HIGH BRIDGE SCHOOL DISTRICT

HIGH BRIDGE ELEMENTARY SCHOOL
40 Fairview Avenue
High Bridge, NJ 08829
Ph: 908-638-4105
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HIGH BRIDGE MIDDLE SCHOOL
50 Thomas Street
High Bridge, NJ 08829
Ph: 908-638-4101
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Gregory A. Hobaugh, Ed.D.
Superintendent
Elementary School Principal

Emma A. Alparone
Elementary School
Assistant Principal

Lisa M. Fallon
Director of Special Services
Preschool Supervisor
ESL Coordinator

Richard J. Kolton
Middle School Principal
Director of Curriculum and
Technology

December 8, 2021

In response to recent discoloration in water, PARS Environmental, Inc. (PARS) was contracted to take samples and test the drinking water at selected locations around the High Bridge Middle School.

A total of thirteen samples were analyzed for Iron, Manganese, Copper, and Arsenic. The results of these tests can be found below.

A summary of the Primary and Secondary Standards is provided below as well. Secondary standards, per the United States Environmental Protection Agency (USEPA), are "non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration), or aesthetic effects (such as taste, odor, or color) in drinking water. USEPA recommends secondary standards to water systems but does not require systems to comply with the standard. These contaminants are not considered to present a risk to human health." "USEPA believes that if these contaminants are present in your water at levels above these standards, the contaminants may cause the water to appear cloudy or colored, or to taste or smell bad. *This may cause a great number of people to stop using water from their public water system even though the water is actually safe to drink.*"

(Source:
https://www.epa.gov/sdwa/secondary-drinking-water-standards-guidance-nuisance-chemicals)

Based on the laboratory analytical results, no further investigation is warranted at this time. The water is safe for human consumption, in regards to the testing done for copper, iron, manganese, and arsenic.

If you have any questions, please contact our office.
Thank you.

Gregory A. Hobaugh, Ed.D.

Specialists in Drinking Water Testing Technologies ■ Residential ■ Industrial ■ Municipal

PRECISION ANALYTICAL SERVICES, INC.

2161 WHITESVILLE ROAD TOMS RIVER, NJ 08755 PHONE 732-914-1515 FAX 732-914-1616

CERTIFICATE OF ANALYSIS

Customer : PARS Environmental
500 Horizon Drive, Suite 540
Robbinsville Twp, NJ 08691

