
SABINE RIVER AUTHORITY OF TEXAS

TO: INTERESTED PARTIES
FROM: WATER RESOURCES BRANCH
RE: JUNE 2004 MONTHLY WATER QUALITY REPORT

This is the June 2004 Sabine River Authority Water Quality Report for water quality sampling performed June 7th through June 10th. Recent weather (previous seven days) in the Sabine River Basin was warm, with daytime high air temperatures from the low 80s to the low 90s at Lake Tawakoni and at Lake Fork. Toledo Bend Reservoir and Orange had daytime highs from the mid 80s to the mid 90s. Lows ranged from the low 60s to the low 70s at Lake Tawakoni and at Lake Fork. Toledo Bend and Orange had lows ranging from the mid 60s to the high 70s. Lake Tawakoni and Lake Fork exhibited thermal stratification. During the 28 days prior to the June sample run, the Upper Basin received 4.09 and 6.20 inches of rainfall as recorded at Lake Tawakoni and Lake Fork, respectively. The week prior to the sample run, Lake Tawakoni received 2.07 inches and Lake Fork received 4.94 inches of rain. Toledo Bend and Orange received 6.90 and 10.05 inches, respectively, during the 28 days preceding the sample run.

UPPER SABINE BASIN ABOVE TOLEDO BEND INCLUDING LAKE FORK AND LAKE TAWAKONI

For the June sample run, most water quality parameter measurements at Upper Basin sites were consistent with water of high quality. SR22 did not meet the Texas Surface Water Quality Stream Standards (stream standards) numeric criteria for dissolved oxygen. LF20, SR15, SR14 and SR11 exceeded the stream standards numeric criteria for *E. coli*.

LOWER SABINE BASIN INCLUDING TOLEDO BEND TO MORGAN BLUFF

The June monthly sampling results were indicative of water of high quality at most sites. The area received approximately one-half inch of rain during the sample run and nearly two inches during the week prior to sampling. The level of Toledo Bend Reservoir was recorded at 171.52 feet and was slowly rising with no discharge from the spillway at the time of sampling. Most lake stations were stratified with pH and dissolved oxygen differences throughout the water column, and anoxic conditions were found at the deepest depths at several stations. Stations TB8 and TB7A recorded dissolved oxygen levels that were below stream standards, but it was noted that this area had high flow and turbidity from recent rains. Station BA4, located on a main tributary stream in Louisiana, had a bacterial count above the stream standards.

TIDAL SECTION OF THE SABINE BASIN BELOW MORGAN BLUFF

Most sites sampled in the tidal portion of the Sabine Basin had values consistent with water of high quality. The tidal stations received a few tenths of rainfall during the sampling period, and nearly one-half inch the week prior to the sample run. Most sites in this section of the Basin showed signs of stratification, but no anoxic conditions were found at any tidal station. Only one tidal station recorded a surface salinity greater than 1 ppt. The highest salinity value was recorded at station SRT1, 9 ppt at a depth of 10.7 meters. All parameters in the tidal section of the Basin were within the stream standards

This Report and additional data for these monitoring stations are available on our World Wide Web site (www.sra.dst.tx.us). If you have any questions or comments concerning this report, please contact:

- *Upper Sabine Basin*
Terry Wilson, Upper Basin Field Office Coordinator
903-878-2420 (twilson@sra.dst.tx.us)
- *Lower and Tidal Sabine Basin*
Jerry Wiegrefe, Lower Basin Field Office Coordinator
409-746-3284 (jwiegrefe@sra.dst.tx.us)
- If above are unavailable
John Payne, Special Projects Administrator
409-746-2192 (jpayne@sra.dst.tx.us)
or
Miles Hall, Resource Management/ Project Development Division Manager
409-746-2192 (mhall@sra.dst.tx.us)

SABINE RIVER AUTHORITY OF TEXAS

Monthly Water Quality Report

June 2004

Table of Contents

Upper Sabine Basin

| | |
|---|----|
| FY2004 Fixed Monitoring Stations..... | 1 |
| Surface Report..... | 2 |
| Profile Report | 9 |
| <i>Lake Tawakoni (near the dam)</i> | 10 |
| <i>Lake Fork (near the dam)</i> | 11 |
| Weather, River, and Reservoir Data..... | 12 |
| <i>Lake Tawakoni</i> | 12 |
| <i>Lake Fork</i> | 14 |

Lower Sabine Basin

| | |
|--|----|
| FY2004 Fixed Monitoring Stations..... | 17 |
| Surface Report..... | 18 |
| Profile Report | 25 |
| <i>Toledo Bend (at Pendleton Bridge)</i> | 26 |
| <i>Toledo Bend (above the dam)</i> | 27 |
| Weather, River, and Reservoir Data..... | 28 |
| <i>Toledo Bend</i> | 28 |
| <i>Burkeville</i> | 30 |
| <i>Bon Wier</i> | 32 |
| <i>Ruliff</i> | 34 |

Tidal Sabine Basin

| | |
|---|----|
| FY2004 Fixed Monitoring Stations..... | 37 |
| Surface Report..... | 38 |
| Profile Report | 42 |
| Weather, River, and Reservoir Data..... | 43 |
| <i>Orange</i> | 43 |

Appendix

| | |
|--------------------------------------|----|
| FY2004 Fixed Monitoring Station Maps | |
| Upper Basin | 45 |
| Lower Basin | 46 |

THIS PAGE INTENTIONALLY LEFT BLANK

FY 2004 Fixed Monitoring Stations

Upper Sabine Basin

| SW | Segment | Station | Location |
|------|---------|---------------|---|
| 7.00 | 0507 | 10440 (LT23C) | LAKE TAWAKONI NEAR WIND POINT PARK |
| 7.00 | 0507 | 10435 (LT23D) | LAKE TAWAKONI IN KITSEE INLET NEAR WHITE POINT CAUSEWAY |
| 7.00 | 0507 | 10434 (LT23A) | LAKE TAWAKONI IN THE MAIN LAKE NEAR THE DAM |
| 6.12 | 0512 | 10461 (LF3) | LAKE FORK RESERVOIR MID-ARM IN CANEY CREEK ARM AT FM 515 |
| 6.12 | 0512 | 10462 (LF4) | LAKE FORK RESERVOIR MID-COVE IN LAKE FORK CREEK ARM AT FM 515 |
| 6.12 | 0512 | 10458 (LF2) | LAKE FORK RESERVOIR NEAR DAM IN CREEK CHANNEL |
| 6.10 | 0515 | 10469 (LF20) | LAKE FORK CREEK AT US 80 |
| 6.02 | 0514 | 16011 (BS9) | BIG SANDY CREEK AT WHITE OAK ROAD |
| 6.00 | 0506 | 17065 (SR22) | SABINE RIVER AT FM 17 |
| 6.00 | 0506 | 10430 (SR21) | SABINE RIVER AT US 69 |
| 6.00 | 0506 | 10429 (SR19) | SABINE RIVER AT SH 14 S. OF HAWKINS |
| 5.00 | 0506 | 10428 (SR17) | SABINE RIVER AT US 271 |
| 5.00 | 0505 | 10427 (SR16) | SABINE RIVER AT SH 42 |
| 5.00 | 0505 | 10426 (SR15) | SABINE RIVER AT US 259 |
| 5.00 | 0505 | 10423 (SR14) | SABINE RIVER AT SH 149 |
| 5.00 | 0505 | 13628 (SR11) | SABINE RIVER AT US 59 |
| 5.00 | 0505 | 10415 (SR10) | SABINE RIVER AT FM 2517 |

SABINE RIVER AUTHORITY OF TEXAS

Upper Sabine Basin Report

June 2004

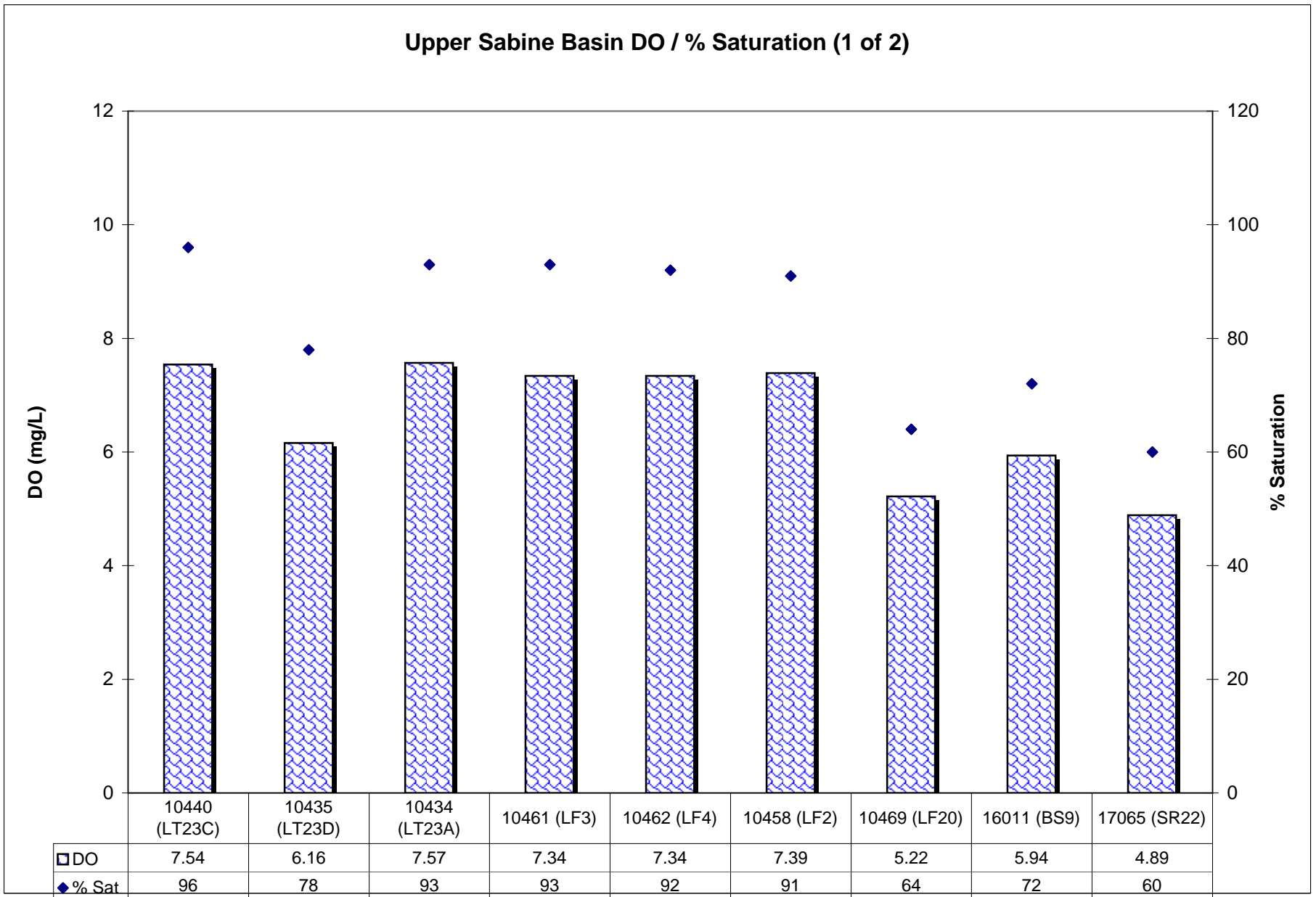
| Date | SW ID | Station | Temperature °C 00010 | pH Units 00400 | DO mg/L 00300 | % Saturation 00301 | Conductivity µS/cm 00094 | Salinity ppt 00480 | Secchi Meters 00078 | Turbidity NTU 82079 | <i>E. coli</i> mpn/100ml 31699 | Chlorophyll a µg/L 32211 | Nitrite mg/L 00615 | Nitrate mg/L 00620 | Ortho- Phosphate 00671 | TOC mg/L 00680 | Total Alkalinity 00410 | Total Hardness 00900 | Chloride mg/L 00940 | Sulfate mg/L 00945 |
|-----------------|-------|---------------|----------------------------|----------------------|---------------------|--------------------------|--------------------------------|--------------------------|---------------------------|---------------------------|--------------------------------------|--------------------------------|--------------------------|--------------------------|------------------------------|----------------------|------------------------------|----------------------------|---------------------------|--------------------------|
| 6/8/04 11:26 AM | 7.00 | 10440 (LT23C) | 26.7 | 8.74 | 7.54 | 96 | 188 | * | 0.61 | 10.5 | < 1 | * | < 0.02 | < 0.02 | < 0.04 | 6 | * | * | < 10 | < 10 |
| 6/8/04 10:42 AM | 7.00 | 10435 (LT23D) | 26.5 | 8.35 | 6.16 | 78 | 186 | * | 0.67 | 10.8 | 1 | * | < 0.02 | < 0.02 | 0.04 | 6 | * | * | < 10 | < 10 |
| 6/8/04 9:50 AM | 7.00 | 10434 (LT23A) | 24.7 | 8.45 | 7.57 | 93 | 185 | * | 1.16 | 3.72 | < 1 | * | < 0.02 | < 0.02 | < 0.04 | 5 | * | * | < 10 | 10.3 |
| 6/8/04 8:30 AM | 6.12 | 10461 (LF3) | 26.6 | 7.81 | 7.34 | 93 | 159 | * | 1.27 | 4.4 | < 1 | * | < 0.02 | < 0.02 | < 0.04 | 6 | * | * | 14 | 18.2 |
| 6/8/04 8:52 AM | 6.12 | 10462 (LF4) | 26.3 | 7.57 | 7.34 | 92 | 158 | * | 1.7 | 2.27 | 2 | * | < 0.02 | < 0.02 | < 0.04 | 6 | * | * | 13.4 | 19.9 |
| 6/8/04 7:52 AM | 6.12 | 10458 (LF2) | 25.2 | 7.48 | 7.39 | 91 | 155 | * | 2.14 | 1.6 | < 1 | * | < 0.02 | < 0.02 | < 0.04 | 7 | * | * | 13.5 | 19 |
| 6/8/04 1:47 PM | 6.10 | 10469 (LF20) | 25.1 | 6.72 | 5.22 | 64 | 186 | * | 0.4 | 19.4 | 866 | * | < 0.02 | 0.05 | 0.1 | 9 | * | * | 19.7 | 20.9 |
| 6/9/04 6:27 AM | 6.02 | 16011 (BS9) | 23.8 | 6.47 | 5.94 | 72 | 142 | * | 0.57 | 13 | 142 | * | < 0.02 | 0.09 | < 0.04 | 12 | * | * | 17.8 | 14.8 |
| 6/8/04 12:40 PM | 6.00 | 17065 (SR22) | 25 | 6.99 | 4.89 | 60 | 185 | * | 0.27 | 60.3 | 132 | * | < 0.02 | 0.17 | 0.29 | 12 | * | * | 12.8 | 18.2 |
| 6/8/04 1:20 PM | 6.00 | 10430 (SR21) | 24.7 | 6.99 | 5.21 | 64 | 178 | * | 0.23 | 95.3 | 192 | * | 0.02 | 0.31 | 0.32 | 13 | * | * | 15 | 17.4 |
| 6/8/04 2:09 PM | 6.00 | 10429 (SR19) | 25.6 | 6.99 | 5.98 | 74 | 247 | * | 0.28 | 53.8 | 57 | * | < 0.02 | 0.15 | 0.06 | 10 | * | * | 30.9 | 27.4 |
| 6/9/04 6:55 AM | 5.00 | 10428 (SR17) | 25 | 6.92 | 6.07 | 75 | 208 | * | 0.35 | 41.6 | 126 | * | < 0.02 | 0.14 | 0.04 | 10 | * | * | 27.4 | 20.9 |
| 6/9/04 7:25 AM | 5.00 | 10427 (SR16) | 25 | 6.88 | 5.8 | 71 | 226 | * | 0.38 | 46.5 | 365 | * | < 0.02 | 0.16 | 0.05 | 10 | * | * | 34.2 | 19.1 |
| 6/9/04 7:52 AM | 5.00 | 10426 (SR15) | 24.9 | 6.87 | 5.83 | 72 | 225 | * | 0.31 | 60.7 | 397 | * | < 0.02 | 0.17 | 0.04 | 11 | * | * | 35.1 | 17.8 |
| 6/9/04 8:17 AM | 5.00 | 10423 (SR14) | 24.6 | 6.79 | 5.9 | 72 | 209 | * | 0.27 | 82 | 1730 | * | < 0.02 | 0.34 | 0.05 | 9 | * | * | 28.9 | 16 |
| 6/9/04 9:10 AM | 5.00 | 13628 (SR11) | 24.9 | 6.98 | 5.71 | 70 | 171 | * | 0.23 | 66.8 | 816 | * | < 0.02 | 0.18 | 0.04 | 10 | * | * | 19.6 | 15.8 |
| 6/9/04 9:50 AM | 5.00 | 10415 (SR10) | 24.9 | 6.75 | 5.28 | 65 | 162 | * | 0.22 | 56.9 | 172 | * | < 0.02 | 0.17 | 0.04 | 10 | 20 | 36 | 19.2 | 15.4 |

*: Not sampled on this run

SABINE RIVER AUTHORITY OF TEXAS

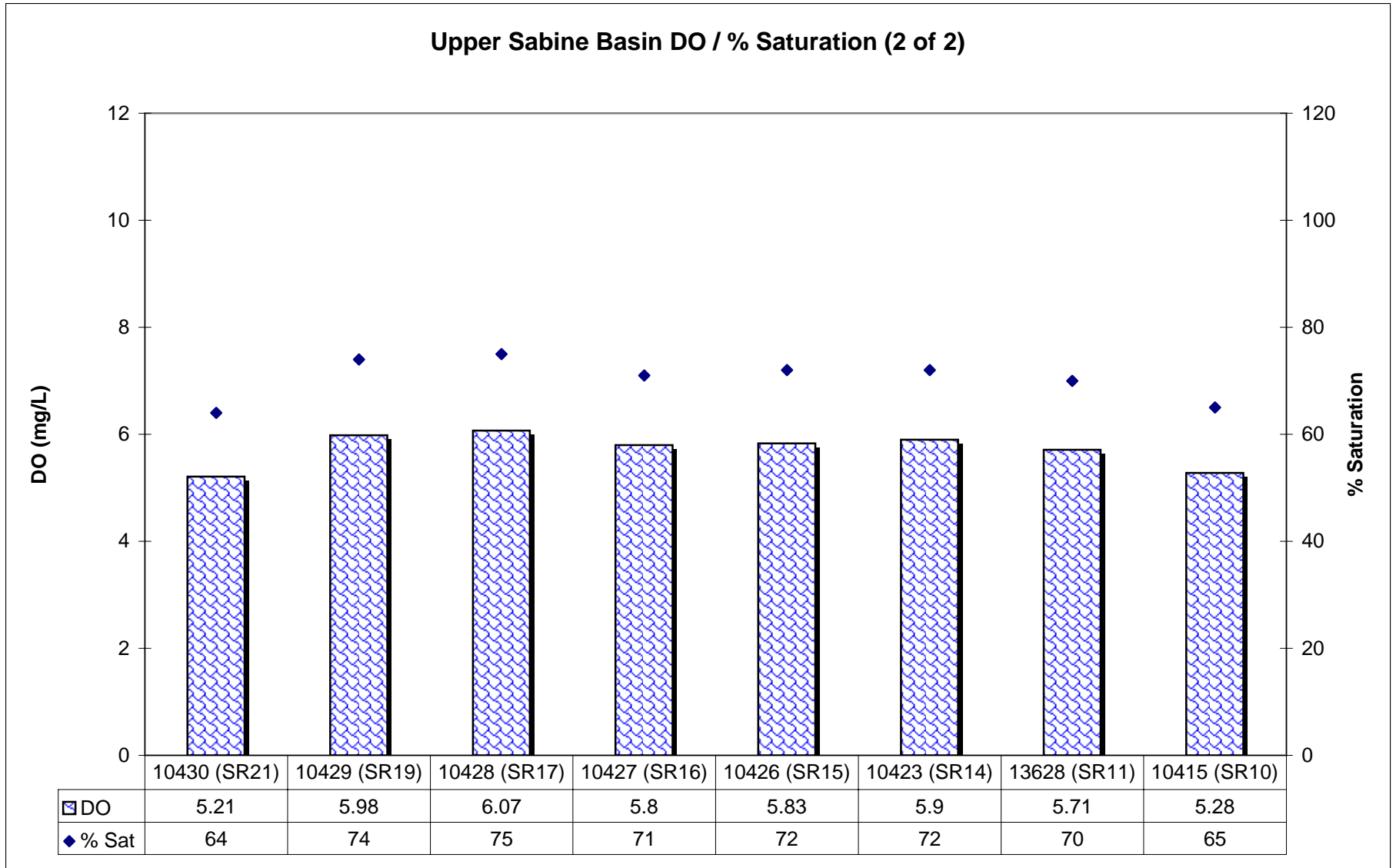
June 2004

Upper Sabine Basin DO / % Saturation (1 of 2)



