
SABINE RIVER AUTHORITY OF TEXAS

TO: INTERESTED PARTIES
FROM: ENVIRONMENTAL SERVICES DIVISION
RE: JANUARY 2002 MONTHLY WATER QUALITY REPORT

This is the Sabine River Authority Water Quality Summary for January 2002. Water quality sampling was performed January 8th through January 10th. Recent weather was cool. The Upper Basin received 7.67 – 8.97 inches of rainfall during the 28 days since the previous sample run as recorded at Lake Tawakoni and Lake Fork respectively. Toledo Bend and Orange received 6.01 and 4.26 inches respectively during the 28 days preceding the sample run. Daytime high air temperatures during the most recent seven days prior to the sample run at Lake Tawakoni and Lake Fork were in the upper 30's early in the week and warmed to the 40's and 50's later in the week. Toledo Bend and Orange reported temperatures in the 40's early in the 7-day period and warmed to the 50's and 60's during the sample run. Recent nighttime lows were in the teens, 20's and 30's. Vertical profiles indicate similar dissolved oxygen levels surface to bottom at all reservoir sites.

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

For the January sample run, most of the parameter's values seen at the Upper Basin sites were consistent with water of high quality. The most recent rain was three to four days prior to the sample date. Water clarity was generally good and bacteriological counts were well under stream standards limits. Water temperatures were quite low after recent cold weather and dissolved oxygen was at least 10 mg/L at all sites. Orthophosphate exceeded screening guidelines at the upstream sites on Lake Tawakoni (LT23C and LT23D) and Lake Fork (LF3 and LF4). Cold water temperatures and low light conditions reduce algal growth and bio-assimilation of orthophosphate. Lake Fork and Lake Tawakoni were completely mixed.

LOWER SABINE BASIN INCLUDING TOLEDO BEND TO MORGAN BLUFF

The January monthly sampling results were indicative of water of high quality at most sites. The level of Toledo Bend Reservoir reached normal levels after the drawdown of late last year, with the level just over 170 feet msl. All lake sites showed oxygen levels that were very similar throughout the water column. *E. coli* results that were above stream standards were found at stations TB6M and TB6L.

TIDAL SECTION OF THE SABINE BASIN BELOW MORGAN BLUFF

Stations sampled in the tidal portion of the Sabine Basin had values that were consistent with water of high quality at most sites. All stations were very well mixed with respect to temperature and dissolved oxygen. The only salinity reading was recorded at station BB1, with a value of 2 ppt at the surface and at a depth of 4.2 meters. All values recorded in the tidal portion were within the stream standards set for this section of the Basin.

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:

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PRINTED MONDAY, APRIL 01, 2002

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Monthly Water Quality Report

January 2002

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FY2002 Fixed Monitoring Stations

Upper Sabine Basin

<i>SW</i>	<i>Segment</i>	<i>Station</i>	<i>Location</i>
7.00	0507	10440 (LT23C)	LAKE TAWAKONI NR 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 FM515
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	10467 (BS18)	BIG SANDY CREEK AT US 80
6.00	0506	17065 (SR22)	SABINE RIVER AT FM 17 (SR22)
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	0505	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

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Upper Sabine Basin Report

January 2002

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	Nitrate & Nitrite 00630	Ortho- Phosphate 00671	TOC mg/L 00680	Total Alkalinity 00410	Total Hardness 00900	Chloride mg/L 00940	Sulfate mg/L 00945
1/8/02 11:22 AM	7.00	10440 (LT23C)	5.73	7.57	11.7	93	141	*	0.37	29.8	24	**	0.14	0.19	*	50	52	< 10	< 10
1/8/02 10:39 AM	7.00	10435 (LT23D)	5.96	7.49	11	89	134	*	0.32	41.8	25	**	0.25	0.29	*	50	52	< 10	< 10
1/8/02 9:45 AM	7.00	10434 (LT23A)	7.23	7.76	11	91	166	*	0.96	7.55	2	**	0.1	< 0.04	*	60	60	< 10	< 10
1/8/02 8:43 AM	6.12	10461 (LF3)	6.86	7.11	10.5	86	122	*	1.1	7.2	17	**	0.22	0.11	*	20	28	< 10	11
1/8/02 9:03 AM	6.12	10462 (LF4)	7.37	7.15	10.4	86	119	*	1.09	9.09	< 1	**	0.16	0.12	*	20	32	< 10	11
1/8/02 8:15 AM	6.12	10458 (LF2)	8.14	7.16	10.3	88	128	*	1.25	3.2	1	**	0.25	< 0.04	*	20	32	< 10	12
1/8/02 1:17 PM	6.10	10469 (LF20)	4.94	6.7	11.6	90	284	*	0.94	9.3	108	*	0.13	< 0.04	*	20	60	38	49
1/8/02 1:58 PM	6.02	10467 (BS18)	4.98	6.97	11.8	92	152	*	1.3	8.9	59	*	0.28	< 0.04	*	10	32	19	19
1/8/02 12:21 PM	6.00	17065 (SR22)	6.6	7.58	11.6	94	188	*	0.42	26.7	51	*	0.11	< 0.04	*	60	64	< 10	12
1/8/02 12:53 PM	6.00	10430 (SR21)	6.31	7.45	11.3	92	236	*	0.34	27.9	80	*	0.1	< 0.04	*	60	68	18	17
1/8/02 1:37 PM	6.00	10429 (SR19)	5.79	7.23	11.4	91	218	*	0.43	20.2	78	*	0.1	< 0.04	*	50	68	15	19
1/8/02 2:32 PM	5.00	10428 (SR17)	5.38	7.07	10.9	86	188	*	0.59	22.4	105	*	0.1	< 0.04	*	50	60	12	16
1/8/02 2:47 PM	5.00	10427 (SR16)	5.45	7.14	10.7	84	185	*	0.52	21.7	167	*	0.09	< 0.04	*	50	76	13	15
1/9/02 9:27 AM	5.00	10426 (SR15)	5.5	6.93	10.9	86	187	*	0.48	25.4	96	*	0.09	< 0.04	*	40	56	13	15
1/9/02 9:50 AM	5.00	10423 (SR14)	5.61	6.92	10.6	84	187	*	0.54	18.8	91	*	0.14	< 0.04	*	40	52	14	15
1/9/02 10:29 AM	5.00	13628 (SR11)	5.42	7.03	11	87	178	*	0.57	13.3	47	*	0.09	< 0.04	*	40	52	12	14
1/9/02 11:00 AM	5.00	10415 (SR10)	5.48	6.93	10.9	86	173	*	0.6	20.4	79	*	0.06	< 0.04	*	40	48	12	15

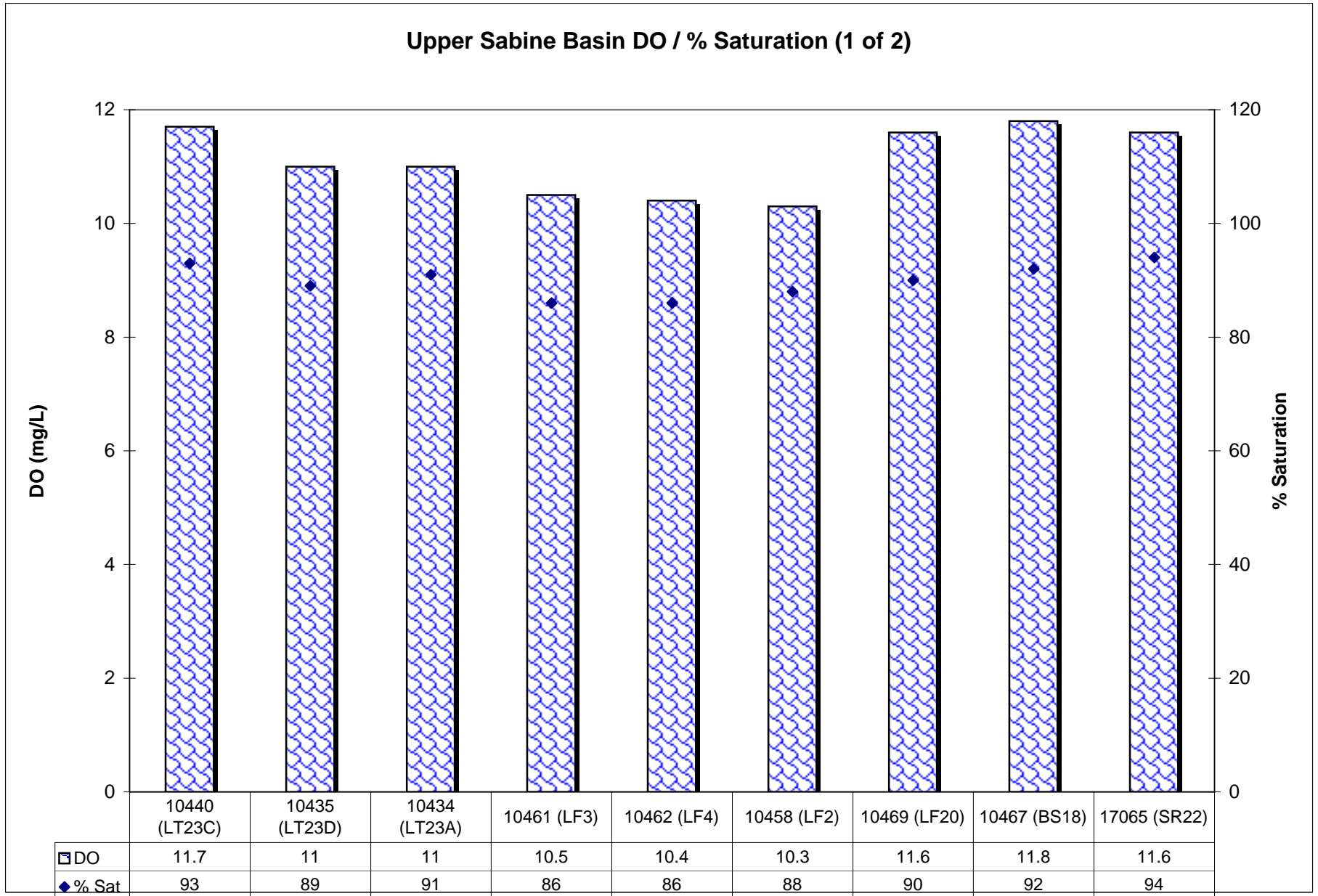
*: Not sampled on this run

** : Not tested

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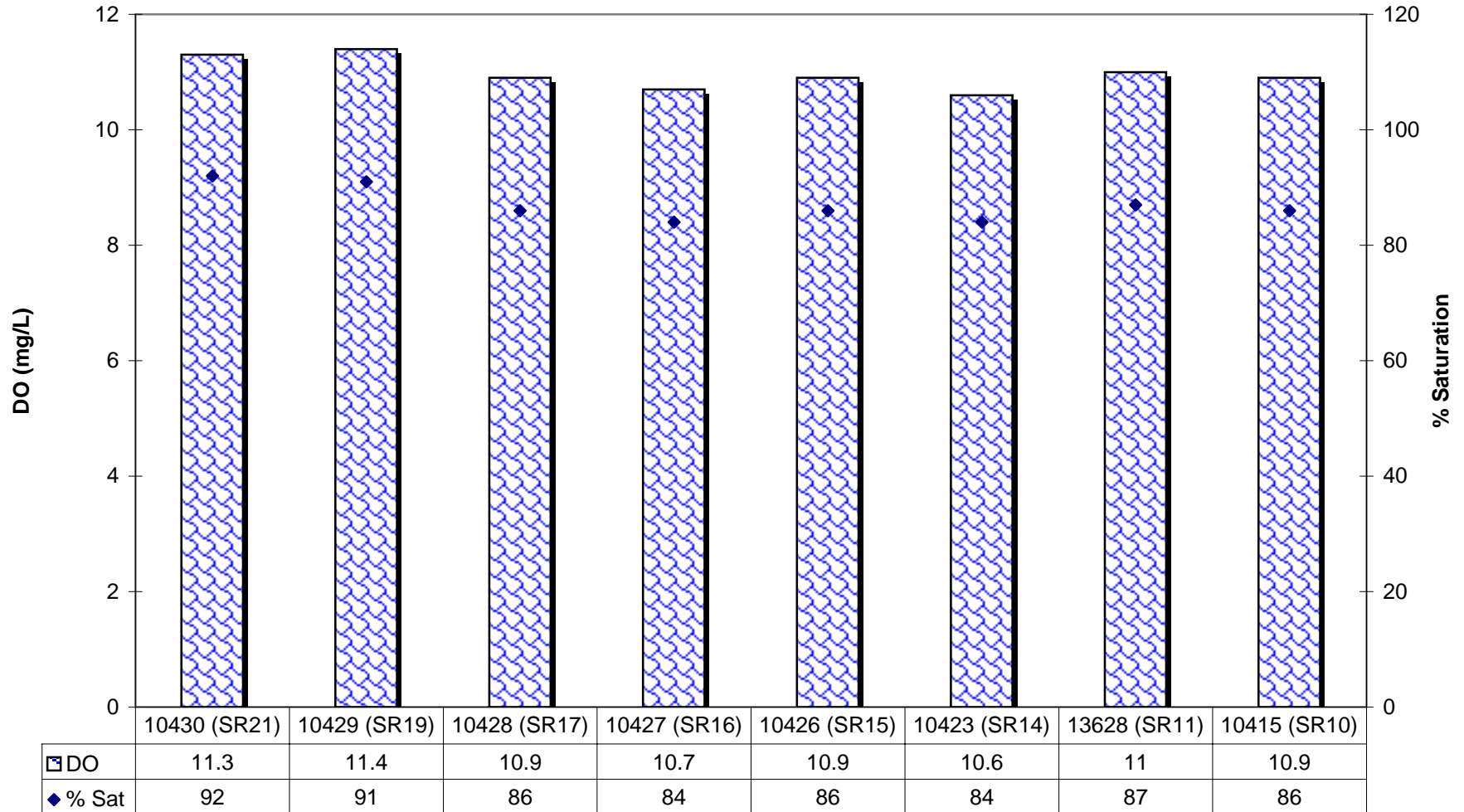
Upper Sabine Basin DO / % Saturation (1 of 2)



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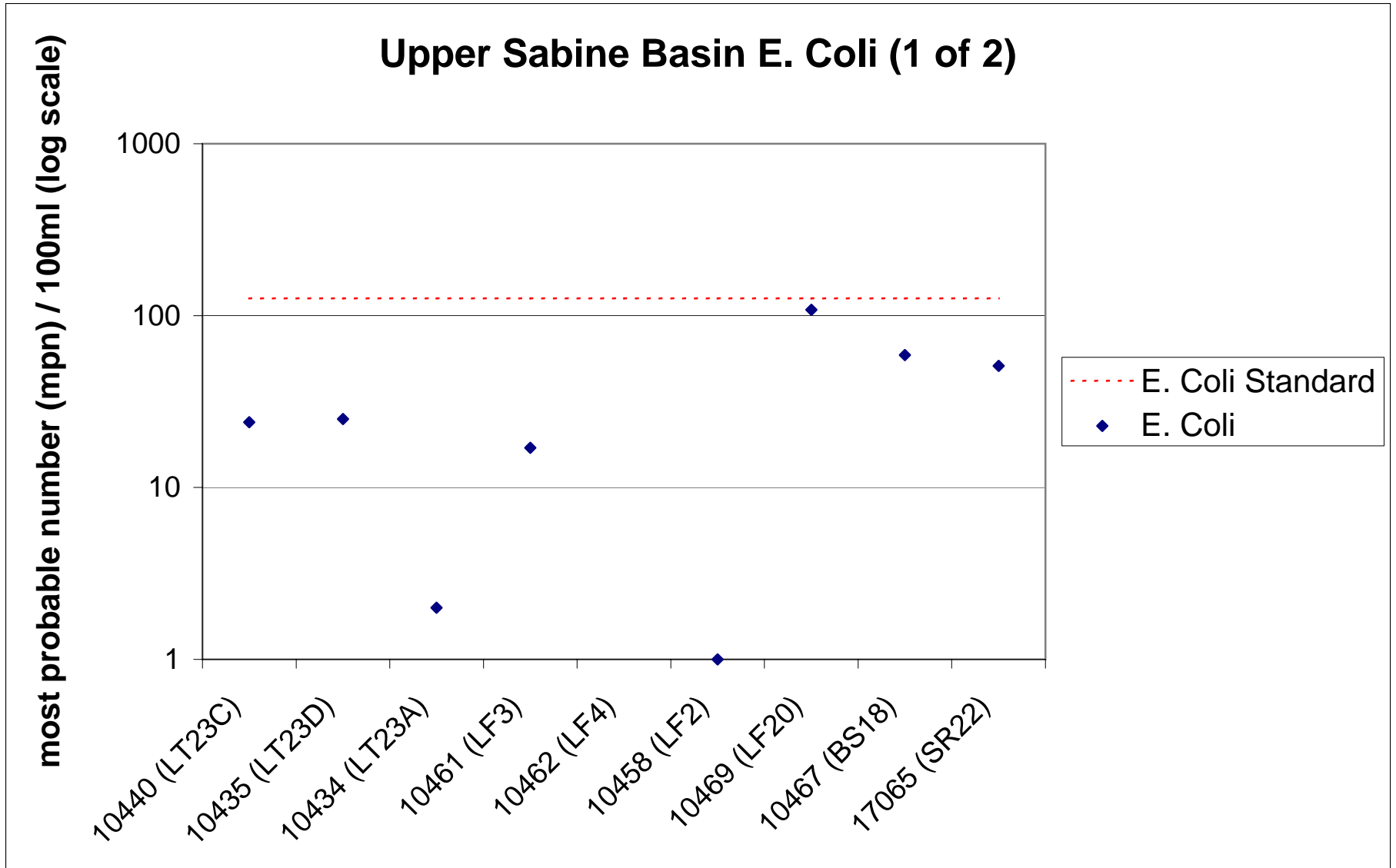
January 2002

