

January 12, 2024

Bill Pietroburgo  
Professional Environmental Engineers, Inc.  
2665 Scott Ave., Suite B  
St. Louis, MO 63103  
TEL: (314) 531-0060  
FAX: (314) 531-0068



|           |         |
|-----------|---------|
| Illinois  | 100226  |
| Kansas    | E-10374 |
| Louisiana | 05002   |
| Louisiana | 05003   |
| Oklahoma  | 9978    |

**RE:** De Soto School District- Athena

**WorkOrder:** 23122088

Dear Bill Pietroburgo:

TEKLAB, INC received 30 samples on 12/28/2023 3:30:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Patrick Riley  
Project Manager  
(618)344-1004 ex 44  
[patrickriley@teklabinc.com](mailto:patrickriley@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

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**Client:** Professional Environmental Engineers, Inc.

**Work Order:** 23122088

**Client Project:** De Soto School District- Athena

**Report Date:** 12-Jan-24

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**This reporting package includes the following:**

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### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

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### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



## Case Narrative

<http://www.teklabinc.com/>

**Client:** Professional Environmental Engineers, Inc.

**Work Order:** 23122088

**Client Project:** De Soto School District- Athena

**Report Date:** 12-Jan-24

**Cooler Receipt Temp:** NA °C

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### Locations

#### Collinsville

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** jhriley@teklabinc.com

#### Collinsville Air

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** EHurley@teklabinc.com

#### Springfield

**Address** 3920 Pintail Dr  
Springfield, IL 62711-9415  
**Phone** (217) 698-1004  
**Fax** (217) 698-1005  
**Email** KKlostermann@teklabinc.com

#### Chicago

**Address** 1319 Butterfield Rd.  
Downers Grove, IL 60515  
**Phone** (630) 324-6855  
**Fax**  
**Email** arenner@teklabinc.com

#### Kansas City

**Address** 8421 Nieman Road  
Lenexa, KS 66214  
**Phone** (913) 541-1998  
**Fax** (913) 541-1998  
**Email** jhriley@teklabinc.com



## Accreditations

<http://www.teklabinc.com/>

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| State     | Dept | Cert #  | NELAP | Exp Date  | Lab          |
|-----------|------|---------|-------|-----------|--------------|
| Illinois  | IEPA | 100226  | NELAP | 1/31/2025 | Collinsville |
| Kansas    | KDHE | E-10374 | NELAP | 4/30/2024 | Collinsville |
| Louisiana | LDEQ | 05002   | NELAP | 6/30/2024 | Collinsville |
| Louisiana | LDEQ | 05003   | NELAP | 6/30/2024 | Collinsville |
| Oklahoma  | ODEQ | 9978    | NELAP | 8/31/2024 | Collinsville |
| Arkansas  | ADEQ | 88-0966 |       | 3/14/2024 | Collinsville |
| Illinois  | IDPH | 17584   |       | 5/31/2025 | Collinsville |
| Iowa      | IDNR | 430     |       | 6/1/2024  | Collinsville |
| Kentucky  | UST  | 0073    |       | 1/31/2024 | Collinsville |
| Missouri  | MDNR | 00930   |       | 5/31/2023 | Collinsville |
| Missouri  | MDNR | 930     |       | 1/31/2025 | Collinsville |



