

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: 7/27/2018

Below are the results of samples submitted to this laboratory on 7/18/2018

Laboratory ID	AD80956	Collection date and time	7/18/2018 12:45 PM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #453		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	5.25		mg/M3	0.5	2	7/23/2018	1:30 PM	SM21 10200 H
Pheophytin	5.83		mg/M3	0.5	2	7/23/2018	1:30 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	2.6		mg/L	0.3	1.2	7/19/2018	8:00 AM	SM20 5210 B
Color	260		CU	8.0	32.0	7/19/2018	9:21 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	4.08		mg/L	0.1		7/18/2018	12:45 PM	FDEP FT1500
Enterococci	10		MPN/100mL	10		7/18/2018	3:24 PM	Enterolert®
E.coli Enumeration	31		MPN/100mL	10		7/18/2018	3:24 PM	Colilert-18®
Ammonia	0.045	I	mg/L as N	0.014	0.056	7/19/2018	2:12 PM	EPA 350.1
Nitrite	0.042		mg/L as N	0.003	0.012	7/19/2018	8:01 AM	EPA 353.2
Nitrate	0.283		mg/L as N	0.01	0.04	7/19/2018	8:01 AM	EPA 353.2
Nitrate + Nitrite	0.325		mg/L as N	0.01	0.04	7/19/2018	8:01 AM	EPA 353.2
Nitrogen, Organic	1.4		mg/L as N	0.05	0.2	7/25/2018	8:52 AM	TKN - NH3
Phosphorus, Ortho	0.142		mg/L as P	0.004	0.016	7/19/2018	1:40 PM	EPA 365.1
Salinity by meter by Client	0.18		SU	0.1		7/18/2018	12:45 PM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	0.4		meters	0.1		7/18/2018	12:45 PM	FDEP FT 1700
Silica, dissolved as SiO2	12		mg/L as SiO2	0.1	0.4	7/19/2018	1:42 PM	SM4500 C
Depth of Water Body	1.2		Meters			7/18/2018	12:45 PM	FS2100
Nitrogen, Kjeldahl, Total	1.4		mg/L as N	0.05	0.2	7/25/2018	8:52 AM	EPA 351.2
Nitrogen, Total	1.7		mg/L as N	0.05	0.2	7/25/2018	8:52 AM	TKN + NOX
Total Organic Carbon	24		mg/L	1	4	7/21/2018	11:22 AM	SM21 5310 B

Laboratory ID	AD80956	Collection date and time	7/18/2018 12:45 PM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #453		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Phosphorus, Total	0.22		mg/L as P	0.006	0.024	7/25/2018	8:55 AM	EPA 365.1
Total Suspended Solids	17.3		mg/L	0.6	2.4	7/19/2018	8:00 AM	SM21 2540 D
Turbidity (Nephelometric)	12.2		NTU	0.2	0.8	7/19/2018	8:47 AM	EPA 180.1

Laboratory ID	AD80958	Collection date and time	7/18/2018 12:15 PM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #448		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	3.40		mg/M3	0.5	2	7/23/2018	1:30 PM	SM21 10200 H
Pheophytin	3.61		mg/M3	0.5	2	7/23/2018	1:30 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	1.3		mg/L	0.3	1.2	7/19/2018	8:00 AM	SM20 5210 B
Color	213		CU	8.0	32.0	7/19/2018	9:21 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	5.14		mg/L	0.1		7/18/2018	12:15 PM	FDEP FT1500
Enterococci	42		MPN/100mL	10		7/18/2018	3:24 PM	Enterolert®
E.coli Enumeration	20		MPN/100mL	10		7/18/2018	3:24 PM	Colilert-18®
Ammonia	0.061		mg/L as N	0.014	0.056	7/19/2018	2:12 PM	EPA 350.1
Nitrite	0.022		mg/L as N	0.003	0.012	7/19/2018	8:01 AM	EPA 353.2
Nitrate	0.229		mg/L as N	0.01	0.04	7/19/2018	8:01 AM	EPA 353.2
Nitrate + Nitrite	0.251		mg/L as N	0.01	0.04	7/19/2018	8:01 AM	EPA 353.2
Nitrogen, Organic	1.0		mg/L as N	0.05	0.2	7/25/2018	8:52 AM	TKN - NH3
Phosphorus, Ortho	0.134		mg/L as P	0.004	0.016	7/19/2018	1:40 PM	EPA 365.1
Salinity by meter by Client	0.21		SU	0.1		7/18/2018	12:15 PM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	0.6		meters	0.1		7/18/2018	12:15 PM	FDEP FT 1700
Silica, dissolved as SiO2	11		mg/L as SiO2	0.1	0.4	7/19/2018	1:42 PM	SM4500 C
Depth of Water Body	1.3		Meters			7/18/2018	12:15 PM	FS2100
Nitrogen, Kjeldahl, Total	1.1		mg/L as N	0.05	0.2	7/25/2018	8:52 AM	EPA 351.2
Nitrogen, Total	1.4		mg/L as N	0.05	0.2	7/25/2018	8:52 AM	TKN + NOX
Total Organic Carbon	22		mg/L	1	4	7/21/2018	11:22 AM	SM21 5310 B
Phosphorus, Total	0.16		mg/L as P	0.006	0.024	7/25/2018	8:55 AM	EPA 365.1
Total Suspended Solids	2.93		mg/L	0.6	2.4	7/19/2018	8:00 AM	SM21 2540 D
Turbidity (Nephelometric)	5.08		NTU	0.2	0.8	7/19/2018	8:47 AM	EPA 180.1