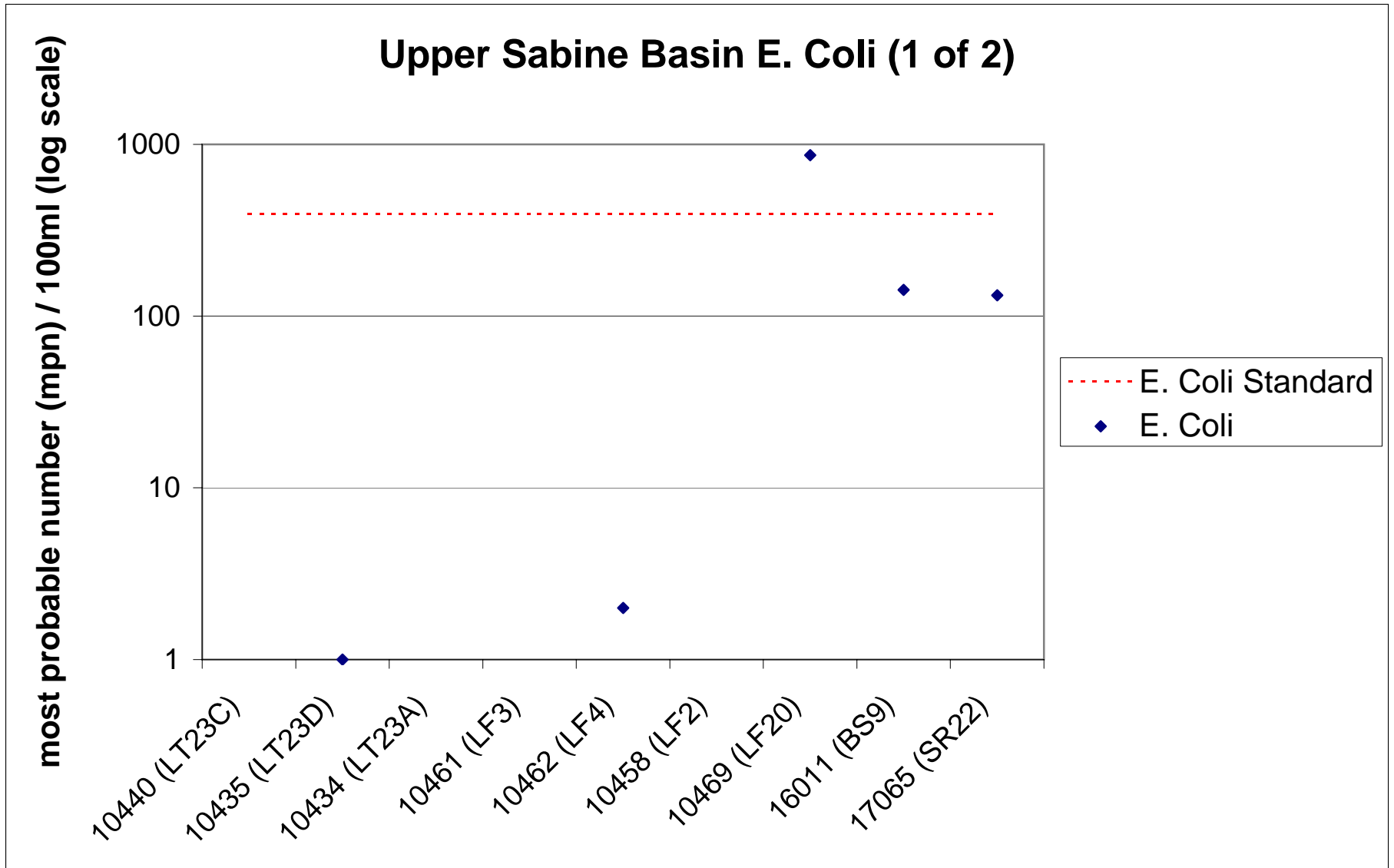
SABINE RIVER AUTHORITY OF TEXAS

June 2004



SABINE RIVER AUTHORITY OF TEXAS

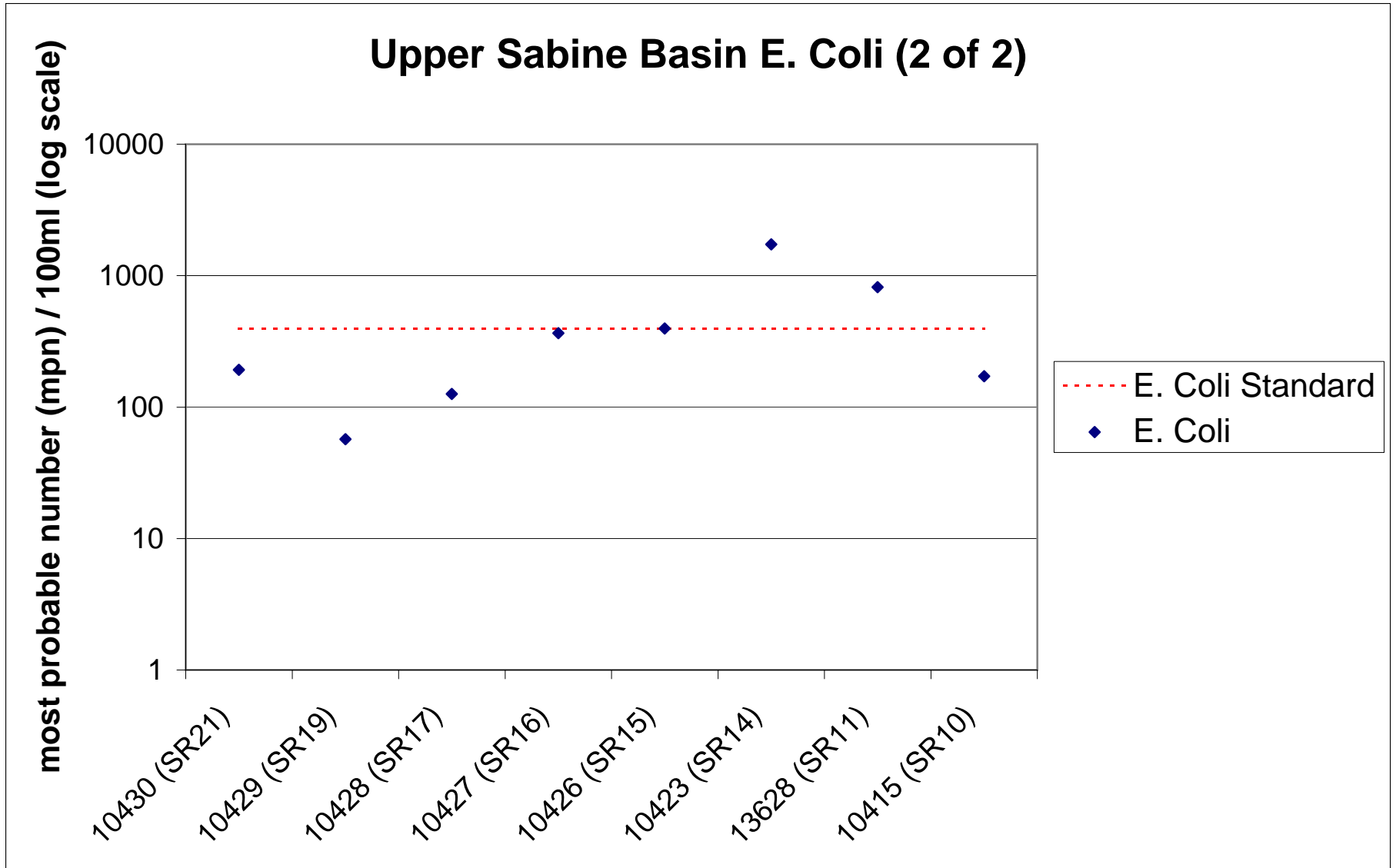
June 2004



Stations without values were below detection limit on this run (see page 2)

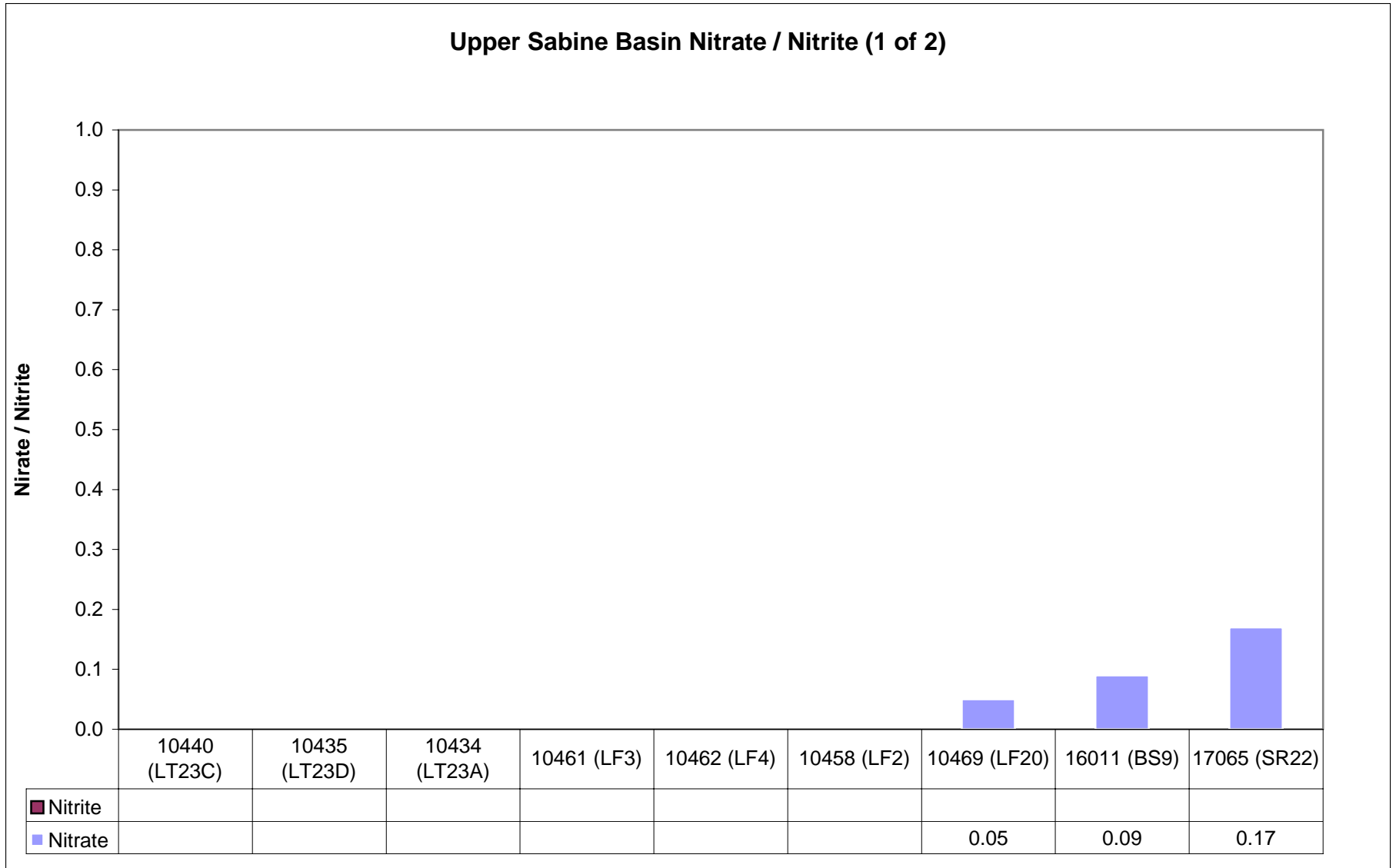
SABINE RIVER AUTHORITY OF TEXAS

June 2004



SABINE RIVER AUTHORITY OF TEXAS

June 2004

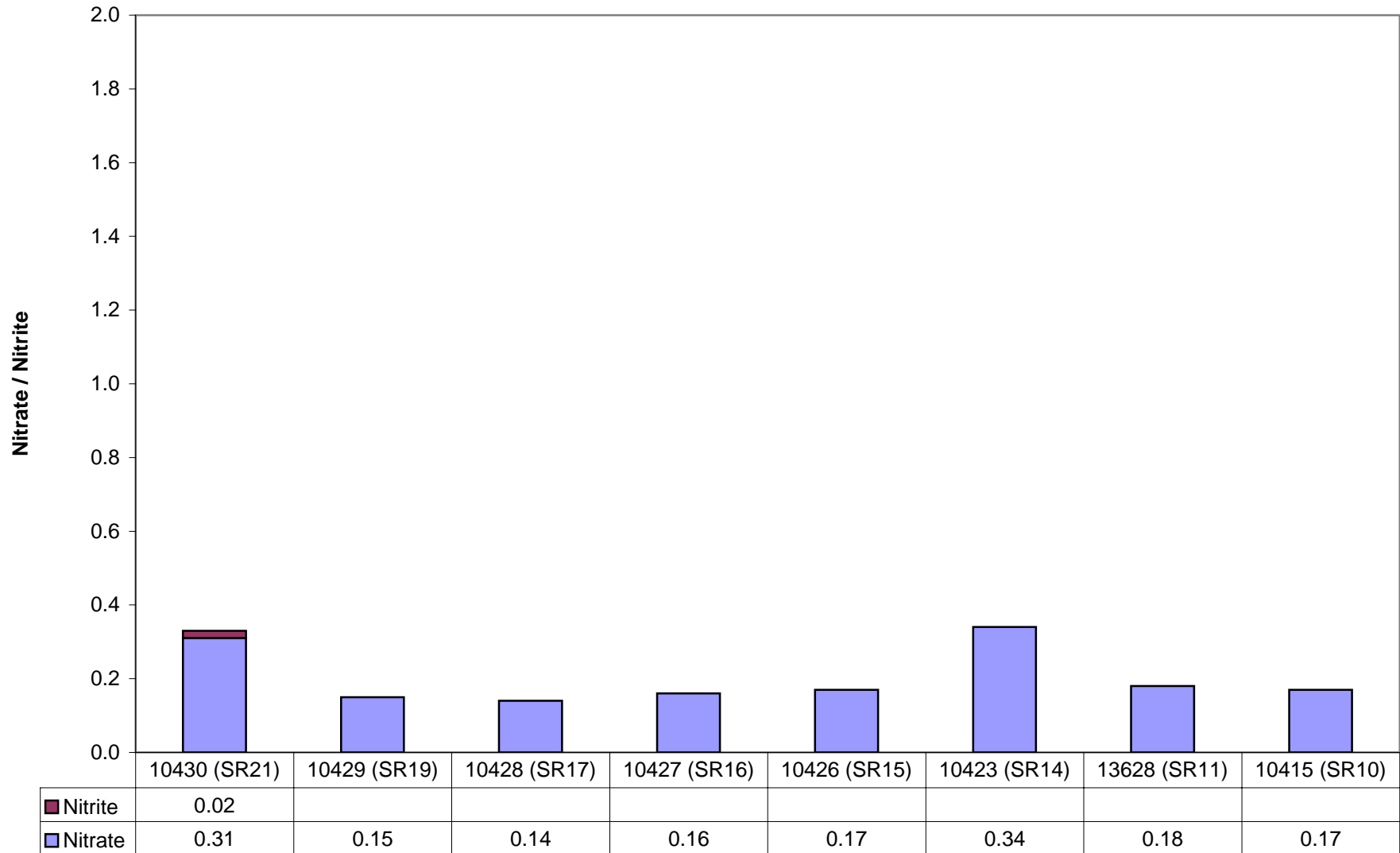


Stations without values were below detection limit (< 0.02 mg/L) on this run (see page 2)

SABINE RIVER AUTHORITY OF TEXAS

June 2004

Lower Sabine Basin Nitrate / Nitrite (2 of 2)



Stations without values were below detection limit (< 0.02 mg/L) on this run (see page 2)

SABINE RIVER AUTHORITY OF TEXAS

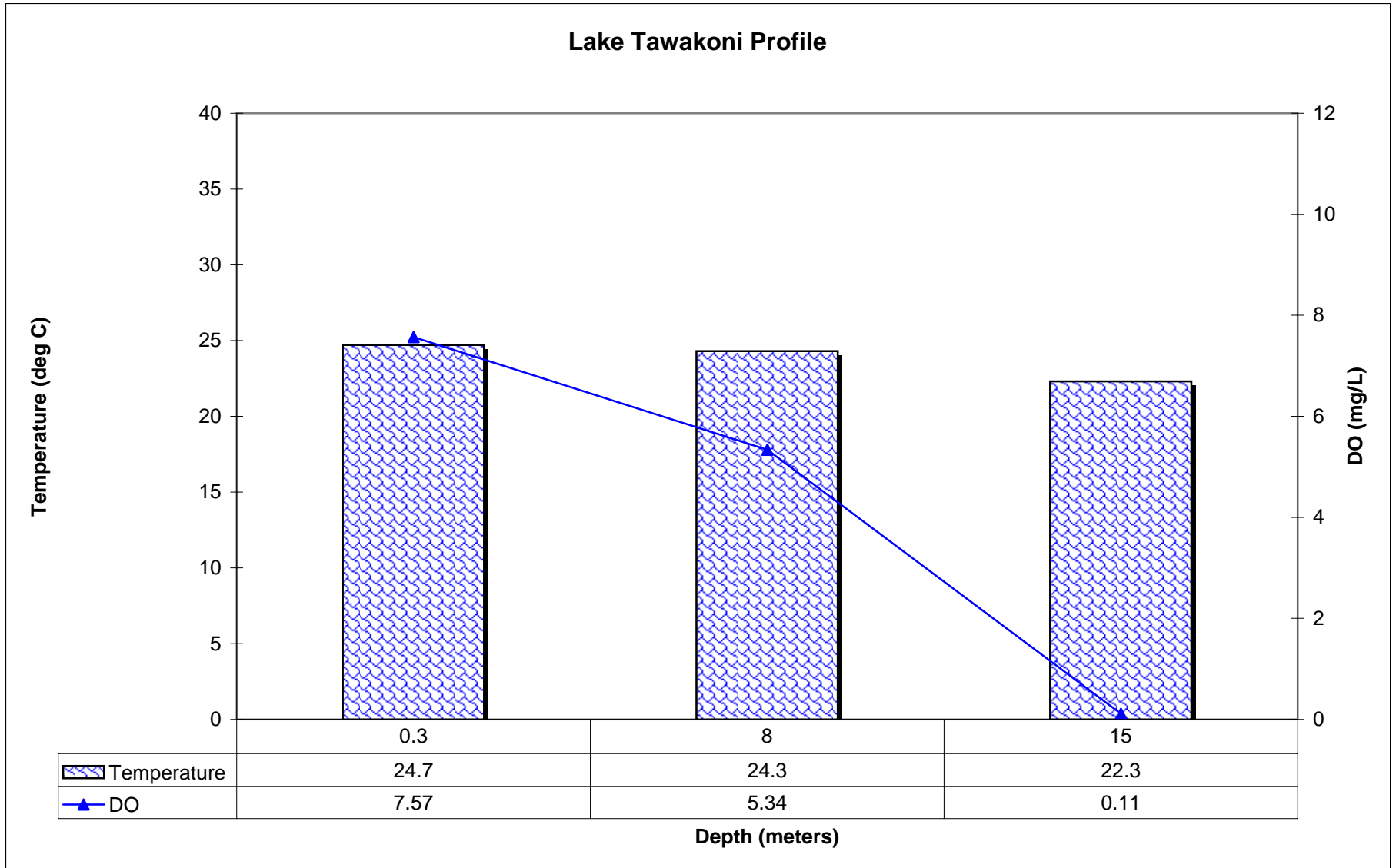
Upper Basin Profiles

June 2004

| Date | SW ID | Station | Depth Meters | Temperature | pH | DO | % | Conductivity |
|-----------------|-------|---------------|--------------|-------------|----------------|---------------|---------------------|----------------|
| | | | | °C 00010 | Units 00400 | mg/L 00300 | Saturation 00301 | μS/cm 00094 |
| 6/8/04 11:26 AM | 7.00 | 10440 (LT23C) | 0.3 | 26.7 | 8.74 | 7.54 | 96 | 188 |
| | | | 2 | 26.5 | 8.6 | 6.97 | 88 | 189 |
| | | | 4.2 | 26 | 8.6 | 6.89 | 86 | 192 |
| 6/8/04 10:42 AM | 7.00 | 10435 (LT23D) | 0.3 | 26.5 | 8.35 | 6.16 | 78 | 186 |
| | | | 4.6 | 26.3 | 7.86 | 4.48 | 56 | 196 |
| | | | 9.2 | 26.2 | 7.62 | 3.21 | 40 | 191 |
| 6/8/04 9:50 AM | 7.00 | 10434 (LT23A) | 0.3 | 24.7 | 8.45 | 7.57 | 93 | 185 |
| | | | 8 | 24.3 | 7.79 | 5.34 | 65 | 187 |
| | | | 15 | 22.3 | 7.18 | 0.11 | 1 | 191 |
| 6/8/04 8:30 AM | 6.12 | 10461 (LF3) | 0.3 | 26.6 | 7.81 | 7.34 | 93 | 159 |
| | | | 5 | 26.5 | 7.79 | 7.37 | 93 | 161 |
| | | | 9 | 25.4 | 6.86 | 1.92 | 24 | 166 |
| 6/8/04 8:52 AM | 6.12 | 10462 (LF4) | 0.3 | 26.3 | 7.57 | 7.34 | 92 | 158 |
| | | | 6 | 26.2 | 7.47 | 7.04 | 89 | 160 |
| | | | 11 | 25.3 | 6.89 | 3.83 | 48 | 163 |
| 6/8/04 7:52 AM | 6.12 | 10458 (LF2) | 0.3 | 25.2 | 7.48 | 7.39 | 91 | 155 |
| | | | 7 | 23.8 | 6.92 | 4.61 | 56 | 161 |
| | | | 19.2 | 14.5 | 6.84 | 0.12 | 1 | 192 |

