

St. Joseph Bay-1 (Gulf County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 29°41'35", Longitude 85°19'14"

Period of record: 5 sampling dates; May 18, 2001 to September 15, 2001

Geologic formation (Brooks 1981a):

The geology is dominated by undifferentiated sand, shell, clay, marl, and peat of the Holocene

Physiographic region (Brooks 1981b):

The station lies in the Coastal Strip division of the Apalachicola Delta District

Periodic water chemistry data

Numbers reported below are the minimum, average, and maximum value for the 1 sampling date:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term color concentrations (Pt-Co units)	14	14	14
Long-term specific conductance (mmhos)	49	49	49

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 5 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	11	12	14
Long-term total nitrogen concentrations (µg/L)	450	604	730
Long-term total chlorophyll concentrations (µg/L)	1.0	1.8	3.0
Long-term Secchi depth (ft)	.	.	.

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 1 station for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

<u>Date</u>	<u>TP (µg/L)</u>	<u>TN (µg/L)</u>	<u>CHL (µg/L)</u>	<u>SECCHI (ft)</u>
May-18	12	450	2.0	.
Jun-19	11	660	2.0	.
Jul-20	14	730	3.0	.
Aug-31	13	560	1.0	.
Sep-15	12	620	1.0	.
2001 Average	12	604	1.8	.

St. Joseph Bay-2 (Gulf County) Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 29°43'22", Longitude 85°20'7"

Period of record: 6 sampling dates; May 15, 2001 to December 15, 2001

Geologic formation (Brooks 1981a):

The geology is dominated by undifferentiated sand, shell, clay, marl, and peat of the Holocene

Physiographic region (Brooks 1981b):

The station lies in the Coastal Strip division of the Apalachicola Delta District

Periodic water chemistry data

Numbers reported below are the minimum, average, and maximum value for the 3 sampling dates:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term color concentrations (Pt-Co units)	5	5	6
Long-term specific conductance (mmhos)	46	47	49

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 6 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	9	11	16
Long-term total nitrogen concentrations (µg/L)	100	192	310
Long-term total chlorophyll concentrations (µg/L)	1.0	1.7	3.0
Long-term Secchi depth (ft)	8.0	12.0	20.0

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 1 station for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

<u>Date</u>	<u>TP (µg/L)</u>	<u>TN (µg/L)</u>	<u>CHL (µg/L)</u>	<u>SECCHI (ft)</u>
May-15	10	100	2.0	.
Jun-21	12	150	1.0	10.5
Aug-22	16	310	3.0	8.5
Oct-19	9	200	1.0	8.0
Nov-12	9	200	1.0	20.0
Dec-15	9	190	2.0	13.0
2001 Average	11	192	1.7	12.0

St. Joseph Bay-3 (Gulf County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 29°41'59", Longitude 85°21'47"

Period of record: 6 sampling dates; May 15, 2001 to December 15, 2001

Geologic formation (Brooks 1981a):

The geology is dominated by undifferentiated sand, shell, clay, marl, and peat of the Holocene

Physiographic region (Brooks 1981b):

The station lies in the Coastal Strip division of the Apalachicola Delta District

Periodic water chemistry data

Numbers reported below are the minimum, average, and maximum value for the 3 sampling dates:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term color concentrations (Pt-Co units)	6	7	8
Long-term specific conductance (mmhos)	42	47	50

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 6 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	11	15	22
Long-term total nitrogen concentrations (µg/L)	220	253	310
Long-term total chlorophyll concentrations (µg/L)	1.0	2.5	4.0
Long-term Secchi depth (ft)	8.0	11.3	17.0

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 1 station for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

<u>Date</u>	<u>TP (µg/L)</u>	<u>TN (µg/L)</u>	<u>CHL (µg/L)</u>	<u>SECCHI (ft)</u>
May-15	22	220	4.0	11.0
Jun-21	12	260	3.0	9.0
Aug-22	17	310	3.0	8.0
Oct-19	14	260	2.0	17.0
Nov-12	11	240	1.0	.
Dec-15	11	230	2.0	.
2001 Average	15	253	2.5	11.3

St. Joseph Bay-4 (Gulf County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 29°46'21", Longitude 85°24'1"

Period of record: 2 sampling dates; September 20, 2001 to December 14, 2001

Geologic formation (Brooks 1981a):

The geology is dominated by undifferentiated sand, shell, clay, marl, and peat of the Holocene

Physiographic region (Brooks 1981b):

The station lies in the Coastal Strip division of the Apalachicola Delta District

Periodic water chemistry data

Numbers reported below are the minimum, average, and maximum value for the 1 sampling date:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term color concentrations (Pt-Co units)	5	5	5
Long-term specific conductance (mmhos)	30	30	30

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 2 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	11	13	15
Long-term total nitrogen concentrations (µg/L)	150	170	190
Long-term total chlorophyll concentrations (µg/L)	.	.	.
Long-term Secchi depth (ft)	.	.	.

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 1 station for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

<u>Date</u>	<u>TP (µg/L)</u>	<u>TN (µg/L)</u>	<u>CHL (µg/L)</u>	<u>SECCHI (ft)</u>
Sep-20	15	190	.	.
Dec-14	11	150	.	.
2001 Average	13	170	.	.

St. Joseph Bay-5 (Gulf County) Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 29°44'27", Longitude 85°22'58"

Period of record: 6 sampling dates; May 14, 2001 to December 11, 2001

Geologic formation (Brooks 1981a):

The geology is dominated by undifferentiated sand, shell, clay, marl, and peat of the Holocene

Physiographic region (Brooks 1981b):

The station lies in the Coastal Strip division of the Apalachicola Delta District

Periodic water chemistry data

Numbers reported below are the minimum, average, and maximum value for the 4 sampling dates:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term color concentrations (Pt-Co units)	3	5	7
Long-term specific conductance (mmhos)	33	39	47

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 6 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	8	11	16
Long-term total nitrogen concentrations (µg/L)	120	150	200
Long-term total chlorophyll concentrations (µg/L)	1.0	2.4	4.0
Long-term Secchi depth (ft)	.	.	.

