



January 29, 2018

Mr. Todd Mathes  
Benderson Corporation  
8441 Cooper Creek Blvd.  
University Park, FL 34201

**Re.: University Town Center: Surface & Ground Water Quality Monitoring  
2017 Annual Report**

Dear Mr. Mathes,

GHS Environmental (GHS) was contracted to conduct the ongoing surface water and groundwater quality monitoring programs for the University Town Center development in Sarasota County for 2017. All sampling events were conducted pursuant to "Exhibit G" of the Development of Regional Impact as provided by Benderson. This report includes the summary of services provided with a preliminary assessment of water quality as part of compliance with the reporting requirements.

Please review the attached report and other supporting documentation. If there are any questions regarding the submitted materials, please contact us at your convenience.

Sincerely yours,

**GHS Environmental**

A handwritten signature in black ink, appearing to read 'Dana J. Gaydos', is written over a light blue horizontal line.

Dana J. Gaydos  
Principal

# 2017

## Annual Monitoring Report for University Town Center

for the

**University Town Center  
in Sarasota County, FL**



Prepared for the

**Benderson Corporation  
8441 Cooper Creek Blvd.  
University Park, FL 34201**

Prepared by:



**GHS Environmental**

**PO Box 55802**

**St. Petersburg, FL 33732**

**January 2018**

## Table of Contents

	<u>page</u>
<b>Executive Summary .....</b>	<b>1</b>
<b>1.0 Introduction.....</b>	<b>2</b>
<b>2.0 Surface Water Quality Monitoring.....</b>	<b>3</b>
2.1 Methodology .....	3
2.2 Sampling Schedule.....	3
2.3 Sample Locations and Collection.....	3
2.4 Water Quality Parameters.....	3
2.5 Water Quality Results .....	5
2.5.1 Surface Water Flow.....	5
2.5.2 Field Parameters.....	6
2.5.3 Oxygen Demand and Related Parameters .....	7
2.5.4 Macronutrients .....	8
2.5.5 Bacteriological Parameters .....	8
2.5.6 Trace Elements.....	9
2.5.7 Chlorinated Hydrocarbons .....	10
<b>3.0 Groundwater Quality Monitoring.....</b>	<b>12</b>
3.1 Methodology .....	12
3.2 Sampling Schedule.....	12
3.3 Sample Locations and Collection.....	12
3.4 Water Quality Parameters.....	12
3.5 Water Quality Results .....	13
3.5.1 Surficial Aquifer Groundwater Elevations.....	13
3.5.2 Field Parameters.....	13
3.5.3 Oxygen Demand and Related Parameters .....	14
3.5.4 Macronutrients .....	15
3.5.5 Bacteriological Parameters .....	15
3.5.6 Trace Elements.....	16
<b>4.0 Conclusions .....</b>	<b>18</b>

## List of Tables

Table 1	Surface Water Depth and Stream Flow Summary .....	6
Table 2	Surface Water Field Parameter Summary .....	7
Table 3	Surface Water Surface Water Depth and Stream Flow Summary .....	7
Table 4	Surface Water Macronutrient Summary.....	8
Table 5.	Surface Water Bacteriological Summary .....	9
Table 6.	Surface Water Trace Element Summary .....	10
Table 7.	Surface Water Chlorinated Hydrocarbons Summary .....	11
Table 8.	Groundwater Elevation Summary .....	13
Table 9.	Groundwater Field Parameter Summary .....	14
Table 10.	Groundwater Oxygen Demand and Related Parameters Summary .....	15
Table 11.	Groundwater Macronutrient Summary.....	15
Table 12.	Groundwater Bacteriological Summary.....	16
Table 13.	Groundwater Trace Element Summary.....	17



## List of Figures

Figure 1. Station Locations for the University Town Center (fka Sarasota Interstate Park of Commerce).....	4
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## List of Appendices

Appendix A Laboratory Results	
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## **Executive Summary**

This Annual Surface Water and Groundwater Monitoring Report presents the results of the surface water and groundwater quality monitoring conducted during 2017 at the University Town Center. GHS Environmental (GHS) was contracted to conduct the ongoing surface water and groundwater quality monitoring programs for the University Town Center (formerly known as Sarasota Interstate Park of Commerce (SIPOC) located in Sarasota County. Surface water quality/quantity and groundwater quality monitoring has been conducted pursuant to “Exhibit G” of the Development of Regional Impact (DRI) as provided by Benderson. This report summarizes the monitoring that was performed as part of the Surface Water and Groundwater Quality Monitoring Plan for the site as required by the Development Order.

The surface water monitoring is divided into two (2) quarterly and two (2) semi-annual sampling events. The quarterly (Quart) sampling events were conducted on June 19, 2017 and December 6, 2017. The semi-annual (SA) sampling events were conducted on March 23, 2017 and September 28, 2017.

The groundwater monitoring was conducted on March 23, 2017 for the dry season sampling event and September 19, 2017 for the wet season sampling event. Both monitoring wells were sampled successfully for both sampling events and were submitted to the laboratory for analysis.

Based on review of the laboratory analysis, no significant changes were seen during the 2017 monitoring period. Several exceedances of the acceptable criteria occurred in both the surface water and groundwater parameters. However, similar exceedances have been seen during previous years of monitoring and are not considered a concern with respect to the University Town Center.



## **1.0 Introduction**

The University Town Center is located to the southwest of the intersection of I-75 and University Parkway (SR610) between the cities of Sarasota and Bradenton. The property currently includes a major commercial shopping center that parallels I-75 on the western side of the property.

The University Town Center is being developed in multiple phases and is considered, at this time, to be only partially finished as future plans and developments continue to change with economic patterns. The commercial shopping mall located on the northwestern corner of the development was completed in 2006 through 2008. The regional mall, major hotels, additional outparcel shops, and housing are steadily being completed.

## **2.0 Surface Water Quality Monitoring**

### **2.1 Methodology**

The methodology for the 2017 surface water monitoring is based on the approved water quality monitoring plan “Exhibit G” of the Development of Regional Impact (DRI). The monitoring plan targets potential contaminants directly associated with construction equipment and practices, but monitoring can be used to assess broad-scale, continuous and/or long-term changes in water quality that might result from development. Surface water monitoring has been performed continuously since 2003.

At each station, grab samples are collected at mid-depth and approximately mid-stream, when the sampling site is inundated with surface water that is at least one inch (1”) in depth and when flow can be measured. In situ measurements of dissolved oxygen, pH, air temperature, water temperature, and specific conductance are performed in the field using a YSI Pro Plus Multi-Parameter Water Quality Meter that is calibrated according to the manufacturer’s specifications prior to deployment in the field. Turbidity is measured by using a LaMotte 2020we Turbidity meter. Instantaneous flow measurements are determined at each surface water monitoring location at times of apparent flow. Flow is determined using a Marsh McBirney Flowmate 2000 flow meter or a Hach FH950 flow meter with measurements reported in units of cubic feet per second (cfs).

### **2.2 Sampling Schedule**

The sampling schedule per Exhibit G has been reduced. The requirement of semi-annual sampling, during the wet season (June through September) and once during the dry season (October through May), will remain. The bimonthly sampling requirement was reduced to a quarterly frequency, allowing for the semi-annual to be on an evenly split timeline.

All four (4) monitoring events were performed during the 2017 monitoring period that consisted of two semi-annual events and two quarterly events. The quarterly (Quart) sampling events were conducted on June 16, 2017 and December 6, 2017. The semi-annual (SA) sampling events were conducted on March 23, 2017 and September 19, 2017.

### **2.3 Sample Locations and Collection**

Per Exhibit G, two (2) surface water sampling locations are to be monitored. Locations for these surface water monitoring locations are provided in Figure 1 and represent the inflow (SW-1) and discharge (SW-2) locations of Cooper Creek onto and off of the project site.

### **2.4 Water Quality Parameters**

Exhibit G contains a listing of field and laboratory parameters, which are analyzed for each sample. The following parameters are measured in the field at the time of sample collection:

Temperature	pH
Conductivity	Dissolved Oxygen
Turbidity	Stream Flow





**Figure 1**  
**Station Locations**  
**University Town Center**  
**(fka Sarasota Interstate Park of Commerce)**  
 Sarasota County, Florida



Imagery: 2010

0 250 500 1,000 Feet



In situ measurements of pH, water temperature, specific conductance, dissolved oxygen, and turbidity were collected using a YSI Pro Plus Multi-Parameter Water Quality Meter and a LaMotte 2020we Turbidity meter. Flow is determined using a Marsh McBirney Flowmate 2000 flow meter or a Hach FH950 flow meter with measurements reported in units of cubic feet per second (cfs). All field equipment was calibrated according to the manufacturer's specifications prior to deployment in the field.

A single grab sample (comprised of several sub-sample vessels) is collected at each monitoring location for laboratory analysis. The collected samples, if needed, are preserved in the field and taken to the laboratory for measurement of the following parameters:

#### Quarterly Parameters

Ammonia Nitrogen (mg/L)	Total Phosphorus (mg/L)
Nitrate Nitrogen (mg/L)	Total Suspended Solids (mg/L)
Nitrite Nitrogen (mg/L)	Biological Oxygen Demand
Total Kjeldahl Nitrogen (mg/L)	Fecal Coliform per 100 ml (MF)
Orthophosphate (mg/L)	Total Coliform per 100 ml (MF)

#### Semi-Annual Parameters\*

\*in addition to the Quarterly Parameters

Oil & Grease	Copper (mg/L)
Chlorinated Hydrocarbon Pesticides	Lead (mg/L)
Arsenic (mg/L)	Mercury (mg/L)
Cadmium (mg/L)	Nickel (mg/L)
Chromium (mg/L)	Zinc (mg/L)

Each sample collected for laboratory analysis was properly preserved and stored on ice until delivered to the laboratory for subsequent analysis. Field parameters, such as pH, conductivity, and air and water temperatures are measured in the field using FDEP Standard Operating Procedures (SOPs). The methods used in the collection, handling and storage of all samples are conducted in accordance with FDEP/USEPA/NELAP approved procedures and analysis of all water samples was conducted by a National Environmental Laboratory Accreditation Conference (NELAC) certified laboratory.

## **2.5 Water Quality Results**

The surface water results from the 2017 monitoring period are summarized in the sections below. Results that were in exceedance of established maximums are highlighted in bolded, red text. Copies of the laboratory reports of analytical results for the surface water samples collected during the 2017 monitoring year are provided in Appendix A.

### 2.5.1 Surface Water Flow

Water depth, stream width and stream flow were measured at each station during the 2017 monitoring period and are summarized in Table 1. There was flow for the all four sampling events. Stream depth for 2017 ranged between 0.28 ft and 1.06 ft. The width of Cooper Creek ranged from 12 to 20 ft between the two surface water sampling locations with SW-2 generally being wider of the two locations. Both locations are channelized.

Stream flow was measured at all sampling locations that had water depths greater than 1". The flow rate varied between sampling events with the highest flow of 17 cubic feet per

second (cfs) seen in the peak of the rainy season (September 2017 at SW-2) and the lowest flow of 0.04 cfs seen during the dry season (March 2017 at SW-2). The average flow for 2017 was 6.39 cfs between the two sampling stations.

Table 1. Surface Water Depth and Stream Flow Summary.

Depth & Flow	Date	Average Depth (ft)	Maximum Depth (ft)	Width (ft)	Maximum Flow Rate (ft/s)	Total Flow (cfs)
SW-1	3/23/2017	0.42	0.65	14	0.026	0.05
	6/19/2017	0.43	0.64	15	1.12	5.60
	9/28/2017	0.48	0.68	17	2.03	15.00
	12/6/2017	0.31	0.5	16	1.17	5.58
SW-2	3/23/2017	0.46	0.9	12	0.022	0.04
	6/19/2017	0.28	0.5	20	0.5	2.33
	9/28/2017	1.06	1.04	20	1.7	17.00
	12/6/2017	0.82	1.04	18	0.53	5.51
2017 Comprehensive	Min	0.28	0.50	12	0.022	0.04
	Max	1.06	1.04	20	2.03	17.00
	Avg	0.53	0.74	16.5	0.89	6.39

### 2.5.2 Field Parameters

Field parameters measured and recorded for the 2017 monitoring period include water and air temperature, pH, conductivity, and turbidity. Although not a physical parameter, total suspended solids is included in this section. Table 2 summarizes these parameters.

The air temperature ranged from 20.0°C to 30.2°C with an average of 24.8°C. The water temperature ranged from 19.5°C to 31.5°C with an average of 25.8°C.

The pH ranged from 7.84 to 8.44 with an average of 8.12. Cooper Creek continues through a large limestone and sand mine pit, which has been recently converted to a County Park. This remnant pit is deep into the limestone, and it is the connection to the limestone that is suspected to raise the pH to the reported levels.

The specific conductance of the surface water averaged 394 microhos per centimeter (µmhos/cm) and ranged from 351 to 441 µmhos/cm during the monitoring year.

Turbidity ranged between 1.08 and 3.16 NTU with an average of 1.77 NTU.

The total suspended solids ranged from 3.0 to 6.2 mg/L with an average of 4.3 mg/L. All of these parameters were below the Class III Surface Water Criteria.

Table 2. Surface Water Field Parameters Summary.

Parameter		Air Temperature (°C)	Water Temperature (°C)	pH (pH Units)	Specific Conductivity (µmhos/cm)	Turbidity (NTU)	Total Suspended Solids (mg/L)
FAC 62-302 Criteria				6.5-8.5	± 50% to 1275	<29 NTU	
SW-1	3/23/2017	21.2	19.7	8.44	358	1.16	3.0
	6/19/2017	25.1	28.3	7.84	437	1.54	4.7
	9/28/2017	29.1	31.6	8.29	351	1.74	4.7
	12/6/2017	22.4	23.6	*	412	3.16	6.2
SW-2	3/23/2017	20.0	19.5	8.29	355	1.08	U
	6/19/2017	26.7	28.4	7.99	441	1.48	5.0
	9/28/2017	30.2	30.8	7.88	360	1.64	3.5
	12/6/2017	23.6	24.1	*	436	2.34	3.0
2017 Comprehensive	Min	20.0	19.5	7.84	351	1.08	3.0
	Max	30.2	31.6	8.44	441	3.16	6.2
	Avg	24.8	25.8	8.12	394	1.77	4.3

\* - Meter not functioning.

### 2.5.3 Oxygen Demand and Related Parameters

The DO concentration in the surface waters of Cooper Creek averaged 6.61 mg/L with a range of 1.54 mg/L to 11.42 mg/L. Both sampling locations exhibited DO concentrations that were lower than the Class III Surface Water Criteria (>5.0 mg/L) during the dry season of the 2017 monitoring period. These are highlighted in red and are bolded for reference. Past DO measurements historically have been below the Class III Surface Water Criteria. Low DO concentrations are associated with the decomposition of organic material and can be common in rivers, streams, wetlands and still waters.

Biochemical oxygen demand (BOD) was undetected in SW-2 for 2017 but was detected in the September and December events with a concentration of 2.6 mg/L during each event. The average concentration of BOD is 1.4 mg/L.

Table 3. Surface Water Oxygen Demand and Related Parameters Summary.

Parameter		Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Biochemical Oxygen Demand (mg/L)
FAC 62-302 Criteria		≥ 5.0 mg/L		
SW-1	3/23/2017	<b>1.54</b>	17.10	U
	6/25/2013**	<b>4.58</b>	59.3	U
	9/28/2017	11.42	155.2	2.6
	12/6/2017	9.95	117.9	2.6
SW-2	3/23/2017	<b>1.56</b>	17.3	U
	6/19/2017	<b>3.12</b>	41.2	U
	9/28/2017	11.07	148.7	U
	12/6/2017	9.65	113.5	U
2017 Comprehensive	Min	<b>1.54</b>	17.1	U
	Max	11.42	155.2	2.6
	Avg	6.61	83.8	1.4

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

**xx.xx** Highlighting shows parameters outside of Class III Surface Water Standards.

#### 2.5.4 Macronutrients

Macronutrient parameters are summarized in Table 4. Ammonia nitrogen and nitrate/nitrite nitrogen was not consistently detected throughout 2017. Ammonia was detected once at the SW-2 location with a concentration of 0.13 mg/L.

Nitrate and nitrite detections were detected once at the SW-1 location with a concentration of 0.51 (I) mg/L. Total Kjeldahl Nitrogen (TKN) was detected during all events with concentrations ranging from 0.45 mg/L to 0.78 mg/L with an average of 0.65 mg/L between the two sampling locations.

Total Nitrogen is calculated by summing Ammonia, Nitrate, Nitrite and TKN concentrations. Total Nitrogen concentrations ranged from 0.57 mg/L to 1.30 mg/L with the average being 0.81 mg/L between the two sampling locations.

Orthophosphate was consistently detected in low concentrations at both sampling locations during the 2017 monitoring period. The maximum concentration was 1.30 mg/L at SW-1 during the September event. The average concentration between the two sampling locations was 0.81 mg/L.

Total Phosphorus is analyzed using a different laboratory technique. The mean detection limit (MDL) is significantly higher than that for orthophosphate, and because of this, total phosphorus generally trends to result in non-detection. There was only one detection in SW-1 during the March event with a concentration of 0.063 mg/L. This detection was qualified as the reported value is between the laboratory method detection limit and the laboratory practical quantitation limit (PQL), which means that the parameter was detected but the numerical value cannot be reproduced consistently with a 95% confidence level.

Table 4. Surface Water Macronutrient Summary.

Parameter		Ammonia Nitrogen (mg/L)	Nitrate as N (mg/L)	Nitrite as N (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Total Nitrogen (mg/L)	Ortho-phosphate (mg/L)	Total Phosphorus (mg/L)
FAC 62-302 Criteria								
SW-1	3/23/2017	U	U	U	0.78	0.78	0.066	0.063 (I)
	6/19/2017	U	U	U	0.64	0.64	0.018	U
	9/28/2017	U	0.51 (I)		0.75	1.3	0.021	U
	12/6/2017	U	U	U	0.57	0.78	0.015	U
SW-2	3/23/2017	U	U	U	0.63	0.63	U	U
	6/19/2017	U	U	U	0.57	0.57	0.021	U
	9/28/2017	0.13	U		0.78	0.78	0.035	U
	12/6/2017	U	U	U	0.45	0.96	0.018	U
2017 Comprehensive	Min	U	U	U	0.45	0.57	U	U
	Max	0.13	0.51 (I)	0.51 (I)	0.78	1.30	0.066	0.063 (I)
	Avg	0.027	0.14	0.14	0.65	0.81	0.025	0.029

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

U - Undetected.

#### 2.5.5 Bacteriological Parameters

Fecal and total coliform bacteria are regularly found present in samples collected from Cooper Creek. Bacteria results ranged widely during the 2017 monitoring period. Fecal coliform concentrations were low and were below the Class III Surface Water Standard. However, very high concentrations were reported for total coliform during the March event. In general, coliform concentration trends with rainfall. In review of local rainfall



records, the area received little rainfall during the months of January through June. The March event was conducted ten (10 days) following a single rain event of less than 1 inch. This rain event followed more 30 days of no rain. This is significant in relation to the coliform concentrations seen during the March event.

Table 5. Surface Water Bacteriological Summary.

Parameter		Fecal Coliform (CFU/ 100 mL)	Total Coliform (CFU/ 100 mL)
FAC 62-302 Criteria		< 2,400	
SW-1	3/23/2017	135 (B)	3,500 (2)
	6/19/2017	U	2,400
	9/28/2017	NA	NA
	12/6/2017	U	80 (B)
SW-2	3/23/2017	30 (B)	8,640 (1,B)
	6/19/2017	U	2,000
	9/28/2017	NA	NA
	12/6/2017	10 (B)	100 (B)
2017 Comprehensive	Min	U	80 (B)
	Max	135 (B)	8,640 (1,B)
	Avg	28	2,787

B - Results based upon colony counts outside the acceptable range.

NA - Not Analyzed.

U - Undetected.

1 - False positive.

2 - Positive for E. Coli.

### 2.5.6 Trace Elements

Table 6 summarizes the detections of trace elements found in Cooper Creek. Trace elements are sampled as part of the semi-annual analysis and were analyzed for during the March and September events. There was a third analysis conducted in December also that was not required but was conducted due to mistake at the laboratory remaining from 2016. Trace elements that were not detected include cadmium, chromium, lead, mercury, and nickel. Oil and grease was not detected in 2017.

Arsenic has been historically detected and was detected at low concentrations during the 2017 monitoring period. Arsenic ranged 0.0017 mg/L to a maximum of 0.0041 mg/L. All detections of arsenic were qualified between the mean detection limit (MDL) and practical quantification limit (PQL) meaning that the detection is real but the numeric value cannot be confirmed.

Copper is historically detected and is a common byproduct of gasoline combustion. Copper concentrations ranged between 0.0018 mg/L (I) to 0.0053 mg/L (I) with an average of 0.0036 mg/L between the two monitoring locations. Please note results qualified with an "I" were between the laboratory method detection limit and the laboratory practical quantitation limit and cannot be reproduced consistently within the laboratory.

