

Our ref: 11225022-05

November 28, 2022

Mr. Bruce Bernard
Calvin, Giordano & Associates, Inc.
1800 Eller Drive, Suite 600
Fort Lauderdale, FL, 33316

Treviso Bay Water Quality Sampling Report – October 2022

Dear Mr. Bernard

GHD Services Inc. (GHD) is pleased to present the results of our water quality sampling services for Lakes 4, 5, 12, 14, 22, and 32 – Treviso Bay.

1. Water Quality Sampling – October 2022

The October 2022 sampling event consisted of the collection of six (6) surface water samples, one each from six (6) different lakes within the Treviso Bay residential community as identified on **Figure 1**.

Samples were collected using direct-dip methods from lakes 4, 5, 12, 14, 22, and 32 at locations with a minimum water depth of three (3) feet to minimize disturbance of sediments. Where applicable, samples were collected near the outfall structure/weir, particularly if there is flow over the weir. If the water depth is too shallow near the outfall structure/weir, samples are collected using a long-reach sampling pole from the bank of the lake. See **Figure 1** for locations of outfall structures/weirs. Of note, there is no visible outfall structure/weir in Lake 5.

Conductivity, dissolved oxygen, pH, and temperature were measured in the field with a calibrated YSI Pro Plus multi-parameter water quality meter. Turbidity and total water depth were also measured at each location. Surface Water Field Sheets are attached. Field data is summarized in the Table in the **Laboratory Data Compliance Memo**.

The collected samples are capped, labelled, packed on ice, and transported to Benchmark EnviroAnalytical, Inc., in North Port, Florida. Benchmark EnviroAnalytical, Inc. is certified by the State of Florida and NELAP (National Environmental Laboratory Accreditation Conference). Laboratory analyses are conducted for 5-Day Biochemical Oxygen Demand (BOD5), Total Suspended Solids (TSS), Total Nitrogen, nitrogen speciation (ammonia, TKN, and nitrate + nitrite), Total Phosphorus, Ortho Phosphorus (Field Filtered) and Chlorophyll-a.

All samples collected during the October 2022 sampling event were prepared and analyzed within the method required holding times. The laboratory data have been reviewed with respect to authenticity, precision, limits of detection, and accuracy of the data. The laboratory analytical results are summarized in the attached **Laboratory Data Compliance Memo**. The laboratory report is also attached.

Trend graphs have been prepared for each monitor location for laboratory analytical results and select field measurements.

2. Analytical Summary

The October 2022 sampling event represents the ninth sampling event for the select six (6) lakes in Treviso Bay.

Biological oxygen demand (BOD) results are all within historical ranges for these lakes, with a downward trend noted on Lake 5 over the last 4 sampling events.

The dissolved oxygen readings at the monitoring locations fluctuate throughout the year as anticipated given the temperature of the water and biological activity. In general, the dissolved oxygen remains above the action level for dissolved oxygen percent (%) of a minimum of 38%. All dissolved oxygen readings for this sampling event were above 38% and were within historical ranges.

Total nitrogen at all Lakes remained relatively stable for this sampling event. An apparent downward trend is noted at Lakes 5 and 12 over the last 3 sampling events.

Chlorophyll- α increased at Lakes 12 and 14 while the remaining lakes slightly decreased. All results are still within historical ranges.

Total kjeldahl nitrogen (TKN) slightly decreased to stable at all Lakes during this event but remained within historical ranges.

All other results remained relatively stable during this sampling event.

A Trophic State Index calculation (defined by FAC 62-303.200 and the Water Quality Assessment for the State of Florida 305(b) Report) was used to help classify the quality of water based on each water body's Chlorophyll a, Total Phosphorous and Total Nitrogen concentration. A ratio of Total Nitrogen to Total Phosphorus was calculated for each water body to determine general conditions. For this sample event, the breakdown of the sample locations is:

- Nutrient Balanced ($10 < \text{TN}/\text{TP} < 30$) – Lakes 4, 12, 14, and 22
- Phosphorus Limited ($\text{TN}/\text{TP} < 10$) – Lake 5
- Nitrogen Limited ($\text{TN}/\text{TP} > 30$) – Lake 32

A TSI value was calculated based on the TN/TP ratio for each location. A TSI of 0-59 is “good”, a value of 60-69 is “fair”, and a value of 70+ is “poor”. Based on the results of this sampling event, each sampling location's calculated TSI value is:

Lake 4	Lake 5	Lake 12	Lake 14	Lake 22	Lake 32
41.0	35.8	52.3	54.4	37.0	37.5

3. Annual Review

Throughout the samplings events conducted in 2022, water quality conditions have remained relatively stable throughout the year, with notable trends highlighted below. Considering the climate of the Site, typically water quality is expected to dilute in the warmer, wetter months, and concentrate in the drier, cooler months.

The parameters measured during the sampling events in February, June and October showed stable conditions at most Lakes for BOD, TSS, DO, Total Phosphorus, TSS, Orthophosphate, Total kjeldahl nitrogen, Turbidity, Conductivity, Water Depth and Temperature.

A notable downward trend was seen over the last 3 sampling events for BOD at Lake 5, dissolved oxygen at Lake 14, and total nitrogen/TKN at Lakes 5 and 12.

Additionally, a notable upward trend was seen over the last 3 sampling events for dissolved oxygen at Lake 12.

4. Conclusions and Recommendations

It appears water quality conditions have remained relatively stable between June 2022 and October 2022.

Most lakes during this sampling event were in Nutrient Balanced conditions, save Lake 5 which was Phosphorus limited and Lake 32 which was Nitrogen limited. When in combination with the levels of chlorophyll α , there do not appear to be any water quality concerns at this time.

The next tri-annual sampling event is planned for February 2023.

Please call if you have questions or need additional information.

Regards



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Encl: Attachments: Laboratory Data Compliance Memo
Figure
Trend Graphs
Laboratory Analytical Reports
Surface Water Field Sheets

Laboratory Data Compliance Memo



Technical Memorandum

November 23, 2022

To	Mr. Bruce Bernard Manager of Field Operations Calvin, Giordano & Associates, Inc. 1800 Eller Drive, Suite 600 Fort Lauderdale, FL 33316	Tel	716.205.1977
From	Sheri Finn/eew/15	Ref. No.	11225022
Subject	Analytical Results Compliance Report Surface Water Quality Monitoring Treviso Bay Naples, Florida October 2022		

1. Compliance Review

Samples were collected in October 2022 in support of the Treviso Bay Surface Water Quality Monitoring sampling. The analytical results are summarized in Table 1. All samples were prepared and analyzed within the method required holding times. The method blank results were non-detect. All reported laboratory control sample (LCS) analyses demonstrated acceptable accuracy. Laboratory duplicate analyses were performed for some analytes. All results were acceptable, indicating good analytical precision. The matrix spike (MS) results were evaluated per the laboratory limits. The MS analyses performed were acceptable, demonstrating good analytical accuracy.

Based on this compliance review, the results in Table 1 are acceptable for use.

Regards

Sheri Finn
Analyst

Table 1

**Analytical Results Summary
Surface Water Quality Monitoring
Treviso Bay, Naples, Florida
October 2022**

Sample Location/Sample ID:		Lake 4								
Sample Date:		2/17/2020	6/4/2020	10/22/2020	03/04/2021	06/30/2021	10/27/2021	2/16/2022	06/09/2022	10/11/2022
Field Parameters	Units									
Total Water Depth	Feet	3	2.7	2.34	1.2	1.80	3.5	NM	NM	NM
Sample Depth	Feet	1.5	1.5	1.5	0.5	1	1.5	1.5	outfall	outfall
Conductivity, field	umhos/cm	908	1129	514	666	755	646	634	563	448
Dissolved oxygen (DO), field	mg/L	6.07	4.36	2.78	3.50	3.82	3.99	4.65	4.07	6.30
Dissolved oxygen (DO), field	%	70.6	56.4	34.7	41.7	49.3	50.6	50.8	54.3	80.1
pH, field	s.u.	7.27	8.4	7.79	8.04	7.9	7.59	7.65	8.04	7.27
Temperature, field	Deg C	22.68	29.1	26.8	24.3	28.6	27.5	19.5	30.4	27.7
Turbidity, field	NTU	1.02	2.33	1.84	2.70	2.91	1.24	1.76	0.54	0.50
Secchi Disk	Depth									
Wet Parameters	Units									
Ammonia-N	mg/L	0.010 I	0.008 U	0.181	0.008 U	0.084	0.083	0.008 U	0.062	0.038
TAN criteria calculation	mg/L	1.39	0.23	NS	NS	NS	NS	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.651	0.812	1.19	0.870	0.431	0.668	0.588	0.776	0.495
Total nitrogen	mg/L	0.770	0.818	1.23	0.05 U	0.451	0.754	0.695	0.776	0.541
Nitrite/Nitrate	mg/L	0.119	0.006 I	0.043	0.130	0.020 I	0.086	0.107	0.006 U	0.046
Ortho phosphorus (Field Filtered)	mg/L	0.039	0.043	0.026	0.008	0.020	0.004 I	0.006 I	0.008	0.013
Total phosphorus	mg/L	0.046	0.045	0.024 I	0.084	0.022 I	0.015 I	0.024 I	0.058	0.041
Chlorophyll	mg/m3	4.58	10.4	4.87	18.4	7.73	3.57	2.04	5.13	3.78
Total suspended solids (TSS)	mg/L	1.75 I	3.00	2.20 I	0.570 U	1.93 I	0.667 I	1.33 I	3.00	0.570 U
Biochemical oxygen demand (total BOD5)	mg/L	1 U	1.0 U	1 U	1.08 I	1 U	1 U	1.77 I	1 U	1.62 I

Sample Location/Sample ID:		Lake 14								
Sample Date:		2/17/2020	6/4/2020	10/22/2020	03/04/2021	6/30/2021	10/27/2021	2/16/2022	06/09/2022	10/11/2022
Field Parameters	Units									
Total Water Depth	Feet	2.5	2.41	2.81	2.2	1.83	2.3	NM	NM	NM
Sample Depth	Feet	1.5	1.5	1.5	1.5	1	1.5	1.5	outfall	1.5
Conductivity, field	umhos/cm	14.67	2066	999	967	1223	1119	1032	1041	1384
Dissolved oxygen (DO), field	mg/L	5.79	4.36	5.45	4.13	4.31	4.92	6.89	5.67	3.74
Dissolved oxygen (DO), field	%	66.7	57.6	67.8	48.8	54.1	63.7	74.9	74.2	47.7
pH, field	s.u.	7.71	8.33	8.44	8.55	8.28	8.43	8.49	8.53	7.97
Temperature, field	Deg C	22.04	29.6	26.4	23.7	28.6	28.2	19.4	30.7	27.7
Turbidity, field	NTU	2.07	7.06	3.44	2.83	2.60	3.80	9.41	2.04	2.77
Secchi Disk	Depth									
Wet Parameters	Units									
Ammonia-N	mg/L	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.041	0.008 U	0.063	0.019 I
TAN criteria calculation	mg/L	0.99	0.25	NS	NS	NS	NS	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.816	0.926	1.35	0.908	0.750	0.738	1.17	1.24	0.756
Total nitrogen	mg/L	0.816	0.926	1.35	0.908	0.750	0.738	1.17	1.24	0.766
Nitrite/Nitrate	mg/L	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.010 I
Ortho phosphorus (Field Filtered)	mg/L	0.007 I	0.031	0.004 I	0.002 U	0.002 U	0.007 I	0.002 U	0.003 I	0.009
Total phosphorus	mg/L	0.029 I	0.044	0.025 I	0.020 I	0.008 U	0.011 I	0.035	0.041	0.038
Chlorophyll	mg/m3	8.51	10.3	11.7	5.95	16.0	20.0	9.84	10.2	19.7
Total suspended solids (TSS)	mg/L	4.50	3.75	7.50	4.40	3.60	6.00	7.00	5.33	6.40
Biochemical oxygen demand (total BOD5)	mg/L	1.55 I	1.0 U	2.32 I	1.59 I	1.03 I	1.61 I	1 U	1.81 I	1.69 I

Table 1

Analytical Results Summary
 Surface Water Quality Monitoring
 Treviso Bay, Naples, Florida
 October 2022

