

More Than Just Assessments. **Solutions.**

QUALITY ASSURANCE PROJECT PLAN (QAPP)

Green Hill Elementary School 69 Mackerley Road Greendell, NJ 07839

September 12, 2024

Partner Project No. 23-431380.1

Prepared for: Green Hill Elementary School



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The following Appendices are attached at the end of this report.

Appendices

- Appendix A: 3Ts for Reducing Lead in Drinking Water ni Schools
- Appendix B: School District Lead Water in Schools
- Appendix C: Chain of Custody
- Appendix D: Excel Template for Lead Results



Approvals

| Green Hill Elemer | ntary School Representat | ives: | |
|-----------------------|---------------------------------|----------------------|------------|
| | Michael Housel | | |
| Program Manage | r: | | |
| | Print Name | Signature | Date |
| | | Augelica Resayung | |
| Project Manager(s): | Angelica Rosaperez | | 8/12/2024 |
| | Print Name | Signature | Date |
| Individual School Pro | pject Officer(s) (See page iii) |) | |
| Third Party Samp | ling Firm: Partner E | ngineering & Science | |
| | | Name of Firm | |
| - | Gianna Sandull | Gianner Sanebell | 8/12/2024 |
| | Print Name | Signature | Date |
| - | Print Name | Signature | Date |
| | EMSL Analytical, Inc. | | |
| Laboratory: | Name of Laboratory | | |
| Laboratory Mana | ger: Owen McKenna | Ch MM 15 | 08/17/2024 |
| | Print Name | Signature | Date |
| Laboratory QA O | Nicholas C Straccion | e Milte | 08/17/2024 |
| | Print Name | Signature | Date |

For additional laboratories conducting sampling and or analysis use additional sheet for sign-off.



1.0 OBJECTIVE & GOALS/BACKGROUND

1.1 Objective and Goals

A Quality Assurance Project Plan is a document that describes the planning, implementation and evaluation steps involved in the acquisition of data that will be used to arrive at a specific goal. The overall objective for this QAPP is to determine the lead concentration at drinking water outlets within the District's schools so that corrective action(s) may be implemented at any drinking water outlets sampled found to exceed the US Environmental Protection Agency (USEPA) drinking water lead action level of 15 micrograms per liter (μ g/L). For the purposes of compliance, any concentration greater than 15 μ g/L (as defined as greater than or equal to 15.5 μ g/L) is considered to exceed the lead action level.

The lead sampling will consist of the collection of a first draw (initial) sample according to this QAPP and the *Green Hill Elementary School sampling plan* (Sampling Plan). The drinking water outlets can be faucets, drinking water fountains (or bubblers) and water coolers (see Sampling Plan for details).

Follow-up sampling will also be covered by this QAPP and the Sampling Plan. An optional follow-up flushed sample may be analyzed at selected drinking water outlets after flushing for 30 seconds. (An exception to the 30 second follow-up flushed sample is for a water cooler which requires a different follow-up sampling timeframe).

The analytical results and field data will be used by the Project Manager and the District (See Section 2.2) to determine whether drinking water distributed from drinking water outlets such as water fountains (bubblers), faucets, food preparation areas and water coolers have concentrations of lead that exceed 15 μ g/L. If a first draw (initial) or follow-up flushed cold water sample is found to contain lead at a concentration greater than 15 μ g/L, the Project Manager will instruct the Individual School Project Officer (Project Officer) (See Section 2.3) to isolate the source of drinking water by turning off the device or providing a barrier to the consumption of the water (tape and bag) until appropriate remediation is determined.

1.2 Background

Lead is a toxic metal that can be harmful to human health when ingested. Young children are particularly sensitive to the effects of lead because their bodies are still undergoing development. Lead can get into drinking water by being present in the source water or by interaction of the water with plumbing materials containing lead (through corrosion). Common sources of lead in drinking water include: solder, fluxes, pipes and pipe fittings, fixtures, and sediments. It is possible that different drinking water outlets in a given building could have dissimilar concentrations of lead.

