

May 27, 2016

File: 0063.03936.1

Mr. Brian Finos
Manager of Facilities
Charter Development Company
3850 Broadmoor SE, Suite 201
Grand Rapids, Michigan 49512

Re: Environmental Assessment – Drinking Water Quality Report
Flagship Charter Academy
13661 Wisconsin Avenue, Detroit, Michigan

Dear Mr. Finos:

Rose & Westra, Inc. (R&W) is pleased to present this drinking water quality report with results from the recent sampling and testing for the Flagship Charter Academy located at 13661 Wisconsin Avenue, Detroit, Michigan (the Building). This work was requested due a concern about possible lead contaminates being present in the drinking water supplied to the Building. The water piping system to the Building and the water within the system are maintained by City of Detroit Water Department.

In summary, none of the tests conducted identified any contaminants exceeding the maximum contaminant levels (MCLs) or the Secondary MCLs allowed by the U. S. Environmental Protection Agency (U.S. EPA) for residential drinking water consumption.

Background

The Building is a multi-story structure constructed in several phases with the original Building constructed was completed in the 1923 and 1927. Renovations and additions were completed in 2005 and 2007 using new building materials. The City of Detroit Water Department maintains the water distribution system and provides the water within the piping system to the Building.

Drinking Water Sampling

On May 22, 2016, R&W staff collected water samples from seven water fixtures in the Building. The fixtures sampled consist of a drinking water fountain station (DFS) located next to student restrooms [DFS-121], DFS located in the Gymnasium (Room 140) [DFS-140], DFS next to student restroom [DFS-221], DFS next to student restroom [DFS-227], sink tap in the food prep room (Room 128) [FP-128], sink tap in the Teacher's Lounge (Room 225) [TL-225], and sink tap in Classroom 217 [CS-217]. The locations have been illustrated on Figures 1, 2, and 3 (Attachment 1). The sampling method used for the drinking water

sample collection is known as first draw sampling, with a second sample collected from each location following a flush of the fixture. The first draw method required R&W staff to access the sampling location and flush the fixture to be sampled for a 30-minute period. Flushing the sampling locations was completed at 1:40 pm on May 22, 2016. Once the 30-minute flushing period was completed, R&W allowed each sample location to rest for a minimum of 6 hours. Each sample location was taped off to prevent use. The first draw water sample collection began at 7:44 pm on May 22, 2016; thereby allowing for a nearly 6-hour rest period. Once the first draw sample was collected from the sample locations, the fixtures remained on for a 5-minute flush before the flushed sample was collected.

The first draw sample from each sample location has been identified in the sample name. The first draw samples are identified as DFS-121-FD, DFS-140-FD, DFS-221-FD, DFS-227-FD, FP-128-FD, TL-225-FD, and CS-217-FD. These water sample locations have been illustrated on Figures 1, 2, and 3, Attachment 1.

The flushed sample from each sample location has also been identified in the sample name. The flushed samples are identified as DFS-121-FL, DFS-140-FL, DFS-221-FL, DFS-227-FL, FP-128-FL, TL-225-FL, and CS-217-FL. These water sample locations have been illustrated on Figures 1, 2, and 3, Attachment 1.

Analytical Testing

Water samples collected by R&W on May 22, 2016 were placed in clean 1,000-ml sample containers (supplied by the lab), labeled, cooled, and stored for transportation. The samples were handled and transported to Prein & Newhof Environmental Laboratory, Inc. (Prein & Newhof Laboratory; Grand Rapids, Michigan) under chain-of-custody records using U.S. EPA and Michigan Department of Environmental Quality (MDEQ) recommended methods. The water samples were tested for several heavy metals (copper, iron, and lead). A copy of the laboratory report has been included in Attachment 2. The Prein & Newhof Laboratory has MDEQ Drinking Water Certification for testing water samples.

Evaluation of Testing Results

All of the lead results were reported as below the method detection limit (MDL) of <0.003 mg/L. These reported results are also below the MCL of 0.015 mg/L.

Trace copper levels were reported in most water samples collected. The reported copper concentrations ranged from <0.010 mg/l to 0.167 mg/L; however, all reported concentrations are well below the MCL of 1.300 mg/L.

