

Laboratory Results

Lee County Environmental Laboratory

60-2 Danley Drive
Fort Myers, FL 33907
239-533-8600



To: Natural Resources Management
1500 Monroe St
Fort Myers FL 33901
RE: Tidal Caloosa

Report Date: 6/7/2019

Below are the results of samples submitted to this laboratory on 5/15/2019

Laboratory ID	AE10584	Collection date and time	5/15/2019 12:45 PM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #462		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	14.93		mg/M3	0.5	2.0	5/28/2019	12:54 PM	SM21 10200 H
Pheophytin	6.46		mg/M3	0.5	2.0	5/28/2019	12:54 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	1.5		mg/L	0.3	1.2	5/16/2019	10:23 AM	SM 5210 B
Color	55.5		CU	1.6	6.4	5/16/2019	2:45 PM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	6.95		mg/L	0.1		5/15/2019	12:45 PM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		5/15/2019	3:51 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		5/15/2019	3:53 PM	Colilert-18®
Ammonia	0.016	I	mg/L as N	0.014	0.056	5/23/2019	11:21 AM	EPA 350.1
Nitrite	0.003	I	mg/L as N	0.003	0.012	5/16/2019	1:13 PM	EPA 353.2
Nitrate	0.010	U	mg/L as N	0.01	0.04	5/16/2019	1:13 PM	EPA 353.2
Nitrate + Nitrite	0.010	U	mg/L as N	0.01	0.04	5/16/2019	1:13 PM	EPA 353.2
Nitrogen, Organic	1.0		mg/L as N	0.05	0.2	6/3/2019	11:04 AM	TKN - NH3
Phosphorus, Ortho	0.081		mg/L as P	0.004	0.016	5/16/2019	1:45 PM	EPA 365.1
Salinity by meter by Client	1.11		SU	0.1		5/15/2019	12:45 PM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.05		meters	0.1		5/15/2019	12:45 PM	FDEP FT 1700
Silica, dissolved as SiO2	6.0		mg/L as SiO2	0.1	0.4	5/16/2019	1:45 PM	SM4500-SiO2 C
Depth of Water Body	5.5		Meters			5/15/2019	12:45 PM	FS2100
Nitrogen, Kjeldahl, Total	1.0		mg/L as N	0.05	0.2	6/3/2019	11:04 AM	EPA 351.2
Nitrogen, Total	1.0		mg/L as N	0.05	0.2	6/3/2019	11:04 AM	TKN + NOX
Total Organic Carbon	14		mg/L	1	4	5/23/2019	2:23 PM	SM 5310 B

Laboratory ID	AE10584	Collection date and time	5/15/2019 12:45 PM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #462		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Phosphorus, Total	0.13		mg/L as P	0.006	0.024	6/3/2019	11:10 AM	EPA 365.1
Total Suspended Solids	0.6	U	mg/L	0.6	2.4	5/16/2019	7:37 AM	SM 2540 D
Turbidity (Nephelometric)	3.94		NTU	0.2	0.8	5/16/2019	8:46 AM	EPA 180.1