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



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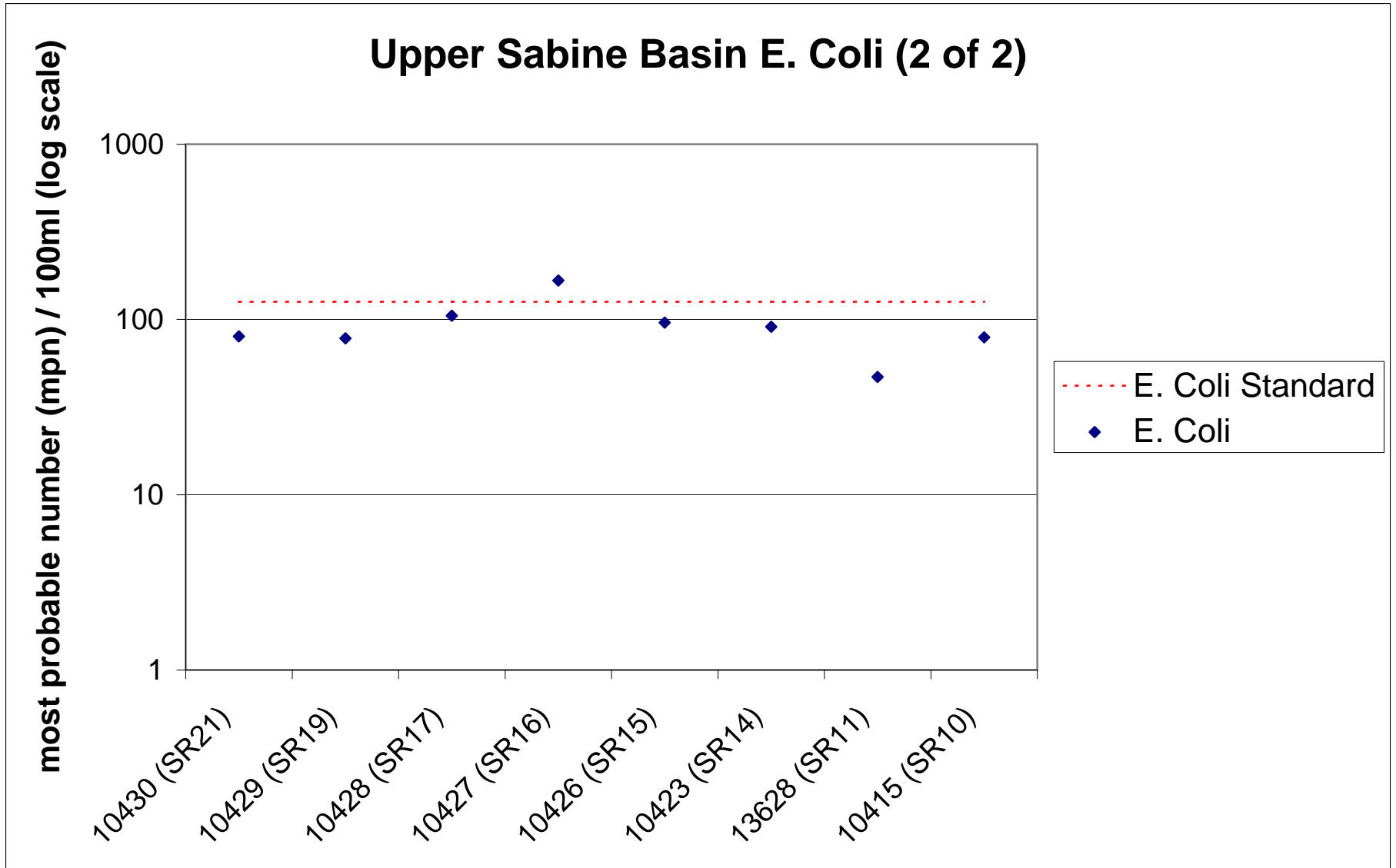
January 2002



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

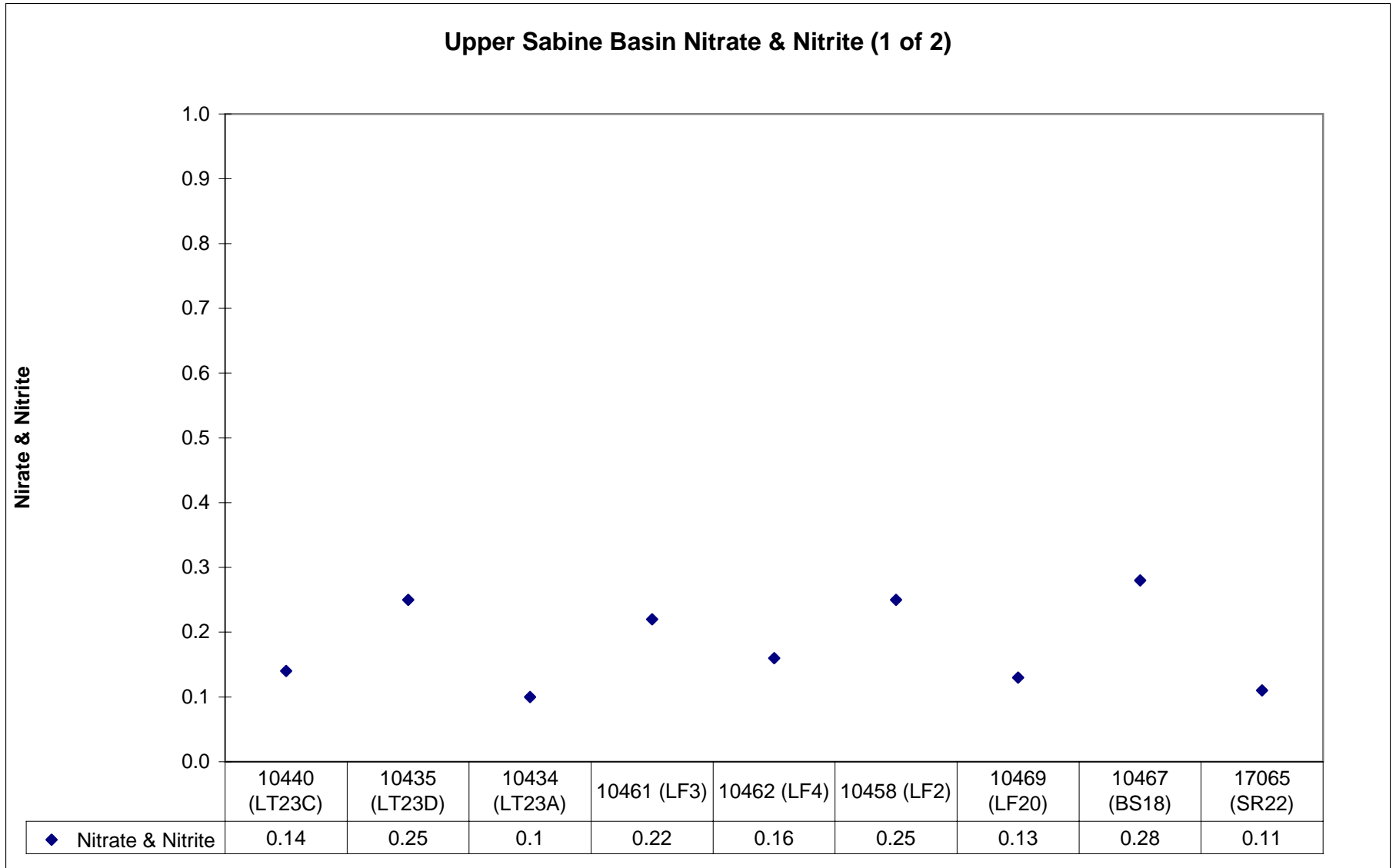
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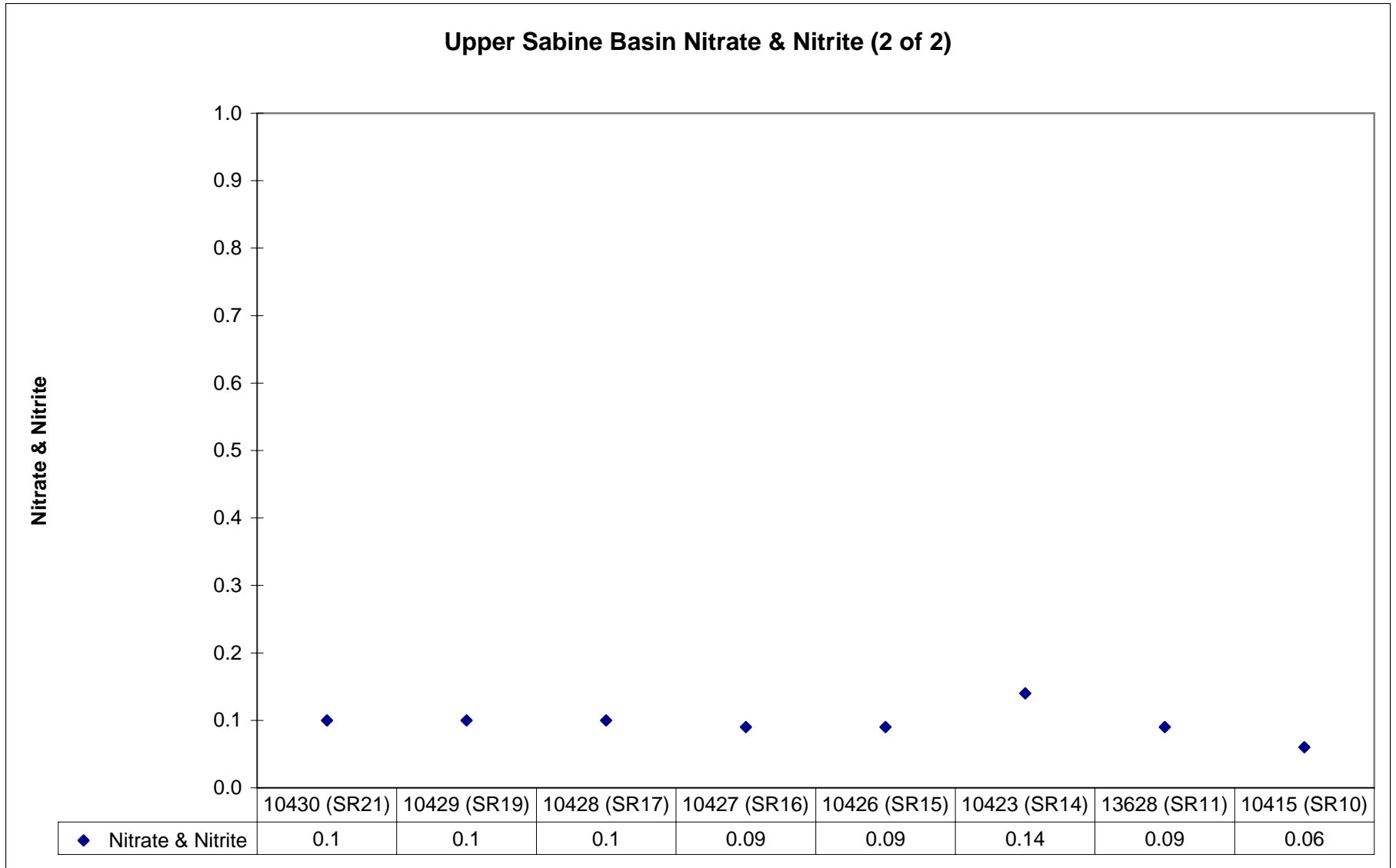
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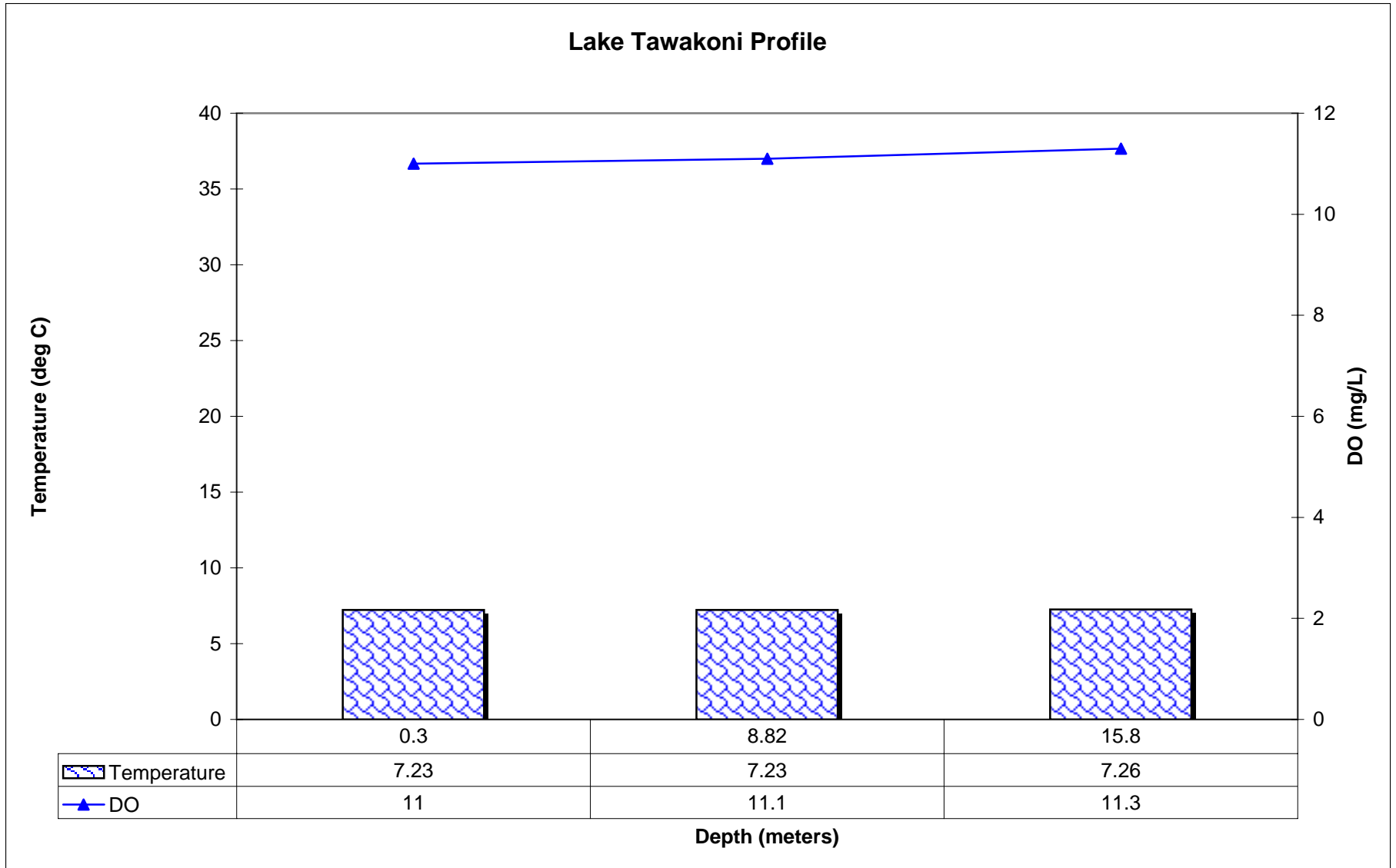
Upper Basin Profiles

January 2002

Date	SW ID	Station	Depth Meters	Temperature °C 00010	pH Units 00400	DO mg/L 00300	% Saturation 00301	Conductivity μS/cm 00094
1/8/02 11:22 AM	7.00	10440 (LT23C)	0.3	5.73	7.57	11.7	93	141
			4.59	5.57	7.67	11.9	94	139
1/8/02 10:39 AM	7.00	10435 (LT23D)	0.3	5.96	7.49	11	89	134
			4.97	5.41	7.45	11.3	89	127
1/8/02 9:45 AM	7.00	10434 (LT23A)	0.3	7.23	7.76	11	91	166
			8.82	7.23	7.7	11.1	92	166
			15.8	7.26	7.62	11.3	94	167
1/8/02 8:43 AM	6.12	10461 (LF3)	0.3	6.86	7.11	10.5	86	122
			4.02	6.85	7.11	10.5	86	122
			9.04	6.85	7.14	10.7	88	122
1/8/02 9:03 AM	6.12	10462 (LF4)	0.3	7.37	7.15	10.4	86	119
			5.76	7.37	7.13	10.2	85	119
			10.9	7.3	7.15	10.3	85	115
1/8/02 8:15 AM	6.12	10458 (LF2)	0.3	8.14	7.16	10.3	88	128
			6.78	8.16	7.19	10.3	87	128
			12.1	8.16	7.17	10.3	87	126
			18.3	8.15	7.24	10.3	87	128

