NEW YORK CITY SCHOOL
CONSTRUCTION AUTHORITY

MEMORANDUM

To: David Choy
Director, Building Code Compliance

From: Alexander Lempert
Senior Director, Industrial and Environmental Hygiene Division

RE: Disinfection of Potable Hot Water Piping in the Basement
P.S. 204K
8101 15th Avenue, Brooklyn, New York
Design #D014688, IEH Service ID #61024

Date: December 8, 2015

The water disinfection procedures and bacteriological testing results (see attached documents) for the above referenced project have been evaluated by NYCSCA's consultant, AKRF Engineering, P.C., and determined to be acceptable as per SCA Specification 15414.303, New York City Plumbing Code PC 610 and all other applicable laws and regulations.

NYCSCA's Industrial & Environmental Hygiene (IEH) Division staff have reviewed these findings and concur.

cc: L. Guterman
S. Kanaparthi
B. Abdu

30-30 Thomson Avenue
Long Island City, NY 11101-3045
(718) 472-8501
Fax: (718) 472-8500

AKRF Engineering, P.C.

34 South Broadway
Suite 314
White Plains, NY 10601
tel: 914 949-7336
fax: 914 949-7559
www.akrf.com

December 8, 2015

Mr. Alexander Lempert
Senior Director, Industrial and Environmental Hygiene Division
New York City School Construction Authority
30-30 Thomson Avenue
Long Island City, NY 11101

Re: Disinfection of Potable Hot Water Piping in the Basement
P.S. 204K
8101 15th Avenue, Brooklyn, New York
Design #D014688, IEH Service ID #61024, AKRF Project #89066

Dear Mr. Lempert:

At the request of the New York City School Construction Authority, AKRF Engineering, P.C. (AKRF) observed the implementation of the Disinfection and Water Quality Testing Plan (DWQTP) for new potable hot water piping in the basement of P.S. 204K (the "School"), located at 8101 15th Avenue in Brooklyn, New York.

Varsity Plumbing and Heating, Inc. (Varsity) performed the disinfection and flushing of the piping on November 16, 2015. On November 18 and December 4, 2015, Varsity collected one water quality sample from the hot water piping. The samples were delivered to EMSL Analytical, Inc (EMSL) under chains-of-custody. The samples were analyzed for total coliform, E. Coli bacteria, and heterotrophic plate count (HPC). The results were compared to guidance values of absent (negative) for total coliform and E. Coli bacteria, and less than 500 colony-forming units per milliliter (cfu/mL) for HPC.

The laboratory results indicated total coliform results of absent, E. Coli bacteria results of absent (negative), and HPC results of less than the guidance value of 500 cfu/mL. Table 1 contains a summary of the laboratory results. The laboratory results are included as Attachment A.

Water disinfection, flushing and sampling were performed in accordance with the contract specifications, the approved DWQTP, New York City Plumbing Code, and other applicable Federal, State and local regulations. AKRF verified that the samples were analyzed by a New York State Department of Health (NYSDOH)-accredited laboratory with current Environmental Laboratory Accreditation Program (ELAP) certification. EMSL is certified to perform the requested analysis under ELAP #11506 and has completed the drinking water analysis utilizing NYSDOH accepted procedures. EMSL's ELAP certificate is included as Attachment B.

The results of the laboratory analysis indicate that the sampled water meets the NYSDOH drinking water criteria and the new potable hot water piping in the basement can be placed into operation for that purpose.

Please do not hesitate to contact me if you have any questions.

Sincerely,
AKRF Engineering, P.C.

Colleen L. Griffiths

Colleen Griffiths
Technical Director

Michelle Lapin, PE
President/QC Officer

Table 1
Disinfection Analytical Results Summary
P.S. 204K
New Hot Water Piping in the Basement

Location	**Total Coliform**	**E. Coli**	**HPC[1] (cfu/mL)[2]**
Guidance Values[3]	**Absent**	**Absent**	**<500**
November 18, 2015			
Hose Cock on Hot Water Line	Absent	Absent	118,000
December 4, 2015			
Hose Cock on Hot Water Line	Absent	Absent	48

Notes:
[1]HPC – Heterotrophic Plate Count
[2]Colony Forming Units per Milliliter (cfu/mL)
[3]Guidance Values - US EPA Drinking Water Regulation