Sample Location/Sample ID:		Lake 5								
Sample Date:		2/17/2020	6/4/2020	10/22/2020	03/04/2021	6/30/2021	10/27/2021	2/16/2022	06/09/2022	10/11/2022
Field Parameters	Units									
Total Water Depth	Feet	7	7.5	7.50	6.2	NM	NM	NM	NM	NM
Sample Depth	Feet	1.5	1.5	1.5	1.5	surface	1.5	1.5	1.5	1.5
Conductivity, field	umhos/cm	405	630	561	284	389	308	310	311	335
Dissolved oxygen (DO), field	mg/L	9.25	4.46	6.72	5.60	4.48	5.60	8.67	5.07	5.30
Dissolved oxygen (DO), field	%	107.9	59.3	83.9	67.5	59.4	72.5	96.5	68.1	67.0
pH, field	s.u.	7.61	7.78	8.61	8.71	8.26	8.62	8.49	8.37	6.80
Temperature, field	Deg C	22.95	30.1	27.2	25.1	30.2	28.8	20.7	30.8	27.6
Turbidity, field	NTU	1.36	2.45	3.54	6.43	1.94	4.53	5.34	--	0.90
Secchi Disk	Depth									
Wet Parameters	Units									
Ammonia-N	mg/L	0.008 U	0.009 I	0.030 I	0.008 U	0.053	0.085	0.008 U	0.073	0.032
TAN criteria calculation	mg/L	1.04	0.54	NS	NS	NS	NS	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.654	0.750	1.04	0.828	0.638	0.910	1.41	0.954	0.462
Total nitrogen	mg/L	0.654	0.750	1.04	0.828	0.638	0.976	1.41	0.954	0.501
Nitrite/Nitrate	mg/L	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.066	0.006 U	0.006 U	0.039
Ortho phosphorus (Field Filtered)	mg/L	0.024	0.053	0.026	0.007 I	0.002 U	0.020	0.005 I	0.007 I	0.006 I
Total phosphorus	mg/L	0.044	0.063	0.027 I	0.014 I	0.008 U	0.046	0.009 I	0.033	0.096
Chlorophyll	mg/m3	6.71	8.71	9.27	6.17	9.17	29.3	14.2	6.80	2.03
Total suspended solids (TSS)	mg/L	5.00	2.25 I	6.20	4.80	1.00 I	6.67	9.67	1.67 I	0.570 U
Biochemical oxygen demand (total BOD5)	mg/L	1.11 I	1.0 U	1.49 I	1.11 I	1 U	1.97 I	1.75 I	1.17 I	1 U
Sample Location/Sample ID:		Lake 22								
Sample Date:		2/17/2020	6/4/2020	10/22/2020	03/04/2021	6/30/2021	10/27/2021	2/16/2022	06/09/2022	10/11/2022
Field Parameters	Units									
Total Water Depth	Feet	3	2.27	2.74	2.6	3.58	3.5	NM	NM	NM
Sample Depth	Feet	1.5	surface	overflow	1.5	1.5	1.5	1.5	1.5	1.5
Conductivity, field	umhos/cm	656	1057	453	450	978	462	449	475	766
Dissolved oxygen (DO), field	mg/L	8.62	5.96	4.20	5.14	3.83	8.24	6.25	6.06	4.76
Dissolved oxygen (DO), field	%	99.6	52.6	54.0	61.0	45.7	105.8	68.9	80.2	61.0
pH, field	s.u.	7.73	8.28	8.27	8.76	7.98	8.50	8.38	8.10	8.03
Temperature, field	Deg C	22.42	29.9	26.8	24.4	28.1	28.3	20.0	30.0	28.1
Turbidity, field	NTU	1.17	1.06	1.52	1.38	2.21	1.75	1.77	0.81	1.04
Secchi Disk	Depth									
Wet Parameters	Units									
Ammonia-N	mg/L	0.008 U	0.008 U	0.026 I	0.008 U	0.008 U	0.036	0.008 U	0.066	0.019 I
TAN criteria calculation	mg/L	0.94	0.27	NS	NS	NS	NS	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.648	1.05	1.23	0.807	0.678	0.499	0.689	0.952	0.578
Total nitrogen	mg/L	0.648	1.05	1.23	0.807	0.678	0.499	0.689	0.952	0.601
Nitrite/Nitrate	mg/L	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.023 I
Ortho phosphorus (Field Filtered)	mg/L	0.005 I	0.019	0.007 I	0.002 U	0.002 U	0.002 I	0.002 U	0.004 I	0.005 I
Total phosphorus	mg/L	0.024 I	0.027 I	0.030 I	0.008 U	0.008 U	0.021 I	0.028 I	0.023 I	0.023 I
Chlorophyll	mg/m3	4.31	5.00	6.48	2.34	4.06	3.35	1.81	4.19	2.76
Total suspended solids (TSS)	mg/L	1.00 I	3.00	2.25 I	1.60 I	0.570 U	1.67 I	0.570 U	1.41 I	1.20 I
Biochemical oxygen demand (total BOD5)	mg/L	1 U	3.00	1.00	1 U	1 U	1 U	1.29 I	1 U	1 U

Table 1

**Analytical Results Summary
Surface Water Quality Monitoring
Treviso Bay, Naples, Florida
October 2022**

Sample Location/Sample ID:		Lake 12								
Sample Date:		2/17/2020	6/4/2020	10/22/2020	03/04/2021	6/30/2021	10/27/2021	2/16/2022	06/09/2022	10/11/2022
Field Parameters	Units									
Total Water Depth	Feet	1	1.95	2.30	2	2.24	2	NM	NM	NM
Sample Depth	Feet	overflow	surface	overflow	1.5	1.5	1.5	1.5	outfall	1.5
Conductivity, field	umhos/cm	959	1382	658	583	817	777	713	769	974
Dissolved oxygen (DO), field	mg/L	10.03	5.25	2.69	5.69	8.65	2.84	4.22	1.72	6.77
Dissolved oxygen (DO), field	%	116.7	69.0	33.1	66.2	40.9	35.5	45.5	61.7	87.5
pH, field	s.u.	7.54	8.31	7.74	8.63	8.65	7.58	7.90	7.97	7.92
Temperature, field	Deg C	22.43	29.2	25.8	23.1	28.1	26.9	19.1	30.4	27.9
Turbidity, field	NTU	1.75	1.46	0.58	5.48	1.32	1.66	8.64	1.86	2.97
Secchi Disk	Depth									
Wet Parameters	Units									
Ammonia-N	mg/L	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.032	0.008 U	0.078	0.073
TAN criteria calculation	mg/L	1.15	0.26	NS	NS	NS	NS	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.708	0.710	0.927	1.85	0.570	0.446	1.68	1.05	0.802
Total nitrogen	mg/L	0.708	0.710	0.927	1.86	0.570	0.446	1.68	1.05	0.838
Nitrite/Nitrate	mg/L	0.006 U	0.006 U	0.006 U	0.008 I	0.006 U	0.006 U	0.006 U	0.006 U	0.036
Ortho phosphorus (Field Filtered)	mg/L	0.012	0.034	0.005 I	0.002 I	0.002 U	0.002 I	0.002 I	0.016	0.018
Total phosphorus	mg/L	0.020 I	0.040	0.011 I	0.047	0.008 U	0.019 I	0.020 I	0.061	0.038
Chlorophyll	mg/m3	5.55	5.55	2.19	34.9	10.3	5.44	19.9	5.43	13.7
Total suspended solids (TSS)	mg/L	1.25 I	1.50 I	0.769 I	124	0.570 U	1.00 I	42.7	4.33	6.00
Biochemical oxygen demand (total BOD5)	mg/L	1 U	1.0 U	1 U	4.07	1 U	1 U	1.62 I	1.01 I	1.05 I

Sample Location/Sample ID:		Lake 32								
Sample Date:		2/17/2020	6/4/2020	10/22/2020	03/04/2021	6/30/2021	10/27/2021	2/16/2022	06/09/2022	10/11/2022
Field Parameters	Units									
Total Water Depth	Feet	3	3.28	3.87	2.3	2.98	1.9	NM	NM	NM
Sample Depth	Feet	1.5	1.5	1.5	1.5	1.5	1	1.5	1.5	1.5
Conductivity, field	umhos/cm	426	680	298	296	508	298	289	324	391
Dissolved oxygen (DO), field	mg/L	8.4	4.27	6.44	5.08	5.71	5.54	6.25	1.37	5.55
Dissolved oxygen (DO), field	%	99.5	56.3	80.3	61.0	71.8	71.8	69.6	18.1	71.3
pH, field	s.u.	8.15	8.15	8.16	8.49	8.27	8.72	8.28	7.24	7.82
Temperature, field	Deg C	23.8	29.7	27.0	24.7	29.1	28.7	20.5	29.8	28.4
Turbidity, field	NTU	0.47	2.75	3.31	9.56	3.28	3.18	1.62	1.71	0.54
Secchi Disk	Depth									
Wet Parameters	Units									
Ammonia-N	mg/L	0.008 U	0.008 U	0.045	0.008 U	0.008 U	0.028 I	0.008 U	0.094	0.017 I
TAN criteria calculation	mg/L	0.49	0.33	NS	NS	NS	NS	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.483	0.897	1.65	0.791	0.639	0.05 U	0.514	0.872	0.573
Total nitrogen	mg/L	0.483	0.897	1.67	0.791	0.639	0.05 U	0.514	0.872	0.813
Nitrite/Nitrate	mg/L	0.006 U	0.006 U	0.018 I	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.240
Ortho phosphorus (Field Filtered)	mg/L	0.018	0.035	0.008	0.002 I	0.002 U	0.008	0.002 U	0.007 I	0.008
Total phosphorus	mg/L	0.022 I	0.058	0.041	0.010 I	0.013 I	0.014 I	0.027 I	0.044	0.016 I
Chlorophyll	mg/m3	2.00	7.08	7.29	3.73	11.8	16.1	2.54	7.42	3.26
Total suspended solids (TSS)	mg/L	0.750 I	5.25	4.00	1.20 I	3.40	3.67	2.67	3.67	0.570 U
Biochemical oxygen demand (total BOD5)	mg/L	1 U	1.0 U	1.25 I	1 U	1 U	1.23 I	1 U	1.32 I	1 U

Notes:

- U - Not detected at the associated reporting limit
- I - Reported value is between method detection limit and the practical quantitation limit
- NS - Not sampled during noted event
- * - D- DO values at or above 100% are possible super-saturation conditions due to high water temperatures and/or high volume of algae.
- NM - Not Measured

Figures



NOTE: LAKE 5 DOES NOT HAVE AN ABOVE WATER LEVEL OUTFALL STRUCTURE/WEIR.