In April 1994, USEPA prepared two guidance documents to assist municipalities in meeting the requirements of the Lead Contamination and Control Act (LCCA): *Lead in Drinking Water in Schools and Non-Residential Buildings* (EPA 812-B-94-002) and *Sampling for Lead in Drinking Water in Nursery Schools and Day Care Facilities* (EPA 812-B-94-003). In December 2005, amended October 2006, EPA issued the revised technical guidance document *3Ts for Reducing Lead in Drinking Water in Schools (EPA 816-B-05-008)* which replaced the *Lead in Drinking Water in Schools and Non-Residential Buildings* (EPA 812-B-94-002). The 3Ts Revised Technical Guidance document is meant to assist school officials in implementing programs and policies to reduce children's exposure to lead in drinking water in schools.



2.0 PROJECT/TASK ORGANIZATION

2.1 Green Hill Elementary School Program Manager (Program Manager)

The Green Hill Elementary School Program Manager is the overall authority in the execution of the District's lead sampling project. He/she is responsible for the initial notification to the District of the testing program, obtaining funds for testing, assigning the Project Manager, requesting/enlisting the assistance from other District departments if needed, approving the District's QAPP(s), approving the Final Report for each school and coordinating with other District officials to make the results of the testing available to the public. The Project Manager reports to the Program Manager

2.2 Green Hill Elementary School Project Manager (Project Manager)

The Project Manager is responsible for overseeing the execution of lead sampling at each of the district's schools. This involves the prioritization of schools to be sampled, and adherence with the District's Sampling Plan and QAPP. He/she serves as the liaison between the School District, State agencies, local Health Departments, laboratories and public water systems (if applicable). He/she reports to the Program Manager.

The Project Manager's responsibilities include:

- Preparing the District's Specific QAPP
- Managing the Sampling Plan and QAPP.
- Oversight of Individual School Project Officers (Project Officers) to ensure that they adhere to the Sampling Plan procedures and the QAPP.
- Purchasing of equipment needed for district lead sampling
- Coordination with New Jersey laboratories certified for lead in drinking water
- Coordination with Project Officers to establish sampling schedules
- Ensuring properly signed QAPPs are in place prior to initiation of sampling
- Verify that officials from each school are aware when sampling is scheduled and the expected duration
- Review of the School Field Sampling Summary Reports prepared by Project Officers
- Review of Laboratory Data Reports (LDR) from Laboratory Managers
- Review of Final Project Reports prepared by Project Officers. Identify limitations in the use of any laboratory data due to information provided in the accompanying School Field Sampling Summary Report.
- Maintain the original signed QAPP(s)
- Maintain documents, reports and records listed in Section 14 of the QAPP
 - o Laboratory Data Reports (LDR)
 - Copy of Field Sampling Summary Report with copies of field logbooks, field Walk-Through reports including Attachments B, C, D, E, and F of the Lead Sampling Plan, chains of custody and flush tags.
 - o Copy of Final Project Report
- Maintenance of other relevant records such as:



- o Purchase orders for analytical costs (copy).
- o Agreement with laboratory to sample/analyze/report with details for payment
- o Receipts (originals or copies)

2.3 Individual School Project Officer(s)

The Individual School Project Officer's responsibilities include:

- General project oversight for assigned school(s).
- Generate field log book for each assigned school. Document field activities including any changes to procedures outlined in the Sampling Plan or QAPP.
- Ensure proper completion of the Plumbing Profile for assigned school(s) See Attachment B of the Sampling Plan.
- Oversight of completion of the following reports found in the Sampling Plan which require signoff by Project Officer:
 - o Drinking Water Outlet Inventory (Sampling Plan Attachment C)
 - Filter Inventory Report (Sampling Plan Attachment D)
 - Flushing Log (Sampling Plan Attachment E)
 - Pre Sampling Water Use Certification (Sampling Plan Attachment F).
- Prepare labels for drinking water outlets to be sampled.
- Prepare for Walk-Through including acquisition of School Floor Plan.
- Attend school Walk-Through.
- Ensure proper completion of Walk-Through documentation including identification of drinking water outlets on Floor Plan, and Sampling Location Inventory with coding according to the Sampling Plan (Attachment C of Sampling Plan).
- Supervision of field activities such as Walk- Through, flushing (if required), locking school prior to sampling, and sample collection.
- Identify drinking water outlets to be flushed and attach flush tag.
- Ensure that Field Sampling Team has all relevant sampling supplies including sampling bottles, labels, proper reagent water and chains of custody prior to collection of samples.
- Ensure that all drinking water outlets to be sampled prior to sampling event are labeled.
- Ensure that any low-use drinking water outlets identified for sampling had been flushed.
- Remove flush tags from drinking water outlet once sampling is completed.
- Responsible for ensuring water remains motionless for a minimum of eight hours (last to leave the school) prior to sampling event by following procedures in Section 8 of Sampling Plan.
- Verify that the Sampling Plan was followed prior to initiating sampling by completing the Pre-Sampling Water Use Certification (Attachment F in Sampling Plan).
- Supervision of sampling event.
- Documentation of issues during sampling event in field log book.
- Preparation of Field Walk-Through Report, School Field Sampling Summary Report and Final Project Report for assigned school(s).
- Maintenance of field log books for each school.
- Prepare samples for shipment and delivery to laboratory per certified laboratory instructions.
- Ensure that samples are delivered to laboratory within the time period specified by the certified laboratory