ATTACHMENT A

LABORATORY RESULTS

EMSL Analytical, Inc.
307 West 38th Street, New York, NY 10018
Phone/Fax: (212) 290-0051 / (212) 290-0058
http://www.EMSL.com manhattanlab@emsl.com

EMSL Order:	031537551
CustomerID:	VPNY42
CustomerPO:	
ProjectID:	

Attn: **Chi Lau**
Varsity Plumbing
31-99 123rd St.
Flushing, NY 11354

Phone:	(718) 358-5400
Fax:	(718) 358-5103
Received:	11/18/15 11:41 AM
Analysis Date:	11/20/2015
Collected:	11/18/2015

Project: **204K/ NY**

Test Report: Heterotrophic Plate Count

Method: SM-9215 B for Water Samples

Sample	Sampling Location Date/Time Collected	Amount Received mL	Amount Sampled mL	Plate Count CFU/mL
031537551-0001	HOSE COCK ON HOT WATER LINE	200	0.001	118000
1	11/18/2015			
	Prepped: 11/18/15 3:10PM Analyzed: 11/20/15 1:40PM			

Analyst(s)

Sara Gonzalez (1)

John McCauley, Laboratory Manager
or other approved signatory

The level of detection is equal to 1 cfu/1ml of sample analyzed. NA = not applicable. The test results contained within this report meet the requirements of NELAC unless otherwise noted.
Samples analyzed by EMSL Analytical, Inc. New York, NY NYS ELAP 11506

Report Amended: 12/04/2015 14:30:45 Replaces the Inital Report 11/23/2015 07:04:12. Reason Code: Data Entry-Change to Location

EMSL Analytical, Inc.
307 West 38th Street, New York, NY 10018
Phone/Fax: (212) 290-0051 / (212) 290-0058
http://www.EMSL.com manhattanlab@emsl.com

EMSL Order:	031537551
CustomerID:	VPNY42
CustomerPO:	
ProjectID:	

Attn: **Chi Lau**
Varsity Plumbing
31-99 123rd St.
Flushing, NY 11354

Phone:	(718) 358-5400
Fax:	(718) 358-5103
Received:	11/18/15 11:41 AM
Analysis Date:	11/19/2015
Collected:	11/18/2015

Project: **204K/ NY**

Test Report: Total Coliform (Presence/Absence)

Method: SM-9223 B for Water Samples

Sample	Sampling Location Date/Time Collected	Amount Received mL	Amount Sampled mL	Total Coliform Present/Absent	*E. coli* Present/Absent
031537551-0001	HOSE COCK ON HOT WATER LINE	100	100	Absent	Absent
1	11/18/2015				
	Prepped: 11/18/15 2:20PM Analyzed: 11/19/15 2:40PM				

Analyst(s)

Anthony Cappellano (1)

John McCauley, Laboratory Manager
or other approved signatory

Colilert® is recommended for drinking and clean water samples only. Colilert® can detect coliforms at 1 cfu/100 ml within 24 hours of collection; NA = not applicable. The test results contained within this report meet the requirements of NELAC unless otherwise noted.
Samples analyzed by EMSL Analytical, Inc. New York, NY NYS ELAP 11506

Report Amended: 12/04/2015 14:30:45 Replaces the Inital Report 11/23/2015 07:04:12. Reason Code: Data Entry-Change to Location

Ø31537551

Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*):

EMSL ANALYTICAL, INC.
200 ROUTE 130 N
CINNAMINSON, NJ 08077

PHONE: (856) 858-4800
FAX: (856) 858-0648

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Company: VPIt	EMSL-Bill to: ☑ Same ☐ Different If Bill to is Different please note in Comments** *Third Party Billing requires written authorization from third party*
Street: 31-99 123rd St	
City: Flushing / State/Province: NY	Zip/Postal Code: 11354 / Country: USA.
Report To (Name): CHI LAU	Fax #: 718-358-5103
Telephone #: 718-358-5400	E-mail Address: Clau9 vars typhoon.com
Project Name/ Number: ~~PSC~~ 204K	
Please Provide Results: ☐ Fax ☑ E-mail / PO#	State Samples Taken: X/Y

