Ayish Bayou Water Quality Monitoring Report

Michael Schramm 1, Lucas Gregory 2, Jeremiah Poling 3, Emylea Cole 3

1 Texas Water Resources Institute, Texas A&M AgriLife Research

2 Texas Water Resources Institute, Texas A&M AgriLife Extension Service

3 Angelina & Neches River Authority

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Texas Water Resources Institute  
 Texas A&M AgriLife  
 College Station, TX

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# Introduction

Work under this data collection project included water quality data collection in Ayish Bayou and its tributaries for future watershed planning efforts. Water quality data on the Ayish Bayou and its tributaries was collected to provide improved temporal and spatial data resolution for future watershed planning and assessment purposes. Water quality monitoring was conducted monthly at monitoring stations 15361, 15365, 21431, 22399 on TCEQ Segment 0610A (Ayish Bayou), 15358 on 0610K (Sandy Creek), 15359 on 0610I (Chiamon Creek), 15362 on 0610G (Caney Creek), and 15363 on 0610M (Venado Creek). The 2022 Texas Integrated Report on Water Quality provides the following segment descriptions:

* **0610A Ayish Bayou**: Perennial stream from the headwaters of Sam Rayburn Reservoir to the dam impounding Bland Lake approximately 0.1km upstream of FM 1279 near the City of San Augustine.
* **0610K Sandy Creek in San Augustine County**: From the confluence with Ayish Bayou (0610A) upstream to headwaters in San Augustine County.
* **0610I Chiamon Creek**: From the confluence with Ayish Bayou (0610A) in San Augustine County upstream to headwaters in Sabine County.
* **0610G Caney Creek in San Augustine County**: From the confluence with Ayish Bayou (0610A) in San Augustine County upstream to headwaters.
* **0610M Venado Creek**: From the confluence with Ayish Bayou (0610A) upstream to headwaters in San Augustine County.

Each water body is considered perennial with a “high” Aquatic Life Use designation. Ayish Bayou (0610A) has been identified as impaired in the *2022 Texas Integrated Report of Water Quality* for exceeding the primary recreation use I criterion due to elevated *Escherichia coli* (*E. coli*) and was first listed impaired in 2000. Focus of the monitoring project was for bacterial impairments, but other water quality parameters were collected to provide further information for planning efforts. Under this project sampling included collection of basic field parameters, conventional, and bacteriological parameters. Sampling occurred monthly at all sites; however, sites 15361 and 21431 on Ayish Bayou were sampled quarterly under the previously planned quarterly Clean Rivers Program monitoring efforts. Quarterly samples are not included in this report. All work was conducted under an approved Quality Assurance Project Plan.

# Data Summary

[Table](#tab:summary)  provides a a summary of the number of samples (n), minimum, maximum, standard deviation, and measure of central tendency for conventional, bacteria, and certain field parameters by site. Geometric means are reported for *E. coli* and means are reported for all other parameters. Full data records for field, conventional, and bacteriological from all sites are listed by segment in Appendix A ([Table](#tab:ayish) , [Table](#tab:caney) , [Table](#tab:chiamon) , [Table](#tab:venado) ).