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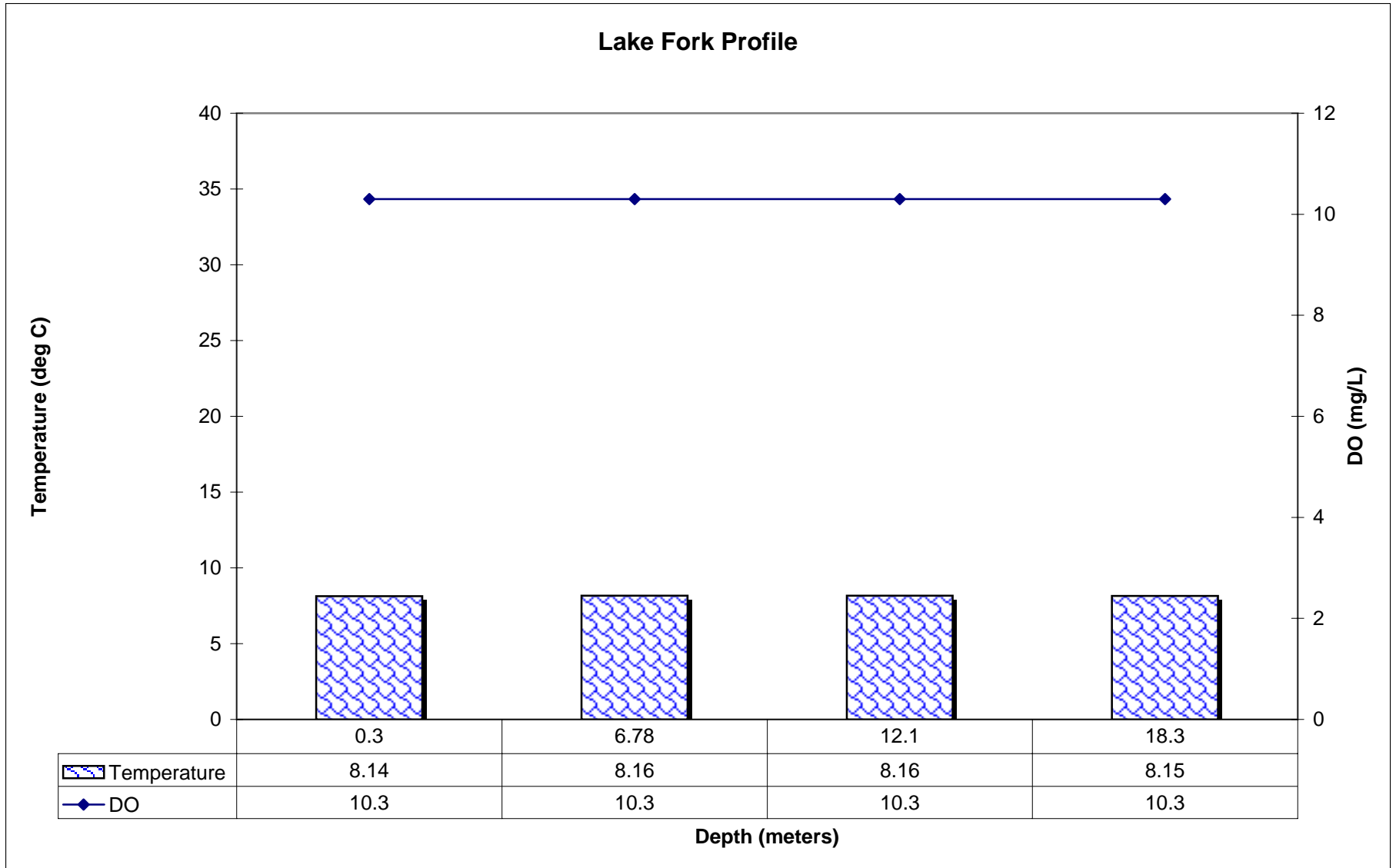
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For Station 10434 (LT23A): LAKE TAWAKONI IN THE MAIN LAKE NEAR THE DAM IN THE OLD RIVER CHANNEL

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Lake Tawakoni Weather and Reservoir Data

January 2002

Date	Lake Elev	LE - TOP	Releases inst	Max Temp	Min Temp	Rainfall	Evap
01/01/2002	438.20	0.70	845	40	28	0.00	NR
01/02/2002	438.15	0.65	845	38	22	0.00	NR
01/03/2002	438.07	0.57	665	34	14	0.00	NR
01/04/2002	437.98	0.48	505	38	16	0.00	FZ
01/05/2002	437.98	0.48	505	50	22	0.27	FZ
01/06/2002	437.97	0.47	505	42	36	0.06	0.01
01/07/2002	437.93	0.43	355	57	30	0.00	FZ
01/08/2002	437.84	0.34	235	54	31	0.00	0.21
01/09/2002	437.82	0.32	235	62	37	0.00	0.22
01/10/2002	437.78	0.28	235	71	48	0.00	0.06
01/11/2002	437.79	0.29	235	64	40	0.00	0.08
01/12/2002	437.76	0.26	235	60	39	0.00	0.18
01/13/2002	437.71	0.21	125	59	29	0.00	0.19
01/14/2002	437.72	0.22	125	64	30	0.00	0.08
01/15/2002	437.66	0.16	125	61	28	0.00	0.14
01/16/2002	437.63	0.13	45	64	30	0.00	0.22
01/17/2002	437.64	0.14	45	64	44	0.00	0.20
01/18/2002	437.60	0.10	45	46	37	0.00	0.01
01/19/2002	437.63	0.13	45	40	38	0.08	0.04
01/20/2002	437.55	0.05	45	50	30	0.00	0.13
01/21/2002	437.55	0.05	45	55	30	0.00	0.08
01/22/2002	437.54	0.04	25	57	30	0.00	0.17
01/23/2002	437.56	0.06	45	67	46	0.21	0.00
01/24/2002	437.73	0.23	125	73	38	1.35	0.00
01/25/2002	437.87	0.37	355	43	30	0.32	0.00
01/26/2002	437.88	0.38	355	54	30	0.00	0.00
01/27/2002	437.87	0.37	355	62	30	0.00	0.10
01/28/2002	437.84	0.34	235	68	38	0.00	0.17
01/29/2002	437.82	0.32	235	70	54	0.00	0.25
01/30/2002	437.80	0.30	235	76	62	0.00	0.09
01/31/2002	437.92	0.42	355	78	42	0.33	0.16
Avg or Tot	437.80	0.30	270	57	34	2.62	2.79

	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.				

FZ: Frozen

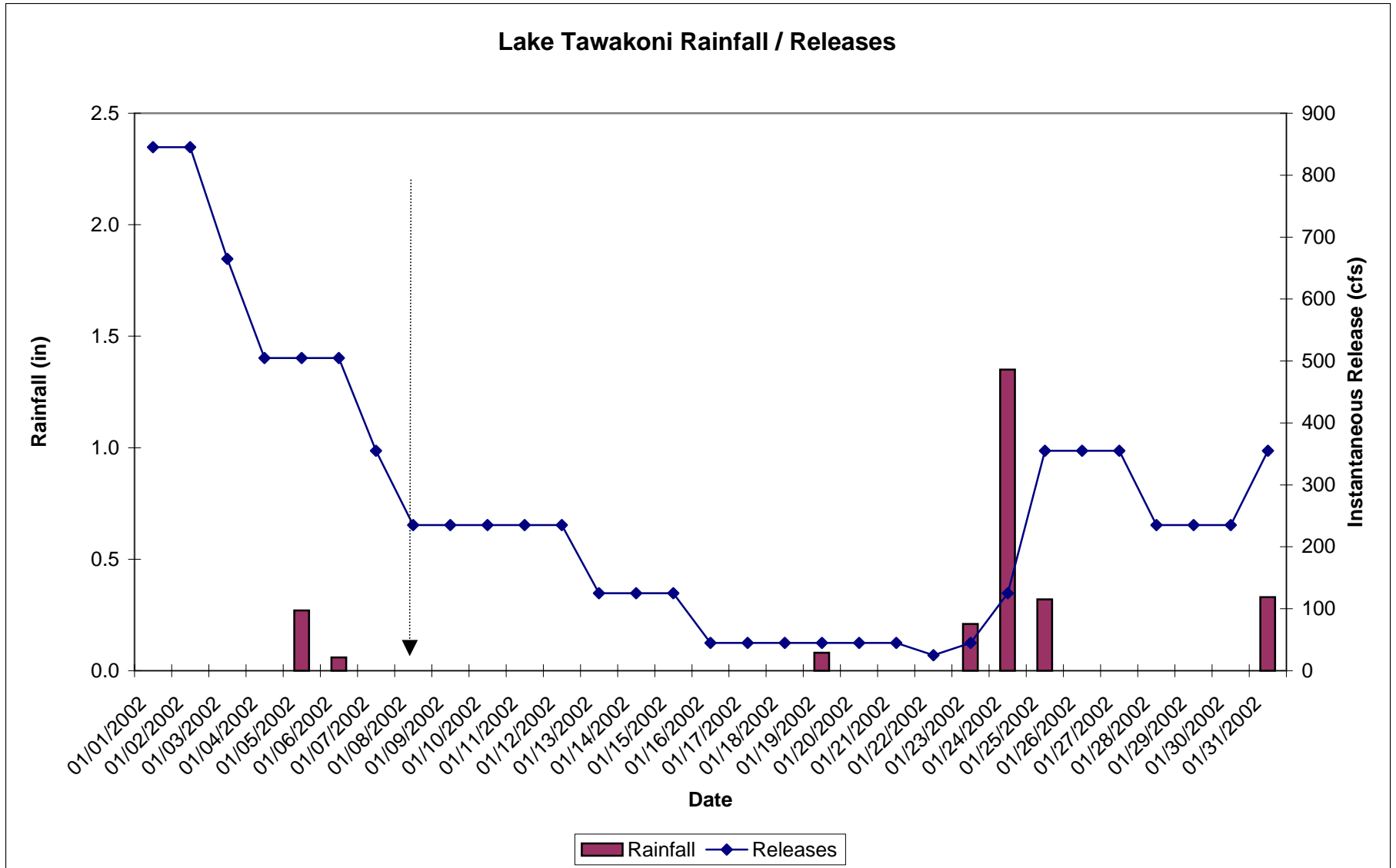
NR: No Reading

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

Lake Tawakoni Sampled on 1/8/2002

SABINE RIVER AUTHORITY OF TEXAS

January 2002



Please Note : Lake Tawakoni has an uncontrolled spillway.

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Lake Fork Weather and Reservoir Data

January 2002

Date	Lake Elev	LE - TOP	Releases avg	Releases cur	Max Temp	Min Temp	Rainfall	Evap
01/01/2002	402.24	(0.76)	8	8	43	28	0.00	0.05
01/02/2002	402.24	(0.76)	8	8	42	32	0.00	0.02
01/03/2002	402.24	(0.76)	8	8	38	16	0.00	FZ
01/04/2002	402.24	(0.76)	8	8	40	22	0.00	FZ
01/05/2002	402.20	(0.80)	8	38	50	22	2.35	0.30
01/06/2002	402.23	(0.77)	8	8	46	34	0.10	0.13
01/07/2002	402.29	(0.71)	8	8	60	32	0.00	0.00
01/08/2002	402.29	(0.71)	8	8	48	30	0.00	FZ
01/09/2002	402.24	(0.76)	8	8	64	30	0.00	0.17
01/10/2002	402.24	(0.76)	8	8	72	48	0.00	0.21
01/11/2002	402.24	(0.76)	8	8	67	44	0.00	0.18
01/12/2002	402.24	(0.76)	8	8	62	32	0.00	0.02
01/13/2002	402.24	(0.76)	8	8	62	30	0.00	FZ
01/14/2002	402.24	(0.76)	8	8	66	32	0.00	0.00
01/15/2002	402.19	(0.81)	8	8	66	28	0.00	0.00
01/16/2002	402.23	(0.77)	8	8	66	34	0.00	0.00
01/17/2002	402.24	(0.76)	8	8	66	44	0.00	0.16
01/18/2002	402.23	(0.77)	8	8	52	38	0.03	0.04
01/19/2002	402.24	(0.76)	8	8	42	38	0.10	2.32
01/20/2002	402.23	(0.77)	8	8	52	28	0.00	FZ
01/21/2002	402.23	(0.77)	8	8	56	28	0.00	FZ
01/22/2002	402.23	(0.77)	8	8	70	30	0.00	0.06
01/23/2002	402.27	(0.73)	8	8	70	46	0.50	0.00
01/24/2002	402.40	(0.60)	8	8	70	40	0.53	0.16
01/25/2002	402.54	(0.46)	8	8	45	30	0.40	0.04
01/26/2002	402.63	(0.37)	8	8	58	28	0.00	0.24
01/27/2002	402.66	(0.34)	8	8	66	28	0.00	0.01
01/28/2002	402.67	(0.33)	8	8	70	38	0.00	0.15
01/29/2002	402.70	(0.30)	8	8	74	50	0.00	0.09
01/30/2002	402.72	(0.28)	8	8	78	62	0.00	0.04
01/31/2002	402.82	(0.18)	8	8	78	46	0.20	0.00
Avg or Tot	402.34	(0.66)	8	9	59	34	4.21	4.39

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

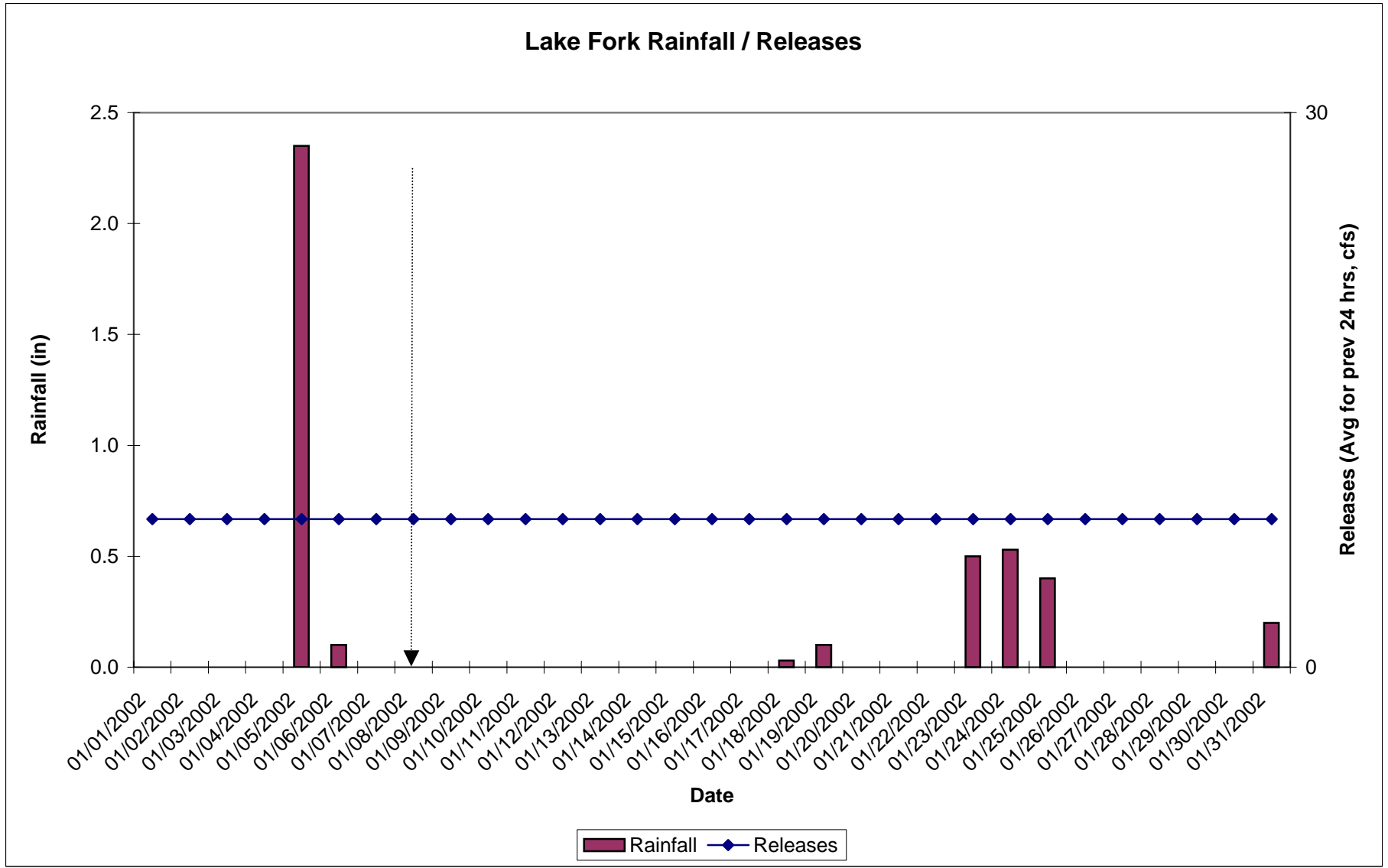
FZ: Frozen

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

Lake Fork Sampled on 1/8/2002

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FY2002 Fixed Monitoring Stations