SABINE RIVER AUTHORITY OF TEXAS

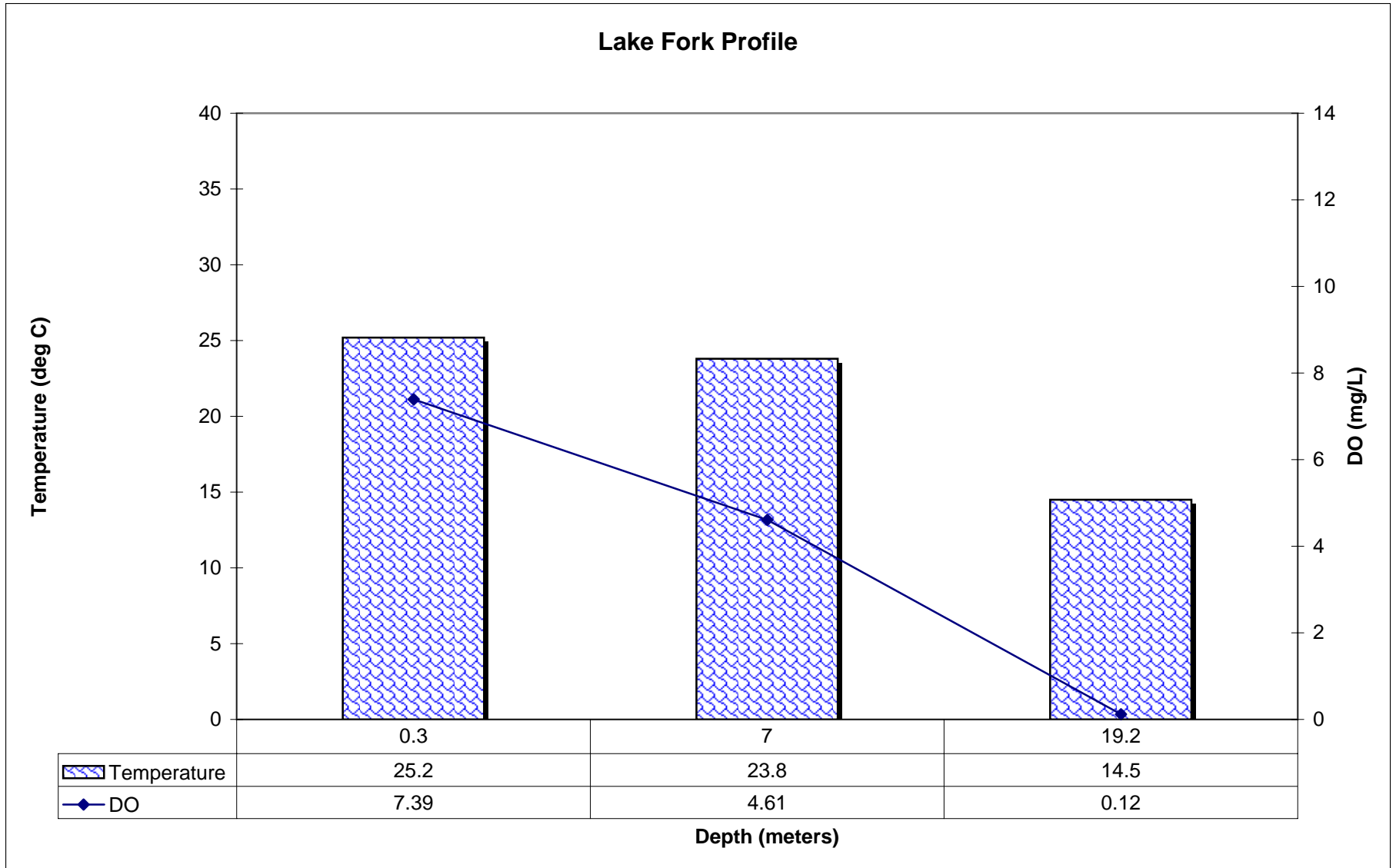
June 2004



For Station 10434 (LT23A): LAKE TAWAKONI IN THE MAIN LAKE NEAR THE DAM IN THE OLD RIVER CHANNEL

SABINE RIVER AUTHORITY OF TEXAS

June 2004



SABINE RIVER AUTHORITY OF TEXAS

Lake Tawakoni Weather and Reservoir Data

June 2004

| Date | Lake Elev | LE - TOP | Releases inst | Max Temp | Min Temp | Rainfall | Evap |
|-------------------|-----------|----------|---------------|----------|----------|----------|------|
| 6/1/2004 | 437.13 | (0.37) | 5 | 86 | 66 | 0.18 | 0.00 |
| 6/2/2004 | 437.25 | (0.25) | 5 | 90 | 63 | 0.69 | 0.24 |
| 6/3/2004 | 437.34 | (0.16) | 5 | 87 | 65 | 0.72 | 0.32 |
| 6/4/2004 | 437.32 | (0.18) | 5 | 82 | 66 | 0.00 | 0.21 |
| 6/5/2004 | 437.26 | (0.24) | 5 | 86 | 70 | 0.00 | 0.33 |
| 6/6/2004 | 437.31 | (0.19) | 5 | 85 | 69 | 0.43 | 0.38 |
| 6/7/2004 | 437.31 | (0.19) | 5 | 86 | 71 | 0.00 | 0.12 |
| 6/8/2004 | 437.33 | (0.17) | 5 | 88 | 72 | 0.05 | 0.31 |
| 6/9/2004 | 437.41 | (0.09) | 5 | 75 | 70 | 1.04 | 0.00 |
| 6/10/2004 | 437.54 | 0.04 | 5 | 81 | 71 | 0.25 | 0.11 |
| 6/11/2004 | 437.70 | 0.20 | 125 | 85 | 72 | 0.00 | 0.34 |
| 6/12/2004 | 437.70 | 0.20 | 125 | 87 | 76 | 0.00 | 0.34 |
| 6/13/2004 | 437.71 | 0.21 | 125 | 88 | 75 | 0.00 | 0.25 |
| 6/14/2004 | 437.65 | 0.15 | 125 | 89 | 69 | 0.00 | 0.26 |
| 6/15/2004 | 437.60 | 0.10 | 45 | 90 | 69 | 0.00 | 0.36 |
| 6/16/2004 | 437.58 | 0.08 | 25 | 84 | 71 | 0.00 | 0.14 |
| 6/17/2004 | 437.56 | 0.06 | 25 | 84 | 71 | 0.00 | 0.31 |
| 6/18/2004 | 437.52 | 0.02 | 5 | 91 | 73 | 0.00 | 0.29 |
| 6/19/2004 | 437.49 | (0.01) | 5 | 92 | 72 | 0.00 | 0.34 |
| 6/20/2004 | 437.47 | (0.03) | 5 | 90 | 70 | 0.02 | 0.25 |
| 6/21/2004 | 437.47 | (0.03) | 5 | 89 | 72 | 0.00 | 0.29 |
| 6/22/2004 | 437.48 | (0.02) | 5 | 90 | 73 | 0.00 | 0.35 |
| 6/23/2004 | 437.46 | (0.04) | 5 | 79 | 68 | 0.03 | 0.13 |
| 6/24/2004 | 437.41 | (0.09) | 5 | 87 | 69 | 0.00 | 0.28 |
| 6/25/2004 | 437.40 | (0.10) | 5 | 87 | 72 | 0.10 | 0.23 |
| 6/26/2004 | 437.37 | (0.13) | 5 | 86 | 72 | 0.00 | 0.21 |
| 6/27/2004 | 437.38 | (0.12) | 5 | 78 | 70 | 0.95 | 0.00 |
| 6/28/2004 | 437.50 | 0.00 | 5 | 78 | 70 | 0.72 | 0.29 |
| 6/29/2004 | 437.60 | 0.10 | 45 | 78 | 70 | 0.07 | 0.14 |
| 6/30/2004 | 437.75 | 0.25 | 125 | 82 | 70 | 0.30 | 0.10 |
| Avg or Tot | 437.47 | (0.03) | 29 | 85 | 70 | 5.55 | 6.92 |

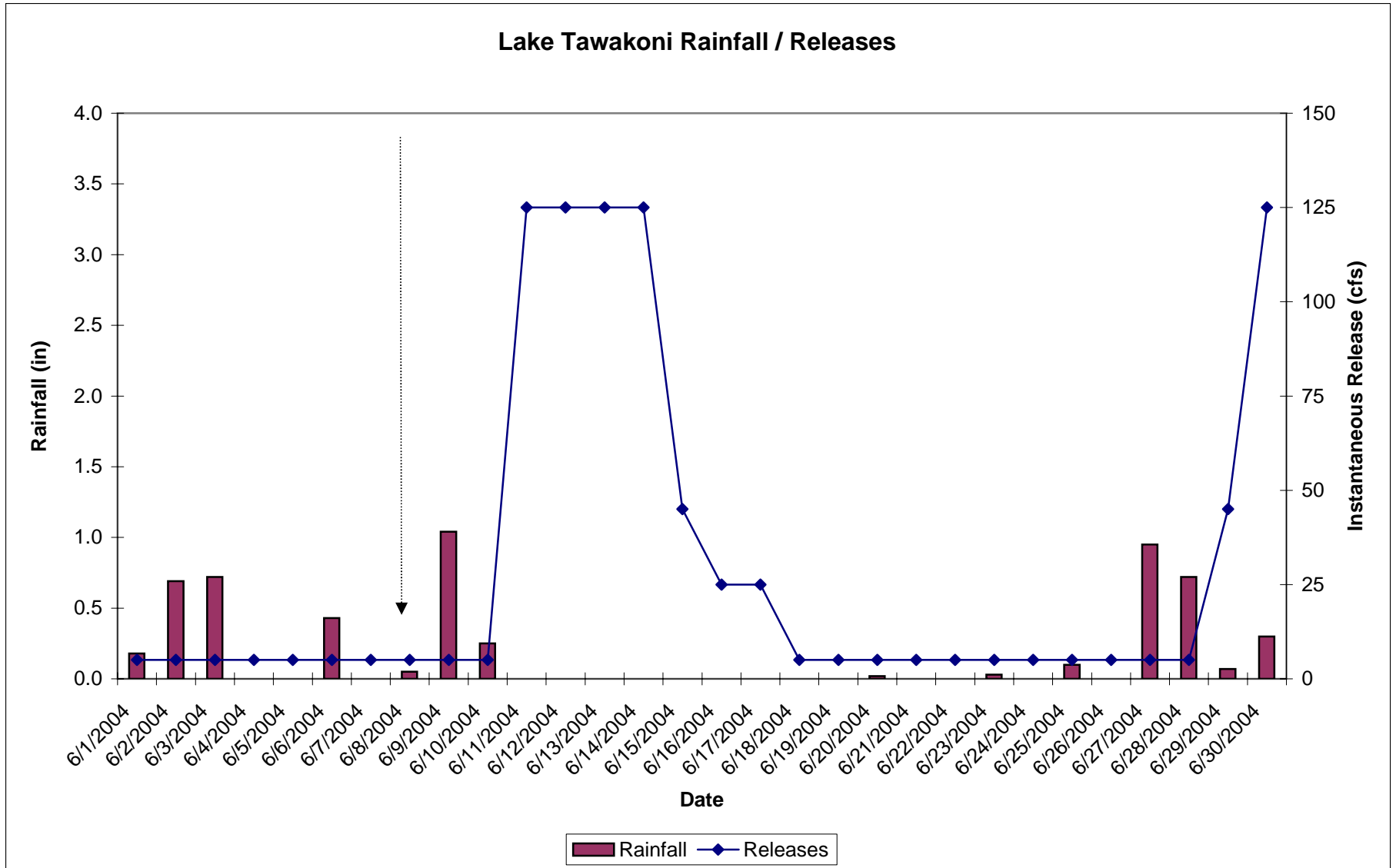
| | | | | | | | |
|-------|-------------|------|-------------------------------|-------|-------|--------|--------|
| | Avg | Avg | Avg | Avg | Avg | Tot | Tot |
| Units | Feet M.S.L. | Feet | cfs | Deg F | Deg F | Inches | Inches |
| | | | Instantaneous appx. 8 a.m. | | | | |

TOP: Top of Pool = 437.5 Feet M.S.L.

Lake Tawakoni Sampled on 6/8/2004

SABINE RIVER AUTHORITY OF TEXAS

June 2004



Please Note : Lake Tawakoni has an uncontrolled spillway.

SABINE RIVER AUTHORITY OF TEXAS

Lake Fork Weather and Reservoir Data

June 2004

| Date | Lake Elev | LE - TOP | Releases avg | Releases cur | Max Temp | Min Temp | Rainfall | Evap |
|-------------------|-----------|----------|--------------|--------------|----------|----------|----------|------|
| 6/1/2004 | 403.04 | 0.04 | 8 | 64 | 89 | 65 | 1.52 | 0.33 |
| 6/2/2004 | 403.10 | 0.10 | 64 | 64 | 90 | 64 | 0.78 | 0.29 |
| 6/3/2004 | 403.14 | 0.14 | 64 | 64 | 90 | 63 | 0.83 | 0.37 |
| 6/4/2004 | 403.14 | 0.14 | 64 | 64 | 87 | 66 | 0.00 | 0.23 |
| 6/5/2004 | 403.13 | 0.13 | 64 | 64 | 90 | 68 | 0.57 | 0.39 |
| 6/6/2004 | 403.27 | 0.27 | 64 | 2,151 | 88 | 68 | 1.20 | 0.00 |
| 6/7/2004 | 403.14 | 0.14 | 2,151 | 2,129 | 90 | 70 | 0.00 | 0.32 |
| 6/8/2004 | 402.99 | (0.01) | 2,151 | 2,129 | 92 | 70 | 0.04 | 0.25 |
| 6/9/2004 | 403.05 | 0.05 | 2,129 | 2,129 | 80 | 71 | 1.93 | 0.00 |
| 6/10/2004 | 402.96 | (0.04) | 2,129 | 2,129 | 87 | 70 | 0.04 | 0.15 |
| 6/11/2004 | 402.84 | (0.16) | 2,129 | 2,129 | 80 | 62 | 0.02 | 0.22 |
| 6/12/2004 | 402.67 | (0.33) | 2,129 | 64 | 90 | 74 | 0.00 | 0.29 |
| 6/13/2004 | 402.65 | (0.35) | 64 | 64 | 91 | 74 | 0.00 | 0.29 |
| 6/14/2004 | 402.65 | (0.35) | 64 | 64 | 94 | 66 | 0.00 | 0.34 |
| 6/15/2004 | 402.64 | (0.36) | 64 | 64 | 92 | 70 | 0.00 | 0.30 |
| 6/16/2004 | 402.62 | (0.38) | 64 | 64 | 86 | 71 | 0.00 | 0.15 |
| 6/17/2004 | 402.61 | (0.39) | 64 | 64 | 92 | 71 | 0.00 | 0.25 |
| 6/18/2004 | 402.61 | (0.39) | 64 | 64 | 95 | 72 | 0.00 | 0.31 |
| 6/19/2004 | 402.59 | (0.41) | 64 | 64 | 95 | 70 | 0.00 | 0.26 |
| 6/20/2004 | 402.59 | (0.41) | 64 | 64 | 94 | 70 | 0.39 | 0.24 |
| 6/21/2004 | 402.67 | (0.33) | 64 | 64 | 92 | 70 | 0.00 | 0.29 |
| 6/22/2004 | 402.66 | (0.34) | 64 | 64 | 94 | 73 | 0.06 | 0.28 |
| 6/23/2004 | 402.54 | (0.46) | 64 | 64 | 85 | 69 | 0.12 | 0.12 |
| 6/24/2004 | 402.52 | (0.48) | 64 | 64 | 90 | 72 | 0.00 | 0.25 |
| 6/25/2004 | 402.50 | (0.50) | 64 | 64 | 89 | 71 | 0.00 | 0.21 |
| 6/26/2004 | 402.48 | (0.52) | 64 | 64 | 90 | 70 | 0.00 | 0.27 |
| 6/27/2004 | 402.52 | (0.48) | 64 | 64 | 83 | 68 | 1.17 | 0.00 |
| 6/28/2004 | 402.61 | (0.39) | 64 | 64 | 86 | 70 | 0.34 | 0.18 |
| 6/29/2004 | 402.70 | (0.30) | 64 | 64 | 83 | 70 | 0.10 | 0.11 |
| 6/30/2004 | 402.80 | (0.20) | 64 | 64 | 88 | 70 | 0.55 | 0.24 |
| Avg or Tot | 402.78 | (0.22) | 477 | 478 | 89 | 69 | 9.66 | 6.93 |

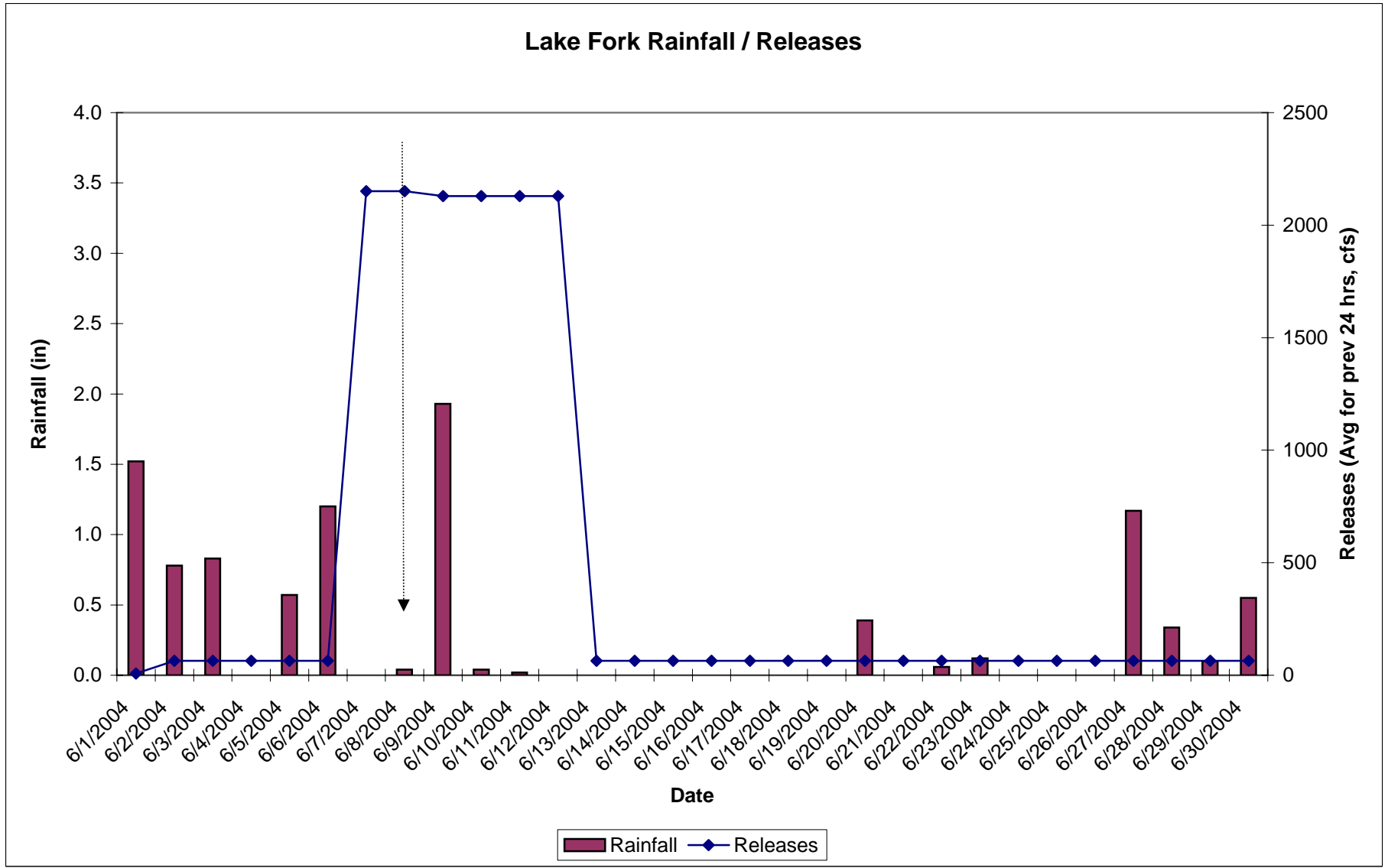
| | | | | | | | | |
|-------|-------------|------|--------------------|-----|-------|-------|--------|--------|
| | Avg | Avg | Avg | Avg | Avg | Avg | Tot | Tot |
| Units | Feet M.S.L. | Feet | cfs | cfs | Deg F | Deg F | Inches | Inches |
| | | | Previous 24 hrs | | | | | |

TOP: Top of Pool = 403 Feet M.S.L.