Table . Summary

| Parameter | n | Minimum | Maximum | Standard deviation | Centera |
| --- | --- | --- | --- | --- | --- |
| **SWQM Site: 15358 Sandy Creek - FM 705** | | | | | |
| CHLORIDE (MG/L AS CL) | 12 | 11 | 18 | 2.35 | 14.67 |
| E\_ COLI, COLILERT, IDEXX METHOD, MPN/100ML | 12 | 23 | 2,400 | 924.9 | 245.05 |
| NITRATE NITROGEN, TOTAL (MG/L AS N) | 12 | 0.0322 | 0.086 | 0.01 | 0.05 |
| NITRITE NITROGEN, TOTAL (MG/L AS N) | 12 | 0.05 | 0.0882 | 0.01 | 0.05 |
| NITROGEN, AMMONIA, TOTAL (MG/L AS N) | 12 | 0.1 | 0.11 | 0 | 0.1 |
| NITROGEN, KJELDAHL, TOTAL (MG/L AS N) | 12 | 0.2 | 0.88 | 0.18 | 0.56 |
| OXYGEN, DISSOLVED (MG/L) | 12 | 4.3 | 10.7 | 1.96 | 6.67 |
| PH (STANDARD UNITS) | 12 | 6.2 | 7.7 | 0.35 | 6.82 |
| PHOSPHORUS, TOTAL, WET METHOD (MG/L AS P) | 12 | 0.0411 | 0.371 | 0.09 | 0.12 |
| RESIDUE, TOTAL NONFILTRABLE (MG/L) | 12 | 3.9 | 130 | 35.74 | 26.99 |
| SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C) | 12 | 112 | 175 | 22.27 | 143.17 |
| SULFATE (MG/L AS SO4) | 12 | 6.5 | 30 | 8.56 | 16.65 |
| TEMPERATURE, WATER (DEGREES CENTIGRADE) | 12 | 7.2 | 26.7 | 6.2 | 19.33 |
| TRANSPARENCY, SECCHI DISC (METERS) | 12 | 0.3 | 0.8 | 0.15 | 0.48 |
| **SWQM Site: 15359 Chiamon Bayou - FM 1751** | | | | | |
| CHLORIDE (MG/L AS CL) | 12 | 7.6 | 15 | 2.27 | 11.97 |
| E\_ COLI, COLILERT, IDEXX METHOD, MPN/100ML | 12 | 45 | 2,400 | 686.86 | 253.19 |
| NITRATE NITROGEN, TOTAL (MG/L AS N) | 12 | 0.0464 | 0.087 | 0.01 | 0.06 |
| NITRITE NITROGEN, TOTAL (MG/L AS N) | 12 | 0.05 | 0.0882 | 0.01 | 0.05 |
| NITROGEN, AMMONIA, TOTAL (MG/L AS N) | 12 | 0.1 | 0.1 | 0 | 0.1 |
| NITROGEN, KJELDAHL, TOTAL (MG/L AS N) | 12 | 0.2 | 1.43 | 0.31 | 0.68 |
| OXYGEN, DISSOLVED (MG/L) | 12 | 1.1 | 10.5 | 3.25 | 5.06 |
| PH (STANDARD UNITS) | 12 | 6.4 | 7.7 | 0.33 | 6.87 |
| PHOSPHORUS, TOTAL, WET METHOD (MG/L AS P) | 12 | 0.0266 | 0.218 | 0.06 | 0.1 |
| RESIDUE, TOTAL NONFILTRABLE (MG/L) | 12 | 8 | 96 | 31.54 | 29.11 |
| SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C) | 12 | 110 | 223 | 31.1 | 181.75 |
| SULFATE (MG/L AS SO4) | 12 | 16 | 48 | 11.49 | 30.33 |
| TEMPERATURE, WATER (DEGREES CENTIGRADE) | 12 | 7.5 | 25.5 | 6 | 18.83 |
| TRANSPARENCY, SECCHI DISC (METERS) | 12 | 0.3 | 0.6 | 0.12 | 0.44 |
| **SWQM Site: 15361 AYISH BAYOU AT SH 103** | | | | | |
| CHLORIDE (MG/L AS CL) | 8 | 6.5 | 11 | 1.48 | 9.16 |
| E\_ COLI, COLILERT, IDEXX METHOD, MPN/100ML | 8 | 32 | 2,400 | 777.79 | 282.15 |
| NITRATE NITROGEN, TOTAL (MG/L AS N) | 8 | 0.12 | 0.36 | 0.09 | 0.23 |
| NITRITE NITROGEN, TOTAL (MG/L AS N) | 8 | 0.05 | 0.05 | 0 | 0.05 |
| NITROGEN, AMMONIA, TOTAL (MG/L AS N) | 8 | 0.1 | 0.1 | 0 | 0.1 |
| NITROGEN, KJELDAHL, TOTAL (MG/L AS N) | 8 | 0.214 | 0.957 | 0.29 | 0.59 |
| OXYGEN, DISSOLVED (MG/L) | 8 | 4.9 | 10.1 | 1.72 | 6.81 |
| PH (STANDARD UNITS) | 8 | 6.9 | 7.4 | 0.18 | 7.18 |
| PHOSPHORUS, TOTAL, WET METHOD (MG/L AS P) | 8 | 0.042 | 0.409 | 0.12 | 0.11 |
| RESIDUE, TOTAL NONFILTRABLE (MG/L) | 8 | 5 | 140 | 46.31 | 25.94 |
| SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C) | 8 | 108 | 288 | 57.66 | 162.38 |
| SULFATE (MG/L AS SO4) | 8 | 5.6 | 17 | 3.87 | 11.12 |
| TEMPERATURE, WATER (DEGREES CENTIGRADE) | 8 | 10.1 | 26.8 | 5.78 | 19.75 |
| TRANSPARENCY, SECCHI DISC (METERS) | 8 | 0.2 | 0.5 | 0.09 | 0.4 |
| **SWQM Site: 15362 Caney Creek - SH 147** | | | | | |
| CHLORIDE (MG/L AS CL) | 12 | 7 | 10 | 0.96 | 8.92 |
| E\_ COLI, COLILERT, IDEXX METHOD, MPN/100ML | 12 | 86 | 1,100 | 280.51 | 338.56 |
| NITRATE NITROGEN, TOTAL (MG/L AS N) | 12 | 0.0464 | 0.62 | 0.19 | 0.22 |
| NITRITE NITROGEN, TOTAL (MG/L AS N) | 12 | 0.05 | 0.0882 | 0.01 | 0.05 |
| NITROGEN, AMMONIA, TOTAL (MG/L AS N) | 12 | 0.1 | 0.1 | 0 | 0.1 |
| NITROGEN, KJELDAHL, TOTAL (MG/L AS N) | 12 | 0.2 | 1 | 0.21 | 0.48 |
| OXYGEN, DISSOLVED (MG/L) | 12 | 2.5 | 11.1 | 2.56 | 6.25 |
| PH (STANDARD UNITS) | 12 | 6.8 | 7.5 | 0.21 | 7.18 |
| PHOSPHORUS, TOTAL, WET METHOD (MG/L AS P) | 12 | 0.0182 | 0.125 | 0.03 | 0.06 |
| RESIDUE, TOTAL NONFILTRABLE (MG/L) | 12 | 2.6 | 63 | 16.43 | 13.63 |
| SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C) | 12 | 143 | 255 | 30.58 | 197.92 |
| SULFATE (MG/L AS SO4) | 12 | 5 | 35 | 8.51 | 9.28 |
| TEMPERATURE, WATER (DEGREES CENTIGRADE) | 12 | 6.7 | 27.2 | 6.68 | 18.06 |
| TRANSPARENCY, SECCHI DISC (METERS) | 12 | 0.3 | 0.8 | 0.13 | 0.52 |
| **SWQM Site: 15363 Venado Creek - SH 147** | | | | | |
| CHLORIDE (MG/L AS CL) | 12 | 8.6 | 12 | 1.15 | 9.93 |
| E\_ COLI, COLILERT, IDEXX METHOD, MPN/100ML | 12 | 100 | 2,400 | 697.94 | 445.51 |
| NITRATE NITROGEN, TOTAL (MG/L AS N) | 12 | 0.05 | 0.54 | 0.14 | 0.21 |
| NITRITE NITROGEN, TOTAL (MG/L AS N) | 12 | 0.05 | 0.0882 | 0.01 | 0.05 |
| NITROGEN, AMMONIA, TOTAL (MG/L AS N) | 12 | 0.1 | 0.1 | 0 | 0.1 |
| NITROGEN, KJELDAHL, TOTAL (MG/L AS N) | 12 | 0.155 | 1.14 | 0.27 | 0.33 |
| OXYGEN, DISSOLVED (MG/L) | 12 | 4.9 | 11.5 | 1.95 | 7.9 |
| PH (STANDARD UNITS) | 12 | 7 | 7.8 | 0.22 | 7.51 |
| PHOSPHORUS, TOTAL, WET METHOD (MG/L AS P) | 12 | 0.02 | 0.119 | 0.03 | 0.05 |
| RESIDUE, TOTAL NONFILTRABLE (MG/L) | 12 | 2.5 | 69 | 19.79 | 11.93 |
| SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C) | 12 | 201 | 341 | 40 | 259 |
| SULFATE (MG/L AS SO4) | 12 | 20 | 44 | 6.5 | 29.5 |
| TEMPERATURE, WATER (DEGREES CENTIGRADE) | 12 | 8.2 | 26.7 | 6.08 | 18.25 |
| TRANSPARENCY, SECCHI DISC (METERS) | 12 | 0.4 | 1 | 0.2 | 0.65 |
| **SWQM Site: 15365 Ayish Bayou - FM 3230** | | | | | |
| CHLORIDE (MG/L AS CL) | 12 | 5 | 8.2 | 1.05 | 6.49 |
| E\_ COLI, COLILERT, IDEXX METHOD, MPN/100ML | 12 | 180 | 1,700 | 417.36 | 441.57 |
| NITRATE NITROGEN, TOTAL (MG/L AS N) | 12 | 0.0464 | 0.11 | 0.02 | 0.06 |
| NITRITE NITROGEN, TOTAL (MG/L AS N) | 12 | 0.05 | 0.0882 | 0.01 | 0.05 |
| NITROGEN, AMMONIA, TOTAL (MG/L AS N) | 12 | 0.1 | 0.1 | 0 | 0.1 |
| NITROGEN, KJELDAHL, TOTAL (MG/L AS N) | 12 | 0.05 | 0.885 | 0.21 | 0.4 |
| OXYGEN, DISSOLVED (MG/L) | 12 | 4.7 | 10.2 | 1.68 | 6.92 |
| PH (STANDARD UNITS) | 12 | 6.4 | 7.5 | 0.35 | 6.91 |
| PHOSPHORUS, TOTAL, WET METHOD (MG/L AS P) | 12 | 0.01 | 0.11 | 0.02 | 0.05 |
| RESIDUE, TOTAL NONFILTRABLE (MG/L) | 12 | 2.5 | 15 | 3.43 | 6.92 |
| SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C) | 12 | 51 | 114 | 18.51 | 78.33 |
| SULFATE (MG/L AS SO4) | 12 | 5 | 19 | 4.41 | 8.25 |
| TEMPERATURE, WATER (DEGREES CENTIGRADE) | 12 | 7.6 | 26.1 | 5.97 | 16.91 |
| TRANSPARENCY, SECCHI DISC (METERS) | 12 | 0.4 | 0.9 | 0.17 | 0.59 |
| **SWQM Site: 21431 Ayish Bayou at West Columbia St** | | | | | |
| CHLORIDE (MG/L AS CL) | 8 | 5.6 | 9.2 | 1.13 | 7.21 |
| E\_ COLI, COLILERT, IDEXX METHOD, MPN/100ML | 8 | 260 | 1,400 | 394.57 | 509.37 |
| NITRATE NITROGEN, TOTAL (MG/L AS N) | 8 | 0.05 | 0.16 | 0.05 | 0.11 |
| NITRITE NITROGEN, TOTAL (MG/L AS N) | 8 | 0.05 | 0.05 | 0 | 0.05 |
| NITROGEN, AMMONIA, TOTAL (MG/L AS N) | 8 | 0.1 | 0.1 | 0 | 0.1 |
| NITROGEN, KJELDAHL, TOTAL (MG/L AS N) | 8 | 0.2 | 0.633 | 0.15 | 0.35 |
| OXYGEN, DISSOLVED (MG/L) | 8 | 7.2 | 10.4 | 1.23 | 8.38 |
| PH (STANDARD UNITS) | 8 | 7.1 | 8 | 0.29 | 7.35 |
| PHOSPHORUS, TOTAL, WET METHOD (MG/L AS P) | 8 | 0.025 | 0.0808 | 0.02 | 0.05 |
| RESIDUE, TOTAL NONFILTRABLE (MG/L) | 8 | 4 | 8.6 | 1.53 | 5.21 |
| SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C) | 8 | 71 | 146 | 23.66 | 103.25 |
| SULFATE (MG/L AS SO4) | 8 | 5 | 23 | 6.2 | 9.35 |
| TEMPERATURE, WATER (DEGREES CENTIGRADE) | 8 | 10.4 | 25.8 | 5.8 | 18.66 |
| TRANSPARENCY, SECCHI DISC (METERS) | 8 | 0.3 | 0.7 | 0.13 | 0.5 |
| **SWQM Site: 22399 Ayish Bayou - CR 313** | | | | | |
| CHLORIDE (MG/L AS CL) | 12 | 8.1 | 12 | 1.13 | 10.32 |
| E\_ COLI, COLILERT, IDEXX METHOD, MPN/100ML | 12 | 100 | 2,400 | 659.95 | 316.69 |
| NITRATE NITROGEN, TOTAL (MG/L AS N) | 12 | 0.0464 | 0.37 | 0.11 | 0.2 |
| NITRITE NITROGEN, TOTAL (MG/L AS N) | 12 | 0.05 | 0.0882 | 0.01 | 0.05 |
| NITROGEN, AMMONIA, TOTAL (MG/L AS N) | 12 | 0.1 | 0.1 | 0 | 0.1 |
| NITROGEN, KJELDAHL, TOTAL (MG/L AS N) | 12 | 0.174 | 0.828 | 0.23 | 0.45 |
| OXYGEN, DISSOLVED (MG/L) | 12 | 5 | 10.8 | 1.76 | 7.34 |
| PH (STANDARD UNITS) | 12 | 7.1 | 7.7 | 0.17 | 7.32 |
| PHOSPHORUS, TOTAL, WET METHOD (MG/L AS P) | 12 | 0.0326 | 0.278 | 0.07 | 0.08 |
| RESIDUE, TOTAL NONFILTRABLE (MG/L) | 12 | 6.9 | 130 | 34.28 | 26.18 |
| SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C) | 12 | 124 | 215 | 29.34 | 164.08 |
| SULFATE (MG/L AS SO4) | 12 | 6.3 | 20 | 4.53 | 13.33 |
| TEMPERATURE, WATER (DEGREES CENTIGRADE) | 12 | 7.7 | 26.6 | 6.17 | 19.22 |
| TRANSPARENCY, SECCHI DISC (METERS) | 12 | 0.3 | 0.7 | 0.12 | 0.47 |
| aCenter refers to the geometric mean for *E. coli* and the mean for all other parameters. | | | | | |