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Trace iron levels were reported in all water samples collected. The reported iron concentrations ranged from 0.015 mg/L to 0.028 mg/L. The Secondary MCL for iron has been established at 0.300 mg/L for taste and color. All reported sample results were below the Secondary MCL for iron.

Conclusions

Based on the water sampling and chemical analyses conducted, none of the tests conducted identified any contaminants that exceeded the MCLs or Secondary MCLs allowed by the U. S. EPA for residential drinking water consumption.

If you have any questions regarding the information or data presented in this letter, please feel free to contact our staff.

Sincerely,

ROSE & WESTRA, INC.



William J. Bosze, P.E.

wjb/jac

Attachments:

Attachment 1:

Figure 1 – First Floor Plan North Half – Sample Locations – May 22, 2016

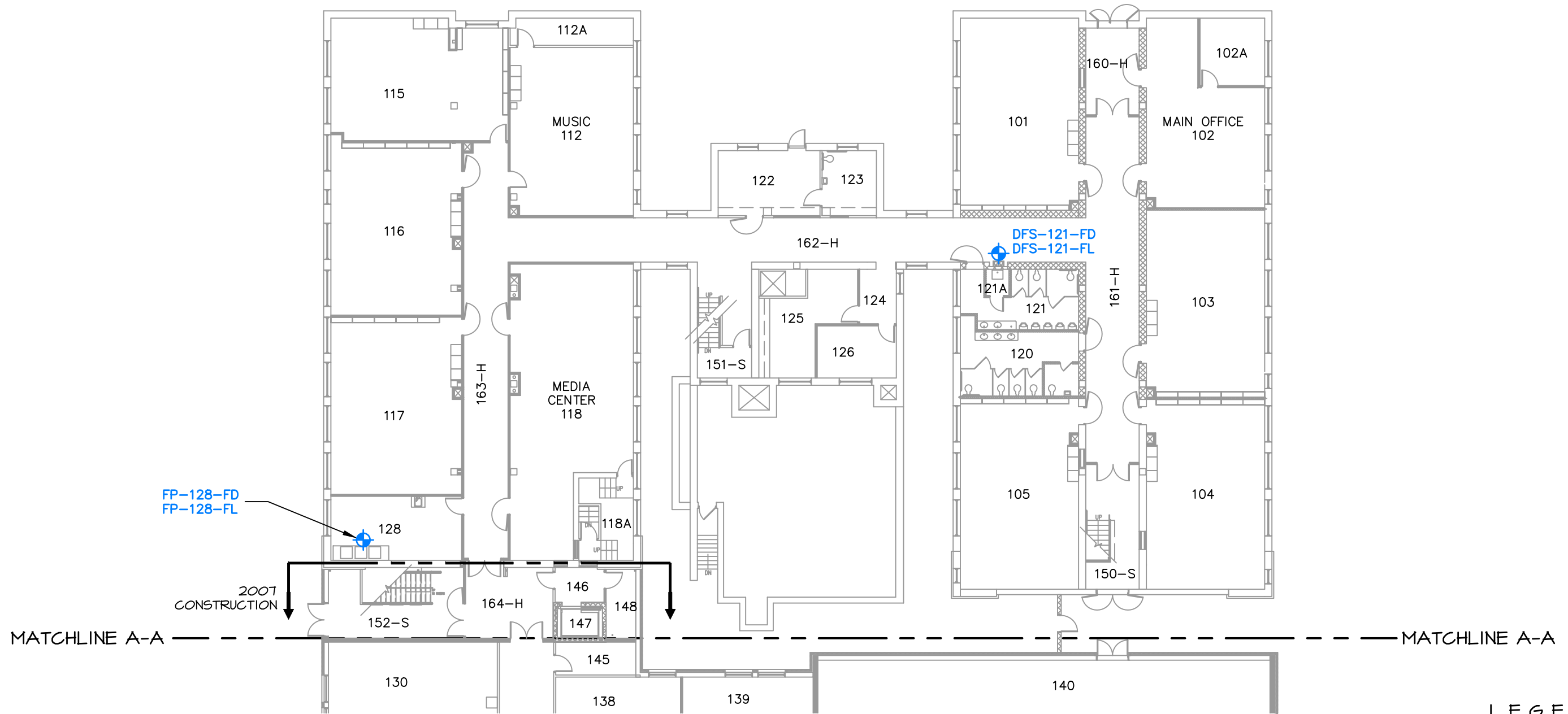
Figure 2 – First Floor Plan South Half – Sample Locations – May 22, 2016