Lake Fork Sampled on 6/8/2004

SABINE RIVER AUTHORITY OF TEXAS

June 2004



THIS PAGE INTENTIONALLY LEFT BLANK

FY 2004 Fixed Monitoring Stations

Lower Sabine Basin

| SW | Segment | Station | Location |
|------|---------|---------------|---|
| 4.00 | 0504 | 10403 (TB8) | TOLEDO BEND RESERVOIR AT US 84 NEAR LOGANSPO RT LA |
| 4.00 | 0504 | 18051 (TB7A) | TOLEDO BEND RESERVOIR AT RECREATION SITE 1 |
| 4.00 | 0504 | 18052 (TB6R) | TOLEDO BEND RAGTOWN |
| 4.00 | 0504 | 18053 (TB6LN) | TOLEDO BEND RESERVOIR SAN MIGUEL ARM BOAT LANE |
| 4.00 | 0504 | 15655 (TB6J) | TOLEDO BEND RESERVOIR PATROON BAYOU BRANCH AT FM 276 |
| 4.00 | 0504 | 15659 (TB6K) | TOLEDO BEND RESERVOIR IN LANANA BAYOU AT LOUISIANA SH 191 IN SABINE PARISH LOUISIANA WEST OF MANY |
| 4.00 | 0504 | 10402 (TB6H) | TOLEDO BEND RESERVOIR AT SH 21 NORTHEAST OF MILAM |
| 4.00 | 0504 | 18054 (TB6Q) | TOLEDO BEND RESERVOIR IN NEGREET BAYOU |
| 4.00 | 0504 | 10411 (TB6F) | TOLEDO BEND RESERVOIR IN SUNSHINE BAY NEAR FM 3121 BRIDGE |
| 4.00 | 0504 | 10407 (TB6CN) | TOLEDO BEND RESERVOIR IN SIX MILE BOAT LANE AT SH 87 |
| 4.00 | 0504 | 10404 (TB6A) | TOLEDO BEND RESERVOIR MAIN LAKE ABOVE THE DAM AT THE OLD RIVER CHANNEL |
| 3.03 | 0503 | 10340 (BA4) | ANACOCO BAYOU AT LOUISIANA HWY 111 CROSSING SOUTHWEST OF KNIGHT LA |
| 3.00 | 0503 | 10401 (TB6S) | SABINE RIVER BELOW TOLEDO BEND RESERVOIR AT RIGHT ABUTMENT OF SPILLWAY FOR DAM |
| 3.00 | 0503 | 10399 (SR5) | SABINE RIVER AT SH 63 EAST OF BURKEVILLE TX. |
| 3.00 | 0503 | 10398 (SR3) | SABINE RIVER AT US 190 EAST OF BON WIER TX. |
| 2.05 | 0513 | 10465 (BCC1) | BIG COW CREEK AT FM 1416 SOUTH OF BON WIER |
| 2.00 | 0502 | 10397 (SR2) | SABINE RIVER AT SH 12 NORTH OF DEWEYVILLE TX. |

SABINE RIVER AUTHORITY OF TEXAS

Lower Basin Report

June 2004

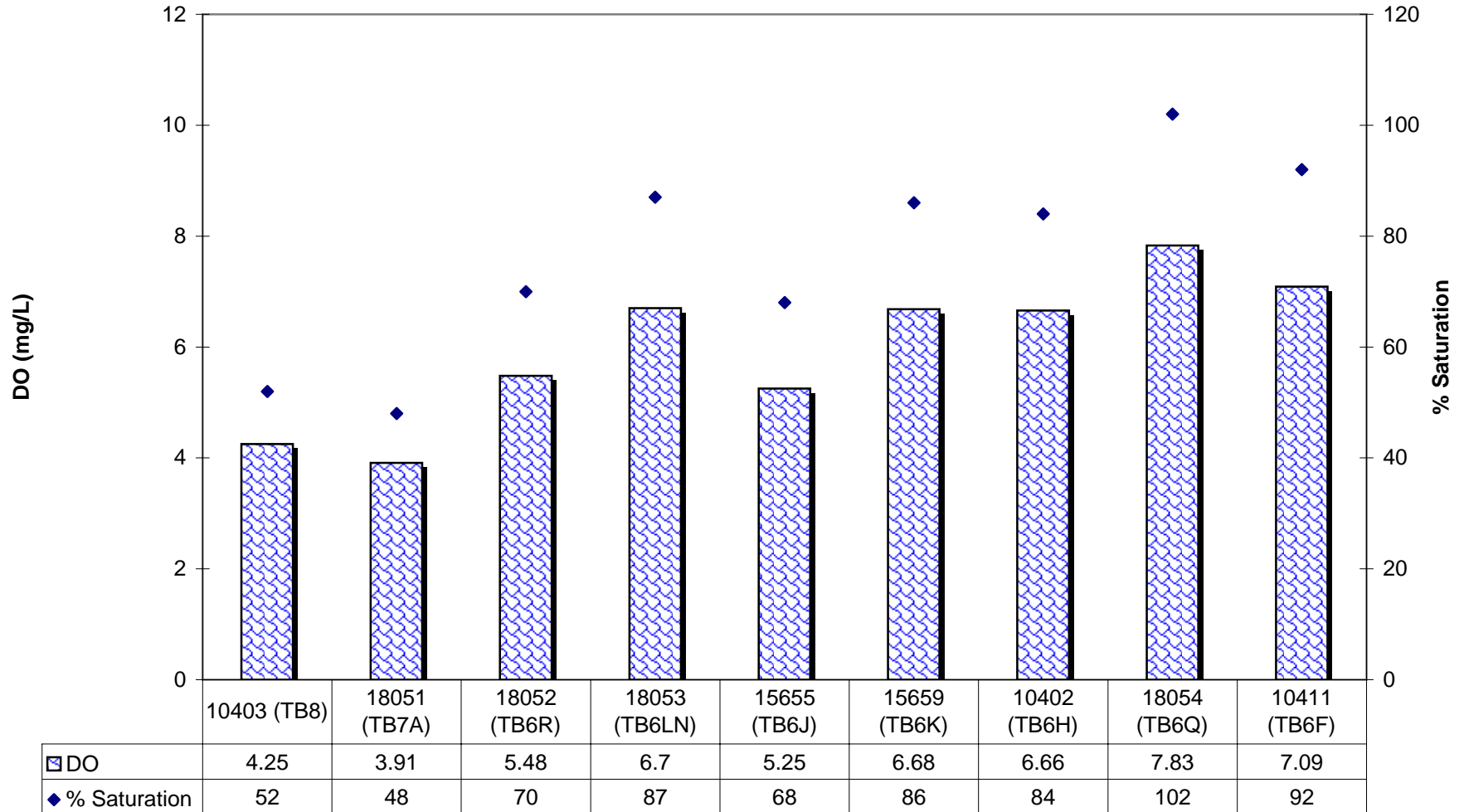
| Date | SW ID | Station | Temperature °C 00010 | pH Units 00400 | DO mg/L 00300 | % Saturation 00301 | Conductivity µS/cm 00094 | Salinity ppt 00480 | Secchi Meters 00078 | Turbidity NTU 82079 | <i>E. coli</i> mpn/100ml 31699 | Chlorophyll a µg/L 32211 | Nitrite mg/L 00615 | Nitrate mg/L 00620 | Ortho- Phosphate 00671 | TOC mg/L 00680 | Total Alkalinity 00410 | Total Hardness 00900 | Chloride mg/L 00940 | Sulfate mg/L 00945 |
|-----------------|-------|---------------|----------------------------|----------------------|---------------------|--------------------------|--------------------------------|--------------------------|---------------------------|---------------------------|--------------------------------------|--------------------------------|--------------------------|--------------------------|------------------------------|----------------------|------------------------------|----------------------------|---------------------------|--------------------------|
| 6/9/04 10:35 AM | 4.00 | 10403 (TB8) | 24.9 | 6.59 | 4.25 | 52 | 120 | * | 0.24 | 63.8 | 69 | * | < 0.02 | 0.15 | < 0.04 | 10 | * | * | 12.3 | 11.4 |
| 6/9/04 11:09 AM | 4.00 | 18051 (TB7A) | 24.9 | 6.62 | 3.91 | 48 | 122 | * | 0.22 | 71.4 | 99 | * | < 0.02 | 0.15 | 0.04 | 10 | * | * | 12.9 | 11.3 |
| 6/7/04 10:15 AM | 4.00 | 18052 (TB6R) | 27.5 | 7.12 | 5.48 | 70 | 158 | * | 1.08 | 5.98 | 1 | * | < 0.02 | 0.02 | 0.04 | 11 | * | * | 16.4 | 15.7 |
| 6/7/04 12:25 PM | 4.00 | 18053 (TB6LN) | 29.1 | 7.39 | 6.7 | 87 | 143 | * | 0.99 | 5.43 | < 1 | * | < 0.02 | < 0.02 | < 0.04 | 9 | * | * | 14.9 | 14.7 |
| 6/8/04 10:05 AM | 4.00 | 15655 (TB6J) | 28.8 | 7.02 | 5.25 | 68 | 147 | * | 0.64 | 8.92 | 3 | * | < 0.02 | 0.05 | < 0.04 | 9 | * | * | 15.1 | 17.5 |
| 6/8/04 12:05 PM | 4.00 | 15659 (TB6K) | 28.7 | 7.33 | 6.68 | 86 | 120 | * | 0.78 | 6.29 | 1 | * | < 0.02 | < 0.02 | < 0.04 | 9 | * | * | 13.6 | 15.1 |
| 6/8/04 11:05 AM | 4.00 | 10402 (TB6H) | 27.1 | 7.32 | 6.66 | 84 | 145 | * | 1.45 | 2.53 | < 1 | * | < 0.02 | < 0.02 | < 0.04 | 8 | * | * | 15.8 | 16.3 |
| 6/7/04 1:15 PM | 4.00 | 18054 (TB6Q) | 29.1 | 8.19 | 7.83 | 102 | 149 | * | 1.5 | 2.49 | < 1 | * | < 0.02 | 0.03 | < 0.04 | 7 | * | * | 15.1 | 16.2 |
| 6/8/04 10:30 AM | 4.00 | 10411 (TB6F) | 29.1 | 7.55 | 7.09 | 92 | 106 | * | 1.16 | 4.38 | 4 | * | < 0.02 | 0.07 | < 0.04 | 7 | * | * | < 10 | 11.7 |
| 6/8/04 9:20 AM | 4.00 | 10407 (TB6CN) | 28.6 | 7.21 | 6.1 | 78 | 110 | * | 0.96 | 5.67 | 4 | * | < 0.02 | 0.13 | < 0.04 | 10 | * | * | 10.8 | 12.3 |
| 6/7/04 2:20 PM | 4.00 | 10404 (TB6A) | 26.3 | 7.06 | 6.48 | 80 | 147 | * | 1.87 | 1.64 | < 1 | * | < 0.02 | < 0.02 | < 0.04 | 7 | * | * | 14.6 | 15.6 |
| 6/9/04 12:50 PM | 3.03 | 10340 (BA4) | 26.3 | 7.01 | 6.44 | 80 | 361 | * | 0.32 | 35.6 | 921 | * | 0.05 | 0.26 | 0.09 | 14 | * | * | 12.2 | 91.5 |
| 6/9/04 10:40 AM | 3.00 | 10401 (TB6S) | 16.6 | 6.86 | 9.82 | 101 | 162 | * | * | 2.45 | 5 | * | < 0.02 | 0.1 | < 0.04 | 6 | * | * | 14.8 | 16 |
| 6/9/04 12:15 PM | 3.00 | 10399 (SR5) | 24.9 | 6.91 | 6.24 | 76 | 142 | * | 0.88 | 5.1 | 74 | * | < 0.02 | 0.12 | < 0.04 | 7 | * | * | 14.4 | 15 |
| 6/9/04 1:15 PM | 3.00 | 10398 (SR3) | 26.1 | 7.1 | 7.07 | 87 | 151 | * | 0.41 | 14.1 | 48 | * | < 0.02 | 0.06 | < 0.04 | 7 | * | * | 13.4 | 18.6 |
| 6/9/04 1:45 PM | 2.05 | 10465 (BCC1) | 25.2 | 6.41 | 7.29 | 88 | 49 | * | > 0.5 | 18.9 | 118 | * | < 0.02 | 0.11 | < 0.04 | 5 | * | * | < 10 | < 10 |
| 6/9/04 2:20 PM | 2.00 | 10397 (SR2) | 28.1 | 6.95 | 6.77 | 87 | 140 | * | 0.35 | 14.6 | 7 | * | < 0.02 | 0.03 | < 0.04 | 6 | * | * | 12.1 | 15.6 |

*: Not sampled on this run

SABINE RIVER AUTHORITY OF TEXAS

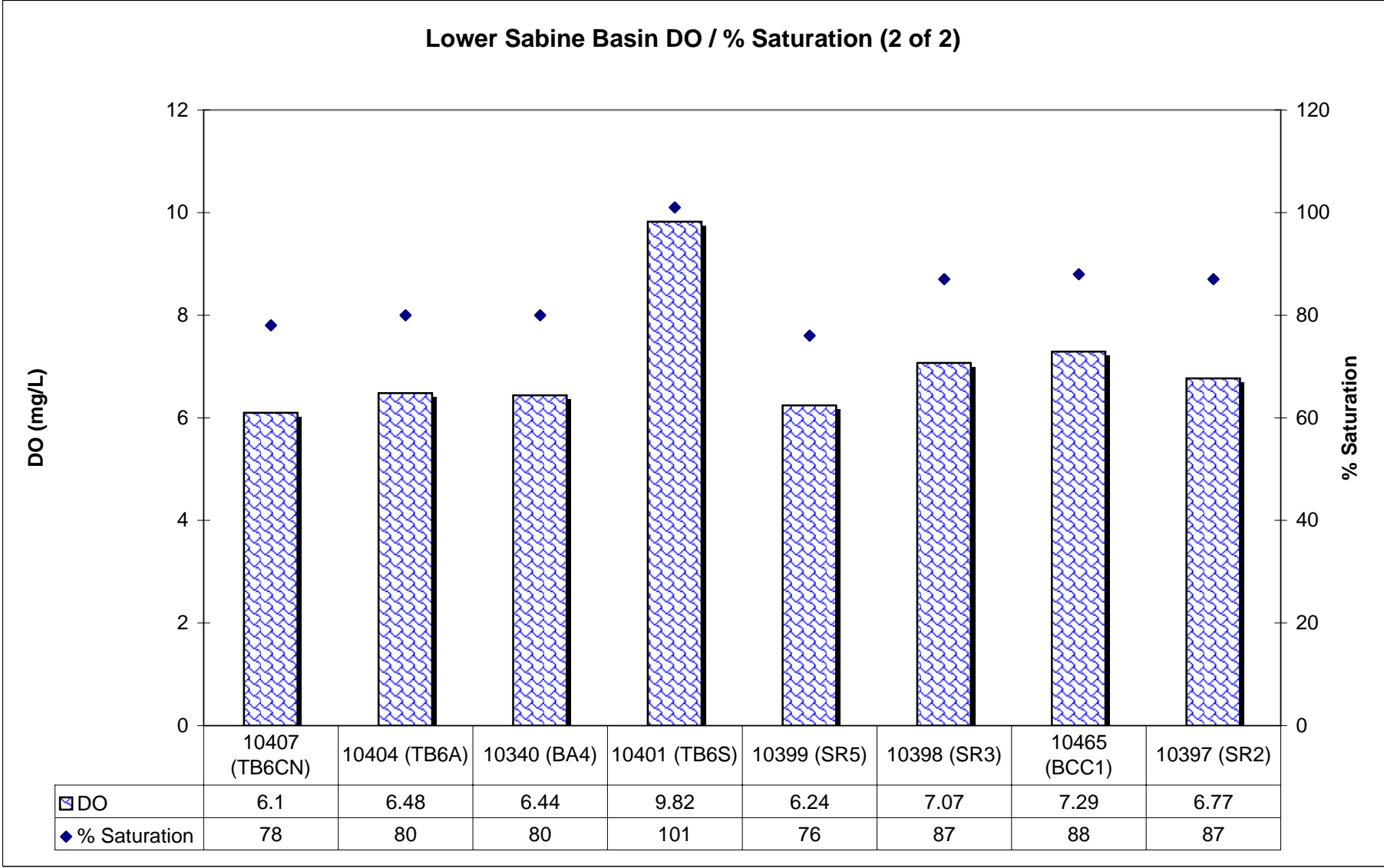
June 2004

Lower Sabine Basin DO / % Saturation (1 of 2)