WATER QUALITY SAMPLING REPORT
LAKES 4, 5, 12, 14, 22, AND 32 - TREVISO BAY
NAPLES, COLLIER COUNTY, FLORIDA

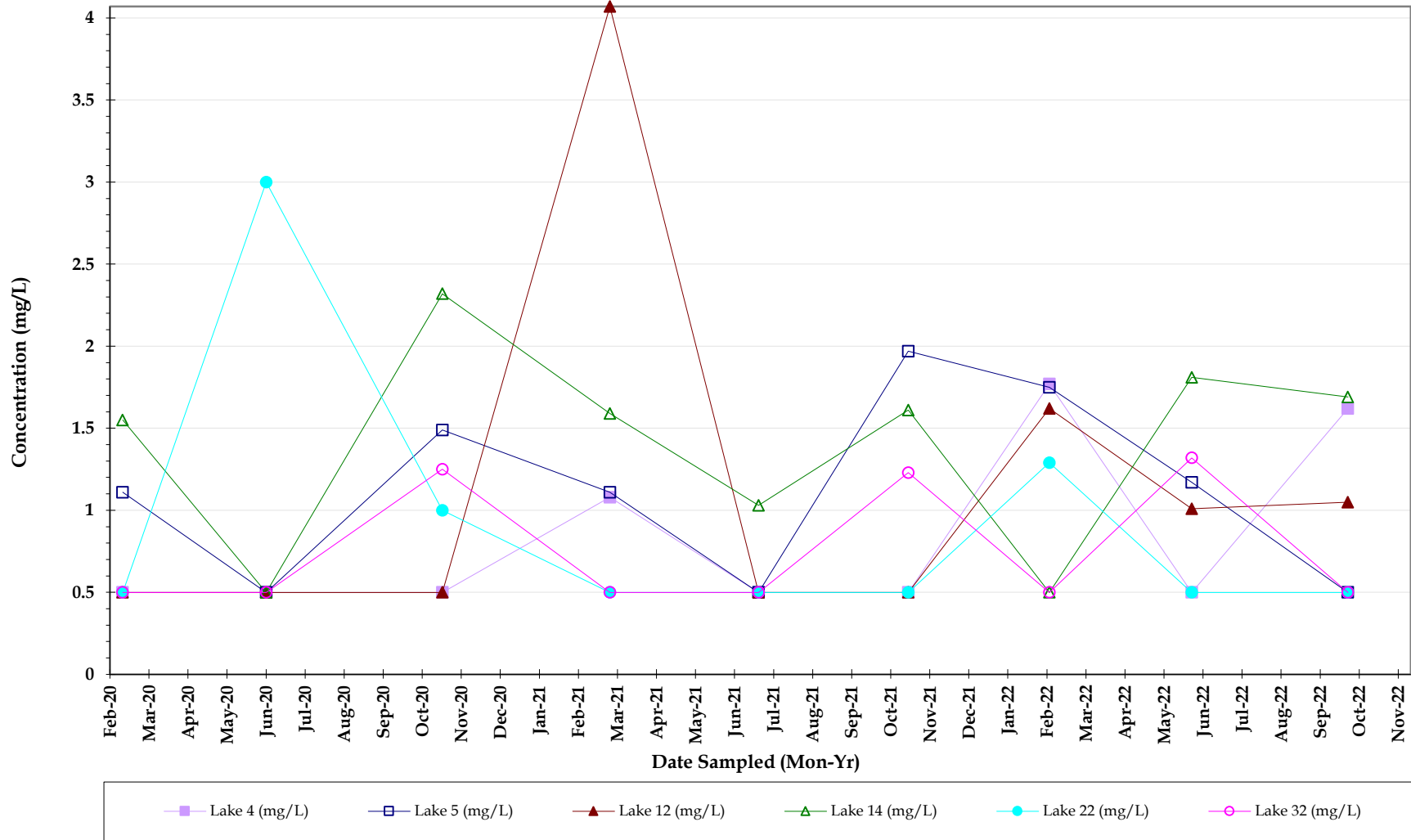
11225022-01

30-June-21

SAMPLE LOCATION MAP

FIGURE NO. 1

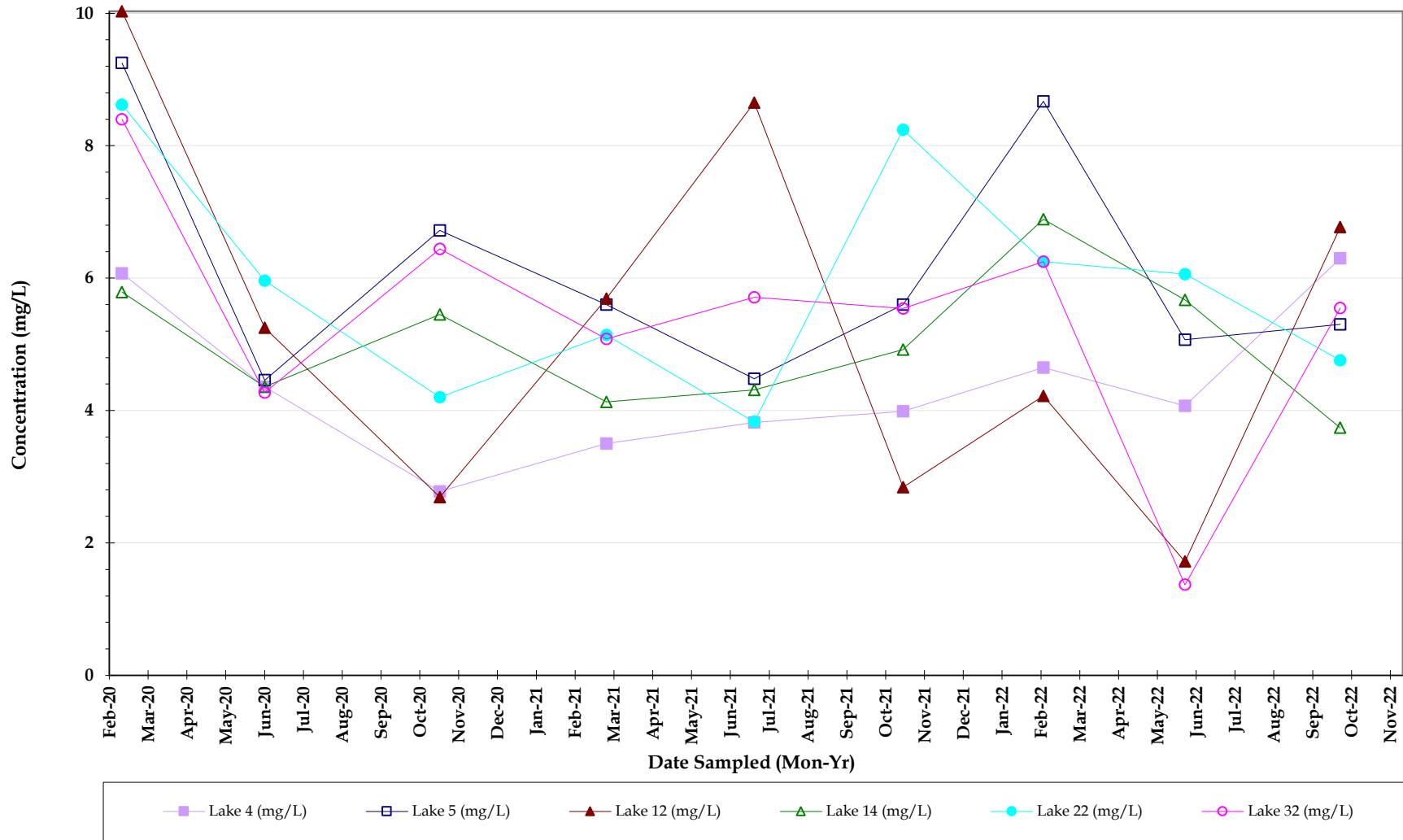
Trend Graphs



Biochemical Oxygen Demand



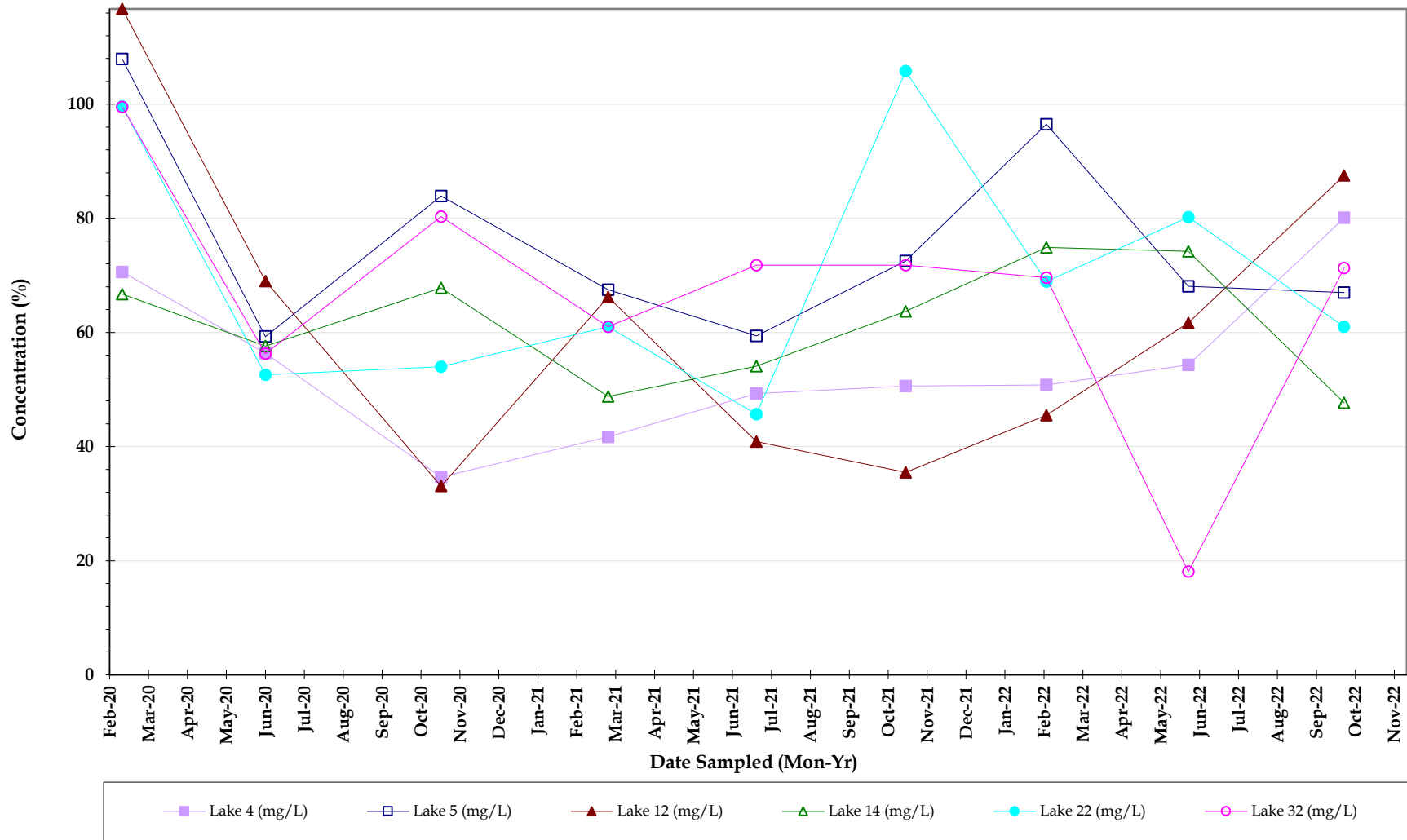
Treviso Bay
Water Quality Surface Water Sample results
OCTOBER 2022



Dissolved Oxygen (mg/L)



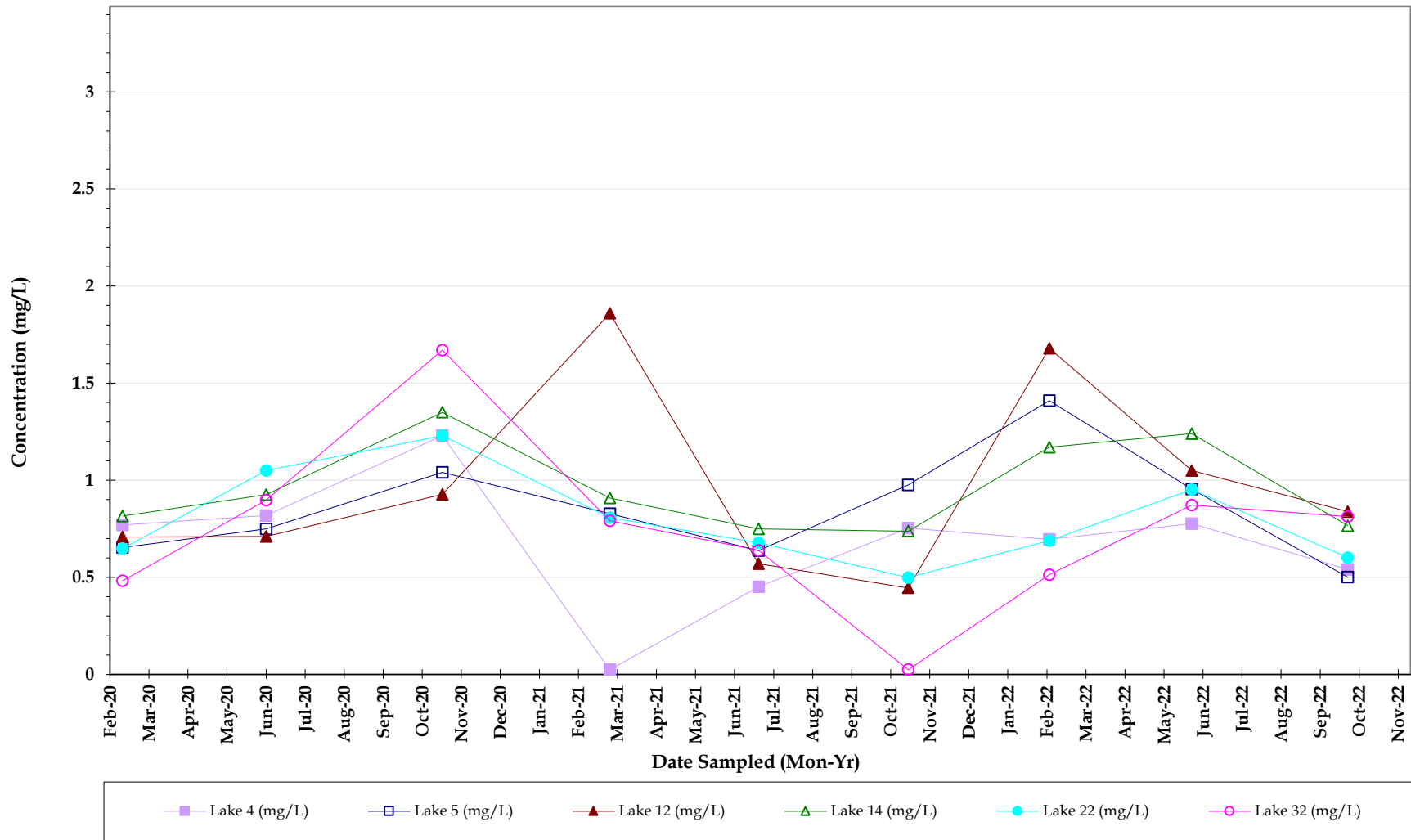
Treviso Bay
Water Quality Surface Water Sample results
OCTOBER 2022



Dissolved Oxygen (%)



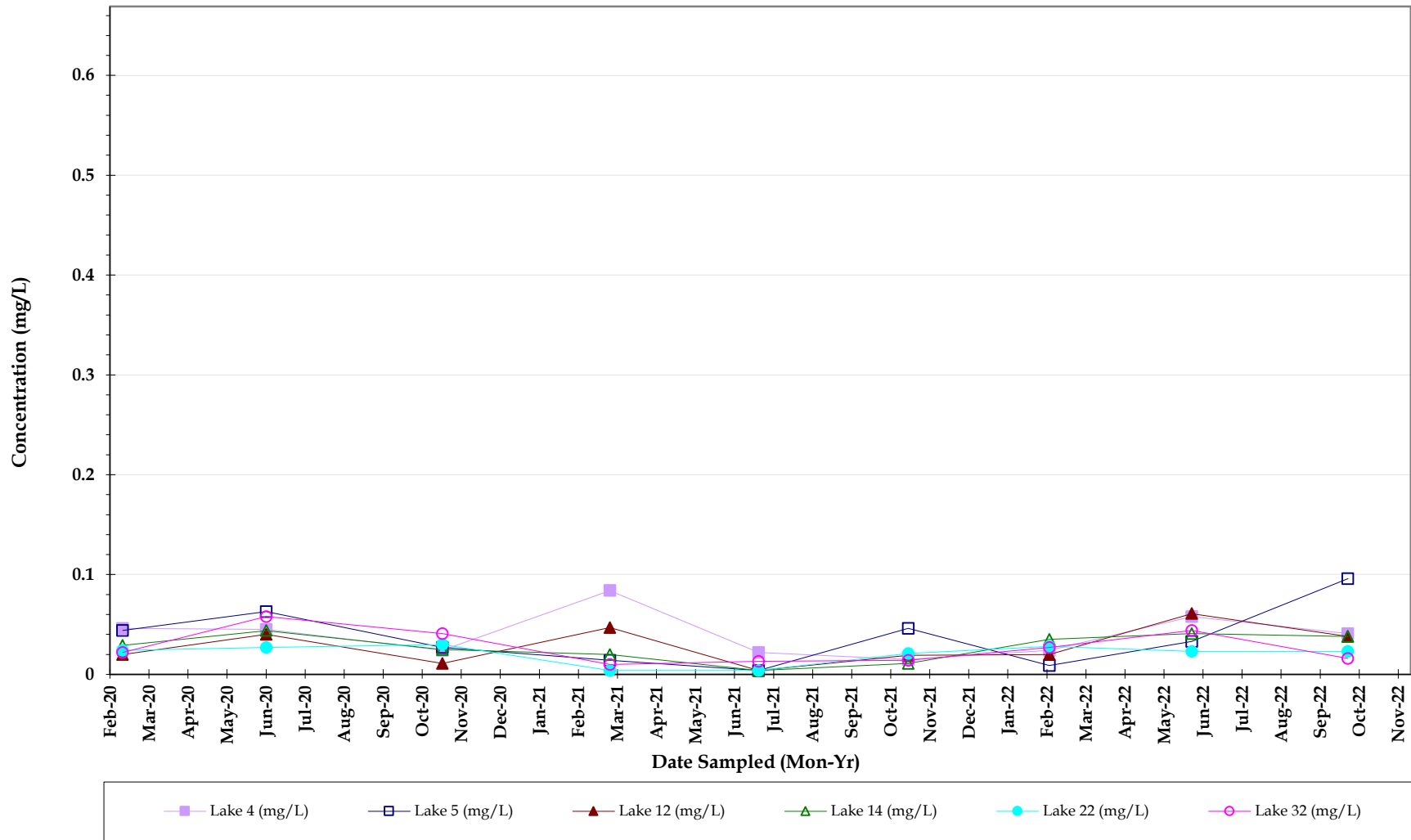
Treviso Bay
Water Quality Surface Water Sample results
OCTOBER 2022