Project ID : Highbridge Middle School
PAS Project ID : P21-11132

Matrix : Drinking Water
Report Date : 10/11/2021

PAS Sample ID	Client ID	Analysis	Results	Units	DF	PQL	MDL	MCL	Method	Date Sampled	Date Analyzed
P21-11132-08	HBMS-Gym-BT	Copper	0.716	mg/L	1	0.050	0.0226	1.30*	SM 3111 B	10/2/21 10:49	10/6/21 16:47
P21-11132-08	HBMS-Gym-BT	Iron	**0.631**	mg/L	1	0.100	0.0429	0.300**	SM 3111 B	10/2/21 10:49	10/6/21 15:34
P21-11132-08	HBMS-Gym-BT	Manganese	0.0377	mg/L	1	0.025	0.0104	0.050**	SM 3111 B	10/2/21 10:49	10/6/21 14:34
P21-11132-08	HBMS-Gym-BT	Arsenic	ND	mg/L	1	0.001	0.00072	0.005	SM 3113 B	10/2/21 10:49	10/7/21 07:09
P21-11132-09	HBMS-Hallway MO-BT	Copper	0.609	mg/L	1	0.050	0.0226	1.30*	SM 3111 B	10/2/21 10:51	10/6/21 16:48
P21-11132-09	HBMS-Hallway MO-BT	Iron	**0.663**	mg/L	1	0.100	0.0429	0.300**	SM 3111 B	10/2/21 10:51	10/6/21 15:35
P21-11132-09	HBMS-Hallway MO-BT	Manganese	0.025	mg/L	1	0.025	0.0104	0.050**	SM 3111 B	10/2/21 10:51	10/6/21 14:35
P21-11132-09	HBMS-Hallway MO-BT	Arsenic	ND	mg/L	1	0.001	0.00072	0.005	SM 3113 B	10/2/21 10:51	10/7/21 07:13
P21-11132-10	HBMS-Hallway 206-WC	Copper	0.960	mg/L	1	0.050	0.0226	1.30*	SM 3111 B	10/2/21 10:53	10/6/21 16:49
P21-11132-10	HBMS-Hallway 206-WC	Iron	**3.64**	mg/L	5	0.500	0.215	0.300**	SM 3111 B	10/2/21 10:53	10/6/21 15:36
P21-11132-10	HBMS-Hallway 206-WC	Manganese	**0.0824**	mg/L	1	0.025	0.0104	0.050**	SM 3111 B	10/2/21 10:53	10/6/21 14:37
P21-11132-10	HBMS-Hallway 206-WC	Arsenic	ND	mg/L	1	0.001	0.00072	0.005	SM 3113 B	10/2/21 10:53	10/7/21 07:17
P21-11132-11	HBMS-Nurse Office-NS	Copper	0.619	mg/L	1	0.050	0.0226	1.30*	SM 3111 B	10/2/21 10:55	10/6/21 16:50
P21-11132-11	HBMS-Nurse Office-NS	Iron	**0.760**	mg/L	1	0.100	0.0429	0.300**	SM 3111 B	10/2/21 10:55	10/6/21 15:37
P21-11132-11	HBMS-Nurse Office-NS	Manganese	0.025	mg/L	1	0.025	0.0104	0.050**	SM 3111 B	10/2/21 10:55	10/6/21 14:41
P21-11132-11	HBMS-Nurse Office-NS	Arsenic	ND	mg/L	1	0.001	0.00072	0.005	SM 3113 B	10/2/21 10:55	10/7/21 07:21
P21-11132-12	HBMS-Rm 306-WC	Copper	2.33	mg/L	2	0.100	0.0452	1.30*	SM 3111 B	10/2/21 10:57	10/6/21 16:51
P21-11132-12	HBMS-Rm 306-WC	Iron	**4.93**	mg/L	5	0.500	0.215	0.300**	SM 3111 B	10/2/21 10:57	10/6/21 15:38
P21-11132-12	HBMS-Rm 306-WC	Manganese	**0.172**	mg/L	1	0.025	0.0104	0.050**	SM 3111 B	10/2/21 10:57	10/6/21 14:42
P21-11132-12	HBMS-Rm 306-WC	Arsenic	ND	mg/L	1	0.001	0.00072	0.005	SM 3113 B	10/2/21 10:57	10/7/21 07:30
P21-11132-13	HBMS-H Rm 303-BT	Copper	0.102	mg/L	1	0.050	0.0226	1.30*	SM 3111 B	10/2/21 10:59	10/6/21 16:52
P21-11132-13	HBMS-H Rm 303-BT	Iron	ND	mg/L	1	0.100	0.0429	0.300**	SM 3111 B	10/2/21 10:59	10/6/21 15:39
P21-11132-13	HBMS-H Rm 303-BT	Manganese	ND	mg/L	1	0.025	0.0104	0.050**	SM 3111 B	10/2/21 10:59	10/6/21 14:44
P21-11132-13	HBMS-H Rm 303-BT	Arsenic	ND	mg/L	1	0.001	0.00072	0.005	SM 3113 B	10/2/21 10:59	10/7/21 07:34

Except for the parameters tested, PAS makes no representation as to the fitness or quality of the sample taken.

DF = Dilution Factor
MCL = Maximum Contaminant Level
PQL = Practical Quantitation Limit
MDL = Minimum Detection Limit
ND = Analyzed for but not detected
J = Estimated result
* = Federal Action Level
** = Secondary MCL / Recommended Upper Limit

All samples are analyzed in accordance with New Jersey Department of Environmental Protection protocols.