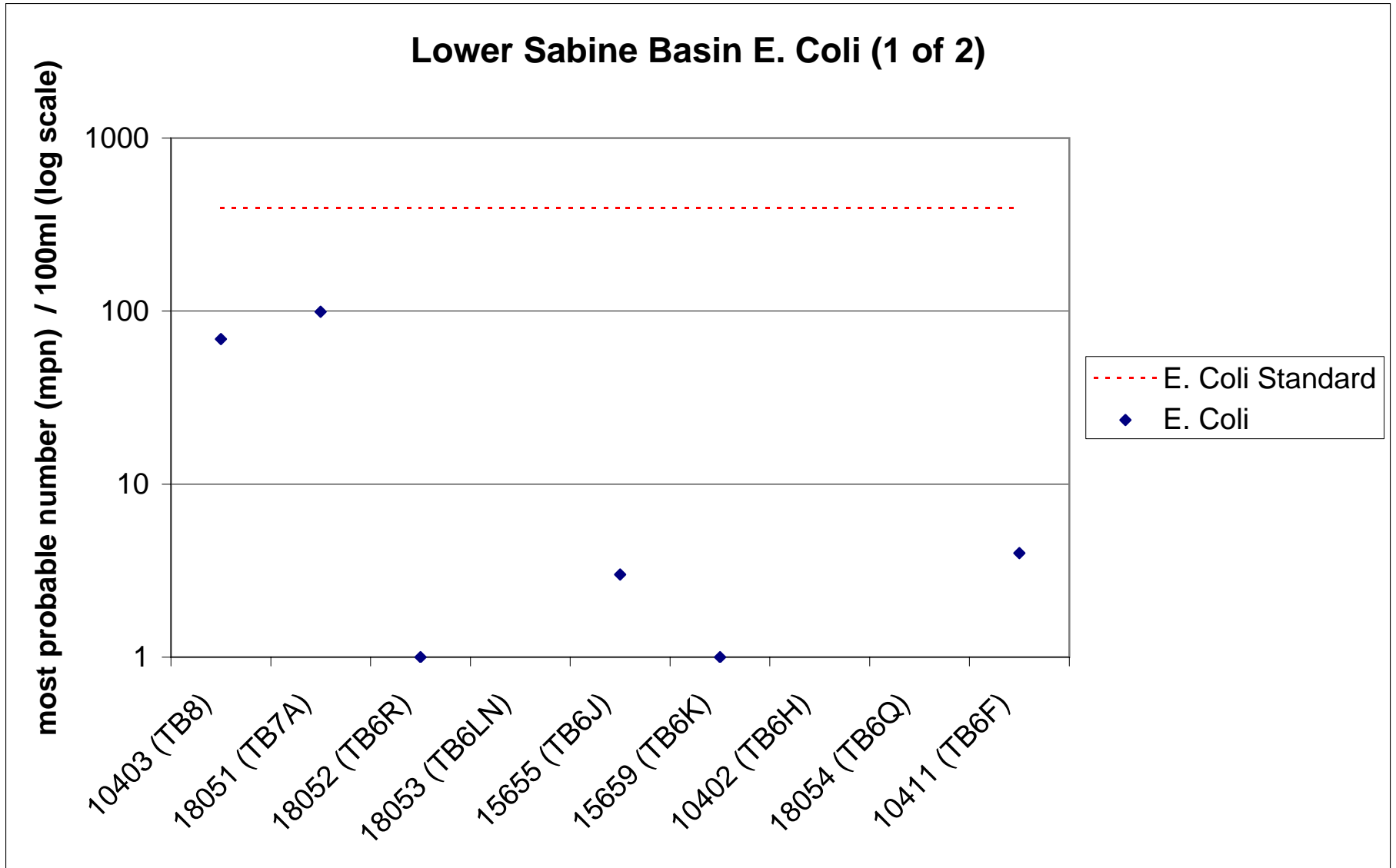
SABINE RIVER AUTHORITY OF TEXAS

June 2004



SABINE RIVER AUTHORITY OF TEXAS

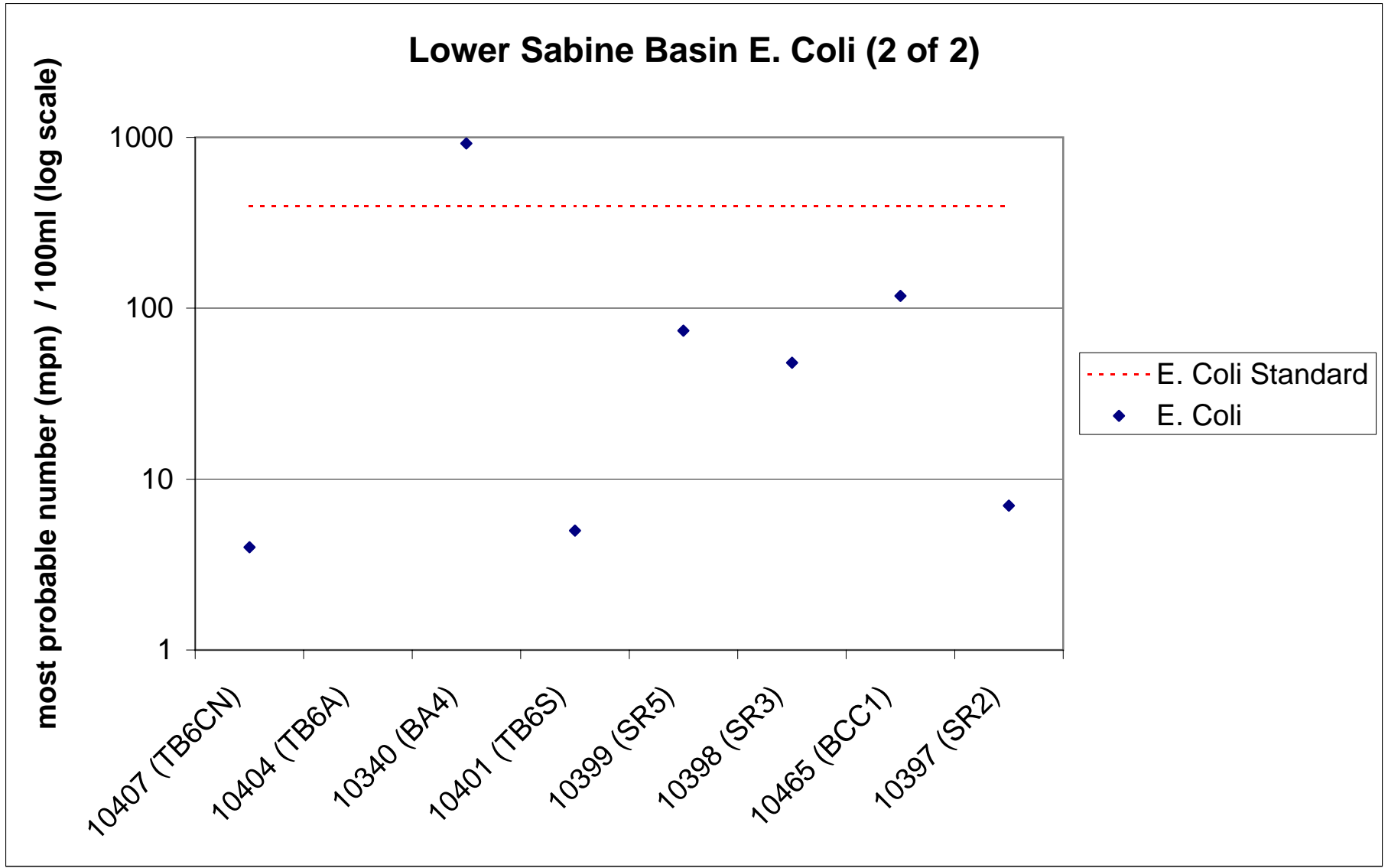
June 2004



Stations without values were below detection limit on this run (see page 18)

SABINE RIVER AUTHORITY OF TEXAS

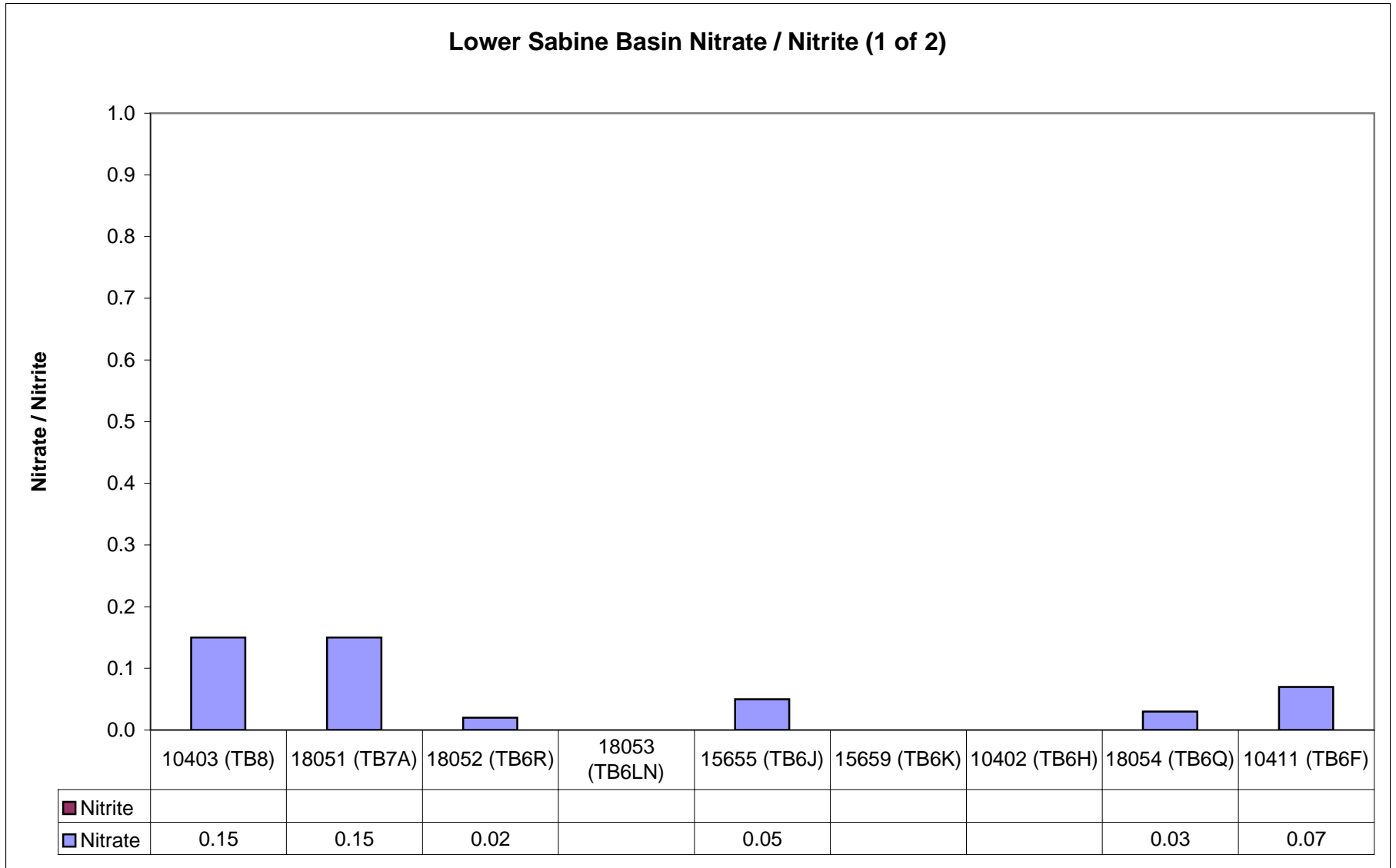
June 2004



Stations without values were below detection limit on this run (see page 18)

SABINE RIVER AUTHORITY OF TEXAS

June 2004

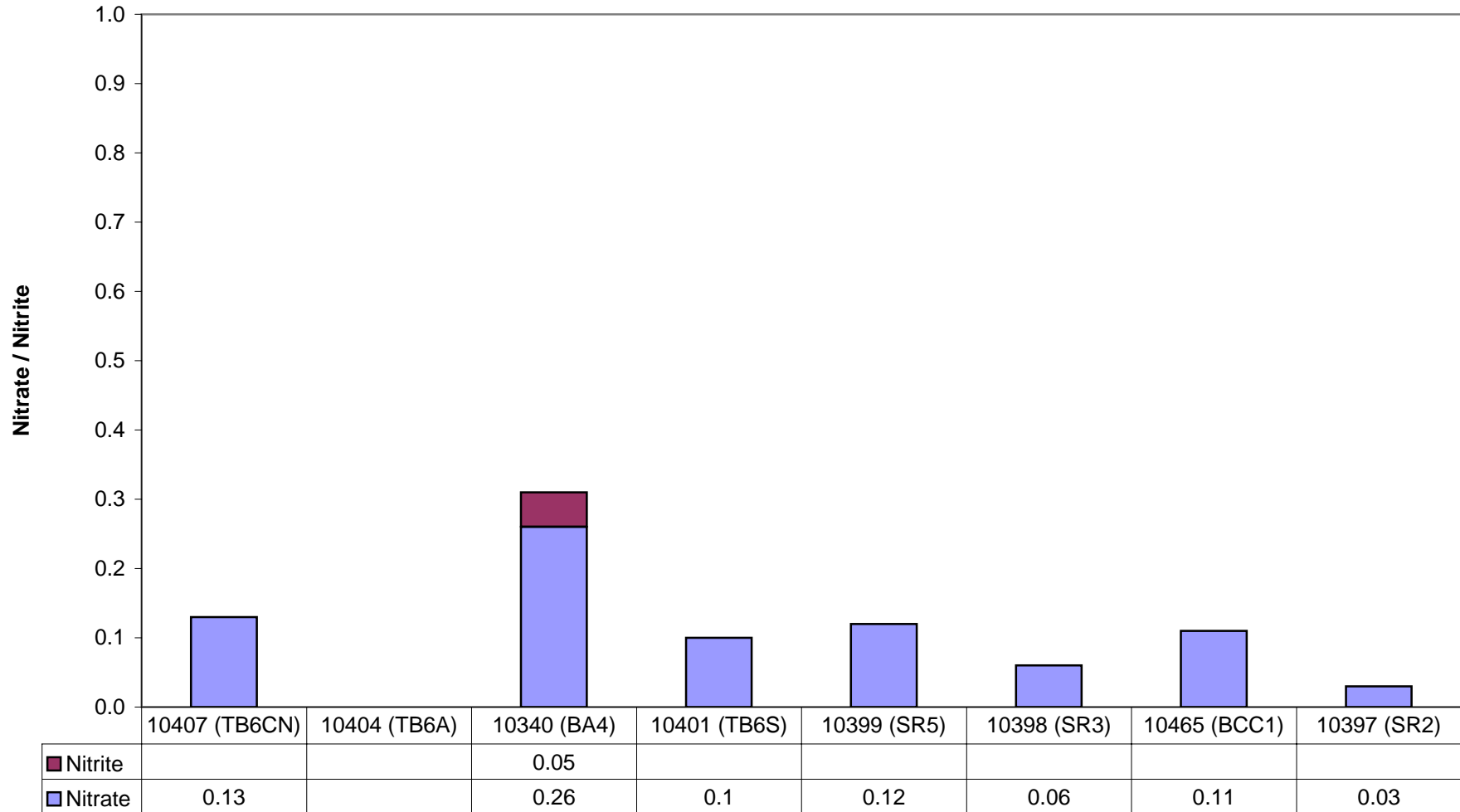


Stations without values were below detection limit (< 0.02 mg/L) on this run (see page 18)

SABINE RIVER AUTHORITY OF TEXAS

June 2004

Lower Sabine Basin Nitrate / Nitrite (2 of 2)



Stations without values were below detection limit (< 0.02 mg/L) on this run (see page 18)

SABINE RIVER AUTHORITY OF TEXAS

Lower Basin Profiles

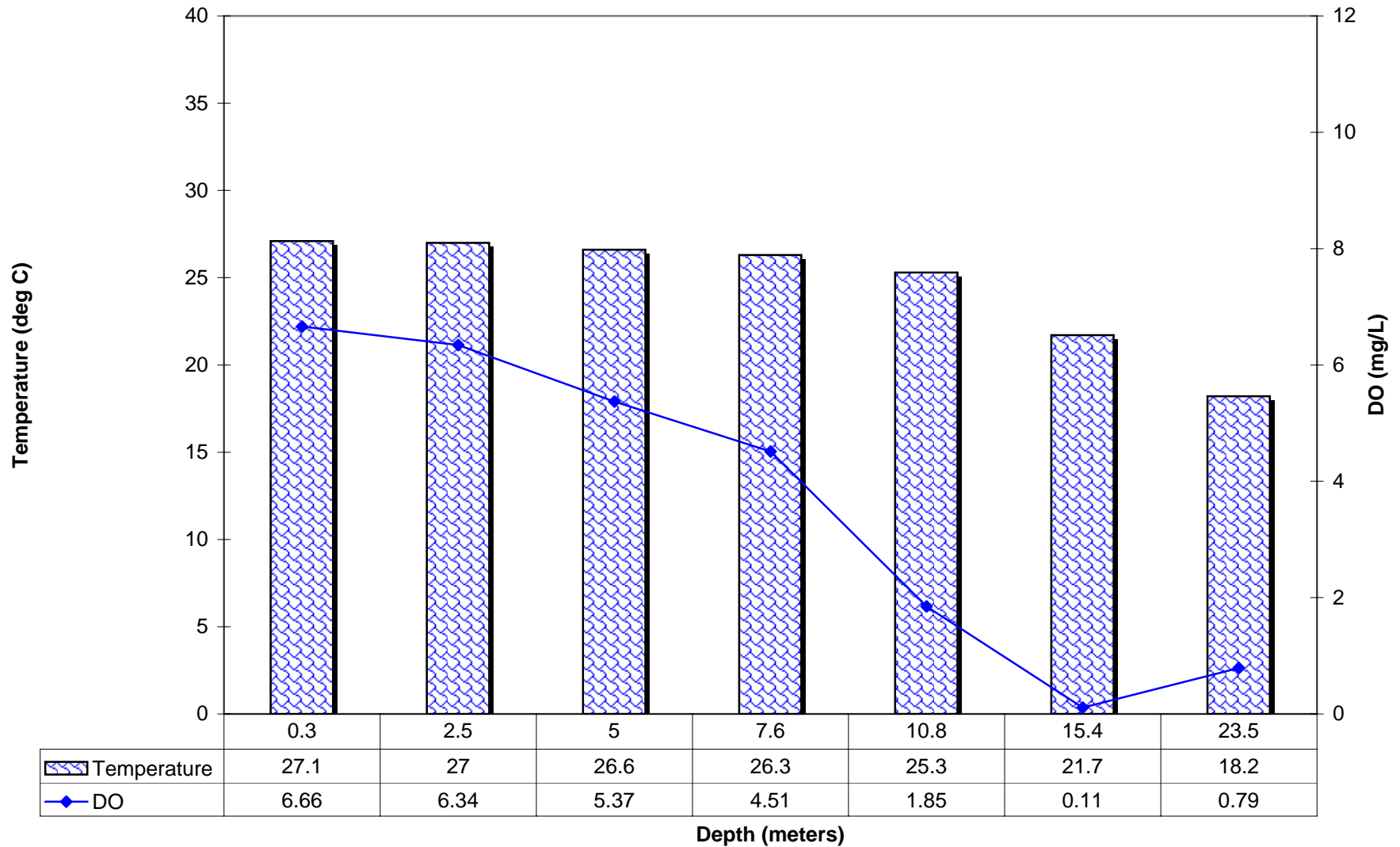
June 2004

| Date | SW ID | Station | Depth Meters | Temperature | pH | DO | % | Conductivity |
|-----------------|-------|---------------|--------------|-------------|----------------|---------------|---------------------|----------------|
| | | | | °C 00010 | Units 00400 | mg/L 00300 | Saturation 00301 | µS/cm 00094 |
| 6/9/04 10:35 AM | 4.00 | 10403 (TB8) | 0.3 | 24.9 | 6.59 | 4.25 | 52 | 120 |
| | | | 6.1 | 24.8 | 6.57 | 4.26 | 52 | 120 |
| | | | 12.9 | 24.8 | 6.59 | 4.26 | 52 | 121 |
| 6/9/04 11:09 AM | 4.00 | 18051 (TB7A) | 0.3 | 24.9 | 6.62 | 3.91 | 48 | 122 |
| | | | 5 | 24.8 | 6.57 | 3.88 | 48 | 121 |
| | | | 10 | 24.8 | 6.57 | 3.91 | 48 | 127 |
| 6/7/04 10:15 AM | 4.00 | 18052 (TB6R) | 0.3 | 27.5 | 7.12 | 5.48 | 70 | 158 |
| | | | 2.4 | 27.5 | 7.1 | 5.4 | 69 | 157 |
| | | | 4.5 | 27.4 | 7.08 | 5.31 | 67 | 157 |
| | | | 5.7 | 27.3 | 7.06 | 5.11 | 64 | 157 |
| 6/7/04 12:25 PM | 4.00 | 18053 (TB6LN) | 0.3 | 29.1 | 7.39 | 6.7 | 87 | 143 |
| | | | 1.6 | 28.7 | 7.33 | 6.47 | 84 | 144 |
| | | | 4 | 28.5 | 7.21 | 6.17 | 79 | 143 |
| | | | 5 | 28.3 | 7.04 | 5.27 | 68 | 143 |
| | | | 6.3 | 28.1 | 6.9 | 4.23 | 54 | 143 |
| 6/8/04 10:05 AM | 4.00 | 15655 (TB6J) | 0.3 | 28.8 | 7.02 | 5.25 | 68 | 147 |
| | | | 1.5 | 28.7 | 7.02 | 4.78 | 62 | 147 |
| | | | 3.5 | 28.6 | 6.95 | 4.48 | 57 | 148 |
| | | | 4.9 | 28.1 | 6.65 | 1.04 | 13 | 155 |
| 6/8/04 12:05 PM | 4.00 | 15659 (TB6K) | 0.3 | 28.7 | 7.33 | 6.68 | 86 | 120 |
| | | | 2.1 | 28.4 | 6.99 | 5.78 | 74 | 113 |
| | | | 3.8 | 28 | 6.74 | 3.79 | 49 | 122 |
| | | | 5 | 27 | 6.58 | 1.21 | 16 | 127 |
| | | | 9.6 | 26 | 6.68 | 0.76 | 9 | 141 |
| 6/8/04 11:05 AM | 4.00 | 10402 (TB6H) | 0.3 | 27.1 | 7.32 | 6.66 | 84 | 145 |
| | | | 2.5 | 27 | 7.21 | 6.34 | 80 | 145 |
| | | | 5 | 26.6 | 7.02 | 5.37 | 67 | 147 |
| | | | 7.6 | 26.3 | 6.89 | 4.51 | 56 | 148 |
| | | | 10.8 | 25.3 | 6.69 | 1.85 | 23 | 148 |
| | | | 15.4 | 21.7 | 6.76 | 0.11 | 1 | 153 |
| | | | 23.5 | 18.2 | 7.07 | 0.79 | 8 | 193 |
| 6/7/04 1:15 PM | 4.00 | 18054 (TB6Q) | 0.3 | 29.1 | 8.19 | 7.83 | 102 | 149 |
| | | | 1.4 | 28.8 | 8.16 | 7.67 | 100 | 149 |
| | | | 2.2 | 28.8 | 8.12 | 7.58 | 98 | 150 |
| | | | 3.1 | 28.6 | 7.89 | 7.47 | 97 | 150 |
| | | | 4.2 | 28.6 | 7.81 | 7.3 | 93 | 150 |
| 6/8/04 10:30 AM | 4.00 | 10411 (TB6F) | 0.3 | 29.1 | 7.55 | 7.09 | 92 | 106 |
| | | | 2.6 | 28 | 6.85 | 4.9 | 63 | 111 |
| | | | 4.3 | 26.9 | 6.59 | 2.41 | 30 | 112 |
| | | | 5.1 | 26.2 | 6.55 | 0.26 | 3 | 108 |
| 6/8/04 9:20 AM | 4.00 | 10407 (TB6CN) | 0.3 | 28.6 | 7.21 | 6.1 | 78 | 110 |
| | | | 1.8 | 28.3 | 6.97 | 5.4 | 69 | 115 |
| | | | 2.5 | 28 | 6.61 | 3.96 | 51 | 113 |
| | | | 3.2 | 27.4 | 6.26 | 0.75 | 7 | 104 |
| | | | 3.6 | 26.9 | 6.23 | 0.41 | 5 | 105 |
| | | | 7.1 | 25.4 | 6.27 | 0.18 | 2 | 112 |
| 6/7/04 2:20 PM | 4.00 | 10404 (TB6A) | 0.3 | 26.3 | 7.06 | 6.48 | 80 | 147 |
| | | | 4.7 | 24.7 | 6.81 | 5.16 | 62 | 147 |
| | | | 7.2 | 23 | 6.62 | 2.93 | 34 | 148 |
| | | | 8.7 | 21.8 | 6.55 | 1.92 | 22 | 149 |
| | | | 12.7 | 17.2 | 6.48 | 1.07 | 12 | 150 |
| | | | 15 | 15.4 | 6.48 | 0.72 | 8 | 154 |
| | | | 29 | 13 | 6.68 | 0.23 | 2 | 167 |

