

DATA VALIDATION REPORT
MICROBAC LABORATORY SDG L13101868

Project / Site Name: Environmental Remediation Services at White Sands Missile Range (WSMR), NM; CCWS-62, Former STP Percolation Ditches

Project No.: 139791

Data Reviewer: M. Lyon, Shaw Environmental, Inc. a CB&I Company

Review Date: December 6, 2013

Matrix: Groundwater, four field samples and one field duplicate

Parameters: Metals 6010B/6020/7470A
Anions 300.0
pH 9040C
Alkalinity 310.2
Cyanide 9014/9010C/SM4500-CN-C, G/SM4500-CN-I
Conductivity 120.1
Ammonia-Nitrogen 350.1
Nitrate+Nitrite-Nitrogen 353.2
Orthophosphate SM4500-P-E-20th
Total Dissolved Solids 160.1/SM2540C
Total Organic Carbon 415.1
Total Suspended Solids 160.2

Validation Level: EPA Level III

Laboratory: Microbac Laboratories, Inc. Ohio Valley Division

Sample Delivery Group L13101868

Sample Nos.: MPL13-1013-1, MPL13-1013-2, MPL1-1013-1, MPL18-1013-1, and MPL6-1013-1

Comments: Field duplicate MPL13-1013-2.

The data were reviewed and qualified according to the *Sampling and Analysis Plan/Quality Assurance Project Plan, Environmental Remediation Services, White Sands Missile Range, New Mexico October 2010; Department of Defense Quality Systems Manual for Environmental Laboratories, Final Version 4.2, 2010*; laboratory-specific statistical process control criteria, and the analytical method specific requirements.

DATA VALIDATION REQUIREMENTS

Level IV or Full Validation includes all parameters listed below. Level III Cursory Validation parameters are indicated by an asterisk (*).

Organic Parameters

- * Temperature
- * Holding times
- GC/MS instrument performance check
- * Initial and continuing calibrations
- * Blanks
- * Surrogate recoveries
- * Matrix spike/matrix spike duplicate
- * Laboratory control sample / blank spike
- * Field duplicate
- * Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- * Overall data assessment

Inorganic and General Chemistry Parameters

- * Temperature
- * Holding times
- * Initial and continuing calibration
- * Blanks
- * Matrix spike/matrix spike duplicate
- * Laboratory control sample / blank spike
- * Field duplicate
- * Matrix duplicate
- ICP interference check sample
- CVAA / GFAA quality controls
- * ICP serial dilution
- Sample results verification
- Analyte quantitation
- Reported detection limits
- * Overall data assessment

DATA VALIDATION QUALIFIER DEFINITIONS

No qualifier indicates that the data are acceptable both qualitatively and quantitatively.

- U Not detected. The analyte was analyzed for but was not detected above the level of the associated value. The associated value is the Limit of Quantitation (LOQ).
- J Estimated. The analyte was detected and positively identified. The associated numerical value is the approximate concentration of the analyte in the sample and the bias is in determinable.
- J- Estimated. The analyte was detected and positively identified. The associated numerical value is the approximate concentration of the analyte in the sample and the bias is determined low due to associated quality control indicators.
- J+ Estimated. The analyte was detected and positively identified. The associated numerical value is the approximate concentration of the analyte in the sample and the bias is determined high due to associated quality control indicators.
- N Tentatively identified. The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
- UN Tentatively not detected, the LOQ is estimated. The analyte was analyzed for but was not detected above the reported LOQ. However, the reported LOQ is an estimate and may not be accurate or precise.
- NJ Tentatively identified. The reported concentration is an estimate. The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents the approximate concentration.
- R Rejected. The data are not usable. The presence or absence of the analyte cannot be confirmed.