Laboratory ID	AE10585	Collection date and time	5/15/2019 12:20 PM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #455		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	7.45		mg/M3	0.5	2.0	5/28/2019	12:54 PM	SM21 10200 H
Pheophytin	7.19		mg/M3	0.5	2.0	5/28/2019	12:54 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.9	I	mg/L	0.3	1.2	5/16/2019	10:23 AM	SM 5210 B
Color	52.6		CU	1.6	6.4	5/16/2019	2:45 PM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	4.86		mg/L	0.1		5/15/2019	12:20 PM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		5/15/2019	3:51 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		5/15/2019	3:53 PM	Colilert-18®
Ammonia	0.104		mg/L as N	0.014	0.056	5/23/2019	11:21 AM	EPA 350.1
Nitrite	0.004	I	mg/L as N	0.003	0.012	5/16/2019	1:13 PM	EPA 353.2
Nitrate	0.031	I	mg/L as N	0.01	0.04	5/16/2019	1:13 PM	EPA 353.2
Nitrate + Nitrite	0.035	I	mg/L as N	0.01	0.04	5/16/2019	1:13 PM	EPA 353.2
Nitrogen, Organic	0.90		mg/L as N	0.05	0.2	6/3/2019	11:04 AM	TKN - NH3
Phosphorus, Ortho	0.118		mg/L as P	0.004	0.016	5/16/2019	1:45 PM	EPA 365.1
Salinity by meter by Client	1.43		SU	0.1		5/15/2019	12:20 PM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	0.95		meters	0.1		5/15/2019	12:20 PM	FDEP FT 1700
Silica, dissolved as SiO2	6.0		mg/L as SiO2	0.1	0.4	5/16/2019	1:45 PM	SM4500-SiO2 C
Depth of Water Body	2.9		Meters			5/15/2019	12:20 PM	FS2100
Nitrogen, Kjeldahl, Total	1.0		mg/L as N	0.05	0.2	6/3/2019	11:04 AM	EPA 351.2
Nitrogen, Total	1.0		mg/L as N	0.05	0.2	6/3/2019	11:04 AM	TKN + NOX
Total Organic Carbon	14		mg/L	1	4	5/23/2019	2:23 PM	SM 5310 B
Phosphorus, Total	0.17		mg/L as P	0.006	0.024	6/3/2019	11:10 AM	EPA 365.1
Total Suspended Solids	4.20		mg/L	0.6	2.4	5/16/2019	7:37 AM	SM 2540 D
Turbidity (Nephelometric)	5.70		NTU	0.2	0.8	5/16/2019	8:46 AM	EPA 180.1

Laboratory ID	AE10586	Collection date and time	5/15/2019 12:00 PM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #450		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	4.33		mg/M3	0.5	2.0	5/28/2019	12:54 PM	SM21 10200 H
Pheophytin	4.51		mg/M3	0.5	2.0	5/28/2019	12:54 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.7	I	mg/L	0.3	1.2	5/16/2019	10:23 AM	SM 5210 B
Color	52.2		CU	1.6	6.4	5/16/2019	2:45 PM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	5.28		mg/L	0.1		5/15/2019	12:00 PM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		5/15/2019	3:51 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		5/15/2019	3:53 PM	Colilert-18®
Ammonia	0.073		mg/L as N	0.014	0.056	5/23/2019	11:21 AM	EPA 350.1
Nitrite	0.004	I	mg/L as N	0.003	0.012	5/16/2019	1:13 PM	EPA 353.2
Nitrate	0.035	I	mg/L as N	0.01	0.04	5/16/2019	1:13 PM	EPA 353.2
Nitrate + Nitrite	0.039	I	mg/L as N	0.01	0.04	5/16/2019	1:13 PM	EPA 353.2
Nitrogen, Organic	0.86		mg/L as N	0.05	0.2	6/3/2019	11:04 AM	TKN - NH3
Phosphorus, Ortho	0.122		mg/L as P	0.004	0.016	5/16/2019	1:45 PM	EPA 365.1
Salinity by meter by Client	2.10		SU	0.1		5/15/2019	12:00 PM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	0.85		meters	0.1		5/15/2019	12:00 PM	FDEP FT 1700
Silica, dissolved as SiO2	6.0		mg/L as SiO2	0.1	0.4	5/16/2019	1:45 PM	SM4500-SiO2 C
Depth of Water Body	1.7		Meters			5/15/2019	12:00 PM	FS2100
Nitrogen, Kjeldahl, Total	0.93		mg/L as N	0.05	0.2	6/3/2019	11:04 AM	EPA 351.2
Nitrogen, Total	0.97		mg/L as N	0.05	0.2	6/3/2019	11:04 AM	TKN + NOX
Total Organic Carbon	14		mg/L	1	4	5/23/2019	2:23 PM	SM 5310 B
Phosphorus, Total	0.17		mg/L as P	0.006	0.024	6/3/2019	11:10 AM	EPA 365.1
Total Suspended Solids	3.30		mg/L	0.6	2.4	5/16/2019	7:37 AM	SM 2540 D
Turbidity (Nephelometric)	5.36		NTU	0.2	0.8	5/16/2019	8:46 AM	EPA 180.1