The distribution of and time series of dissolved oxygen, *E. coli*, nitrate, nitrite, ammonia, Kjeldahl nitrogen, and total phosphorus concentrations are shown in Figures - . The majority of dissolved oxygen concentrations were above the minimum and grab screening level standards (Figure ). However, stations 15359 (Chiamon Creek) and 15362 (Caney Creek) had high proportions of measurements below either the grab screening level (5 mg/L) or minimum dissolved oxygen criteria (3 mg/L) for high aquatic life use. All stations had *E. coli* average geometric mean concentrations above the primary recreation I criteria of 126 MPN/100 mL (Figure ). Nitrate nitrogen and total phosphorus were well below the screening level across all stations (Figures ; ). Nearly all of the nitrite-nitrogen and ammonia samples were below laboratory limits of quantification (Figures ; ).

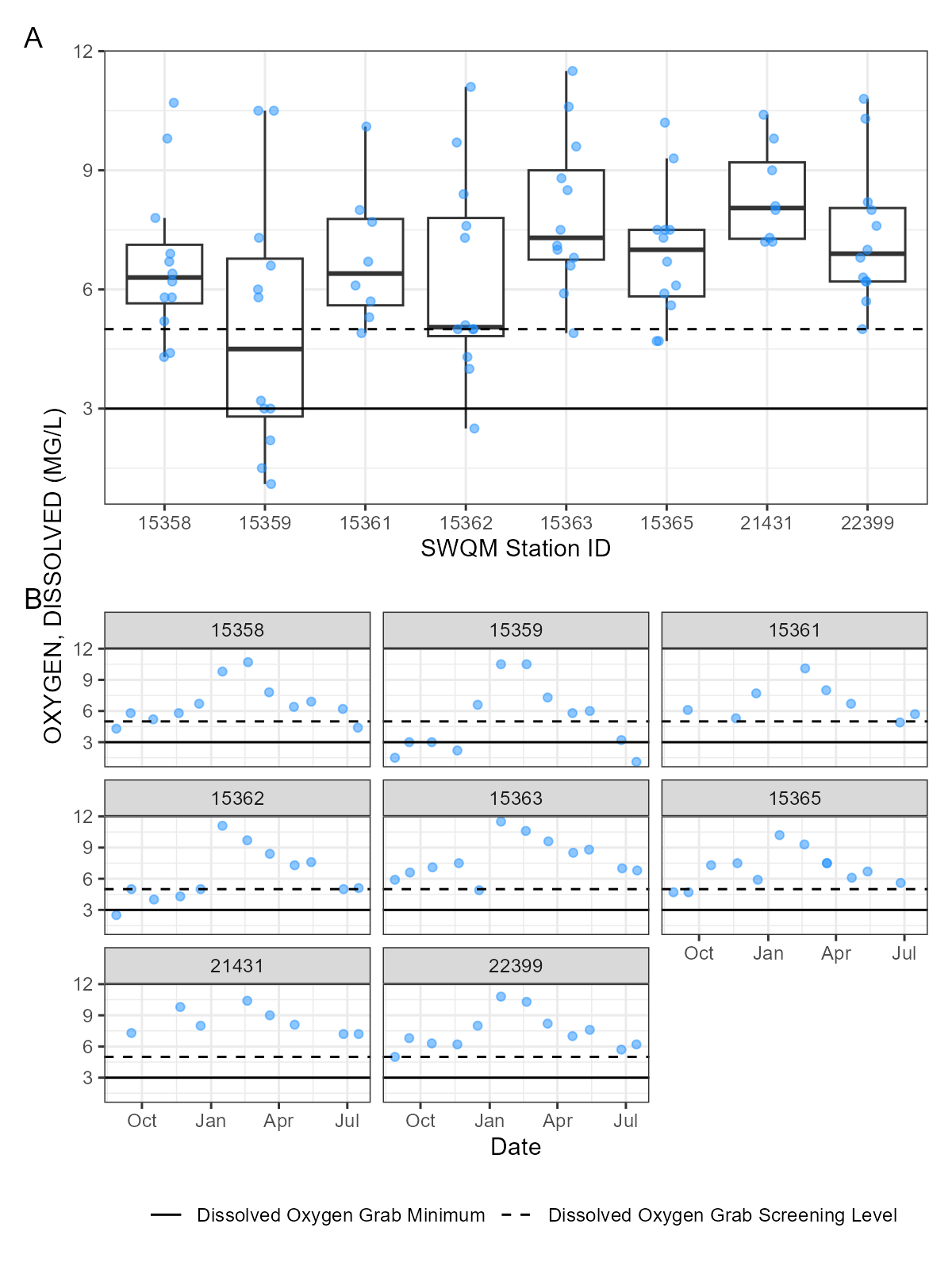


Figure . Grab Dissolved Oxygen samples by (A) station and by (B) date. Dissolved Oxygen grab minimum and screening level criterion are indicated by the solid and dashed lines.

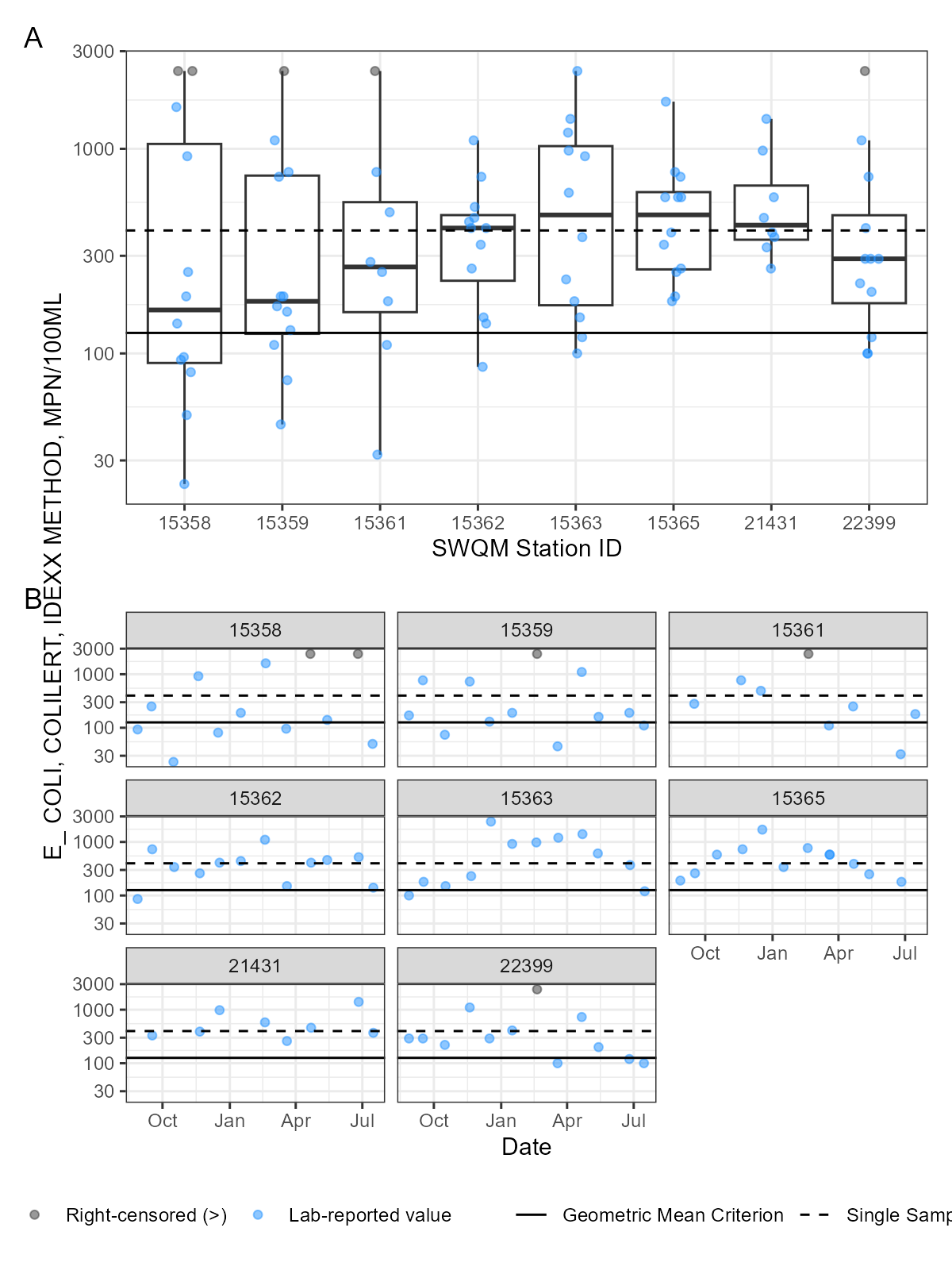


Figure . Grab E. coli samples by (A) station and by (B) date. Seven-year geometric mean and single sample criterion are indicated by the solid and dashed lines. Censored values are greater than the laboratory reported level of quantification.

