Environmental Consulting & Technology, Inc.
3660 Maguire Boulevard, Suite 107, Orlando Florida 32803

DESIGN TESTING PLAN IMPLEMENTATION REPORT ORLANDO DOWNTOWN RECREATION COMPLEX AND TENNIS CENTRE PARCEL 649 BENTLEY STREET ORLANDO, ORANGE COUNTY, FLORIDA WCU SITE ID: COM_320731 BF SITE ID NO.: BF480401007

The City of Orlando
Public Works Division
5100 L.B. McLeod Road
Orlando, FL 32811

EPA Brownfields Cooperative Agreement BF-00D10313

September 2016

ECT No. 160473

PROFESSIONAL CERTIFICATION

DESIGN TESTING PLAN IMPLEMENTATION REPORT

Orlando Downtown Recreation Complex and Tennis Centre Parcel
649 Bentley Street
Orlando, Orange County, Florida 32801
WCU Site ID: COM_320731
BF Site ID NO.: BF480401007

As a registered professional engineer, as authorized by Chapters 471, Florida Statutes, I certify that I am a qualified environmental professional, with knowledge and experience in soil and/or groundwater assessment and remediation. I also certify that, in my professional judgment, this Design Testing Plan Implementation Report meets the requirements set forth in Chapter 62-780, Florida Administrative Code.

James J. Orioles, P.E.
Senior Engineer
Florida License No. 60206

30 September 2016
Date

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.
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Florida Engineering Business Certificate No. 5520

PROFESSIONAL CERTIFICATION

DESIGN TESTING PLAN IMPLEMENTATION REPORT

Orlando Downtown Recreation Complex and Tennis Centre Parcel
649 Bentley Street
Orlando, Orange County, Florida 32801
WCU Site ID: COM_320731
BF Site ID NO.: BF480401007

As a registered professional geologist, as authorized by Chapters 492, Florida Statutes, I certify that I am a qualified environmental professional, with knowledge and experience in soil and/or groundwater assessment and remediation. I hereby certify that I have supervised the preparation of this Design Testing Plan Implementation Report, in accordance with Chapter 62-780, Florida Administrative Code. I have not evaluated and do not certify aspects of this report that are outside my area of expertise.

_____
Jeffrey J. Peters, P.G.
Principal Scientist
Florida License No. 1593

_____
Date

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.
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1.0 INTRODUCTION

Environmental Consulting & Technology, Inc. (ECT) has implemented the in-situ bioremediation (ISBR) Plan for the Orlando Downtown Recreation Complex and Tennis Centre (Site) as presented in the Design Testing Plan (DTP) submitted by ECT on December 29, 2015 and approved by the Florida Department of Environmental Protection (FDEP) in correspondence dated February 2, 2016 (**Appendix A**). The Site, which is located at 649 Bentley Street, Orlando, Florida, is currently in use and part of the Creative Digital Village Master Plan. This document was prepared using funding from Environmental Protection Agency (EPA) Brownfields Cooperative Agreement BF-00D10313 using City of Orlando Purchase Order (PO) Number 0000006654.

1.1 Purpose and Scope

Consistent with the findings of the Phase II Environmental Site Assessment (ESA) prepared by ECT dated August 2014 and other previous environmental investigations, dieldrin-impacted groundwater exceeding Groundwater Cleanup Target Levels (GCTL) per Chapter 62-777 Florida Administrative Code (F.A.C.) were detected at one general location in the southern half of the Site. ECT recommended an Analyses of Brownfield Cleanup Alternatives (ABCA) be performed to assist the City of Orlando with an evaluation of cleanup alternatives and an estimation of cleanup costs. On March 25, 2015, ECT submitted the ABCA to the City of Orlando recommending ISBR injections and/or pump and treat (P&T) technology as a means of remediation for the dieldrin-impacted groundwater at the Site. ECT submitted the DTP to the FDEP for implementing the remedial technologies presented in the ABCA.

The purpose of the design testing was to evaluate the effectiveness of ISBR technology for the reduction of dieldrin concentrations in the groundwater below the dieldrin GCTL of 0.002 µg/l. This Design Testing Plan Implementation Report (DTPIR) has been prepared to describe the methodologies, testing and evaluation of CL Solutions Petrox™ (Petrox™) injected within the dieldrin-impacted groundwater areas of MW-1, MW-10R, and MW-11.

2.0 BACKGROUND

The Site is located at the northeast corner of the intersection of North Parramore Avenue and Bentley Street consists of three adjoining separate parcels totaling approximately 26.81 acres. The Site is bound by West Amelia Street to the north, North Parramore Avenue to the west, Bentley Street to the south, and vacant property (former Amway Center Parking lots) to the east. The Site consists of a main building with annex, several outbuildings that collectively comprise the multipurpose Orlando Downtown Recreation Complex, a detached maintenance building, and 16 tennis courts that collectively comprise the Orlando Tennis Centre. The Orange County Property Appraiser's Office information identifies the Site as parcel identification number 26-22-29-0000-00-007 located within Section 26 of Township 22 South, and Range 29 East in Orlando, Orange County, Florida. A Location Map is provided as **Figure 1**, a USGS Topographic Map is provided as **Figure 2** and a Site Map depicting the location of the proposed Livingston Street Extension is provided as **Figure 3**.