Total Nitrogen



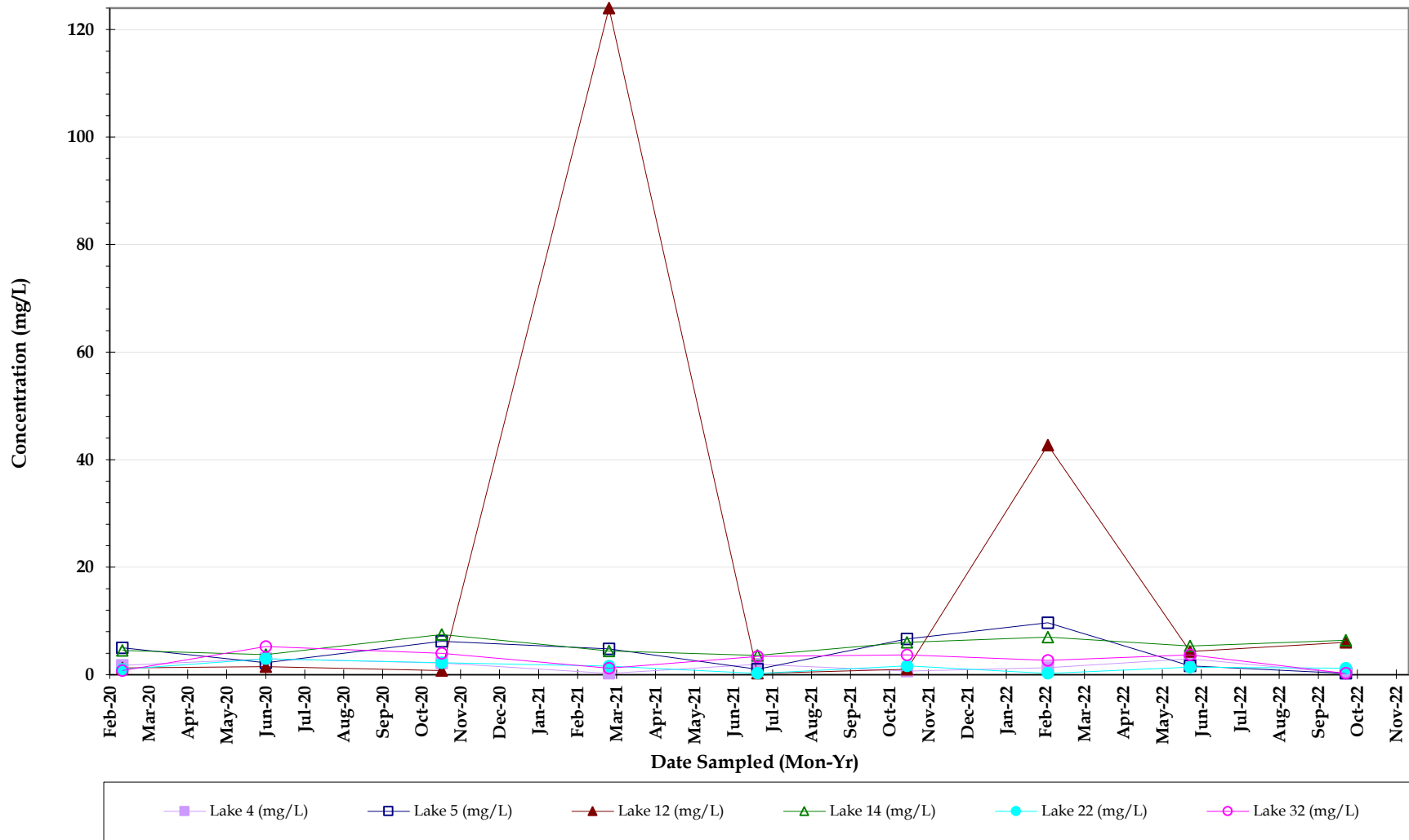
Treviso Bay
Water Quality Surface Water Sample results
OCTOBER 2022



Total Phosphorus



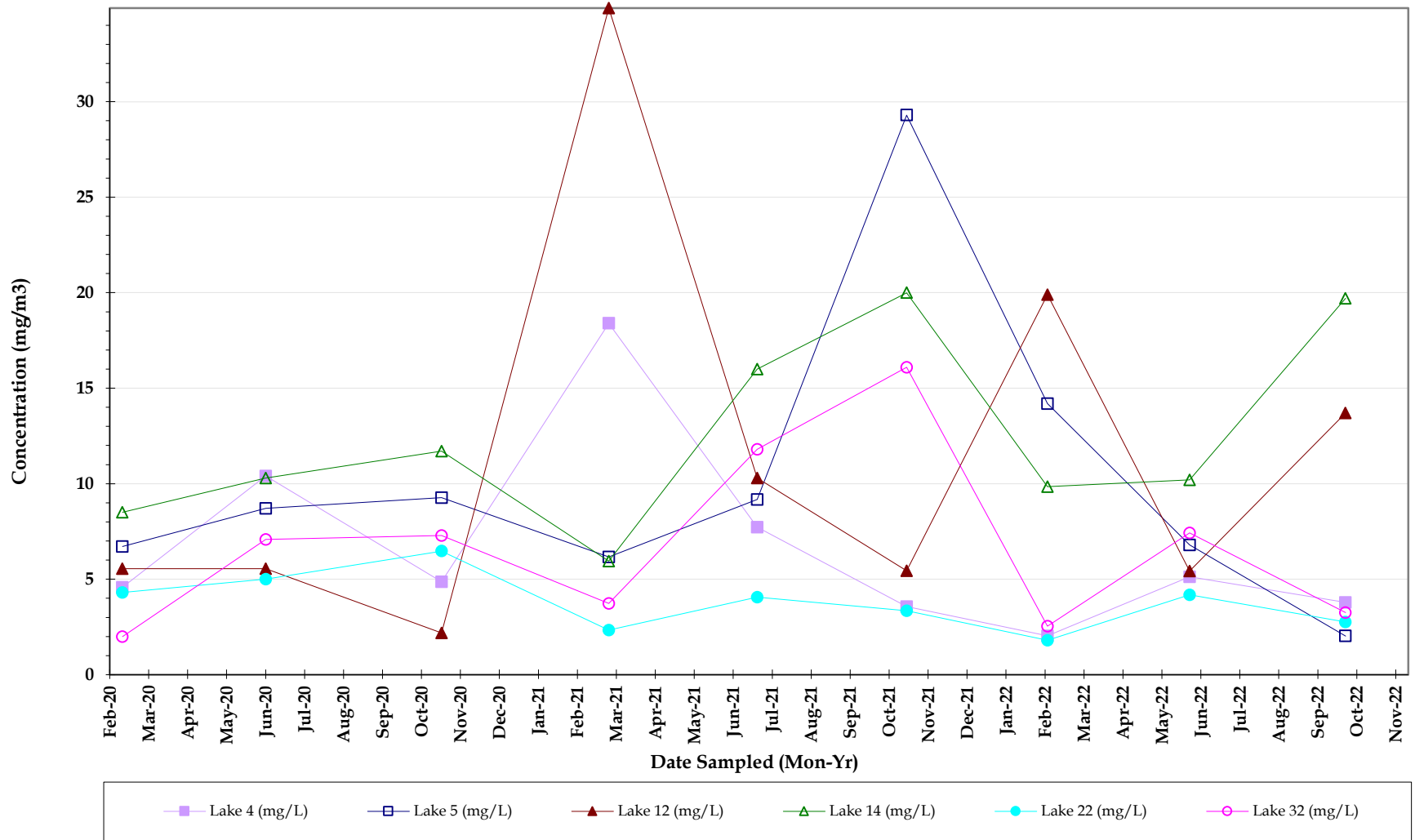
Treviso Bay
Water Quality Surface Water Sample results
OCTOBER 2022