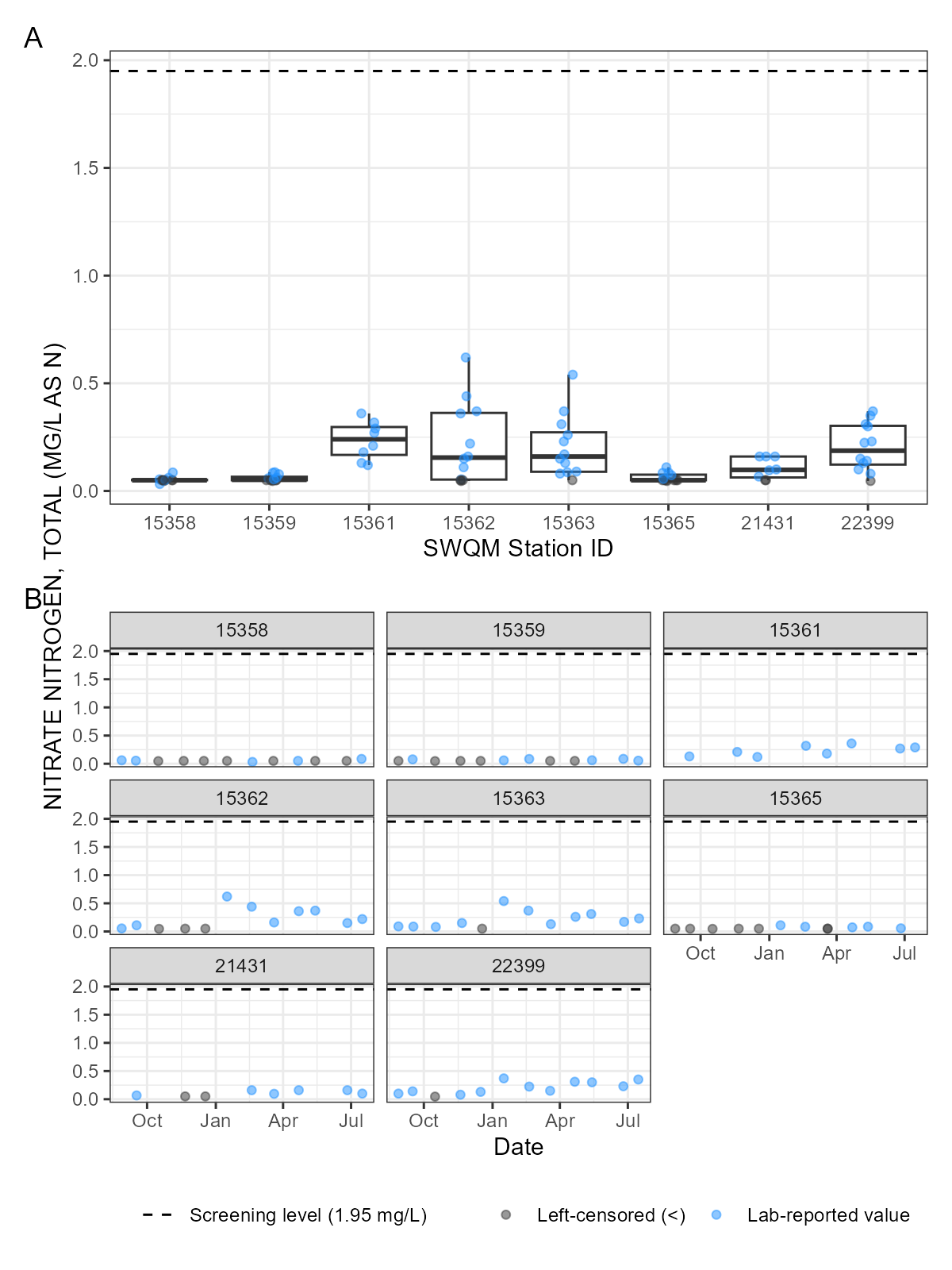


Figure . Grab Nitrate-Nitrogen samples by (A) station and by (B) date. The 1.95 mg/L screening level is indicated by the dashed line. Censored values are less than the laboratory level of quantificaton.

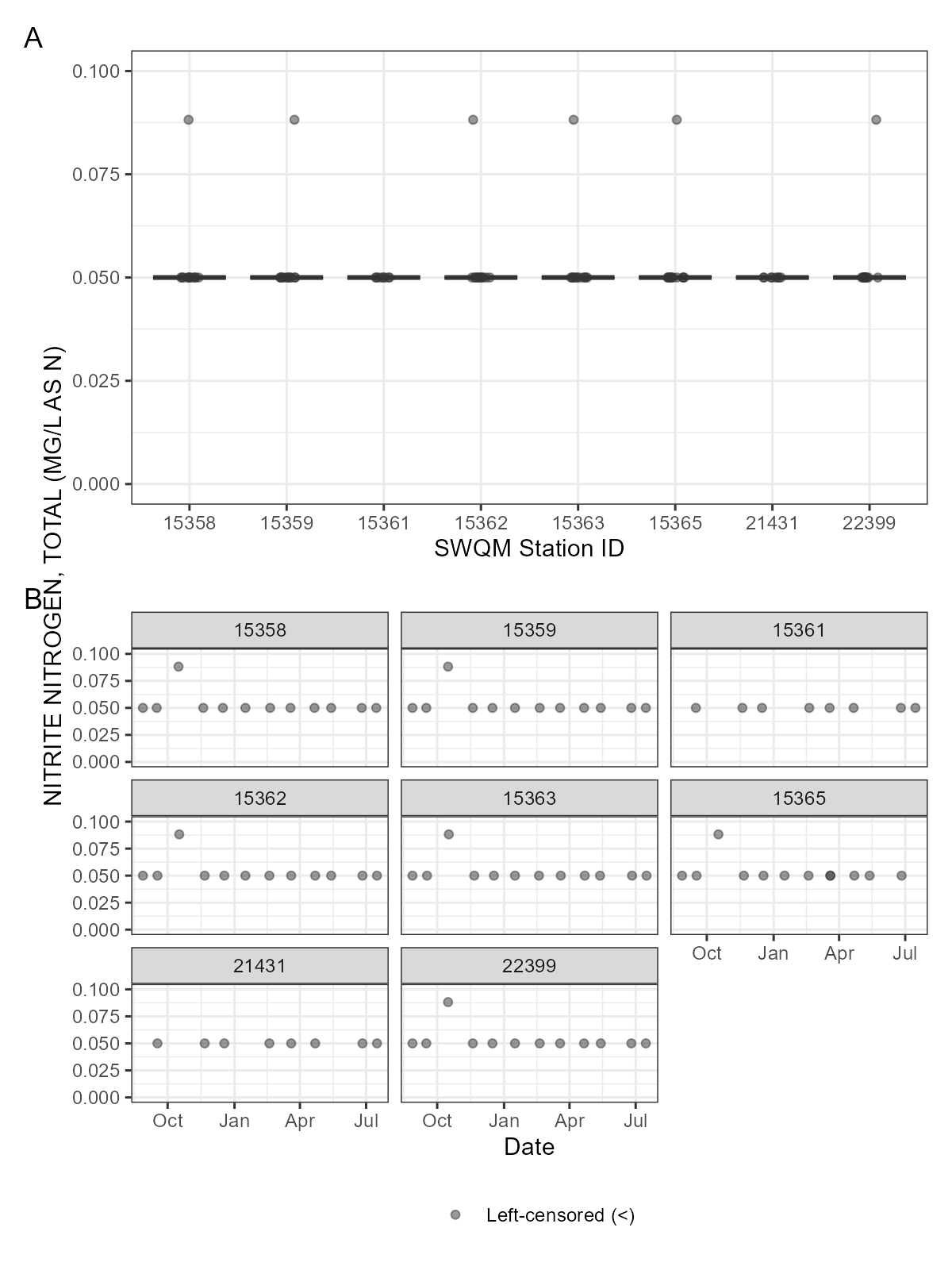


Figure . Grab Nitrite-Nitrogen samples by (A) station and by (B) date. Censored values are less than the laboratory level of quantificaton.