Historically, the Site appears to have been developed as early as 1919, based on review of Sanborn Maps. Past uses of the Site have included: 1) Armory and Naval Training Center; 2) Orange County and Orlando Fair Grounds/Exposition Center; 3) a horse racing track and stables; 4) ball fields and various athletic fields; 5) residential (northern portion of the property); 6) United States Department of Agriculture (USDA) Bureau of Entomology and USDA Essential Oils Branch; 7) Orlando Police Training facility; and 8) refrigeration sales.

2.1 Adjacent Property Land Use

The Site is located in a developed area of Orlando, the Parramore Heritage District. Vacant land and parking areas that are part of the Creative Digital Village Master Plan are located to the north and east. Nap Ford Charter School is located to the south. A new Orange County public school is currently under construction west of the Site across Parramore Street.

2.2 Future Site Use

The Site is part of the Creative Digital Village, a project that involves the replacement of aging and obsolete public infrastructure currently in place to support the 60-acre City-owned Orlando Centroplex venue. Future redevelopment of the Site and the creation of the Creative Digital Village will transform the local area into a live, work, learn and play mixed-use community built around a foundation of technology based employment and educational opportunities, mixed-income and attainable housing, neighborhood commercial and public open spaces. The technology-based employment and educational expansion opportunities at Creative Digital Village will help to rejuvenate the community and expand the regional Orlando economic cluster of tech-based, digital media production, modeling and simulation industries.

3.0 SUMMARY OF PREVIOUS ASSESSMENT ACTIVITIES

In July of 2005, PSI conducted a Phase I ESA for the Centroplex Site located at 600 Amelia Avenue, Orlando, FL. The results of that Phase I ESA identified several recognized environmental concerns (RECs) in connection with the Centroplex Site. The July 2005 Phase I ESA identified that an armory, USDA automobile storage facility, and various USDA laboratories were historically located at the subject Site. Furthermore, a review of Sanborn maps showed that an underground storage tank (UST) was located on the property from at least 1950 to 1965.

Based on the RECs identified during the July 2005 Phase I ESA for the Centroplex Site, PSI conducted a Phase II ESA and the results of the investigation are described in a report dated November 23, 2006. The assessment identified benzo(a)pyrene in the soil exceeding soil cleanup target levels (SCTLs) near the former UST, arsenic in the soil above SCTLs at three locations across the site, and dieldrin in the groundwater above GCTLs in one temporary monitoring well. PSI recommended further soil and groundwater assessments in the area of the former Armory/USDA laboratories to determine the vertical and horizontal extent of petroleum-related compounds, metals and pesticides in the soil and groundwater beneath the Site.

In addition, Cardno TBE identified RECs at the adjacent eastern property in a Phase I ESA for the New North Terry Avenue and West Livingston Street Alignments dated October 2012.

Based on information presented in these assessments, the City of Orlando requested ECT conduct a Phase I ESA for the Site to evaluate the presence/absence of RECs in anticipation of future redevelopment activities. The Phase I ESA dated November 2013, identified the following RECs associated with the Site: 1) former USDA facility, former USDA field laboratory (northeast portion of Site); 2) former USDA facility (west-central portion of Site); 3) former armory facility; and 4) the former Orlando Gasification Plant as benzene impacts were present on the southeastern portion of the Site.

Based on the opinions presented in the November 2013 Phase I ESA, ECT recommended a Phase II ESA be completed. The objective of the Phase II ESA was to determine the presence, magnitude, and distribution of soil and groundwater impacts, associated with the RECs identified during the previous investigations. The Phase II ESA was completed in August 2014. The assessment identified arsenic-impacted soils in five areas and dieldrin impacts in the groundwater in three monitor wells (MW-1, MW-10 and MW-11). There were no petroleum impacts identified in the groundwater or soil in the vicinity of the former UST area. The Phase II ESA recommended that an ABCA be prepared for the Site to evaluate remedial costs. In addition, the Phase II ESA recommended supplemental horizontal and vertical delineation of soil in select areas to facilitate preparation of a remedial strategy for the removal of arsenic-impacted soils. The March 2015 Phase II ESA addendum identified four source areas with arsenic-impacted soils to be further delineated. An Interim Source Removal Plan (ISRP) for the removal of arsenic-impacted soils was prepared by ECT and submitted to FDEP on May 6, 2015. The ISRP was subsequently approved by FDEP on May 7, 2015.

Interim source removal of the five arsenic-impacted soil areas identified in the August 2014 Phase II ESA was conducted between May 26 and June 11, 2015. The details of these activities were presented in the Interim Source Removal Action Report prepared by ECT and dated July 2015.