Laboratory ID	AE10587	Collection date and time	5/15/2019 9:35 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #387		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	2.46		mg/M3	0.5	2.0	5/28/2019	12:54 PM	SM21 10200 H
Pheophytin	1.12	I	mg/M3	0.5	2.0	5/28/2019	12:54 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.8	I	mg/L	0.3	1.2	5/16/2019	10:23 AM	SM 5210 B

Laboratory ID	AE10587	Collection date and time	5/15/2019 9:35 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #387		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Color	21.7		CU	1.6	6.4	5/16/2019	2:45 PM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	6.01		mg/L	0.1		5/15/2019	9:35 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		5/15/2019	3:51 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		5/15/2019	3:53 PM	Colilert-18®
Ammonia	0.019	I	mg/L as N	0.014	0.056	5/23/2019	11:21 AM	EPA 350.1
Nitrite	0.003	U	mg/L as N	0.003	0.012	5/16/2019	1:13 PM	EPA 353.2
Nitrate	0.010	U	mg/L as N	0.01	0.04	5/16/2019	1:13 PM	EPA 353.2
Nitrate + Nitrite	0.010	U	mg/L as N	0.01	0.04	5/16/2019	1:13 PM	EPA 353.2
Nitrogen, Organic	0.60		mg/L as N	0.05	0.2	6/3/2019	11:04 AM	TKN - NH3
Phosphorus, Ortho	0.052		mg/L as P	0.004	0.016	5/16/2019	1:45 PM	EPA 365.1
Salinity by meter by Client	18.84		SU	0.1		5/15/2019	9:35 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	2.6		meters	0.1		5/15/2019	9:35 AM	FDEP FT 1700
Silica, dissolved as SiO2	1.5		mg/L as SiO2	0.1	0.4	5/16/2019	1:45 PM	SM4500-SiO2 C
Depth of Water Body	2.6		Meters			5/15/2019	9:35 AM	FS2100
Nitrogen, Kjeldahl, Total	0.62		mg/L as N	0.05	0.2	6/3/2019	11:04 AM	EPA 351.2
Nitrogen, Total	0.62		mg/L as N	0.05	0.2	6/3/2019	11:04 AM	TKN + NOX
Total Organic Carbon	8.2		mg/L	1	4	5/23/2019	2:23 PM	SM 5310 B
Phosphorus, Total	0.074		mg/L as P	0.006	0.024	6/3/2019	11:10 AM	EPA 365.1
Total Suspended Solids	0.6	U	mg/L	0.6	2.4	5/16/2019	7:37 AM	SM 2540 D
Turbidity (Nephelometric)	0.20	U	NTU	0.2	0.8	5/16/2019	8:46 AM	EPA 180.1

Laboratory ID	AE10589	Collection date and time	5/15/2019 10:15 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #404		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	3.32		mg/M3	0.5	2.0	5/28/2019	12:54 PM	SM21 10200 H
Pheophytin	1.51	I	mg/M3	0.5	2.0	5/28/2019	12:54 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.8	I	mg/L	0.3	1.2	5/16/2019	10:23 AM	SM 5210 B
Color	26.4		CU	1.6	6.4	5/16/2019	2:45 PM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	6.00		mg/L	0.1		5/15/2019	10:15 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		5/15/2019	3:51 PM	Enterolert®