DATA VALIDATION QUALIFIER REASON CODES

| Reason Code | Data Quality Condition Resulting in Assigned Qualification |
|--------------------------|---|
| General Use | |
| FB | Field blank contamination |
| FD | Field duplicate evaluation criteria not met |
| HT | Holding time requirement was not met |
| PR | Preservation requirements not met |
| LCS | Laboratory control sample evaluation criteria not met |
| MB | Method blank or preparation blank contamination |
| RB | Rinsate blank contamination |
| TB | Trip blank contamination |
| SDL | Sample quantitation limit exceeds decision criteria and the analyte was not detected |
| Inorganic Methods | |
| CCB | Continuing calibration blank contamination |
| CCV | Continuing calibration verification evaluation criteria not met |
| D | Laboratory duplicate precision evaluation criteria not met |
| DL | Serial dilution results did not meet evaluation criteria |
| ICS | Interference check sample evaluation criteria not met |
| ICV | Initial calibration verification evaluation criteria not met |
| MS | Matrix spike recovery outside acceptance range |
| PDS | Post-digestion spike recovery outside acceptance range |
| MSA | Method of standard additions correlation coefficient < 0.995 |
| PB | Preparation blank |
| Organic Methods | |
| CCAL | Continuing calibration evaluation criteria not met |
| ICAL | Initial calibration evaluation criteria not met |
| ID | Target compound identification criteria not met |
| IS | Internal standard evaluation criteria not met |
| MS/MSD | Matrix spike/matrix spike duplicate accuracy and/or precision criteria not met |
| SUR | Surrogate recovery outside acceptance range |
| TUNE | Instrument performance (tuning) criteria not met |
| P | The detected concentration difference between the primary and secondary column is greater than 25%. |

**SAMPLE DELIVERY GROUP L13101868
LEVEL III DATA VALIDATION SUMMARY**

| Analysis / Method | Temperature | Holding Times | Calibration | Blanks | MS/MSD | LCS | Duplicate | Serial Dilution | Other |
|---|-------------|---------------|-------------|--------|--------|-----|-----------|-----------------|-------|
| Metals 6010B | ✓ | ✓ | ✓ | ✓ | NA | ✓ | ✓ | NA | ✓ |
| Metals 6020 | ✓ | ✓ | ✓ | ✓ | NA | ✓ | ✓ | NA | ✓ |
| Mercury 7470A | ✓ | ✓ | ✓ | ✓ | NA | ✓ | ✓ | NA | ✓ |
| Anions 300.0 | ✓ | ✓ | ✓ | ✓ | NA | ✓ | ✓ | NA | ✓ |
| pH 9040C | ✓ | ✓ | ✓ | NA | NA | ✓ | ✓ | NA | NA |
| Alkalinity 310.2/SM2320B | ✓ | ✓ | ✓ | ✓ | NA | ✓ | ✓ | NA | NA |
| Cyanide; Total, Amenable, Dissociable 9014-9010C/SM4500-CN | ✓ | ✓ | ✓ | ✓ | NA | ✓ | ✓ | NA | ✓ |
| Conductivity 120.1 | ✓ | ✓ | ✓ | ✓ | NA | ✓ | ✓ | NA | ✓ |
| Ammonia-N 350.1 | ✓ | ✓ | ✓ | ✓ | NA | ✓ | ✓ | NA | ✓ |
| Nitrate+Nitrite-N 353.2 | ✓ | ✓ | ✓ | ✓ | NA | ✓ | ✓ | NA | ✓ |
| Orthophosphate SM4500-P | ✓ | ✓ | ✓ | ✓ | NA | ✓ | 16 | NA | ✓ |
| Total Dissolved Solids 160.1 | ✓ | ✓ | NA | ✓ | NA | ✓ | ✓ | NA | NA |
| Total Organic Carbon 415.1 | ✓ | ✓ | ✓ | ✓ | NA | ✓ | ✓ | NA | ✓ |
| Total Suspended Solids 160.2 | ✓ | ✓ | NA | ✓ | NA | ✓ | ✓ | NA | NA |

Notes:

✓ Indicates that all quality control criteria were met for the parameter(s)N/A Indicates the validation criteria is not applicable to the analysis
If validation criteria were not met and the data were qualified, then details can be found at the page number indicated in the table.

DATA ASSESSMENT
METALS (Method 6010B)

I. Temperature

A. Shipping cooler temperature was measured at 4 °C upon receipt at the laboratory. Sample temperature was in compliance.

II. Holding Times

A. The analysis holding times were reviewed and found to be in compliance.

III. Calibration

A. Calibration linearity, initial calibration verification (ICV), and continuing calibration verification (CCV), were reviewed and found to be in compliance.

IV. Blanks

A. Initial calibration blank (ICB), continuing calibration blank (CCB), and method blank analysis results were reviewed and found to be in compliance.