Zinc is also historically detected and is a common byproduct of gasoline combustion. There were two detections of zinc during the 2017 monitoring period. The first detection was in SW-1 during the September event with a concentration of 0.010 mg/L (I), and the second detection was in SW-2 during the December event with a concentration of 0.0076

mg/L (I). The average concentration of zinc between the two monitoring locations was 0.0044 mg/L. Please note results qualified with an “I” were between the laboratory method detection limit and the laboratory practical quantitation limit and cannot be reproduced consistently within the laboratory.

Table 6. Surface Water Trace Element Summary.

Parameter		Arsenic (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Lead (µg/L)	Mercury (µg/L)	Nickel (mg/L)	Zinc (mg/L)	HEM - Oil & Grease (mg/L)
FAC 62-302 Criteria						≤ 5.3 µg/L				
SW-1	3/23/2017	0.0017 (I)	U	U	0.0040 (I)	U	U	U	U	U
	6/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/28/2017	0.0022 (I)	U	U	0.0018 (I)	U	U	U	0.010 (I)	U
	12/6/2017	0.0032 (I)	U	U	0.0038 (I)	U	U	U	U	NA
SW-2	3/23/2017	0.0027 (I)	U	U	0.0053 (I)	U	U	U	U	7.2
	6/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/28/2017	0.0035 (I)	U	U	0.0022 (I)	U	U	U	U	2.0 (I)
	12/6/2017	0.0041 (I)	U	U	0.0042 (I)	U	U	U	0.0076 (I)	NA
2017 Comprehensive	Min	0.0017 (I)	U	U	0.0018 (I)	U	U	U	U	U
	Max	0.0041 (I)	-	-	0.0053 (I)	-	-	-	0.010 (I)	7.2
	Avg	0.0029	-	-	0.0036	-	-	-	0.0044	2.8

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

NA - Not analyzed.

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

### 2.5.7 Chlorinated Hydrocarbons

Chlorinated Hydrocarbons are sampled as part of the semi-annual analysis and were analyzed for during the March and September events. Due to a left over note in the laboratory system, a third analysis was conducted for no additional charge. With the additional sampling in 2016 and 2017, a trend has not been seen. Although there were a few parameters detected in 2016 with qualifiers, there are no parameters detected in 2017.

Table 7. Surface Water Chlorinated Hydrocarbons Summary.

Parameter	SW-1		SW-2	
	3/23/2017	9/28/2017	3/23/2017	9/28/2017
4,4'-DDD	U	U	U	U
4,4'-DDE	U	U	U	U
4,4'-DDT	U	U	U	U
Aldrin	U	U	U	U
alpha-BHC	U	U	U	U
beta-BHC	U	U	U	U
Chlordane	U	U	U	U
delta-BHC	U	U	U	U
Dieldrin	U	U	U	U
Endosulfan I	U	U	U	U
Endosulfan II	U	U	U	U
Endosulfan sulfate	U	U	U	U
Endrin	U	U	U	U
Endrin aldehyde	U	U	U	U
Endrin ketone	U	U	U	U
Heptachlor	U	U	U	U
Heptachlor epoxide	U	U	U	U
Lindane	U	U	U	U
Methoxychlor	U	U	U	U
Toxaphene	U	U	U	U

## **3.0 Groundwater Quality Monitoring**

### **3.1 Methodology**

The methodology for the 2017 groundwater monitoring is based on Exhibit G of the DRI. Prior to collecting groundwater samples, each monitor well was purged according the Florida Department of Environmental Protection (FDEP) Standard Operating Procedures (SOP) FS 2000 “Groundwater Sampling” dated March 31, 2008 (effective 12/3/08). Each well was purged using a 12 Volt DC submersible pump that was equipped with dedicated 3/8-inch diameter polyethylene tubing. At each well, the pump was decontaminated using Alconox with de-ionized water, and new tubing was used to sample each well to avoid cross-contamination of samples.

Field parameters were recorded during purging using a YSI Pro multi-parameter probe with a flow cell and a LaMotte 202we turbidity meter. The field parameters collected include depth to water, pH, temperature, specific conductance, dissolved oxygen, turbidity, color, and odor. Each of these instruments was calibrated according to the manufacturer’s specifications prior to use in the field.

Once these parameters stabilized as outlined in SOP FS 2000, purging was considered complete. Sampling was initiated by disconnecting the flow cell, and groundwater was collected directly from the polyethylene tubing at the discharge end of the submersible pump.

The groundwater samples were packed on ice and transported to a Florida Department of Environmental Protection NELAC-certified laboratory (NELAC Certification # E82535, E84589).

### **3.2 Sampling Schedule**

Semi-annual groundwater monitoring events are to be conducted in conjunction with the surface water monitoring event once during the dry season (November-May) and once during the wet season (June-September). Two monitoring events were performed during the 2017 monitoring period. One event was conducted during the dry season (March 23, 2017), and one event was conducted during the wet season (September 19, 2017).

### **3.3 Sample Locations and Collection**

Per Exhibit G, two (2) groundwater monitoring wells are monitored for groundwater depth and are identified in included Figure 1. Both wells were successfully purged and sampled during both sampling events.

### **3.4 Water Quality Parameters**

The monitoring plan contains a listing of field and laboratory parameters, which are analyzed for each sample. The following parameters are measured in the field at the time of sample collection:

Temperature  
Conductivity  
Turbidity

pH  
Dissolved oxygen  
Color & Odor

Per Exhibit G, the following are groundwater quality parameters analyzed after completing proper purging for each semi-annual monitoring event:

Ammonia Nitrogen (mg/L)	Total Suspended Solids (mg/L)
Nitrate Nitrogen (mg/L)	Oil & Grease
Nitrite Nitrogen (mg/L)	Arsenic (mg/L)
Total Nitrogen (mg/L)	Cadmium (mg/L)
Total Kjeldahl Nitrogen (mg/L)	Chromium (mg/L)
Orthophosphate (mg/L)	Copper (mg/L)
Total Phosphorus (mg/L)	Lead (mg/L)
Biological Oxygen Demand	Mercury (mg/L)
Fecal Coliform per 100 ml (MF)	Nickel (mg/L)
Total Coliform per 100 ml (MF)	Zinc (mg/L)

Each sample collected for laboratory analysis was properly preserved and stored on ice until delivered to the laboratory for subsequent analysis. Field parameters, such as water level, pH, conductivity, and air and water temperatures are measured in the field using FDEP Standard Operating Procedures (SOPs). The methods used in the collection, handling and storage of all samples are conducted in accordance with FDEP/USEPA/NELAP approved procedures and analysis of all water samples was conducted by a National Environmental Laboratory Accreditation Conference (NELAC) certified laboratory.

### 3.5 Water Quality Results

The ground water results from the 2017 monitoring period are summarized in the sections below. Results that were in exceedance of established maximums are highlighted in bolded, red text. Copies of the laboratory reports of analytical results for the ground water samples collected during the 2017 monitoring year are provided in Appendix A.

#### 3.5.1 Surficial Aquifer Groundwater Elevations

Surficial aquifer groundwater elevations measured during the 2017 monitoring period are summarized in Table 8. Purging of both monitor wells, GW-1 and GW-2, were completed successfully, and samples were collected for analysis. The reported groundwater elevations is in feet below ground surface and is not referenced to any specific vertical datum. This data cannot be used to assess surficial groundwater flow in a specific direction.

Table 8. Groundwater Elevation Summary.

Location	Depth to Water (ft)	
	Dry Season 3/17/2017	Wet Season 9/27/2017
GW-1	5.45	3.13
GW-2	6.22	4.21

#### 3.5.2 Field Parameters

Field parameters measured and recorded for the 2017 monitoring period include water, pH, conductivity, dissolved oxygen (DO), and turbidity. Table 9 summarizes these parameters for the 2017 monitoring period.

The water temperature ranged from 20.5 to 25.8°C with an average of 23.7°C. The pH ranged from 6.52 to 8.34 with an average of 7.04. The slightly higher pH values are presumed to be due to the meter not functioning properly.

The specific conductance of the surficial aquifer varies significantly between the two monitoring wells. GW-1 had an average specific conductance of 109 micromhos per centimeter (µmhos/cm); while GW-2 had 770 µmhos/cm during 2017 monitoring period. These averages follow historical trends where GW-2 has higher conductivity values in general.

Turbidity ranged between 0.45 and 2.26 NTU between the two monitoring locations. The average was 0.99 NTU. All of these parameters are within the drinking water standards outlined in Ch. 62.550 F.A.C.

The total dissolved solids ranged from 240 mg/L to 960 mg/L with an average of 615 mg/L. The values from GW-2 are above the drinking water standard. However, the conductivity and total dissolved solids are relative to each other, and both have historically been high being attributed with the location of UTC being within close proximity to the Gulf of Mexico.

Table 9. Groundwater Field Parameter Summary.

Parameter		Water Temperature (°C)	pH (pH Units)	Specific Conductivity (µmhos/cm)	Turbidity (NTU)	Total Dissolved Solids (mg/L)
FAC 62-550 Criteria			6.5 - 8.5		< 20 NTU	< 500 mg/L
GW-1	3/17/2017	20.5	7.69	97	2.26	240
	9/27/2017	25.7	6.52	121	0.45	960
GW-2	3/17/2017	22.9	8.34*	864	0.70	410
	9/27/2017	25.8	6.90	675	0.53	850
2017 Comprehensive	Min	20.5	6.52	97	0.45	240
	Max	25.8	8.34*	864	2.26	960
	Avg	23.7	7.04	439	0.99	615

xx.xx Highlighting shows parameters outside of Class III SW Standards.

\* Meter not functioning correctly.

### 3.5.3 Oxygen Demand and Related Parameters

The dissolved oxygen (DO) concentration in the surficial aquifer groundwater of UTC during the 2017 monitoring period averaged 1.00 mg/L with a range from 0.52 to 0.1.97 mg/L. DO concentrations are historically low and are not of concern with respect to the development at UTC. The biochemical oxygen demand (BOD) was not detected at both monitoring locations. The results for these analyses are summarized in Table 10.

Table 10. Groundwater Oxygen Demand and Related Parameters Summary.

Parameter		Dissolved Oxygen (mg/L)	Biochemical Oxygen Demand (mg/L)
FAC 62-550 Criteria			
GW-1	3/17/2017	0.52	U
	9/27/2017	0.80	U
GW-2	3/17/2017	1.97	U
	9/27/2017	0.72	U
2017 Comprehensive	Min	0.52	U
	Max	1.97	--
	Avg	1.00	--

U - Undetected.

### 3.5.4 Macronutrients

Table 11 summarized the concentrations of macronutrients during the 2017 monitoring period. Ammonia nitrogen was detected at both groundwater locations. Ammonia ranged from 0.06 mg/L (I) to 0.571 mg/L with an average of 0.35 mg/L. Nitrate and nitrite was undetected at both locations. Total Kjeldahl Nitrogen (TKN) levels ranged from 0.18 mg/L (I) to 1.6 mg/L with an average of 0.87 mg/L. Total Nitrogen concentrations had the same range from 0.18 to 1.6 mg/L with an average of 0.87 mg/L. All nitrogen related parameters were reported in very low concentrations with all averages being below 1 mg/L, which is well below the drinking water standard of 10 mg/L.

Orthophosphate concentrations ranged between 0.021 mg/L to 0.068 mg/L with an average of 0.055 mg/L. Total phosphorus was detected once in SW-2 during the September event.

Table 11. Groundwater Macronutrient Summary.

Parameter		Ammonia Nitrogen (mg/L)	Nitrate + Nitrite (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Total Nitrogen (mg/L)	Ortho-phosphate (mg/L)	Total Phosphorus (mg/L)
FAC 62-550 Criteria							
GW-1	3/17/2017	0.06 (I)	U	0.18 (I)	0.18	0.021	U
	9/27/2017	0.23	U	0.49	0.49	0.068	U
GW-2	3/17/2017	0.55	U	1.2 (J4)	1.2	0.061	U
	9/27/2017	0.57	U	1.6	1.6	0.068	0.067 (I)
2017 Comprehensive	Min	0.06 (I)	U	0.18 (I)	0.18	0.021	U
	Max	0.57	-	1.6	1.6	0.068	0.067 (I)
	Avg	0.35	-	0.87	0.87	0.055	0.034

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J4 - Estimated result.

U - Undetected.

### 3.5.5 Bacteriological Parameters

Fecal coliform bacteria were not detected at GW-1 or GW-2 during the 2017 monitoring period. Total coliform bacteria was not detected at GW-1 the 2017 monitoring period; however, total coliform was detected in GW-2 during the September event with a concentration of 600 CFU/100 mL. There have been high counts of bacteria historically in both of these monitoring wells. GW-2 has been observed to have frogs and various beetle type of bugs living in the well casing as well as being in the well itself. Fecal and total coliform bacteria detections are summarized in Table 12.



Table 12. Groundwater Bacteriological Summary.

Parameter		Fecal Coliform (CFU/100 mL)	Total Coliform (CFU/100 mL)
FAC 62-550 Criteria		< 1	
GW-1	3/17/2017	U	U
	9/27/2017	U	U
GW-2	3/17/2017	U	U
	9/27/2017	U	600
2017 Comprehensive	Min	U	U
	Max	-	U
	Avg	-	-

U - Undetected.

### 3.5.6 Trace Elements

Table 13 summarizes the detections of trace elements found in the surficial aquifer groundwater. Cadmium, chromium, lead, mercury and nickel was not detected during the 2017 monitoring period.

Arsenic was detected at both sampling locations during the 2017 monitoring period. Detections ranged from 0.0020 to 0.0079 mg/L, with an average of 0.0052 mg/L. All detections were below the drinking water standard of 0.01 mg/L. All detected values of arsenic were between the mean detection limit (MDL) and the practical quantitation limit (PQL), which signifies that the detection is valid but the numerical value associated with the detection is not at a 95% confidence level. These detections are attributed to naturally occurring arsenic in the surficial aquifer, which is mobilized with lower pH values.

Copper was detected during the 2017 monitoring period. Copper was not detected at GW-1, but it was detected at GW-2 during both sampling events. GW-2 detections ranged from 0.0033 to 0.0037 mg/L. All detected values of arsenic were between the mean detection limit (MDL) and the practical quantitation limit (PQL), which signifies that the detection is valid but the numerical value associated with the detection is not at a 95% confidence level. The overall average for copper was 0.0020 mg/L for both monitoring locations, which is significantly below the drinking water standard of 1 mg/L.

Zinc was detected at both sampling locations during the 2017 monitoring period. Detections ranged from being undetected in GW-1 in the March event to 0.018 mg/L, with an average of 0.012 mg/L between both monitoring locations, which is significantly below the drinking water standard of 5 mg/L.

Oil & Grease was detected in GW-2 during the March sampling event in during the September event with a concentration of 24 mg/L. Then it was detected in GW-1 during the September event with a concentration of 6.6 mg/L. The overall average was 8.0 mg/L between the monitoring locations for the 2017 period.



Table 13. Groundwater Trace Element Summary.

Parameter		Arsenic as As (mg/L)	Cadmium as Cd (mg/L)	Chromium as Cr (mg/L)	Copper as Cu (mg/L)	Lead (µg/L)	Mercury as Hg (µg/L)	Nickel as Ni (mg/L)	Zinc (mg/L)	Oil & Grease (mg/L)
FAC 62-550 Criteria		0.01 mg/L	0.005 mg/L	0.1 mg/L	1 mg/L	≤ 5.3 µg/L	0.002 mg/L	0.1 mg/L	5 mg/L	
GW-1	3/17/2017	0.0020 (I)	U	U	U	U	U	U	U	U
	9/27/2017	0.0057 (I)	U	U	U	U	U	U	0.015	6.6
GW-2	3/17/2017	0.0053 (I)	U	U	0.0033 (I)	U	U	U	0.013	24
	9/27/2017	0.0079 (I)	U	U	0.0037 (I)	U	U	U	0.018	U
2017 Comprehensive	Min	0.0020 (I)	U	U	U	U	U	U	U	U
	Max	0.0079 (I)	-	-	0.0037 (I)	-	-	U	0.018	24.0
	Avg	0.0052	-	-	0.0020	-	-	-	0.012	8.0

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

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

## 4.0 Conclusions

No significant changes were seen during the 2017 monitoring period. There were only three (3) parameters that exceeded the acceptable criteria in the surface water and groundwater parameters. Both of these parameters are considered to aesthetic standards versus public health standards. Similar exceedances have been seen historically and are not considered a concern with respect to the construction of the University Town Center (UTC).

The parameters exceeding the surface water criteria during the 2017 monitoring period included dissolved oxygen (DO). The dissolved oxygen concentrations were below the acceptable criteria of 5 mg/L during the majority of the sampling events. Low dissolved oxygen values (<5.0 mg/L) are associated with the decomposition of organic material and are common in wetlands and still waters. Historically, Cooper Creek has had low DO concentrations, and values measured during 2017 do not raise concern with respect to the University Town Center.

The two (2) parameters exceeding the groundwater criteria during the 2017 monitoring period was total dissolved solids and total coliform bacteria. The total dissolved solids is related to the specific conductivity and is presumed to be related to a drier rain year as well as UTC's location close to the Gulf of Mexico. Total coliform has been seen historically in the monitor wells and is not of concern to development.

Data has been collected since 2003 and has reviewed on an annual basis. GHS recommends that all data be thoroughly reviewed for any short-term or long-term trends if found.

# APPENDIX A Laboratory Results



Advanced Environmental Laboratories, Inc  
9610 Princess Palm Ave Tampa, FL 33619  
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580  
Phone: (813)630-9616  
Fax: (813)630-4327

April 5, 2017

Dana Gaydos  
Gaydos Hydro Services  
PO Box 55802  
Saint Petersburg, FL 33732

RE: Workorder: T1705067 UTC SW

Dear Dana Gaydos:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, March 23, 2017. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael Cammarata', is written over a horizontal line.