Lower Sabine Basin

<i>SW</i>	<i>Segment</i>	<i>Station</i>	<i>Location</i>
4.10	0504	15658 (TB6N)	BAYOU SCIE AT LA SH 191
4.00	0504	10403 (TB8)	TOLEDO BEND RESERVOIR AT US 84
4.00	0504	15657 (TB6M)	TOLEDO BEND RESERVOIR SAN PATRICIA ARM AT LA SH191
4.00	0504	15656 (TB6L)	TOLEDO BEND RESERVOIR SAN MIGUEL ARM AT LA SH191
4.00	0504	15655 (TB6J)	TOLEDO BEND RESERVOIR PATROON BAYOU ARM AT SH 276
4.00	0504	15659 (TB6K)	TOLEDO BEND RESERVOIR LANANA ARM AT LA SH191
4.00	0504	10402 (TB6H)	TOLEDO BEND RESERVOIR AT SH 21
4.00	0504	10411 (TB6F)	TOLEDO BEND RESERVOIR IN SUNSHINE BAY AT FM 3121
4.00	0504	10407 (TB6CN)	TOLEDO BEND RESERVOIR IN SIX MILE BOAT LANE AT SH 87
4.00	0504	10404 (TB6A)	TOLEDO BEND RESERVOIR NEAR DAM IN RIVER CHANNEL
3.03	0503	10340 (BA4)	ANACOCO BAYOU AT LOUISIANA HWY 111
3.00	0503	10401 (TB6S)	SABINE RIVER BELOW TOLEDO BEND SPILLWAY
3.00	0503	10400 (TB6)	TAIL RACE CHANNEL AT FM 692 TB6
3.00	0503	10399 (SR5)	SABINE RIVER AT SH 63
3.00	0503	10398 (SR3)	SABINE RIVER AT US 190
2.00	0503	10397 (SR2)	SABINE RIVER AT SH 12

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Lower Basin Report

January 2002

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	Nitrate & Nitrite 00630	Ortho- Phosphate 00671	TOC mg/L 00680	Total Alkalinity 00410	Total Hardness 00900	Chloride mg/L 00940	Sulfate mg/L 00945
1/8/02 12:55 PM	4.10	15658 (TB6N)	5.92	7.13	11	88	127	*	0.23	42.4	199	*	0.1	< 0.04	*	20	28	10	< 10
1/9/02 11:29 AM	4.00	10403 (TB8)	5.73	7.06	11	87	155	*	0.52	15.8	83	*	< 0.04	< 0.04	*	40	44	10	13
1/8/02 1:20 PM	4.00	15657 (TB6M)	6.16	6.76	9.45	76	115	*	0.32	36.9	770	*	0.08	< 0.04	*	10	24	14	< 10
1/8/02 1:05 PM	4.00	15656 (TB6L)	6.25	6.43	9.55	77	89	*	0.22	46	2420	*	0.17	0.21	*	10	24	< 10	12
1/8/02 10:40 AM	4.00	15655 (TB6J)	7.38	7.05	10.8	90	135	*	0.56	23.4	20	*	0.09	< 0.04	*	20	36	< 10	< 10
1/8/02 12:35 PM	4.00	15659 (TB6K)	9.52	7.12	9.59	84	117	*	0.62	15.2	3	*	0.1	< 0.04	*	20	28	< 10	18
1/8/02 11:35 AM	4.00	10402 (TB6H)	9.29	7.53	10.4	91	134	*	1.12	5.42	5	**	< 0.04	< 0.04	*	30	32	15	13
1/8/02 11:20 AM	4.00	10411 (TB6F)	8.12	6.94	10.1	85	71	*	0.35	36.1	22	**	0.08	< 0.04	*	10	24	< 10	15
1/8/02 10:00 AM	4.00	10407 (TB6CN)	8.07	6.68	10.1	86	82	*	0.61	14.5	2	*	0.04	< 0.04	*	10	24	< 10	11
1/9/02 10:00 AM	4.00	10404 (TB6A)	11.2	7.46	9.77	89	127	*	1.53	2.58	1	**	0.14	< 0.04	*	30	32	< 10	11
1/9/02 12:25 PM	3.03	10340 (BA4)	8.86	7.15	10.9	94	178	*	0.4	24.1	150	*	0.07	< 0.04	*	20	24	< 10	38
1/9/02 10:25 AM	3.00	10401 (TB6S)	11.1	7.45	11.4	103	127	*	*	2.8	2	*	0.14	< 0.04	*	30	28	< 10	11
1/9/02 10:35 AM	3.00	10400 (TB6)	11.1	7.37	10.1	91	127	*	*	11.8	< 1	*	0.2	< 0.04	*	30	36	< 10	11
1/9/02 12:02 PM	3.00	10399 (SR5)	11.1	7.51	10.8	98	125	*	*	5.28	11	*	0.15	< 0.04	*	30	32	< 10	11
1/9/02 12:45 PM	3.00	10398 (SR3)	10.9	7.38	10.9	98	126	*	*	17.8	25	*	0.15	< 0.04	*	30	32	< 10	12
1/9/02 8:35 AM	2.00	10397 (SR2)	9.53	6.52	9.99	88	112	*	0.44	17.2	54	*	0.1	< 0.04	*	20	24	< 10	10

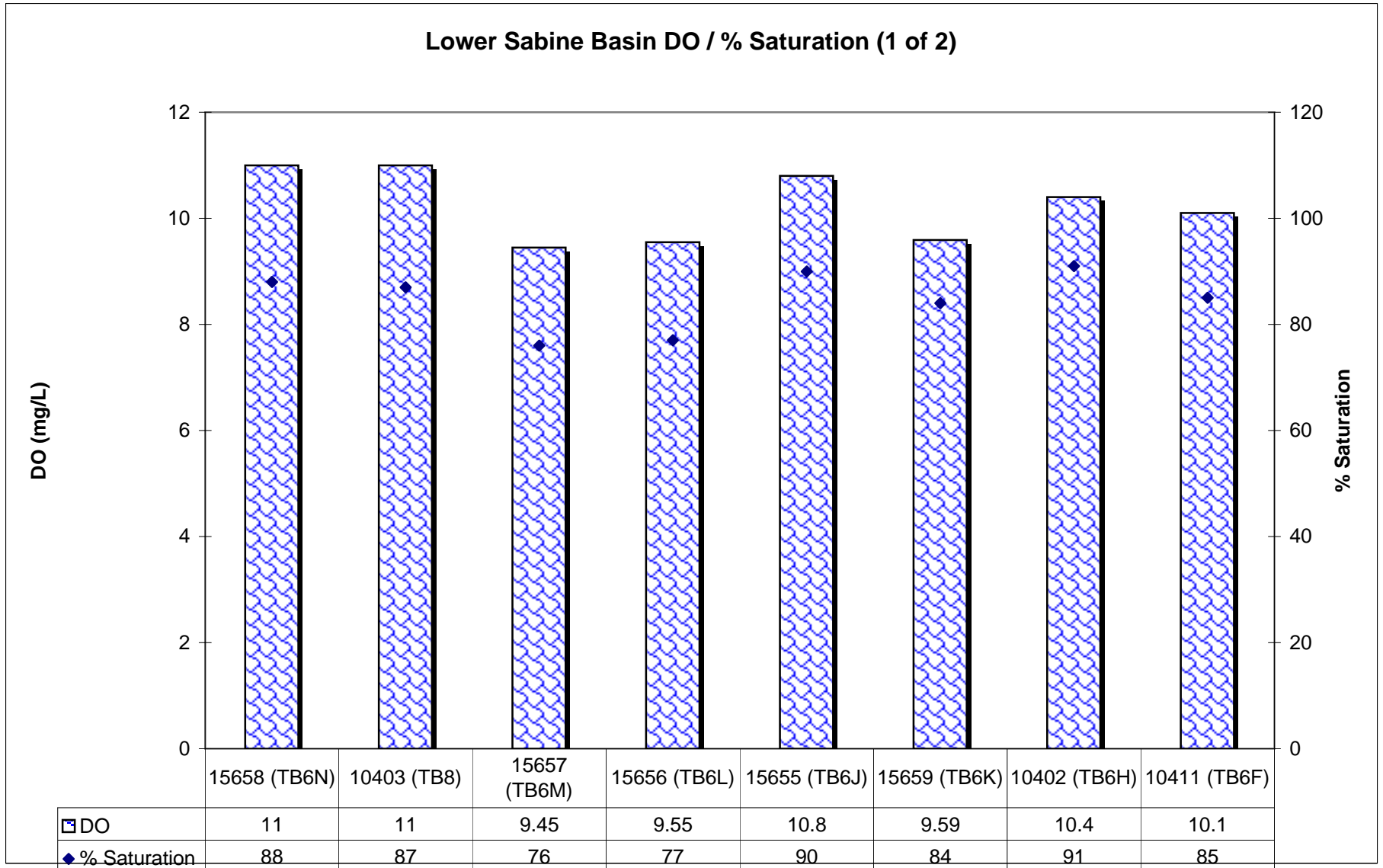
*: Not sampled on this run

**: Not tested

SABINE RIVER AUTHORITY OF TEXAS

January 2002

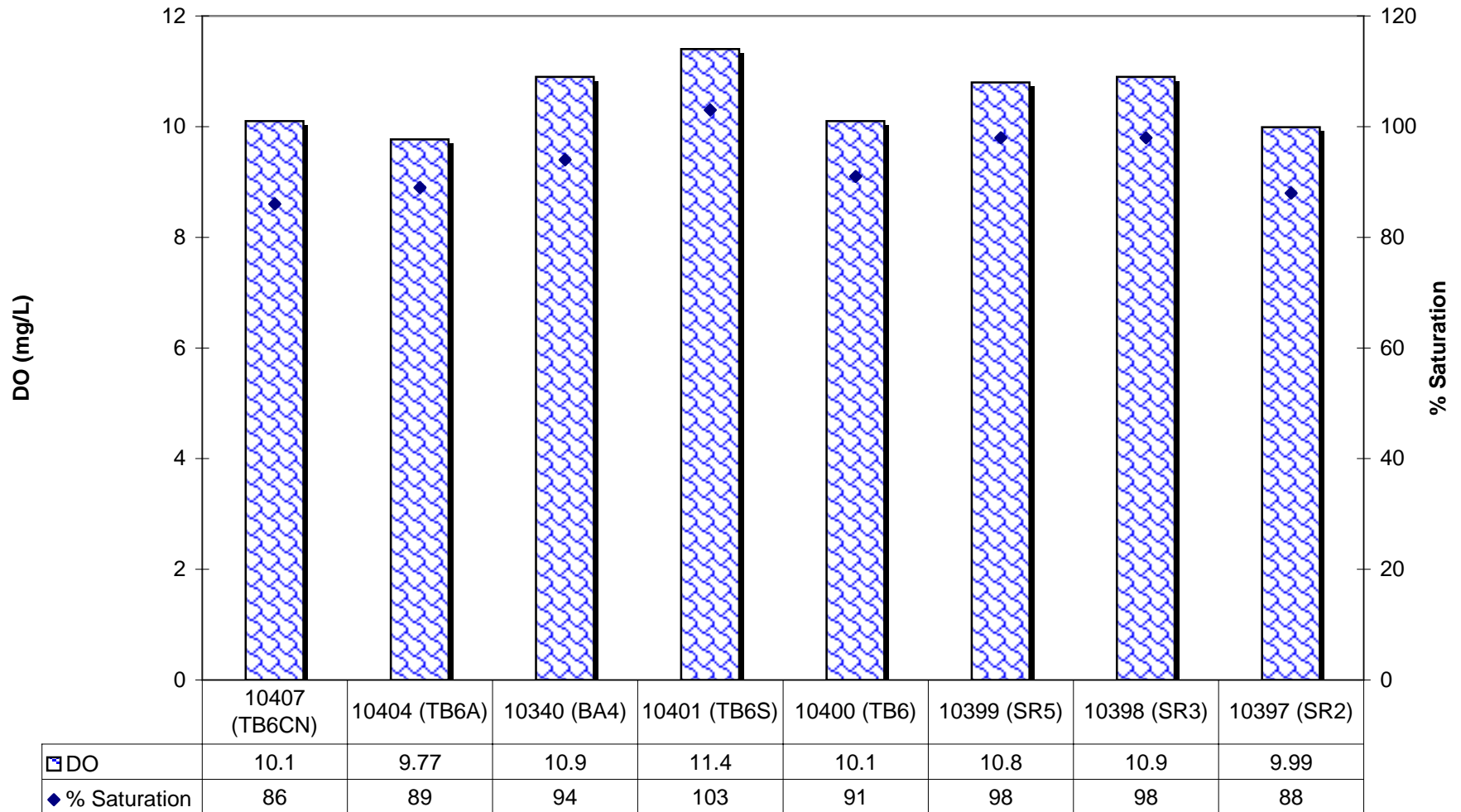
Lower Sabine Basin DO / % Saturation (1 of 2)