Mark D. Feitelson, Lab. Director

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CERTIFICATE OF ANALYSIS

Customer : PARS Environmental
500 Horizon Drive, Suite 540
Robbinsville Twp, NJ 08691

Project ID : Highbridge Middle School
PAS Project ID : P21-11132

Matrix : Drinking Water
Report Date : 10/11/2021

PAS Sample ID	Client ID	Analysis	Results	Units	DF	PQL	MDL	MCL	Method	Date Sampled	Date Analyzed
P21-11132-01	Field Blank	Copper	ND	mg/L	1	0.050	0.0226	1.30*	SM 3111 B	10/2/21 10:35	10/6/21 16:35
P21-11132-01	Field Blank	Iron	ND	mg/L	1	0.100	0.0429	0.300**	SM 3111 B	10/2/21 10:35	10/6/21 15:25
P21-11132-01	Field Blank	Manganese	ND	mg/L	1	0.025	0.0104	0.050**	SM 3111 B	10/2/21 10:35	10/6/21 14:23
P21-11132-01	Field Blank	Arsenic	ND	mg/L	1	0.001	0.00072	0.005	SM 3113 B	10/2/21 10:35	10/7/21 06:28
P21-11132-02	HBMS-Water Main Art Room	Copper	0.0235 J	mg/L	1	0.050	0.0226	1.30*	SM 3111 B	10/2/21 10:37	10/6/21 16:39
P21-11132-02	HBMS-Water Main Art Room	Iron	**0.873**	mg/L	1	0.100	0.0429	0.300**	SM 3111 B	10/2/21 10:37	10/6/21 15:26
P21-11132-02	HBMS-Water Main Art Room	Manganese	0.0186 J	mg/L	1	0.025	0.0104	0.050**	SM 3111 B	10/2/21 10:37	10/6/21 14:24
P21-11132-02	HBMS-Water Main Art Room	Arsenic	ND	mg/L	1	0.001	0.00072	0.005	SM 3113 B	10/2/21 10:37	10/7/21 06:32
P21-11132-03	HBMS-Kitchen-FP1	Copper	0.658	mg/L	1	0.050	0.0226	1.30*	SM 3111 B	10/2/21 10:39	10/6/21 16:40
P21-11132-03	HBMS-Kitchen-FP1	Iron	**0.437**	mg/L	1	0.100	0.0429	0.300**	SM 3111 B	10/2/21 10:39	10/6/21 15:27
P21-11132-03	HBMS-Kitchen-FP1	Manganese	0.0186 J	mg/L	1	0.025	0.0104	0.050**	SM 3111 B	10/2/21 10:39	10/6/21 14:25
P21-11132-03	HBMS-Kitchen-FP1	Arsenic	ND	mg/L	1	0.001	0.00072	0.005	SM 3113 B	10/2/21 10:39	10/7/21 06:36
P21-11132-04	HBMS-Kitchen-FP2	Copper	0.804	mg/L	1	0.050	0.0226	1.30*	SM 3111 B	10/2/21 10:41	10/6/21 16:41
P21-11132-04	HBMS-Kitchen-FP2	Iron	**0.388**	mg/L	1	0.100	0.0429	0.300**	SM 3111 B	10/2/21 10:41	10/6/21 15:28
P21-11132-04	HBMS-Kitchen-FP2	Manganese	0.0186 J	mg/L	1	0.025	0.0104	0.050**	SM 3111 B	10/2/21 10:41	10/6/21 14:26
P21-11132-04	HBMS-Kitchen-FP2	Arsenic	ND	mg/L	1	0.001	0.00072	0.005	SM 3113 B	10/2/21 10:41	10/7/21 06:40
P21-11132-05	HBMS-Cafe-BT	Copper	ND	mg/L	1	0.050	0.0226	1.30*	SM 3111 B	10/2/21 10:43	10/6/21 16:44
P21-11132-05	HBMS-Cafe-BT	Iron	ND	mg/L	1	0.100	0.0429	0.300**	SM 3111 B	10/2/21 10:43	10/6/21 15:29
P21-11132-05	HBMS-Cafe-BT	Manganese	ND	mg/L	1	0.025	0.0104	0.050**	SM 3111 B	10/2/21 10:43	10/6/21 14:27
P21-11132-05	HBMS-Cafe-BT	Arsenic	ND	mg/L	1	0.001	0.00072	0.005	SM 3113 B	10/2/21 10:43	10/7/21 06:44
P21-11132-06	HBMS-Rm 103-TL	Copper	1.08	mg/L	1	0.050	0.0226	1.30*	SM 3111 B	10/2/21 10:45	10/6/21 16:45
P21-11132-06	HBMS-Rm 103-TL	Iron	**0.615**	mg/L	1	0.100	0.0429	0.300**	SM 3111 B	10/2/21 10:45	10/6/21 15:30
P21-11132-06	HBMS-Rm 103-TL	Manganese	0.025	mg/L	1	0.025	0.0104	0.050**	SM 3111 B	10/2/21 10:45	10/6/21 14:32
P21-11132-06	HBMS-Rm 103-TL	Arsenic	ND	mg/L	1	0.001	0.00072	0.005	SM 3113 B	10/2/21 10:45	10/7/21 06:48
P21-11132-07	HBMS-Hallway 103-BT	Copper	0.0235 J	mg/L	1	0.050	0.0226	1.30*	SM 3111 B	10/2/21 10:47	10/6/21 16:46
P21-11132-07	HBMS-Hallway 103-BT	Iron	ND	mg/L	1	0.100	0.0429	0.300**	SM 3111 B	10/2/21 10:47	10/6/21 15:33
P21-11132-07	HBMS-Hallway 103-BT	Manganese	ND	mg/L	1	0.025	0.0104	0.050**	SM 3111 B	10/2/21 10:47	10/6/21 14:33
P21-11132-07	HBMS-Hallway 103-BT	Arsenic	ND	mg/L	1	0.001	0.00072	0.005	SM 3113 B	10/2/21 10:47	10/7/21 07:05