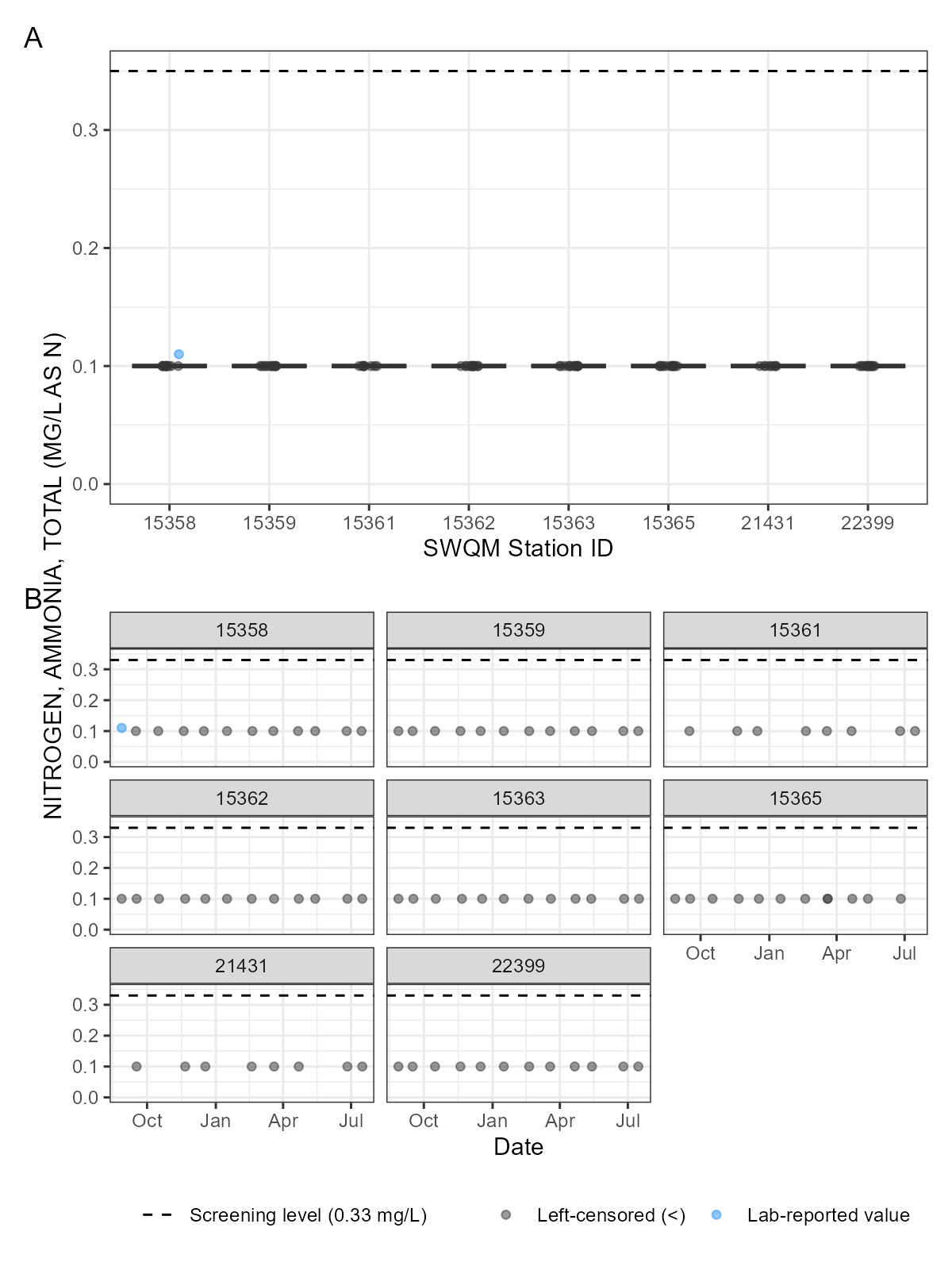


Figure . Grab Nitrogen-Ammonia samples by (A) station and by (B) date. Censored values are less than the laboratory level of quantificaton.

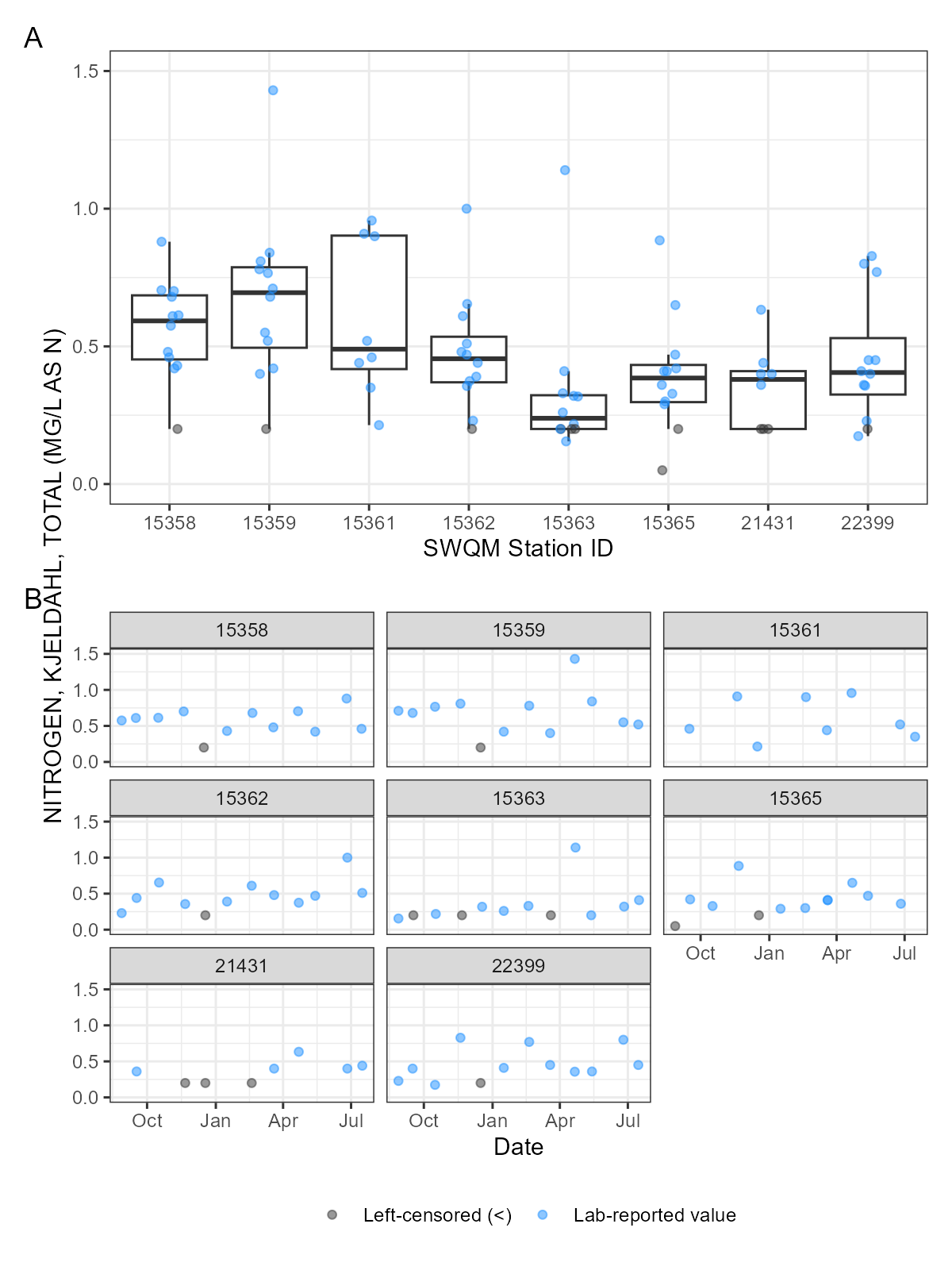


Figure . Grab Nitrogen-Kjeldahl samples by (A) station and by (B) date. Censored values are less than the laboratory level of quantificaton.