Laboratory ID	AD80959	Collection date and time	7/18/2018 11:40 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #436		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	2.16		mg/M3	0.5	2	7/23/2018	1:30 PM	SM21 10200 H
Pheophytin	2.25		mg/M3	0.5	2	7/23/2018	1:30 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	1.9		mg/L	0.3	1.2	7/19/2018	8:00 AM	SM20 5210 B
Color	208		CU	8.0	32.0	7/19/2018	9:21 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	4.46		mg/L	0.1		7/18/2018	11:40 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		7/18/2018	3:24 PM	Enterolert®
E.coli Enumeration	31		MPN/100mL	10		7/18/2018	3:24 PM	Colilert-18®
Ammonia	0.024	I	mg/L as N	0.014	0.056	7/19/2018	2:12 PM	EPA 350.1
Nitrite	0.028		mg/L as N	0.003	0.012	7/19/2018	8:01 AM	EPA 353.2
Nitrate	0.332		mg/L as N	0.01	0.04	7/19/2018	8:01 AM	EPA 353.2
Nitrate + Nitrite	0.360		mg/L as N	0.01	0.04	7/19/2018	8:01 AM	EPA 353.2
Nitrogen, Organic	0.97		mg/L as N	0.05	0.2	7/25/2018	8:52 AM	TKN - NH3
Phosphorus, Ortho	0.134		mg/L as P	0.004	0.016	7/19/2018	1:40 PM	EPA 365.1
Salinity by meter by Client	0.22		SU	0.1		7/18/2018	11:40 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	0.5		meters	0.1		7/18/2018	11:40 AM	FDEP FT 1700
Silica, dissolved as SiO2	11		mg/L as SiO2	0.1	0.4	7/19/2018	1:42 PM	SM4500 C
Depth of Water Body	2.5		Meters			7/18/2018	11:40 AM	FS2100
Nitrogen, Kjeldahl, Total	0.99		mg/L as N	0.05	0.2	7/25/2018	8:52 AM	EPA 351.2
Nitrogen, Total	1.4		mg/L as N	0.05	0.2	7/25/2018	8:52 AM	TKN + NOX
Total Organic Carbon	22		mg/L	1	4	7/21/2018	11:22 AM	SM21 5310 B
Phosphorus, Total	0.16		mg/L as P	0.006	0.024	7/25/2018	8:55 AM	EPA 365.1
Total Suspended Solids	1.20	I	mg/L	0.6	2.4	7/19/2018	8:00 AM	SM21 2540 D
Turbidity (Nephelometric)	2.23		NTU	0.2	0.8	7/19/2018	8:47 AM	EPA 180.1

Laboratory ID	AD80961	Collection date and time	7/18/2018 10:25 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #396		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	3.59		mg/M3	0.5	2	7/23/2018	1:30 PM	SM21 10200 H
Pheophytin	2.56		mg/M3	0.5	2	7/23/2018	1:30 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	1.0	I	mg/L	0.3	1.2	7/19/2018	8:00 AM	SM20 5210 B

Laboratory ID	AD80961	Collection date and time	7/18/2018 10:25 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #396		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Color	213		CU	8.0	32.0	7/19/2018	9:21 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	5.16		mg/L	0.1		7/18/2018	10:25 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		7/18/2018	3:24 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		7/18/2018	3:24 PM	Colilert-18®
Ammonia	0.038	I	mg/L as N	0.014	0.056	7/19/2018	2:12 PM	EPA 350.1
Nitrite	0.009	I	mg/L as N	0.003	0.012	7/19/2018	8:01 AM	EPA 353.2
Nitrate	0.238		mg/L as N	0.01	0.04	7/19/2018	8:01 AM	EPA 353.2
Nitrate + Nitrite	0.247		mg/L as N	0.01	0.04	7/19/2018	8:01 AM	EPA 353.2
Nitrogen, Organic	0.96		mg/L as N	0.05	0.2	7/25/2018	8:52 AM	TKN - NH3
Phosphorus, Ortho	0.133		mg/L as P	0.004	0.016	7/19/2018	1:40 PM	EPA 365.1
Salinity by meter by Client	0.44		SU	0.1		7/18/2018	10:25 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	0.4		meters	0.1		7/18/2018	10:25 AM	FDEP FT 1700
Silica, dissolved as SiO2	11		mg/L as SiO2	0.1	0.4	7/19/2018	1:42 PM	SM4500 C
Depth of Water Body	1.7		Meters			7/18/2018	10:25 AM	FS2100
Nitrogen, Kjeldahl, Total	1.0		mg/L as N	0.05	0.2	7/25/2018	8:52 AM	EPA 351.2
Nitrogen, Total	1.2		mg/L as N	0.05	0.2	7/25/2018	8:52 AM	TKN + NOX
Total Organic Carbon	22		mg/L	1	4	7/21/2018	11:22 AM	SM21 5310 B
Phosphorus, Total	0.16		mg/L as P	0.006	0.024	7/25/2018	8:55 AM	EPA 365.1
Total Suspended Solids	1.75	I	mg/L	0.6	2.4	7/19/2018	8:00 AM	SM21 2540 D
Turbidity (Nephelometric)	2.24		NTU	0.2	0.8	7/19/2018	8:47 AM	EPA 180.1