Figure 3 – Second Floor Plan – Sample Locations – May 22, 2016

Attachment 2: Prein & Newhof Laboratory Report

Sent via Email Only


ATTACHMENT 1
FIGURES 1, 2, AND 3
DRINKING WATER SAMPLE LOCATIONS – MAY 22, 2016



LEGEND

 = WATER SAMPLE LOCATION

SCALE: 1" = 20'




ROSE & WESTRA, INC.
ENVIRONMENTAL CONSULTANTS
Grand Rapids, Michigan

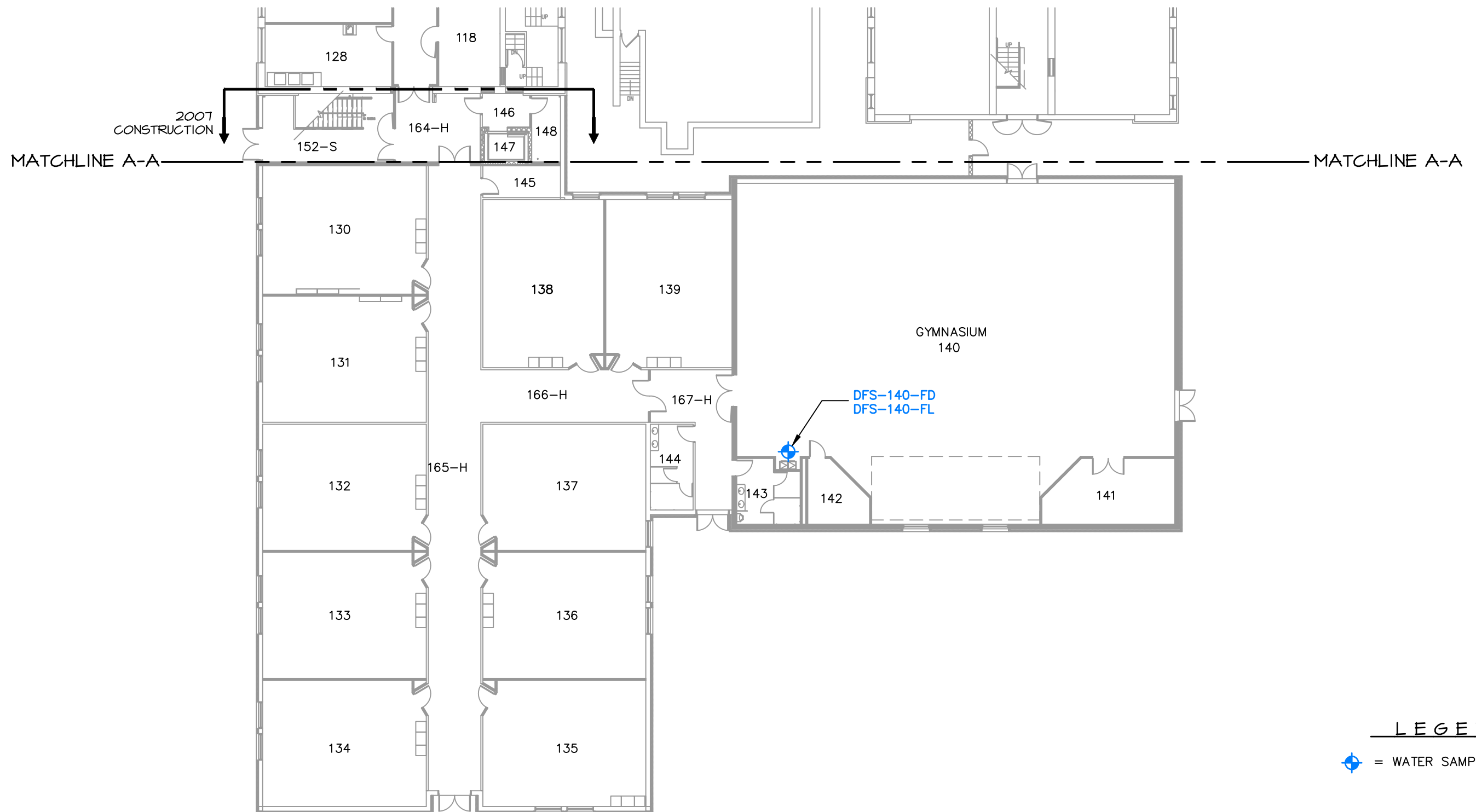
CREATED BY: KJB APPROVED BY: WJB DATE: 5/25/16 FILE NAME: 039361_FLAGSHIP_DWT

NATIONAL HERITAGE ACADEMIES
FLAGSHIP ACADEMY
13661 WISCONSIN AVE, DETROIT, MICHIGAN
DRINKING WATER TESTING

PROJECT NO.
0063.03936.1

1

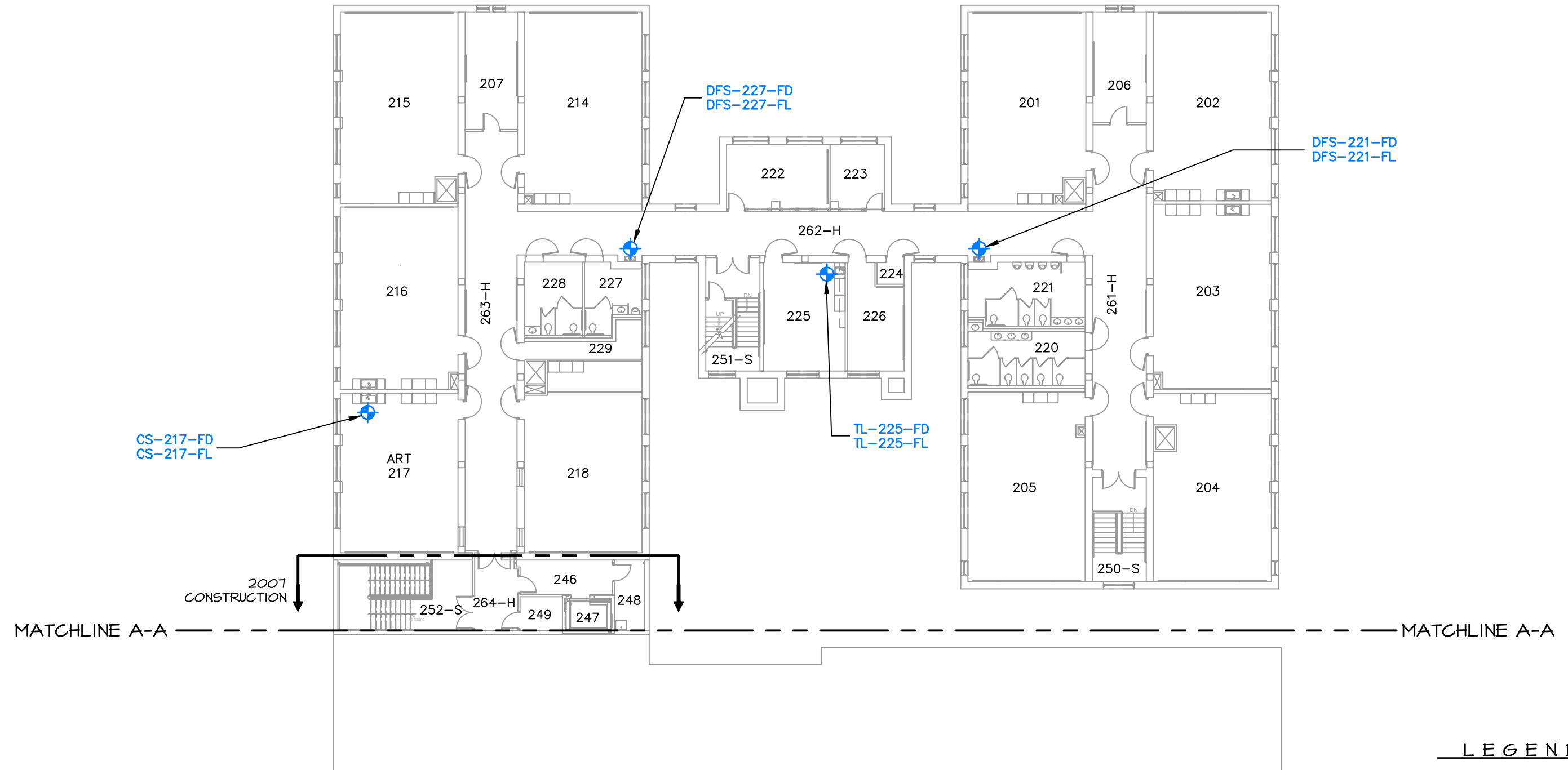
FIGURE NO.