Total Suspended Solids

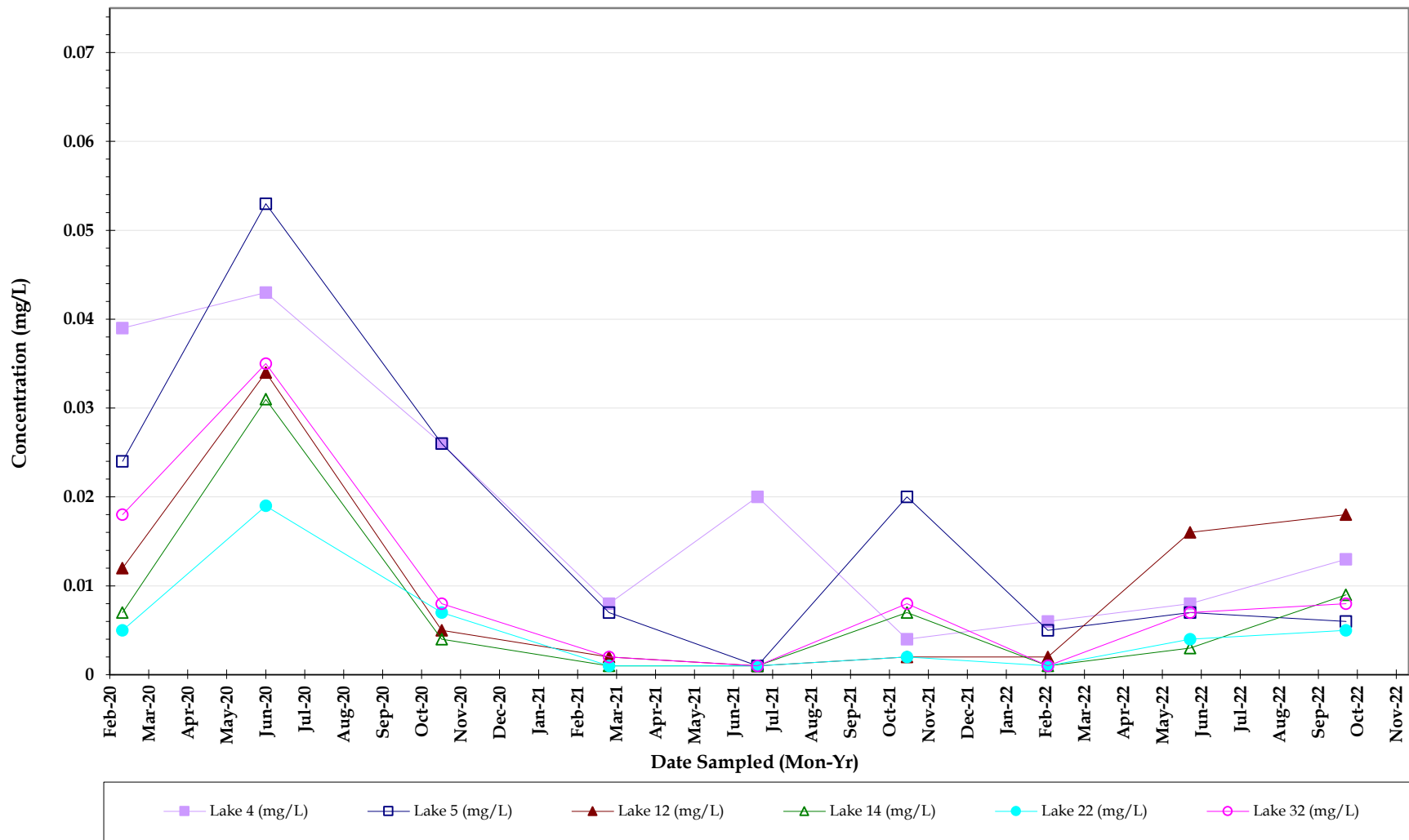


Treviso Bay
Water Quality Surface Water Sample results
OCTOBER 2022



Chlorophyll a

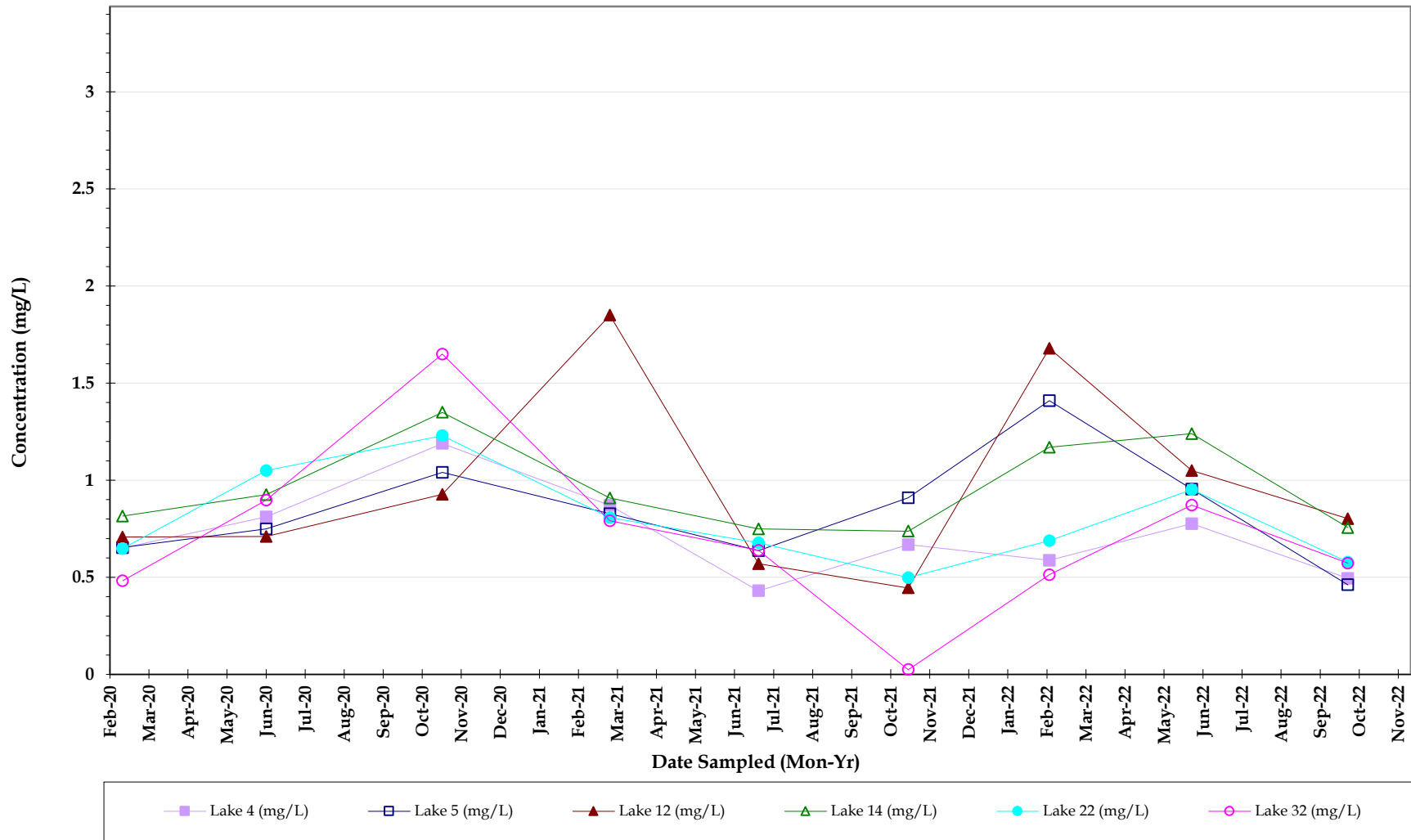
Treviso Bay
 Water Quality Surface Water Sample results
 OCTOBER 2022



Orthophosphate



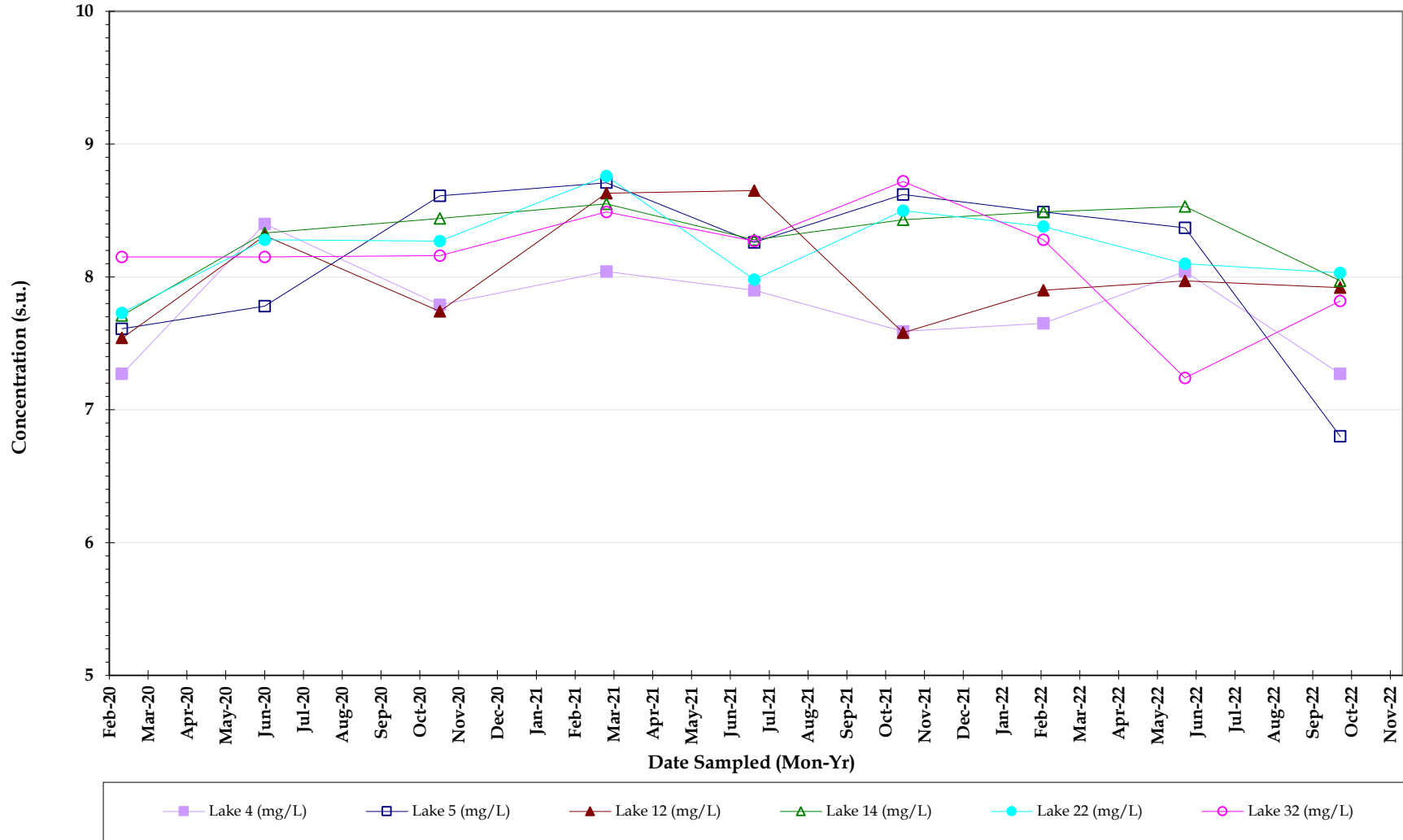
Treviso Bay
 Water Quality Surface Water Sample results
 OCTOBER 2022



Total kjeldahl nitrogen (TKN)