Michael Cammarata  
Mcammarata@AELLab.com

Enclosures

Report ID: 477847 - 403528

Page 1 of 16

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## SAMPLE SUMMARY

Workorder: T1705067 UTC SW

Lab ID	Sample ID	Matrix	Date Collected	Date Received
T1705067001	SW-2	Water	3/23/2017 09:35	3/23/2017 13:30
T1705067002	SW-1	Water	3/23/2017 10:30	3/23/2017 13:30

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## ANALYTICAL RESULTS

Workorder: T1705067 UTC SW

Lab ID: **T1705067001**  
Sample ID: **SW-2**

Date Received: 03/23/17 13:30 Matrix: Water  
Date Collected: 03/23/17 09:35

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
<b>METALS</b>								
Analysis Desc: SW846 6010B Analysis, Water			Preparation Method: SW-846 3010A Analytical Method: SW-846 6010					
Arsenic	0.0027	I	mg/L	1	0.010	0.0016	3/28/2017 15:20	T
Cadmium	0.00024	U	mg/L	1	0.00090	0.00024	3/28/2017 15:20	T
Chromium	0.0020	U	mg/L	1	0.0020	0.0020	3/28/2017 15:20	T
Copper	0.0053	I	mg/L	1	0.0080	0.00084	3/28/2017 15:20	T
Lead	0.0032	U	mg/L	1	0.010	0.0032	3/28/2017 15:20	T
Nickel	0.0044	U	mg/L	1	0.0090	0.0044	3/28/2017 15:20	T
Zinc	0.0020	U	mg/L	1	0.010	0.0020	3/28/2017 15:20	T
Analysis Desc: SW846 7470A Analysis, Water			Preparation Method: SW-846 7470A Analytical Method: SW-846 7470A					
Mercury	0.000050	U	mg/L	1	0.00010	0.000050	3/28/2017 13:05	T
<b>Microbiology</b>								
Analysis Desc: Total Coliform, SM9222B, Water			Analytical Method: SM 9222 B (MF)					
Coliform Total confirmed as non coliform	8640	1,B	#/100 mL	91	91	91	3/23/2017 18:12	T
Analysis Desc: Fecal Coliform MF, SM9222D, Water			Analytical Method: SM 9222D					
Coliform Fecal	30	B	#/100 mL	10	10	10	3/23/2017 15:30	T
<b>SEMIVOLATILES</b>								
Analysis Desc: E608 Analysis, Water			Preparation Method: EPA 608/608.2 Analytical Method: EPA 608/608.2					
4,4'-DDD	0.0024	U	ug/L	1	0.020	0.0024	3/31/2017 00:55	M
4,4'-DDE	0.0016	U	ug/L	1	0.020	0.0016	3/31/2017 00:55	M
4,4'-DDT	0.0030	U	ug/L	1	0.020	0.0030	3/31/2017 00:55	M
Aldrin	0.0020	U	ug/L	1	0.020	0.0020	3/31/2017 00:55	M
Aroclor 1016 (PCB-1016)	0.15	U	ug/L	1	0.20	0.15	3/31/2017 00:55	M
Aroclor 1221 (PCB-1221)	0.13	U	ug/L	1	0.20	0.13	3/31/2017 00:55	M
Aroclor 1232 (PCB-1232)	0.19	U	ug/L	1	0.20	0.19	3/31/2017 00:55	M
Aroclor 1242 (PCB-1242)	0.17	U	ug/L	1	0.20	0.17	3/31/2017 00:55	M
Aroclor 1248 (PCB-1248)	0.15	U	ug/L	1	0.20	0.15	3/31/2017 00:55	M
Aroclor 1254 (PCB-1254)	0.040	U	ug/L	1	0.20	0.040	3/31/2017 00:55	M
Aroclor 1260 (PCB-1260)	0.020	U	ug/L	1	0.20	0.020	3/31/2017 00:55	M
Chlordane (technical)	0.059	U	ug/L	1	0.20	0.059	3/31/2017 00:55	M

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Page 3 of 16

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## ANALYTICAL RESULTS

Workorder: T1705067 UTC SW

Lab ID: **T1705067001**  
Sample ID: **SW-2**

Date Received: 03/23/17 13:30 Matrix: Water  
Date Collected: 03/23/17 09:35

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Dieldrin	0.0016	U	ug/L	1	0.020	0.0016	3/31/2017 00:55	M
Endosulfan I	0.0016	U	ug/L	1	0.020	0.0016	3/31/2017 00:55	M
Endosulfan II	0.0013	U	ug/L	1	0.020	0.0013	3/31/2017 00:55	M
Endosulfan Sulfate	0.0017	U	ug/L	1	0.020	0.0017	3/31/2017 00:55	M
Endrin	0.0025	U	ug/L	1	0.020	0.0025	3/31/2017 00:55	M
Endrin Aldehyde	0.0048	U	ug/L	1	0.020	0.0048	3/31/2017 00:55	M
Heptachlor	0.0013	U	ug/L	1	0.020	0.0013	3/31/2017 00:55	M
Heptachlor Epoxide	0.00080	U	ug/L	1	0.020	0.00080	3/31/2017 00:55	M
Methoxychlor	0.0053	U	ug/L	1	0.020	0.0053	3/31/2017 00:55	M
Toxaphene	0.064	U	ug/L	1	0.20	0.064	3/31/2017 00:55	M
alpha-BHC	0.0041	U	ug/L	1	0.020	0.0041	3/31/2017 00:55	M
beta-BHC	0.0071	U	ug/L	1	0.020	0.0071	3/31/2017 00:55	M
delta-BHC	0.0056	U	ug/L	1	0.020	0.0056	3/31/2017 00:55	M
gamma-BHC (Lindane)	0.0046	U	ug/L	1	0.020	0.0046	3/31/2017 00:55	M
Tetrachloro-m-xylene (S)	88		%	1	44-124		3/31/2017 00:55	
Decachlorobiphenyl (S)	82		%	1	48-137		3/31/2017 00:55	

### WET CHEMISTRY

Analysis Desc: Oil & Grease,EPA1664A (HEM),Water		Analytical Method: EPA 1664 A						
Oil & Grease (HEM)	7.2		mg/L	1	4.0	1.3	3/28/2017 12:30	M
Analysis Desc: Ammonia,E350.1,Water		Analytical Method: EPA 350.1						
Ammonia (N)	0.02	U	mg/L	1	0.10	0.02	3/29/2017 10:48	T
Analysis Desc: TKN,E351.2,Water		Preparation Method: Copper Sulfate Digestion						
		Analytical Method: EPA 351.2						
Total Kjeldahl Nitrogen	0.63		mg/L	1	0.20	0.075	3/27/2017 16:11	T
Analysis Desc: Orthophosphate,E365.1,Water		Analytical Method: EPA 365.1						
Orthophosphate	0.0090	U	mg/L	1	0.010	0.0090	3/24/2017 11:57	T
Analysis Desc: Total Phosphorus,E365.4,Analysis		Preparation Method: Copper Sulfate Digestion						
		Analytical Method: EPA 365.4						
Total Phosphorus (as P)	0.046	U	mg/L	1	0.10	0.046	3/27/2017 16:11	T
Analysis Desc: TSS,SM2540D,Water		Analytical Method: SM 2540D						
Total Suspended Solids	1.0	U	mg/L	1	1.0	1.0	3/28/2017 09:52	T

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Page 4 of 16

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## ANALYTICAL RESULTS

Workorder: T1705067 UTC SW

Lab ID: **T1705067001**  
Sample ID: **SW-2**

Date Received: 03/23/17 13:30 Matrix: Water  
Date Collected: 03/23/17 09:35

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: Nitrate+Nitrite, SM4500NO3F, W		Analytical Method: SM 4500NO3-F						
Nitrate + Nitrite	0.4	U	mg/L	2	0.8	0.4	3/28/2017 15:04	T
Analysis Desc: BOD, SM5210B, Water		Analytical Method: SM 5210B						
Biochemical Oxygen Demand	2.0	U	mg/L	1	2.0	2.0	3/23/2017 19:29	T

Lab ID: **T1705067002**  
Sample ID: **SW-1**

Date Received: 03/23/17 13:30 Matrix: Water  
Date Collected: 03/23/17 10:30

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
<b>METALS</b>								
Analysis Desc: SW846 6010B Analysis, Water		Preparation Method: SW-846 3010A Analytical Method: SW-846 6010						
Arsenic	0.0017	I	mg/L	1	0.010	0.0016	3/28/2017 15:24	T
Cadmium	0.00024	U	mg/L	1	0.00090	0.00024	3/28/2017 15:24	T
Chromium	0.0020	U	mg/L	1	0.0020	0.0020	3/28/2017 15:24	T
Copper	0.0040	I	mg/L	1	0.0080	0.00084	3/28/2017 15:24	T
Lead	0.0032	U	mg/L	1	0.010	0.0032	3/28/2017 15:24	T
Nickel	0.0044	U	mg/L	1	0.0090	0.0044	3/28/2017 15:24	T
Zinc	0.0020	U	mg/L	1	0.010	0.0020	3/28/2017 15:24	T

Analysis Desc: SW846 7470A Analysis, Water		Preparation Method: SW-846 7470A Analytical Method: SW-846 7470A						
Mercury	0.000050	U	mg/L	1	0.00010	0.000050	3/28/2017 13:05	T

### Microbiology

Analysis Desc: Total Coliform, SM9222B, Water		Analytical Method: SM 9222 B (MF)						
Coliform Total positive for E. coli	3500	2	#/100 mL	100	100	100	3/23/2017 18:12	T
Analysis Desc: Fecal Coliform MF, SM9222D, Water		Analytical Method: SM 9222D						
Coliform Fecal	135	B	#/100 mL	9	9	9	3/23/2017 15:30	T

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Page 5 of 16

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## ANALYTICAL RESULTS

Workorder: T1705067 UTC SW

Lab ID: **T1705067002**  
Sample ID: **SW-1**

Date Received: 03/23/17 13:30 Matrix: Water  
Date Collected: 03/23/17 10:30

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
<b>SEMIVOLATILES</b>								
Analysis Desc: E608 Analysis, Water			Preparation Method: EPA 608/608.2					
			Analytical Method: EPA 608/608.2					
4,4'-DDD	0.0024	U	ug/L	1	0.020	0.0024	3/31/2017 01:16	M
4,4'-DDE	0.0016	U	ug/L	1	0.020	0.0016	3/31/2017 01:16	M
4,4'-DDT	0.0030	U	ug/L	1	0.020	0.0030	3/31/2017 01:16	M
Aldrin	0.0020	U	ug/L	1	0.020	0.0020	3/31/2017 01:16	M
Aroclor 1016 (PCB-1016)	0.15	U	ug/L	1	0.20	0.15	3/31/2017 01:16	M
Aroclor 1221 (PCB-1221)	0.13	U	ug/L	1	0.20	0.13	3/31/2017 01:16	M
Aroclor 1232 (PCB-1232)	0.19	U	ug/L	1	0.20	0.19	3/31/2017 01:16	M
Aroclor 1242 (PCB-1242)	0.17	U	ug/L	1	0.20	0.17	3/31/2017 01:16	M
Aroclor 1248 (PCB-1248)	0.15	U	ug/L	1	0.20	0.15	3/31/2017 01:16	M
Aroclor 1254 (PCB-1254)	0.040	U	ug/L	1	0.20	0.040	3/31/2017 01:16	M
Aroclor 1260 (PCB-1260)	0.020	U	ug/L	1	0.20	0.020	3/31/2017 01:16	M
Chlordane (technical)	0.059	U	ug/L	1	0.20	0.059	3/31/2017 01:16	M
Dieldrin	0.0016	U	ug/L	1	0.020	0.0016	3/31/2017 01:16	M
Endosulfan I	0.0016	U	ug/L	1	0.020	0.0016	3/31/2017 01:16	M
Endosulfan II	0.0013	U	ug/L	1	0.020	0.0013	3/31/2017 01:16	M
Endosulfan Sulfate	0.0017	U	ug/L	1	0.020	0.0017	3/31/2017 01:16	M
Endrin	0.0025	U	ug/L	1	0.020	0.0025	3/31/2017 01:16	M
Endrin Aldehyde	0.0048	U	ug/L	1	0.020	0.0048	3/31/2017 01:16	M
Heptachlor	0.0013	U	ug/L	1	0.020	0.0013	3/31/2017 01:16	M
Heptachlor Epoxide	0.00080	U	ug/L	1	0.020	0.00080	3/31/2017 01:16	M
Methoxychlor	0.0053	U	ug/L	1	0.020	0.0053	3/31/2017 01:16	M
Toxaphene	0.064	U	ug/L	1	0.20	0.064	3/31/2017 01:16	M
alpha-BHC	0.0041	U	ug/L	1	0.020	0.0041	3/31/2017 01:16	M
beta-BHC	0.0071	U	ug/L	1	0.020	0.0071	3/31/2017 01:16	M
delta-BHC	0.0056	U	ug/L	1	0.020	0.0056	3/31/2017 01:16	M
gamma-BHC (Lindane)	0.0046	U	ug/L	1	0.020	0.0046	3/31/2017 01:16	M
Tetrachloro-m-xylene (S)	86		%	1	44-124		3/31/2017 01:16	
Decachlorobiphenyl (S)	82		%	1	48-137		3/31/2017 01:16	

### WET CHEMISTRY

Analysis Desc: Oil & Grease,EPA1664A (HEM),Water			Analytical Method: EPA 1664 A					
Oil & Grease (HEM)	1.3	U	mg/L	1	4.0	1.3	3/28/2017 12:30	M
Analysis Desc: Ammonia,E350.1,Water			Analytical Method: EPA 350.1					
Ammonia (N)	0.02	U	mg/L	1	0.10	0.02	3/29/2017 10:48	T

Report ID: 477847 - 403528

Page 6 of 16

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## ANALYTICAL RESULTS

Workorder: T1705067 UTC SW

Lab ID: **T1705067002**

Date Received: 03/23/17 13:30 Matrix: Water

Sample ID: **SW-1**

Date Collected: 03/23/17 10:30

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: TKN,E351.2,Water		Preparation Method: Copper Sulfate Digestion						
		Analytical Method: EPA 351.2						
Total Kjeldahl Nitrogen	<b>0.78</b>		<b>mg/L</b>	<b>1</b>	0.20	0.075	3/27/2017 16:11	T
Analysis Desc: Orthophosphate,E365.1,Water		Analytical Method: EPA 365.1						
Orthophosphate	<b>0.066</b>		<b>mg/L</b>	<b>1</b>	0.010	0.0090	3/24/2017 11:59	T
Analysis Desc: Total Phosphorus,E365.4,Analysis		Preparation Method: Copper Sulfate Digestion						
		Analytical Method: EPA 365.4						
Total Phosphorus (as P)	<b>0.063</b>	<b>I</b>	<b>mg/L</b>	<b>1</b>	0.10	0.046	3/27/2017 16:11	T
Analysis Desc: TSS,SM2540D,Water		Analytical Method: SM 2540D						
Total Suspended Solids	<b>3.0</b>		<b>mg/L</b>	<b>1</b>	1.0	1.0	3/28/2017 09:52	T
Analysis Desc: Nitrate+Nitrite,SM4500NO3F,W		Analytical Method: SM 4500NO3-F						
Nitrate + Nitrite	<b>0.4</b>	<b>U</b>	<b>mg/L</b>	<b>2</b>	0.8	0.4	3/28/2017 15:07	T
Analysis Desc: BOD,SM5210B,Water		Analytical Method: SM 5210B						
Biochemical Oxygen Demand	<b>2.0</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	2.0	2.0	3/23/2017 19:35	T

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: T1705067 UTC SW

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### PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- B Results based upon colony counts outside the acceptable range.
- [1] False Positive
- [2] Positive for E. coli

### LAB QUALIFIERS

- M DOH Certification #E82535(AEL-M)(FL NELAC Certification)
- T DOH Certification #E84589(AEL-T)(FL NELAC Certification)

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## QUALITY CONTROL DATA

Workorder: T1705067 UTC SW

QC Batch: WCAI/7708 Analysis Method: EPA 365.1  
QC Batch Method: EPA 365.1 Prepared:  
Associated Lab Samples: T1705067001, T1705067002

METHOD BLANK: 2307147

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Orthophosphate	mg/L	0.0090	0.0090 U

QC Batch: WCAI/7717 Analysis Method: SM 5210B  
QC Batch Method: SM 5210B Prepared:  
Associated Lab Samples: T1705067001, T1705067002

METHOD BLANK: 2307448

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Biochemical Oxygen Demand	mg/L	2.0	2.0 U

QC Batch: DGM/2727 Analysis Method: SW-846 6010  
QC Batch Method: SW-846 3010A Prepared: 03/27/2017 10:20  
Associated Lab Samples: T1705067001, T1705067002

METHOD BLANK: 2307568

Parameter	Units	Blank Result	Reporting Limit Qualifiers
METALS			
Arsenic	mg/L	0.0016	0.0016 U
Cadmium	mg/L	0.00024	0.00024 U
Chromium	mg/L	0.0020	0.0020 U
Copper	mg/L	0.00084	0.00084 U
Nickel	mg/L	0.0044	0.0044 U
Lead	mg/L	0.0032	0.0032 U
Zinc	mg/L	0.0020	0.0020 U

QC Batch: MIC/2643 Analysis Method: SM 9222D  
QC Batch Method: SM 9222D Prepared:  
Associated Lab Samples: T1705067001, T1705067002

Report ID: 477847 - 403528

Page 9 of 16

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## QUALITY CONTROL DATA

Workorder: T1705067 UTC SW

METHOD BLANK: 2307656

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Microbiology Coliform Fecal	#/100 mL	1	1	U

QC Batch: WCAI/7720

Analysis Method: EPA 351.2

QC Batch Method: Copper Sulfate Digestion

Prepared: 03/27/2017 11:32

Associated Lab Samples: T1705067001, T1705067002

METHOD BLANK: 2307682

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Total Kjeldahl Nitrogen	mg/L	0.075	0.075	U

METHOD BLANK: 2307683

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Total Phosphorus (as P)	mg/L	0.046	0.046	U

QC Batch: WCAI/7720

Analysis Method: EPA 365.4

QC Batch Method: Copper Sulfate Digestion

Prepared: 03/27/2017 11:32

Associated Lab Samples: T1705067001, T1705067002

METHOD BLANK: 2307682

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Total Kjeldahl Nitrogen	mg/L	0.075	0.075	U

METHOD BLANK: 2307683

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				

Report ID: 477847 - 403528

Page 10 of 16

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## QUALITY CONTROL DATA

Workorder: T1705067 UTC SW

METHOD BLANK: 2307683

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Total Phosphorus (as P)	mg/L	0.046	0.046 U

QC Batch: WCAI/7740 Analysis Method: SM 2540D  
QC Batch Method: SM 2540D Prepared:  
Associated Lab Samples: T1705067001, T1705067002

METHOD BLANK: 2308559

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Total Suspended Solids	mg/L	1.0	1.0 U

QC Batch: DGM/2735 Analysis Method: SW-846 7470A  
QC Batch Method: SW-846 7470A Prepared: 03/28/2017 10:36  
Associated Lab Samples: T1705067001, T1705067002

METHOD BLANK: 2308978

Parameter	Units	Blank Result	Reporting Limit Qualifiers
METALS			
Mercury	mg/L	0.000050	0.000050 U

QC Batch: WCAI/7764 Analysis Method: SM 4500NO3-F  
QC Batch Method: SM 4500NO3-F Prepared:  
Associated Lab Samples: T1705067001, T1705067002

METHOD BLANK: 2309918

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Nitrate + Nitrite	mg/L	0.2	0.2 U

QC Batch: WCAm/3942 Analysis Method: EPA 1664 A  
QC Batch Method: EPA 1664 A Prepared:

Report ID: 477847 - 403528

Page 11 of 16

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## QUALITY CONTROL DATA

Workorder: T1705067 UTC SW

Associated Lab Samples: T1705067001, T1705067002

METHOD BLANK: 2310213

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
Oil & Grease (HEM)	mg/L	1.3	1.3	U

QC Batch: WCAI/7777

Analysis Method: EPA 350.1

QC Batch Method: EPA 350.1

Prepared:

Associated Lab Samples: T1705067001, T1705067002

METHOD BLANK: 2310298

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
Ammonia (N)	mg/L	0.02	0.02	U

QC Batch: EXTm/2160

Analysis Method: EPA 608/608.2

QC Batch Method: EPA 608/608.2

Prepared: 03/28/2017 12:00

Associated Lab Samples: T1705067001, T1705067002

METHOD BLANK: 2311287

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
alpha-BHC	ug/L	0.0041	0.0041	U
gamma-BHC (Lindane)	ug/L	0.0046	0.0046	U
beta-BHC	ug/L	0.0071	0.0071	U
delta-BHC	ug/L	0.0056	0.0056	U
Heptachlor	ug/L	0.0013	0.0013	U
Aldrin	ug/L	0.0020	0.0020	U
Heptachlor Epoxide	ug/L	0.00080	0.00080	U
Endosulfan I	ug/L	0.0016	0.0016	U
4,4'-DDE	ug/L	0.0016	0.0016	U
Dieldrin	ug/L	0.0016	0.0016	U
Endrin	ug/L	0.0025	0.0025	U
4,4'-DDD	ug/L	0.0024	0.0024	U
Endosulfan II	ug/L	0.0013	0.0013	U
Endrin Aldehyde	ug/L	0.0048	0.0048	U
4,4'-DDT	ug/L	0.0030	0.0030	U
Endosulfan Sulfate	ug/L	0.0017	0.0017	U

Report ID: 477847 - 403528

Page 12 of 16

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## QUALITY CONTROL DATA

Workorder: T1705067 UTC SW

METHOD BLANK: 2311287

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Methoxychlor	ug/L	0.0053	0.0053 U
Chlordane (technical)	ug/L	0.059	0.059 U
Toxaphene	ug/L	0.064	0.064 U
Aroclor 1016 (PCB-1016)	ug/L	0.15	0.15 U
Aroclor 1221 (PCB-1221)	ug/L	0.13	0.13 U
Aroclor 1232 (PCB-1232)	ug/L	0.19	0.19 U
Aroclor 1242 (PCB-1242)	ug/L	0.17	0.17 U
Aroclor 1248 (PCB-1248)	ug/L	0.15	0.15 U
Aroclor 1254 (PCB-1254)	ug/L	0.040	0.040 U
Aroclor 1260 (PCB-1260)	ug/L	0.020	0.020 U
Tetrachloro-m-xylene (S)	%	94	44-124
Decachlorobiphenyl (S)	%	101	48-137

QC Batch: MICt/2671

Analysis Method: SM 9222 B (MF)

QC Batch Method: SM 9222 B (MF)

Prepared:

Associated Lab Samples: T1705067001, T1705067002

METHOD BLANK: 2315761

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Microbiology			
Coliform Total	#/100 mL	1	1 U