2.4 Laboratory Manager

The Laboratory Manager is responsible for:

- Supervising laboratory analyses to be performed in the Laboratory. This includes oversight of all QA requirements in the laboratory, data review, and qualification of the data.
- Providing the Laboratory Data Report Package to the Project Manager and Project Officer.

2.5 Laboratory's Quality Assurance Officer (LQAO)

The Laboratory's Quality Assurance Officer (LQAO) is responsible for reviewing the QAPP and resolving any QA issues that may arise during the project.

2.6 Field Sampler or Field Sampling Team

The Field Sampler or Field Sampling Team, whether affiliated with the Green Hill Elementary School, ESC Labs, and/or Partner Engineering and Science, is responsible for ensuring that field activities are conducted in accordance with this QAPP and the Sampling Plan.



3.0 SPECIAL TRAINING NEEDS/CERTIFICATON

Sampling will be performed by Partner Engineering and Science.

Laboratory personnel designated to analyze the samples will have successfully completed required demonstrations of capability for the methods used. The Laboratory must be a drinking water laboratory certified by New Jersey for the analysis and reporting of lead using USEPA drinking water methods which are listed in Section 8.

Assessments of the Laboratory capability are conducted on a bi-annual basis by the NJDEP Office of Quality Assurance. The Laboratory Manager has responsibility for correction of all deficiencies in their laboratory program.



4.0 PROJECT/TASK DESCRIPTION

Drinking water samples will be collected from drinking water outlets including water fountains (bubblers), food preparation outlets (located in the cafeteria, kitchen, and home economics classrooms) and other outlets where there is the possibility of drinking the water such as in the special education classrooms, the medical office, the teachers' lounge, and ice machines. Concession stands and outside water fountains (such as in playgrounds and athletic fields) may also be considered for sampling. The custodian sink faucet may also be considered for sampling if it is used for filling large water coolers to provide water at school events. Outside hose spigots are not appropriate sampling locations for the purpose of this QAPP. The Sampling Plan provides more detail on appropriate sampling locations.

The Field Sampler or Team will conduct first draw (initial) sample collection and, as appropriate, follow-up flushed sample collection at the drinking water outlets specified in the Sampling Plan. The Sampling Team will consist of the Project Officer and the Sampler from Partner Engineering and Science. The NJ Certified Laboratory specified in the QAPP will perform the analysis for lead.



5.0 LEAD DATA QUALITY OBJECTIVES AND CRITERIA FOR MEASUREMENT

5.1 Precision

The NJ Certified Laboratory will perform replicate analysis of the Laboratory Control Standard (LCS) for every set of individual school samples to assess method precision. This is not a requirement of any of the USEPA approved methods for lead analysis. The acceptance criterion for replicate analysis is a maximum of 20 percent (%) Relative Percent Difference (RPD). In addition to the LCS data, a duplicate laboratory fortified blank (LFB) or a matrix spike and a matrix spike duplicate (MS/MSD) will also provide precision information.

5.2 Bias

As part of the analytical methodology, the NJ Certified Laboratory will perform analysis of laboratory fortified blanks (LFB) to assess accuracy/bias. The acceptance criterion for accuracy is for the results to be within plus or minus 15% recovery of the known value.