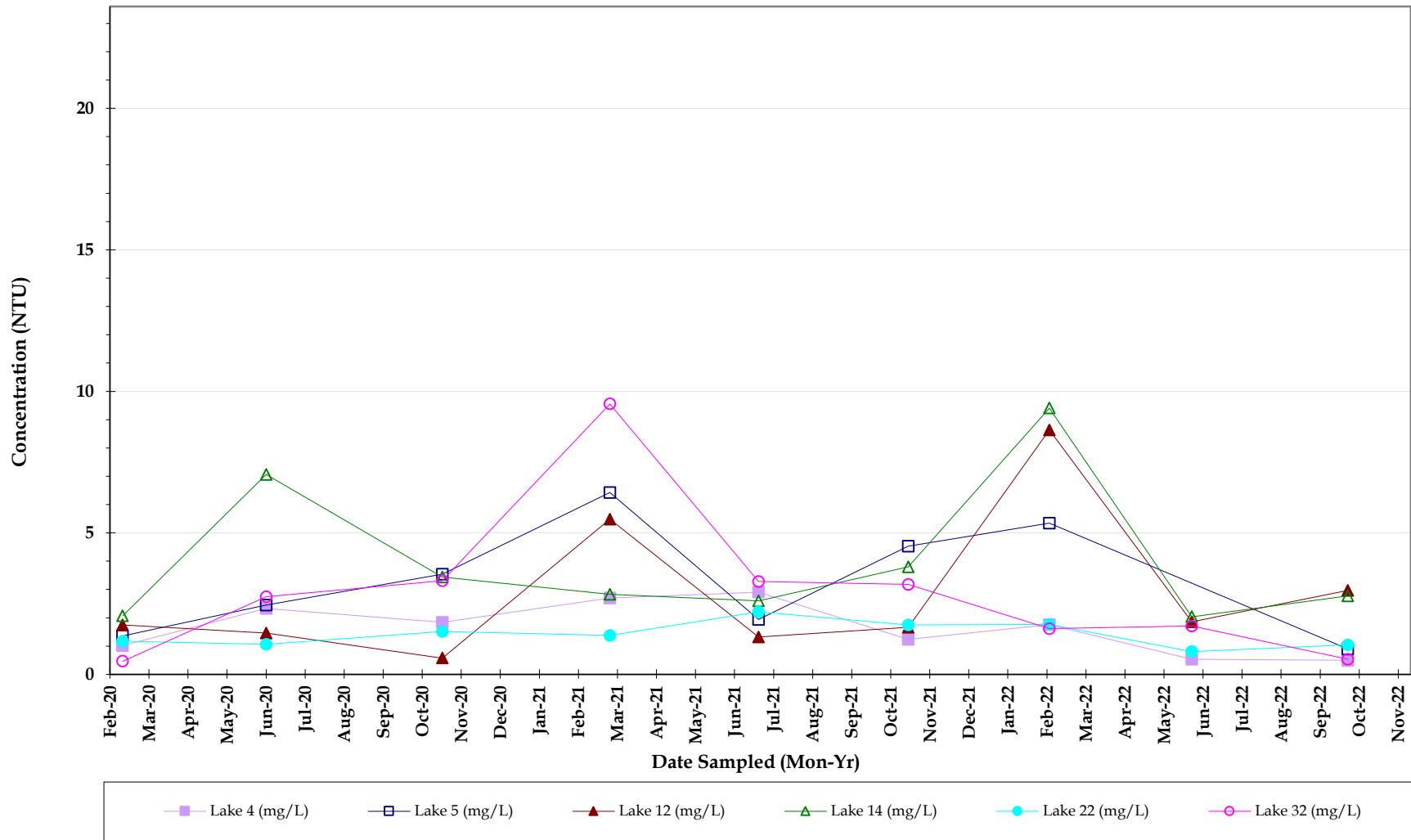


Treviso Bay
Water Quality Surface Water Sample results
OCTOBER 2022



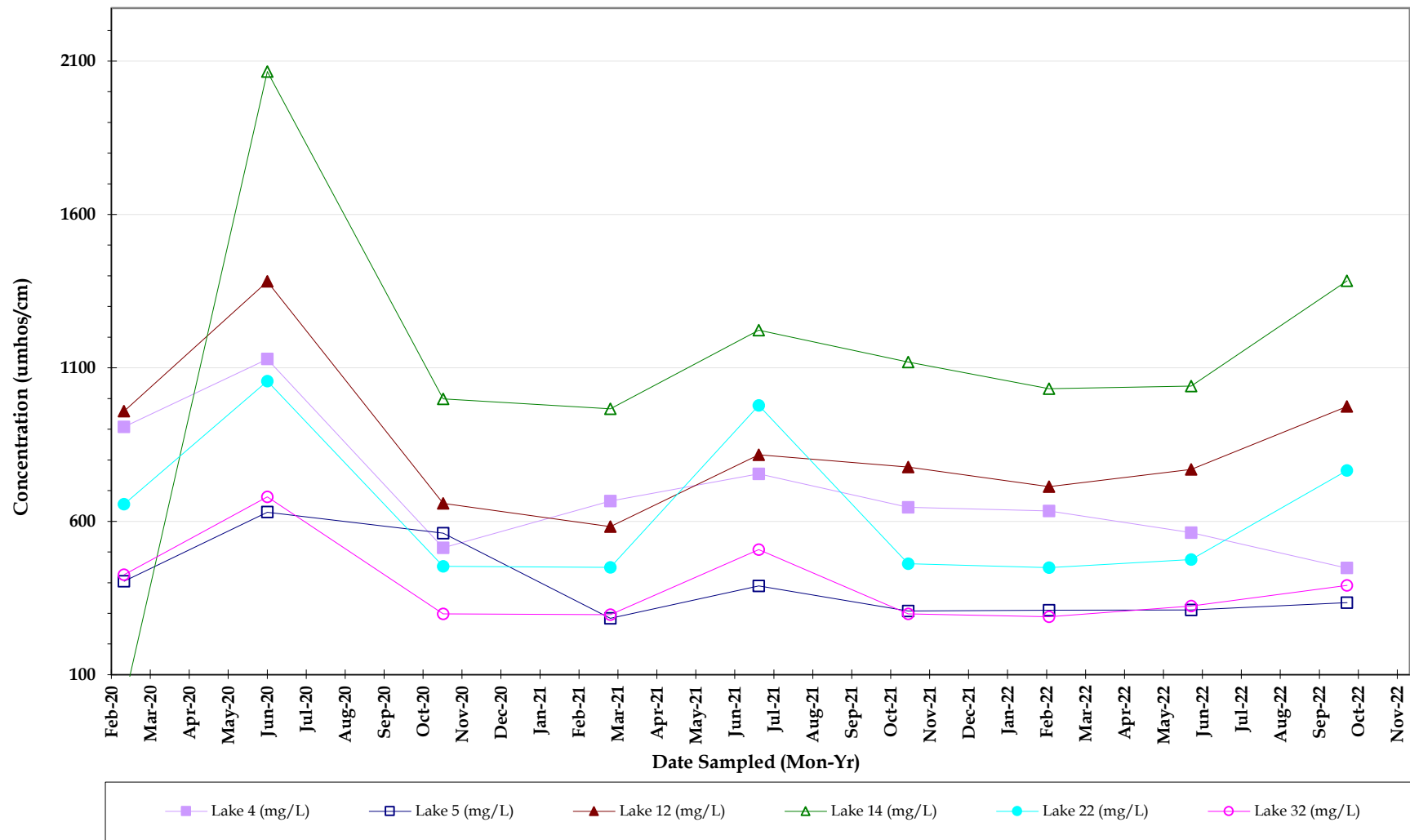
pH, Field

Treviso Bay
 Water Quality Surface Water Sample results
 OCTOBER 2022



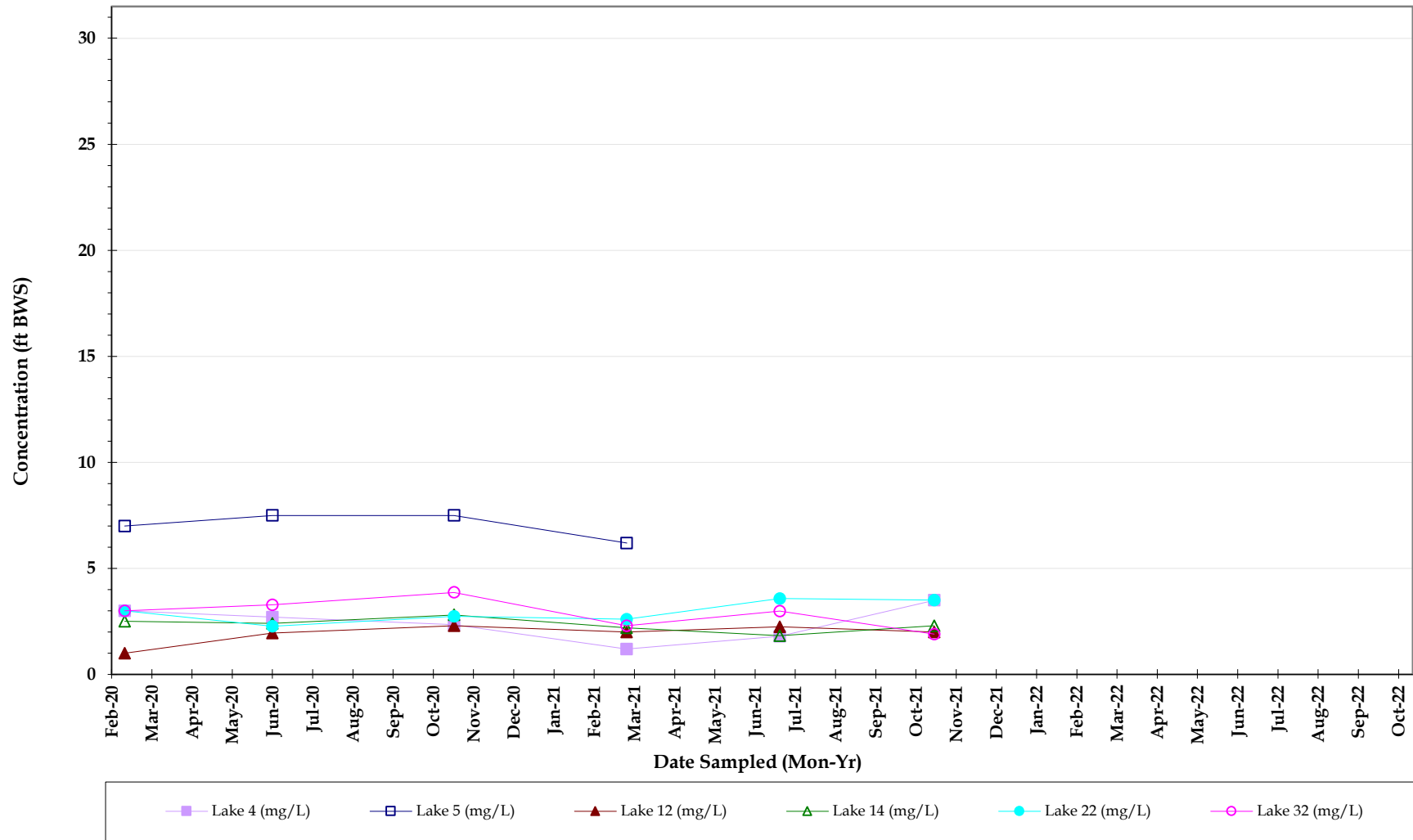
Turbidity





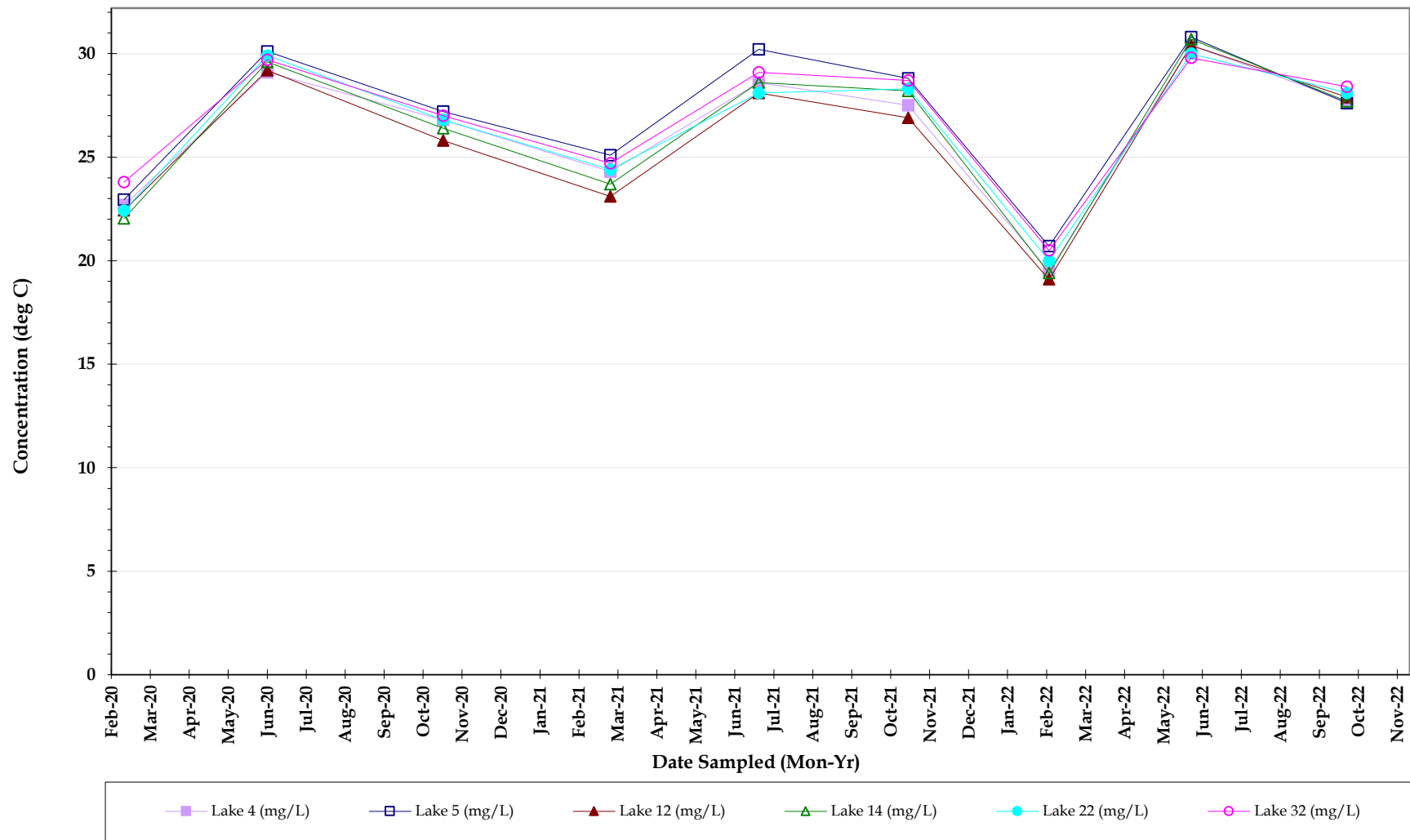
Conductivity

Treviso Bay
Water Quality Surface Water Sample results
OCTOBER 2022



Water Depth

Treviso Bay
Water Quality Surface Water Sample results
SEPTEMBER 2022



Temperature, sample



Treviso Bay
 Water Quality Surface Water Sample results
 OCTOBER 2022

Laboratory Analytical Report

ANALYTICAL TEST REPORT

THESE RESULTS MEET NELAC STANDARDS

Submission Number : 22101017

G H D Services, Inc.
2675 Winkler Ave., Ste.180
Fort Myers, FL 33901

Project Name : TREVISO LAKES WQM
Date Received : 10/12/2022
Time Received : 14:40
Project #: 11147356-01

Submission Number: 22101017 **Sample Date:** 10/11/2022
Sample Number: 001 **Sample Time:** 09:35
Sample Description: Lake 5 **Sample Method:** Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.032	MG/L	0.008	0.032	350.1	10/19/2022 19:24	EO
TOTAL KJELDAHL NITROGEN	0.462	MG/L	0.05	0.20	351.2	10/14/2022 14:43	EO
ORTHO PHOSPHORUS AS P	0.006 I	MG/L	0.002	0.008	365.3	10/12/2022 18:16	YQ
TOTAL PHOSPHORUS AS P	0.096	MG/L	0.008	0.032	365.3	10/17/2022 09:45	YQ
CHLOROPHYLL A	2.03	MG/M3	0.25	1.00	445.0	11/02/2022 11:36	CH/AT
TOTAL SUSPENDED SOLIDS	0.570 U	MG/L	0.570	2.280	SM2540D	10/12/2022 17:27	MN/TG
BIOCHEMICAL OXYGEN DEMAND	1 U	MG/L	1	4	SM5210B	10/12/2022 16:00	LD/LD
NITRATE+NITRITE AS N	0.039	MG/L	0.006	0.024	SYSTEAEASY	10/23/2022 18:11	MV
TOTAL NITROGEN	0.501	MG/L	0.05	0.20	SYSTEAE+351	10/23/2022 18:11	EO/MV

Submission Number: 22101017 **Sample Date:** 10/11/2022
Sample Number: 002 **Sample Time:** 09:50
Sample Description: Lake 4 **Sample Method:** Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.038	MG/L	0.008	0.032	350.1	10/19/2022 19:26	EO
TOTAL KJELDAHL NITROGEN	0.495	MG/L	0.05	0.20	351.2	10/14/2022 14:44	EO
ORTHO PHOSPHORUS AS P	0.013	MG/L	0.002	0.008	365.3	10/12/2022 18:17	YQ
TOTAL PHOSPHORUS AS P	0.041	MG/L	0.008	0.032	365.3	10/17/2022 11:26	YQ
CHLOROPHYLL A	3.78	MG/M3	0.25	1.00	445.0	11/02/2022 11:36	CH/AT
TOTAL SUSPENDED SOLIDS	0.570 U	MG/L	0.570	2.280	SM2540D	10/12/2022 17:27	MN/TG
BIOCHEMICAL OXYGEN DEMAND	1.62 I	MG/L	1	4	SM5210B	10/12/2022 16:00	LD/LD
NITRATE+NITRITE AS N	0.046	MG/L	0.006	0.024	SYSTEAEASY	10/23/2022 18:12	MV
TOTAL NITROGEN	0.541	MG/L	0.05	0.20	SYSTEAE+351	10/23/2022 18:12	EO/MV

FDOH Certification #B84167

Submission Number: 22101017
Sample Number: 003
Sample Description: Lake 12

Sample Date: 10/11/2022
Sample Time: 10:10
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.073	MG/L	0.008	0.032	350.1	10/19/2022 19:27	EO
TOTAL KJELDAHL NITROGEN	0.802	MG/L	0.05	0.20	351.2	10/14/2022 14:46	EO
ORTHO PHOSPHORUS AS P	0.018	MG/L	0.002	0.008	365.3	10/12/2022 18:19	YQ
TOTAL PHOSPHORUS AS P	0.038	MG/L	0.008	0.032	365.3	10/17/2022 09:47	YQ
CHLOROPHYLL A	13.7	MG/M3	0.25	1.00	445.0	11/02/2022 11:36	CH/AT
TOTAL SUSPENDED SOLIDS	6.00	MG/L	0.570	2.280	SM2540D	10/12/2022 17:27	MN/TG
BIOCHEMICAL OXYGEN DEMAND	1.05 l	MG/L	1	4	SM5210B	10/12/2022 16:00	LD/LD
NITRATE+NITRITE AS N	0.036	MG/L	0.006	0.024	SYSTEAS EASY	10/23/2022 18:13	MV
TOTAL NITROGEN	0.838	MG/L	0.05	0.20	SYSTEAS+351	10/23/2022 18:13	EO/MV