SCALE: 1" = 20'

0' 20'

FIRST FLOOR PLAN SOUTH HALF - SAMPLE LOCATIONS 5/22/16			
 NORTH NORTH ORIENTATION	 ROSE & WESTRA, INC. ENVIRONMENTAL CONSULTANTS Grand Rapids, Michigan	NATIONAL HERITAGE ACADEMIES FLAGSHIP ACADEMY 13661 WISCONSIN AVE, DETROIT, MICHIGAN DRINKING WATER TESTING	
		PROJECT NO. 0063.03936.1 2 FIGURE NO.	CREATED BY: KJB APPROVED BY: WJB DATE: 5/25/16 FILE NAME: 039361_FLAGSHIP_DWT



LEGEND
 = WATER SAMPLE LOCATION

SCALE: 1" = 20'

SECOND FLOOR PLAN NORTH HALF - SAMPLE LOCATIONS 5/22/16			
 NORTH NORTH ORIENTATION	 ROSE & WESTRA, INC. ENVIRONMENTAL CONSULTANTS Grand Rapids, Michigan	NATIONAL HERITAGE ACADEMIES FLAGSHIP ACADEMY 13661 WISCONSIN AVE, DETROIT, MICHIGAN DRINKING WATER TESTING	
		PROJECT NO. 0063.03936.1 3 FIGURE NO.	CREATED BY: KJB APPROVED BY: WJB DATE: 5/25/16 FILE NAME: 039361_FLAGSHIP_DWT

ATTACHMENT 2

PREIN & NEWHOF LABORATORY REPORT

Customer Name: Rose & Westra, Inc.
4328 3 Mile Rd NW
Grand Rapids, MI 49544

Contact Name: Rose & Westra, Inc.
4328 3 Mile Rd NW
Grand Rapids, MI 49544

Project: 0063.03936.1

Project No: 2160001

Lab Order: 1605689

Matrix: DRINKING WATER
Sampled By: W. Bosze

Lab ID: 1605689-001A
Client Sample ID: DFS-121-FD

Collection Date: 5/22/2016 7:44 pm
Received Date: 5/23/2016 9:45 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.040	mg/L	0.010	1.3	SB	5/24/2016	EPA 200.7
Iron	0.026	mg/L	0.006		SB	5/24/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	5/24/2016	SM3113B

Lab ID: 1605689-002A
Client Sample ID: DFS-121-FL

Collection Date: 5/22/2016 7:49 pm
Received Date: 5/23/2016 9:45 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.030	mg/L	0.010	1.3	SB	5/24/2016	EPA 200.7
Iron	0.018	mg/L	0.006		SB	5/24/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	5/24/2016	SM3113B

Lab ID: 1605689-003A
Client Sample ID: FP-128-FD

Collection Date: 5/22/2016 7:47 pm
Received Date: 5/23/2016 9:45 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.155	mg/L	0.010	1.3	SB	5/24/2016	EPA 200.7
Iron	0.027	mg/L	0.006		SB	5/24/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	5/24/2016	SM3113B

Lab ID: 1605689-004A
Client Sample ID: FP-128-FL

Collection Date: 5/22/2016 7:52 am
Received Date: 5/23/2016 9:45 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.017	mg/L	0.010	1.3	SB	5/24/2016	EPA 200.7
Iron	0.015	mg/L	0.006		SB	5/24/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	5/24/2016	SM3113B

Lab ID: 1605689-005A
Client Sample ID: DFS-221-FD

Collection Date: 5/22/2016 7:57 pm
Received Date: 5/23/2016 9:45 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.077	mg/L	0.010	1.3	SB	5/24/2016	EPA 200.7
Iron	0.026	mg/L	0.006		SB	5/24/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	5/24/2016	SM3113B