## QUALITY CONTROL DATA QUALIFIERS

Workorder: T1705067 UTC SW

### QUALITY CONTROL PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J4 Estimated Result

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: T1705067 UTC SW

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
T1705067001	SW-2			EPA 365.1	WCAI/7708
T1705067002	SW-1			EPA 365.1	WCAI/7708
T1705067001	SW-2			SM 5210B	WCAI/7717
T1705067002	SW-1			SM 5210B	WCAI/7717
T1705067001	SW-2	SW-846 3010A	DGM/2727	SW-846 6010	ICP/2074
T1705067002	SW-1	SW-846 3010A	DGM/2727	SW-846 6010	ICP/2074
T1705067001	SW-2			SM 9222D	MIC/2643
T1705067002	SW-1			SM 9222D	MIC/2643
T1705067001	SW-2	Copper Sulfate Digestion	WCAI/7720	EPA 351.2	WCAI/7737
T1705067002	SW-1	Copper Sulfate Digestion	WCAI/7720	EPA 351.2	WCAI/7737
T1705067001	SW-2	Copper Sulfate Digestion	WCAI/7720	EPA 365.4	WCAI/7738
T1705067002	SW-1	Copper Sulfate Digestion	WCAI/7720	EPA 365.4	WCAI/7738
T1705067001	SW-2			SM 2540D	WCAI/7740
T1705067002	SW-1			SM 2540D	WCAI/7740
T1705067001	SW-2	SW-846 7470A	DGM/2735	SW-846 7470A	CVAI/1444
T1705067002	SW-1	SW-846 7470A	DGM/2735	SW-846 7470A	CVAI/1444
T1705067001	SW-2			SM 4500NO3-F	WCAI/7764
T1705067002	SW-1			SM 4500NO3-F	WCAI/7764
T1705067001	SW-2			EPA 1664 A	WCAm/3942
T1705067002	SW-1			EPA 1664 A	WCAm/3942
T1705067001	SW-2			EPA 350.1	WCAI/7777
T1705067002	SW-1			EPA 350.1	WCAI/7777

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: T1705067 UTC SW

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
T1705067001	SW-2	EPA 608/608.2	EXTm/2160	EPA 608/608.2	GCSm/1662
T1705067002	SW-1	EPA 608/608.2	EXTm/2160	EPA 608/608.2	GCSm/1662
T1705067001	SW-2			SM 9222 B (MF)	MICt/2671
T1705067002	SW-1			SM 9222 B (MF)	MICt/2671

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Payments: P.O. Box 551580 Jacksonville, FL 32255-1580  
Phone: (813)630-9616  
Fax: (813)630-4327

July 5, 2017

Dana Gaydos  
Gaydos Hydro Services  
PO Box 55802  
Saint Petersburg, FL 33732

RE: Workorder: T1710540 UTC SW

Dear Dana Gaydos:

Enclosed are the analytical results for sample(s) received by the laboratory on Monday, June 19, 2017. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Michael Cammarata  
Mcammarata@AELLab.com

Enclosures

Report ID: 493438 - 828329

Page 1 of 11

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## SAMPLE SUMMARY

Workorder: T1710540 UTC SW

Lab ID	Sample ID	Matrix	Date Collected	Date Received
T1710540001	SW-1	Water	6/19/2017 10:15	6/19/2017 13:20
T1710540002	SW-2	Water	6/19/2017 11:30	6/19/2017 13:20

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## ANALYTICAL RESULTS

Workorder: T1710540 UTC SW

Lab ID: **T1710540001**  
Sample ID: **SW-1**

Date Received: 06/19/17 13:20 Matrix: Water  
Date Collected: 06/19/17 10:15

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
<b>Microbiology</b>								
Analysis Desc: Total Coliform,SM9222B,Water			Analytical Method: SM 9222 B (MF)					
Coliform Total	<b>2400</b>	<b>1</b>	<b>#/100 mL</b>	<b>100</b>	100	100	6/19/2017 15:14	T
Analysis Desc: Fecal Coliform MF,SM9222D,Water			Analytical Method: SM 9222D					
Coliform Fecal	<b>1</b>	<b>U</b>	<b>#/100 mL</b>	<b>1</b>	1	1	6/19/2017 16:16	T
<b>WET CHEMISTRY</b>								
Analysis Desc: Total Nitrogen,Calculated,Water			Analytical Method: Calculation					
Total Nitrogen	<b>0.64</b>		<b>mg/L</b>	<b>1</b>	0.10	0.10	6/30/2017 14:10	T
Analysis Desc: Ammonia,E350.1,Water			Analytical Method: EPA 350.1					
Ammonia (N)	<b>0.02</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.10	0.02	6/21/2017 13:58	T
Analysis Desc: TKN,E351.2,Water			Preparation Method: Copper Sulfate Digestion Analytical Method: EPA 351.2					
Total Kjeldahl Nitrogen	<b>0.64</b>		<b>mg/L</b>	<b>1</b>	0.20	0.075	6/22/2017 11:12	T
Analysis Desc: Orthophosphate,E365.1,Water			Analytical Method: EPA 365.1					
Orthophosphate	<b>0.018</b>		<b>mg/L</b>	<b>1</b>	0.010	0.0090	6/19/2017 15:10	T
Analysis Desc: Total Phosphorus,E365.4,Analysis			Preparation Method: Copper Sulfate Digestion Analytical Method: EPA 365.4					
Total Phosphorus (as P)	<b>0.046</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.10	0.046	6/22/2017 11:12	T
Analysis Desc: TSS,SM2540D,Water			Analytical Method: SM 2540D					
Total Suspended Solids	<b>4.7</b>		<b>mg/L</b>	<b>0.5</b>	0.50	0.50	6/23/2017 10:28	T
Analysis Desc: Nitrate,Nitrite SM4500NO3F,Water			Analytical Method: SM 4500NO3-F					
Nitrate	<b>0.18</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.20	0.18	6/20/2017 13:46	T
Nitrate + Nitrite	<b>0.4</b>	<b>U</b>	<b>mg/L</b>	<b>2</b>	0.8	0.4	6/28/2017 11:43	T
Nitrite	<b>0.18</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.20	0.18	6/20/2017 13:46	T
Analysis Desc: BOD,SM5210B,Water			Analytical Method: SM 5210B					
Biochemical Oxygen Demand	<b>2.0</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	2.0	2.0	6/19/2017 16:51	T

Report ID: 493438 - 828329

Page 3 of 11

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## ANALYTICAL RESULTS

Workorder: T1710540 UTC SW

Lab ID: **T1710540002**  
Sample ID: **SW-2**

Date Received: 06/19/17 13:20 Matrix: Water  
Date Collected: 06/19/17 11:30

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
<b>Microbiology</b>								
Analysis Desc: Total Coliform,SM9222B,Water			Analytical Method: SM 9222 B (MF)					
Coliform Total	<b>2000</b>	<b>1</b>	<b>#/100 mL</b>	<b>100</b>	100	100	6/19/2017 15:14	T
Analysis Desc: Fecal Coliform MF,SM9222D,Water			Analytical Method: SM 9222D					
Coliform Fecal	<b>1</b>	<b>U</b>	<b>#/100 mL</b>	<b>1</b>	1	1	6/19/2017 16:16	T
<b>WET CHEMISTRY</b>								
Analysis Desc: Total Nitrogen,Calculated,Water			Analytical Method: Calculation					
Total Nitrogen	<b>0.57</b>		<b>mg/L</b>	<b>1</b>	0.10	0.10	6/30/2017 14:11	T
Analysis Desc: Ammonia,E350.1,Water			Analytical Method: EPA 350.1					
Ammonia (N)	<b>0.02</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.10	0.02	6/21/2017 13:58	T
Analysis Desc: TKN,E351.2,Water			Preparation Method: Copper Sulfate Digestion Analytical Method: EPA 351.2					
Total Kjeldahl Nitrogen	<b>0.57</b>		<b>mg/L</b>	<b>1</b>	0.20	0.075	6/22/2017 11:12	T
Analysis Desc: Orthophosphate,E365.1,Water			Analytical Method: EPA 365.1					
Orthophosphate	<b>0.021</b>		<b>mg/L</b>	<b>1</b>	0.010	0.0090	6/19/2017 15:12	T
Analysis Desc: Total Phosphorus,E365.4,Analysis			Preparation Method: Copper Sulfate Digestion Analytical Method: EPA 365.4					
Total Phosphorus (as P)	<b>0.046</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.10	0.046	6/22/2017 11:12	T
Analysis Desc: TSS,SM2540D,Water			Analytical Method: SM 2540D					
Total Suspended Solids	<b>5.0</b>		<b>mg/L</b>	<b>0.5</b>	0.50	0.50	6/23/2017 10:28	T
Analysis Desc: Nitrate,Nitrite SM4500NO3F,Water			Analytical Method: SM 4500NO3-F					
Nitrate	<b>0.18</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.20	0.18	6/20/2017 13:47	T
Nitrate + Nitrite	<b>0.4</b>	<b>U</b>	<b>mg/L</b>	<b>2</b>	0.8	0.4	6/28/2017 11:44	T
Nitrite	<b>0.18</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.20	0.18	6/20/2017 13:47	T
Analysis Desc: BOD,SM5210B,Water			Analytical Method: SM 5210B					
Biochemical Oxygen Demand	<b>2.0</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	2.0	2.0	6/19/2017 16:56	T

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Page 4 of 11

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: T1710540 UTC SW

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### PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- [1] Present for Total

### LAB QUALIFIERS

- T DOH Certification #E84589(AEL-T)(FL NELAC Certification)

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## QUALITY CONTROL DATA

Workorder: T1710540 UTC SW

QC Batch: WCAI/9309 Analysis Method: EPA 365.1  
QC Batch Method: EPA 365.1 Prepared:  
Associated Lab Samples: T1710540001, T1710540002

METHOD BLANK: 2385031

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Orthophosphate	mg/L	0.0090	0.0090 U

QC Batch: WCAI/9329 Analysis Method: SM 5210B  
QC Batch Method: SM 5210B Prepared:  
Associated Lab Samples: T1710540001, T1710540002

METHOD BLANK: 2385766

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Biochemical Oxygen Demand	mg/L	2.0	2.0 U

QC Batch: WCAI/9333 Analysis Method: SM 4500NO3-F  
QC Batch Method: SM 4500NO3-F Prepared:  
Associated Lab Samples: T1710540001, T1710540002

METHOD BLANK: 2385797

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Nitrate	mg/L	0.18	0.18 U
Nitrite	mg/L	0.18	0.18 U

QC Batch: WCAI/9340 Analysis Method: EPA 350.1  
QC Batch Method: EPA 350.1 Prepared:  
Associated Lab Samples: T1710540001

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## QUALITY CONTROL DATA

Workorder: T1710540 UTC SW

METHOD BLANK: 2386241

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Ammonia (N)	mg/L	0.02	0.02	U

QC Batch: WCAI/9341 Analysis Method: EPA 350.1  
QC Batch Method: EPA 350.1 Prepared:  
Associated Lab Samples: T1710540002

METHOD BLANK: 2386249

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Ammonia (N)	mg/L	0.02	0.02	U

QC Batch: WCAI/9356 Analysis Method: EPA 351.2  
QC Batch Method: Copper Sulfate Digestion Prepared: 06/21/2017 17:23  
Associated Lab Samples: T1710540001, T1710540002

METHOD BLANK: 2387251

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Total Kjeldahl Nitrogen	mg/L	0.075	0.075	U

METHOD BLANK: 2387252

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Total Phosphorus (as P)	mg/L	0.046	0.046	U

QC Batch: WCAI/9356 Analysis Method: EPA 365.4  
QC Batch Method: Copper Sulfate Digestion Prepared: 06/21/2017 17:23  
Associated Lab Samples: T1710540001, T1710540002

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## QUALITY CONTROL DATA

Workorder: T1710540 UTC SW

METHOD BLANK: 2387251

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Total Kjeldahl Nitrogen	mg/L	0.075	0.075 U

METHOD BLANK: 2387252

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Total Phosphorus (as P)	mg/L	0.046	0.046 U

QC Batch: WCAI/9385 Analysis Method: SM 2540D  
QC Batch Method: SM 2540D Prepared:  
Associated Lab Samples: T1710540001, T1710540002

METHOD BLANK: 2388844

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Total Suspended Solids	mg/L	1.0	1.0 U

QC Batch: MICI/3036 Analysis Method: SM 9222D  
QC Batch Method: SM 9222D Prepared:  
Associated Lab Samples: T1710540001, T1710540002

METHOD BLANK: 2391170

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Microbiology			
Coliform Fecal	#/100 mL	1	1 U

QC Batch: WCAI/9460 Analysis Method: SM 4500NO3-F  
QC Batch Method: SM 4500NO3-F Prepared:  
Associated Lab Samples: T1710540001, T1710540002

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## QUALITY CONTROL DATA

Workorder: T1710540 UTC SW

METHOD BLANK: 2392653

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
Nitrate + Nitrite	mg/L	0.2	0.2	U

QC Batch: MICt/3063 Analysis Method: SM 9222 B (MF)  
QC Batch Method: SM 9222 B (MF) Prepared:  
Associated Lab Samples: T1710540001, T1710540002

METHOD BLANK: 2397213

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Microbiology				
Coliform Total	#/100 mL	1	1	U

## QUALITY CONTROL DATA QUALIFIERS

Workorder: T1710540 UTC SW

### QUALITY CONTROL PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- Q Missed Hold Time

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: T1710540 UTC SW

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
T1710540001	SW-1			EPA 365.1	WCAt/9309
T1710540002	SW-2			EPA 365.1	WCAt/9309
T1710540001	SW-1			SM 5210B	WCAt/9329
T1710540002	SW-2			SM 5210B	WCAt/9329
T1710540001	SW-1			SM 4500NO3-F	WCAt/9333
T1710540002	SW-2			SM 4500NO3-F	WCAt/9333
T1710540001	SW-1			EPA 350.1	WCAt/9340
T1710540002	SW-2			EPA 350.1	WCAt/9341
T1710540001	SW-1	Copper Sulfate Digestion	WCAt/9356	EPA 351.2	WCAt/9374
T1710540002	SW-2	Copper Sulfate Digestion	WCAt/9356	EPA 351.2	WCAt/9374
T1710540001	SW-1	Copper Sulfate Digestion	WCAt/9356	EPA 365.4	WCAt/9375
T1710540002	SW-2	Copper Sulfate Digestion	WCAt/9356	EPA 365.4	WCAt/9375
T1710540001	SW-1			SM 2540D	WCAt/9385
T1710540002	SW-2			SM 2540D	WCAt/9385
T1710540001	SW-1			SM 9222D	MICt/3036
T1710540002	SW-2			SM 9222D	MICt/3036
T1710540001	SW-1			SM 4500NO3-F	WCAt/9460
T1710540002	SW-2			SM 4500NO3-F	WCAt/9460
T1710540001	SW-1			SM 9222 B (MF)	MICt/3063
T1710540002	SW-2			SM 9222 B (MF)	MICt/3063
T1710540001	SW-1	Calculation	CLCt/	Calculation	CLCt/
T1710540002	SW-2	Calculation	CLCt/	Calculation	CLCt/

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Payments: P.O. Box 551580 Jacksonville, FL 32255-1580  
Phone: (813)630-9616  
Fax: (813)630-4327

October 18, 2017

Dana Gaydos  
Gaydos Hydro Services  
PO Box 55802  
Saint Petersburg, FL 33732

RE: Workorder: T1716521 UTC SW

Dear Dana Gaydos:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, September 28, 2017. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael Cammarata', is written over a horizontal line.

Michael Cammarata  
Mcammarata@AELLab.com

Enclosures

Report ID: 511784 - 1356813

Page 1 of 16

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## SAMPLE SUMMARY

Workorder: T1716521 UTC SW

Lab ID	Sample ID	Matrix	Date Collected	Date Received
T1716521001	SW-2	Water	9/28/2017 12:10	9/28/2017 14:38
T1716521002	SW-1	Water	9/28/2017 13:05	9/28/2017 14:38

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## ANALYTICAL RESULTS

Workorder: T1716521 UTC SW

Lab ID: **T1716521001**  
Sample ID: **SW-2**

Date Received: 09/28/17 14:38 Matrix: Water  
Date Collected: 09/28/17 12:10

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
<b>METALS</b>								
Analysis Desc: E200.7 Analysis,Waters			Preparation Method: EPA 200.7					
			Analytical Method: EPA 200.7					
Calcium	45		mg/L	1	0.30	0.072	10/5/2017 17:14	T
Magnesium	6.2		mg/L	1	0.40	0.021	10/5/2017 17:14	T
Total Hardness (as CaCO3)	140		mg/L	1	0.70	0.12	10/5/2017 17:14	T
Analysis Desc: SW846 6010B Analysis,Water			Preparation Method: SW-846 3010A					
			Analytical Method: SW-846 6010					
Arsenic	0.0035	I	mg/L	1	0.010	0.0016	9/29/2017 22:21	T
Cadmium	0.00024	U	mg/L	1	0.00090	0.00024	9/29/2017 22:21	T
Chromium	0.0020	U	mg/L	1	0.0020	0.0020	9/29/2017 22:21	T
Copper	0.0022	I	mg/L	1	0.0080	0.0014	9/29/2017 22:21	T
Lead	0.0032	U	mg/L	1	0.010	0.0032	9/29/2017 22:21	T
Nickel	0.0044	U	mg/L	1	0.0090	0.0044	9/29/2017 22:21	T
Zinc	0.0074	U	mg/L	1	0.010	0.0074	9/29/2017 22:21	T
Analysis Desc: SW846 7470A Analysis,Water			Preparation Method: SW-846 7470A					
			Analytical Method: SW-846 7470A					
Mercury	0.000050	U	mg/L	1	0.00010	0.000050	9/29/2017 09:28	T
<b>SEMIVOLATILES</b>								
Analysis Desc: TKN,E351.2,Water			Preparation Method: Copper Sulfate Digestion					
			Analytical Method: EPA 351.2					
Total Kjeldahl Nitrogen	0.78		mg/L	1	0.20	0.075	10/10/2017 14:05	T
Analysis Desc: Orthophosphate,E365.1,Water			Analytical Method: EPA 365.1					
Orthophosphate	0.035		mg/L	1	0.010	0.0090	9/29/2017 09:16	T
Analysis Desc: Total Phosphorus,E365.4,Analysis			Preparation Method: Copper Sulfate Digestion					
			Analytical Method: EPA 365.4					
Total Phosphorus (as P)	0.046	U	mg/L	1	0.10	0.046	10/10/2017 14:05	T
Analysis Desc: E608 Analysis, Water			Preparation Method: EPA 608/608.2					
			Analytical Method: EPA 608/608.2					
4,4'-DDD	0.0024	U	ug/L	1	0.020	0.0024	10/12/2017 14:35	M
4,4'-DDE	0.0016	U	ug/L	1	0.020	0.0016	10/12/2017 14:35	M

Report ID: 511784 - 1356813

Page 3 of 16

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## ANALYTICAL RESULTS

Workorder: T1716521 UTC SW

Lab ID: **T1716521001**

Date Received: 09/28/17 14:38 Matrix: Water

Sample ID: **SW-2**

Date Collected: 09/28/17 12:10

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
4,4'-DDT	0.0030	U	ug/L	1	0.020	0.0030	10/12/2017 14:35	M
Aldrin	0.0020	U	ug/L	1	0.020	0.0020	10/12/2017 14:35	M
Aroclor 1016 (PCB-1016)	0.15	U	ug/L	1	0.20	0.15	10/12/2017 14:35	M
Aroclor 1221 (PCB-1221)	0.13	U	ug/L	1	0.20	0.13	10/12/2017 14:35	M
Aroclor 1232 (PCB-1232)	0.19	U	ug/L	1	0.20	0.19	10/12/2017 14:35	M
Aroclor 1242 (PCB-1242)	0.17	U	ug/L	1	0.20	0.17	10/12/2017 14:35	M
Aroclor 1248 (PCB-1248)	0.15	U	ug/L	1	0.20	0.15	10/12/2017 14:35	M
Aroclor 1254 (PCB-1254)	0.040	U	ug/L	1	0.20	0.040	10/12/2017 14:35	M
Aroclor 1260 (PCB-1260)	0.020	U	ug/L	1	0.20	0.020	10/12/2017 14:35	M
Chlordane (technical)	0.059	U	ug/L	1	0.20	0.059	10/12/2017 14:35	M
Dieldrin	0.0016	U	ug/L	1	0.020	0.0016	10/12/2017 14:35	M
Endosulfan I	0.0016	U	ug/L	1	0.020	0.0016	10/12/2017 14:35	M
Endosulfan II	0.0013	U	ug/L	1	0.020	0.0013	10/12/2017 14:35	M
Endosulfan Sulfate	0.0017	U	ug/L	1	0.020	0.0017	10/12/2017 14:35	M
Endrin	0.0025	U	ug/L	1	0.020	0.0025	10/12/2017 14:35	M
Endrin Aldehyde	0.0048	U	ug/L	1	0.020	0.0048	10/12/2017 14:35	M
Heptachlor	0.0013	U	ug/L	1	0.020	0.0013	10/12/2017 14:35	M
Heptachlor Epoxide	0.00080	U	ug/L	1	0.020	0.00080	10/12/2017 14:35	M
Methoxychlor	0.0053	U	ug/L	1	0.020	0.0053	10/12/2017 14:35	M
Toxaphene	0.064	U	ug/L	1	0.20	0.064	10/12/2017 14:35	M
alpha-BHC	0.0041	U	ug/L	1	0.020	0.0041	10/12/2017 14:35	M
beta-BHC	0.0071	U	ug/L	1	0.020	0.0071	10/12/2017 14:35	M
delta-BHC	0.0056	U	ug/L	1	0.020	0.0056	10/12/2017 14:35	M
gamma-BHC (Lindane)	0.0046	U	ug/L	1	0.020	0.0046	10/12/2017 14:35	M
Tetrachloro-m-xylene (S)	117		%	1	44-124		10/12/2017 14:35	
Decachlorobiphenyl (S)	92		%	1	48-137		10/12/2017 14:35	