A field reagent blank (FRB) must be collected for each school. The FRB is normally only a requirement for USEPA Method 200.8, however the collection of a FRB is required with any of the other approved lead methods for this sampling event. The information provided by the results is used to determine whether the field or sample transporting procedures and environmental effects have contributed to contamination of the sample.

If any sample result(s) are qualified, this must be clearly indicated on the report and all final reports such as the field summary report. The Project Manager must be consulted to determine how to deal with the qualified results.

5.3 Representativeness

The sampling effort is designed to identify all drinking water outlets, within a school, where there is a potential for water consumption such as at water fountains (bubblers) that may require corrective action due to first draw and/or follow-up flushed sample results that exceed 15 μ g/L of lead (as defined as greater than or equal to 15.5 μ g/L or greater). Food preparation outlets and other potential ingestion outlets such as special education classrooms, the medical office and bathroom sinks are to be considered for sampling.

5.4 Comparability

The analytical methods for lead analysis in drinking water are found in the federal Safe Drinking Water Regulations at 40 CFR141.86 and 40 CFR 141 Appendix A to Subpart C. Use of these methods allows for the comparison of data to USEPA's drinking water action level for lead of greater than 15 μ g/L.

Analytical results from the first draw (initial) and the follow-up flushed samples will be compared to assist in determining the source of lead contamination. Appropriate corrective measures must then be taken by the Green Hill Elementary School.



5.5 Completeness

In order to satisfy the objective of the project, samples will be collected from drinking water outlets according to the sampling plan established in this QAPP.

One hundred percent (100%) of collected and verified initial draw samples will be analyzed and reported. In the event that an initial draw sample is determined to have a lead content above 15 μ g/L, the flush sample for that water outlet will be analyzed and reported.

5.6 Sensitivity

The Laboratory's Reporting Limit (RL) for the determination of lead in drinking water samples must be no higher than 2 μ g/L which is lower than the regulatory Practical Quantitation Level for lead of 5 μ g/L. The Practical Quantitation Level for Lead is stated in the National Primary Drinking Water Contaminant Regulations 40 CFR141 Subpart I. The required reporting limit of 2 μ g/L for this QAPP is achievable with any of the approved USEPA methods listed in 11.1.



6.0 SECONDARY DATA

Secondary data for the District would be their historical lead data.



7.0 FIELD MONITORING REQUIRMENTS

Sampling may occur in the morning hours before schools are open or on weekdays or weekends when no school activities are expected. This will minimize the potential for people in the building to use water during the sampling survey. While sampling is underway it is advisable to prohibit any persons other than the sampling team to enter the building in order to ensure that no toilets or water outlets are being used.

7.1 Monitoring Process Design

The sampling design, described in detail in the Sampling Plan (Appendix B) is based in part upon the 3T's Guidance for Reducing Lead in Drinking Water in Schools:

Revised Technical Guidance, December 2005; Errata to 3Ts, October 2006 (see Appendix A).

7.2 Monitoring Methods

Equipment and supplies that will be needed to perform the sampling survey are ASTM Type I reagent-grade water for the field reagent blank (FRB), latex non-colored gloves, pre-cleaned HDPE wide-mouth 250 mL single use rigid sample containers ("sample container") and chain of custody (COC forms-Appendix C or lab may use their own) and indelible ink/marker.

For sampling events where the Laboratory will collect the samples, the nitric acid can be either added to the collection bottle at the Laboratory and prior to collection or the nitric acid can be added at the school after collection of the sample. If the water samples are not acidified at the time of collection, the Laboratory will preserve all samples with laboratory grade concentrated nitric acid (HNO3) to a pH of 2 standard units (SU) or less within 48 hours of sample receipt.

Each school will have a separate sample cooler or box which will contain the field reagent blank (FRB) and the other samples collected. Samples will be transported by Laboratory or Samplers or appropriate representative to the Laboratory.

7.3 Field Quality Control

The analytical results obtained from the FRB will determine whether field or sample transporting procedures is a cause of sample contamination. Prior to the sampling event, the Sampler will collect a 250 mL ASTM Type I reagent-grade water from the Laboratory which will be used for the FRB. At the school and prior to the first sample collected at a school, the ASTM Type I reagent-grade water will be transferred into a sample container which will be identified as the FRB sample.