SABINE RIVER AUTHORITY OF TEXAS

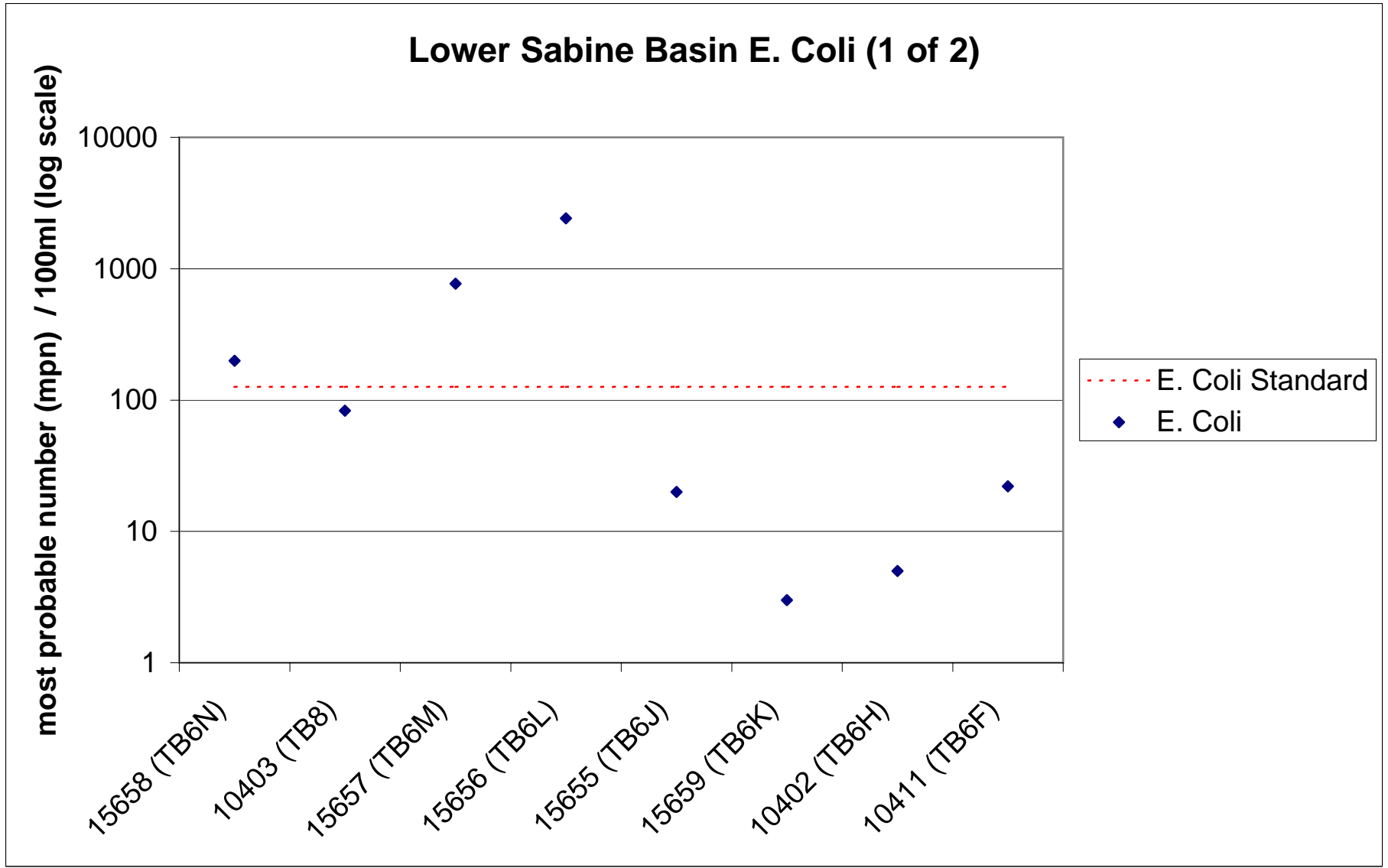
January 2002

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



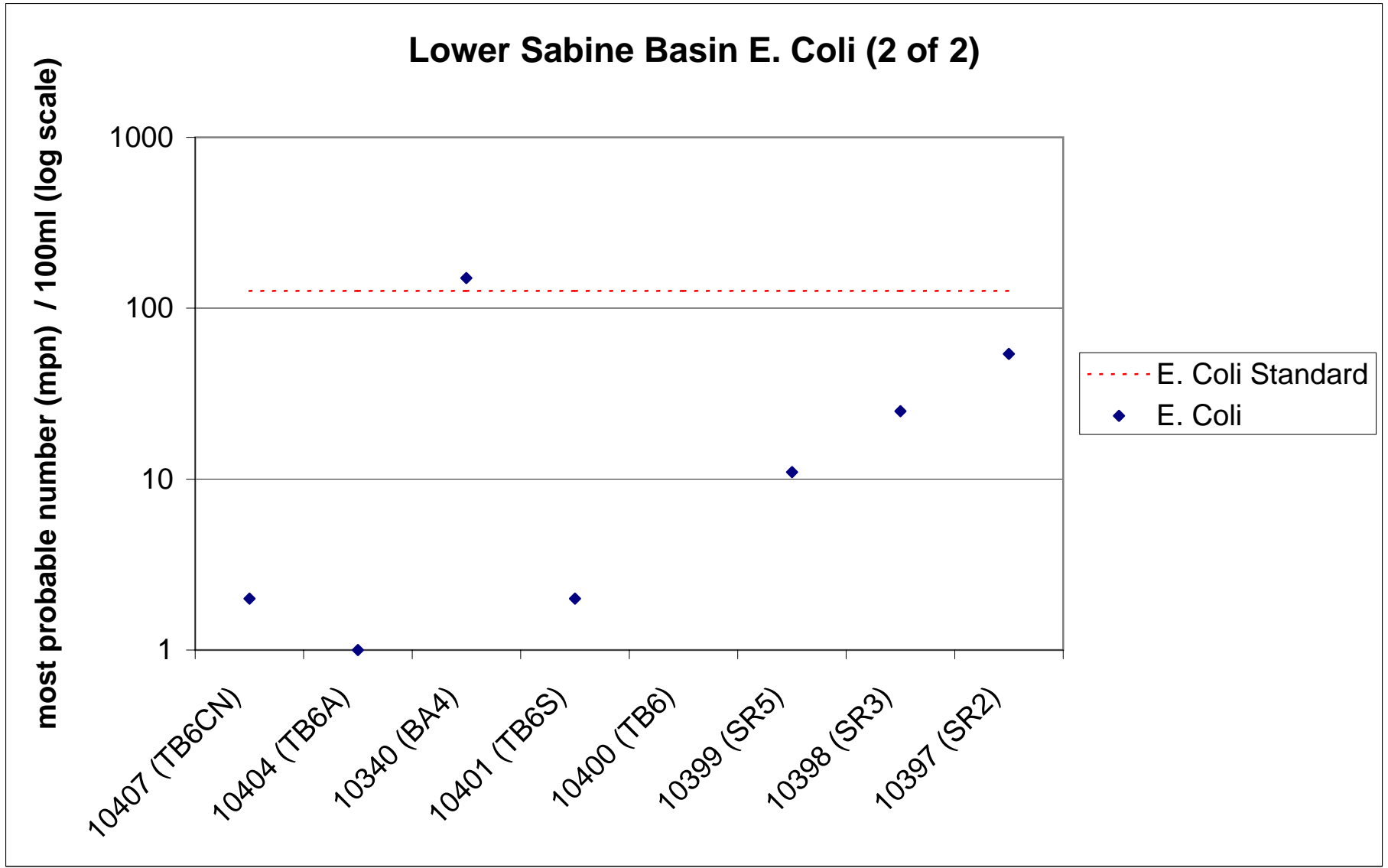
SABINE RIVER AUTHORITY OF TEXAS

January 2002



SABINE RIVER AUTHORITY OF TEXAS

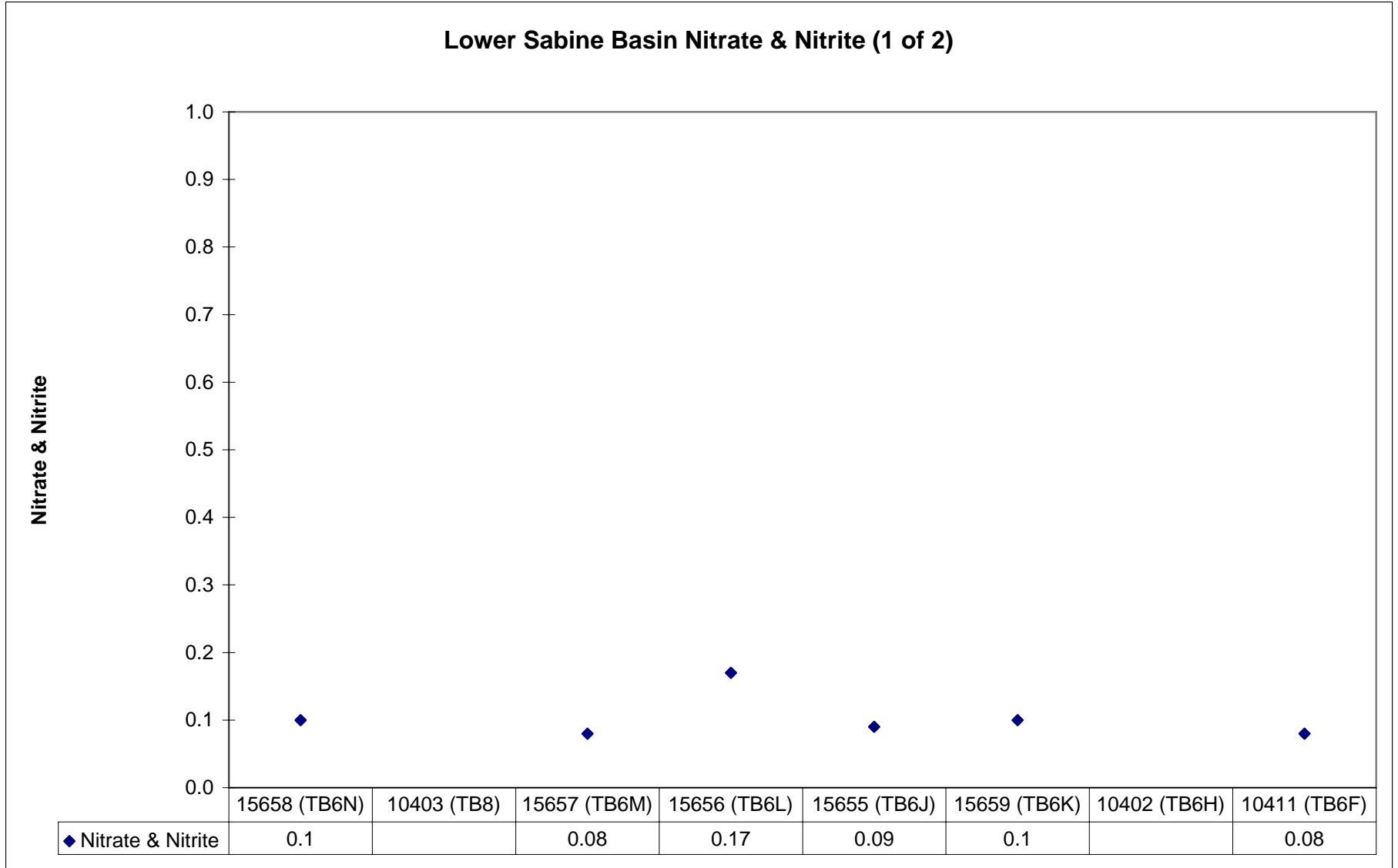
January 2002



Stations without values were below detection limit or not sampled on this run (see page 18).

SABINE RIVER AUTHORITY OF TEXAS

January 2002

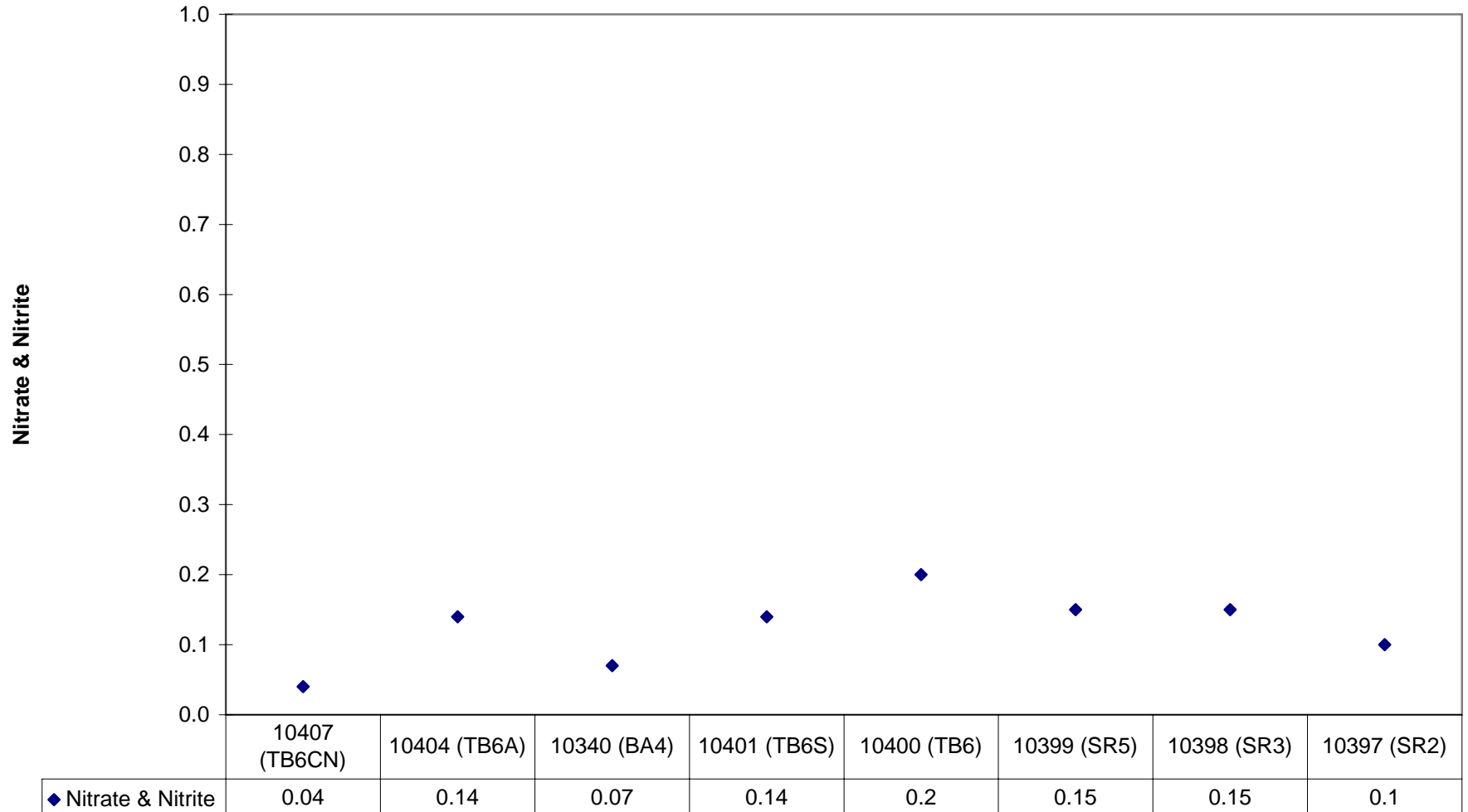


Stations without values were below detection limit or not sampled on this run (see page 18).

SABINE RIVER AUTHORITY OF TEXAS

January 2002

Lower Sabine Basin Nitrate & Nitrite (2 of 2)



SABINE RIVER AUTHORITY OF TEXAS

Lower Basin Profiles

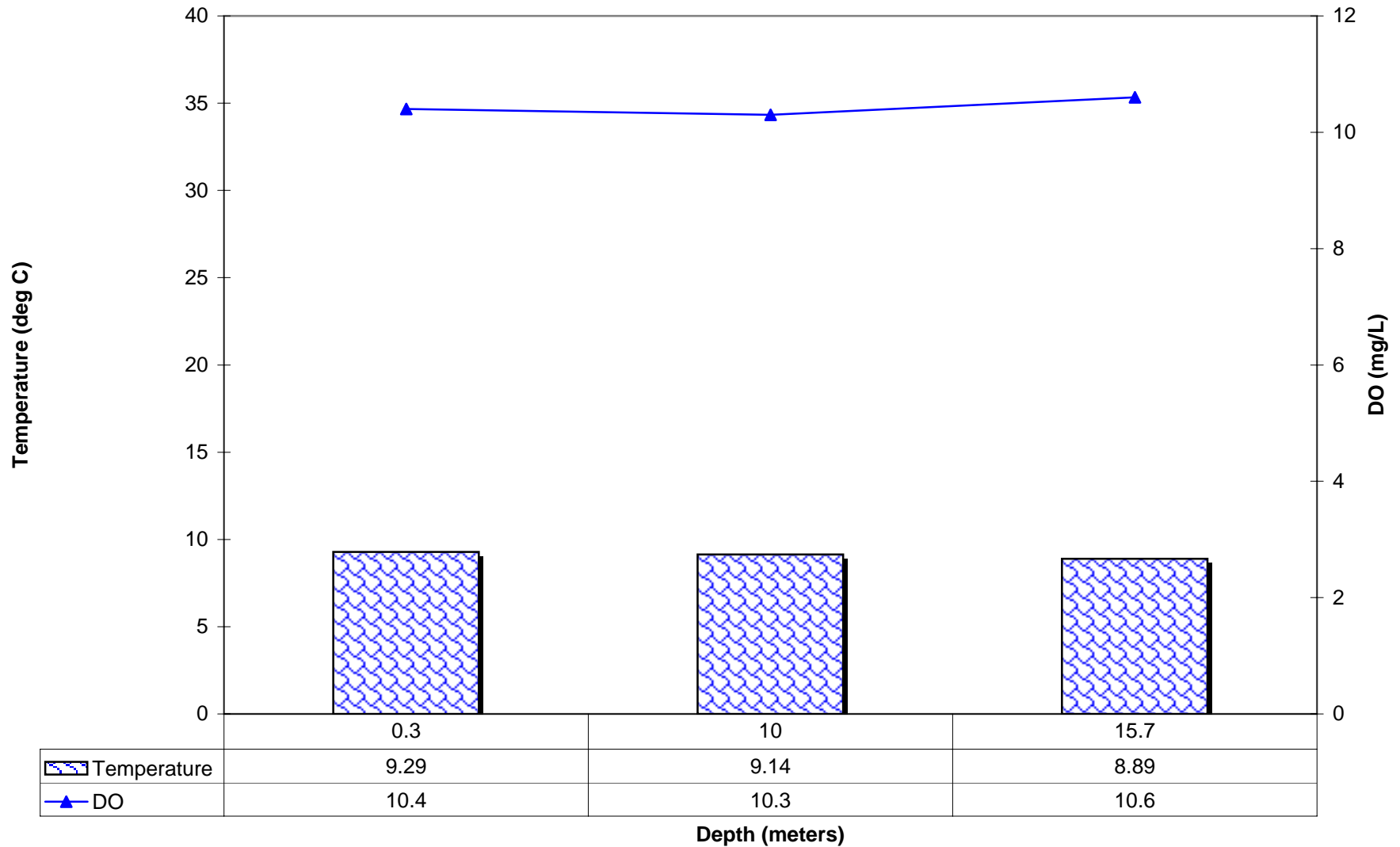
January 2002

Date	SW ID	Station	Depth Meters	Temperature	pH	DO	%	Conductivity
				°C 00010	Units 00400	mg/L 00300	Saturation 00301	µS/cm 00094
1/8/02 1:20 PM	4.00	15657 (TB6M)	0.3	6.16	6.76	9.45	76	115
			4.2	6.11	7.07	9.82	79	119
1/8/02 10:40 AM	4.00	15655 (TB6J)	0.3	7.38	7.05	10.8	90	135
			4.6	7.19	7.01	10.8	90	148
1/8/02 12:35 PM	4.00	15659 (TB6K)	0.3	9.52	7.12	9.59	84	117
			4	8.58	7.1	9.25	80	101
			9.1	8.4	7.24	9.31	79	93
1/8/02 11:35 AM	4.00	10402 (TB6H)	0.3	9.29	7.53	10.4	91	134
			10	9.14	7.58	10.3	90	155
			15.7	8.89	7.68	10.6	91	157
1/8/02 11:20 AM	4.00	10411 (TB6F)	0.3	8.12	6.94	10.1	85	71
			5.2	7.68	6.93	10	84	72
1/9/02 7:58 AM	4.00	10407 (TB6CN)	0.3	7.19	6.69	11.5	95	131
			0.3	8.07	6.68	10.1	86	82
			3	7.91	6.61	10.1	85	79
			6.7	8.06	6.41	9.96	84	74
1/9/02 10:00 AM	4.00	10404 (TB6A)	0.3	11.2	7.46	9.77	89	127
			7	10.9	7.41	9.63	88	127
			15	10.8	7.38	9.66	87	127
			24	10.7	7.39	9.37	84	124