### WET CHEMISTRY

Analysis Desc: Total Analytical Method: Calculation

Nitrogen, Calculated, Water

Total Nitrogen	0.78	mg/L	1	0.10	0.10	10/17/2017 16:31	T
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Analysis Desc: Oil & Grease, EPA1664A Analytical Method: EPA 1664 A

(HEM), Water

Oil & Grease (HEM)	2.0	I	mg/L	1	4.0	1.3	10/12/2017 12:00	M
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Analysis Desc: Ammonia, E350.1, Water Analytical Method: EPA 350.1

Ammonia (N)	0.13	mg/L	1	0.10	0.02	10/5/2017 14:21	T
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Analysis Desc: TSS, SM2540D, Water Analytical Method: SM 2540D

Report ID: 511784 - 1356813

Page 4 of 16

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## ANALYTICAL RESULTS

Workorder: T1716521 UTC SW

Lab ID: **T1716521001**

Date Received: 09/28/17 14:38 Matrix: Water

Sample ID: **SW-2**

Date Collected: 09/28/17 12:10

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Total Suspended Solids	<b>3.5</b>		<b>mg/L</b>	<b>0.5</b>	0.50	0.50	10/4/2017 18:41	T
Analysis Desc: Nitrate+Nitrite, SM4500NO3F,W		Analytical Method: SM 4500NO3-F						
Nitrate + Nitrite	<b>0.4</b>	<b>U</b>	<b>mg/L</b>	<b>2</b>	0.8	0.4	9/29/2017 10:39	T
Analysis Desc: BOD, SM5210B, Water		Analytical Method: SM 5210B						
Biochemical Oxygen Demand	<b>2.0</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	2.0	2.0	9/29/2017 13:28	T

Lab ID: **T1716521002**

Date Received: 09/28/17 14:38 Matrix: Water

Sample ID: **SW-1**

Date Collected: 09/28/17 13:05

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: E200.7 Analysis,Waters		Preparation Method: EPA 200.7						
Analytical Method: EPA 200.7								
Calcium	43		mg/L	1	0.30	0.072	10/5/2017 17:18	T
Magnesium	6.0		mg/L	1	0.40	0.021	10/5/2017 17:18	T
Total Hardness (as CaCO3)	130		mg/L	1	0.70	0.12	10/5/2017 17:18	T
Analysis Desc: SW846 6010B Analysis,Water		Preparation Method: SW-846 3010A						
Analytical Method: SW-846 6010								
Arsenic	0.0022	I	mg/L	1	0.010	0.0016	9/29/2017 22:24	T
Cadmium	0.00024	U	mg/L	1	0.00090	0.00024	9/29/2017 22:24	T
Chromium	0.0020	U	mg/L	1	0.0020	0.0020	9/29/2017 22:24	T
Copper	0.0018	I	mg/L	1	0.0080	0.0014	9/29/2017 22:24	T
Lead	0.0032	U	mg/L	1	0.010	0.0032	9/29/2017 22:24	T
Nickel	0.0044	U	mg/L	1	0.0090	0.0044	9/29/2017 22:24	T
Zinc	0.010	I	mg/L	1	0.010	0.0074	9/29/2017 22:24	T
Analysis Desc: SW846 7470A Analysis,Water		Preparation Method: SW-846 7470A						
Analytical Method: SW-846 7470A								
Mercury	0.000050	U	mg/L	1	0.00010	0.000050	9/29/2017 09:28	T

Report ID: 511784 - 1356813

Page 5 of 16

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## ANALYTICAL RESULTS

Workorder: T1716521 UTC SW

Lab ID: **T1716521002**

Date Received: 09/28/17 14:38 Matrix: Water

Sample ID: **SW-1**

Date Collected: 09/28/17 13:05

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
<b>SEMIVOLATILES</b>								
Analysis Desc: E608 Analysis, Water			Preparation Method: EPA 608/608.2					
			Analytical Method: EPA 608/608.2					
4,4'-DDD	0.0024	U	ug/L	1	0.020	0.0024	10/12/2017 14:57	M
4,4'-DDE	0.0016	U	ug/L	1	0.020	0.0016	10/12/2017 14:57	M
4,4'-DDT	0.0030	U	ug/L	1	0.020	0.0030	10/12/2017 14:57	M
Aldrin	0.0020	U	ug/L	1	0.020	0.0020	10/12/2017 14:57	M
Aroclor 1016 (PCB-1016)	0.15	U	ug/L	1	0.20	0.15	10/12/2017 14:57	M
Aroclor 1221 (PCB-1221)	0.13	U	ug/L	1	0.20	0.13	10/12/2017 14:57	M
Aroclor 1232 (PCB-1232)	0.19	U	ug/L	1	0.20	0.19	10/12/2017 14:57	M
Aroclor 1242 (PCB-1242)	0.17	U	ug/L	1	0.20	0.17	10/12/2017 14:57	M
Aroclor 1248 (PCB-1248)	0.15	U	ug/L	1	0.20	0.15	10/12/2017 14:57	M
Aroclor 1254 (PCB-1254)	0.040	U	ug/L	1	0.20	0.040	10/12/2017 14:57	M
Aroclor 1260 (PCB-1260)	0.020	U	ug/L	1	0.20	0.020	10/12/2017 14:57	M
Chlordane (technical)	0.059	U	ug/L	1	0.20	0.059	10/12/2017 14:57	M
Dieldrin	0.0016	U	ug/L	1	0.020	0.0016	10/12/2017 14:57	M
Endosulfan I	0.0016	U	ug/L	1	0.020	0.0016	10/12/2017 14:57	M
Endosulfan II	0.0013	U	ug/L	1	0.020	0.0013	10/12/2017 14:57	M
Endosulfan Sulfate	0.0017	U	ug/L	1	0.020	0.0017	10/12/2017 14:57	M
Endrin	0.0025	U	ug/L	1	0.020	0.0025	10/12/2017 14:57	M
Endrin Aldehyde	0.0048	U	ug/L	1	0.020	0.0048	10/12/2017 14:57	M
Heptachlor	0.0013	U	ug/L	1	0.020	0.0013	10/12/2017 14:57	M
Heptachlor Epoxide	0.00080	U	ug/L	1	0.020	0.00080	10/12/2017 14:57	M
Methoxychlor	0.0053	U	ug/L	1	0.020	0.0053	10/12/2017 14:57	M
Toxaphene	0.064	U	ug/L	1	0.20	0.064	10/12/2017 14:57	M
alpha-BHC	0.0041	U	ug/L	1	0.020	0.0041	10/12/2017 14:57	M
beta-BHC	0.0071	U	ug/L	1	0.020	0.0071	10/12/2017 14:57	M
delta-BHC	0.0056	U	ug/L	1	0.020	0.0056	10/12/2017 14:57	M
gamma-BHC (Lindane)	0.0046	U	ug/L	1	0.020	0.0046	10/12/2017 14:57	M
Tetrachloro-m-xylene (S)	82		%	1	44-124		10/12/2017 14:57	
Decachlorobiphenyl (S)	66		%	1	48-137		10/12/2017 14:57	

### WET CHEMISTRY

Analysis Desc: Total Nitrogen, Calculated, Water Analytical Method: Calculation

Total Nitrogen	1.3	mg/L	1	0.10	0.10	10/17/2017 16:31	T
----------------	-----	------	---	------	------	------------------	---

Analysis Desc: Oil & Grease, EPA1664A (HEM), Water Analytical Method: EPA 1664 A

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## ANALYTICAL RESULTS

Workorder: T1716521 UTC SW

Lab ID: **T1716521002**  
Sample ID: **SW-1**

Date Received: 09/28/17 14:38 Matrix: Water  
Date Collected: 09/28/17 13:05

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Oil & Grease (HEM)	<b>1.3</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	4.0	1.3	10/12/2017 12:00	M
Analysis Desc: Ammonia,E350.1,Water		Analytical Method: EPA 350.1						
Ammonia (N)	<b>0.02</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.10	0.02	10/5/2017 14:21	T
Analysis Desc: TKN,E351.2,Water		Preparation Method: Copper Sulfate Digestion						
		Analytical Method: EPA 351.2						
Total Kjeldahl Nitrogen	<b>0.75</b>		<b>mg/L</b>	<b>1</b>	0.20	0.075	10/10/2017 14:05	T
Analysis Desc: Orthophosphate,E365.1,Water		Analytical Method: EPA 365.1						
Orthophosphate	<b>0.021</b>		<b>mg/L</b>	<b>1</b>	0.010	0.0090	9/29/2017 09:18	T
Analysis Desc: Total Phosphorus,E365.4,Analysis		Preparation Method: Copper Sulfate Digestion						
		Analytical Method: EPA 365.4						
Total Phosphorus (as P)	<b>0.046</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.10	0.046	10/10/2017 14:05	T
Analysis Desc: TSS,SM2540D,Water		Analytical Method: SM 2540D						
Total Suspended Solids	<b>4.7</b>		<b>mg/L</b>	<b>0.5</b>	0.50	0.50	10/4/2017 18:41	T
Analysis Desc: Nitrate+Nitrite,SM4500NO3F,W		Analytical Method: SM 4500NO3-F						
Nitrate + Nitrite	<b>0.51</b>	<b>I</b>	<b>mg/L</b>	<b>2</b>	0.8	0.4	9/29/2017 10:40	T
Analysis Desc: BOD,SM5210B,Water		Analytical Method: SM 5210B						
Biochemical Oxygen Demand	<b>2.6</b>		<b>mg/L</b>	<b>1</b>	2.0	2.0	9/29/2017 13:39	T

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: T1716521 UTC SW

---

### PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

### LAB QUALIFIERS

- M DOH Certification #E82535(AEL-M)(FL NELAC Certification)
- T DOH Certification #E84589(AEL-T)(FL NELAC Certification)

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## QUALITY CONTROL DATA

Workorder: T1716521 UTC SW

QC Batch: WCAI/11134 Analysis Method: SM 4500NO3-F  
QC Batch Method: SM 4500NO3-F Prepared:  
Associated Lab Samples: T1716521001, T1716521002

METHOD BLANK: 2481508

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Nitrate + Nitrite	mg/L	0.2	0.2 U

QC Batch: WCAI/11140 Analysis Method: EPA 365.1  
QC Batch Method: EPA 365.1 Prepared:  
Associated Lab Samples: T1716521001, T1716521002

METHOD BLANK: 2481744

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Orthophosphate	mg/L	0.0090	0.0090 U

QC Batch: DGM/3717 Analysis Method: SW-846 6010  
QC Batch Method: SW-846 3010A Prepared: 09/29/2017 10:30  
Associated Lab Samples: T1716521001, T1716521002

METHOD BLANK: 2482202

Parameter	Units	Blank Result	Reporting Limit Qualifiers
METALS			
Arsenic	mg/L	0.0016	0.0016 U
Cadmium	mg/L	0.00024	0.00024 U
Chromium	mg/L	0.0020	0.0020 U
Copper	mg/L	0.0014	0.0014 U
Nickel	mg/L	0.0044	0.0044 U
Lead	mg/L	0.0032	0.0032 U
Zinc	mg/L	0.0074	0.0074 U

QC Batch: DGM/3720 Analysis Method: SW-846 7470A  
QC Batch Method: SW-846 7470A Prepared: 09/29/2017 09:50  
Associated Lab Samples: T1716521001, T1716521002

Report ID: 511784 - 1356813

Page 9 of 16

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## QUALITY CONTROL DATA

Workorder: T1716521 UTC SW

METHOD BLANK: 2482404

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>METALS</b>				
Mercury	mg/L	0.000050	0.000050	U

QC Batch: WCAI/11155 Analysis Method: SM 5210B  
QC Batch Method: SM 5210B Prepared:  
Associated Lab Samples: T1716521001, T1716521002

METHOD BLANK: 2483445

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>WET CHEMISTRY</b>				
Biochemical Oxygen Demand	mg/L	2.0	2.0	U

QC Batch: WCAI/11177 Analysis Method: SM 2540D  
QC Batch Method: SM 2540D Prepared:  
Associated Lab Samples: T1716521001, T1716521002

METHOD BLANK: 2485251

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>WET CHEMISTRY</b>				
Total Suspended Solids	mg/L	0.50	0.50	U

QC Batch: DGM/3750 Analysis Method: EPA 200.7  
QC Batch Method: EPA 200.7 Prepared: 10/05/2017 10:15  
Associated Lab Samples: T1716521001, T1716521002

METHOD BLANK: 2489628

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>METALS</b>				
Calcium	mg/L	0.072	0.072	U
Magnesium	mg/L	0.021	0.021	U

Report ID: 511784 - 1356813

Page 10 of 16

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## QUALITY CONTROL DATA

Workorder: T1716521 UTC SW

QC Batch: WCAI/11258 Analysis Method: EPA 350.1  
QC Batch Method: EPA 350.1 Prepared:  
Associated Lab Samples: T1716521001, T1716521002

METHOD BLANK: 2490096

Parameter	Units	Blank Result	Reporting Limit Qualifiers
<b>WET CHEMISTRY</b>			
Ammonia (N)	mg/L	0.02	0.02 U

QC Batch: EXTm/2696 Analysis Method: EPA 608/608.2  
QC Batch Method: EPA 608/608.2 Prepared: 10/05/2017 10:00  
Associated Lab Samples: T1716521001, T1716521002

METHOD BLANK: 2492090

Parameter	Units	Blank Result	Reporting Limit Qualifiers
<b>SEMIVOLATILES</b>			
alpha-BHC	ug/L	0.0041	0.0041 U
gamma-BHC (Lindane)	ug/L	0.0046	0.0046 U
beta-BHC	ug/L	0.0071	0.0071 U
delta-BHC	ug/L	0.0056	0.0056 U
Heptachlor	ug/L	0.0013	0.0013 U
Aldrin	ug/L	0.0020	0.0020 U
Heptachlor Epoxide	ug/L	0.00080	0.00080 U
Endosulfan I	ug/L	0.0016	0.0016 U
4,4'-DDE	ug/L	0.0016	0.0016 U
Dieldrin	ug/L	0.0016	0.0016 U
Endrin	ug/L	0.0025	0.0025 U
4,4'-DDD	ug/L	0.0024	0.0024 U
Endosulfan II	ug/L	0.0013	0.0013 U
Endrin Aldehyde	ug/L	0.0048	0.0048 U
4,4'-DDT	ug/L	0.0030	0.0030 U
Endosulfan Sulfate	ug/L	0.0017	0.0017 U
Methoxychlor	ug/L	0.0053	0.0053 U
Chlordane (technical)	ug/L	0.059	0.059 U
Toxaphene	ug/L	0.064	0.064 U
Aroclor 1016 (PCB-1016)	ug/L	0.15	0.15 U
Aroclor 1221 (PCB-1221)	ug/L	0.13	0.13 U
Aroclor 1232 (PCB-1232)	ug/L	0.19	0.19 U
Aroclor 1242 (PCB-1242)	ug/L	0.17	0.17 U
Aroclor 1248 (PCB-1248)	ug/L	0.15	0.15 U
Aroclor 1254 (PCB-1254)	ug/L	0.040	0.040 U
Aroclor 1260 (PCB-1260)	ug/L	0.020	0.020 U

Report ID: 511784 - 1356813

Page 11 of 16

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## QUALITY CONTROL DATA

Workorder: T1716521 UTC SW

METHOD BLANK: 2492090

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Tetrachloro-m-xylene (S)	%	99	44-124	
Decachlorobiphenyl (S)	%	91	48-137	

QC Batch: WCA/11323 Analysis Method: EPA 351.2  
QC Batch Method: Copper Sulfate Digestion Prepared: 10/09/2017 17:10  
Associated Lab Samples: T1716521001, T1716521002

METHOD BLANK: 2493626

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Total Kjeldahl Nitrogen	mg/L	0.075	0.075	U

METHOD BLANK: 2493627

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Total Phosphorus (as P)	mg/L	0.046	0.046	U

QC Batch: WCA/11323 Analysis Method: EPA 365.4  
QC Batch Method: Copper Sulfate Digestion Prepared: 10/09/2017 17:10  
Associated Lab Samples: T1716521001, T1716521002

METHOD BLANK: 2493626

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Total Kjeldahl Nitrogen	mg/L	0.075	0.075	U

METHOD BLANK: 2493627

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Total Phosphorus (as P)	mg/L	0.046	0.046	U

Report ID: 511784 - 1356813

Page 12 of 16

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## QUALITY CONTROL DATA

Workorder: T1716521 UTC SW

QC Batch:	WCAm/5646	Analysis Method:	EPA 1664 A
QC Batch Method:	EPA 1664 A	Prepared:	
Associated Lab Samples:	T1716521001, T1716521002		

METHOD BLANK: 2499244

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY Oil & Grease (HEM)	mg/L	1.3	1.3 U

## QUALITY CONTROL DATA QUALIFIERS

Workorder: T1716521 UTC SW

### QUALITY CONTROL PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J3 Lab QC Failure

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: T1716521 UTC SW

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
T1716521001	SW-2			SM 4500NO3-F	WCA/t/11134
T1716521002	SW-1			SM 4500NO3-F	WCA/t/11134
T1716521001	SW-2			EPA 365.1	WCA/t/11140
T1716521002	SW-1			EPA 365.1	WCA/t/11140
T1716521001	SW-2	SW-846 3010A	DGMt/3717	SW-846 6010	ICPt/2661
T1716521002	SW-1	SW-846 3010A	DGMt/3717	SW-846 6010	ICPt/2661
T1716521001	SW-2	SW-846 7470A	DGMt/3720	SW-846 7470A	CVA/t/1707
T1716521002	SW-1	SW-846 7470A	DGMt/3720	SW-846 7470A	CVA/t/1707
T1716521001	SW-2			SM 5210B	WCA/t/11155
T1716521002	SW-1			SM 5210B	WCA/t/11155
T1716521001	SW-2			SM 2540D	WCA/t/11177
T1716521002	SW-1			SM 2540D	WCA/t/11177
T1716521001	SW-2	EPA 200.7	DGMt/3750	EPA 200.7	ICPt/2677
T1716521002	SW-1	EPA 200.7	DGMt/3750	EPA 200.7	ICPt/2677
T1716521001	SW-2			EPA 350.1	WCA/t/11258
T1716521002	SW-1			EPA 350.1	WCA/t/11258
T1716521001	SW-2	EPA 608/608.2	EXTm/2696	EPA 608/608.2	GCSm/1983
T1716521002	SW-1	EPA 608/608.2	EXTm/2696	EPA 608/608.2	GCSm/1983
T1716521001	SW-2	Copper Sulfate Digestion	WCA/t/11323	EPA 351.2	WCA/t/11354
T1716521002	SW-1	Copper Sulfate Digestion	WCA/t/11323	EPA 351.2	WCA/t/11354
T1716521001	SW-2	Copper Sulfate Digestion	WCA/t/11323	EPA 365.4	WCA/t/11355
T1716521002	SW-1	Copper Sulfate Digestion	WCA/t/11323	EPA 365.4	WCA/t/11355

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: T1716521 UTC SW

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
T1716521001	SW-2			EPA 1664 A	WCAm/5646
T1716521002	SW-1			EPA 1664 A	WCAm/5646
T1716521001	SW-2	Calculation	CLCt/	Calculation	CLCt/
T1716521002	SW-1	Calculation	CLCt/	Calculation	CLCt/

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9610 Princess Palm Ave Tampa, FL 33619  
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580  
Phone: (813)630-9616  
Fax: (813)630-4327

December 26, 2017

Dana Gaydos  
Gaydos Hydro Services  
PO Box 55802  
Saint Petersburg, FL 33732

RE: Workorder: T1720930 UTC SW

Dear Dana Gaydos:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday, December 06, 2017. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael Cammarata', is written over a horizontal line.