Submission Number: 22101017
Sample Number: 004
Sample Description: Lake 14

Sample Date: 10/11/2022
Sample Time: 10:30
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.019 l	MG/L	0.008	0.032	350.1	10/19/2022 19:29	EO
TOTAL KJELDAHL NITROGEN	0.756	MG/L	0.05	0.20	351.2	10/14/2022 14:56	EO
ORTHO PHOSPHORUS AS P	0.009	MG/L	0.002	0.008	365.3	10/12/2022 18:20	YQ
TOTAL PHOSPHORUS AS P	0.038	MG/L	0.008	0.032	365.3	10/17/2022 11:27	YQ
CHLOROPHYLL A	19.7	MG/M3	0.25	1.00	445.0	11/02/2022 11:36	CH/AT
TOTAL SUSPENDED SOLIDS	6.40	MG/L	0.570	2.280	SM2540D	10/12/2022 17:27	MN/TG
BIOCHEMICAL OXYGEN DEMAND	1.69 l	MG/L	1	4	SM5210B	10/12/2022 16:00	LD/LD
NITRATE+NITRITE AS N	0.010 l	MG/L	0.006	0.024	SYSTEAS EASY	10/23/2022 18:14	MV
TOTAL NITROGEN	0.766	MG/L	0.05	0.20	SYSTEAS+351	10/23/2022 18:14	EO/MV

Submission Number: 22101017
Sample Number: 005
Sample Description: Lake 22

Sample Date: 10/11/2022
Sample Time: 10:50
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.019 l	MG/L	0.008	0.032	350.1	10/19/2022 19:39	EO
TOTAL KJELDAHL NITROGEN	0.578	MG/L	0.05	0.20	351.2	10/14/2022 14:57	EO
ORTHO PHOSPHORUS AS P	0.005 l	MG/L	0.002	0.008	365.3	10/12/2022 18:22	YQ
TOTAL PHOSPHORUS AS P	0.023 l	MG/L	0.008	0.032	365.3	10/17/2022 09:49	YQ
CHLOROPHYLL A	2.76	MG/M3	0.25	1.00	445.0	11/02/2022 11:36	CH/AT
TOTAL SUSPENDED SOLIDS	1.20 l	MG/L	0.570	2.280	SM2540D	10/12/2022 17:27	MN/TG
BIOCHEMICAL OXYGEN DEMAND	1 U	MG/L	1	4	SM5210B	10/12/2022 16:00	LD/LD

FDOH Certification #E84167

NITRATE+NITRITE AS N	0.023 I	MG/L	0.006	0.024	SYSTEAS EASY	10/23/2022 18:15	MV
TOTAL NITROGEN	0.601	MG/L	0.05	0.20	SYSTEAS+351	10/23/2022 18:15	EO/MV

Submission Number: 22101017	Sample Date: 10/11/2022
Sample Number: 006	Sample Time: 11:05
Sample Description: Lake 32	Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.017 I	MG/L	0.008	0.032	350.1	10/19/2022 19:43	EO
TOTAL KJELDAHL NITROGEN	0.573	MG/L	0.05	0.20	351.2	10/14/2022 14:58	EO
ORTHO PHOSPHORUS AS P	0.008	MG/L	0.002	0.008	365.3	10/12/2022 18:23	YQ
TOTAL PHOSPHORUS AS P	0.016 I	MG/L	0.008	0.032	365.3	10/17/2022 09:54	YQ
CHLOROPHYLL A	3.26	MG/M3	0.25	1.00	445.0	11/02/2022 11:36	CH/AT
TOTAL SUSPENDED SOLIDS	0.570 U	MG/L	0.570	2.280	SM2540D	10/12/2022 17:27	MN/TG
BIOCHEMICAL OXYGEN DEMAND	1 U	MG/L	1	4	SM5210B	10/12/2022 16:00	LD/LD
NITRATE+NITRITE AS N	0.240	MG/L	0.006	0.024	SYSTEAS EASY	10/23/2022 18:18	MV
TOTAL NITROGEN	0.813	MG/L	0.05	0.20	SYSTEAS+351	10/23/2022 18:18	EO/MV

Haley Rin

11/04/2022

Dale D. Dixon / Laboratory Director

Date

Tülay Tanrısever - Technical Director/QC Officer

Haley Richardson - QA Officer

DATA QUALIFIERS THAT MAY APPLY:

- A = Value reported is an average of two or more determinations.
- B = Results based upon colony counts outside the ideal range.
- H = Value based on field kit determination. Results may not be accurate.
- I = Reported value is between the laboratory MDL and the PQL.
- J1 = Estimated value. Surrogate recovery limits exceeded.
- J2 = Estimated value. No quality control criteria exists for component.
- J3 = Estimated value. Quality control criteria for precision or accuracy not met.
- J4 = Estimated value. Sample matrix interference suspected.
- J5 = Estimated value. Data questionable due to improper lab or field protocols.
- K = Off-scale low. Value is known to be < the value reported.
- L = Off-scale high. Value is known to be > the value reported.
- N = Presumptive evidence of presence of material.
- O = Sampled, but analysis lost or not performed.
- Q = Sample held beyond accepted hold time.

- T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.
- U = Analyte analyzed but not detected at the value indicated.
- V = Analyte detected in sample and method blank. Results for this analyte in associated samples may be biased high. Standard, Duplicate and Spike values are within control limits. Reported data are usable.
- Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.
- Z = Too many colonies were present (TNTC). The numeric value represents the filtration volume.
- I = Data deviate from historically established concentration ranges.
- ? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
- * = Not reported due to interference.
- Oil & Grease - If client does not send sufficient sample quantity for spike evaluation surface water samples are supplied by the laboratory.

NOTES:

MBAS calculated as LAS; molecular weight = 340.
 PQL = 4xMDL.
 ND = Not detected at or above the adjusted reporting limit.
 G1 = Accuracy standard does not meet method control limits, but does meet lab control limits that are in agreement with USEPA generated data. USEPA letter available upon request.
 G2 = Accuracy standard exceeds acceptable control limits. Duplicate and spike values are within control limits. Reported data are usable.

COMMENTS:

Chlorophyll a was filtered at E85086 10/12/22 0856

For questions or comments regarding these results, please contact us at (941) 723-9986.

Results relate only to the samples.

Benchmark EA South
 1001 Corporate Avenue, Suite 102
 North Port, FL 34289
 (941) 625-3137 / (800) 736-9986
 (941) 423-7336 fax

Benchmark EA, Inc.
 1711 12th St East
 Palmetto, FL 34221
 (941) 723-9986 / (800) 736-9986
 (941) 723-6061-fax

Client: GHD Services, Inc. (GSA ENG)
 2675 Winkler Ave, Suite 180
 Ft. Myers FL 33901
 Erik Isern (239) 215-3914
 Email EDD & PDF Reports to: Connor Hayden (Connor.Hayden@ghd.com); Joe Mirzera@ghd.com

Shannon Tucker 239-210-8653
 Shannon Tucker 239-210-8653
 Shannon Tucker 239-210-8653

Shannon Tucker 239-210-8653
 Shannon Tucker 239-210-8653
 Shannon Tucker 239-210-8653

Kfr Shipped to client via UPS Standard in 1 large cooler
 Sample Temperature checked upon receipt at BEAS with Temperature Gun ID #7
 Sample Temperature checked upon receipt at BEA with Temperature Gun ID #258

Chain of Custody Form: Treviso Lakes WQM
 Project Number: 11147356 - 01

Profile: 840, QC Report

Laboratory Submission #: 22101217

Station ID	Sample Type ¹	Sample Matrix ²	Parameters: Preservative ³ , Container Type ⁴ / Total # of Containers = 30					Laboratory Submission #
			Unique bottle ID 1A	Unique bottle ID 1B	Unique bottle ID 1C	Unique bottle ID 1D	Unique bottle ID 1E	
Lake 5	Grab	SW	NO ₃ -NO ₂ (933.2) TKN (351.2) NH ₃ (350.1) TP (665.3) T-N (Calc.) 1.1mL 1:4 H ₂ SO ₄ pH<2 Lot # 22-16	BOD ₅ (SWS210B)	Ortho-Phos (Lab Filtered) (665.3)	TSS (SWS240D)	Chlorophyll a (445.0) Filtered @ BEAS 10/12/22 0856	1
Lake 4	Grab	SW	1 x 1/2 Pint Plastic	1 x 1 Quart Plastic	1 x 1/2 Pint Plastic	1 x 1 Quart Plastic	1 x 500mL Opaque Plastic	2
Lake 12	Grab	SW						3
Lake 14	Grab	SW						4
Lake 22	Grab	SW						5
Lake 32	Grab	SW						6

- Notes:**
1. "Sample Type" is used to indicate whether the sample was a grab (G) or whether it was a composite (C).
 2. "Sample Matrix" is used to indicate whether the sample is being discharged to drinking water (DW), groundwater (GW), surface water (SW), saltwater (SSW), soil, sediment (SD/NT), or sludge (SL/DG).
 3. "Container Type" is used to indicate whether the container is plastic (P) or glass (G).
 4. Sample must be refrigerated or stored in wet ice after collection. The temperature during storage should be less than or equal to 6°C (42.8°F).
 5. Under "Preservative," list any preservatives that were added to the sample container. List Number of preservative used is specific to the bottles included in the kit. NaF, NaF₂, H₂SO₄, and HNO₃ do not have expiration dates per the manufacturer. Micro bottles are pre-preserved at manufacturing stage. 40mL vials are pre-preserved at manufacturing stage.
 6. 2 Quart plastic bottles are not certified.

Each bottle has a label identifying sample ID, preservative contained in the bottle, sample type, client ID, and parameters for analysis.
 The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
 All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
 The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.
 Sample kit has been created by BEAS using new, certified bottles unless otherwise noted.

Laboratory Sample Acceptability:
 pH < 2 not BEA Temperature: 0.7°C
 BEAS Temperature: 3.3°C

Collector & Affiliation: (Print & Sign)	Date:	Time:	Received By & Affiliation: (Print & Sign)	Date:	Time:
Connor Hayden BEAS	10/11/22	1314	Brooke Kusternick BEAS	10/11/22	1314
Brooke Kusternick BEAS	10/12/22	1138	Brooke Kusternick BEAS	10/12/22	1138
Relinquished By & Affiliation: (Print & Sign)	Date:	Time:	Received By & Affiliation: (Print & Sign)	Date:	Time:
Relinquished By & Affiliation: (Print & Sign)	Date:	Time:	Received By & Affiliation: (Print & Sign)	Date:	Time:
Relinquished By & Affiliation: (Print & Sign)	Date:	Time:	Received By & Affiliation: (Print & Sign)	Date:	Time:

Be Wofy



EnviroAnalytical, Inc.

NELAP Certification #E84167

QC REPORT

Submission Number: 22101017
 Project Name: TREVISO LAKES WQM

SUBMISSION NUMBER	SAMPLE NUMBER	METHOD	ANALYTE	ANALYSIS DATE/TIME	QC FLAG	QC VALUE	SAMPLE RESULT	LR RESULT	LR %RSD	SPK RESULT	STD-SPK %REC
22101017 - 005	662774	350.1	AMMONIA NITROGEN	10/19/2022 19:39	LR	0.00	0.019	0.020	2.90		
		350.1	AMMONIA NITROGEN	10/19/2022 09:09	MB	0.00	0.000				
22101751 - 002	663507	350.1	AMMONIA NITROGEN	10/19/2022 20:03	SPK	1.00	1.040			1.030	98.6
		350.1	AMMONIA NITROGEN	10/19/2022 09:29	STD	1.00	0.966				96.6
22101024 - 002	662784	351.2	TOTAL KJELDAHL NITROGEN	10/14/2022 18:29	LR	0.00	30.800	30.200	1.42		
		351.2	TOTAL KJELDAHL NITROGEN	10/14/2022 10:05	MB	0.00	0.000				
		351.2	TOTAL KJELDAHL NITROGEN	10/14/2022 10:09	PQL	0.25	0.271			2.460	108.0
		351.2	TOTAL KJELDAHL NITROGEN	10/14/2022 17:10	SPK	2.00	2.660				90.2
22101182 - 002	662986	351.2	TOTAL KJELDAHL NITROGEN	10/14/2022 12:38	STD	2.50	2.330				93.2
		351.2	TOTAL KJELDAHL NITROGEN	10/14/2022 10:11	STD	2.00	2.030				102.0
		351.2	TOTAL KJELDAHL NITROGEN	10/12/2022 09:14	LR	0.20	0.270	0.267	0.74		
22100826 - 009	662474	365.3	ORTHO PHOSPHORUS AS P	10/12/2022 10:21	SPK	0.20	0.228			0.230	101.0
22100833 - 016	662519	365.3	ORTHO PHOSPHORUS AS P	10/12/2022 10:01	STD	0.20	0.207				104.0
		365.3	ORTHO PHOSPHORUS AS P	10/17/2022 12:45	LR	0.00	0.135	0.137	0.83		
22101113 - 011	662879	365.3	TOTAL PHOSPHORUS AS P	10/17/2022 09:23	MB	0.00	0.000				101.0
		365.3	TOTAL PHOSPHORUS AS P	10/17/2022 09:26	PQL	0.02	0.020				97.8
		365.3	TOTAL PHOSPHORUS AS P	10/17/2022 10:19	SPK	0.20	0.206			0.202	92.3
22101151 - 016	662952	365.3	TOTAL PHOSPHORUS AS P	10/17/2022 12:08	STD	0.20	0.185				
		445.0	CHLOROPHYLL A	11/02/2022 11:36	LR	0.00	2.026	2.160	4.62		
22101017 - 001	662770	SM2540D	TOTAL SUSPENDED SOLIDS	10/12/2022 17:27	LR	0.00	4.000	4.000	0.00		
22100558 - 001	662394	SM2540D	TOTAL SUSPENDED SOLIDS	10/12/2022 17:27	MB	0.00	0.000				107.7
		SM2540D	TOTAL SUSPENDED SOLIDS	10/12/2022 17:27	STD	951.00	1024.000	1230.000	0.58		
		SM5210B	BIOCHEMICAL OXYGEN DEMAND	10/12/2022 12:00	LR	0.00	1220.000				
22101024 - 002	662784	SM5210B	BIOCHEMICAL OXYGEN DEMAND	10/12/2022 12:00	MB	0.00	202.100				102.1
		SM5210B	BIOCHEMICAL OXYGEN DEMAND	10/12/2022 12:00	STD	198.00					