V. Matrix Spike / Matrix Spike Duplicate (MS/MSD)

A. MS/MSD analyses were performed on an internal laboratory quality control sample, i.e., not a WSMR project sample, for this SDG. MS/MSD recoveries were not evaluated.

VI. Laboratory Control Sample (LCS)

A. The LCS results were reviewed and found to be in compliance.

VII. Duplicate

A. Field duplicate sample from MPL 13 was submitted for this SDG. Precision measurements for the field duplicate were less than 7 RPD when both sample results were detected above the LOQ. Field duplicate precision measurements met acceptance criteria.

VIII. Serial Dilution

A. Serial dilution was performed on a non-WSMR sample in the analytical batch and not evaluated.

IX. Other

A. Limits of Quantitation (LOQ) were reviewed and found compliant. Post spike analysis was performed on a non-WSMR sample in the analytical batch and not evaluated.

METALS (Method 6020)

I. Temperature

A. Shipping cooler temperature was measured at 4 °C upon receipt at the laboratory. Sample temperature was in compliance.

II. Holding Times

A. The analysis holding times were reviewed and found to be in compliance.

III. Calibration

A. Calibration linearity, ICV, low-level calibration check, and CCV were reviewed and found to be in compliance.

IV. Blanks

A. ICB, CCB, and method blank analysis results were reviewed and found to be in compliance.

V. MS/MSD

A. MS/MSD analyses were performed on an internal laboratory quality control sample, i.e., not a WSMR project sample, for this SDG. MS/MSD results were not evaluated.

VI. LCS

A. The LCS results were reviewed and found to be in compliance.

VII. Duplicate

A. Field duplicate sample from MPL 13 was submitted for this SDG. Duplicate precision met acceptance criteria.

VIII. Serial Dilution

A. Serial dilution was performed on a non-WSMR sample in the analytical batch and not evaluated.

IX. Other

A. LOQ were reviewed and found compliant.

MERCURY (Method 7470A)

I. Temperature

A. Shipping cooler temperature was measured at 4 °C upon receipt at the laboratory. Sample temperature was in compliance.

II. Holding Times

A. The analysis holding times were reviewed and found to be in compliance.

III. Calibration

A. Calibration linearity, ICV, and CCV were reviewed and found to be in compliance.

IV. Blanks

A. ICB, CCB, and method blank analysis results were reviewed and found to be in compliance.

V. MS/MSD

A. MS/MSD analyses were performed on an internal laboratory quality control sample, i.e., not a WSMR project sample, for this SDG. MS/MSD results were not evaluated.

VI. LCS

A. The LCS results were reviewed and found to be in compliance.

VII. Duplicate

A. Field duplicate sample from MPL 13 was submitted for this SDG. Analysis results were non-detect in both parent and duplicate sample.

VIII. Other

A. LOQ were reviewed and found compliant. Post digest spike was performed on sample MPL13-1013-2 and recovery met specification.

ANIONS (Method 300.0 [9056])

I. Temperature

A. Shipping cooler temperature was measured at 4 °C upon receipt at the laboratory. Sample temperature was in compliance.

II. Holding Times

A. The analysis holding times were reviewed and found to be in compliance.

III. Calibration

A. Calibration coefficient of determination, alternate source calibration verification, and CCV, were reviewed and found compliant.

IV. Blanks

A. Method blank and CCB analysis results were reviewed and found to be in compliance.

V. MS/MSD

A. MS/MSD were not reported for this SDG.

VI. LCS

A. The LCS results were reviewed and found to be in compliance.

VII. Duplicate

A. Field duplicate sample from MPL 13 was submitted for this SDG. Precision measurements were acceptable less than 9 RPD.

VIII. Other

A. LOQ were reviewed and found compliant.

pH (Method 9040C)

I. Temperature

A. Shipping cooler temperature was measured at 4 °C upon receipt at the laboratory. Sample temperature was in compliance.

II. Holding Times

A. Hydrogen ion activities (pH) were measured in the field at the time of sample collection and again at the laboratory.

III. Calibration

A. pH meter calibration at the laboratory was checked using buffer solutions pH 7.0, 4.0, and 12.0.

IV. LCS

A. The LCS sample pH was indicated on the instrument run log.

V. Duplicate

A. The field duplicate sample from MPL 13 was submitted for this SDG. Precision measurement was compliant. A laboratory duplicate analysis was performed on sample MLP6-1013-1. Precision measurement met acceptance criteria.