SABINE RIVER AUTHORITY OF TEXAS

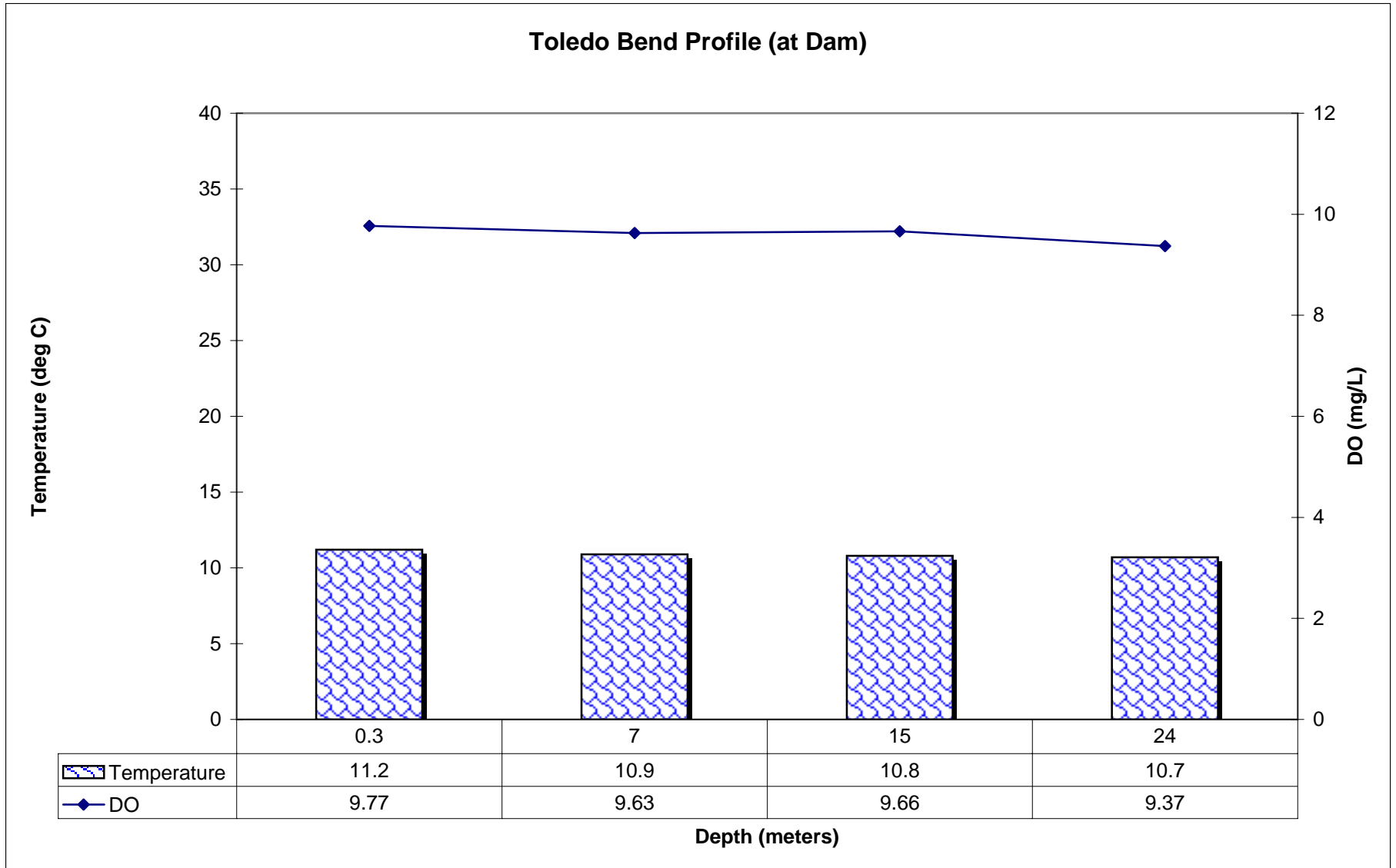
January 2002

Toledo Bend Profile (at Pendleton Bridge)



SABINE RIVER AUTHORITY OF TEXAS

January 2002



SABINE RIVER AUTHORITY OF TEXAS

Toledo Bend Weather and Reservoir Data

January 2002

Date	Lake Elev	LE - TOP	Max Temp	Min Temp	Rainfall	Evaporation	Daily Releases cfs	Daily Releases ac ft	Current Release
01/01/2002	170.12	(1.88)	42	29	0.00	0.05	13,635	27,045	13,650
01/02/2002	170.15	(1.85)	49	30	0.00	FZ	13,690	27,154	13,620
01/03/2002	170.21	(1.79)	43	25	0.00	FZ	13,793	27,358	13,750
01/04/2002	170.09	(1.91)	40	18	0.00	FZ	13,013	25,811	13,830
01/05/2002	170.20	(1.80)	50	18	0.00	FZ	11,251	22,316	7,000
01/06/2002	170.56	(1.44)	49	43	0.78	0.07	750	1,488	14,000
01/07/2002	170.57	(1.43)	58	31	0.00	0.16	12,476	24,746	14,000
01/08/2002	170.59	(1.41)	48	24	0.00	FZ	14,014	27,796	13,980
01/09/2002	170.74	(1.26)	63	24	0.00	0.09	14,060	27,888	14,000
01/10/2002	170.85	(1.15)	72	37	0.03	0.08	14,053	27,874	14,080
01/11/2002	170.99	(1.01)	73	51	0.00	0.07	14,062	27,892	14,100
01/12/2002	170.99	(1.01)	60	50	0.00	0.12	14,205	28,175	14,010
01/13/2002	170.92	(1.08)	62	32	0.00	0.15	14,058	27,884	14,000
01/14/2002	170.85	(1.15)	62	32	0.00	0.14	14,025	27,818	14,100
01/15/2002	170.84	(1.16)	61	32	0.00	0.11	14,449	28,659	13,950
01/16/2002	170.72	(1.28)	64	34	0.00	0.13	14,113	27,993	14,100
01/17/2002	170.64	(1.36)	68	34	0.00	0.08	14,177	28,120	14,125
01/18/2002	170.52	(1.48)	73	41	0.15	0.10	14,269	28,302	14,244
01/19/2002	170.55	(1.45)	53	43	0.36	NR	14,363	28,489	14,294
01/20/2002	170.26	(1.74)	53	29	0.26	0.17	14,394	28,550	14,444
01/21/2002	170.17	(1.83)	53	29	0.09	0.11	14,394	28,550	14,344
01/22/2002	170.03	(1.97)	59	30	0.00	0.12	14,377	28,516	14,444
01/23/2002	169.91	(2.09)	70	49	0.06	0.07	14,244	28,253	14,294
01/24/2002	169.81	(2.19)	78	68	0.05	0.04	9,690	19,220	14,194
01/25/2002	170.22	(1.78)	72	39	0.75	0.26	7,269	14,418	7,294
01/26/2002	170.10	(1.90)	57	28	0.00	0.17	7,311	14,501	7,344
01/27/2002	170.21	(1.79)	59	28	0.00	0.08	7,269	14,418	7,294
01/28/2002	170.22	(1.78)	72	36	0.00	0.09	7,286	14,452	7,244
01/29/2002	170.19	(1.81)	75	61	0.00	0.06	7,269	14,418	7,269
01/30/2002	170.16	(1.84)	80	63	0.00	0.08	7,244	14,368	7,294
01/31/2002	170.15	(1.85)	82	72	0.00	0.17	7,269	14,418	7,194
Avg or Tot	170.40	(1.60)	61	37	2.53	2.77	11,822	726,890	

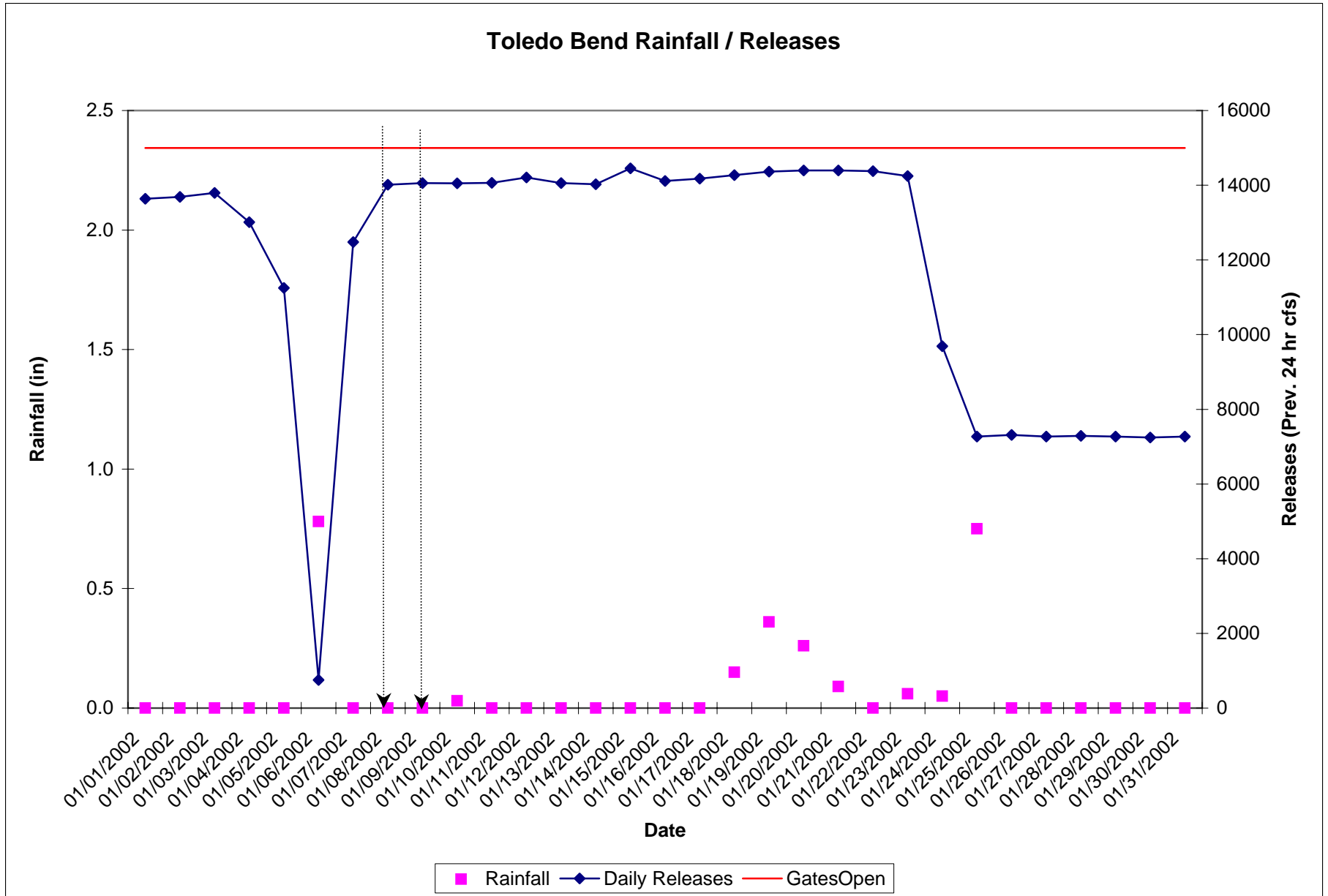
Units	Avg Feet M.S.L.	Avg Feet	Avg Deg. F	Avg Deg. F	Tot Inches	Tot Inches	Avg cfs	Tot Ac. Ft.	cfs approx. 8:00 a.m.
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FZ: Frozen
 NR: No Reading
 TOP: Top of Pool = 172 Feet M.S.L.

Toledo Bend Sampled on 1/8/2002 and 1/9/2002

SABINE RIVER AUTHORITY OF TEXAS

January 2002



Toledo Bend sampled on 1/8/2002 and 1/9/2002

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

SABINE RIVER AUTHORITY OF TEXAS

Burkeville Weather and River Data

January 2002

Date	<i>Rainfall</i>	<i>Gauge Height</i>	<i>GH - FS</i>	<i>Flow</i>
01/01/2002	0.00	25.19	(12.81)	11,785
01/02/2002	0.00	25.18	(12.82)	11,770
01/03/2002	0.00	25.16	(12.84)	11,740
01/04/2002	0.00	23.13	(14.87)	8,916
01/05/2002	0.05	24.95	(13.05)	11,435
01/06/2002	0.89	24.59	(13.41)	10,916
01/07/2002	0.00	22.53	(15.47)	8,146
01/08/2002	0.00	24.72	(13.28)	11,100
01/09/2002	0.00	25.12	(12.88)	11,680
01/10/2002	0.00	25.15	(12.85)	11,725
01/11/2002	0.00	25.11	(12.89)	11,665
01/12/2002	0.00	25.10	(12.90)	11,650
01/13/2002	0.00	25.07	(12.93)	11,608
01/14/2002	0.00	25.05	(12.95)	11,580
01/15/2002	0.00	25.05	(12.95)	11,580
01/16/2002	0.00	25.00	(13.00)	11,510
01/17/2002	0.00	25.01	(12.99)	11,524
01/18/2002	0.00	25.12	(12.88)	11,680
01/19/2002	OUT	OUT	OUT	OUT
01/20/2002	0.00	25.25	(12.75)	11,875
01/21/2002	0.00	25.22	(12.78)	11,830
01/22/2002	0.00	25.16	(12.84)	11,740
01/23/2002	0.00	25.16	(12.84)	11,740
01/24/2002	0.00	25.10	(12.90)	11,650
01/25/2002	0.37	21.66	(16.34)	7,084
01/26/2002	0.00	21.53	(16.47)	6,931
01/27/2002	0.00	21.25	(16.75)	6,606
01/28/2002	0.01	21.12	(16.88)	6,458
01/29/2002	0.02	21.06	(16.94)	6,390
01/30/2002	0.01	21.04	(16.96)	6,367
01/31/2002	0.00	21.03	(16.97)	6,356
Avg or Tot	1.35	24.03	(13.97)	10,235

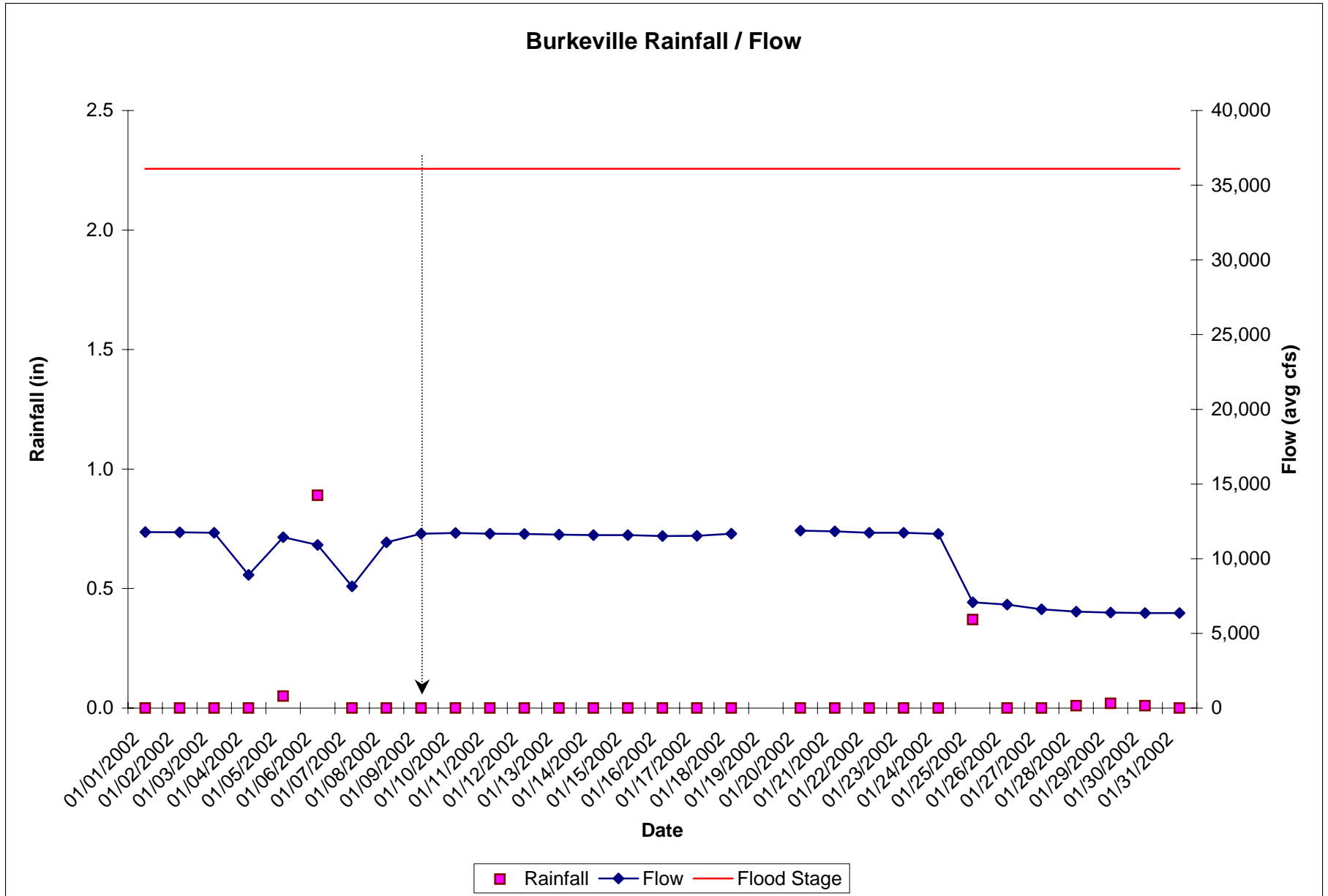
Units	Tot Inches	Avg Feet	Avg Feet	Avg cfs
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FS: Flood Stage = 41 feet
 TH: Gage height too high to calculate flow
 NR: No Reading
 OUT: Gage Out

Lower Sabine Basin Sampled on 1/9/2002

SABINE RIVER AUTHORITY OF TEXAS

January 2002



Flood stage flow of 36,100 cfs calculated from flood stage gage height, 38 ft msl.