SABINE RIVER AUTHORITY OF TEXAS

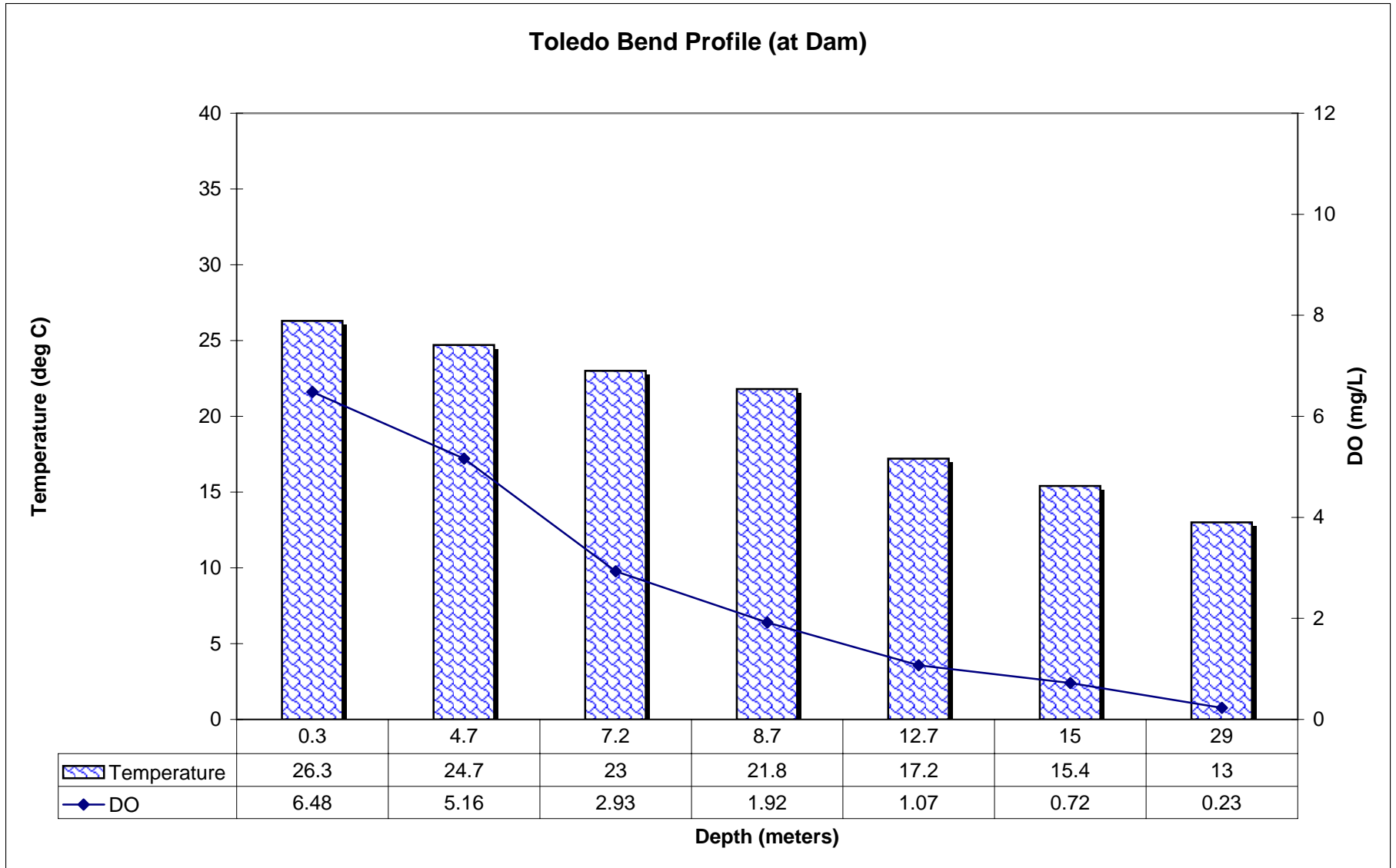
June 2004

Toledo Bend Profile (at Pendleton Bridge)



SABINE RIVER AUTHORITY OF TEXAS

June 2004



SABINE RIVER AUTHORITY OF TEXAS

Toledo Bend Weather and Reservoir Data

June 2004

| Date | Lake Elev | LE - TOP | Max Temp | Min Temp | Rainfall | Evaporation | Daily Releases cfs | Daily Releases ac ft | Current Release |
|-------------------|-----------|----------|----------|----------|----------|-------------|--------------------|----------------------|-----------------|
| 6/1/2004 | 171.59 | (0.41) | 89 | 71 | 0.00 | 0.37 | 3,692 | 7,323 | 204 |
| 6/2/2004 | 171.46 | (0.54) | 95 | 65 | 0.49 | 0.41 | 3,686 | 7,311 | 204 |
| 6/3/2004 | 171.54 | (0.46) | 93 | 64 | 0.93 | 0.46 | 2,054 | 4,075 | 204 |
| 6/4/2004 | 171.63 | (0.37) | 86 | 66 | 0.00 | 0.27 | 3,542 | 7,026 | 204 |
| 6/5/2004 | 171.61 | (0.39) | 87 | 69 | 0.00 | 0.33 | 2,161 | 4,286 | 204 |
| 6/6/2004 | 171.63 | (0.37) | 90 | 69 | 0.23 | 0.27 | 204 | 405 | 204 |
| 6/7/2004 | 171.52 | (0.48) | 91 | 69 | 0.00 | 0.25 | 3,425 | 6,793 | 204 |
| 6/8/2004 | 171.57 | (0.43) | 91 | 70 | 0.00 | 0.28 | 3,669 | 7,277 | 204 |
| 6/9/2004 | 171.69 | (0.31) | 88 | 69 | 0.61 | 0.19 | 1,741 | 3,453 | 204 |
| 6/10/2004 | 171.72 | (0.28) | 91 | 72 | 0.02 | 0.26 | 3,927 | 7,789 | 204 |
| 6/11/2004 | 171.75 | (0.25) | 91 | 72 | 0.00 | 0.29 | 3,679 | 7,297 | 204 |
| 6/12/2004 | 171.80 | (0.20) | 92 | 73 | 0.00 | 0.24 | 2,503 | 4,965 | 204 |
| 6/13/2004 | 171.87 | (0.13) | 94 | 71 | 0.00 | NR | 204 | 405 | 204 |
| 6/14/2004 | 172.05 | 0.05 | 93 | 65 | 1.18 | 0.71 | 4,175 | 8,281 | 204 |
| 6/15/2004 | 172.06 | 0.06 | 84 | 66 | 0.00 | 0.17 | 4,121 | 8,174 | 204 |
| 6/16/2004 | 172.02 | 0.02 | 88 | 69 | 1.00 | 0.38 | 3,275 | 6,495 | 204 |
| 6/17/2004 | 172.20 | 0.20 | 85 | 70 | 0.92 | 0.20 | 4,153 | 8,237 | 204 |
| 6/18/2004 | 172.20 | 0.20 | 88 | 70 | 0.06 | 0.10 | 3,866 | 7,668 | 204 |
| 6/19/2004 | 172.32 | 0.32 | 94 | 74 | 0.00 | 0.27 | 3,428 | 6,799 | 204 |
| 6/20/2004 | 172.40 | 0.40 | 72 | 67 | 0.02 | 0.28 | 7,107 | 14,096 | 204 |
| 6/21/2004 | 172.30 | 0.30 | 89 | 68 | 0.00 | 0.23 | 4,111 | 8,154 | 204 |
| 6/22/2004 | 172.38 | 0.38 | 92 | 70 | 0.00 | 0.29 | 6,910 | 13,705 | 204 |
| 6/23/2004 | 172.26 | 0.26 | 84 | 71 | 0.41 | 0.22 | 7,567 | 13,794 | 204 |
| 6/24/2004 | 172.34 | 0.34 | 84 | 71 | 0.73 | 0.12 | 13,821 | 27,414 | 204 |
| 6/25/2004 | 172.45 | 0.45 | 71 | 71 | 2.25 | 0.00 | 13,693 | 27,695 | 13,844 |
| 6/26/2004 | 172.40 | 0.40 | 76 | 68 | 0.36 | 0.04 | 14,359 | 28,481 | 14,344 |
| 6/27/2004 | 172.30 | 0.30 | 80 | 69 | 0.11 | 0.05 | 14,404 | 28,570 | 14,419 |
| 6/28/2004 | 172.44 | 0.44 | 80 | 68 | 1.11 | 0.33 | 14,325 | 28,413 | 14,414 |
| 6/29/2004 | 172.46 | 0.46 | 80 | 70 | 1.36 | 0.00 | 14,285 | 28,334 | 14,194 |
| 6/30/2004 | 172.45 | 0.45 | 92 | 70 | 0.02 | 0.22 | 14,334 | 28,431 | 14,274 |
| Avg or Tot | 172.01 | 0.01 | 87 | 69 | 11.81 | 7.23 | 6,081 | 361,146 | |

| | | | | | | | | | |
|-------|--------------------|-------------|---------------|---------------|---------------|---------------|------------|----------------|--------------------------|
| Units | Avg Feet M.S.L. | Avg Feet | Avg Deg. F | Avg Deg. F | Tot Inches | Tot Inches | Avg cfs | Tot Ac. Ft. | cfs approx. 8:00 a.m. |
|-------|--------------------|-------------|---------------|---------------|---------------|---------------|------------|----------------|--------------------------|

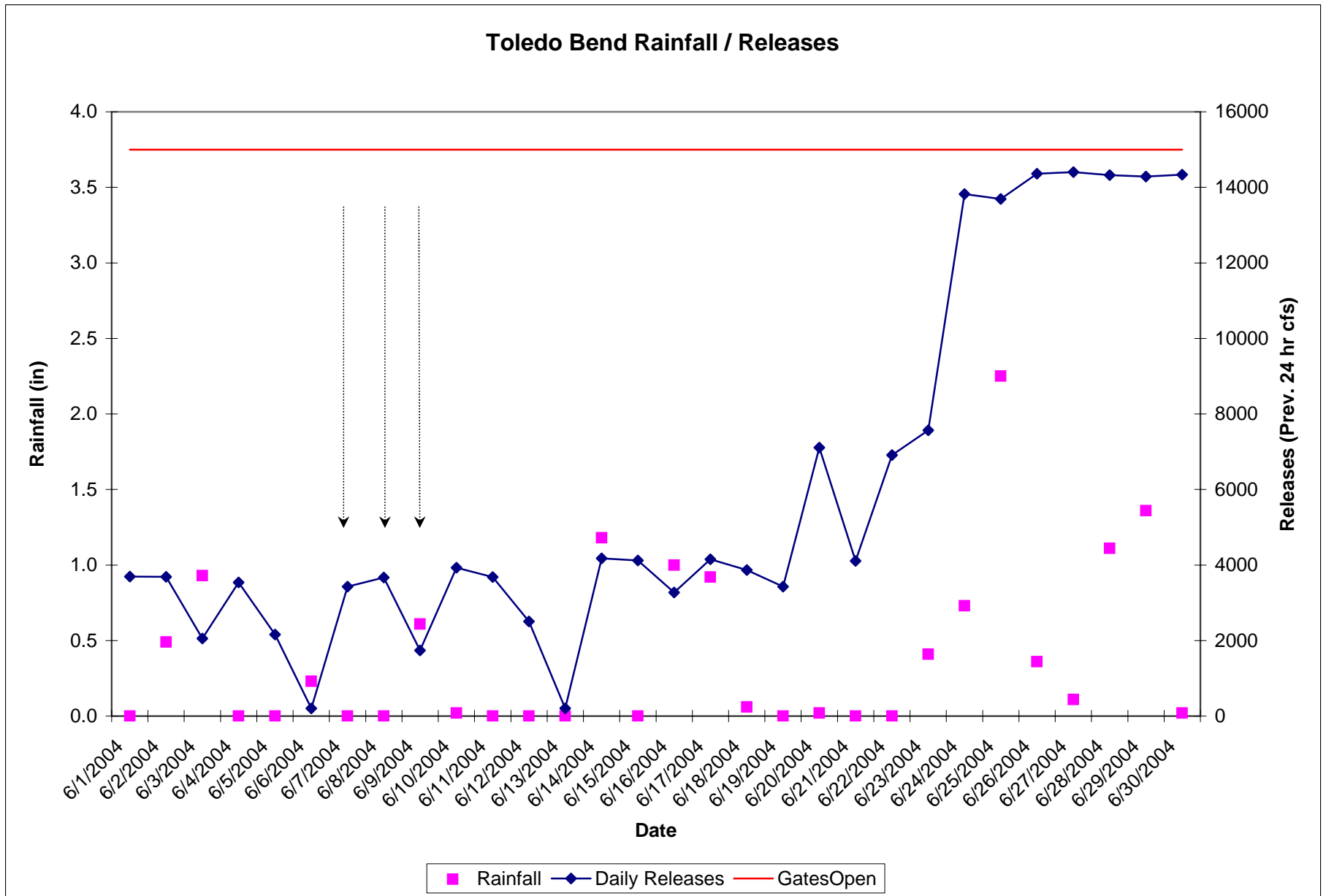
TOP: Top of Pool = 172 Feet M.S.L.

NR: No Reading

Toledo Bend Sampled on 6/7,8,9/2004

SABINE RIVER AUTHORITY OF TEXAS

June 2004



Toledo Bend sampled on 6/7,8,9/2004

Flood gates open when flow greater than approximately 15,000 cfs

SABINE RIVER AUTHORITY OF TEXAS

Burkeville Weather and River Data

June 2004

| Date | <i>Rainfall</i> | <i>Gauge Height</i> | <i>GH - FS</i> | <i>Flow</i> |
|-------------------|-----------------|---------------------|----------------|--------------|
| 6/1/2004 | 0.02 | 12.71 | (25.29) | 254 |
| 6/2/2004 | 0.62 | 17.43 | (20.57) | 3,070 |
| 6/3/2004 | 0.33 | 17.47 | (20.53) | 3,110 |
| 6/4/2004 | 0.03 | 16.42 | (21.58) | 2,230 |
| 6/5/2004 | 0.00 | 17.19 | (20.81) | 2,860 |
| 6/6/2004 | 0.00 | 15.93 | (22.07) | 1,860 |
| 6/7/2004 | 0.00 | 12.79 | (25.21) | 277 |
| 6/8/2004 | 0.00 | 17.33 | (20.67) | 2,980 |
| 6/9/2004 | 0.58 | 17.58 | (20.42) | 3,210 |
| 6/10/2004 | 0.00 | 15.44 | (22.56) | 1,530 |
| 6/11/2004 | 0.01 | 17.89 | (20.11) | 3,500 |
| 6/12/2004 | 0.00 | 17.24 | (20.76) | 2,900 |
| 6/13/2004 | 0.03 | 16.14 | (21.86) | 2,010 |
| 6/14/2004 | 0.22 | 13.17 | (24.83) | 398 |
| 6/15/2004 | 0.00 | 17.62 | (20.38) | 3,240 |
| 6/16/2004 | 0.01 | 17.71 | (20.29) | 3,330 |
| 6/17/2004 | 0.86 | 17.79 | (20.21) | 3,400 |
| 6/18/2004 | 0.03 | 18.03 | (19.97) | 3,630 |
| 6/19/2004 | 0.00 | 17.33 | (20.67) | 2,980 |
| 6/20/2004 | 0.22 | 16.41 | (21.59) | 2,220 |
| 6/21/2004 | 0.00 | 20.10 | (17.90) | 5,390 |
| 6/22/2004 | 0.32 | 17.81 | (20.19) | 3,420 |
| 6/23/2004 | 1.01 | 20.30 | (17.70) | 6,140 |
| 6/24/2004 | 0.58 | 24.99 | (13.01) | 13,200 |
| 6/25/2004 | 1.16 | 26.59 | (11.41) | 16,200 |
| 6/26/2004 | 0.26 | 26.20 | (11.80) | 15,400 |
| 6/27/2004 | 0.07 | 25.91 | (12.09) | 14,900 |
| 6/28/2004 | 0.83 | 26.69 | (11.31) | 16,300 |
| 6/29/2004 | 0.21 | 26.37 | (11.63) | 15,700 |
| 6/30/2004 | 0.03 | 25.95 | (12.05) | 14,900 |
| Avg or Tot | 7.43 | 19.02 | (18.98) | 5,685 |

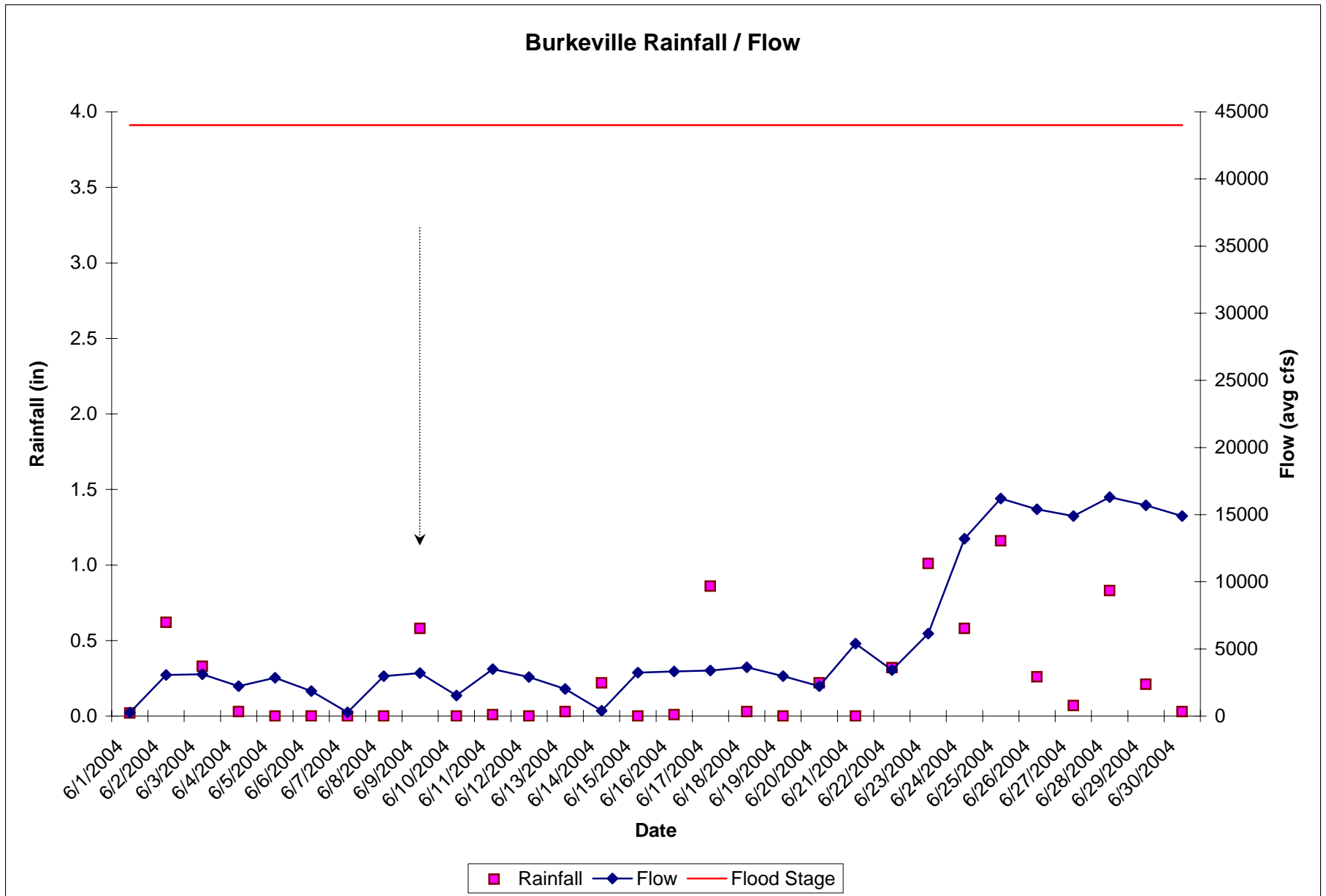
| | | | | |
|-------|--------|------|------|-----|
| | Tot | Avg | Avg | Avg |
| Units | Inches | Feet | Feet | cfs |

FS: Flood Stage = 38 feet

Lower Sabine Basin Sampled on 6/9/2004

SABINE RIVER AUTHORITY OF TEXAS

June 2004



Flood stage flow of 44,000 cfs calculated from flood stage gage height, 38 ft msl.