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 1 station for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

<u>Date</u>	<u>TP (µg/L)</u>	<u>TN (µg/L)</u>	<u>CHL (µg/L)</u>	<u>SECCHI (ft)</u>
May-14	11	120	4.0	.
Jun-20	11	200	1.0	.
Jul-16	16	.	3.0	.
Sep-20	13	160	.	.
Nov-20	8	140	2.0	.
Dec-11	8	130	2.0	.
2001 Average	11	150	2.4	.

St. Joseph Bay-6 (Gulf County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 29°47'37", Longitude 85°18'23"

Period of record: 7 sampling dates; May 14, 2001 to December 11, 2001

Geologic formation (Brooks 1981a):

The geology is dominated by undifferentiated sand, shell, clay, marl, and peat of the Holocene

Physiographic region (Brooks 1981b):

The station lies in the Coastal Strip division of the Apalachicola Delta District

Periodic water chemistry data

Numbers reported below are the minimum, average, and maximum value for the 4 sampling dates:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term color concentrations (Pt-Co units)	3	7	10
Long-term specific conductance (mmhos)	27	38	44

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 7 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	8	17	26
Long-term total nitrogen concentrations (µg/L)	100	237	470
Long-term total chlorophyll concentrations (µg/L)	2.0	8.0	18.0
Long-term Secchi depth (ft)	3.5	3.5	3.5

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 1 station for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

<u>Date</u>	<u>TP (µg/L)</u>	<u>TN (µg/L)</u>	<u>CHL (µg/L)</u>	<u>SECCHI (ft)</u>
May-14	16	100	.	.
Jun-20	17	270	.	.
Jul-16	24	.	18.0	.
Aug-17	16	470	.	.
Sep-20	26	310	.	3.5
Nov-20	8	100	2.0	.
Dec-11	15	170	4.0	.
2001 Average	17	237	8.0	3.5

St. Joseph Bay-7 (Gulf County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 29°44'37", Longitude 85°19'39"

Period of record: 6 sampling dates; May 15, 2001 to December 15, 2001

Geologic formation (Brooks 1981a):

The geology is dominated by undifferentiated sand, shell, clay, marl, and peat of the Holocene

Physiographic region (Brooks 1981b):

The station lies in the Coastal Strip division of the Apalachicola Delta District

Periodic water chemistry data

Numbers reported below are the minimum, average, and maximum value for the 3 sampling dates:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term color concentrations (Pt-Co units)	5	6	7
Long-term specific conductance (mmhos)	45	46	49

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 6 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	12	15	21
Long-term total nitrogen concentrations (µg/L)	180	222	260
Long-term total chlorophyll concentrations (µg/L)	2.0	3.0	5.0
Long-term Secchi depth (ft)	5.5	8.3	11.3

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 1 station for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

<u>Date</u>	<u>TP (µg/L)</u>	<u>TN (µg/L)</u>	<u>CHL (µg/L)</u>	<u>SECCHI (ft)</u>
May-15	15	180	.	6.5
Jun-21	12	220	2.0	11.3
Aug-22	21	260	.	8.0
Oct-19	19	250	.	5.5
Nov-12	13	200	2.0	11.0
Dec-15	12	220	5.0	7.5
2001 Average	15	222	3.0	8.3

Wimico (Gulf County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 29°48'16", Longitude 85°16'19"

Period of record: 7 sampling dates; May 17, 2001 to December 15, 2001

Surface Area (Shafer et al. 1986): 4055 acres

Lake Region (Griffith et al. 1997): Gulf Coast Lowlands (75-01)

Geologic formation (Brooks 1981a):

The geology is dominated by undifferentiated sand, shell, clay, marl, and peat of the Holocene

Physiographic region (Brooks 1981b):

The lake lies in the Coastal Strip division of the Apalachicola Delta District

Supplemental water chemistry data

Data reported are means from 3 sampling dates:

pH	6.6	Total alkalinity (mg/L as CaCO ₃)	21.3
Conductance (µS/cm @ 25 °C)	126	Color (Pt-Co units)	113
Chloride (mg/L)	28.3	Silicon (mg/L)	5.1
Sulfate (mg/L)	8.4	Calcium (mg/L)	8.0
Magnesium (mg/L)	10.2	Sodium (mg/L)	16.4
Potassium (mg/L)	1.2	Iron (mg/L)	0.9

Periodic water chemistry data

Numbers reported below are the minimum, average, and maximum value for the 1 sampling date:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term color concentrations (Pt-Co units)	36	36	36

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 7 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	17	25	39
Long-term total nitrogen concentrations (µg/L)	290	524	900
Long-term total chlorophyll concentrations (µg/L)	3.0	8.7	15.3
Long-term Secchi depth (ft)	1.4	3.7	5.5

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 3 stations for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

<u>Date</u>	<u>TP (µg/L)</u>	<u>TN (µg/L)</u>	<u>CHL (µg/L)</u>	<u>SECCHI (ft)</u>
May-17	22	560	3.0	5.0
Jun-17	31	550	15.3	3.1
Jul-19	22	377	6.3	3.9
Aug-19	39	900	12.3	1.4
Sep-18	21	530	11.3	3.4
Nov-18	24	290	7.3	3.8
Dec-15	17	463	5.3	5.5
2001 Average	25	524	8.7	3.7