## Laboratory Results

<http://www.teklabinc.com/>

**Client:** Professional Environmental Engineers, Inc.

**Work Order:** 23122088

**Client Project:** De Soto School District- Athena

**Report Date:** 12-Jan-24

**Matrix:** DRINKING WATER

| Sample ID   | Client Sample ID | Certification | Qual | RL  | Result | Units | DF | Date Analyzed    | Date Collected   |
|---|------------------|---------------|------|-----|--------|-------|----|------------------|------------------|
| <b>EPA 600 4.1.4, 200.8 R5.4, METALS BY ICPMS (TOTAL)</b> |                  |               |      |     |        |       |    |                  |                  |
| <b>Lead</b>   |                  |               |      |     |        |       |    |                  |                  |
| 23122088-001A   | AE-F-TS-G-1      | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/11/2024 18:07 | 12/22/2023 10:27 |
| 23122088-002A   | AE-WC-HA-G-2     | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/11/2024 18:11 | 12/22/2023 10:24 |
| 23122088-003A   | AE-BF-HA-G-3     | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/11/2024 18:15 | 12/22/2023 10:25 |
| 23122088-004A   | AE-WC-HB-1-4     | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/11/2024 18:19 | 12/22/2023 10:07 |
| 23122088-005A   | AE-WC-HC-1-5     | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/11/2024 18:48 | 12/22/2023 10:00 |
| 23122088-006A   | AE-BF-HC-1-6     | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/11/2024 18:52 | 12/22/2023 10:01 |
| 23122088-007A   | AE-WC-HC-1-7     | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/11/2024 18:56 | 12/22/2023 10:03 |
| 23122088-008A   | AE-F-312-1-8     | NELAP         |      | 1.0 | 5.2    | µg/L  | 1  | 01/11/2024 19:00 | 12/22/2023 10:05 |
| 23122088-009A   | AE-F-405-1-9     | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/11/2024 19:04 | 12/22/2023 10:16 |
| 23122088-010A   | AE-F-406-1-10    | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/11/2024 19:08 | 12/22/2023 10:18 |
| 23122088-011A   | AE-WC-HD-1-11    | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/11/2024 19:17 | 12/22/2023 10:11 |
| 23122088-012A   | AE-BF-HD-1-12    | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/11/2024 19:13 | 12/22/2023 10:12 |
| 23122088-013A   | AE-WC-HD-1-13    | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/11/2024 19:50 | 12/22/2023 10:13 |
| 23122088-014A   | AE-WC-HD-1-14    | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/11/2024 19:54 | 12/22/2023 10:15 |
| 23122088-015A   | AE-LIB-1-15      | NELAP         |      | 1.0 | 1.7    | µg/L  | 1  | 01/11/2024 19:58 | 12/22/2023 9:35  |
| 23122088-016A   | AE-WC-CAFÉ-1-16  | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/11/2024 20:02 | 12/22/2023 9:55  |
| 23122088-017A   | AE-KF-KIT-1-17   | NELAP         |      | 1.0 | 1.1    | µg/L  | 1  | 01/11/2024 20:06 | 12/22/2023 9:49  |
| 23122088-018A   | AE-WF-KIT-1-18   | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/11/2024 20:10 | 12/22/2023 9:44  |
| 23122088-019A   | AE-WF-KIT-1-19   | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/10/2024 18:25 | 12/22/2023 9:46  |
| 23122088-020A   | AE-WF-KIT-1-20   | NELAP         |      | 1.0 | 3.7    | µg/L  | 1  | 01/10/2024 18:29 | 12/22/2023 9:47  |
| 23122088-021A   | AE-KF-KIT-1-21   | NELAP         |      | 1.0 | 1.7    | µg/L  | 1  | 01/10/2024 18:32 | 12/22/2023 9:52  |
| 23122088-022A   | AE-IM-KIT-1-22   | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/10/2024 18:36 | 12/22/2023 9:51  |
| 23122088-023A   | AE-SN-KIT-1-23   | NELAP         |      | 1.0 | 2.5    | µg/L  | 1  | 01/10/2024 18:40 | 12/22/2023 9:54  |
| 23122088-024A   | AE-F-N-1-24      | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/10/2024 18:43 | 12/22/2023 9:38  |
| 23122088-025A   | AE-WC-HE-1-25    | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/10/2024 18:47 | 12/22/2023 9:31  |
| 23122088-026A   | AE-BF-HE-1-26    | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/10/2024 18:51 | 12/22/2023 9:32  |
| 23122088-027A   | AE-WC-HE-1-27    | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/10/2024 18:54 | 12/22/2023 9:29  |
| 23122088-028A   | AE-WC-HF-1-28    | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/10/2024 18:58 | 12/22/2023 9:25  |
| 23122088-029A   | AE-BF-HF-1-29    | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/10/2024 19:13 | 12/22/2023 9:26  |
| 23122088-030A   | AE-WC-HF-1-30    | NELAP         |      | 1.0 | < 1.0  | µg/L  | 1  | 01/10/2024 19:16 | 12/22/2023 9:27  |



# Receiving Check List

<http://www.teklabinc.com/>

Client: Professional Environmental Engineers, Inc.

Work Order: 23122088

Client Project: De Soto School District- Athena

Report Date: 12-Jan-24

Carrier: Employee

Received By: CET

Completed by: *Mary E. Kemp*  
On: 28-Dec-23  
Mary E Kemp

Reviewed by: *Ellie Hopkins*  
On: 28-Dec-23  
Ellie Hopkins

Pages to follow: Chain of custody  Extra pages included

- Shipping container/cooler in good condition? Yes  No  Not Present  Temp °C **NA**
- Type of thermal preservation? None  Ice  Blue Ice  Dry Ice
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Reported field parameters measured: Field  Lab  NA
- Container/Temp Blank temperature in compliance? Yes  No

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- Water – at least one vial per sample has zero headspace? Yes  No  No VOA vials
- Water - TOX containers have zero headspace? Yes  No  No TOX containers
- Water - pH acceptable upon receipt? Yes  No  NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes  No  NA

**Any No responses must be detailed below or on the COC.**

Samples were checked for turbidity and then preserved with nitric acid upon arrival in the laboratory. - MaryKemp - 12/28/2023 4:15:01 PM