Michael Cammarata  
Mcammarata@AELLab.com

Enclosures

Report ID: 524966 - 1699265

Page 1 of 17

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## SAMPLE SUMMARY

Workorder: T1720930 UTC SW

Lab ID	Sample ID	Matrix	Date Collected	Date Received
T1720930001	SW-1	Water	12/6/2017 11:00	12/6/2017 12:56
T1720930002	SW-2	Water	12/6/2017 11:40	12/6/2017 12:56

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## ANALYTICAL RESULTS

Workorder: T1720930 UTC SW

Lab ID: **T1720930001**

Date Received: 12/06/17 12:56 Matrix: Water

Sample ID: **SW-1**

Date Collected: 12/06/17 11:00

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
<b>METALS</b>								
Analysis Desc: E200.7 Analysis,Waters			Preparation Method: EPA 200.7					
			Analytical Method: EPA 200.7					
Calcium	<b>54</b>		<b>mg/L</b>	<b>1</b>	0.30	0.072	12/8/2017 21:46	T
Magnesium	<b>6.9</b>		<b>mg/L</b>	<b>1</b>	0.40	0.021	12/8/2017 21:46	T
Total Hardness (as CaCO3)	<b>160</b>		<b>mg/L</b>	<b>1</b>	0.70	0.12	12/8/2017 21:46	T
Analysis Desc: SW846 6010B Analysis,Water			Preparation Method: SW-846 3010A					
			Analytical Method: SW-846 6010					
Arsenic	<b>0.0032</b>	<b>I</b>	<b>mg/L</b>	<b>1</b>	0.010	0.0016	12/8/2017 20:05	T
Cadmium	<b>0.00024</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.00090	0.00024	12/8/2017 20:05	T
Chromium	<b>0.0020</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.0020	0.0020	12/8/2017 20:05	T
Copper	<b>0.0038</b>	<b>I</b>	<b>mg/L</b>	<b>1</b>	0.0080	0.0014	12/8/2017 20:05	T
Lead	<b>0.0032</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.010	0.0032	12/8/2017 20:05	T
Nickel	<b>0.0044</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.0090	0.0044	12/8/2017 20:05	T
Zinc	<b>0.0074</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.010	0.0074	12/8/2017 20:05	T
Analysis Desc: SW846 7470A Analysis,Water			Preparation Method: SW-846 7470A					
			Analytical Method: SW-846 7470A					
Mercury	<b>0.000050</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.00010	0.000050	12/8/2017 10:42	T
<b>Microbiology</b>								
Analysis Desc: Total Coliform,SM9222B,Water			Analytical Method: SM 9222 B (MF)					
Coliform Total	<b>80</b>	<b>1,B</b>	<b>#/100 mL</b>	<b>10</b>	10	10	12/6/2017 18:15	T
Analysis Desc: Fecal Coliform MF,SM9222D,Water			Analytical Method: SM 9222D					
Coliform Fecal	<b>10</b>	<b>U</b>	<b>#/100 mL</b>	<b>10</b>	10	10	12/6/2017 14:30	T
<b>SEMIVOLATILES</b>								
Analysis Desc: E608 Analysis, Water			Preparation Method: EPA 608/608.2					
			Analytical Method: EPA 608/608.2					
4,4'-DDD	<b>0.012</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.012	12/18/2017 20:55	M
4,4'-DDE	<b>0.0080</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.0080	12/18/2017 20:55	M
4,4'-DDT	<b>0.015</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.015	12/18/2017 20:55	M
Aldrin	<b>0.010</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.010	12/18/2017 20:55	M
Aroclor 1016 (PCB-1016)	<b>0.75</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	1.0	0.75	12/18/2017 20:55	M

Report ID: 524966 - 1699265

Page 3 of 17

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## ANALYTICAL RESULTS

Workorder: T1720930 UTC SW

Lab ID: **T1720930001**  
Sample ID: **SW-1**

Date Received: 12/06/17 12:56 Matrix: Water  
Date Collected: 12/06/17 11:00

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Aroclor 1221 (PCB-1221)	0.65	U	ug/L	5	1.0	0.65	12/18/2017 20:55	M
Aroclor 1232 (PCB-1232)	0.95	U	ug/L	5	1.0	0.95	12/18/2017 20:55	M
Aroclor 1242 (PCB-1242)	0.85	U	ug/L	5	1.0	0.85	12/18/2017 20:55	M
Aroclor 1248 (PCB-1248)	0.75	U	ug/L	5	1.0	0.75	12/18/2017 20:55	M
Aroclor 1254 (PCB-1254)	0.20	U	ug/L	5	1.0	0.20	12/18/2017 20:55	M
Aroclor 1260 (PCB-1260)	0.10	U	ug/L	5	1.0	0.10	12/18/2017 20:55	M
Chlordane (technical)	0.30	U	ug/L	5	1.0	0.30	12/18/2017 20:55	M
Dieldrin	0.0080	U	ug/L	5	0.10	0.0080	12/18/2017 20:55	M
Endosulfan I	0.0080	U	ug/L	5	0.10	0.0080	12/18/2017 20:55	M
Endosulfan II	0.0065	U	ug/L	5	0.10	0.0065	12/18/2017 20:55	M
Endosulfan Sulfate	0.0085	U	ug/L	5	0.10	0.0085	12/18/2017 20:55	M
Endrin	0.012	U	ug/L	5	0.10	0.012	12/18/2017 20:55	M
Endrin Aldehyde	0.024	U	ug/L	5	0.10	0.024	12/18/2017 20:55	M
Heptachlor	0.0065	U	ug/L	5	0.10	0.0065	12/18/2017 20:55	M
Heptachlor Epoxide	0.0040	U	ug/L	5	0.10	0.0040	12/18/2017 20:55	M
Methoxychlor	0.026	U	ug/L	5	0.10	0.026	12/18/2017 20:55	M
Toxaphene	0.32	U	ug/L	5	1.0	0.32	12/18/2017 20:55	M
alpha-BHC	0.020	U	ug/L	5	0.10	0.020	12/18/2017 20:55	M
beta-BHC	0.036	U	ug/L	5	0.10	0.036	12/18/2017 20:55	M
delta-BHC	0.028	U	ug/L	5	0.10	0.028	12/18/2017 20:55	M
gamma-BHC (Lindane)	0.023	U	ug/L	5	0.10	0.023	12/18/2017 20:55	M
Tetrachloro-m-xylene (S)	0	2	%	5	44-124		12/18/2017 20:55	
Decachlorobiphenyl (S)	0	2	%	5	48-137		12/18/2017 20:55	

### WET CHEMISTRY

Analysis Desc: Total Nitrogen,Calculated,Water			Analytical Method: Calculation					
Total Nitrogen	1.0	mg/L	1	0.10	0.10	12/15/2017 14:23	T	
Analysis Desc: Ammonia,E350.1,Water			Analytical Method: EPA 350.1					
Ammonia (N)	0.025	U mg/L	1	0.10	0.025	12/7/2017 12:30	T	
Analysis Desc: TKN,E351.2,Water			Preparation Method: Copper Sulfate Digestion					
			Analytical Method: EPA 351.2					
Total Kjeldahl Nitrogen	0.57	mg/L	1	0.20	0.075	12/12/2017 14:56	T	
Analysis Desc: Orthophosphate,E365.1,Water			Analytical Method: EPA 365.1					
Orthophosphate	0.015	mg/L	1	0.010	0.0090	12/6/2017 17:56	T	

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## ANALYTICAL RESULTS

Workorder: T1720930 UTC SW

Lab ID: **T1720930001**  
Sample ID: **SW-1**

Date Received: 12/06/17 12:56 Matrix: Water  
Date Collected: 12/06/17 11:00

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: Total Phosphorus,E365.4,Analysis		Preparation Method: Copper Sulfate Digestion Analytical Method: EPA 365.4						
Total Phosphorus (as P)	<b>0.046</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.10	0.046	12/12/2017 14:56	T
Analysis Desc: TSS,SM2540D,Water		Analytical Method: SM 2540D						
Total Suspended Solids	<b>6.2</b>		<b>mg/L</b>	<b>1</b>	1.0	1.0	12/11/2017 09:43	T
Analysis Desc: Nitrate,Nitrite SM4500NO3F,Water		Analytical Method: SM 4500NO3-F						
Nitrate	<b>0.18</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.20	0.18	12/7/2017 10:23	T
Nitrate + Nitrite	<b>0.45</b>	<b>I</b>	<b>mg/L</b>	<b>2</b>	0.8	0.4	12/7/2017 11:46	T
Nitrite	<b>0.18</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.20	0.18	12/7/2017 10:23	T
Analysis Desc: BOD,SM5210B,Water		Analytical Method: SM 5210B						
Biochemical Oxygen Demand	<b>2.6</b>		<b>mg/L</b>	<b>1</b>	2.0	2.0	12/7/2017 13:43	T

Lab ID: **T1720930002**  
Sample ID: **SW-2**

Date Received: 12/06/17 12:56 Matrix: Water  
Date Collected: 12/06/17 11:40

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
<b>METALS</b>								
Analysis Desc: E200.7 Analysis,Waters		Preparation Method: EPA 200.7 Analytical Method: EPA 200.7						
Calcium	<b>55</b>		<b>mg/L</b>	<b>1</b>	0.30	0.072	12/8/2017 22:28	T
Magnesium	<b>7.0</b>		<b>mg/L</b>	<b>1</b>	0.40	0.021	12/8/2017 22:28	T
Total Hardness (as CaCO3)	<b>170</b>		<b>mg/L</b>	<b>1</b>	0.70	0.12	12/8/2017 22:28	T
Analysis Desc: SW846 6010B Analysis,Water		Preparation Method: SW-846 3010A Analytical Method: SW-846 6010						
Arsenic	<b>0.0041</b>	<b>I</b>	<b>mg/L</b>	<b>1</b>	0.010	0.0016	12/8/2017 20:26	T
Cadmium	<b>0.00024</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.00090	0.00024	12/8/2017 20:26	T
Chromium	<b>0.0020</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.0020	0.0020	12/8/2017 20:26	T
Copper	<b>0.0042</b>	<b>I</b>	<b>mg/L</b>	<b>1</b>	0.0080	0.0014	12/8/2017 20:26	T
Lead	<b>0.0032</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.010	0.0032	12/8/2017 20:26	T

Report ID: 524966 - 1699265

Page 5 of 17

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## ANALYTICAL RESULTS

Workorder: T1720930 UTC SW

Lab ID: **T1720930002**

Date Received: 12/06/17 12:56 Matrix: Water

Sample ID: **SW-2**

Date Collected: 12/06/17 11:40

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Nickel	<b>0.0044</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.0090	0.0044	12/8/2017 20:26	T
Zinc	<b>0.0076</b>	<b>I</b>	<b>mg/L</b>	<b>1</b>	0.010	0.0074	12/8/2017 20:26	T

Analysis Desc: SW846 7470A  
Analysis, Water

Preparation Method: SW-846 7470A  
Analytical Method: SW-846 7470A

Mercury	<b>0.000050</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.00010	0.000050	12/8/2017 10:42	T
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### Microbiology

Analysis Desc: Total  
Coliform, SM9222B, Water

Analytical Method: SM 9222 B (MF)

Coliform Total	<b>100</b>	<b>1,B</b>	<b>#/100 mL</b>	<b>10</b>	10	10	12/6/2017 18:15	T
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Analysis Desc: Fecal Coliform  
MF, SM9222D, Water

Analytical Method: SM 9222D

Coliform Fecal	<b>10</b>	<b>B</b>	<b>#/100 mL</b>	<b>10</b>	10	10	12/6/2017 14:30	T
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### SEMIVOLATILES

Analysis Desc: E608 Analysis, Water

Preparation Method: EPA 608/608.2

Analytical Method: EPA 608/608.2

4,4'-DDD	<b>0.012</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.012	12/18/2017 21:37	M
4,4'-DDE	<b>0.0080</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.0080	12/18/2017 21:37	M
4,4'-DDT	<b>0.015</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.015	12/18/2017 21:37	M
Aldrin	<b>0.010</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.010	12/18/2017 21:37	M
Aroclor 1016 (PCB-1016)	<b>0.75</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	1.0	0.75	12/18/2017 21:37	M
Aroclor 1221 (PCB-1221)	<b>0.65</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	1.0	0.65	12/18/2017 21:37	M
Aroclor 1232 (PCB-1232)	<b>0.95</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	1.0	0.95	12/18/2017 21:37	M
Aroclor 1242 (PCB-1242)	<b>0.85</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	1.0	0.85	12/18/2017 21:37	M
Aroclor 1248 (PCB-1248)	<b>0.75</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	1.0	0.75	12/18/2017 21:37	M
Aroclor 1254 (PCB-1254)	<b>0.20</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	1.0	0.20	12/18/2017 21:37	M
Aroclor 1260 (PCB-1260)	<b>0.10</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	1.0	0.10	12/18/2017 21:37	M
Chlordane (technical)	<b>0.30</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	1.0	0.30	12/18/2017 21:37	M
Dieldrin	<b>0.0080</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.0080	12/18/2017 21:37	M
Endosulfan I	<b>0.0080</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.0080	12/18/2017 21:37	M
Endosulfan II	<b>0.0065</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.0065	12/18/2017 21:37	M
Endosulfan Sulfate	<b>0.0085</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.0085	12/18/2017 21:37	M
Endrin	<b>0.012</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.012	12/18/2017 21:37	M
Endrin Aldehyde	<b>0.024</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.024	12/18/2017 21:37	M
Heptachlor	<b>0.0065</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.0065	12/18/2017 21:37	M
Heptachlor Epoxide	<b>0.0040</b>	<b>U</b>	<b>ug/L</b>	<b>5</b>	0.10	0.0040	12/18/2017 21:37	M

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## ANALYTICAL RESULTS

Workorder: T1720930 UTC SW

Lab ID: **T1720930002**  
Sample ID: **SW-2**

Date Received: 12/06/17 12:56 Matrix: Water  
Date Collected: 12/06/17 11:40

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Methoxychlor	0.026	U	ug/L	5	0.10	0.026	12/18/2017 21:37	M
Toxaphene	0.32	U	ug/L	5	1.0	0.32	12/18/2017 21:37	M
alpha-BHC	0.020	U	ug/L	5	0.10	0.020	12/18/2017 21:37	M
beta-BHC	0.036	U	ug/L	5	0.10	0.036	12/18/2017 21:37	M
delta-BHC	0.028	U	ug/L	5	0.10	0.028	12/18/2017 21:37	M
gamma-BHC (Lindane)	0.023	U	ug/L	5	0.10	0.023	12/18/2017 21:37	M
Tetrachloro-m-xylene (S)	0	2	%	5	44-124		12/18/2017 21:37	
Decachlorobiphenyl (S)	0	2	%	5	48-137		12/18/2017 21:37	

### WET CHEMISTRY

Analysis Desc: Total Nitrogen, Calculated, Water		Analytical Method: Calculation						
Total Nitrogen	0.80		mg/L	1	0.10	0.10	12/21/2017 16:34	T
Analysis Desc: Ammonia, E350.1, Water		Analytical Method: EPA 350.1						
Ammonia (N)	0.025	U	mg/L	1	0.10	0.025	12/7/2017 12:30	T
Analysis Desc: TKN, E351.2, Water		Preparation Method: Copper Sulfate Digestion Analytical Method: EPA 351.2						
Total Kjeldahl Nitrogen	0.45		mg/L	1	0.20	0.075	12/12/2017 14:56	T
Analysis Desc: Orthophosphate, E365.1, Water		Analytical Method: EPA 365.1						
Orthophosphate	0.018		mg/L	1	0.010	0.0090	12/6/2017 17:58	T
Analysis Desc: Total Phosphorus, E365.4, Analysis		Preparation Method: Copper Sulfate Digestion Analytical Method: EPA 365.4						
Total Phosphorus (as P)	0.046	U	mg/L	1	0.10	0.046	12/12/2017 14:56	T
Analysis Desc: TSS, SM2540D, Water		Analytical Method: SM 2540D						
Total Suspended Solids	3.0		mg/L	1	1.0	1.0	12/11/2017 09:43	T
Analysis Desc: Nitrate, Nitrite SM4500NO3F, Water		Analytical Method: SM 4500NO3-F						
Nitrate	0.18	U	mg/L	1	0.20	0.18	12/7/2017 10:24	T
Nitrate + Nitrite	0.35	I	mg/L	2	0.8	0.4	12/7/2017 11:47	T
Nitrite	0.18	U	mg/L	1	0.20	0.18	12/7/2017 10:24	T
Analysis Desc: BOD, SM5210B, Water		Analytical Method: SM 5210B						
Biochemical Oxygen Demand	2.0	U	mg/L	1	2.0	2.0	12/7/2017 13:40	T

Report ID: 524966 - 1699265

Page 7 of 17

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: T1720930 UTC SW

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### PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- [2] Surrogate diluted out.
- B Results based upon colony counts outside the acceptable range.
- [1] Positive for Total

### LAB QUALIFIERS

- M DOH Certification #E82535(AEL-M)(FL NELAC Certification)
- T DOH Certification #E84589(AEL-T)(FL NELAC Certification)

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## QUALITY CONTROL DATA

Workorder: T1720930 UTC SW

QC Batch: MICt/3883 Analysis Method: SM 9222D  
QC Batch Method: SM 9222D Prepared:  
Associated Lab Samples: T1720930001, T1720930002

METHOD BLANK: 2552477

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Microbiology Coliform Fecal	#/100 mL	1	1 U

METHOD BLANK: 2552485

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Microbiology Coliform Fecal	#/100 mL	1	1 U

QC Batch: WCAt/12456 Analysis Method: SM 4500NO3-F  
QC Batch Method: SM 4500NO3-F Prepared:  
Associated Lab Samples: T1720930001, T1720930002

METHOD BLANK: 2553618

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Nitrate	mg/L	0.18	0.18 U
Nitrite	mg/L	0.18	0.18 U

QC Batch: WCAt/12466 Analysis Method: SM 4500NO3-F  
QC Batch Method: SM 4500NO3-F Prepared:  
Associated Lab Samples: T1720930001, T1720930002

METHOD BLANK: 2553904

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Nitrate + Nitrite	mg/L	0.2	0.2 U

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## QUALITY CONTROL DATA

Workorder: T1720930 UTC SW

QC Batch: WCAI/12471 Analysis Method: EPA 365.1  
QC Batch Method: EPA 365.1 Prepared:  
Associated Lab Samples: T1720930001, T1720930002

METHOD BLANK: 2554001

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY Orthophosphate	mg/L	0.0090	0.0090 U

QC Batch: WCAI/12475 Analysis Method: EPA 350.1  
QC Batch Method: EPA 350.1 Prepared:  
Associated Lab Samples: T1720930001, T1720930002

METHOD BLANK: 2554238

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY Ammonia (N)	mg/L	0.025	0.025 U

QC Batch: WCAI/12481 Analysis Method: SM 5210B  
QC Batch Method: SM 5210B Prepared:  
Associated Lab Samples: T1720930001, T1720930002

METHOD BLANK: 2555358

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY Biochemical Oxygen Demand	mg/L	2.0	2.0 U

QC Batch: DGM/4042 Analysis Method: SW-846 6010  
QC Batch Method: SW-846 3010A Prepared: 12/08/2017 12:00  
Associated Lab Samples: T1720930001, T1720930002

METHOD BLANK: 2555999

Parameter	Units	Blank Result	Reporting Limit Qualifiers
METALS			

Report ID: 524966 - 1699265

Page 10 of 17

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## QUALITY CONTROL DATA

Workorder: T1720930 UTC SW

METHOD BLANK: 2555999

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Arsenic	mg/L	0.0016	0.0016	U
Cadmium	mg/L	0.00024	0.00024	U
Chromium	mg/L	0.0020	0.0020	U
Copper	mg/L	0.0014	0.0014	U
Nickel	mg/L	0.0044	0.0044	U
Lead	mg/L	0.0032	0.0032	U
Zinc	mg/L	0.0074	0.0074	U

QC Batch: DGMt/4043

Analysis Method: EPA 200.7

QC Batch Method: EPA 200.7

Prepared: 12/08/2017 12:00

Associated Lab Samples: T1720930001, T1720930002

METHOD BLANK: 2556010

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
METALS				
Calcium	mg/L	0.072	0.072	U
Magnesium	mg/L	0.021	0.021	U

QC Batch: DGMt/4045

Analysis Method: SW-846 7470A

QC Batch Method: SW-846 7470A

Prepared: 12/08/2017 09:10

Associated Lab Samples: T1720930001, T1720930002

METHOD BLANK: 2556159

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
METALS				
Mercury	mg/L	0.000050	0.000050	U

QC Batch: WCAI/12515

Analysis Method: SM 2540D

QC Batch Method: SM 2540D

Prepared:

Associated Lab Samples: T1720930001, T1720930002

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## QUALITY CONTROL DATA

Workorder: T1720930 UTC SW

METHOD BLANK: 2556822

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
Total Suspended Solids	mg/L	1.0	1.0	U

QC Batch: MICt/3902 Analysis Method: SM 9222 B (MF)  
QC Batch Method: SM 9222 B (MF) Prepared:  
Associated Lab Samples: T1720930001, T1720930002

METHOD BLANK: 2557334

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Microbiology				
Coliform Total	#/100 mL	1	1	U

METHOD BLANK: 2557335

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Microbiology				
Coliform Total	#/100 mL	1	1	U

QC Batch: WCA/12544 Analysis Method: EPA 351.2  
QC Batch Method: Copper Sulfate Digestion Prepared: 12/11/2017 16:49  
Associated Lab Samples: T1720930001, T1720930002

METHOD BLANK: 2558076

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
Total Kjeldahl Nitrogen	mg/L	0.075	0.075	U

METHOD BLANK: 2558077

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
Total Phosphorus (as P)	mg/L	0.046	0.046	U

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## QUALITY CONTROL DATA

Workorder: T1720930 UTC SW

QC Batch:	WCA/12544	Analysis Method:	EPA 365.4
QC Batch Method:	Copper Sulfate Digestion	Prepared:	12/11/2017 16:49
Associated Lab Samples:	T1720930001, T1720930002		

METHOD BLANK: 2558076

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Total Kjeldahl Nitrogen	mg/L	0.075	0.075 U

METHOD BLANK: 2558077

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Total Phosphorus (as P)	mg/L	0.046	0.046 U

QC Batch:	EXTm/2923	Analysis Method:	EPA 608/608.2
QC Batch Method:	EPA 608/608.2	Prepared:	12/13/2017 12:00
Associated Lab Samples:	T1720930001, T1720930002		

METHOD BLANK: 2561316

Parameter	Units	Blank Result	Reporting Limit Qualifiers
SEMIVOLATILES			
alpha-BHC	ug/L	0.0041	0.0041 U
gamma-BHC (Lindane)	ug/L	0.0046	0.0046 U
beta-BHC	ug/L	0.0071	0.0071 U
delta-BHC	ug/L	0.0056	0.0056 U
Heptachlor	ug/L	0.0013	0.0013 U
Aldrin	ug/L	0.0020	0.0020 U
Heptachlor Epoxide	ug/L	0.00080	0.00080 U
Endosulfan I	ug/L	0.0016	0.0016 U
4,4'-DDE	ug/L	0.0016	0.0016 U
Dieldrin	ug/L	0.0016	0.0016 U
Endrin	ug/L	0.0025	0.0025 U
4,4'-DDD	ug/L	0.0024	0.0024 U
Endosulfan II	ug/L	0.0013	0.0013 U
Endrin Aldehyde	ug/L	0.0048	0.0048 U
4,4'-DDT	ug/L	0.0030	0.0030 U
Endosulfan Sulfate	ug/L	0.0017	0.0017 U
Methoxychlor	ug/L	0.0053	0.0053 U
Chlordane (technical)	ug/L	0.059	0.059 U

Report ID: 524966 - 1699265

Page 13 of 17

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## QUALITY CONTROL DATA

Workorder: T1720930 UTC SW

METHOD BLANK: 2561316

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Toxaphene	ug/L	0.064	0.064 U
Aroclor 1016 (PCB-1016)	ug/L	0.15	0.15 U
Aroclor 1221 (PCB-1221)	ug/L	0.13	0.13 U
Aroclor 1232 (PCB-1232)	ug/L	0.19	0.19 U
Aroclor 1242 (PCB-1242)	ug/L	0.17	0.17 U
Aroclor 1248 (PCB-1248)	ug/L	0.15	0.15 U
Aroclor 1254 (PCB-1254)	ug/L	0.040	0.040 U
Aroclor 1260 (PCB-1260)	ug/L	0.020	0.020 U
Tetrachloro-m-xylene (S)	%	67	44-124
Decachlorobiphenyl (S)	%	63	48-137

## QUALITY CONTROL DATA QUALIFIERS

Workorder: T1720930 UTC SW

### QUALITY CONTROL PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J4 Estimated Result
- L Off-scale high. Actual value could be more than the value given.