ALKALINITY (Methods 310.2 / SM2320B)

I. Temperature

A. Shipping cooler temperature was measured at 4 °C upon receipt at the laboratory. Sample temperature was in compliance.

II. Holding Times

A. The analysis holding times were reviewed and found to be in compliance.

III. Calibration

A. Calibration coefficient of determination, alternate source calibration verification, and CCV, were reviewed and found compliant.

IV. Blanks

A. Method blank results were reviewed and found to be in compliance.

V. MS/MSD

A. MS/MSD were not reported for this SDG.

VI. LCS

A. The LCS results were reviewed and found to be in compliance.

VII. Duplicate

A. A field duplicate sample from MPL 13 was submitted for this SDG. Field duplicate and lab control sample duplicate precision was acceptable.

CYANIDE (Methods 9014-9010C / SM4500-CN-C)

I. Temperature

A. Shipping cooler temperature was measured at 4 °C upon receipt at the laboratory. Sample temperature was in compliance.

II. Holding Times

A. The analysis holding times were reviewed and found to be in compliance.

III. Calibration

A. Calibration coefficient of correlation was reviewed and found compliant.

IV. Blanks

A. Method blanks were reviewed and found to be in compliance.

V. MS/MSD

A. MS/MSD were not reported for this SDG.

VI. LCS

A. The LCS results were reviewed and found to be in compliance. Cyanide amenable to chlorination is a difference measurement which the LCS calculation accounts for inversely.

VII. Duplicate

A. A field duplicate sample from MPL 13 was submitted for this SDG. Precision for total cyanide and cyanide amenable to chlorination were acceptable.

VIII. Other

A. LOQ was reviewed and found compliant.

CONDUCTIVITY (Method 120.1)

I. Temperature

A. Shipping cooler temperature was measured at 4 °C upon receipt at the laboratory. Sample temperature was in compliance.

II. Holding Times

A. The analysis holding times were reviewed and found to be in compliance.

III. Blanks

A. Method blank results were reviewed. Conductivity detected in the method blank applicable to MPL13 samples was less than ½ the LOQ. Validation qualifiers were not qualified.

IV. LCS

A. The LCS results were reviewed and found to be in compliance.

V. Duplicate

A. A field duplicate sample from MPL 13 was submitted for this SDG. Precision results for the field duplicate were found to be in compliance.

VI. Other

A. LOQ was reviewed and found compliant.

AMMONIA AS NITROGEN (Method 350.1)

I. Temperature

A. Shipping cooler temperature was measured at 4 °C upon receipt at the laboratory. Sample temperature was in compliance.

II. Holding Times

A. The analysis holding times were reviewed and found to be in compliance.

III. Calibration

A. Calibration coefficient of correlation was reviewed and found compliant.

IV. Blanks

A. ICB and CCB were reviewed and found compliant. Method blank result was a negative value the absolute value of which was greater than ½ the LOQ. Validation qualifiers were not assigned.

V. LCS

A. The LCS results were reviewed and found to be in compliance.

VI. MS/MSD

A. MS/MSD were not reported for this SDG.

VII. Duplicate

A. A field duplicate sample from MPL 13 was submitted for this SDG. Duplicate precision was not evaluated as both results were not detected.

VIII. Other

A. LOQ was reviewed and found compliant.

NITRATE + NITRITE AS NITROGEN (Method 353.2)

I. Temperature

A. Shipping cooler temperature was measured at 4°C upon receipt at the laboratory. Sample temperature was in compliance.

II. Holding Times

A. The analysis holding times were reviewed and found to be in compliance.

III. Calibration

A. Calibration coefficient of correlation was reviewed and found compliant.

IV. Blanks

A. Method blank was reviewed and found to be in compliance.

VI. MS/MSD

A. MS/MSD were not reported for this SDG.

VI. LCS

A. The LCS results were reviewed and found to be in compliance

VII. Duplicate

A. A field duplicate sample from MPL 13 was submitted for this SDG. Precision results were less than 5 RPD for the field duplicate. Precision for lab control sample duplicates were also compliant.

