% GW	% SY	% HH	% O	Other Type	%Non-Fibrous Material	Date Analyzed
82180	HWT-PI-5-1	White	27	27	<1.0												73	3/5/2019
82181	HWT-PI-5-2		SAFP															3/5/2019
82182	HWT-PI-5-3		SAFP															3/5/2019
82183	HWT-FI-6-2	Gray	5.6		5.6						34						60.4	3/5/2019
82184	HWT-FI-6-3		SAFP															3/5/2019
82185	HWT-PI-8-1	White	29	29	<1.0												71	3/5/2019
82186	HWT-PI-8-2		SAFP															3/5/2019
82187	HWT-PI-8-3		SAFP															3/5/2019

Reviewed and Approved By (and for questions regarding this report):

Douglas L. Gee, Technical Director

Abbreviations:

AM - Amosite
CH - Chrysotile
CR - Crocidolite
TM - Tremolite
AC - Actinolite
AN - Anthophyllite
CE - Cellulose
MW - Mineral Wool
GW - Glass Wool
SY - Synthetic
HH - Horse Hair
O - Other
TR - Trace asbestos detected at <1%
NAD- No Asbestos Detected
SAFP - Stop at First Positive (not analyzed)
N/A - Not Applicable
NA - Not Available
*Insufficient Sample for Analysis

HSE Consulting Services, LLC did not participate in the collection of the samples contained in this report, therefore, any information pertaining to the collection is based on information provided by the person submitting them. The results pertain only to the samples in this report.

8636 Brewerton Road
Cicero, New York 13039

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Air Quality
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OSHA Compliance / Training
Environmental Services

ASBESTOS ANALYSIS REPORT
Gravimetrically Reduced Samples
Non-Friable Organically Bound Material

PLM Analysis Method - NY State ELAP 198.6/EPA 600/M4/82/020

NYS DOH ELAP ID #11973

Tuesday, March 05, 2019

Parsons
301 Plainfield Road
Suite 350
Syracuse NY 13212
Attention: Mr. Dan Douglass

Batch Number: 9772
Date Received: 3/1/2019
Date Collected: 2/28/2019
Sampled By: Dan Douglass

Project # 451470.0571
Project Name: Tonawanda, NY, Site 108

Lab ID	Sample ID	Color	% Residue	PLM ANALYSIS						TEM ANALYSIS						Total % Asbestos	Date Analyzed
				%	Type	%	Type	%	Type	%	Type	%	Type	%	Type		
82188	HWT-WGZ-1-1	Tan	2.9	1.2	CH					N/A						1.2	3/4/2019
82189	HWT-WGZ-1-2	Gray	2.7	SAFP						SAFP						SAFP	3/4/2019
82190	HWT-DCK-2-1	Gray	37.1	12	CH					N/A						12	3/4/2019
82191	HWT-DCK-2-2	Gray	36.9	SAFP						SAFP						SAFP	3/4/2019
82192	HWT-WCK-3-1	Gray/Tan	32.8	8.8	CH					N/A						8.8	3/4/2019
82193	HWT-WCK-3-2	Gray/Tan	32.5	SAFP						SAFP						SAFP	3/4/2019
82194	HWT-PI-4-1	Black	2.5	1.7	AM					N/A						1.7	3/4/2019
82195	HWT-PI-4-2	Black	10.2	SAFP						SAFP						SAFP	3/4/2019
82196	HWT-PI-4-3	Black	11.5	SAFP						SAFP						SAFP	3/4/2019
82197	HWT-FI-6-1	Black	54.3	18	CH					N/A						18	3/4/2019
82198	HWT-PI-7-1	Black	34.4	15	CH	4.9	AM			N/A						20	3/4/2019

Abbreviations:

AM - Amosite
CH - Chrysotile
CR - Crocidolite
TM - Tremolite
AC - Actinolite
AN - Anthophyllite