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* = Federal Action Level
** = Secondary MCL / Recommended Upper Limit

All samples are analyzed in accordance with New Jersey Department of Environmental Protection protocols.

Mark D. Feitelson, Lab. Director

Federal and NJ State Primary and Secondary Drinking Water Standards as of June 2020

Volatile Organic Compounds

Contaminants	Maximum Contaminant Levels [MCL] [µg/l or ppb]
Benzene	1*
Carbon Tetrachloride	2*
1,2-Dichlorobenzene	600
1,3- Dichlorobenzene	600*
1,4- Dichlorobenzene	75
1,1-Dichloroethane	50*
1,2-Dichloroethane	2*
1,1-Dichloroethylene	2*
cis- 1,2-Dichloroethylene	70
trans- 1,2-Dichloroethylene	100
1,2-Dichloropropane	5
Ethylbenzene	700
Methyl tertiary Butyl Ether	70*
Methylene Chloride	3*
Monochlorobenzene	50*
Naphthalene	300*
Styrene	100
1, 1,2,2-Tetrachloroethane	1*
Tetrachloroethylene	1*
Toluene	1,000
1,2,4-Trichlorobenzene	9*
1,1,1-Trichloroethane	30*
1,1,2-Trichloroethane	3*
Trichloroethylene	1*
Vinyl Chloride	2
Xylenes [Total]	1,000*

Radionuclides

Contaminants	Maximum Contaminant Levels [MCL]
Combined radium 226/228	5 pCi/L
Gross alpha particles	15 pCi/L
Beta/photon emitters	4 mrem/year
Uranium	30 µg/L

Other Contaminants

Turbidity No more than 5% of the samples may exceed 0.3 NTU, nor any sample exceed 1 NTU.

Coliform bacteria standards are based on an MCL for E. coli, and uses E. coli and total coliforms to initiate a "find and fix" approach to address fecal contamination that could enter into the distribution system. It requires public water systems to perform assessments to identify sanitary defects and subsequently take action to correct them.