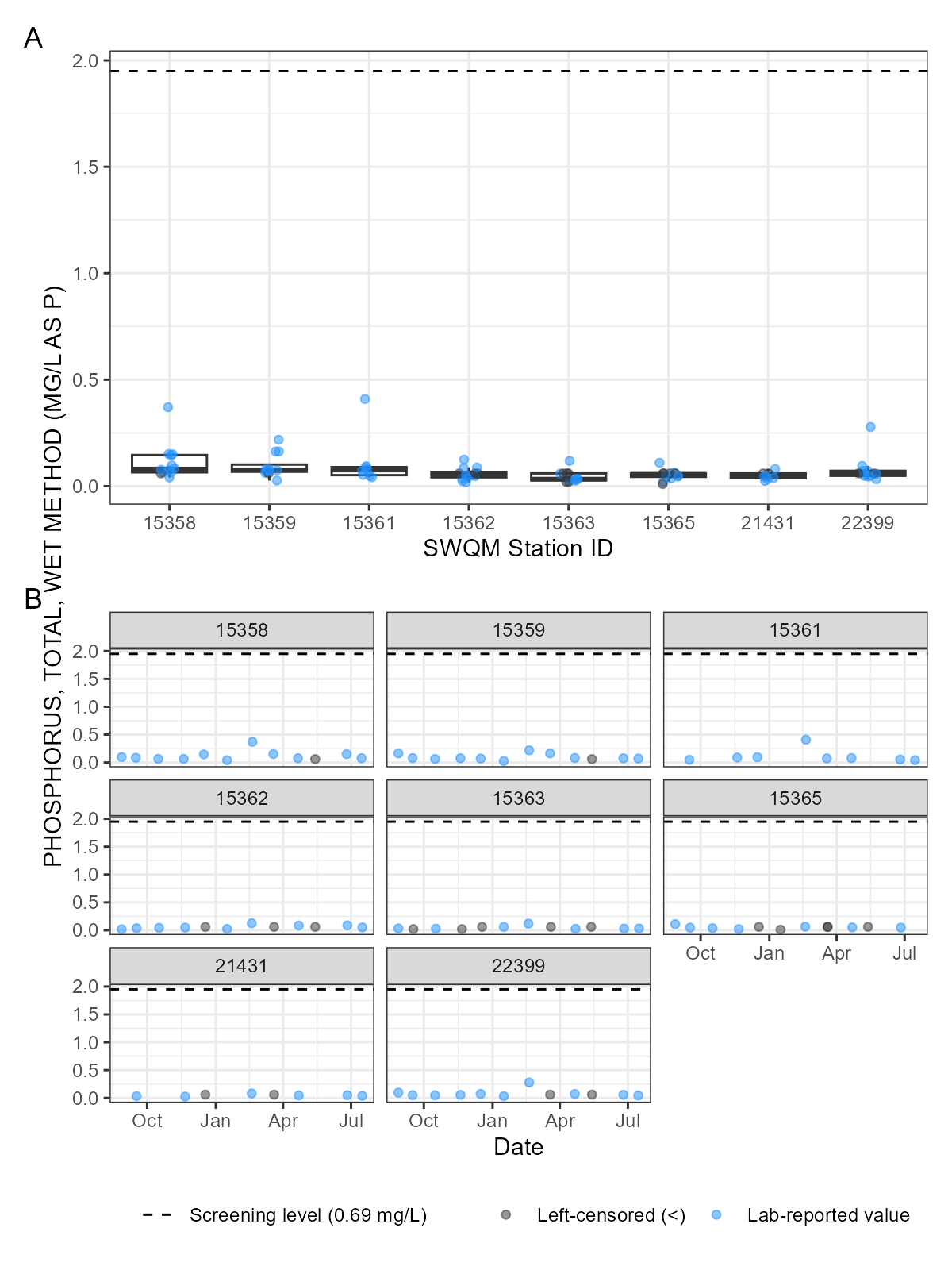


Figure . Grab Total Phosphorus samples by (A) station and by (B) date. The dotted line indicates the 0.69 mg/L screening level. Censored values are less than the laboratory level of quantificaton.

# Bibliography

# Appendix A

## Ayish Bayou 0610A Data

Table . Data records for Ayish Bayou Segment 0610A.

| **Tag ID** | **SWQM Station** | **Station Description** | **Date** | **OXYGEN, DISSOLVED (MG/L)** | **E. COLI, COLILERT, IDEXX METHOD (MPN/100ML)** | **CHLORIDE (MG/L AS CL)** | **NITRATE NITROGEN, TOTAL (MG/L AS N)** | **NITRITE NITROGEN, TOTAL (MG/L AS N)** | **NITROGEN, AMMONIA, TOTAL (MG/L AS N)** | **NITROGEN, KJELDAHL, TOTAL (MG/L AS N)** | **PHOSPHORUS, TOTAL, WET METHOD (MG/L AS P)** | **RESIDUE, TOTAL NONFILTRABLE (MG/L)** | **SULFATE (MG/L AS SO4)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| K004932 | 22399 | Ayish Bayou - CR 313 | 2024-08-28 | 5 | 290 | 10 | 0.1 | <0.05 | <0.1 | 0.229 | 0.0952 | 9 | 11 |
| K004937 | 15365 | Ayish Bayou - FM 3230 | 2024-08-28 | 4.7 | 190 | 5 | <0.05 | <0.05 | <0.1 | <0.05 | 0.11 | 15 | <5 |
| K004938 | 15361 | AYISH BAYOU AT SH 103 | 2024-09-16 | 6.1 | 280 | 7.4 | 0.13 | <0.05 | <0.1 | 0.46 | 0.048 | 8.6 | 8.8 |
| K004939 | 22399 | Ayish Bayou - CR 313 | 2024-09-16 | 6.8 | 290 | 8.1 | 0.14 | <0.05 | <0.1 | 0.4 | 0.049 | 8.3 | 9.5 |
| K004944 | 21431 | Ayish Bayou at West Columbia St | 2024-09-17 | 7.3 | 330 | 5.6 | 0.067 | <0.05 | <0.1 | 0.36 | 0.033 | 5.8 | <5 |
| K004945 | 15365 | Ayish Bayou - FM 3230 | 2024-09-17 | 4.7 | 260 | 5.2 | <0.05 | <0.05 | <0.1 | 0.42 | 0.046 | 9.7 | <5 |
| K004946 | 22399 | Ayish Bayou - CR 313 | 2024-10-16 | 6.3 | 220 | 9.9 | <0.0464 | <0.0882 | <0.1 | 0.174 | 0.048 | 10 | 7.2 |
| K004951 | 15365 | Ayish Bayou - FM 3230 | 2024-10-17 | 7.3 | 580 | 5.1 | <0.0464 | <0.0882 | <0.1 | 0.328 | 0.037 | 7.1 | <5 |
| K004952 | 15361 | AYISH BAYOU AT SH 103 | 2024-11-19 | 5.3 | 770 | 10 | 0.21 | <0.05 | <0.1 | 0.909 | 0.088 | 5 | 5.6 |
| K004953 | 22399 | Ayish Bayou - CR 313 | 2024-11-19 | 6.2 | 1100 | 10 | 0.08 | <0.05 | <0.1 | 0.828 | 0.055 | 38 | 6.3 |
| K004958 | 21431 | Ayish Bayou at West Columbia St | 2024-11-21 | 9.8 | 390 | 6.9 | <0.05 | <0.05 | <0.1 | <0.2 | 0.025 | 5 | <5 |
| K004959 | 15365 | Ayish Bayou - FM 3230 | 2024-11-21 | 7.5 | 730 | 6.4 | <0.05 | <0.05 | <0.1 | 0.885 | 0.021 | 4.6 | <5 |
| K004960 | 15361 | AYISH BAYOU AT SH 103 | 2024-12-16 | 7.7 | 490 | 10 | 0.12 | <0.05 | <0.1 | 0.214 | 0.094 | 5.7 | 9 |
| K004961 | 22399 | Ayish Bayou - CR 313 | 2024-12-16 | 8 | 290 | 9.7 | 0.13 | <0.05 | <0.1 | <0.2 | 0.0724 | 6.9 | 11 |
| K004966 | 21431 | Ayish Bayou at West Columbia St | 2024-12-18 | 8 | 980 | 7.4 | <0.05 | <0.05 | <0.1 | <0.2 | <0.06 | 4.5 | 6 |
| K004967 | 15365 | Ayish Bayou - FM 3230 | 2024-12-18 | 5.9 | 1700 | 6.5 | <0.05 | <0.05 | <0.1 | <0.2 | <0.06 | 5.9 | <5 |
| K004968 | 22399 | Ayish Bayou - CR 313 | 2025-01-16 | 10.8 | 410 | 11 | 0.37 | <0.05 | <0.1 | 0.41 | 0.0326 | 11 | 20 |
| K004973 | 15365 | Ayish Bayou - FM 3230 | 2025-01-16 | 10.2 | 340 | 7.5 | 0.11 | <0.05 | <0.1 | 0.29 | <0.01 | <2.5 | 13 |
| K004976 | 21431 | Ayish Bayou at West Columbia St | 2025-02-18 | 10.4 | 580 | 9.2 | 0.16 | <0.05 | <0.1 | <0.2 | 0.0808 | 4.2 | 23 |
| K004977 | 15365 | Ayish Bayou - FM 3230 | 2025-02-18 | 9.3 | 770 | 8.2 | 0.084 | <0.05 | <0.1 | 0.3 | 0.0639 | 3.3 | 19 |
| K004980 | 22399 | Ayish Bayou - CR 313 | 2025-02-19 | 10.3 | >2400 | 9.2 | 0.224 | <0.05 | <0.1 | 0.77 | 0.278 | 130 | 16 |
| K004981 | 15361 | AYISH BAYOU AT SH 103 | 2025-02-19 | 10.1 | >2400 | 6.5 | 0.318 | <0.05 | <0.1 | 0.9 | 0.409 | 140 | 8.6 |
| K004982 | 15361 | AYISH BAYOU AT SH 103 | 2025-03-19 | 8 | 110 | 9.8 | 0.18 | <0.05 | <0.1 | 0.44 | 0.073 | 13 | 15 |
| K004983 | 22399 | Ayish Bayou - CR 313 | 2025-03-19 | 8.2 | 100 | 12 | 0.15 | <0.05 | <0.1 | 0.45 | <0.06 | 15 | 19 |
| K004988 | 21431 | Ayish Bayou at West Columbia St | 2025-03-20 | 9 | 260 | 8.2 | 0.096 | <0.05 | <0.1 | 0.4 | <0.06 | 4 | 13 |
| K004989 | 15365 | Ayish Bayou - FM 3230 | 2025-03-20 | 7.5 | 580 | 7.4 | <0.05 | <0.05 | <0.1 | 0.41 | <0.06 | 5.2 | 9.6 |
| K004990 | 15365 | Ayish Bayou - FM 3230 | 2025-03-20 | 7.5 | 580 | 7.4 | <0.05 | <0.05 | <0.1 | 0.41 | <0.06 | 5.2 | 9.6 |
| K004991 | 15361 | AYISH BAYOU AT SH 103 | 2025-04-21 | 6.7 | 250 | 9.3 | 0.36 | <0.05 | <0.1 | 0.957 | 0.079 | 19 | 14 |
| K004992 | 22399 | Ayish Bayou - CR 313 | 2025-04-21 | 7 | 730 | 11 | 0.31 | <0.05 | <0.1 | 0.357 | 0.072 | 33 | 17 |
| K004997 | 21431 | Ayish Bayou at West Columbia St | 2025-04-22 | 8.1 | 460 | 7.1 | 0.16 | <0.05 | <0.1 | 0.633 | 0.046 | 8.6 | 9.7 |
| K004998 | 15365 | Ayish Bayou - FM 3230 | 2025-04-22 | 6.1 | 390 | 6.5 | 0.073 | <0.05 | <0.1 | 0.65 | 0.051 | 8.2 | 6.6 |
| K005000 | 15365 | Ayish Bayou - FM 3230 | 2025-05-13 | 6.7 | 250 | 6.9 | 0.085 | <0.05 | <0.1 | 0.47 | <0.06 | 6.3 | 11 |
| K005001 | 22399 | Ayish Bayou - CR 313 | 2025-05-14 | 7.6 | 200 | 10 | 0.3 | <0.05 | <0.1 | 0.36 | <0.06 | 27 | 17 |
| K005005 | 15361 | AYISH BAYOU AT SH 103 | 2025-06-25 | 4.9 | 32 | 9.3 | 0.27 | <0.05 | <0.1 | 0.52 | 0.053 | 8.8 | 11 |
| K005006 | 22399 | Ayish Bayou - CR 313 | 2025-06-25 | 5.7 | 120 | 11 | 0.23 | <0.05 | <0.1 | 0.8 | 0.058 | 15 | 12 |
| K005011 | 21431 | Ayish Bayou at West Columbia St | 2025-06-26 | 7.2 | 1400 | 7.2 | 0.16 | <0.05 | <0.1 | 0.4 | 0.049 | 5.6 | 8.1 |
| K005012 | 15365 | Ayish Bayou - FM 3230 | 2025-06-26 | 5.6 | 180 | 5.8 | 0.056 | <0.05 | <0.1 | 0.36 | 0.047 | 10 | 5.2 |
| K005013 | 15361 | AYISH BAYOU AT SH 103 | 2025-07-15 | 5.7 | 180 | 11 | 0.29 | <0.05 | <0.1 | 0.35 | 0.042 | 7.4 | 17 |
| K005014 | 22399 | Ayish Bayou - CR 313 | 2025-07-15 | 6.2 | 100 | 12 | 0.35 | <0.05 | <0.1 | 0.45 | 0.045 | 11 | 14 |
| K005019 | 21431 | Ayish Bayou at West Columbia St | 2025-07-16 | 7.2 | 370 | 6.1 | 0.1 | <0.05 | <0.1 | 0.44 | 0.039 | 4 | <5 |