The ASTM Type I reagent-grade water will either be supplied by the Laboratory or purchased through a vendor. The 250 mL sample containers are purchased pre-cleaned. Sample containers are not to be reused.



8.0 ANALYTICAL REQUIREMENTS

8.1 Analytical Methods

Green Hill Elementary School must use one of the USEPA approved drinking water methods listed in the table below for the analysis of lead. Any of these methods can be used provided that the Laboratory is certified to analyze and report lead by that method and that the Laboratory has a reporting limit no greater than 2 μ g/L.

For the purposes of the School District's QAPP, the analytical performance information is as follows:

| Analyte | Analytical Method | Sample Matrix | Recommended Guidance Level | Reporting Level |
|--------------|--|-------------------|--|-----------------|
| Lead (Pb) | USEPA Method 200.8 USEPA Method 200.9 USEPA Method 200.5 | Drinking Water | Greater than 15 µg/L (15.5 µg/L and above) first draw (initial) sample | XXX µg/L (ppb) |

The pH of all samples must be checked at the time of receipt at the Laboratory. If the pH is not less than 2, the pH must be adjusted with the addition of nitric acid. Samples that require the addition of nitric acid must sit for 16 hours prior to digestion (if applicable) or analysis. The pH of each sample must be documented.

The turbidity of each sample must also be checked at the time of receipt at the Laboratory. If the turbidity of the sample is greater than 1 NTU, the sample must be digested prior to analysis. The turbidity of each sample must be documented and those samples digested must be recorded by the Laboratory.

If a sample result exceeds 90% of the linear dynamic range, the sample must be diluted and re-analyzed. The dilution factor must be included in the Laboratory report for each sample that is diluted.

8.2 Analytical Quality Control

The USEPA has established protocols for the analysis of Quality Control (QC) samples with each analytical batch of samples, generally defined as a maximum of twenty samples. All QC results must be assessed and evaluated on an on-going basis and QC acceptance criteria must be used to determine the validity of the data.

For analytical testing, the laboratory includes positive control samples Laboratory Control Sample (LCS) or Analytical Quality Control (AQC)] to evaluate the total analytical system. Negative control samples (Method Blanks) are used to assess the preparation batch for possible contamination during the preparation and processing steps. A blank is considered contaminated with any result at or above the analyte reporting limit. Specific control samples (Matrix Spikes) are used to indicate the effect of the sample matrix and replicates (matrix spike, LCS replicate) are performed to assess the precision of the results generated.

Specific information regarding acceptance criteria and corrective actions is documented in the Laboratory's SOP for any of the analytical methods listed in the table above.



9.0 SAMPLE HANDLING AND CUSTODY REQUIRMENTS

All samples are aqueous and will be collected and labeled by the laboratory.

Standard USEPA Chain of Custody (COC) procedures will be followed according to the information provided in the District's Sampling Plan (Appendix B). The COC form found in Appendix C or equivalent is to be used for this project.

Samples will be transported by Laboratory or Samplers or appropriate representative to the Laboratory.

| Analyte | Sample Volume | Container | Preservation (Note1) | Holding Time |
|--------------|------------------|---|---|-----------------|
| Lead (Pb) | 250 mL | unused 250 mL rigid plastic wide-mouth – clean | Reagent Grade Nitric Acid (HNO3) pH < 2 | 6 months |

Note 1. Sample preservation will be conducted either in the field or by the Laboratory upon receipt.

9.1 Sample Archive/Disposal

The samples received by the Laboratory for each school, including any digestates, will be eligible for disposal at a minimum 30 days unless otherwise directed by the District after the final report has been distributed. Samples including any digestates will not be archived unless a written request is provided to the Laboratory.



10.0 INSTRUMENT/EQUIPMENT TESTING, INSPECTION, MAINTENANCE & CALIBRATION REQUIREMENTS

10.1 Instrument/Equipment Testing, Inspection and Maintenance

All laboratory equipment will be tested, calibrated, and maintained in accordance with existing SOPs approved by the laboratory.

There are no field instruments anticipated for this project.

