



PINELLAS COUNTY UTILITIES LABORATORY
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CERTIFICATE OF ANALYSIS

Client: Pinellas County - Environmental Management
Division
22211 US Hwy 19 N
Clearwater, FL 33756

Analyzed By: Pinellas County Utilities Laboratory
1620 Ridge Road Bldg B, Largo, FL 33778
Ph: 727-582-2302

State of Florida Certification: E54357

Workorder Number: 1900717

EPA Lab#: FL00123

Profile: Environmental Mgmt - Ambient

Line Item: EMD - Land Run

SAMPLE SITE	SAMPLE NO.	COLLECTED DATE/TIME	RECEIVED DATE/TIME
39-01 19-02	190071701	04/08/2019 08:55	04/08/2019 15:04
39-05 19-02	190071702	04/08/2019 09:23	04/08/2019 15:04
LR7-FB 19-02	190071703	04/08/2019 11:10	04/08/2019 15:04
27-11 19-02	190071704	04/08/2019 11:38	04/08/2019 15:04
27-09 19-02	190071705	04/08/2019 12:28	04/08/2019 15:04
27-10 19-02	190071706	04/08/2019 13:42	04/08/2019 15:04
27-08 19-02	190071707	04/08/2019 14:25	04/08/2019 15:04

THIS REPORT MEETS TNI STANDARDS

All analytical data contained in this report were obtained using the specified methods and were verified by our laboratory quality system. All methods referenced in this report meet TNI requirements unless otherwise indicated by analytical data codes and/or remarks. Analytical results listed within this report pertain only to the specific samples listed. No other inferences can be made. All measurements are on a wet weight basis unless otherwise indicated by the units of measure. Uncertainty of Measurement for each analyte and the associated Quality Control data for these sample results will be provided upon request.

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CERTIFICATION STATEMENT

An asterisk (*) appearing next to an analyte indicates certification is not currently held for that test/analyte or that the certified test method has been sufficiently modified to accommodate the customer requirements that it no longer qualifies as certified.

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Pinellas County Utilities Laboratory
Contact Person: Terri Grimes
727-582-2322

Terri Grimes

04/17/2019

Terri Grimes
Laboratory Project Coordinator/QA Manager
tgrimes@pinellascounty.org

Date



ANALYTICAL RESULTS

Workorder: 1900717

Lab ID: **190071701**
Sample ID: **39-01 19-02**

Date Received: 4/8/2019 15:04
Date Collected: 4/8/2019 08:55
Matrix: Surface Water
Type: Grab

Parameters	Results	Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics									
Analytical Method: SM 2130B									
Turbidity	2.0	NTU	1	0.1		4/9/2019 13:43	TMT		CHEM/2488
Analytical Method: SM 2540D									
Total Suspended Solids	6	mg/L	1	1		4/9/2019 12:26	KDP		CHEM/2491
Analytical Method: SM 10200H									
Chlorophyll a (Corrected)	5.2	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll a (Uncorrected)	6.4	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll b	0.5 U	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll c	0.9	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Pheophytin	1.8	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Analytical Method: SM 5210B									
Biochemical Oxygen Demand	1.8 I	mg/L	1	0.5	2.0	4/9/2019 12:50	RRM		CHEM/2490
Microbiology									
Analytical Method: ASTM D6503-99									
Enterococci	836	MPN/100mL	10	10		4/8/2019 15:39	AJH		MIC/2153
Nutrients									
Analytical Method: ASTM D3590-11B									
Total Kjeldahl Nitrogen	0.64	mg/L	1	0.10	0.40	4/11/2019 14:52	AMC		NUTR/2235
Analytical Method: EPA 365.1									
Total Phosphorus	0.09	mg/L	1	0.01	0.04	4/11/2019 10:21	AMC		NUTR/2232
Analytical Method: SM 4500PF									
Orthophosphate as P(Dissolved)	0.04 I	mg/L	1	0.01	0.04	4/9/2019 13:35	ISP	F	NUTR/2228
F - Sample filtered to remove excessive debris									
Analytical Method: SM 4500NH3H									
Ammonia	0.11	mg/L	1	0.01	0.04	4/9/2019 10:30	AJH		NUTR/2226
Analytical Method: SM 4500NO3F									
Nitrate+Nitrite (N)	0.06	mg/L	1	0.01	0.04	4/9/2019 10:30	AJH		NUTR/2225