Laboratory ID	AE10589	Collection date and time	5/15/2019 10:15 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #404		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
E.coli Enumeration	10		MPN/100mL	10		5/15/2019	3:53 PM	Colilert-18®
Ammonia	0.028	I	mg/L as N	0.014	0.056	5/23/2019	11:21 AM	EPA 350.1
Nitrite	0.003	U	mg/L as N	0.003	0.012	5/16/2019	1:13 PM	EPA 353.2
Nitrate	0.010	U	mg/L as N	0.01	0.04	5/16/2019	1:13 PM	EPA 353.2
Nitrate + Nitrite	0.010	U	mg/L as N	0.01	0.04	5/16/2019	1:13 PM	EPA 353.2
Nitrogen, Organic	0.66		mg/L as N	0.05	0.2	6/3/2019	11:04 AM	TKN - NH3
Phosphorus, Ortho	0.071		mg/L as P	0.004	0.016	5/16/2019	1:45 PM	EPA 365.1
Salinity by meter by Client	13.68		SU	0.1		5/15/2019	10:15 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.1		meters	0.1		5/15/2019	10:15 AM	FDEP FT 1700
Silica, dissolved as SiO2	2.3		mg/L as SiO2	0.1	0.4	5/16/2019	1:45 PM	SM4500-SiO2 C
Depth of Water Body	1.1		Meters			5/15/2019	10:15 AM	FS2100
Nitrogen, Kjeldahl, Total	0.69		mg/L as N	0.05	0.2	6/3/2019	11:04 AM	EPA 351.2
Nitrogen, Total	0.69		mg/L as N	0.05	0.2	6/3/2019	11:04 AM	TKN + NOX
Total Organic Carbon	9.5		mg/L	1	4	5/23/2019	2:23 PM	SM 5310 B
Phosphorus, Total	0.092		mg/L as P	0.006	0.024	6/3/2019	11:10 AM	EPA 365.1
Total Suspended Solids	0.6	U	mg/L	0.6	2.4	5/16/2019	7:37 AM	SM 2540 D
Turbidity (Nephelometric)	0.20	U	NTU	0.2	0.8	5/16/2019	8:46 AM	EPA 180.1

Laboratory ID	AE10590	Collection date and time	5/15/2019 1:00 PM
Location Code	CRNEP_EQ	Sample Collector	REISTADT/DUGAN
Sample Description	EB Site #462		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	0.50	U	mg/M3	0.5	2.0	5/29/2019	12:00 AM	SM21 10200 H
Pheophytin	0.50	U	mg/M3	0.5	2.0	5/29/2019	12:00 AM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.3	U	mg/L	0.3	1.2	5/16/2019	10:23 AM	SM 5210 B
Color	1.6	U	CU	1.6	6.4	5/16/2019	2:45 PM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	7.64		mg/L	0.1		5/15/2019	1:00 PM	FDEP FT1500
Enterococci	2	U	MPN/100mL	2		5/15/2019	3:51 PM	Enterolert®
E.coli Enumeration	2	U	MPN/100mL	2		5/15/2019	3:53 PM	Colilert-18®
Ammonia	0.014	U	mg/L as N	0.014	0.056	5/23/2019	11:21 AM	EPA 350.1
Nitrite	0.003	U	mg/L as N	0.003	0.012	5/16/2019	1:13 PM	EPA 353.2

Laboratory ID AE10590
Location Code CRNEP_EQ
Sample Description EB Site #462

Collection date and time 5/15/2019 1:00 PM
Sample Collector REISTADT/DUGAN

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Nitrate	0.010	U	mg/L as N	0.01	0.04	5/16/2019	1:13 PM	EPA 353.2
Nitrate + Nitrite	0.010	U	mg/L as N	0.01	0.04	5/16/2019	1:13 PM	EPA 353.2
Nitrogen, Organic	0.050	U	mg/L as N	0.05	0.2	6/3/2019	11:04 AM	TKN - NH3
Phosphorus, Ortho	0.004	U	mg/L as P	0.004	0.016	5/16/2019	1:45 PM	EPA 365.1
Salinity by meter by Client	0.1	U	SU	0.1		5/15/2019	1:00 PM	FDEP FT 1300
Silica, dissolved as SiO2	0.1	U	mg/L as SiO2	0.1	0.4	5/16/2019	1:45 PM	SM4500-SiO2 C
Nitrogen, Kjeldahl, Total	0.05	U	mg/L as N	0.05	0.2	6/3/2019	11:04 AM	EPA 351.2
Nitrogen, Total	0.050	U	mg/L as N	0.05	0.2	6/3/2019	11:04 AM	TKN + NOX
Total Organic Carbon	1.000	U	mg/L	1	4	5/23/2019	2:23 PM	SM 5310 B
Phosphorus, Total	0.006	U	mg/L as P	0.006	0.024	6/3/2019	11:10 AM	EPA 365.1
Total Suspended Solids	0.6	U	mg/L	0.6	2.4	5/16/2019	7:37 AM	SM 2540 D
Turbidity (Nephelometric)	0.20	U	NTU	0.2	0.8	5/16/2019	8:46 AM	EPA 180.1