10.2 Instrument/Equipment Calibration and Frequency

The USEPA approved analytical methods for lead listed in the National Primary Drinking Water Contaminant Regulations at 40 CFR 141.23 and Appendix A to Subpart C require that the instrument calibration be performed on a daily basis.

10.3 Inspection/Acceptance of Supplies and Consumables

250 mL sample containers are purchased pre-cleaned. Sample containers are not to be reused. Sample gloves are to be disposable, non-colored and not reused.



11.0 DATA MANAGEMENT

The Laboratory will immediately notify the Project Manager and Project Officer of the affected school(s) upon receipt of any validated laboratory results that exceed the action level for lead in drinking water that is greater than 15 μ g/L (as defined as greater than or equal to 15.5 μ g/L). For all results, the Laboratory will provide the result in micrograms per liter (μ g/L) and to at least three (3) significant figures (i.e.19.6 μ g/L or 20.4 μ g/L).

The Laboratory will provide a final electronic copy of the Lead Data Report Package (LDR) for each school that will consist of: 1) PDF cover sheet that identifies the school name and all qualifiers with a description for that qualifier used by the laboratory, 2) laboratory report of the analytical results in PDF format, 3) the chain of custody in PDF format and 4) a spreadsheet of the results. The spreadsheet must include the information outlined in the template provided in Appendix D. Information required to be included in separate columns includes but is not limited to; the field ID (sample location identifier and/or code), the Laboratory sample ID, the Laboratory Name and Laboratory certification number, whether the sample was flushed, the date and time of collection and analysis, the analytical method, the analytical result in $\mu g/L$, the reporting limit in $\mu g/L$, and whether the sample was diluted or digested and any qualifiers.

The LDR Package will include the analytical results, appropriate qualifiers and reporting limits for analyses of submitted samples as requested by the District. The LDR Package must include explanations of any relevant procedural deviations or anomalies associated with the sample handling and analysis of the project. This report will be completed within the timeframe indicated in the contract. (see Section 5).



12.0 ASSESSMENTS/OVERSIGHT

Formal field audits by QA personnel may be conducted for this project. However, identification of problems related to technical performance will be the responsibility of the staff working on this project.

The Project Officer(s) will assess any problem that arises in the field. If necessary, modifications to technical procedures may be considered. Any changes in technical procedures will be documented in the field logbook, evaluated to determine if there will be any impact to the data and then highlighted in the Final Project Report.

The Laboratory personnel will perform self-audits and institute corrective actions in accordance with their respective written procedures.



13.0 DATA REVIEW, VERIFICATION, VALIDATION, AND USABILITY

13.1 Data Review, Verification and Validation

The Project Manager will evaluate the School Field Sampling Summary Reports against the final analytical results to determine if any field observations may have contributed to lower or higher analytical results.

The Project Manager will review the analytical report and determine any limitations on the use of the data (see Section 5.2 Bias of this QAPP) and include these limitations in the Final Project Report.

Data review of all laboratory generated data is performed by the Laboratory Quality Assurance Officer (LQAO) who is not associated with the actual measurement operations for the given analytical batch but knowledgeable in the analytical processes employed. It is the responsibility of the LQAO to ensure that all data generated are correct and of known and documented quality. Once the review is completed, the LQAO will sign and date the appropriate QA/QC checklist according to the Laboratory's SOP. Any limitations on the use of data (e.g. data qualifiers) will be included in the Final Project Report.

13.2 Reconcilation with User Requirements

As long as the Field Sampling Summary Report, LDR Package and Final Project Report of this QAPP are satisfied, the data will be useable for the purpose intended and no further assessment is required. If any data are determined to be unusable by the Project Manager, re-sampling may be required.