VIII. Other

A. LOQ was reviewed and found compliant.

ORTHOPHOSPHATE AS PHOSPHOROUS (Method SM4500-P)

I. Temperature

A. Shipping cooler temperature was measured at 4°C upon receipt at the laboratory. Sample temperature was in compliance.

II. Holding Times

A. The analysis holding times were reviewed and found to be in compliance.

III. Calibration

A. Calibration coefficient of correlation was reviewed and found compliant.

IV. Blanks

A. Method blank was reviewed and found to be in compliance.

V. MS/MSD

A. MS/MSD were not reported for this SDG.

VI. LCS

A. The LCS results were reviewed and found to be in compliance.

VII. Duplicate

A. A field duplicate sample from MPL 13 was submitted for this SDG. The result for the parent sample was more than twice the LOQ while the field duplicate was not detected. Parent sample result is qualified as estimated with “J” while the field duplicate is qualified “UN” for estimated not detected. Precision for LCS duplicate was compliant.

VIII. Other

A. LOQ was reviewed and found compliant.

TOTAL DISSOLVED SOLIDS (Method 160.1)

I. Temperature

A. Shipping cooler temperature was measured at 4 °C upon receipt at the laboratory. Sample temperature was in compliance.

II. Holding Times

A. The analysis holding times were reviewed and found to be in compliance.

III. Blanks

A. Method blank results were reviewed and found to be in compliance.

IV. MS/MSD

A. MS/MSD were not reported for this SDG.

V. LCS

A. The LCS results were reviewed and found to be in compliance.

VI. Duplicate

A. A field duplicate sample from MPL 13 was submitted for this SDG. Precision measurement met criteria. Precision results for the LCS duplicate also were found to be in compliance.

VII. Other

A. LOQ was reviewed and found compliant.

TOTAL ORGANIC CARBON (Method 415.1)

I. Temperature

A. Shipping cooler temperature was measured at 4 °C upon receipt at the laboratory. Sample temperature was in compliance.

II. Holding Times

A. The analysis holding times were reviewed and found to be in compliance.

III. Calibration

A. Calibration coefficient of correlation and ICV were reviewed and found compliant.

IV. Blanks

A. Method blank was reviewed and found to be in compliance.

V. MS/MSD

A. MS/MSD were not reported for this SDG.

VI. LCS

A. The LCS results were reviewed and found to be in compliance

VII. Duplicate

A. A field duplicate sample from MPL 13 was submitted for this SDG. Precision results met criteria. LCS duplicate precision results were found to be in compliance.

VIII. Other

A. LOQ was reviewed and found compliant.

TOTAL SUSPENDED SOLIDS (Method 160.2)

I. Temperature

A. Shipping cooler temperature was measured at 4 °C upon receipt at the laboratory. Sample temperature was in compliance.

II. Holding Times

A. The analysis holding times were reviewed and found to be in compliance.

III. Blanks

A. Method blank results were reviewed and found to be in compliance.

IV. MS/MSD

A. MS/MSD were not reported for this SDG.

V. LCS

A. The LCS results recovered within the acceptance limits.

VI. Duplicate

A. A field duplicate sample from MPL 13 was submitted for this SDG. Both samples were non-detect and precision was not evaluated. LCS duplicate precision results exceeded the laboratory limit of 10 RPD at 11 RPD. Validation qualifiers were not assigned.

VII. Other

A. LOQ was reviewed and found compliant.

DATA QUALIFICATION SUMMARY

CCWS-62, Former STP Percolation Ditches, SDG L13101868, three field samples and one field duplicate:

MPL13-1013-1, MPL13-1013-2, MPL1-1013-1, MPL18-1013-1, and MPL6-1013-1.

Metals – Data Qualification Summary

No sample data were qualified in this SDG.

Anions – Data Qualification Summary

No sample data were qualified in this SDG.

Cyanide – Data Qualification Summary

No sample data were qualified in this SDG.

General and Wet Chemistry – Data Qualification Summary

For Orthophosphate the result for the parent sample was more than twice the LOQ while the field duplicate was not detected. Parent sample result is qualified as estimated with “J” while the field duplicate is qualified “UN” for estimated not detected.