Inorganic Chemicals

Contaminants	Maximum Contaminant Levels [MCL] [µg/l or ppb]
Antimony	6
Arsenic	5 *
Asbestos	7 x 10^6 fibers/l >10 µm
Barium	2,000
Beryllium	4
Cadmium	5
Chromium	100
Copper	1,300**[AL]
Cyanide	200
Fluoride	4,000
Lead	15**[AL]
Mercury	2
Nickel	+
Nitrate [as nitrogen]	10,000
Nitrite	1,000
[combined nitrate/nitrite]	10,000
Selenium	50
Thallium	2

Disinfection Byproducts

Contaminants	Maximum Contaminant Levels [MCL] µg/L or ppb (as running annual averages per group)
Dichlorobromomethane	80 (TTHM)
Chlorodibromomethane	80 (TTHM)
Bromofrom	80 (TTHM)
Chloroform	80 (TTHM)
Monochloroacetic acid	60 (HAA5)
Dichloroacetic acid	60 (HAA5)
Trichloroacetic acid	60 (HAA5)
Bromoacetic acid	60 (HAA5)
Dibromoacetic acid	60 (HAA5)
Bromate	10
Chlorite	1,000

TTHM- Trihalomethanes
HAA5- Haloacetic Acids
Bromate (only for treatment plants using ozone)
Chlorite (only for treatment plants using chlorine dioxide), requries daily/follow-up monitoring, not annual

For a detailed explanation of the Safe Drinking Water Program, refer to the Federal Safe Drinking Water Act regulations [40 CFR Parts 141, 142, 143] and the New Jersey Safe Drinking Water regulations [N.J.A.C. 7:10-1 et seq.].

Synthetic Organic Compounds

Contaminants	Maximum Contaminant Levels [MCL] [µg/l or ppb]
Alachlor	2
Aldicarb	+
Aldicarb Sulfone	+
Aldicarb Sulfoxide	+
Atrazine	3
Benzo[a]pyrene	0.2
Carbofuran	40
Chlordane	0.5*
Dalapon	200
Dibromochloropropane [DBCP]	0.2
Di[2-ethylhexyl]adipate	400
Di[2-ethylhexyl]phthalate	6
Dinoseb	7
Diquat	20
Endothall	100
Endrin	2
Ethylene dibromide [EDB]	0.05
Glyphosate	700
Heptachlor	0.4
Heptachlor Epoxide	0.2
Hexachlorobenzene	1
Hexachlorocyclopentadiene	50
Lindane	0.2
Methoxychlor	40
Oxamyl	200
PCBs	0.5
Pentachlorophenol	1
Perfluorononanoic acid (PFNA)	0.013*
Perfluorooctanoic acid (PFOA)	0.014*
Perfluorooctane sulfonic acid (PFOS)	0.013*
Picloram	500
Simazine	4
Toxaphene	3
2,3,7,8—TCDD [Dioxin]	$3x10^{-5}$
2,4-D	70
2,4,5-TP [Silvex]	50
1,2,3-Trichloropropane (1,2,3-TCP)	0.030*

Per- and polyfluoroalkyl substances (PFAS such as PFNA, PFOA & PFOS) are considered to be Synthetic Organic Compounds due to their chemical makeup, however, their regulatory framework follows that of Volatile Organic Compounds

Secondary Standards

Physical Characteristics	Recommended Upper Limit or Optimum Range
Color	10 color units (standard cobalt scale)
pH	6.5 to 8.5 (optimum range)
Odor	3 Threshold odor number
Taste	No objectionable taste

Chemical Characteristics	Recommended Upper Limit [mg/l or ppm]
ABS/L.A.S.	0.5
Aluminum	0.2
Chloride	250
Fluoride	2
Hardness (as $CaCO_3$)	250
Iron	0.3
Manganese	0.05
Silver	0.1
Sodium	50
Sulfate	250
Total Dissolved Solids (TDS)	500
Zinc	5

Key:
* N.J. MCL [A-280]
** An [AL] action level is not an MCL. It is a trigger point at which remedial action is to take place
+ No MCL – Monitoring Required

One milligram per liter [mg/l] = one part per million = one cent in $10,000 or one second in 12 days.
One microgram per liter [µg//l] = one part per billion = one cent in $10,000,000 or one second in 32 years.

New Jersey Department of Environmental Protection

Division of Water Supply and Geoscience

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