Qualifiers:

I The value is less than, or equal to, the laboratory's practical quantitation limit (PQL) and greater than the minimum detection limit (MDL).

U Indicates that the compound was analyzed for but not detected.

Unless noted otherwise, these test results meet all the requirements of the 2003 NELAC Standards.

The results provided herein relate only to the samples cited as they were received by the laboratory. All questions regarding this report should be directed to Rick Armstrong, Laboratory Manager.



Rick Armstrong
Lab Manager
Lee County Environmental Lab

LCEL

Lee County Environmental Laboratory
60-2 Danley Dr Ft Myers, FL 33907
Phone: (239) 533-8600

Analysis Request & Chain of Custody Record

Lab Certification: E45049
LCEL F COC 20150828R1

LCEL does not accept any samples used for evidentiary purposes

Report/Result Information				Billing/Invoice Information				Page 1 of 1											
Name: FDEP - South		Name: DNRM		Matrix Codes: DW-Drinking water GW- Ground water WW-Waste water SW-Surface water WWS-Wastewater Sludge S-Sediment O-Other		Preservative Codes: NP-No Preservative N-Nitric Acid S-Sulfuric Acid H-Hydrochloric Acid SH-Sodium Hydroxide ST-Sodium Thiosulfate O-Other													
ATTN: Kirby Wolfe		RE: CCHMN-Tidal Caloosa																	
Address: 2295 Victoria Ave, Suite 364 PO Box 2549 Ft Myers FL 33901		Address: 1500 Monroe St Ft Myers, FL 33901																	
Phone: (239) 344-5719		Phone: (239) 533-8109																	
Sample Collector(s) (please print): Nicole Reistad/Maryann Dugan				Sample Collector Signature:				Analyses Required											
Relinquished By: (signature)		Date		Time		Received By: (signature)													
		05/15/19		1505				\$Chloroa, _prep		O-PO4, Color, NOX		TOC		NH3, TKN, TN, T-PO4, NO3, ONIT		Turb, NO2, TSS, Silica, Bod, Bodi		Mug2QT, Entero	
Relinquished By: (signature)		Date		Time		Received By: (signature)													
		05/15/19		1505															
Relinquished By: (signature)		Date		Time		Received By: (signature)													
Sample(s) on ice ☒ Yes or ☐ No? Temperature °C: 1.5°C																			
Collection		Sample Description & Location		Matrix (see codes)															
Date Time																		Lab ID #	
05/15/19 1245		CRNEP_RS #462		SWE		1		1		1		1		2		1		AE10584	
05/15/19 1220		CRNEP_RS #455		SWE		1		1		1		1		2		1		AE10585	
05/15/19 1200		CRNEP_RS #450		SWE		1		1		1		1		2		1		AE10586	
05/15/19 0935		CRNEP_RS #387		SWE		1		1		1		1		2		1		AE10587	
		CRNEP_RSBOT #387 BOTTOM NOT TAKEN		SWE		1		1		1		1		2		1		AE10588	
05/15/19 1015		CRNEP_RS #404		SWE		1		1		1		1		2		1		AE10589	
05/15/19 1300		CRNEP_EQ #BLANK AT #462		SWE		1		1		1		1		2		1		AE10590	

**SAMPLES SHOULD BE IN WET ICE & LESS THAN 6° C (42.8°F)
OR THEY MAYBE QUALIFIED***

*Qualified = the data may not be accurate and regulatory agencies may not accept qualified data.