OVERALL ASSESSMENT OF DATA

I. Compliance with method and project requirements

A. All analyses were performed within the analytical methods specifications and project requirements.

II. Usability

A. Based on the quality control criteria reviewed, all unqualified data are usable for project purposes. No data results were rejected as unusable. Data qualifiers assigned by the laboratory in the analytical report include the “J” qualifier when analytes were identified but at concentrations less than the LOQ. Estimated results are usable for limited purposes.

III. Field Duplicate Precision

| Method | Parameter | Parent Sample MPL13-1013-1 | Qu al | Duplicate Sample MPL13-1013-2 | Qu al | Units | RPD |
|-----------------|-----------------------------|-------------------------------|----------|----------------------------------|----------|----------|-------|
| 120.1 | Conductivity | 389 | | 389 | | umhos/cm | 0.0% |
| 160.1 | Total Dissolved Solids | 218 | | 228 | | mg/L | 4.5% |
| 160.2 | Total Suspended Solids | 5.0 | U | 5 | U | mg/L | NC |
| 300.0 | Chloride | 32 | | 34.8 | | mg/L | 8.4% |
| 300.0 | Fluoride | 0.336 | J | 0.332 | J | mg/L | NC |
| 300.0 | Sulfate | 51.5 | | 53.8 | | mg/L | 4.4% |
| 310.2 | Alkalinity | 82.8 | | 91 | | mg/L | 9.4% |
| 350.1 | Nitrogen, Ammonia | 0.1 | U | 0.1 | U | mg/L | NC |
| 353.2 | Nitrate-Nitrite (as N) | 4.82 | | 4.61 | | mg/L | 4.5% |
| 415.1 | Total Organic Carbon | 1.32 | | 1.18 | | mg/L | 11.2% |
| 6020 | Antimony | 0.001 | U | 0.001 | U | mg/L | NC |
| 6020 | Arsenic | 0.00117 | | 0.00141 | | mg/L | 18.6% |
| 6020 | Barium | 0.0904 | | 0.0935 | | mg/L | 3.4% |
| 6020 | Cadmium | 0.0006 | U | 0.0006 | U | mg/L | NC |
| 6020 | Chromium | 0.00207 | | 0.00219 | | mg/L | 5.6% |
| 6020 | Cobalt | 0.001 | U | 0.001 | U | mg/L | NC |
| 6020 | Copper | 0.002 | U | 0.002 | U | mg/L | NC |
| 6020 | Lead | 0.001 | U | 0.001 | U | mg/L | NC |
| 6020 | Manganese | 0.00130 | J | 0.00127 | J | mg/L | 2.3% |
| 6020 | Nickel | 0.0022 | J | 0.004 | U | mg/L | NC |
| 6020 | Selenium | 0.00337 | | 0.00452 | | mg/L | 29.2% |
| 6020 | Silver | 0.001 | U | 0.001 | U | mg/L | NC |
| 6020 | Thallium | 0.0002 | U | 0.0002 | U | mg/L | NC |
| 6010B | Beryllium | 0.002 | U | 0.002 | U | mg/L | NC |
| 6010B | Calcium | 46.5 | | 44.4 | | mg/L | 4.6% |
| 6010B | Magnesium | 7.43 | | 6.96 | | mg/L | 6.5% |
| 6010B | Potassium | 2.43 | | 2.34 | | mg/L | 3.8% |
| 6010B | Sodium | 22.7 | | 21.5 | | mg/L | 5.4% |
| 6010B | Tin | 0.5 | U | 0.5 | U | mg/L | NC |
| 6010B | Vanadium | 0.0106 | | 0.00793 | J | mg/L | NC |
| 6010B | Zinc | 0.02 | U | 0.02 | U | mg/L | NC |
| 7470A | Mercury | 0.0002 | U | 0.0002 | U | mg/L | NC |
| 9040C | pH | 7.74 | | 7.81 | | S.U. | 0.9% |
| 9014-9010C | Cyanide | 0.150 | | 0.166 | | mg/L | 10.1% |
| SM4500-CN-I | Cyanide, Weak/Dissociable | 0.0165 | | 0.0124 | | mg/L | 28.4% |
| SM4500-CN-C,G | Cyanide, Amenable to Chlor. | 0.148 | | 0.165 | | mg/L | 10.9% |
| SM4500-P-E-20th | Orthophosphate | 0.146 | | 0.05 | U | mg/L | NC |