N/A - Not Applicable
NA - Not Available
NAD - No Asbestos Detected
SAFP - Stop at First Positive (not analyzed)
NR - Not Required
<1.0% Residue Remaining

TR - Trace asbestos detected at less than 1%
*Insuffient sample for analysis **(Samples not analyzed must not be interpreted as being non-ACM)**
** - Inconclusive, No Asbestos Detected **(Samples with inconclusive results must not be interpreted as being non-ACM)**

***TEM analysis not performed per client's request. (Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-ACM.

NOTE: HSE Consulting Services, LLC did not participate in the collection of the samples contained in this report, therefore, any information pertaining to the collection is based on information provided by the person submitting them. The results pertain only to the samples in this report.

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ASBESTOS ANALYSIS REPORT
Gravimetrically Reduced Samples
Non-Friable Organically Bound Material

PLM Analysis Method - NY State ELAP 198.6/EPA 600/M4/82/020

NYS DOH ELAP ID #11973

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Project # 451470.0571
Project Name: Tonawanda, NY, Site 108

Lab ID	Sample ID	Color	% Residue	PLM ANALYSIS						TEM ANALYSIS						Total % Asbestos	Date Analyzed
				%	Type	%	Type	%	Type	%	Type	%	Type	%	Type		
82199	HWT-PI-7-2	Black	35.9	SAFP						SAFP						SAFP	3/4/2019
82200	HWT-PI-7-3	Black	35.3	SAFP						SAFP						SAFP	3/4/2019
82201	HWT-FI-9-1	Black	29.9	13	CH	4.3	AM			N/A						17	3/4/2019
82202	HWT-FI-9-2	Black	18.9	SAFP						SAFP						SAFP	3/4/2019
82203	HWT-FI-9-3	Black	33.2	SAFP						SAFP						SAFP	3/4/2019

Reviewed and Approved By (and for questions regarding this report): _____

Douglas L. Gee, Technical Director

Abbreviations:

AM - Amosite
CH - Chrysotile
CR - Crocidolite
TM - Tremolite
AC - Actinolite
AN - Anthophyllite

N/A - Not Applicable
NA - Not Available
NAD - No Asbestos Detected
SAFP - Stop at First Positive (not analyzed)
NR - Not Required
<1.0% Residue Remaining

TR - Trace asbestos detected at less than 1%
*Insuffient sample for analysis **(Samples not analyzed must not be interpreted as being non-ACM)**
** - Inconclusive, No Asbestos Detected **(Samples with inconclusive results must not be interpreted as being non-ACM)**
***TEM analysis not performed per client's request. (Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-ACM.

NOTE: HSE Consulting Services, LLC did not participate in the collection of the samples contained in this report, therefore, any information pertaining to the collection is based on information provided by the person submitting them. The results pertain only to the samples in this report.

8636 Brewerton Road
Cicero, New York 13039

Ph # (315) 698-1438
Fax # (315) 698-1441
www.hseconsultingservices.com

Batch #9771 - 82180 - 82187 (198.1)
9772 - 82188 - 82203 (198.6)

HSE
8636 Brewerton Road
Cicero, NY 13039
315.698.1438

Chain Of Custody / Analysis Request

COC #:
Lab Use Only

Privileged & Confidential

Site Name: Tonawanda, NY, Site 108

Client Contact: (name, co., address)
Parsons
Dan Douglass (315-345-7974)
301 Plainfield Rd. Suite 350
Syracuse, NY 13212
dan.douglass@parsons.com

Sampler: D Douglass
P O #: 451470.0571

Job No: 451470.0571

Hardcopy Report To: Dan Douglass
Invoice To: Dan Douglass

Stop at 1st positive. 5 day TAT.