SABINE RIVER AUTHORITY OF TEXAS

Bon Wier Weather and River Data

June 2004

| Date | <i>Gauge Height</i> | <i>GH - FS</i> | <i>Flow Avg</i> | <i>308 Rainfall</i> |
|-------------------|---------------------|----------------|-----------------|---------------------|
| 6/1/2004 | 14.37 | (15.63) | 1,570 | 0.00 |
| 6/2/2004 | 14.17 | (15.83) | 1,440 | 0.02 |
| 6/3/2004 | 17.35 | (12.65) | 4,170 | 0.00 |
| 6/4/2004 | 17.29 | (12.71) | 4,110 | 0.00 |
| 6/5/2004 | 16.84 | (13.16) | 3,640 | 0.00 |
| 6/6/2004 | 17.05 | (12.95) | 3,850 | 0.00 |
| 6/7/2004 | 16.14 | (13.86) | 2,960 | 0.00 |
| 6/8/2004 | 14.15 | (15.85) | 1,430 | 0.00 |
| 6/9/2004 | 17.21 | (12.79) | 4,020 | 0.60 |
| 6/10/2004 | 17.51 | (12.49) | 4,350 | 0.01 |
| 6/11/2004 | 16.16 | (13.84) | 2,970 | 0.00 |
| 6/12/2004 | 17.46 | (12.54) | 4,290 | 0.00 |
| 6/13/2004 | 17.02 | (12.98) | 3,820 | 0.00 |
| 6/14/2004 | 16.16 | (13.84) | 2,980 | 0.26 |
| 6/15/2004 | 15.17 | (14.83) | 2,130 | 0.00 |
| 6/16/2004 | 17.84 | (12.16) | 4,720 | 0.00 |
| 6/17/2004 | 18.70 | (11.30) | 5,750 | 1.76 |
| 6/18/2004 | 18.86 | (11.14) | 5,960 | 0.39 |
| 6/19/2004 | 18.57 | (11.43) | 5,590 | 0.10 |
| 6/20/2004 | 18.06 | (11.94) | 4,970 | 0.00 |
| 6/21/2004 | 18.76 | (11.24) | 5,830 | 0.03 |
| 6/22/2004 | 19.76 | (10.24) | 7,160 | 0.03 |
| 6/23/2004 | 19.56 | (10.44) | 6,890 | 0.02 |
| 6/24/2004 | 21.50 | (8.50) | 9,760 | 0.03 |
| 6/25/2004 | 28.85 | (1.15) | 24,800 | 0.03 |
| 6/26/2004 | 29.00 | (1.00) | 25,200 | 0.04 |
| 6/27/2004 | 28.36 | (1.64) | 23,500 | 0.03 |
| 6/28/2004 | 28.51 | (1.49) | 23,900 | 0.03 |
| 6/29/2004 | 28.85 | (1.15) | 24,800 | 0.03 |
| 6/30/2004 | 28.36 | (1.64) | 23,500 | 0.03 |
| Avg or Tot | 19.59 | (10.41) | 8,335 | 3.44 |

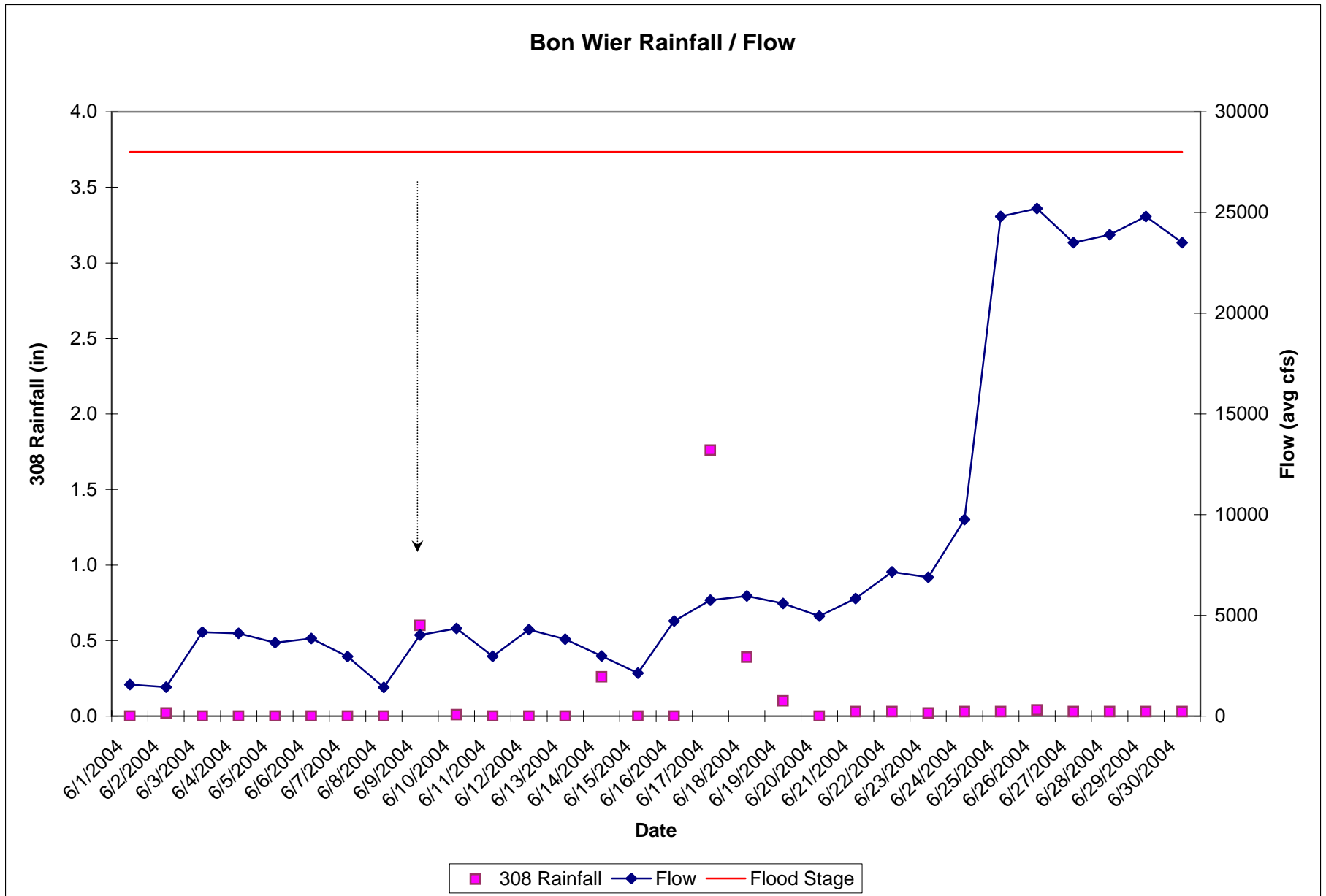
| | | | | |
|-------|-------------|-------------|-----|---------------|
| Units | Avg Feet | Avg Feet | Avg | Tot Inches |
|-------|-------------|-------------|-----|---------------|

FS: Flood Stage = 30 feet

Lower Sabine Basin Sampled on 6/9/2004

SABINE RIVER AUTHORITY OF TEXAS

June 2004



Lower Sabine Basin sampled on 6/9/2004

Flood stage flow of 28,000 cfs calculated from flood stage gage height, 30 ft msl.

SABINE RIVER AUTHORITY OF TEXAS

Ruliff Weather and River Data

June 2004

| Date | Gauge Height | GH - FS | Flow cfs | Flow acft | Flow avg | 309 Rainfall |
|-------------------|---------------------|----------------|-----------------|------------------|-----------------|---------------------|
| 6/1/2004 | 20.11 | (3.89) | 4,750 | 9,421 | 4,750 | 0.00 |
| 6/2/2004 | 18.97 | (5.03) | 3,580 | 7,101 | 4,165 | 0.15 |
| 6/3/2004 | 17.74 | (6.26) | 2,760 | 5,474 | 3,697 | 0.24 |
| 6/4/2004 | 19.30 | (4.70) | 3,890 | 7,715 | 3,745 | 0.01 |
| 6/5/2004 | 20.21 | (3.79) | 4,900 | 9,719 | 3,976 | 0.00 |
| 6/6/2004 | 20.23 | (3.77) | 4,910 | 9,739 | 4,132 | 0.26 |
| 6/7/2004 | 20.32 | (3.68) | 5,040 | 9,997 | 4,262 | 0.00 |
| 6/8/2004 | 19.96 | (4.04) | 4,560 | 9,045 | 4,299 | 0.00 |
| 6/9/2004 | 18.66 | (5.34) | 3,360 | 6,664 | 4,194 | 0.16 |
| 6/10/2004 | 19.29 | (4.71) | 3,880 | 7,696 | 4,163 | 0.00 |
| 6/11/2004 | 20.18 | (3.82) | 4,840 | 9,600 | 4,225 | 0.00 |
| 6/12/2004 | 20.06 | (3.94) | 4,680 | 9,283 | 4,263 | 0.00 |
| 6/13/2004 | 20.17 | (3.83) | 4,830 | 9,580 | 4,306 | 0.00 |
| 6/14/2004 | 20.37 | (3.63) | 5,110 | 10,136 | 4,364 | 0.01 |
| 6/15/2004 | 20.07 | (3.93) | 4,690 | 9,302 | 4,385 | 0.01 |
| 6/16/2004 | 19.04 | (4.96) | 3,640 | 7,220 | 4,339 | 0.06 |
| 6/17/2004 | 20.62 | (3.38) | 5,460 | 10,830 | 4,405 | 3.36 |
| 6/18/2004 | 21.42 | (2.58) | 6,570 | 13,031 | 4,525 | 0.04 |
| 6/19/2004 | 21.93 | (2.07) | 7,470 | 14,816 | 4,680 | 0.00 |
| 6/20/2004 | 22.14 | (1.86) | 7,940 | 15,749 | 4,843 | 0.00 |
| 6/21/2004 | 22.14 | (1.86) | 7,940 | 15,749 | 4,990 | 0.00 |
| 6/22/2004 | 21.93 | (2.07) | 7,470 | 14,817 | 5,103 | 0.03 |
| 6/23/2004 | 22.08 | (1.92) | 7,790 | 15,451 | 5,220 | 0.17 |
| 6/24/2004 | 22.32 | (1.68) | 8,380 | 16,621 | 5,352 | 0.06 |
| 6/25/2004 | 23.09 | (0.91) | 11,000 | 21,818 | 5,578 | 1.14 |
| 6/26/2004 | 23.55 | (0.45) | 13,700 | 27,174 | 5,890 | 0.61 |
| 6/27/2004 | 23.87 | (0.13) | 16,500 | 32,727 | 6,283 | 0.19 |
| 6/28/2004 | 24.29 | 0.29 | 21,400 | 42,446 | 6,823 | 0.06 |
| 6/29/2004 | 24.54 | 0.54 | 24,900 | 49,388 | 7,446 | 0.02 |
| 6/30/2004 | 24.52 | 0.52 | 24,700 | 48,992 | 8,021 | 0.00 |
| Avg or Tot | 21.10 | (2.90) | 8,021 | 477,301 | | 6.58 |

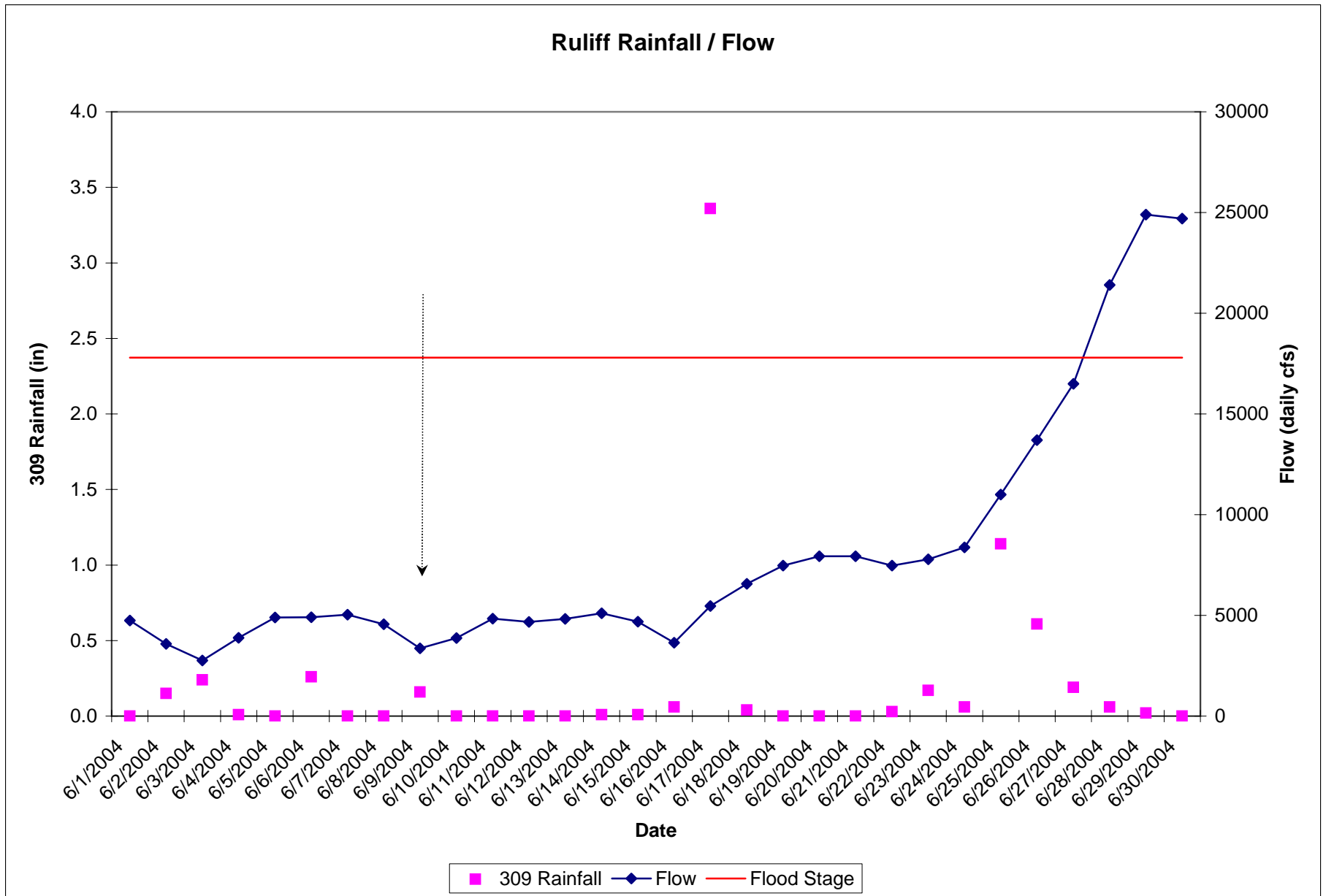
| | | | | | |
|-------|-------------|-------------|------------|--------------|---------------|
| Units | Avg Feet | Avg Feet | Avg cfs | Tot ac ft | Tot Inches |
|-------|-------------|-------------|------------|--------------|---------------|

FS: Flood Stage 24 feet with 10 foot datum

Lower Sabine Basin Sampled on 6/9/2004

SABINE RIVER AUTHORITY OF TEXAS

June 2004



Lower Sabine Basin sampled on 6/9/2004

Flood stage flow of 17,800 cfs calculated from flood stage gage height, 24 ft msl.