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ANALYTICAL RESULTS

Workorder: 1900717

Lab ID: **190071702**
Sample ID: **39-05 19-02**

Date Received: 4/8/2019 15:04
Date Collected: 4/8/2019 09:23
Matrix: Surface Water
Type: Grab

Parameters	Results	Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics									
Analytical Method: SM 2130B									
Turbidity	2.4	NTU	1	0.1		4/9/2019 13:43	TMT		CHEM/2488
Analytical Method: SM 2540D									
Total Suspended Solids	4	mg/L	1	1		4/9/2019 12:26	KDP		CHEM/2491
Analytical Method: SM 10200H									
Chlorophyll a (Corrected)	6.3	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll a (Uncorrected)	7.9	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll b	0.5 U	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll c	1.4	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Pheophytin	2.2	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Analytical Method: SM 5210B									
Biochemical Oxygen Demand	1.5 I	mg/L	1	0.5	2.0	4/9/2019 12:50	RRM		CHEM/2490
Microbiology									
Analytical Method: ASTM D6503-99									
Enterococci	602	MPN/100mL	10	10		4/8/2019 15:39	AJH		MIC/2153
Nutrients									
Analytical Method: ASTM D3590-11B									
Total Kjeldahl Nitrogen	0.74	mg/L	1	0.10	0.40	4/11/2019 14:53	AMC		NUTR/2235
Analytical Method: EPA 365.1									
Total Phosphorus	0.10	mg/L	1	0.01	0.04	4/11/2019 10:22	AMC		NUTR/2232
Analytical Method: SM 4500PF									
Orthophosphate as P(Dissolved)	0.04 I	mg/L	1	0.01	0.04	4/9/2019 13:38	ISP		NUTR/2228
Analytical Method: SM 4500NH3H									
Ammonia	0.11	mg/L	1	0.01	0.04	4/9/2019 10:31	AJH		NUTR/2226
Analytical Method: SM 4500NO3F									
Nitrate+Nitrite (N)	0.06	mg/L	1	0.01	0.04	4/9/2019 10:31	AJH		NUTR/2225

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ANALYTICAL RESULTS

Workorder: 1900717

Lab ID: **190071703**
Sample ID: **LR7-FB 19-02**

Date Received: 4/8/2019 15:04
Date Collected: 4/8/2019 11:10
Matrix: Surface Water
Type: Grab

Parameters	Results	Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Nutrients									
Analytical Method: ASTM D3590-11B									
Total Kjeldahl Nitrogen	0.10 U	mg/L	1	0.10	0.40	4/11/2019 14:54	AMC		NUTR/2235
Analytical Method: EPA 365.1									
Total Phosphorus	0.01 U	mg/L	1	0.01	0.04	4/11/2019 10:23	AMC		NUTR/2232
Analytical Method: SM 4500PF									
Orthophosphate as P(Dissolved)	0.01 U	mg/L	1	0.01	0.04	4/9/2019 13:39	ISP		NUTR/2228
Analytical Method: SM 4500NH3H									
Ammonia	0.01 U	mg/L	1	0.01	0.04	4/9/2019 10:32	AJH		NUTR/2226
Analytical Method: SM 4500NO3F									
Nitrate+Nitrite (N)	0.01 U	mg/L	1	0.01	0.04	4/9/2019 10:32	AJH		NUTR/2225

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ANALYTICAL RESULTS

Workorder: 1900717

Lab ID: **190071704**
Sample ID: **27-11 19-02**

Date Received: 4/8/2019 15:04
Date Collected: 4/8/2019 11:38
Matrix: Surface Water
Type: Grab