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: T1720930 UTC SW

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
T1720930001	SW-1			SM 9222D	MICt/3883
T1720930002	SW-2			SM 9222D	MICt/3883
T1720930001	SW-1			SM 4500NO3-F	WCAt/12456
T1720930002	SW-2			SM 4500NO3-F	WCAt/12456
T1720930001	SW-1			SM 4500NO3-F	WCAt/12466
T1720930002	SW-2			SM 4500NO3-F	WCAt/12466
T1720930001	SW-1			EPA 365.1	WCAt/12471
T1720930002	SW-2			EPA 365.1	WCAt/12471
T1720930001	SW-1			EPA 350.1	WCAt/12475
T1720930002	SW-2			EPA 350.1	WCAt/12475
T1720930001	SW-1			SM 5210B	WCAt/12481
T1720930002	SW-2			SM 5210B	WCAt/12481
T1720930001	SW-1	SW-846 3010A	DGMt/4042	SW-846 6010	ICPt/2894
T1720930002	SW-2	SW-846 3010A	DGMt/4042	SW-846 6010	ICPt/2894
T1720930001	SW-1	EPA 200.7	DGMt/4043	EPA 200.7	ICPt/2895
T1720930002	SW-2	EPA 200.7	DGMt/4043	EPA 200.7	ICPt/2895
T1720930001	SW-1	SW-846 7470A	DGMt/4045	SW-846 7470A	CVAI/1764
T1720930002	SW-2	SW-846 7470A	DGMt/4045	SW-846 7470A	CVAI/1764
T1720930001	SW-1			SM 2540D	WCAt/12515
T1720930002	SW-2			SM 2540D	WCAt/12515
T1720930001	SW-1			SM 9222 B (MF)	MICt/3902
T1720930002	SW-2			SM 9222 B (MF)	MICt/3902

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: T1720930 UTC SW

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
T1720930001	SW-1	Copper Sulfate Digestion	WCA/12544	EPA 351.2	WCA/12560
T1720930002	SW-2	Copper Sulfate Digestion	WCA/12544	EPA 351.2	WCA/12560
T1720930001	SW-1	Copper Sulfate Digestion	WCA/12544	EPA 365.4	WCA/12561
T1720930002	SW-2	Copper Sulfate Digestion	WCA/12544	EPA 365.4	WCA/12561
T1720930001	SW-1	EPA 608/608.2	EXTm/2923	EPA 608/608.2	GCSm/2114
T1720930002	SW-2	EPA 608/608.2	EXTm/2923	EPA 608/608.2	GCSm/2114
T1720930001	SW-1	Calculation	CLC/	Calculation	CLC/
T1720930002	SW-2	Calculation	CLC/	Calculation	CLC/

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7/17/0930

Page 1 of 1

Client Name: <b>GHS ENVIRONMENTAL</b>		Project Name: <b>UTCSW</b>	
Address: <b>727-667-6786</b>		Project Number: <b>PO Number:</b>	
Phone: <b>727-667-6786</b>		FDEP Facility No: <b>FDEP Facility Address:</b>	
Contact: <b>DANA GAYDOS</b>		Special Instructions:	
Sampled By: <b>S. Tolman / T. Cleveland</b>			
An Around Time: <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> RUSH			
EL Profile #:		<input type="checkbox"/> ADAPT <input type="checkbox"/> EQUIS <input type="checkbox"/> Other	

  

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING		MATRIX	NO. COUNT	Preservation Field Filtered?	ANALYSIS REQUIRED	BOTTLE SIZE & TYPE	LABORATORY I.D. NUMBER
			DATE	TIME						
SW-1		G	12/6/17	11:00	SW	9		Fecal		
SW-2		G	12/6/17	11:40	SW	9		OP		
								Pesticides		
								BOD		
								TSS		
								As/cd/cr/cu pb/hg/nl/ni/hardness		
								AMH3/NOX/TKN/ TP/TP		
								TC		
								Nitrates		

  

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge		Preservation Code: I = ice H = (HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)	
collected on ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Temp taken from sample	<input type="checkbox"/> Temp from blank	<input type="checkbox"/> Where required, pH checked
CN: AD-051 Form last revised 06/19/2017			
Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A			

  

Relinquished by: <b>[Signature]</b>	Date: <b>12/11/17</b>	Time: <b>12:55</b>	Received by: <b>[Signature]</b>	Date: <b>12/11/17</b>	Time: <b>12:55</b>
-------------------------------------	-----------------------	--------------------	---------------------------------	-----------------------	--------------------

  

**FOR DRINKING WATER USE:**  
 (When PWS information not otherwise supplied) PWS ID: \_\_\_\_\_  
 Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Supplier of Water: \_\_\_\_\_  
 Site Address: \_\_\_\_\_





Advanced Environmental Laboratories, Inc  
9610 Princess Palm Ave Tampa, FL 33619  
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580  
Phone: (813)630-9616  
Fax: (813)630-4327

April 10, 2017

Dana Gaydos  
Gaydos Hydro Services  
PO Box 55802  
Saint Petersburg, FL 33732

RE: Workorder: T1705104 UTC-GW

Dear Dana Gaydos:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, March 23, 2017. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael Cammarata', is written over a horizontal line.

Michael Cammarata  
Mcammarata@AELLab.com

Enclosures

Report ID: 477924 - 417480

Page 1 of 15

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## SAMPLE SUMMARY

Workorder: T1705104 UTC-GW

Lab ID	Sample ID	Matrix	Date Collected	Date Received
T1705104001	GW-2	Water	3/23/2017 13:00	3/23/2017 15:10
T1705104002	GW-1	Water	3/23/2017 14:05	3/23/2017 15:10

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## ANALYTICAL RESULTS

Workorder: T1705104 UTC-GW

Lab ID: **T1705104001**  
Sample ID: **GW-2**

Date Received: 03/23/17 15:10 Matrix: Water  
Date Collected: 03/23/17 13:00

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
<b>METALS</b>								
Analysis Desc: SW846 6010B Analysis, Water			Preparation Method: SW-846 3010A Analytical Method: SW-846 6010					
Arsenic	0.0053	I	mg/L	1	0.010	0.0016	3/28/2017 18:12	T
Cadmium	0.00024	U	mg/L	1	0.00090	0.00024	3/28/2017 18:12	T
Chromium	0.0020	U	mg/L	1	0.0020	0.0020	3/28/2017 18:12	T
Copper	0.0033	I	mg/L	1	0.0080	0.00084	3/28/2017 18:12	T
Lead	0.0032	U	mg/L	1	0.010	0.0032	3/28/2017 18:12	T
Nickel	0.0044	U	mg/L	1	0.0090	0.0044	3/28/2017 18:12	T
Zinc	0.013		mg/L	1	0.010	0.0020	3/28/2017 18:12	T
Analysis Desc: SW846 7470A Analysis, Water			Preparation Method: SW-846 7470A Analytical Method: SW-846 7470A					
Mercury	0.000050	U	mg/L	1	0.00010	0.000050	3/28/2017 13:05	T
<b>Microbiology</b>								
Analysis Desc: Total Coliform, SM9222B, Water			Analytical Method: SM 9222 B (MF)					
Coliform Total	1	U	#/100 mL	1	1	1	3/23/2017 18:12	T
Analysis Desc: Fecal Coliform MF, SM9222D, Water			Analytical Method: SM 9222D					
Coliform Fecal	1	U	#/100 mL	1	1	1	3/23/2017 17:17	T
<b>WET CHEMISTRY</b>								
Analysis Desc: Total Nitrogen, Calculated, Water			Analytical Method: Calculation					
Total Nitrogen	1.2		mg/L	1	0.10	0.10	4/6/2017 20:35	T
Analysis Desc: Oil & Grease, EPA1664A (HEM), Water			Analytical Method: EPA 1664 A					
Oil & Grease (HEM)	24		mg/L	1	4.0	1.3	3/28/2017 12:30	M
Analysis Desc: Ammonia, E350.1, Water			Analytical Method: EPA 350.1					
Ammonia (N)	0.55		mg/L	1	0.10	0.02	3/29/2017 10:48	T
Analysis Desc: TKN, E351.2, Water			Preparation Method: Copper Sulfate Digestion Analytical Method: EPA 351.2					
Total Kjeldahl Nitrogen	1.2	J4	mg/L	1	0.20	0.075	3/28/2017 15:06	T

Report ID: 477924 - 417480

Page 3 of 15

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## ANALYTICAL RESULTS

Workorder: T1705104 UTC-GW

Lab ID: **T1705104001**  
Sample ID: **GW-2**

Date Received: 03/23/17 15:10 Matrix: Water  
Date Collected: 03/23/17 13:00

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: Orthophosphate,E365.1,Water		Analytical Method: EPA 365.1						
Orthophosphate	<b>0.061</b>		<b>mg/L</b>	<b>1</b>	0.010	0.0090	3/24/2017 12:00	T
Analysis Desc: Total Phosphorus,E365.4,Analysis		Preparation Method: Copper Sulfate Digestion Analytical Method: EPA 365.4						
Total Phosphorus (as P)	<b>0.073</b>	<b>I,J4</b>	<b>mg/L</b>	<b>1</b>	0.10	0.046	3/28/2017 15:06	T
Analysis Desc: Tot Dissolved Solids,SM2540C		Analytical Method: SM 2540 C						
Total Dissolved Solids	<b>960</b>		<b>mg/L</b>	<b>1.25</b>	12	12	3/28/2017 07:31	T
Analysis Desc: Nitrate+Nitrite,SM4500NO3F,W		Analytical Method: SM 4500NO3-F						
Nitrate + Nitrite	<b>0.4</b>	<b>U</b>	<b>mg/L</b>	<b>2</b>	0.8	0.4	4/4/2017 15:07	T
Analysis Desc: BOD,SM5210B,Water		Analytical Method: SM 5210B						
Biochemical Oxygen Demand	<b>2.0</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	2.0	2.0	3/24/2017 15:22	T

Lab ID: **T1705104002**  
Sample ID: **GW-1**

Date Received: 03/23/17 15:10 Matrix: Water  
Date Collected: 03/23/17 14:05

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
<b>METALS</b>								
Analysis Desc: SW846 6010B Analysis,Water		Preparation Method: SW-846 3010A Analytical Method: SW-846 6010						
Arsenic	<b>0.0020</b>	<b>I</b>	<b>mg/L</b>	<b>1</b>	0.010	0.0016	3/28/2017 18:16	T
Cadmium	<b>0.00024</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.00090	0.00024	3/28/2017 18:16	T
Chromium	<b>0.0020</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.0020	0.0020	3/28/2017 18:16	T
Copper	<b>0.00084</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.0080	0.00084	3/28/2017 18:16	T
Lead	<b>0.0032</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.010	0.0032	3/28/2017 18:16	T
Nickel	<b>0.0044</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.0090	0.0044	3/28/2017 18:16	T
Zinc	<b>0.0020</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.010	0.0020	3/28/2017 18:16	T

Report ID: 477924 - 417480

Page 4 of 15

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## ANALYTICAL RESULTS

Workorder: T1705104 UTC-GW

Lab ID: **T1705104002**  
Sample ID: **GW-1**

Date Received: 03/23/17 15:10 Matrix: Water  
Date Collected: 03/23/17 14:05

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: SW846 7470A		Preparation Method: SW-846 7470A						
Analysis, Water		Analytical Method: SW-846 7470A						
Mercury	0.000050	U	mg/L	1	0.00010	0.000050	3/31/2017 12:56	T
<b>Microbiology</b>								
Analysis Desc: Total Coliform, SM9222B, Water		Analytical Method: SM 9222 B (MF)						
Coliform Total	1	U	#/100 mL	1	1	1	3/23/2017 18:12	T
Analysis Desc: Fecal Coliform MF, SM9222D, Water		Analytical Method: SM 9222D						
Coliform Fecal	1	U	#/100 mL	1	1	1	3/23/2017 17:17	T
<b>WET CHEMISTRY</b>								
Analysis Desc: Total Nitrogen, Calculated, Water		Analytical Method: Calculation						
Total Nitrogen	0.18		mg/L	1	0.10	0.10	4/6/2017 20:35	T
Analysis Desc: Oil & Grease, EPA1664A (HEM), Water		Analytical Method: EPA 1664 A						
Oil & Grease (HEM)	1.3	U	mg/L	1	4.0	1.3	3/28/2017 12:30	M
Analysis Desc: Ammonia, E350.1, Water		Analytical Method: EPA 350.1						
Ammonia (N)	0.06	I	mg/L	1	0.10	0.02	3/29/2017 10:48	T
Analysis Desc: TKN, E351.2, Water		Preparation Method: Copper Sulfate Digestion						
		Analytical Method: EPA 351.2						
Total Kjeldahl Nitrogen	0.18	I	mg/L	1	0.20	0.075	3/28/2017 15:06	T
Analysis Desc: Orthophosphate, E365.1, Water		Analytical Method: EPA 365.1						
Orthophosphate	0.021		mg/L	1	0.010	0.0090	3/24/2017 12:01	T
Analysis Desc: Total Phosphorus, E365.4, Analysis		Preparation Method: Copper Sulfate Digestion						
		Analytical Method: EPA 365.4						
Total Phosphorus (as P)	0.046	U	mg/L	1	0.10	0.046	3/28/2017 15:06	T
Analysis Desc: Tot Dissolved Solids, SM2540C		Analytical Method: SM 2540 C						
Total Dissolved Solids	240		mg/L	1.25	12	12	3/28/2017 07:31	T

Report ID: 477924 - 417480

Page 5 of 15

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## ANALYTICAL RESULTS

Workorder: T1705104 UTC-GW

Lab ID: **T1705104002**

Date Received: 03/23/17 15:10 Matrix: Water

Sample ID: **GW-1**

Date Collected: 03/23/17 14:05

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: Nitrate+Nitrite, SM4500NO3F, W		Analytical Method: SM 4500NO3-F						
Nitrate + Nitrite	0.4	U	mg/L	2	0.8	0.4	4/4/2017 15:08	T
Analysis Desc: BOD, SM5210B, Water		Analytical Method: SM 5210B						
Biochemical Oxygen Demand	2.0	U	mg/L	1	2.0	2.0	3/24/2017 15:17	T

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: T1705104 UTC-GW

---

### PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J4 Estimated Result

### LAB QUALIFIERS

- M DOH Certification #E82535(AEL-M)(FL NELAC Certification)
- T DOH Certification #E84589(AEL-T)(FL NELAC Certification)

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## QUALITY CONTROL DATA

Workorder: T1705104 UTC-GW

QC Batch: WCAI/7708 Analysis Method: EPA 365.1  
QC Batch Method: EPA 365.1 Prepared:  
Associated Lab Samples: T1705104001, T1705104002

METHOD BLANK: 2307147

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Orthophosphate	mg/L	0.0090	0.0090 U

QC Batch: MICI/2644 Analysis Method: SM 9222D  
QC Batch Method: SM 9222D Prepared:  
Associated Lab Samples: T1705104001, T1705104002

METHOD BLANK: 2307658

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Microbiology			
Coliform Fecal	#/100 mL	1	1 U

QC Batch: WCAI/7733 Analysis Method: SM 2540 C  
QC Batch Method: SM 2540 C Prepared:  
Associated Lab Samples: T1705104001, T1705104002

METHOD BLANK: 2308501

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Total Dissolved Solids	mg/L	10	10 U

QC Batch: WCAI/7743 Analysis Method: SM 5210B  
QC Batch Method: SM 5210B Prepared:  
Associated Lab Samples: T1705104001, T1705104002

METHOD BLANK: 2308627

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			

Report ID: 477924 - 417480

Page 8 of 15

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## QUALITY CONTROL DATA

Workorder: T1705104 UTC-GW

METHOD BLANK: 2308627

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Biochemical Oxygen Demand	mg/L	2.0	2.0 U

QC Batch: WCA17751

Analysis Method: EPA 351.2

QC Batch Method: Copper Sulfate Digestion

Prepared: 03/28/2017 11:36

Associated Lab Samples: T1705104001, T1705104002

METHOD BLANK: 2308793

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY Total Kjeldahl Nitrogen	mg/L	0.075	0.075 U

METHOD BLANK: 2308794

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY Total Phosphorus (as P)	mg/L	0.046	0.046 U

QC Batch: WCA17751

Analysis Method: EPA 365.4

QC Batch Method: Copper Sulfate Digestion

Prepared: 03/28/2017 11:36

Associated Lab Samples: T1705104001, T1705104002

METHOD BLANK: 2308793

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY Total Kjeldahl Nitrogen	mg/L	0.075	0.075 U

METHOD BLANK: 2308794

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY Total Phosphorus (as P)	mg/L	0.046	0.046 U

Report ID: 477924 - 417480

Page 9 of 15

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## QUALITY CONTROL DATA

Workorder: T1705104 UTC-GW

QC Batch: DGM/2733 Analysis Method: SW-846 6010  
QC Batch Method: SW-846 3010A Prepared: 03/28/2017 11:25  
Associated Lab Samples: T1705104001, T1705104002

METHOD BLANK: 2308832

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>METALS</b>				
Arsenic	mg/L	0.0016	0.0016	U
Cadmium	mg/L	0.00024	0.00024	U
Chromium	mg/L	0.0020	0.0020	U
Copper	mg/L	0.00084	0.00084	U
Nickel	mg/L	0.0044	0.0044	U
Lead	mg/L	0.0032	0.0032	U
Zinc	mg/L	0.0020	0.0020	U

QC Batch: DGM/2735 Analysis Method: SW-846 7470A  
QC Batch Method: SW-846 7470A Prepared: 03/28/2017 10:36  
Associated Lab Samples: T1705104001

METHOD BLANK: 2308978

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>METALS</b>				
Mercury	mg/L	0.000050	0.000050	U

QC Batch: WCAm/3942 Analysis Method: EPA 1664 A  
QC Batch Method: EPA 1664 A Prepared:  
Associated Lab Samples: T1705104001, T1705104002