Turnaround Time (TAT) Options* - Please Check

☐ 3 Hours | ☐ 6 Hours | ☐ 24 Hours | ☐ 48 Hours | ☐ 3 Days | ☐ 4 Days | ☐ 5 Days | ☐ 10 Days | ☑ 2 Weeks

**Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements*

Non Culturable Air Samples (Spore Traps)

- **M001** Air-O-Cell
- **M049** BioSIS
- **M030** Micro 5
- **M173** Allegro M2
- **M003** Burkard
- **M174** MoldSnap
- **M004** Allergenco
- **M043** Cyclex
- **M176** Relle Smart
- **M032** Allergenco-D
- **M002** Cyclex-d
- **M130** Via-Cell
- **M172** Versa Trap

Other Microbiology Test Codes

- **M041** Fungal Direct Examination
- **M005** Viable Fungi ID and Count
- **M006** Viable Fungi ID and Count (Speciation)
- **M007** Culturable Fungi
- **M008** Culturable Fungi (Speciation)
- **M009** Gram Stain Culturable Bacteria
- **M010** Bacterial Count and ID – 3 Most Prominent
- **M011** Bacterial Count and ID – 5 Most Prominent
- **M013** Sewage Contamination in Buildings
- **M014** Endotoxin Analysis
- **M015** Heterotrophic Plate Count
- **M180** Real Time Q-PCR-ERMI 36
- Panel
- **M018** Total Coliform (Membrane Filtration)
- **M020** Fecal *Streptococcus* (Membrane Filtration)
- **M210-215** *Legionella* Detection
- **M026** Recreational Water Screen
- **M027** Mycotoxin Analysis
- **M029** *Enterococci*
- **M019** Fecal Coliform
- **M133** MRSA Analysis
- **M028** *Cryptococcus neoformans* Detection
- **M120** *Histoplasma capsulatum* Detection
- **M033-39** Allergen Testing
- **M044** Group Allergen (Cat, Dog, Cockroach, Dustmites)
- **Other** See Analytical Price Guide

Preservation Method (Water): ICE.

Name of Sampler: CHI LAU **Signature of Sampler:** [signature]

Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
1	Hose Cock on HW Line	Grab	M015/017	200mL	11/18/21 9:05am

EMSL MANHATTAN LABS RECEIVED 2015 NOV 18 AM 11:41

Client Sample # (s): 1 - 1		Total # of Samples: 1	
Relinquished (Client): [signature]	Date: 11/18/15	Time:	
Received (Client): [signature]	Date: 11/18/15	Time: 11:41am	

Comments: M015 / M017 .1/7.2

Page 1 of pages
Page 1 Of 1

EMSL Analytical, Inc.
307 West 38th Street, New York, NY 10018
Phone/Fax: (212) 290-0051 / (212) 290-0058
http://www.EMSL.com manhattanlab@emsl.com

EMSL Order:	031539134
CustomerID:	VPNY42
CustomerPO:	
ProjectID:	

Attn: **Chi Lau**
Varsity Plumbing
31-99 123rd St.
Flushing, NY 11354

Phone:	(718) 358-5400
Fax:	(718) 358-5103
Received:	12/04/15 11:58 AM
Analysis Date:	12/6/2015
Collected:	12/4/2015

Project: **204 K**

Test Report: Heterotrophic Plate Count

Method: SM-9215 B for Water Samples

Sample	Sampling Location Date/Time Collected	Amount Received mL	Amount Sampled mL	Plate Count CFU/mL
031539134-0001	HOSE COCK ON HW LINE	200	1.0	48
1	12/4/2015			
	Prepped:12/4/15 2:40PM Analyzed: 12/6/15 212/6/2015 2:40PM			

Analyst(s)

Anthony Cappellano (1)

John McCauley

John McCauley, Laboratory Manager
or other approved signatory

The level of detection is equal to 1 cfu/1ml of sample analyzed. NA = not applicable. The test results contained within this report meet the requirements of NELAC unless otherwise noted.
Samples analyzed by EMSL Analytical, Inc. New York, NY NYS ELAP 11506

Report Amended: 12/07/2015 06:28:20 Replaces the Inital Report 12/07/2015 06:26:21. Reason Code: Data Entry-Change to Sample Volume

EMSL Analytical, Inc.
307 West 38th Street, New York, NY 10018
Phone/Fax: (212) 290-0051 / (212) 290-0058
http://www.EMSL.com manhattanlab@emsl.com