Parameters	Results Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics								
Analytical Method: SM 2130B								
Turbidity	0.3 NTU	1	0.1		4/9/2019 13:43	TMT		CHEM/2488
Analytical Method: SM 2540D								
Total Suspended Solids	1 U mg/L	1	1		4/9/2019 12:26	KDP		CHEM/2491
Analytical Method: SM 10200H								
Chlorophyll a (Corrected)	1.2 mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll a (Uncorrected)	1.8 mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll b	0.5 U mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll c	0.5 U mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Pheophytin	0.9 mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Analytical Method: SM 5210B								
Biochemical Oxygen Demand	0.8 I mg/L	1	0.5	2.0	4/9/2019 12:50	RRM		CHEM/2490
Microbiology								
Analytical Method: SM 9223B								
E. coli	177 MPN/100mL	2	2		4/8/2019 16:00	AJH		MIC/2150
Nutrients								
Analytical Method: ASTM D3590-11B								
Total Kjeldahl Nitrogen	0.46 mg/L	1	0.10	0.40	4/11/2019 14:56	AMC		NUTR/2235
Analytical Method: EPA 365.1								
Total Phosphorus	0.12 mg/L	1	0.01	0.04	4/11/2019 10:25	AMC		NUTR/2232
Analytical Method: SM 4500PF								
Orthophosphate as P(Dissolved)	0.10 mg/L	1	0.01	0.04	4/9/2019 13:44	ISP		NUTR/2228
Analytical Method: SM 4500NH3H								
Ammonia	0.01 U mg/L	1	0.01	0.04	4/9/2019 10:33	AJH	F	NUTR/2226
F - Sample filtered to remove excessive debris								
Analytical Method: SM 4500NO3F								
Nitrate+Nitrite (N)	0.06 mg/L	1	0.01	0.04	4/9/2019 10:33	AJH	F	NUTR/2225
F - Sample filtered to remove excessive debris								

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ANALYTICAL RESULTS

Workorder: 1900717

Lab ID: **190071705** Date Received: 4/8/2019 15:04 Matrix: Surface Water
Sample ID: **27-09 19-02** Date Collected: 4/8/2019 12:28 Type: Grab

Parameters	Results	Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics									
Analytical Method: SM 2130B									
Turbidity	0.5	NTU	1	0.1		4/9/2019 13:43	TMT		CHEM/2488
Analytical Method: SM 2540D									
Total Suspended Solids	2	mg/L	1	1		4/9/2019 12:26	KDP		CHEM/2491
I - Final dried residue < 2.5 mg as req'd by method									
Analytical Method: SM 10200H									
Chlorophyll a (Corrected)	1.3	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll a (Uncorrected)	1.8	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll b	0.5	U mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll c	0.5	U mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Pheophytin	0.8	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Analytical Method: SM 5210B									
Biochemical Oxygen Demand	0.9	I mg/L	1	0.5	2.0	4/9/2019 12:50	RRM		CHEM/2490
Microbiology									
Analytical Method: SM 9223B									
E. coli	806	MPN/100mL	4	4		4/8/2019 16:00	AJH		MIC/2150
Nutrients									
Analytical Method: ASTM D3590-11B									
Total Kjeldahl Nitrogen	0.52	mg/L	1	0.10	0.40	4/11/2019 14:57	AMC		NUTR/2235
Analytical Method: EPA 365.1									
Total Phosphorus	0.10	mg/L	1	0.01	0.04	4/11/2019 10:26	AMC		NUTR/2232
Analytical Method: SM 4500PF									
Orthophosphate as P(Dissolved)	0.07	mg/L	1	0.01	0.04	4/9/2019 13:45	ISP		NUTR/2228
Analytical Method: SM 4500NH3H									
Ammonia	0.01	U mg/L	1	0.01	0.04	4/9/2019 10:35	AJH	F	NUTR/2226
F - Sample filtered to remove excessive debris									
Analytical Method: SM 4500NO3F									
Nitrate+Nitrite (N)	0.10	mg/L	1	0.01	0.04	4/9/2019 10:35	AJH	F	NUTR/2225
F - Sample filtered to remove excessive debris									

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ANALYTICAL RESULTS

Workorder: 1900717

Lab ID: **190071706**
Sample ID: **27-10 19-02**

Date Received: 4/8/2019 15:04
Date Collected: 4/8/2019 13:42
Matrix: Surface Water
Type: Grab