SABINE RIVER AUTHORITY OF TEXAS

Bon Wier Weather and River Data

January 2002

Date	<i>Gauge Height</i>	<i>GH - FS</i>	<i>Flow Avg</i>	<i>308 Rainfall</i>
01/01/2002	25.23	(4.77)	14,301	0.00
01/02/2002	25.13	(4.87)	14,131	0.00
01/03/2002	25.06	(4.94)	14,012	0.00
01/04/2002	25.02	(4.98)	13,944	0.00
01/05/2002	24.70	(5.30)	13,410	0.05
01/06/2002	23.67	(6.33)	11,745	0.64
01/07/2002	23.75	(6.25)	11,870	0.00
01/08/2002	23.78	(6.22)	11,918	0.00
01/09/2002	24.84	(5.16)	13,644	0.00
01/10/2002	25.04	(4.96)	13,978	0.00
01/11/2002	25.00	(5.00)	13,910	0.00
01/12/2002	24.94	(5.06)	13,808	0.00
01/13/2002	24.94	(5.06)	13,808	0.00
01/14/2002	24.87	(5.13)	13,692	0.00
01/15/2002	24.77	(5.23)	13,529	0.00
01/16/2002	24.78	(5.22)	13,546	0.00
01/17/2002	24.75	(5.25)	13,495	0.00
01/18/2002	24.78	(5.22)	13,546	0.19
01/19/2002	24.87	(5.13)	13,692	0.03
01/20/2002	24.98	(5.02)	13,876	0.03
01/21/2002	24.93	(5.07)	13,791	0.00
01/22/2002	24.96	(5.04)	13,842	0.00
01/23/2002	24.94	(5.06)	13,808	0.01
01/24/2002	24.91	(5.09)	13,757	0.00
01/25/2002	24.03	(5.97)	12,318	0.26
01/26/2002	22.14	(7.86)	9,461	0.00
01/27/2002	21.81	(8.19)	8,998	0.00
01/28/2002	21.46	(8.54)	8,517	0.00
01/29/2002	21.28	(8.72)	8,274	0.00
01/30/2002	21.21	(8.79)	8,182	0.00
01/31/2002	21.11	(8.89)	8,049	0.00
Avg or Tot	24.12	(5.88)	12,544	1.21

Units	Avg Feet	Avg Feet	Avg	Tot Inches
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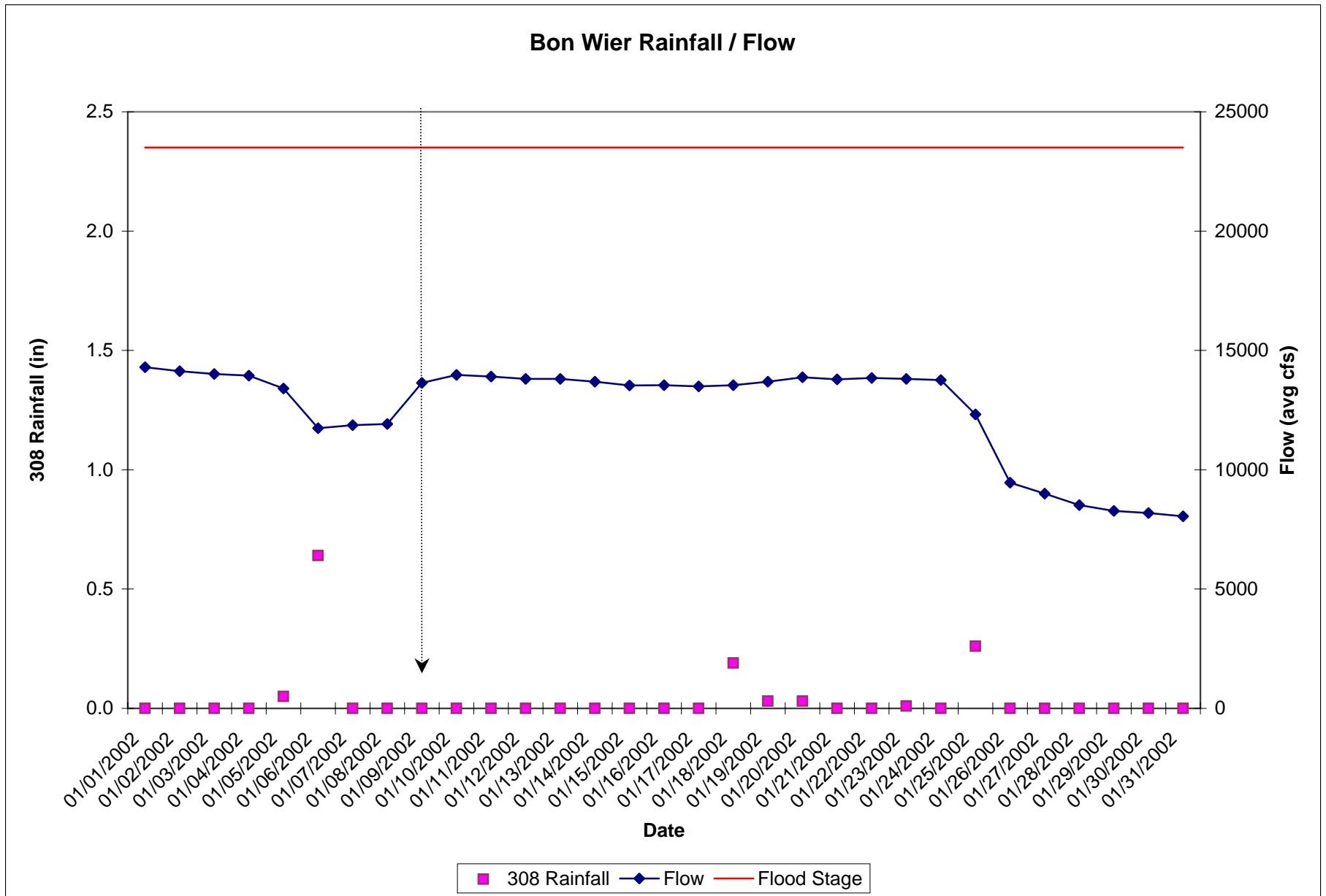
FS: Flood Stage = 30 feet

OUT: Gauge Out

Lower Sabine Basin Sampled on 1/9/2002

SABINE RIVER AUTHORITY OF TEXAS

January 2002



Lower Sabine Basin sampled on 1/9/2002

Flood stage flow of 23,500 cfs calculated from flood stage gage height, 30 ft msl.

SABINE RIVER AUTHORITY OF TEXAS

Ruliff Weather and River Data

January 2002

Date	<i>Gauge Height</i>	<i>GH - FS</i>	<i>Flow cfs</i>	<i>Flow acft</i>	<i>Flow avg</i>	<i>309 Rainfall</i>
01/01/2002	23.87	(0.13)	16,538	32,803	16,538	0.00
01/02/2002	23.82	(0.18)	16,068	31,870	16,303	0.00
01/03/2002	23.74	(0.26)	15,340	30,426	15,982	0.00
01/04/2002	23.73	(0.27)	15,250	30,248	15,799	0.00
01/05/2002	23.71	(0.29)	15,070	29,891	15,653	0.15
01/06/2002	23.80	(0.20)	15,880	31,498	15,691	1.04
01/07/2002	23.78	(0.22)	15,700	31,140	15,692	0.00
01/08/2002	23.75	(0.25)	15,430	30,605	15,660	0.00
01/09/2002	23.70	(0.30)	14,980	29,712	15,584	0.00
01/10/2002	23.63	(0.37)	14,308	28,379	15,456	0.00
01/11/2002	23.60	(0.40)	14,120	28,007	15,335	0.00
01/12/2002	23.65	(0.35)	14,550	28,859	15,270	0.37
01/13/2002	23.69	(0.31)	14,894	29,542	15,241	0.00
01/14/2002	23.70	(0.30)	14,980	29,712	15,222	0.00
01/15/2002	23.70	(0.30)	14,980	29,712	15,206	0.00
01/16/2002	23.71	(0.29)	15,070	29,891	15,197	0.00
01/17/2002	23.67	(0.33)	14,722	29,201	15,169	0.00
01/18/2002	23.70	(0.30)	14,980	29,712	15,159	0.02
01/19/2002	23.71	(0.29)	15,070	29,891	15,154	0.12
01/20/2002	23.67	(0.33)	14,722	29,201	15,133	0.02
01/21/2002	23.69	(0.31)	14,894	29,542	15,121	0.00
01/22/2002	23.65	(0.35)	14,550	28,859	15,095	0.00
01/23/2002	23.69	(0.31)	14,894	29,542	15,087	0.30
01/24/2002	23.72	(0.28)	15,160	30,069	15,090	0.00
01/25/2002	23.71	(0.29)	15,070	29,891	15,089	0.25
01/26/2002	23.72	(0.28)	15,160	30,069	15,092	0.00
01/27/2002	23.67	(0.33)	14,722	29,201	15,078	0.00
01/28/2002	23.58	(0.42)	13,956	27,681	15,038	0.00
01/29/2002	23.40	(0.60)	12,720	25,230	14,958	0.00
01/30/2002	23.22	(0.78)	11,710	23,226	14,850	0.00
01/31/2002	23.05	(0.95)	10,810	21,441	14,719	0.00
Avg or Tot	23.66	(0.34)	14,719	905,051		2.27

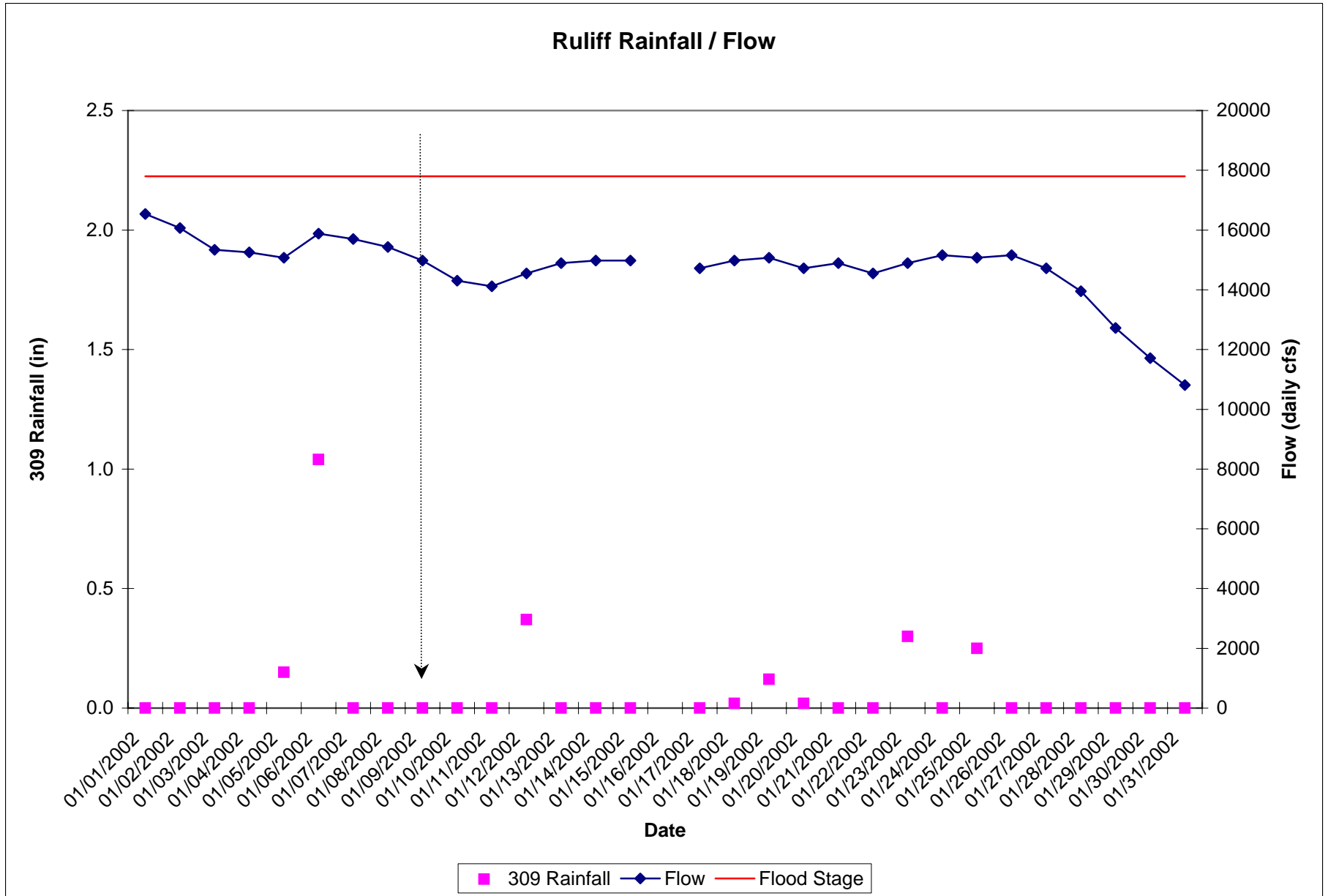
Units	Avg Feet	Avg Feet	Avg cfs	Tot ac ft	Tot Inches
-------	-------------	-------------	------------	--------------	---------------

FS: Flood Stage 24 feet with 10 foot datum

Lower Sabine Basin Sampled on 1/9/2002

SABINE RIVER AUTHORITY OF TEXAS

January 2002



Lower Sabine Basin sampled on 1/9/2002

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

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FY2002 Fixed Monitoring Stations

Tidal Sabine Basin

<i>SW</i>	<i>Segment</i>	<i>Station</i>	<i>Location</i>
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	10391 (SRT1)	SABINE RIVER AT CHANNEL CAN 3

SABINE RIVER AUTHORITY OF TEXAS

Tidal Report

January 2002

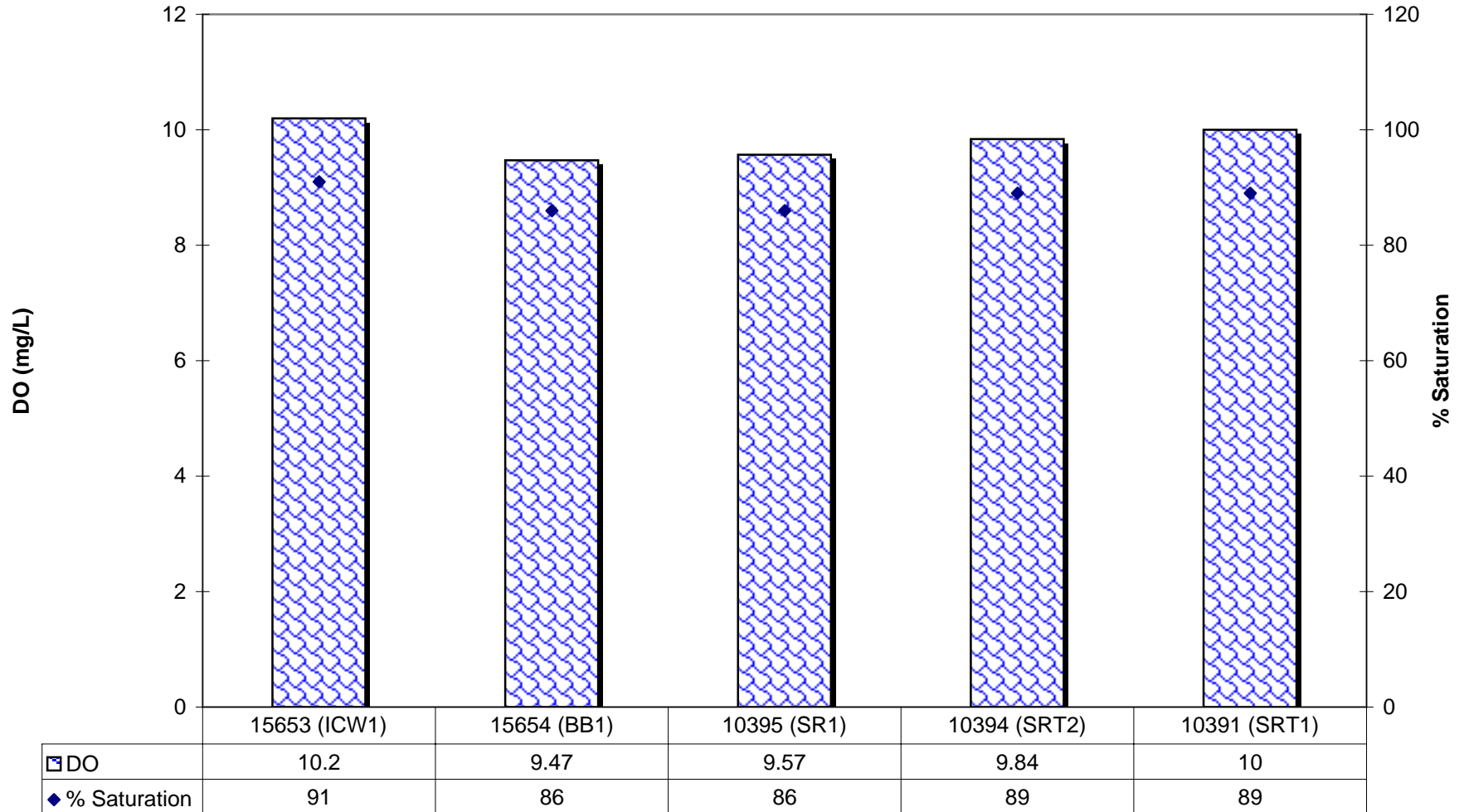
Date	SW ID	Station	Temperature °C 00010	pH Units 00400	DO mg/L 00300	% Saturation 00301	Conductivity µS/cm 00094	Salinity ppt 00480	Secchi Meters 00078	Turbidity NTU 82079	<i>E. coli</i> mpn/100ml 31699	<i>Enterococcus</i> mpn/100ml 31701	Chlorophyll a µg/L 32211	Nitrate & Nitrite 00630	Ortho- Phosphate 00671	TOC mg/L 00680	Total Alkalinity 00410	Total Hardness 00900	Chloride mg/L 00940	Sulfate mg/L 00945
1/10/02 9:55 AM	1.05	15653 (ICW1)	10.1	7.3	10.2	91	144	< 1	0.42	14.8	*	9	*	0.06	< 0.04	*	20	28	16	12
1/10/02 10:35 AM	1.01	15654 (BB1)	10.9	7.36	9.47	86	3044	2	0.22	31.2	*	5	*	*	< 0.04	*	40	300	86	374
1/10/02 9:05 AM	1.00	10395 (SR1)	10.7	7.03	9.57	86	123	*	0.29	18.4	59	*	*	0.07	< 0.04	*	20	28	< 10	13
1/10/02 9:30 AM	1.00	10394 (SRT2)	10.8	7.31	9.84	89	110	< 1	0.47	16.2	*	7	*	0.06	< 0.04	*	20	28	< 10	11
1/10/02 10:50 AM	1.00	10391 (SRT1)	10.2	7.29	10	89	345	< 1	0.45	13.5	*	10	*	0.06	< 0.04	*	20	48	78	20