	Asbestos Bulk Sample Identification		Sample Date	Sample Description	Sample Type	Preservative														PLM / TEM	
	Field Sample ID					0	0	0	0	0	0	0	0	0	0	0					
1	HWT-WGZ-1-1	198.6	2/28/2019	Gray window glazing	Bulk															X	82188
2	HWT-WGZ-1-2		2/28/2019	Gray window glazing	Bulk															X	82189
3	HWT-DCK-2-1		2/28/2019	Gray door caulk	Bulk															X	82190
4	HWT-DCK-2-2		2/28/2019	Gray door caulk	Bulk															X	82191
5	HWT-WCK-3-1		2/28/2019	Gray window caulk	Bulk															X	82192
6	HWT-WCK-3-2		2/28/2019	Gray window caulk	Bulk															X	82193
7	HWT-PI-4-1		2/28/2019	Black pipe cloth wrap	Bulk															X	82194
8	HWT-PI-4-2		2/28/2019	Black pipe cloth wrap	Bulk															X	82195
9	HWT-PI-4-3		2/28/2019	Black pipe cloth wrap	Bulk															X	82196
10	HWT-PI-5-1	198.1	2/28/2019	Off-white chalky pipe insulation	Bulk															X	82180
11	HWT-PI-5-2		2/28/2019	Off-white chalky pipe insulation	Bulk															X	82181
12	HWT-PI-5-3		2/28/2019	Off-white chalky pipe insulation	Bulk															X	82182
13	HWT-FI-6-1	198.6	2/28/2019	Gray mud fitting insulation	Bulk															X	82197
14	HWT-FI-6-2	198.1	2/28/2019	Gray mud fitting insulation	Bulk															X	82183
15	HWT-FI-6-3		2/28/2019	Gray mud fitting insulation	Bulk															X	82184
16	HWT-PI-7-1	198.6	2/28/2019	Black tar / paper pipe layer	Bulk															X	82198
17	HWT-PI-7-2		2/28/2019	Black tar / paper pipe layer	Bulk															X	82199
18	HWT-PI-7-3		2/28/2019	Black tar / paper pipe layer	Bulk															X	82200
19	HWT-PI-8-1	198.1	2/28/2019	White, chalky pipe insulation	Bulk															X	82185
20	HWT-PI-8-2		2/28/2019	White, chalky pipe insulation	Bulk															X	82186
21	HWT-PI-8-3		2/28/2019	White, chalky pipe insulation	Bulk															X	82187
22	HWT-FI-9-1	198.6	2/28/2019	Black tar-like fitting layer	Bulk															X	82201
23	HWT-FI-9-2		2/28/2019	Black tar-like fitting layer	Bulk															X	82202
24	HWT-FI-9-3		2/28/2019	Black tar-like fitting layer	Bulk															X	82203

	Company	Parsons	Received by:	Company		Condition	Custody Seals Intact
	Date/Time			Date/Time		Cooler Temp.	
Relinquished by	Company		Received by	Company		Condition	Custody Seals Intact
	Date/Time 3/1/19 1125		Khaliyah Flowers	Date/Time	3/1/19 1125	Cooler Temp.	

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2019
Issued April 01, 2018

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. BRIAN C. KING
HSE CONSULTING SERVICES, LLC
8636 BREWERTON ROAD
CICERO, NY 13039

NY Lab Id No: 11973

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material	Item 198.1 of Manual EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)

Serial No.: 58069

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

Parsons Engineering Of New York, Inc.
Attn: Licensing
4701 Hedgemore Drive

Charlotte, NC 28209

FILE NUMBER: 00-0769
LICENSE NUMBER: 29234
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 05/31/2018
EXPIRATION DATE: 05/31/2019

Duly Authorized Representative – Thomas H Abrams:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

JAMES D DOUGLASS
CLASS(EXPIRES)
D INSP(11/19) H PM (11/19)

CERT# 95-01295
DMV# 2T7734101

MUST BE CARRIED ON ASBESTOS PROJECTS

01213 004875870 06

EYES BLU
HAIR BRO
HGT 6' 00"

IF FOUND RETURN TO:
NYSDOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240