Parameters	Results	Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics									
Analytical Method: SM 2130B									
Turbidity	1.3	NTU	1	0.1		4/9/2019 13:43	TMT		CHEM/2488
Analytical Method: SM 2540D									
Total Suspended Solids	2	mg/L	1	1		4/9/2019 12:26	KDP		CHEM/2491
Analytical Method: SM 10200H									
Chlorophyll a (Corrected)	3.4	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll a (Uncorrected)	3.6	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll b	0.5	U mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll c	0.5	U mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Pheophytin	0.5	U mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Analytical Method: SM 5210B									
Biochemical Oxygen Demand	1.4	I mg/L	1	0.5	2.0	4/9/2019 12:50	RRM		CHEM/2490
Microbiology									
Analytical Method: SM 9223B									
E. coli	34	MPN/100mL	1	1		4/8/2019 16:00	AJH		MIC/2150
Nutrients									
Analytical Method: ASTM D3590-11B									
Total Kjeldahl Nitrogen	0.58	mg/L	1	0.10	0.40	4/11/2019 14:58	AMC		NUTR/2235
Analytical Method: EPA 365.1									
Total Phosphorus	0.02	I mg/L	1	0.01	0.04	4/11/2019 10:27	AMC		NUTR/2232
Analytical Method: SM 4500PF									
Orthophosphate as P(Dissolved)	0.01	U mg/L	1	0.01	0.04	4/9/2019 13:46	ISP		NUTR/2228
Analytical Method: SM 4500NH3H									
Ammonia	0.01	U mg/L	1	0.01	0.04	4/9/2019 10:36	AJH	F	NUTR/2226
F - Sample filtered to remove excessive debris									
Analytical Method: SM 4500NO3F									
Nitrate+Nitrite (N)	0.01	U mg/L	1	0.01	0.04	4/9/2019 10:36	AJH	F	NUTR/2225
F - Sample filtered to remove excessive debris									

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ANALYTICAL RESULTS

Workorder: 1900717

Lab ID: **190071707**
Sample ID: **27-08 19-02**

Date Received: 4/8/2019 15:04
Date Collected: 4/8/2019 14:25
Matrix: Surface Water
Type: Grab

Parameters	Results	Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics									
Analytical Method: SM 2130B									
Turbidity	1.2	NTU	1	0.1		4/9/2019 13:43	TMT		CHEM/2488
Analytical Method: SM 2540D									
Total Suspended Solids	4	mg/L	1	1		4/9/2019 12:26	KDP		CHEM/2491
Analytical Method: SM 10200H									
Chlorophyll a (Corrected)	1.4	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll a (Uncorrected)	2.1	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll b	0.5 U	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Chlorophyll c	0.5 U	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Pheophytin	1	mg/m3	1	0.5		4/11/2019 13:25	KAV		CHEM/2485
Analytical Method: SM 5210B									
Biochemical Oxygen Demand	1.0 I	mg/L	1	0.5	2.0	4/9/2019 12:50	RRM		CHEM/2490
Microbiology									
Analytical Method: SM 9223B									
E. coli	1630	MPN/100mL	2	2		4/8/2019 16:00	AJH		MIC/2150
Nutrients									
Analytical Method: ASTM D3590-11B									
Total Kjeldahl Nitrogen	0.98	mg/L	1	0.10	0.40	4/11/2019 14:59	AMC		NUTR/2235
Analytical Method: EPA 365.1									
Total Phosphorus	0.20	mg/L	1	0.01	0.04	4/15/2019 13:46	AMC		NUTR/2247
Analytical Method: SM 4500PF									
Orthophosphate as P(Dissolved)	0.04	mg/L	1	0.01	0.04	4/9/2019 13:47	ISP		NUTR/2228
Analytical Method: SM 4500NH3H									
Ammonia	0.01 U	mg/L	1	0.01	0.04	4/9/2019 10:37	AJH	F	NUTR/2226
F - Sample filtered to remove excessive debris									
Analytical Method: SM 4500NO3F									
Nitrate+Nitrite (N)	0.60	mg/L	1	0.01	0.04	4/9/2019 10:37	AJH	F	NUTR/2225
F - Sample filtered to remove excessive debris									

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