## Caney Creek 0610G Data Records

Table . Data records for Caney Creek Segment 0610G.

| **Tag ID** | **SWQM Station** | **Station Description** | **Date** | **OXYGEN, DISSOLVED (MG/L)** | **E. COLI, COLILERT, IDEXX METHOD (MPN/100ML)** | **CHLORIDE (MG/L AS CL)** | **NITRATE NITROGEN, TOTAL (MG/L AS N)** | **NITRITE NITROGEN, TOTAL (MG/L AS N)** | **NITROGEN, AMMONIA, TOTAL (MG/L AS N)** | **NITROGEN, KJELDAHL, TOTAL (MG/L AS N)** | **PHOSPHORUS, TOTAL, WET METHOD (MG/L AS P)** | **RESIDUE, TOTAL NONFILTRABLE (MG/L)** | **SULFATE (MG/L AS SO4)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| K004935 | 15362 | Caney Creek - SH 147 | 2024-08-28 | 2.5 | 86 | 9.1 | 0.054 | <0.05 | <0.1 | 0.23 | 0.0182 | 7.9 | <5 |
| K004942 | 15362 | Caney Creek - SH 147 | 2024-09-17 | 5 | 730 | 7.2 | 0.11 | <0.05 | <0.1 | 0.44 | 0.037 | 10 | 5.7 |
| K004949 | 15362 | Caney Creek - SH 147 | 2024-10-17 | 4 | 340 | 9 | <0.0464 | <0.0882 | <0.1 | 0.654 | 0.043 | 17 | <5 |
| K004956 | 15362 | Caney Creek - SH 147 | 2024-11-21 | 4.3 | 260 | 10 | <0.05 | <0.05 | <0.1 | 0.356 | 0.047 | 2.9 | 35 |
| K004964 | 15362 | Caney Creek - SH 147 | 2024-12-18 | 5 | 410 | 9.6 | <0.05 | <0.05 | <0.1 | <0.2 | <0.06 | 4.9 | 14 |
| K004971 | 15362 | Caney Creek - SH 147 | 2025-01-16 | 11.1 | 440 | 10 | 0.62 | <0.05 | <0.1 | 0.39 | 0.0242 | 2.6 | 9.7 |
| K004974 | 15362 | Caney Creek - SH 147 | 2025-02-18 | 9.7 | 1100 | 8.6 | 0.44 | <0.05 | <0.1 | 0.61 | 0.125 | 8.8 | 7.9 |
| K004986 | 15362 | Caney Creek - SH 147 | 2025-03-20 | 8.4 | 150 | 9.3 | 0.16 | <0.05 | <0.1 | 0.48 | <0.06 | 7.7 | 6.4 |
| K004995 | 15362 | Caney Creek - SH 147 | 2025-04-22 | 7.3 | 410 | 8.8 | 0.36 | <0.05 | <0.1 | 0.374 | 0.085 | 63 | 6.2 |
| K005004 | 15362 | Caney Creek - SH 147 | 2025-05-14 | 7.6 | 460 | 8.8 | 0.37 | <0.05 | <0.1 | 0.47 | <0.06 | 18 | 6.1 |
| K005009 | 15362 | Caney Creek - SH 147 | 2025-06-26 | 5 | 520 | 7 | 0.15 | <0.05 | <0.1 | 1 | 0.088 | 16 | <5 |
| K005017 | 15362 | Caney Creek - SH 147 | 2025-07-16 | 5.1 | 140 | 9.6 | 0.22 | <0.05 | <0.1 | 0.51 | 0.05 | 4.8 | 5.3 |

## Chiamon Bayou 0610I Data

Table . Data records for Chiamon Bayou Segment 0610I.