EMSL Order:	031539134
CustomerID:	VPNY42
CustomerPO:	
ProjectID:	

Attn: **Chi Lau**
Varsity Plumbing
31-99 123rd St.
Flushing, NY 11354

Phone:	(718) 358-5400
Fax:	(718) 358-5103
Received:	12/04/15 11:58 AM
Analysis Date:	12/5/2015
Collected:	12/4/2015

Project: **204 K**

Test Report: Total Coliform (Presence/Absence)

Method: SM-9223 B for Water Samples

Sample	Sampling Location Date/Time Collected	Amount Received mL	Amount Sampled mL	Total Coliform Present/Absent	*E. coli* Present/Absent
031539134-0001	HOSE COCK ON HW LINE	200	100	Absent	Absent
1	12/4/2015				
	Prepped: 12/4/15 12:55 PM Analyzed: 12/5/15 12:55 PM				

Analyst(s)

Joseph Reynolds (1)

John McCauley, Laboratory Manager
or other approved signatory

Colilert® is recommended for drinking and clean water samples only. Colilert® can detect coliforms at 1 cfu/100 ml within 24 hours of collection; NA = not applicable. The test results contained within this report meet the requirements of NELAC unless otherwise noted.
Samples analyzed by EMSL Analytical, Inc. New York, NY NYS ELAP 11506

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Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*):

031539134

EMSL ANALYTICAL, INC
LABORATORY • PRODUCTS • TRAINING

EMSL ANALYTICAL INC
200 ROUTE 130 N
CINNAMINSON, NJ 08077

PHONE (856) 858-4800
FAX (856) 858-0648

Company: VPH	EMSL-Bill to: ☑ Same ☐ Different If Bill to Is Different please note in Comments** *Third Party Billing requires written authorization from third party*
Street: 31-91 123rd St	
City: Flushing State/Province: N.Y.	Zip/Postal Code: 11354 Country: USA
Report To (Name): CHI LHU.	Fax #: 718-358-5103
Telephone #: 718-358-5400	E-mail Address: Claw@varsityplumbing.com
Project Name/ Number: 204 K	
Please Provide Results: ☐ Fax ☑ E-mail PO#	State Samples Taken:

Turnaround Time (TAT) Options* - Please Check

☐ 3 Hours | ☐ 6 Hours | ☐ 24 Hours | ☐ 48 Hours | ☐ 3 Days | ☐ 4 Days | ☐ 5 Days | ☐ 10 Days | ☑ 2 Weeks

**Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements*

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- Panel
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- **M027** Mycotoxin Analysis
- **M029** *Enterococci*
- **M019** Fecal Coliform
- **M133** MRSA Analysis
- **M028** *Cryptococcus neoformans* Detection
- **M120** *Histoplasma capsulatum* Detection
- **M033-39** Allergen Testing
- **M044** Group Allergen (Cat, Dog, Cockroach, Dustmites)
- **Other** See Analytical Price Guide

Preservation Method (Water): ICE

Name of Sampler: CHI LHU **Signature of Sampler:** [signature]

Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
1	Hose Cock on HW Line	Grab	M015/017	200 mL	12/4/15 10:35am

2015 DEC -4 AM 11:58

Client Sample # (s): 1 - 1 **Total # of Samples:** 1

Relinquished (Client): [signature] **Date:** 12/4/15 **Time:**

Received (Client): [signature] **Date:** 12/4/15 **Time:** 11:58am

Comments: M015 | 017

ATTACHMENT B

ELAP CERTIFICATE

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2016
Issued April 01, 2015

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

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

MR. JAMES HALL
EMSL ANALYTICAL, INC
307 WEST 38TH STREET
NEW YORK, NY 10018

NY Lab Id No: 11506

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards (2003) for the category ENVIRONMENTAL ANALYSES POTABLE WATER
All approved analytes are listed below:

Bacteriology

Coliform, Total / E. coli (Qualitative)	SM 18-22 9222A,B,C (-97)/40 CFR 141.:
	SM 18-22 9223B (-97) (Colilert)
Standard Plate Count	SM 18-22 9215B (-00)

Miscellaneous

Asbestos	EPA 100.1
	EPA 100.2

Serial No.: 52398

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.