14.0 REPORTING, DOCUMENTS AND RECORDS

Original documents (X) will be stored as follows:

| Document: | <u>Individual</u> <u>School Project</u> <u>Officer</u> | <u>Green Hill</u> <u>Elementary</u> <u>School<i>Project</i> <u>Manager</u></u> | <u>Green Hill</u> <u>Elementary</u> <u>School<i>Progra</i> <u>m Manager</u></u> |
|--|--|--|---|
| QAPP | Сору | Х | Сору |
| Field Walk-Thru Report | Х | Сору | Сору |
| Field Logbook | Х | | |
| Chains of Custody | Х | Сору | Сору |
| Flushing Notification/ Flushing Log Tags/Procedure | Х | Сору | Сору |
| Field Sampling Summary Report | Х | Сору | Сору |
| Flush Tags | х | Сору | Сору |
| Floor Diagrams | х | Сору | Сору |
| Plumbing Profile | Х | Сору | Сору |
| Filter Inventory | X | Сору | Сору |
| Drinking Water Outlet Inventory | X | Сору | Сору |
| Pre Sampling Water Use Certification | X | Сору | Сору |
| Laboratory Data Report | Х | Сору | Сору |
| Final Project Report | Сору | Х | Сору |



APPENDIX A: 3TS FOR REDUCING LEAD IN DRINKING WAGTER IN SCHOOLS

School district lead water testing sampling plan



APPENDIX B: SCHOOL DISTRICT LEAD WATER IN SCHOOLS



Appendix A 3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance, December 2005; Errata to 3Ts, October 2006

Available online at:

<u>https://www.epa.gov/sites/production/files/2015-</u> 09/documents/toolkit leadschools guide 3ts leadschools.pdf

http://www.nj.gov/dep/watersupply/dwc-lead-schools.html

APPENDIX C: CHAIN OF CUSTODY



Appendix C: Chain of Custody

POTABLE WATER SAMPLING FOR LEAD CONCENTRATION SAMPLE COLLECTION FORM

| | | | LAB INFORMATION | |
|---------------------------|------------------|-------------------|-------------------|-------------------|
| Name: | | | Name: | |
| Address: | | | Address: | |
| Client Rep: | | | Proj.Mgr: | |
| SCHOOL/PROJECT INFORMATIO | N | | | |
| BLDG ID: | | | | |
| BLDG No/Name: | | | | |
| BLDG Address: | | | | |
| Contact Name & Numbers | | | | |
| (0) Yr. Built: | (1) Yr.1st Add.: | (2) Yr. 2nd Add.: | (3) Yr. 1st Mod.: | (4) Yr. 2nd Mod.: |
| | | | | |

SAMPLING TEAM:

DATE OF SAMPLING:

| SAM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|--|-------|-------|------------|------------|------|-------|--------------|------|-------|-------------------------------|------|------|---|--------|--------|-------------------|---------|-------------------------------|-----------|------------|-------|-------------------------|-------|--------|---|--|
| | S | amp | le De | escri | ptior | ۱D | (ID m | nust i | mato | h co | n container label) Drinki | | | | | | | Drinkin | king Water Outlet Information | | | | | | | | |
| Sample # | - | Floor | | Functional | Space Code | | IN/BY | Ro | oom | Num | Sam Code Code Number | | | ampled Outlet Location/Coordinates/number | | | | | | 0 Seconds | 30 Seconds | colle | ne of ection 4hr) | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | - | | | | | | | | _ | - | | | - | |
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| All c | on | tain | ers | are | pre- | clea | aned | / 25 | 0 m | l pla | astic | bott | tles | pres | served | I w HN | 10 ₃ @ | pH<2 | 2 by fi | eld | or to b | e pre | serv | ed by | / lab_ | | |
| | All containers are pre-cleaned/ 250 ml CHAIN OF CUSTODY | | | | | | | | | • | | | | | | | | - | | | | • | | , | _ | | |
| | Relinquished By: | | | | | | | Received By: | | | | | | | Т | ime: | | | | | | | | | | | |
| I. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| II. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| III. | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | |

Hand Delivery

Fed-Ex

Method of shipment/delivery:



US Mail

UPS

Courier

Other:

APPENDIX D: EXCEL TEMPLATE FOR LEAD RESULTS



| Field ID | Flushed Y/N | | Laboratory Name | Lab Certification ID | | Time Sampled | Analytical Method | | Time of Analysis | Concentration in ug/L | Reporting Limit (ug/L) | Dilution Factor | Digested (Y/N) | Qualifier |
|-------------------------|----------------|-------------|--------------------|----------------------------|-----------|-----------------|----------------------|-----------|---------------------|-----------------------|------------------------------|--------------------|-------------------|-----------|
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Appendix D: Excel Template for Lead Results