THIS PAGE INTENTIONALLY LEFT BLANK

FY 2004 Fixed Monitoring Stations

Tidal Sabine Basin

| SW | Segment | Station | Location |
|------|---------|---------------|---|
| 1.05 | 0501 | 15653 (ICW1) | INTERCOASTAL WATERWAY AT PERRY RIDGE |
| 1.01 | 0501 | 15654 (BB1) | BLACK BAYOU IN CAMERON PARISH |
| 1.00 | 0501 | 10395 (SR1) | SABINE RIVER 12.00 KM UPSTREAM OF IH 10 |
| 1.00 | 0501 | 10394 (SRT2) | SABINE RIVER AT IH 10 |
| 1.00 | 0501 | 18056 (SRT1C) | OLD HWY 90 |
| 1.00 | 0501 | 18055 (SRT1B) | SABINE RIVER AT CHANNEL LIGHT 20 |
| 1.00 | 0501 | 10393 (SRT1A) | SABINE RIVER AT CHANNEL LIGHT 13 |
| 1.00 | 0501 | 10391 (SRT1) | SABINE RIVER AT CHANNEL CAN 3 |

SABINE RIVER AUTHORITY OF TEXAS

Tidal Report

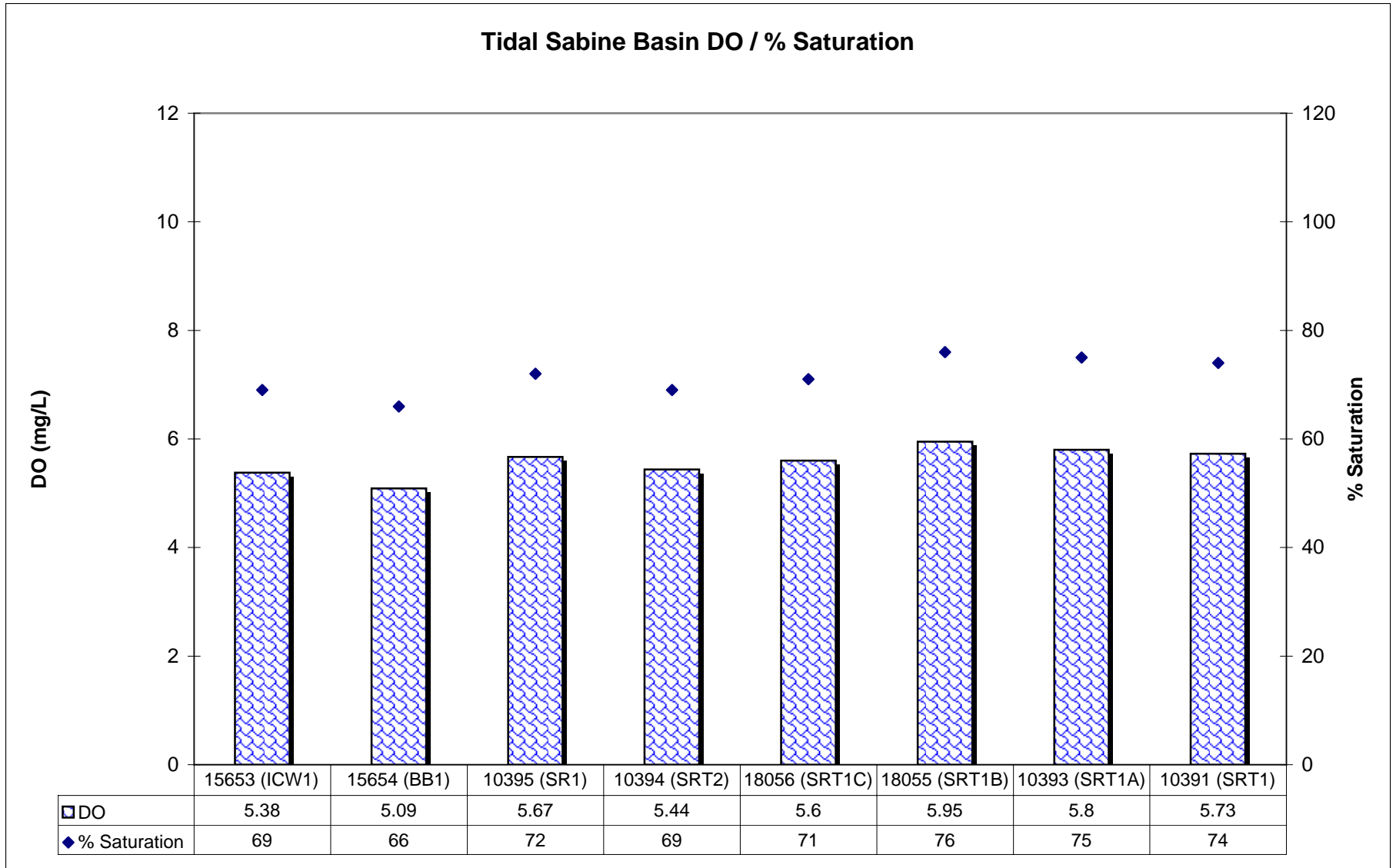
June 2004

| Date | SW ID | Station | Temperature °C 00010 | pH Units 00400 | DO mg/L 00300 | % Saturation 00301 | Conductivity µS/cm 00094 | Salinity ppt 00480 | Secchi Meters 00078 | Turbidity NTU 82079 | <i>E. coli</i> mpn/100ml 31699 | <i>Enterococcus</i> mpn/100ml 31701 | Chlorophyll a µg/L 32211 | Nitrite mg/L 00615 | Nitrate mg/L 00620 | Ortho- Phosphate 00671 | TOC mg/L 00680 | Total Alkalinity 00410 | Total Hardness 00900 |
|------------------|-------|---------------|----------------------------|----------------------|---------------------|--------------------------|--------------------------------|--------------------------|---------------------------|---------------------------|--------------------------------------|---|--------------------------------|--------------------------|--------------------------|------------------------------|----------------------|------------------------------|----------------------------|
| 6/10/04 10:06 AM | 1.05 | 15653 (ICW1) | 28.6 | 6.96 | 5.38 | 69 | 529 | < 1 | 0.49 | 13.8 | 3 | 12 | * | < 0.02 | 0.06 | 0.05 | 7 | * | * |
| 6/10/04 10:57 AM | 1.01 | 15654 (BB1) | 28.4 | 6.81 | 5.09 | 66 | 2705 | 1 | 0.43 | 11.9 | 14 | 22 | * | < 0.02 | 0.04 | 0.05 | 8 | * | * |
| 6/10/04 9:08 AM | 1.00 | 10395 (SR1) | 28.2 | 6.86 | 5.67 | 72 | 186 | * | 0.46 | 16 | 5 | * | * | < 0.02 | 0.03 | < 0.04 | 8 | * | * |
| 6/10/04 9:30 AM | 1.00 | 10394 (SRT2) | 27.9 | 6.78 | 5.44 | 69 | 154 | < 1 | 0.55 | 14.3 | 10 | 47 | * | < 0.02 | 0.03 | < 0.04 | 6 | * | * |
| 6/10/04 9:45 AM | 1.00 | 18056 (SRT1C) | 28 | 6.8 | 5.6 | 71 | 164 | < 1 | 0.63 | 12.5 | 7 | 25 | * | < 0.02 | 0.03 | < 0.04 | 6 | * | * |
| 6/10/04 10:20 AM | 1.00 | 18055 (SRT1B) | 28.4 | 6.97 | 5.95 | 76 | 276 | < 1 | 0.57 | 10.7 | 11 | 12 | * | < 0.02 | 0.05 | < 0.04 | 6 | * | * |
| 6/10/04 10:35 AM | 1.00 | 10393 (SRT1A) | 28.4 | 6.98 | 5.8 | 75 | 521 | < 1 | 0.5 | 12.1 | 13 | 7 | * | < 0.02 | 0.05 | 0.05 | 6 | * | * |
| 6/10/04 11:10 AM | 1.00 | 10391 (SRT1) | 28.5 | 7 | 5.73 | 74 | 1160 | < 1 | 0.64 | 10.7 | 9 | 14 | * | < 0.02 | 0.05 | 0.06 | 7 | * | * |

*: Not sampled on this run

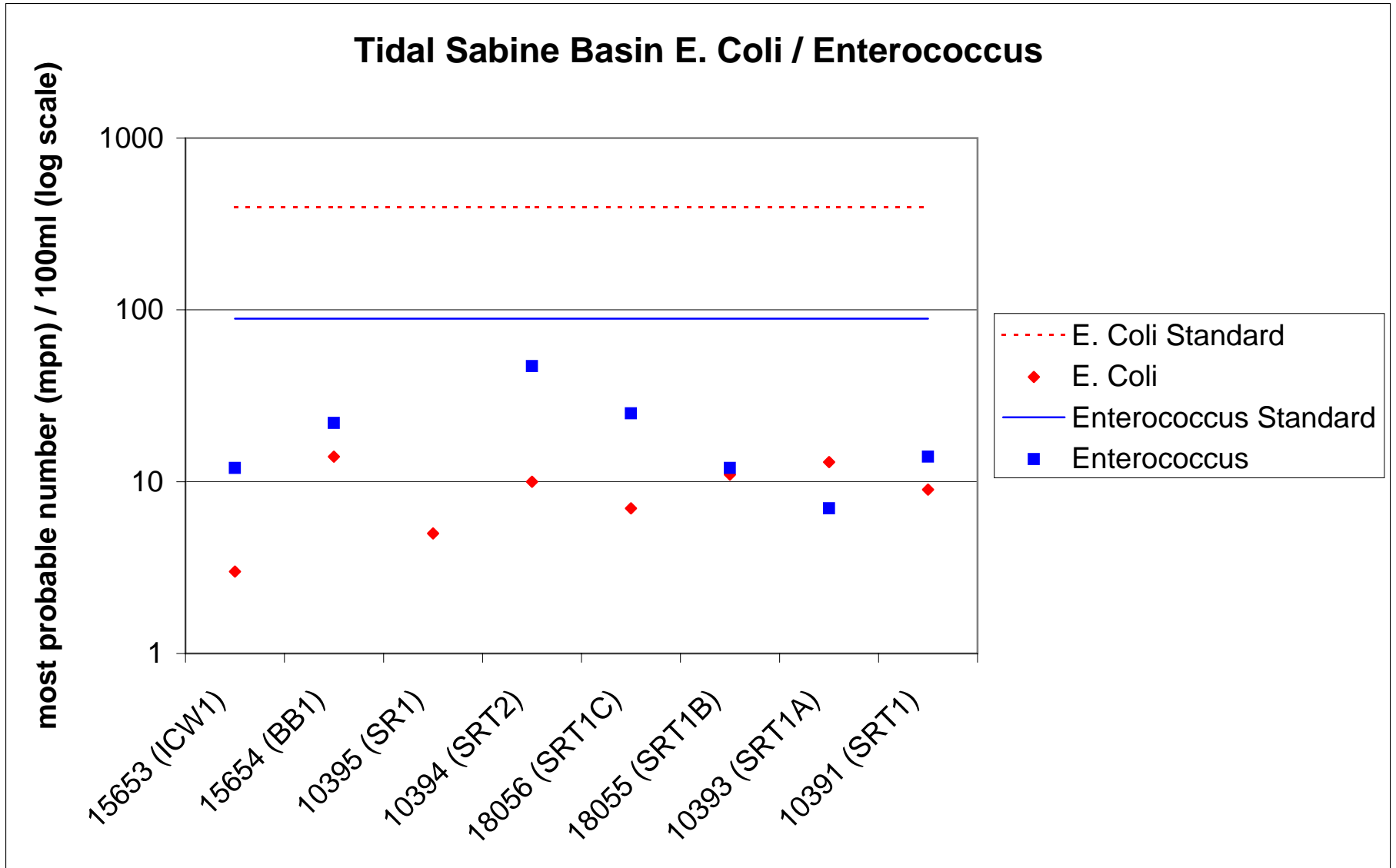
SABINE RIVER AUTHORITY OF TEXAS

June 2004



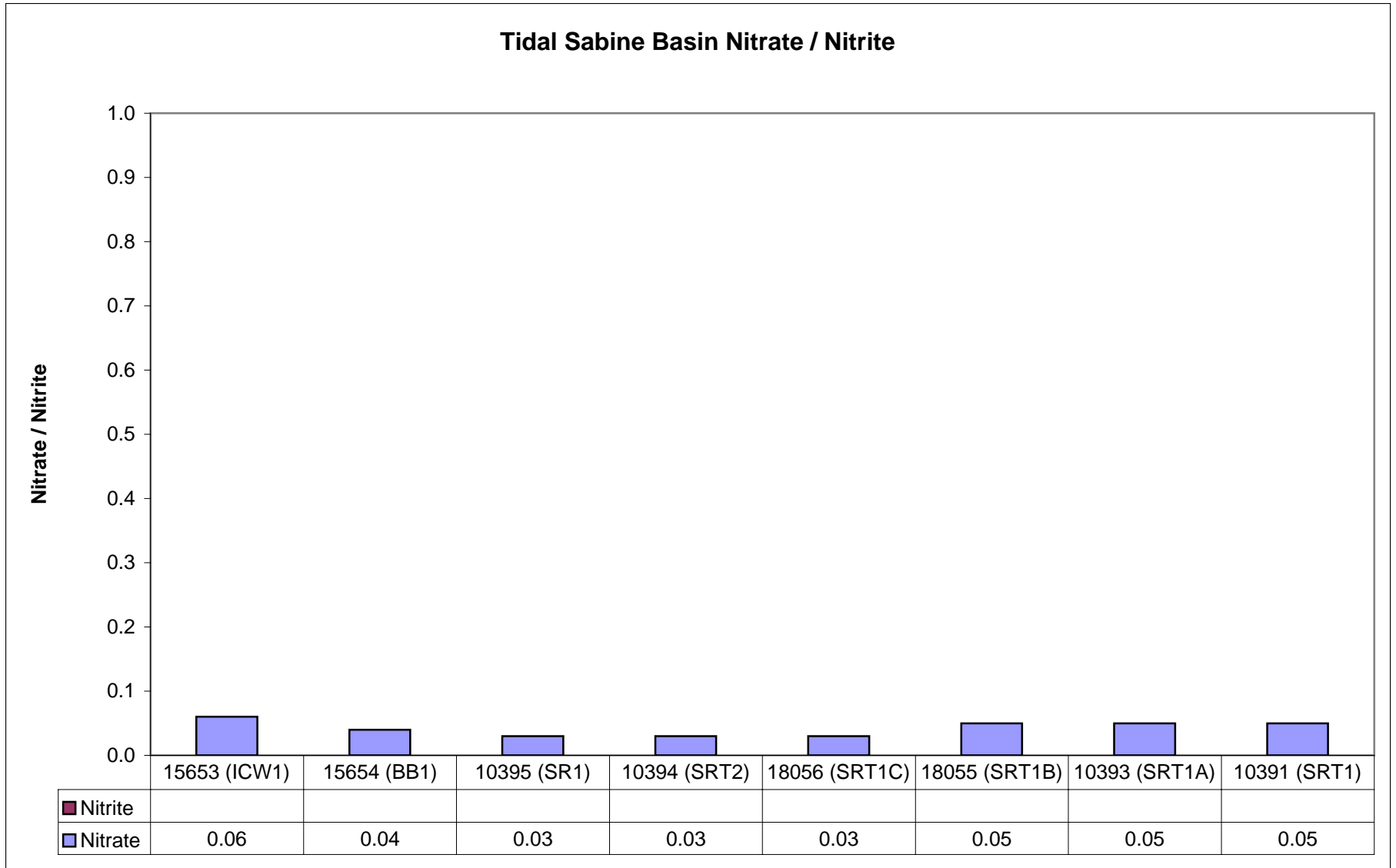
SABINE RIVER AUTHORITY OF TEXAS

June 2004



SABINE RIVER AUTHORITY OF TEXAS

June 2004



Stations without values were below detection limit (< 0.02 mg/L) on this run (see page 38)

SABINE RIVER AUTHORITY OF TEXAS

Tidal Profiles

June 2004

| Date | SW ID | Station | Depth Meters | Temperature | pH | DO | % | Conductivity | Salinity |
|------------------|-------|---------------|--------------|-------------|----------------|---------------|---------------------|----------------|--------------|
| | | | | °C 00010 | Units 00400 | mg/L 00300 | Saturation 00301 | µS/cm 00094 | ppt 00480 |
| 6/10/04 10:06 AM | 1.05 | 15653 (ICW1) | 0.3 | 28.6 | 6.96 | 5.38 | 69 | 529 | < 1 |
| | | | 6 | 28.5 | 6.95 | 4.89 | 61 | 532 | < 1 |
| 6/10/04 10:57 AM | 1.01 | 15654 (BB1) | 0.3 | 28.4 | 6.81 | 5.09 | 66 | 2705 | 1 |
| | | | 5.5 | 28.2 | 6.87 | 5.32 | 69 | 2897 | 2 |
| 6/10/04 9:30 AM | 1.00 | 10394 (SRT2) | 0.3 | 27.9 | 6.78 | 5.44 | 69 | 154 | < 1 |
| | | | 7.9 | 27.9 | 6.72 | 5.03 | 64 | 155 | < 1 |
| 6/10/04 9:45 AM | 1.00 | 18056 (SRT1C) | 0.3 | 28 | 6.8 | 5.6 | 71 | 164 | < 1 |
| | | | 5 | 28 | 6.79 | 4.94 | 64 | 341 | < 1 |
| | | | 8 | 28 | 6.6 | 4.03 | 52 | 1098 | < 1 |
| | | | 10 | 28.1 | 6.63 | 3.34 | 44 | 4668 | 3 |
| | | | 12 | 28.2 | 6.63 | 3.41 | 45 | 8521 | 5 |
| 6/10/04 10:20 AM | 1.00 | 18055 (SRT1B) | 0.3 | 28.4 | 6.97 | 5.95 | 76 | 276 | < 1 |
| | | | 3 | 28.3 | 6.93 | 5.48 | 70 | 558 | < 1 |
| | | | 6.6 | 28.3 | 6.94 | 5.35 | 69 | 897 | < 1 |
| | | | 7.4 | 28.2 | 6.7 | 4.66 | 61 | 5006 | 3 |
| 6/10/04 10:35 AM | 1.00 | 10393 (SRT1A) | 0.3 | 28.4 | 6.98 | 5.8 | 75 | 521 | < 1 |
| | | | 2.5 | 28.2 | 6.94 | 5.42 | 70 | 615 | < 1 |
| | | | 5.6 | 28.2 | 6.93 | 5.3 | 68 | 1064 | < 1 |
| | | | 7.4 | 28.2 | 6.81 | 4.78 | 62 | 5360 | 3 |
| 6/10/04 11:10 AM | 1.00 | 10391 (SRT1) | 0.3 | 28.5 | 7 | 5.73 | 74 | 1160 | < 1 |
| | | | 4 | 28.4 | 7.04 | 5.51 | 71 | 1543 | < 1 |
| | | | 7.2 | 28.3 | 7.08 | 5.02 | 67 | 8478 | 4 |
| | | | 10.7 | 28.1 | 7.05 | 3.9 | 53 | 15300 | 9 |

SABINE RIVER AUTHORITY OF TEXAS

Orange Weather and River Data

June 2004

| Date | 310 (Orange) Rainfall | Gauge Height | GH - FS | Max Temp | Min Temp | Cur Temp | 293 (GCD) Rainfall |
|-------------------|------------------------------|---------------------|----------------|-----------------|-----------------|-----------------|---------------------------|
| 6/1/2004 | OUT | OUT | OUT | 91 | 78 | 79 | 0.02 |
| 6/2/2004 | OUT | OUT | OUT | 93 | 68 | 68 | 0.01 |
| 6/3/2004 | OUT | OUT | OUT | 91 | 66 | 67 | 0.17 |
| 6/4/2004 | OUT | OUT | OUT | 90 | 66 | 71 | 0.01 |
| 6/5/2004 | OUT | OUT | OUT | 91 | 69 | 70 | 0.00 |
| 6/6/2004 | OUT | OUT | OUT | 87 | 70 | 73 | 0.32 |
| 6/7/2004 | OUT | OUT | OUT | 91 | 73 | 73 | 0.00 |
| 6/8/2004 | OUT | OUT | OUT | 89 | 73 | 77 | 0.00 |
| 6/9/2004 | OUT | OUT | OUT | 85 | 75 | 75 | 0.03 |
| 6/10/2004 | OUT | OUT | OUT | 90 | 75 | 75 | 0.05 |
| 6/11/2004 | OUT | OUT | OUT | 91 | 75 | 79 | 0.00 |
| 6/12/2004 | OUT | OUT | OUT | 91 | 76 | 76 | 0.00 |
| 6/13/2004 | OUT | OUT | OUT | 91 | 73 | 73 | 0.00 |
| 6/14/2004 | OUT | OUT | OUT | 92 | 67 | 68 | 0.18 |
| 6/15/2004 | OUT | OUT | OUT | 90 | 68 | 71 | 0.00 |
| 6/16/2004 | OUT | OUT | OUT | 90 | 70 | 74 | 0.05 |
| 6/17/2004 | OUT | OUT | OUT | 88 | 71 | 75 | 3.12 |
| 6/18/2004 | OUT | OUT | OUT | 92 | 74 | 74 | 0.21 |
| 6/19/2004 | OUT | OUT | OUT | 94 | 74 | 74 | 0.00 |
| 6/20/2004 | OUT | OUT | OUT | 95 | 72 | 65 | 0.00 |
| 6/21/2004 | OUT | OUT | OUT | 92 | 71 | 71 | 1.18 |
| 6/22/2004 | OUT | OUT | OUT | 90 | 70 | 75 | 0.09 |
| 6/23/2004 | OUT | OUT | OUT | 83 | 71 | 73 | 0.64 |
| 6/24/2004 | OUT | OUT | OUT | 81 | 72 | 73 | 0.50 |
| 6/25/2004 | OUT | OUT | OUT | 79 | 68 | 74 | 2.05 |
| 6/26/2004 | OUT | OUT | OUT | 75 | 69 | 70 | 0.82 |
| 6/27/2004 | OUT | OUT | OUT | 79 | 70 | 71 | 0.90 |
| 6/28/2004 | OUT | OUT | OUT | 89 | 71 | 74 | 0.02 |
| 6/29/2004 | OUT | OUT | OUT | 86 | 72 | 73 | 0.03 |
| 6/30/2004 | OUT | OUT | OUT | 91 | 73 | 75 | 0.40 |
| Avg or Tot | OUT | OUT | OUT | 89 | 71 | 73 | 10.80 |

| | | | | | | | |
|-------|---------------|-------------|-------------|--------------|--------------|--------------|---------------|
| Units | Tot Inches | Avg Feet | Avg Feet | Avg Deg F | Avg Deg F | Avg Deg F | Tot Inches |
|-------|---------------|-------------|-------------|--------------|--------------|--------------|---------------|

Appx. 8 am

310 Rainfall: Old Navy Base, City of Orange

293: SRA Gulf Coast Division Office, Northern Orange County

FS: Flood Stage = 4 Feet

OUT: Gage Out

Tidal Sabine Basin Sampled on 6/10/2004

SABINE RIVER AUTHORITY OF TEXAS

June 2004