Project: 0063.03936.1

Project No: 2160001

Lab Order: 1605689

Matrix: DRINKING WATER

Sampled By: W. Bosze

Lab ID: 1605689-006A
Client Sample ID: DFS-221-FL

Collection Date: 5/22/2016 8:02 pm
Received Date: 5/23/2016 9:45 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.157	mg/L	0.010	1.3	SB	5/24/2016	EPA 200.7
Iron	0.028	mg/L	0.006		SB	5/24/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	5/24/2016	SM3113B

Lab ID: 1605689-007A
Client Sample ID: TL-225-FD

Collection Date: 5/22/2016 8:00 pm
Received Date: 5/23/2016 9:45 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.109	mg/L	0.010	1.3	SB	5/24/2016	EPA 200.7
Iron	0.021	mg/L	0.006		SB	5/24/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	5/24/2016	SM3113B

Lab ID: 1605689-008A
Client Sample ID: TL-225-FL

Collection Date: 5/22/2016 8:05 pm
Received Date: 5/23/2016 9:45 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	< 0.010	mg/L	0.010	1.3	SB	5/24/2016	EPA 200.7
Iron	0.019	mg/L	0.006		SB	5/24/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	5/24/2016	SM3113B

Lab ID: 1605689-009A
Client Sample ID: DFS-227-FD

Collection Date: 5/22/2016 8:06 pm
Received Date: 5/23/2016 9:45 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.058	mg/L	0.010	1.3	SB	5/24/2016	EPA 200.7
Iron	0.016	mg/L	0.006		SB	5/24/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	5/24/2016	SM3113B

Lab ID: 1605689-010A
Client Sample ID: DFS-227-FL

Collection Date: 5/22/2016 8:11 pm
Received Date: 5/23/2016 9:45 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.020	mg/L	0.010	1.3	SB	5/24/2016	EPA 200.7
Iron	0.016	mg/L	0.006		SB	5/24/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	5/24/2016	SM3113B

Lab ID: 1605689-011A
Client Sample ID: CS-217-FD

Collection Date: 5/22/2016 8:10 pm
Received Date: 5/23/2016 9:45 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.152	mg/L	0.010	1.3	SB	5/24/2016	EPA 200.7
Iron	0.023	mg/L	0.006		SB	5/24/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	5/24/2016	SM3113B

Prein&Newhof

Project: 0063.03936.1

Project No: 2160001

Lab Order: 1605689

Matrix: DRINKING WATER

Sampled By: W. Bosze

Lab ID: 1605689-012A

Collection Date: 5/22/2016 8:15 pm

Client Sample ID: CS-217-FL

Received Date: 5/23/2016 9:45 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.164	mg/L	0.010	1.3	SB	5/24/2016	EPA 200.7
Iron	0.022	mg/L	0.006		SB	5/24/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	5/24/2016	SM3113B

Lab ID: 1605689-013A

Collection Date: 5/22/2016 8:18 pm

Client Sample ID: DFS-140-FD

Received Date: 5/23/2016 9:45 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.167	mg/L	0.010	1.3	SB	5/24/2016	EPA 200.7
Iron	0.016	mg/L	0.006		SB	5/24/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	5/24/2016	SM3113B

Lab ID: 1605689-014A

Collection Date: 5/22/2016 8:23 pm

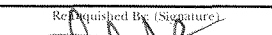


Client Sample ID: DFS-140-FL

Received Date: 5/23/2016 9:45 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.067	mg/L	0.010	1.3	SB	5/24/2016	EPA 200.7
Iron	0.015	mg/L	0.006		SB	5/24/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	5/24/2016	SM3113B

Prein&Newhof

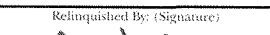


wjboosje@rosewestra.com

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wjbosze@rosewestra.com

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Air	A
Drinking Water	D
Groundwater	W
Soil	S
Sludge	L
Oil	O
Other	X

Relinquished By: (Signature) 	Date 5/23/16	Time	Received By: (Signature)	Date	Time	Relinquished By: (Signature)	Date	Time	Received By: (Signature)	Date	Time
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