| **Tag ID** | **SWQM Station** | **Station Description** | **Date** | **OXYGEN, DISSOLVED (MG/L)** | **E. COLI, COLILERT, IDEXX METHOD (MPN/100ML)** | **CHLORIDE (MG/L AS CL)** | **NITRATE NITROGEN, TOTAL (MG/L AS N)** | **NITRITE NITROGEN, TOTAL (MG/L AS N)** | **NITROGEN, AMMONIA, TOTAL (MG/L AS N)** | **NITROGEN, KJELDAHL, TOTAL (MG/L AS N)** | **PHOSPHORUS, TOTAL, WET METHOD (MG/L AS P)** | **RESIDUE, TOTAL NONFILTRABLE (MG/L)** | **SULFATE (MG/L AS SO4)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| K004934 | 15359 | Chiamon Bayou - FM 1751 | 2024-08-28 | 1.5 | 170 | 12 | <0.05 | <0.05 | <0.1 | 0.71 | 0.163 | 23 | 21 |
| K004941 | 15359 | Chiamon Bayou - FM 1751 | 2024-09-16 | 3 | 770 | 7.6 | 0.078 | <0.05 | <0.1 | 0.68 | 0.079 | 26 | 24 |
| K004948 | 15359 | Chiamon Bayou - FM 1751 | 2024-10-16 | 3 | 74 | 10 | <0.0464 | <0.0882 | <0.1 | 0.766 | 0.063 | 8 | 22 |
| K004955 | 15359 | Chiamon Bayou - FM 1751 | 2024-11-19 | 2.2 | 730 | 12 | <0.05 | <0.05 | <0.1 | 0.809 | 0.075 | 9.7 | 16 |
| K004963 | 15359 | Chiamon Bayou - FM 1751 | 2024-12-16 | 6.6 | 130 | 11 | <0.05 | <0.05 | <0.1 | <0.2 | 0.07 | 8.3 | 46 |
| K004970 | 15359 | Chiamon Bayou - FM 1751 | 2025-01-16 | 10.5 | 190 | 15 | 0.059 | <0.05 | <0.1 | 0.42 | 0.0266 | 8.3 | 46 |
| K004978 | 15359 | Chiamon Bayou - FM 1751 | 2025-02-19 | 10.5 | >2400 | 9.1 | 0.0848 | <0.05 | <0.1 | 0.78 | 0.218 | 96 | 20 |
| K004985 | 15359 | Chiamon Bayou - FM 1751 | 2025-03-19 | 7.3 | 45 | 15 | <0.05 | <0.05 | <0.1 | 0.4 | 0.163 | 12 | 48 |
| K004994 | 15359 | Chiamon Bayou - FM 1751 | 2025-04-21 | 5.8 | 1100 | 13 | <0.05 | <0.05 | <0.1 | 1.43 | 0.081 | 22 | 38 |
| K005003 | 15359 | Chiamon Bayou - FM 1751 | 2025-05-14 | 6 | 160 | 13 | 0.062 | <0.05 | <0.1 | 0.84 | <0.06 | 94 | 33 |
| K005008 | 15359 | Chiamon Bayou - FM 1751 | 2025-06-25 | 3.2 | 190 | 12 | 0.087 | <0.05 | <0.1 | 0.55 | 0.075 | 26 | 28 |
| K005016 | 15359 | Chiamon Bayou - FM 1751 | 2025-07-15 | 1.1 | 110 | 14 | 0.054 | <0.05 | <0.1 | 0.52 | 0.071 | 16 | 22 |

## Sandy Creek 0610K Data

Table . Data records for Sandy Creek Segment 0610K.

| **Tag ID** | **SWQM Station** | **Station Description** | **Date** | **OXYGEN, DISSOLVED (MG/L)** | **E. COLI, COLILERT, IDEXX METHOD (MPN/100ML)** | **CHLORIDE (MG/L AS CL)** | **NITRATE NITROGEN, TOTAL (MG/L AS N)** | **NITRITE NITROGEN, TOTAL (MG/L AS N)** | **NITROGEN, AMMONIA, TOTAL (MG/L AS N)** | **NITROGEN, KJELDAHL, TOTAL (MG/L AS N)** | **PHOSPHORUS, TOTAL, WET METHOD (MG/L AS P)** | **RESIDUE, TOTAL NONFILTRABLE (MG/L)** | **SULFATE (MG/L AS SO4)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| K004933 | 15358 | Sandy Creek - FM 705 | 2024-08-28 | 4.3 | 93 | 13 | 0.061 | <0.05 | 0.11 | 0.575 | 0.0976 | 26 | 8.8 |
| K004940 | 15358 | Sandy Creek - FM 705 | 2024-09-16 | 5.8 | 250 | 11 | 0.054 | <0.05 | <0.1 | 0.61 | 0.084 | 47 | 10 |
| K004947 | 15358 | Sandy Creek - FM 705 | 2024-10-16 | 5.2 | 23 | 16 | <0.0464 | <0.0882 | <0.1 | 0.613 | 0.065 | 7.7 | 7.5 |
| K004954 | 15358 | Sandy Creek - FM 705 | 2024-11-19 | 5.8 | 920 | 14 | <0.05 | <0.05 | <0.1 | 0.701 | 0.065 | 9 | 6.5 |
| K004962 | 15358 | Sandy Creek - FM 705 | 2024-12-16 | 6.7 | 81 | 13 | <0.05 | <0.05 | <0.1 | <0.2 | 0.145 | 5.9 | 12 |
| K004969 | 15358 | Sandy Creek - FM 705 | 2025-01-16 | 9.8 | 190 | 17 | <0.05 | <0.05 | <0.1 | 0.43 | 0.0411 | 7.3 | 30 |
| K004979 | 15358 | Sandy Creek - FM 705 | 2025-02-19 | 10.7 | 1600 | 11 | 0.0322 | <0.05 | <0.1 | 0.68 | 0.371 | 130 | 24 |
| K004984 | 15358 | Sandy Creek - FM 705 | 2025-03-19 | 7.8 | 96 | 18 | <0.05 | <0.05 | <0.1 | 0.48 | 0.151 | 8.1 | 28 |
| K004993 | 15358 | Sandy Creek - FM 705 | 2025-04-21 | 6.4 | >2400 | 16 | 0.051 | <0.05 | <0.1 | 0.704 | 0.076 | 28 | 20 |
| K005002 | 15358 | Sandy Creek - FM 705 | 2025-05-14 | 6.9 | 140 | 16 | <0.05 | <0.05 | <0.1 | 0.42 | <0.06 | 8 | 26 |
| K005007 | 15358 | Sandy Creek - FM 705 | 2025-06-25 | 6.2 | >2400 | 14 | <0.05 | <0.05 | <0.1 | 0.88 | 0.15 | 43 | 16 |
| K005015 | 15358 | Sandy Creek - FM 705 | 2025-07-15 | 4.4 | 50 | 17 | 0.086 | <0.05 | <0.1 | 0.46 | 0.077 | 3.9 | 11 |

## Venado Creek 0610M Data

Table . Data records for Venado Creek Segment 0610M.

| **Tag ID** | **SWQM Station** | **Station Description** | **Date** | **OXYGEN, DISSOLVED (MG/L)** | **E. COLI, COLILERT, IDEXX METHOD (MPN/100ML)** | **CHLORIDE (MG/L AS CL)** | **NITRATE NITROGEN, TOTAL (MG/L AS N)** | **NITRITE NITROGEN, TOTAL (MG/L AS N)** | **NITROGEN, AMMONIA, TOTAL (MG/L AS N)** | **NITROGEN, KJELDAHL, TOTAL (MG/L AS N)** | **PHOSPHORUS, TOTAL, WET METHOD (MG/L AS P)** | **RESIDUE, TOTAL NONFILTRABLE (MG/L)** | **SULFATE (MG/L AS SO4)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| K004936 | 15363 | Venado Creek - SH 147 | 2024-08-28 | 5.9 | 100 | 9.5 | 0.09 | <0.05 | <0.1 | 0.155 | 0.0339 | 3.5 | 28 |
| K004943 | 15363 | Venado Creek - SH 147 | 2024-09-17 | 6.6 | 180 | 9 | 0.087 | <0.05 | <0.1 | <0.2 | <0.02 | 2.9 | 29 |
| K004950 | 15363 | Venado Creek - SH 147 | 2024-10-17 | 7.1 | 150 | 8.6 | 0.0806 | <0.0882 | <0.1 | 0.218 | 0.028 | 4.7 | 44 |
| K004957 | 15363 | Venado Creek - SH 147 | 2024-11-21 | 7.5 | 230 | 9.4 | 0.15 | <0.05 | <0.1 | <0.2 | <0.02 | 2.9 | 40 |
| K004965 | 15363 | Venado Creek - SH 147 | 2024-12-18 | 4.9 | 2400 | 12 | <0.05 | <0.05 | <0.1 | 0.318 | <0.06 | 32 | 20 |
| K004972 | 15363 | Venado Creek - SH 147 | 2025-01-16 | 11.5 | 920 | 10 | 0.54 | <0.05 | <0.1 | 0.26 | 0.0591 | 3.7 | 31 |
| K004975 | 15363 | Venado Creek - SH 147 | 2025-02-18 | 10.6 | 980 | 8.9 | 0.37 | <0.05 | <0.1 | 0.33 | 0.119 | 11 | 26 |
| K004987 | 15363 | Venado Creek - SH 147 | 2025-03-20 | 9.6 | 1200 | 10 | 0.13 | <0.05 | <0.1 | <0.2 | <0.06 | 2.5 | 29 |
| K004996 | 15363 | Venado Creek - SH 147 | 2025-04-22 | 8.5 | 1400 | 9.5 | 0.26 | <0.05 | <0.1 | 1.14 | 0.026 | 3.3 | 26 |
| K004999 | 15363 | Venado Creek - SH 147 | 2025-05-13 | 8.8 | 610 | 9.2 | 0.31 | <0.05 | <0.1 | 0.2 | <0.06 | 3 | 26 |
| K005010 | 15363 | Venado Creek - SH 147 | 2025-06-26 | 7 | 370 | 11 | 0.17 | <0.05 | <0.1 | 0.32 | 0.031 | 4.7 | 26 |
| K005018 | 15363 | Venado Creek - SH 147 | 2025-07-16 | 6.8 | 120 | 12 | 0.23 | <0.05 | <0.1 | 0.41 | 0.032 | 69 | 29 |