Laboratory ID	AD80962	Collection date and time	7/18/2018 2:00 PM
Location Code	CRNEP_EQ	Sample Collector	REISTADT/DUGAN
Sample Description	EB Site #436		

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	7/23/2018	1:30 PM	SM21 10200 H
Pheophytin	0.50	U	mg/M3	0.5	2	7/23/2018	1:30 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.3	U	mg/L	0.3	1.2	7/19/2018	8:00 AM	SM20 5210 B
Color	1.6	U	CU	1.6	6.4	7/19/2018	9:21 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	7.29		mg/L	0.1		7/18/2018	2:00 PM	FDEP FT1500
Enterococci	2	U	MPN/100mL	2		7/18/2018	3:24 PM	Enterolert®

Laboratory ID AD80962
Location Code CRNEP_EQ
Sample Description EB Site #436

Collection date and time 7/18/2018 2:00 PM
Sample Collector REISTADT/DUGAN

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
E.coli Enumeration	2	U	MPN/100mL	2		7/18/2018	3:24 PM	Colilert-18®
Ammonia	0.014	U	mg/L as N	0.014	0.056	7/19/2018	2:12 PM	EPA 350.1
Nitrite	0.003	U	mg/L as N	0.003	0.012	7/19/2018	8:01 AM	EPA 353.2
Nitrate	0.010	U	mg/L as N	0.01	0.04	7/19/2018	8:01 AM	EPA 353.2
Nitrate + Nitrite	0.010	U	mg/L as N	0.01	0.04	7/19/2018	8:01 AM	EPA 353.2
Nitrogen, Organic	0.050	U	mg/L as N	0.05	0.2	7/25/2018	8:52 AM	TKN - NH3
Phosphorus, Ortho	0.004	U	mg/L as P	0.004	0.016	7/19/2018	1:40 PM	EPA 365.1
Salinity by meter by Client	0.1	U	SU	0.1		7/18/2018	2:00 PM	FDEP FT 1300
Silica, dissolved as SiO2	0.1	U	mg/L as SiO2	0.1	0.4	7/19/2018	1:42 PM	SM4500 C
Nitrogen, Kjeldahl, Total	0.05	U	mg/L as N	0.05	0.2	7/25/2018	8:52 AM	EPA 351.2
Nitrogen, Total	0.050	U	mg/L as N	0.05	0.2	7/25/2018	8:52 AM	TKN + NOX
Total Organic Carbon	1.000	U	mg/L	1	4	7/21/2018	11:22 AM	SM21 5310 B
Phosphorus, Total	0.006	U	mg/L as P	0.006	0.024	7/25/2018	8:55 AM	EPA 365.1
Total Suspended Solids	0.6	U	mg/L	0.6	2.4	7/19/2018	8:00 AM	SM21 2540 D
Turbidity (Nephelometric)	0.20	U	NTU	0.2	0.8	7/19/2018	8:47 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.



Jacqueline Ramos
Chemist

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

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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):
MaryAnn Dugan / Nicole Reistad

Sample Collector Signature:

Analyses Required

Relinquished By: (signature)	Date	Time	Received By: (signature)	\$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)						
Relinquished By: (signature)	Date	Time	Received By: (signature)						

Sample(s) on ice ☒ Yes or ☐ No? Temperature °C: 20.2

NP NPF S S NP ST

Preservatives (see codes)

Collection Date	Time	Sample Description & Location	Matrix (see codes)	# of Sample Containers Submitted						Lab ID #
07/18/18	1245	CRNEP_RS #453	SWE	1	1	1	1	2	1	AD80956
		CRNEP_RS #462 NOT SAMPLED	SWE	1	1	1	1	2	1	AD80957
07/18/18	1215	CRNEP_RS #448	SWE	1	1	1	1	2	1	AD80958
07/18/18	1140	CRNEP_RS #436	SWE	1	1	1	1	2	1	AD80959
		CRNEP_RSBOT #436 Bottom NOT TAKEN	SWE	1	1	1	1	2	1	AD80960
07/18/18	1025	CRNEP_RS #396	SWE	1	1	1	1	2	1	AD80961
07/18/18	1400	CRNEP_EQ #	SWE	1	1	1	1	2	1	AD80962

**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.