QC FLAGS: MB or BLK = METHOD BLANK LR = LAB REPLICATE MSD = MATRIX SPIKE DUPLICATE STD or LCS = STANDARD SPK or MS = MATRIX SPIKE

SUBMISSION NUMBER	SAMPLE NUMBER	METHOD	ANALYTE	ANALYSIS DATE/TIME	QC FLAG	QC VALUE	SAMPLE RESULT	LR RESULT	LR %RSD	SPK RESULT	STD-SPK %REC
22101113 - 010	662878	SYSTEAS EASY	NITRATE+NITRITE AS N	10/23/2022 18:30	LR	0.00	0.198	0.201	0.78		
		SYSTEAS EASY	NITRATE+NITRITE AS N	10/23/2022 14:26	MB	0.20	0.000			0.203	95.2
22101007 - 014	662744	SYSTEAS EASY	NITRATE+NITRITE AS N	10/23/2022 17:26	SPK	0.25	0.213				
		SYSTEAS EASY	NITRATE+NITRITE AS N	10/23/2022 18:37	STD		0.250				99.9

Comments:

Surface Water Field Sheets

SURFACE WATER FIELD SHEET
Station Information

STATION ID:	<u>Lake 5</u>
LOCATION:	<u>from bank of Lake</u>
DATE/TIME:	<u>10/11/22 935</u>
ALL TIMES ARE:	<input checked="" type="radio"/> ETZ or <input type="radio"/> CTZ (circle one)

WATERBODY TYPE: (Circle One)	<input checked="" type="radio"/> Small Lake (>4 and <10HA) (collect samples in middle of open water)	<input type="radio"/> Large Lake (>10HA) (collect samples at selected location point)
	<input type="radio"/> Small Stream (collect samples in representative area)	<input type="radio"/> Large River (collect samples in representative area)

Water Characteristics

TOTAL WATER DEPTH: <u>nom</u> (feet) (Average of 2 measurements)	Sample Depth: <u>4.5</u> (feet)
STREAM FLOW: <input type="radio"/> applicable <input checked="" type="radio"/> No Flow	<input type="radio"/> Flow within Banks <input type="radio"/> Flood Conditions
WATER LEVEL: <input type="radio"/> (Circle One) Low <input checked="" type="radio"/> Normal High	
WATER SAMPLE COLLECTION DEVICE: <input type="radio"/> Van Dorn <input checked="" type="radio"/> Direct Grab with Sample Bottle	<input type="radio"/> Dipper <input type="radio"/> Other _____

Field Measurements

Field Measurements		Meter ID#		Read By: (initials)			
Time (24 hr.)	Surface Depth Collected (feet)	pH* (SU)	D.O. (mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
<u>935</u>	<u>1.5</u>	<u>6.89</u>	<u>5.30</u>	<u>61.0</u>	<u>27.6</u>	<u>335</u>	<u>0.9</u>
Time (24 hr.)	Bottom Depth Collected (feet)	pH (SU)	D.O. (mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)

*pH of preserved sample: number of drops of sulfuric acid added in field to achieve pH of less than 2: NA

Samples immediately placed on ice? Yes No

WEATHER CONDITIONS: (circle) raining clear, partly cloudy, windy

PERSONNEL ON SITE: Connor Hayden, Justin Leblanc

REMARKS: sample collected from bank of lake. grass withings and medium length grass around lake perimeter

SURFACE WATER FIELD SHEET
Station Information

STATION ID:	Lake 4
LOCATION:	@ outfall
DATE/TIME:	10/11/22 150
ALL TIMES ARE:	<u>ETZ</u> or CTZ (circle one)

WATERBODY TYPE: (Circle One)	<u>Small Lake (>4 and <10HA)</u> (collect samples in middle of open water)	Large Lake (>10HA) (collect samples at selected location point)
	Small Stream (collect samples in representative area)	Large River (collect samples in representative area)

Water Characteristics

TOTAL WATER DEPTH: (Average of 2 measurements) (Circle One if applicable)	<u>N/A</u> (feet)	Sample Depth:	<u>@ outfall</u> (feet)
STREAM FLOW:	No Flow	Flow within Banks	Flood Conditions
WATER LEVEL: (Circle One)	Low	Normal	High
WATER SAMPLE COLLECTION DEVICE (Circle One)	Van Dorn	Direct Grab with Sample Bottle	Dipper Other _____

Field Measurements		Meter ID#		Field Measurements			
Time (24 hr.)	Surface Depth Collected (feet)	pH* (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
950	1.5	7.27	6.30	80.1	27.7	448	0.50
Time (24 hr.)	Bottom Depth Collected (feet)	pH (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)

*pH of preserved sample: number of drops of sulfuric acid added in field to achieve pH of less than 2: NA

Samples immediately placed on ice? Yes No

WEATHER CONDITIONS: (circle) raining, clear partly cloudy, windy

PERSONNEL ON SITE: Connor Hayden Justin Leblanc

REMARKS: sample collected @ outfall (in front of outfall, no flow over weir). minor organic film on water surface. medium height grasses growing around perimeter

SURFACE WATER FIELD SHEET
Station Information

STATION ID:	<u>Lake 12</u>
LOCATION:	<u>@ outfall</u>
DATE/TIME:	<u>10/11/22 10:10</u>
ALL TIMES ARE:	- <u>ETZ</u> or CTZ (circle one)

WATERBODY TYPE: (Circle One)	<u>Small Lake (>4 and <10HA)</u> (collect samples in middle of open water)	Large Lake (>10HA) (collect samples at selected location point)
	Small Stream (collect samples in representative area)	Large River (collect samples in representative area)

Water Characteristics

TOTAL WATER DEPTH: (Average of 2 measurements) (Circle One if applicable)	<u>NM</u> (feet)	Sample Depth:	<u>1.5</u> (feet)
STREAM FLOW:	No Flow	<u>Flow within Banks</u>	Flood Conditions
WATER LEVEL: (Circle One)	Low	<u>Normal</u>	High
WATER SAMPLE COLLECTION DEVICE (Circle One)	Van Dorn	<u>Direct Grab with Sample Bottle</u>	Dipper Other

Field Measurements		Meter ID#		Field Measurements Read By: (initials)			
Time (24 hr.)	Surface Depth Collected (feet)	pH* (SU)	D.O. (mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
<u>1010</u>	<u>1.5</u>	<u>7.92</u>	<u>6.77</u>	<u>87.5</u>	<u>27.9</u>	<u>974</u>	<u>2.27</u>
Time (24 hr.)	Bottom Depth Collected (feet)	pH (SU)	D.O. (mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)

*pH of preserved sample: number of drops of sulfuric acid added in field to achieve pH of less than 2: NA
 Samples immediately placed on ice? Yes No

WEATHER CONDITIONS: (circle) raining, clear partly cloudy, windy

PERSONNEL ON SITE: Connor Hayden, Justin LeBlanc

REMARKS: sample collected @ outfall water flowing over weir
minor grass growth around perimeter

SURFACE WATER FIELD SHEET
Station Information

STATION ID:	<u>Lake 14</u>
LOCATION:	<u>@ outfall</u>
DATE/TIME:	<u>10/11/22</u> <u>1030</u>
ALL TIMES ARE:	<u>ETZ</u> or CTZ (circle one)

WATERBODY TYPE: (Circle One)	<input checked="" type="radio"/> Small Lake (>4 and <10HA) (collect samples in middle of open water)	<input type="radio"/> Large Lake (>10HA) (collect samples at selected location point)
	<input type="radio"/> Small Stream (collect samples in representative area)	<input type="radio"/> Large River (collect samples in representative area)

Water Characteristics

TOTAL WATER DEPTH: (Average of 2 measurements) (Circle One if applicable)	<u>N/A</u> (feet)	Sample Depth:	<u>1.5</u> (feet)
STREAM FLOW:	<input type="radio"/> No Flow	<input checked="" type="radio"/> Flow within Banks	<input type="radio"/> Flood Conditions
WATER LEVEL: (Circle One)	<input type="radio"/> Low	<input checked="" type="radio"/> Normal	<input type="radio"/> High
WATER SAMPLE COLLECTION DEVICE (Circle One)	<input type="radio"/> Van Dorn	<input checked="" type="radio"/> Direct Grab with Sample Bottle	<input type="radio"/> Dipper Other _____

Field Measurements		Meter ID#		Field Measurements Read By: (initials)			
Time (24 hr.)	Surface Depth Collected (feet)	pH* (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
<u>1030</u>	<u>1.5</u>	<u>7.97</u>	<u>3.74</u>	<u>47.7</u>	<u>27.7</u>	<u>1384</u>	<u>2.77</u>
Time (24 hr.)	Bottom Depth Collected (feet)	pH (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)

*pH of preserved sample: number of drops of sulfuric acid added in field to achieve pH of less than 2: N/A

Samples immediately placed on ice? Yes No

WEATHER CONDITIONS: (circle) raining, clear, partly cloudy, windy

PERSONNEL ON SITE: Connor Hayden, Justin LeBlanc

REMARKS: sample collected from outfall. Strong grass growth around outfall. water flowing into outfall

SURFACE WATER FIELD SHEET
Station Information

STATION ID:	Lake 22
LOCATION:	@ outfall
DATE/TIME:	10/11/22 1050
ALL TIMES ARE:	<u>ETZ</u> or CTZ (circle one)

WATERBODY TYPE: (Circle One)	<u>Small Lake (>4 and <10HA)</u> (collect samples in middle of open water)	Large Lake (>10HA) (collect samples at selected location point)
	Small Stream (collect samples in representative area)	Large River (collect samples in representative area)

Water Characteristics

TOTAL WATER DEPTH: (Average of 2 measurements)	<u>NM</u> (feet)	Sample Depth:	<u>1.5</u> (feet)
STREAM FLOW: (Circle One if applicable)	No Flow	<u>Flow within Banks</u>	Flood Conditions
WATER LEVEL: (Circle One)	Low	<u>Normal</u>	High
WATER SAMPLE COLLECTION DEVICE (Circle One)	Van Dorn	<u>Direct Grab with Sample Bottle</u>	Dipper Other

Field Measurements		Meter ID#		Field Measurements			
Time (24 hr.)	Surface Depth Collected (feet)	pH* (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
1050	1.5	8.03	4.76	61.0	28.1	766	1.04
Time (24 hr.)	Bottom Depth Collected (feet)	pH (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)

*pH of preserved sample: number of drops of sulfuric acid added in field to achieve pH of less than 2: NA
 Samples immediately placed on ice? Yes No

WEATHER CONDITIONS: (circle) raining, clear, partly cloudy, windy

PERSONNEL ON SITE: Connor Hayden, Justin LeBlanc

REMARKS: sample collected from outfall. water flowing over weir.
no vegetation around sample location

SURFACE WATER FIELD SHEET
Station Information

STATION ID:	Lake 32
LOCATION:	From lake bank
DATE/TIME:	10/11/22 11:05
ALL TIMES ARE:	ETZ or CTZ (circle one)

WATERBODY TYPE: (Circle One)	<input checked="" type="radio"/> Small Lake (>4' and ≤10HA) (collect samples in middle of open water)	<input type="radio"/> Large Lake (>10HA) (collect samples at selected location point)
	<input type="radio"/> Small Stream (collect samples in representative area)	<input type="radio"/> Large River (collect samples in representative area)

Water Characteristics

TOTAL WATER DEPTH: (Average of 2 measurements)	NM (feet)	Sample Depth:	1.5 (feet)
STREAM FLOW: (Circle One if applicable)	<input checked="" type="radio"/> No Flow	<input type="radio"/> Flow within Banks	<input type="radio"/> Flood Conditions
WATER LEVEL: (Circle One)	<input type="radio"/> Low	<input checked="" type="radio"/> Normal	<input type="radio"/> High
WATER SAMPLE COLLECTION DEVICE (Circle One)	<input type="radio"/> Van Dorn	<input checked="" type="radio"/> Direct Grab with Sample Bottle	<input type="radio"/> Dipper <input type="radio"/> Other

Field Measurements		Meter ID#		Field Measurements			
Time (24 hr.)	Surface Depth Collected (feet)	pH* (SU)	D.O.(mg/L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
1105	1.5	7.82	5.55	71.3	28.4	391	0.54
Time (24 hr.)	Bottom Depth Collected (feet)	pH*(SU)	D.O.(mg/L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)

*pH of preserved sample: number of drops of sulfuric acid added in field to achieve pH of less than 2: NA

Samples immediately placed on ice? Yes No

WEATHER CONDITIONS: (circle) raining, clear, partly cloudy, windy

PERSONNEL ON SITE: Connor Hayden, Justin LeBlanc

REMARKS: sample collected from lake bank, limited vegetation growth around sample location