METHOD BLANK: 2310213

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>WET CHEMISTRY</b>				
Oil & Grease (HEM)	mg/L	1.3	1.3	U

QC Batch: WCA/7777 Analysis Method: EPA 350.1  
QC Batch Method: EPA 350.1 Prepared:  
Associated Lab Samples: T1705104001, T1705104002

Report ID: 477924 - 417480

Page 10 of 15

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## QUALITY CONTROL DATA

Workorder: T1705104 UTC-GW

METHOD BLANK: 2310298

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Ammonia (N)	mg/L	0.02	0.02	U

QC Batch: DGMt/2760 Analysis Method: SW-846 7470A  
QC Batch Method: SW-846 7470A Prepared: 03/31/2017 10:21  
Associated Lab Samples: T1705104002

METHOD BLANK: 2313109

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
METALS Mercury	mg/L	0.000050	0.000050	U

QC Batch: WCAI/7881 Analysis Method: SM 4500NO3-F  
QC Batch Method: SM 4500NO3-F Prepared:  
Associated Lab Samples: T1705104001, T1705104002

METHOD BLANK: 2315497

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Nitrate + Nitrite	mg/L	0.2	0.2	U

QC Batch: MICt/2671 Analysis Method: SM 9222 B (MF)  
QC Batch Method: SM 9222 B (MF) Prepared:  
Associated Lab Samples: T1705104001, T1705104002

METHOD BLANK: 2315761

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Microbiology Coliform Total	#/100 mL	1	1	U

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## QUALITY CONTROL DATA QUALIFIERS

Workorder: T1705104 UTC-GW

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### QUALITY CONTROL PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J4 Estimated Result

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: T1705104 UTC-GW

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
T1705104001	GW-2			EPA 365.1	WCA/t/7708
T1705104002	GW-1			EPA 365.1	WCA/t/7708
T1705104001	GW-2			SM 9222D	MIC/t/2644
T1705104002	GW-1			SM 9222D	MIC/t/2644
T1705104001	GW-2			SM 2540 C	WCA/t/7733
T1705104002	GW-1			SM 2540 C	WCA/t/7733
T1705104001	GW-2			SM 5210B	WCA/t/7743
T1705104002	GW-1			SM 5210B	WCA/t/7743
T1705104001	GW-2	Copper Sulfate Digestion	WCA/t/7751	EPA 351.2	WCA/t/7781
T1705104002	GW-1	Copper Sulfate Digestion	WCA/t/7751	EPA 351.2	WCA/t/7781
T1705104001	GW-2	Copper Sulfate Digestion	WCA/t/7751	EPA 365.4	WCA/t/7782
T1705104002	GW-1	Copper Sulfate Digestion	WCA/t/7751	EPA 365.4	WCA/t/7782
T1705104001	GW-2	SW-846 3010A	DGM/t/2733	SW-846 6010	ICP/t/2078
T1705104002	GW-1	SW-846 3010A	DGM/t/2733	SW-846 6010	ICP/t/2078
T1705104001	GW-2	SW-846 7470A	DGM/t/2735	SW-846 7470A	CVAt/1444
T1705104001	GW-2			EPA 1664 A	WCAm/3942
T1705104002	GW-1			EPA 1664 A	WCAm/3942
T1705104001	GW-2			EPA 350.1	WCA/t/7777
T1705104002	GW-1			EPA 350.1	WCA/t/7777
T1705104002	GW-1	SW-846 7470A	DGM/t/2760	SW-846 7470A	CVAt/1451
T1705104001	GW-2			SM 4500NO3-F	WCA/t/7881
T1705104002	GW-1			SM 4500NO3-F	WCA/t/7881

Report ID: 477924 - 417480

Page 13 of 15

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: T1705104 UTC-GW

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
T1705104001	GW-2			SM 9222 B (MF)	MICt/2671
T1705104002	GW-1			SM 9222 B (MF)	MICt/2671
T1705104001	GW-2	Calculation	CLCt/	Calculation	CLCt/
T1705104002	GW-1	Calculation	CLCt/	Calculation	CLCt/

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Page 1 of 1

Page 15 of 15



Advanced Environmental Laboratories, Inc  
9610 Princess Palm Ave Tampa, FL 33619  
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580  
Phone: (813)630-9616  
Fax: (813)630-4327

October 6, 2017

Dana Gaydos  
Gaydos Hydro Services  
PO Box 55802  
Saint Petersburg, FL 33732

RE: Workorder: T1715927 UTC GW

Dear Dana Gaydos:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, September 19, 2017. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael Cammarata', is written over a horizontal line.

Michael Cammarata  
Mcammarata@AELLab.com

Enclosures

Report ID: 509675 - 1293797

Page 1 of 15

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## SAMPLE SUMMARY

Workorder: T1715927 UTC GW

Lab ID	Sample ID	Matrix	Date Collected	Date Received
T1715927001	GW-2	Water	9/19/2017 14:45	9/19/2017 16:48
T1715927002	GW-1	Water	9/19/2017 15:35	9/19/2017 16:48

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## ANALYTICAL RESULTS

Workorder: T1715927 UTC GW

Lab ID: **T1715927001**  
Sample ID: **GW-2**

Date Received: 09/19/17 16:48 Matrix: Water  
Date Collected: 09/19/17 14:45

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
<b>METALS</b>								
Analysis Desc: SW846 6010B Analysis, Water			Preparation Method: SW-846 3010A Analytical Method: SW-846 6010					
Arsenic	0.0079	I	mg/L	1	0.010	0.0016	9/27/2017 13:28	T
Cadmium	0.00024	U	mg/L	1	0.00090	0.00024	9/27/2017 13:28	T
Chromium	0.0020	U	mg/L	1	0.0020	0.0020	9/27/2017 13:28	T
Copper	0.0037	I	mg/L	1	0.0080	0.0014	9/27/2017 13:28	T
Lead	0.0032	U	mg/L	1	0.010	0.0032	9/27/2017 13:28	T
Nickel	0.0044	U	mg/L	1	0.0090	0.0044	9/27/2017 13:28	T
Zinc	0.018		mg/L	1	0.010	0.0074	9/27/2017 13:28	T
Analysis Desc: SW846 7470A Analysis, Water			Preparation Method: SW-846 7470A Analytical Method: SW-846 7470A					
Mercury	0.000050	U	mg/L	1	0.00010	0.000050	9/26/2017 12:20	T
<b>Microbiology</b>								
Analysis Desc: TKN,E351.2,Water			Preparation Method: Copper Sulfate Digestion Analytical Method: EPA 351.2					
Total Kjeldahl Nitrogen	1.6		mg/L	1	0.20	0.075	9/21/2017 11:29	T
Analysis Desc: Total Coliform,SM9222B,Water			Analytical Method: SM 9222 B (MF)					
Coliform Total	600	1	#/100 mL	10	10	10	9/19/2017 16:30	T
Analysis Desc: Fecal Coliform MF,SM9222D,Water			Analytical Method: SM 9222D					
Coliform Fecal	1	U	#/100 mL	1	1	1	9/19/2017 17:40	T
<b>Microbiology</b>								
Analysis Desc: Total Nitrogen,Calculated,Water			Analytical Method: Calculation					
Total Nitrogen	1.6		mg/L	1	0.10	0.10	10/5/2017 15:00	T
Analysis Desc: Oil & Grease,EPA1664A (HEM),Water			Analytical Method: EPA 1664 A					
Oil & Grease (HEM)	1.3	U	mg/L	1	4.0	1.3	9/28/2017 11:12	M
Analysis Desc: Ammonia,E350.1,Water			Analytical Method: EPA 350.1					
Ammonia (N)	0.57		mg/L	1	0.10	0.02	9/25/2017 11:46	T

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Page 3 of 15

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## ANALYTICAL RESULTS

Workorder: T1715927 UTC GW

Lab ID: **T1715927001**  
Sample ID: **GW-2**

Date Received: 09/19/17 16:48 Matrix: Water  
Date Collected: 09/19/17 14:45

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc:		Analytical Method: EPA 365.1						
Orthophosphate,E365.1,Water								
Orthophosphate	<b>0.068</b>		<b>mg/L</b>	<b>1</b>	0.010	0.0090	9/20/2017 12:44	T
Analysis Desc: Total Phosphorus,E365.4,Analysis		Preparation Method: Copper Sulfate Digestion						
		Analytical Method: EPA 365.4						
Total Phosphorus (as P)	<b>0.067</b>	<b>I</b>	<b>mg/L</b>	<b>1</b>	0.10	0.046	9/21/2017 11:29	T
Analysis Desc: Tot Dissolved Solids,SM2540C		Analytical Method: SM 2540 C						
Total Dissolved Solids	<b>850</b>		<b>mg/L</b>	<b>1.25</b>	12	12	9/22/2017 09:30	T
Analysis Desc: Nitrate+Nitrite,SM4500NO3F,W		Analytical Method: SM 4500NO3-F						
Nitrate + Nitrite	<b>0.4</b>	<b>U</b>	<b>mg/L</b>	<b>2</b>	0.8	0.4	9/21/2017 11:55	T
Analysis Desc: BOD,SM5210B,Water		Analytical Method: SM 5210B						
Biochemical Oxygen Demand	<b>2.0</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	2.0	2.0	9/20/2017 15:19	T

Lab ID: **T1715927002**  
Sample ID: **GW-1**

Date Received: 09/19/17 16:48 Matrix: Water  
Date Collected: 09/19/17 15:35

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
<b>METALS</b>								
Analysis Desc: SW846 6010B Analysis,Water		Preparation Method: SW-846 3010A						
		Analytical Method: SW-846 6010						
Arsenic	<b>0.0057</b>	<b>I</b>	<b>mg/L</b>	<b>1</b>	0.010	0.0016	9/27/2017 13:32	T
Cadmium	<b>0.00024</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.00090	0.00024	9/27/2017 13:32	T
Chromium	<b>0.0020</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.0020	0.0020	9/27/2017 13:32	T
Copper	<b>0.0014</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.0080	0.0014	9/27/2017 13:32	T
Lead	<b>0.0032</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.010	0.0032	9/27/2017 13:32	T
Nickel	<b>0.0044</b>	<b>U</b>	<b>mg/L</b>	<b>1</b>	0.0090	0.0044	9/27/2017 13:32	T
Zinc	<b>0.015</b>		<b>mg/L</b>	<b>1</b>	0.010	0.0074	9/27/2017 13:32	T

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Page 4 of 15

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## ANALYTICAL RESULTS

Workorder: T1715927 UTC GW

Lab ID: **T1715927002**  
Sample ID: **GW-1**

Date Received: 09/19/17 16:48 Matrix: Water  
Date Collected: 09/19/17 15:35

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: SW846 7470A		Preparation Method: SW-846 7470A						
Analysis, Water		Analytical Method: SW-846 7470A						
Mercury	0.000050	U	mg/L	1	0.00010	0.000050	9/26/2017 12:20	T
<b>Microbiology</b>								
Analysis Desc: Tot Dissolved Solids, SM2540C		Analytical Method: SM 2540 C						
Total Dissolved Solids	410		mg/L	1.25	12	12	9/22/2017 09:30	T
Analysis Desc: Total Coliform, SM9222B, Water		Analytical Method: SM 9222 B (MF)						
Coliform Total	1	U	#/100 mL	1	1	1	9/19/2017 16:30	T
Analysis Desc: Fecal Coliform MF, SM9222D, Water		Analytical Method: SM 9222D						
Coliform Fecal	1	U	#/100 mL	1	1	1	9/19/2017 17:40	T
<b>WET CHEMISTRY</b>								
Analysis Desc: Total Nitrogen, Calculated, Water		Analytical Method: Calculation						
Total Nitrogen	0.49		mg/L	1	0.10	0.10	10/5/2017 17:00	T
Analysis Desc: Oil & Grease, EPA1664A (HEM), Water		Analytical Method: EPA 1664 A						
Oil & Grease (HEM)	6.6		mg/L	1	4.0	1.3	9/28/2017 11:12	M
Analysis Desc: Ammonia, E350.1, Water		Analytical Method: EPA 350.1						
Ammonia (N)	0.23		mg/L	1	0.10	0.02	9/25/2017 11:46	T
Analysis Desc: TKN, E351.2, Water		Preparation Method: Copper Sulfate Digestion						
		Analytical Method: EPA 351.2						
Total Kjeldahl Nitrogen	0.49		mg/L	1	0.20	0.075	9/21/2017 11:29	T
Analysis Desc: Orthophosphate, E365.1, Water		Analytical Method: EPA 365.1						
Orthophosphate	0.029		mg/L	1	0.010	0.0090	9/20/2017 12:47	T
Analysis Desc: Total Phosphorus, E365.4, Analysis		Preparation Method: Copper Sulfate Digestion						
		Analytical Method: EPA 365.4						
Total Phosphorus (as P)	0.046	U	mg/L	1	0.10	0.046	9/21/2017 11:29	T

Report ID: 509675 - 1293797

Page 5 of 15

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## ANALYTICAL RESULTS

Workorder: T1715927 UTC GW

Lab ID: **T1715927002**

Date Received: 09/19/17 16:48 Matrix: Water

Sample ID: **GW-1**

Date Collected: 09/19/17 15:35

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: Nitrate+Nitrite, SM4500NO3F, W		Analytical Method: SM 4500NO3-F						
Nitrate + Nitrite	0.4	U	mg/L	2	0.8	0.4	9/21/2017 11:58	T
Analysis Desc: BOD, SM5210B, Water		Analytical Method: SM 5210B						
Biochemical Oxygen Demand	2.0	U	mg/L	1	2.0	2.0	9/20/2017 15:13	T

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: T1715927 UTC GW

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### PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- [1] Positive for Total

### LAB QUALIFIERS

- M DOH Certification #E82535(AEL-M)(FL NELAC Certification)
- T DOH Certification #E84589(AEL-T)(FL NELAC Certification)

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## QUALITY CONTROL DATA

Workorder: T1715927 UTC GW

QC Batch: MICt/3467 Analysis Method: SM 9222D  
QC Batch Method: SM 9222D Prepared:  
Associated Lab Samples: T1715927001, T1715927002

METHOD BLANK: 2469345

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Microbiology Coliform Fecal	#/100 mL	1	1	U

METHOD BLANK: 2469349

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Microbiology Coliform Fecal	#/100 mL	1	1	U

QC Batch: WCAt/10948 Analysis Method: SM 5210B  
QC Batch Method: SM 5210B Prepared:  
Associated Lab Samples: T1715927001, T1715927002

METHOD BLANK: 2470979

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Biochemical Oxygen Demand	mg/L	2.0	2.0	U

QC Batch: WCAt/10955 Analysis Method: SM 4500NO3-F  
QC Batch Method: SM 4500NO3-F Prepared:  
Associated Lab Samples: T1715927001, T1715927002

METHOD BLANK: 2471234

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Nitrate + Nitrite	mg/L	0.2	0.2	U

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## QUALITY CONTROL DATA

Workorder: T1715927 UTC GW

QC Batch: WCAI/10960 Analysis Method: EPA 365.1  
QC Batch Method: EPA 365.1 Prepared:  
Associated Lab Samples: T1715927001, T1715927002

METHOD BLANK: 2471442

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY Orthophosphate	mg/L	0.0090	0.0090 U

QC Batch: WCAI/10967 Analysis Method: EPA 351.2  
QC Batch Method: Copper Sulfate Digestion Prepared: 09/20/2017 16:21  
Associated Lab Samples: T1715927001, T1715927002

METHOD BLANK: 2471606

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY Total Kjeldahl Nitrogen	mg/L	0.075	0.075 U

METHOD BLANK: 2471607

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY Total Phosphorus (as P)	mg/L	0.046	0.046 U

QC Batch: WCAI/10967 Analysis Method: EPA 365.4  
QC Batch Method: Copper Sulfate Digestion Prepared: 09/20/2017 16:21  
Associated Lab Samples: T1715927001, T1715927002

METHOD BLANK: 2471606

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY Total Kjeldahl Nitrogen	mg/L	0.075	0.075 U

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## QUALITY CONTROL DATA

Workorder: T1715927 UTC GW

METHOD BLANK: 2471607

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
Total Phosphorus (as P)	mg/L	0.046	0.046	U

QC Batch: WCA/10986 Analysis Method: SM 2540 C  
QC Batch Method: SM 2540 C Prepared:  
Associated Lab Samples: T1715927001, T1715927002

METHOD BLANK: 2472900

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
Total Dissolved Solids	mg/L	10	10	U

QC Batch: MIC/3503 Analysis Method: SM 9222 B (MF)  
QC Batch Method: SM 9222 B (MF) Prepared:  
Associated Lab Samples: T1715927001, T1715927002

METHOD BLANK: 2475123

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Microbiology				
Coliform Total	#/100 mL	1	1	U

METHOD BLANK: 2475124

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Microbiology				
Coliform Total	#/100 mL	1	1	U

QC Batch: WCA/11015 Analysis Method: EPA 350.1  
QC Batch Method: EPA 350.1 Prepared:  
Associated Lab Samples: T1715927001, T1715927002

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## QUALITY CONTROL DATA

Workorder: T1715927 UTC GW

METHOD BLANK: 2475245

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
Ammonia (N)	mg/L	0.02	0.02	U

QC Batch: DGM/3687 Analysis Method: SW-846 6010  
QC Batch Method: SW-846 3010A Prepared: 09/26/2017 08:00  
Associated Lab Samples: T1715927001, T1715927002

METHOD BLANK: 2476627

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
METALS				
Arsenic	mg/L	0.0016	0.0016	U
Cadmium	mg/L	0.00024	0.00024	U
Chromium	mg/L	0.0020	0.0020	U
Copper	mg/L	0.0014	0.0014	U
Nickel	mg/L	0.0044	0.0044	U
Lead	mg/L	0.0032	0.0032	U
Zinc	mg/L	0.0074	0.0074	U

QC Batch: DGM/3693 Analysis Method: SW-846 7470A  
QC Batch Method: SW-846 7470A Prepared: 09/26/2017 08:25  
Associated Lab Samples: T1715927001, T1715927002

METHOD BLANK: 2477318

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
METALS				
Mercury	mg/L	0.000050	0.000050	U

QC Batch: WCAm/5493 Analysis Method: EPA 1664 A  
QC Batch Method: EPA 1664 A Prepared:  
Associated Lab Samples: T1715927001, T1715927002

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## QUALITY CONTROL DATA

Workorder: T1715927 UTC GW

METHOD BLANK: 2481289

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY Oil & Grease (HEM)	mg/L	1.3	1.3 U

## QUALITY CONTROL DATA QUALIFIERS

Workorder: T1715927 UTC GW

### QUALITY CONTROL PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J4 Estimated Result

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: T1715927 UTC GW

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
T1715927001	GW-2			SM 9222D	MICt/3467
T1715927002	GW-1			SM 9222D	MICt/3467
T1715927001	GW-2			SM 5210B	WCAt/10948
T1715927002	GW-1			SM 5210B	WCAt/10948
T1715927001	GW-2			SM 4500NO3-F	WCAt/10955
T1715927002	GW-1			SM 4500NO3-F	WCAt/10955
T1715927001	GW-2			EPA 365.1	WCAt/10960
T1715927002	GW-1			EPA 365.1	WCAt/10960
T1715927001	GW-2	Copper Sulfate Digestion	WCAt/10967	EPA 351.2	WCAt/10975
T1715927002	GW-1	Copper Sulfate Digestion	WCAt/10967	EPA 351.2	WCAt/10975
T1715927001	GW-2	Copper Sulfate Digestion	WCAt/10967	EPA 365.4	WCAt/10976
T1715927002	GW-1	Copper Sulfate Digestion	WCAt/10967	EPA 365.4	WCAt/10976
T1715927001	GW-2			SM 2540 C	WCAt/10986
T1715927002	GW-1			SM 2540 C	WCAt/10986
T1715927001	GW-2			SM 9222 B (MF)	MICt/3503
T1715927002	GW-1			SM 9222 B (MF)	MICt/3503
T1715927001	GW-2			EPA 350.1	WCAt/11015
T1715927002	GW-1			EPA 350.1	WCAt/11015
T1715927001	GW-2	SW-846 3010A	DGMt/3687	SW-846 6010	ICPt/2643
T1715927002	GW-1	SW-846 3010A	DGMt/3687	SW-846 6010	ICPt/2643
T1715927001	GW-2	SW-846 7470A	DGMt/3693	SW-846 7470A	CVAI/1701
T1715927002	GW-1	SW-846 7470A	DGMt/3693	SW-846 7470A	CVAI/1701

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: T1715927 UTC GW

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
T1715927001	GW-2			EPA 1664 A	WCAm/5493
T1715927002	GW-1			EPA 1664 A	WCAm/5493
T1715927001	GW-2	Calculation	CLCt/	Calculation	CLCt/
T1715927002	GW-1	Calculation	CLCt/	Calculation	CLCt/

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Page \_\_\_\_\_ of \_\_\_\_\_