*: Not sampled on this run

SABINE RIVER AUTHORITY OF TEXAS

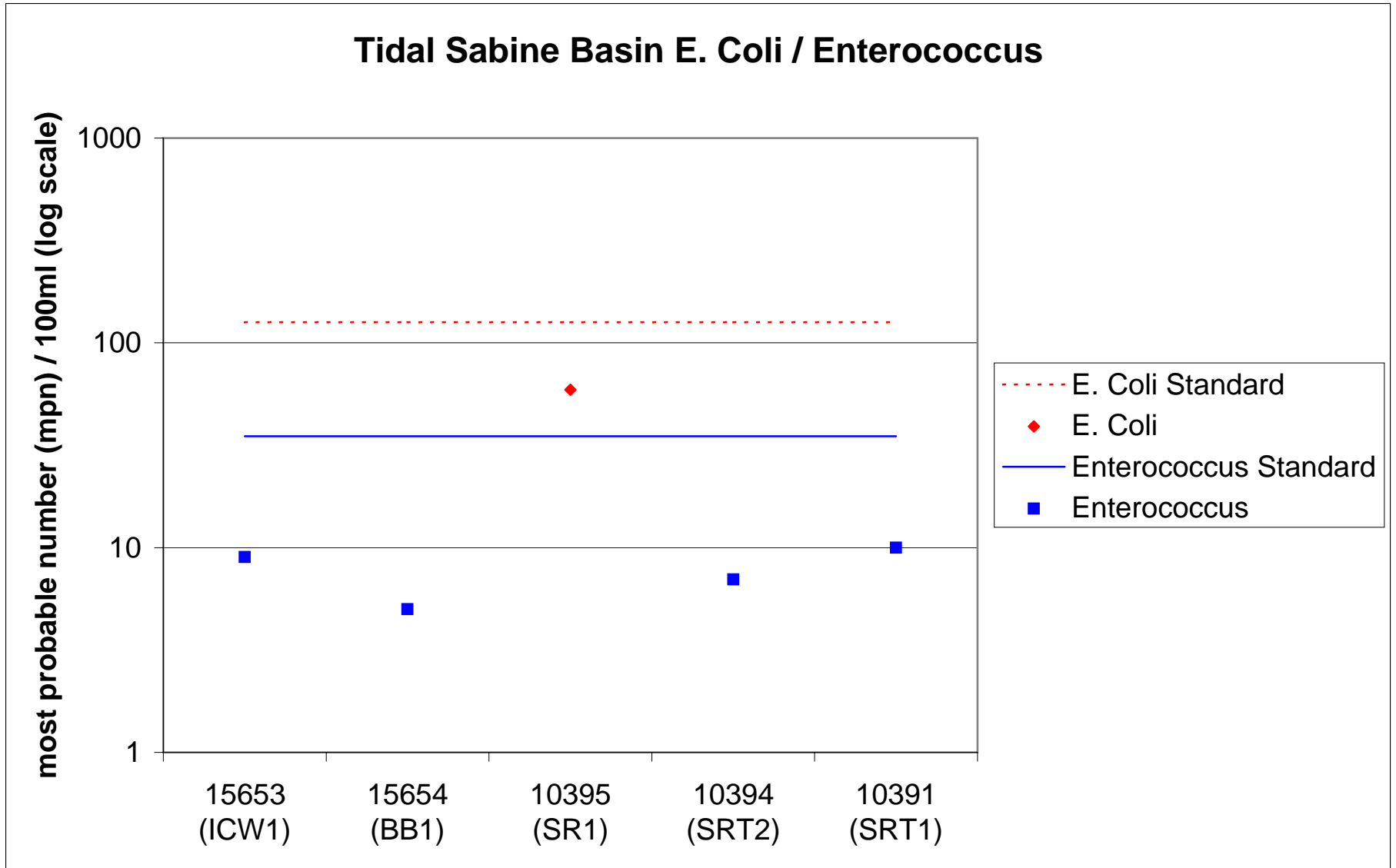
January 2002

Tidal Sabine Basin DO / % Saturation



SABINE RIVER AUTHORITY OF TEXAS

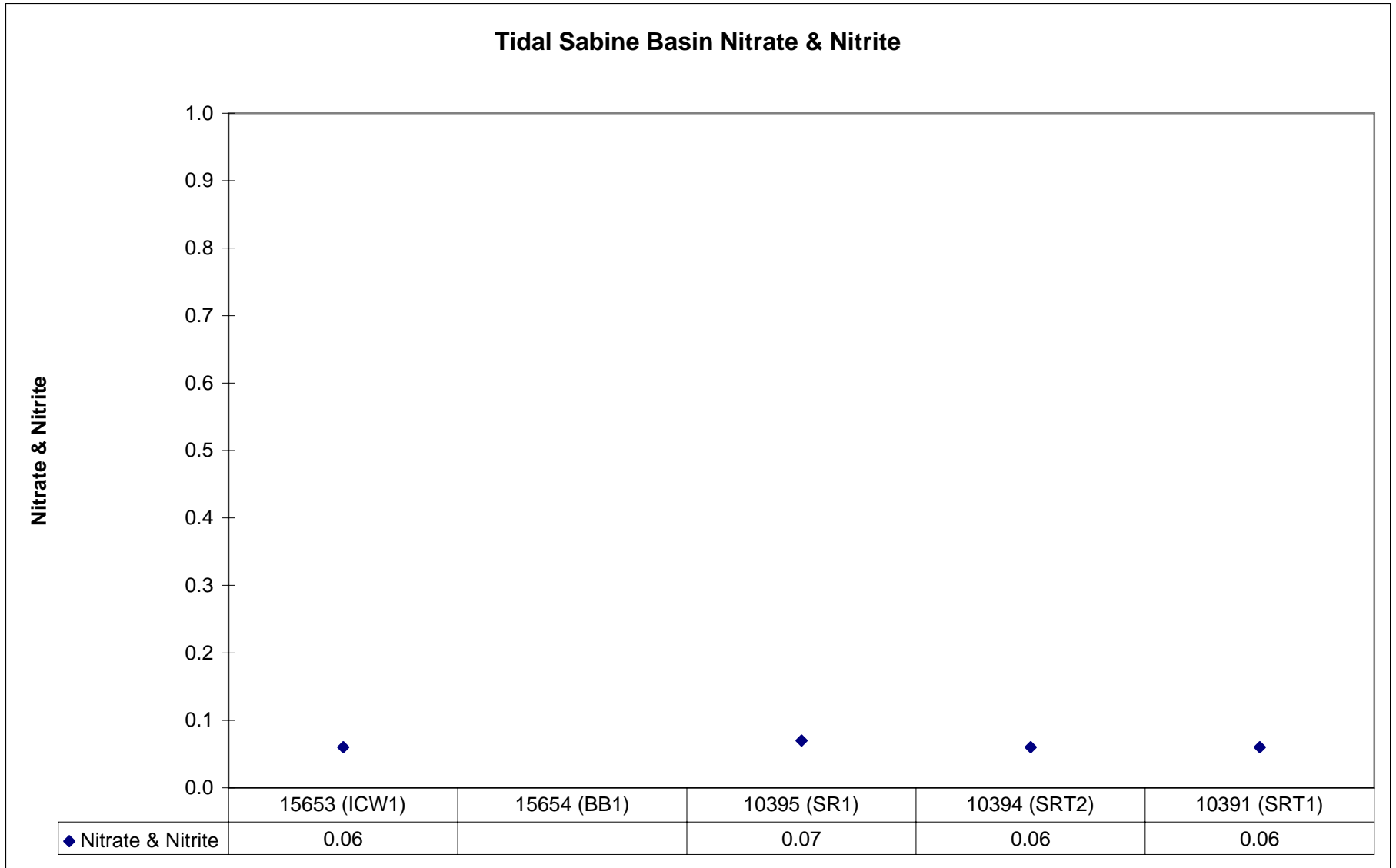
January 2002



Stations without values were below detection limit or not sampled on this run (see page 38).

SABINE RIVER AUTHORITY OF TEXAS

January 2002



All stations were below detection limit on this run (see page 38).

SABINE RIVER AUTHORITY OF TEXAS

Tidal Profiles

January 2002

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
1/10/02 9:55 AM	1.05	15653 (ICW1)	0.3	10.1	7.3	10.2	91	144	< 1
			5.7	10.1	7.12	10.1	89	137	< 1
1/10/02 10:35 AM	1.01	15654 (BB1)	0.3	10.9	7.36	9.47	86	3044	2
1/10/02 10:35 AM	1.01	15654 (BB1)	4.2	11.1	7.38	9.67	88	3170	2
1/10/02 9:30 AM	1.00	10394 (SRT2)	0.3	10.8	7.31	9.84	89	110	< 1
			10.1	10.8	7	9.83	88	113	< 1
1/10/02 10:50 AM	1.00	10391 (SRT1)	0.3	10.2	7.29	10	89	345	< 1
			5.3	10.1	7.1	9.84	88	412	< 1

SABINE RIVER AUTHORITY OF TEXAS

Orange Weather and River Data

January 2002

Date	310 (Orange) Rainfall	Gauge Height	GH - FS	Max Temp	Min Temp	Cur Temp	293 (GCD) Rainfall
01/01/2002	0.00	1.97	(2.03)	43	36	36	0.00
01/02/2002	0.00	1.89	(2.11)	43	36	35	0.00
01/03/2002	0.00	1.29	(2.71)	46	26	26	0.00
01/04/2002	0.00	1.41	(2.59)	44	24	24	0.00
01/05/2002	0.06	2.53	(1.47)	49	24	44	0.13
01/06/2002	1.15	1.74	(2.26)	55	40	41	1.38
01/07/2002	0.00	0.65	(3.35)	60	37	38	0.00
01/08/2002	0.00	1.47	(2.53)	53	30	32	0.00
01/09/2002	0.00	1.79	(2.21)	61	31	44	0.00
01/10/2002	0.00	1.94	(2.06)	73	43	61	0.00
01/11/2002	0.00	2.02	(1.98)	73	56	57	0.00
01/12/2002	0.41	2.06	(1.94)	62	48	49	0.40
01/13/2002	0.00	1.97	(2.03)	66	36	36	0.00
01/14/2002	0.00	2.59	(1.41)	63	36	49	0.00
01/15/2002	0.00	2.13	(1.87)	69	41	44	0.00
01/16/2002	0.00	2.45	(1.55)	64	38	41	0.00
01/17/2002	0.00	2.38	(1.62)	67	40	52	0.00
01/18/2002	0.00	2.22	(1.78)	74	52	55	0.01
01/19/2002	0.13	2.26	(1.74)	70	52	70	0.38
01/20/2002	0.54	1.71	(2.29)	71	37	37	0.10
01/21/2002	0.01	2.26	(1.74)	49	36	48	0.00
01/22/2002	0.00	2.03	(1.97)	71	48	55	0.00
01/23/2002	0.08	2.24	(1.76)	72	55	68	0.22
01/24/2002	0.01	2.31	(1.69)	76	67	68	0.00
01/25/2002	0.10	1.55	(2.45)	74	45	45	0.09
01/26/2002	0.00	1.94	(2.06)	60	39	41	0.00
01/27/2002	0.00	2.41	(1.59)	65	39	44	0.00
01/28/2002	0.00	2.82	(1.18)	74	42	62	0.00
01/29/2002	0.01	2.71	(1.29)	73	62	65	0.00
01/30/2002	0.01	2.73	(1.27)	80	65	67	0.00
01/31/2002	0.00	2.78	(1.22)	80	67	69	0.00
Avg or Tot	2.51	2.07	(1.93)	64	43	48	2.71

Units	Tot Inches	Avg Feet	Avg Feet	Avg Deg F	Avg Deg F	Avg Deg F	Tot Inches
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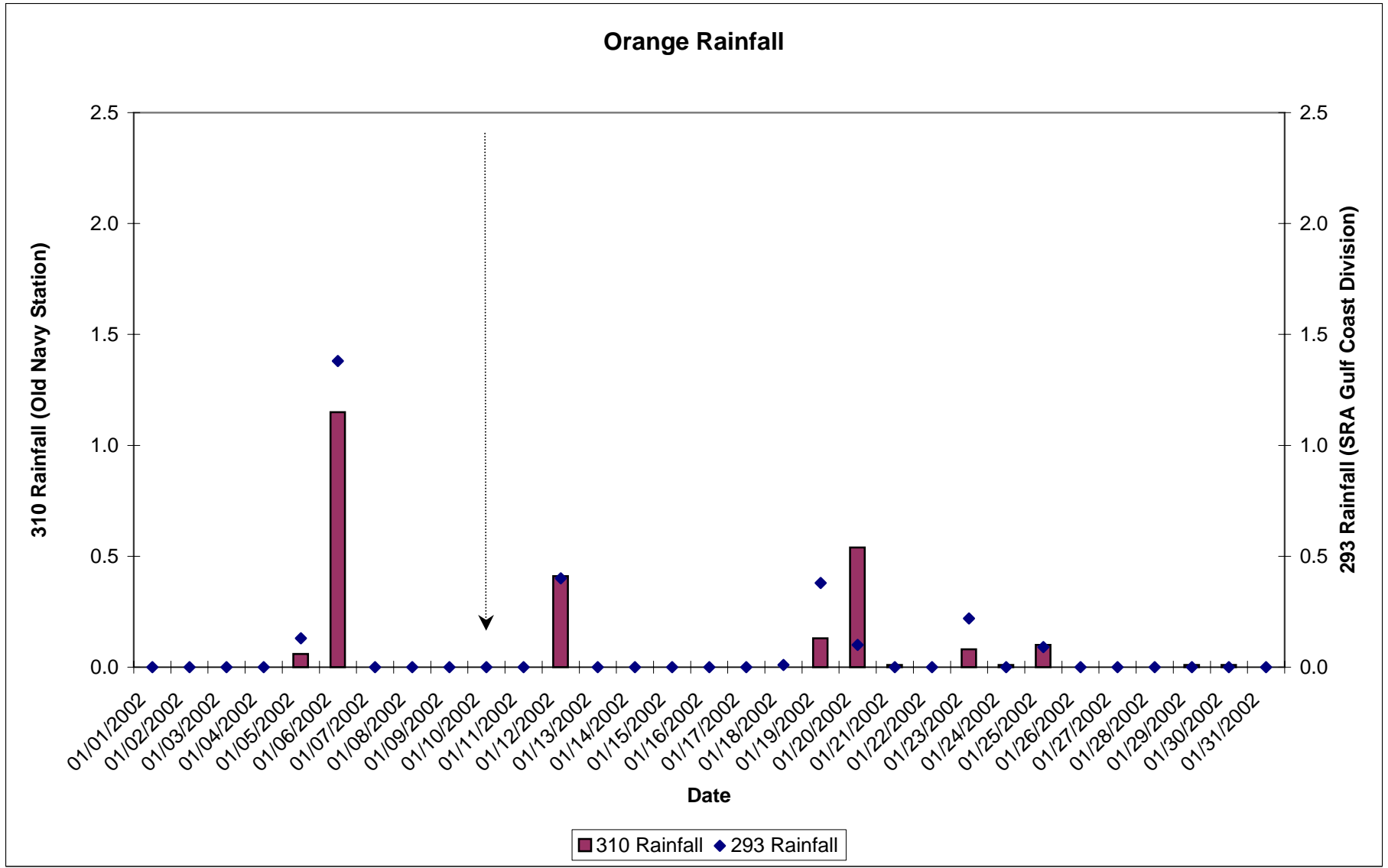
Appx. 8 am

310 Rainfall: Old Navy Base, City of Orange
 293: SRA Gulf Coast Division Office, Northern Orange County
 FS: Flood Stage = 4 Feet
 OUT: Gauge Out

Tidal Sabine Basin Sampled on 1/10/2002

SABINE RIVER AUTHORITY OF TEXAS

January 2002



Tidal Sabine Basin Sampled on 1/10/2002