On December 29, 2015, ECT submitted the DTP to the City of Orlando and the FDEP. The FDEP issued an Limited Scope Remedial Action Plan (LSRAP) Approval Order for the implementation of the DTP, dated February 2, 2016**.**

4.0 IN-SITU BIOREMEDIATION DESIGN TESTING PLAN

Based on the evaluation of previous assessment findings and conservative assumptions of future Site use for residential/mixed-use development, various alternatives were considered in the March 2015 ABCA for the reduction of dieldrin from impacted groundwater at three locations; MW-1, MW-10, and MW-11. As stated in the ABCA, groundwater P&T and ISBR were evaluated as two methodologies that would be cost-effective could be implemented in a timely manner, and produce results quickly enough to meet the grant end date of September 30, 2016. Dieldrin concentration from groundwater sample collected at MW-1 was 7.9 µg/l on January 27, 2016 and the dieldrin concentrations from groundwater samples collected at MW-10 and MW-11 on January 28, 2014 were 2.0 and 3.9 µg/l, respectively. ECT outlined a phased approach in the December 29, 2015 DTP for the implementation of these methods, to determine the most cost effective and efficient means of reducing dieldrin concentrations in the groundwater at MW-1, MW-10, and MW-11 to below the dieldrin GCTL of 0.002 µg/l.

The planned Phase 1 design testing consisted of ISBR as the method of groundwater remediation near MW- 10 and MW-11 and 12 weeks of groundwater monitoring. ISBR involves the injection of CL Solutions Petrox™ into the subsurface to react in-situ with the dieldrin and converting it into harmless by-products such as carbon dioxide and water. Petrox™ contains a highly-concentrated solution of live strains of lyophilized (freeze-dried) pseudomonas organisms that occur naturally in earth's ecosystem. These cultures are free of pathogens and there is no artificial mutation or genetic engineering involved. Petrox™ was reviewed and approved by the FDEP on May 2, 2006. A Safety Data Sheet (SDS) for Petrox along with product information and a dieldrin case study is provided in **Appendix B**. Additional Phase 1 activities proposed in the DTP included installation of replacement monitoring well MW-10R, baseline (pre-injection) and post-injection monitoring to evaluate the performance of the Petrox™. Post-injection monitoring included sampling for dieldrin, total organic carbon (TOC), heterotrophic plate count (HPC) and recording oxygen reduction potential (ORP).

HPC is a procedure for estimating the number of live heterotrophic bacteria in water. The analysis of HPC assists in evaluating the overall effectiveness in the subsurface of the CL Solutions Petrox™. Organic carbon binds to non-polar organic chemicals and some metals (weakly). As organic carbon content increases, bioavailability of these chemicals decreases. Therefore, the TOC content of sediment and soil can be utilized to adjust TOC-normalized screening values. Adjusting TOC-normalized screening values to account for site-specific organic carbon content is valid only if the TOC is greater than 0.2%. At TOC concentrations less than 0.2%, organic carbon is no longer the predominant factor in determining partitioning between soil/sediment and water. Because Petrox™ is strains of lyophilized pseudomonas organisms, ORP gives an indication of the activity of the oxidizing and reducing agents present in the groundwater as they correspond to oxidation-reduction reactions. A microorganism's ability to survive in water is influenced by the ORP of the water and gives a direct correlation of the ability of the water to prevent microbiological growth.

The planned Phase 2 design testing consisted of groundwater P&T near MW-1 as the method of groundwater remediation or a second round of ISBR as the method of groundwater remediation near MW-1, MW- 10 and MW-11 and an additional 12 weeks of groundwater monitoring. If the results of the first injection of Petrox 3™ showed minimal to no reductions in dieldrin concentrations after week 12, groundwater P&T in the vicinity of MW-1 would be considered near MW-1 as an alternate treatment technology for Phase 2 implementation. If the analytical results after week 12 showed a sufficient decrease in dieldrin concentrations, then another Petrox 3™ ISRB injection would be performed near MW-10R and MW-11, along with expanding the injection protocol to MW-1. Additional Phase 2 activities proposed in the DTP included baseline (pre-injection) and post-injection monitoring to evaluate the performance of the Petrox™. Post-injection monitoring included sampling for dieldrin, TOC, HPC and ORP.

In general accordance with rule 62-528.630(2)(c) F.A.C., which states Class V wells associated with aquifer remediation projects shall be authorized under the provisions of a remedial action plan or other enforceable mechanism, provided the requirements of the rules governing the remediation project, as well as the construction, operation, and monitoring requirements of Chapter 62-528 are met. Therefore, an Underground Injection Control (UIC) permit was not required for the bio-injection of Petrox 3™. Additionally, no ingredients in Petrox™ are known

to exceed a maximum contaminant level (MCL) allowed by the drinking water standards of Chapter 62-550, F.A.C.

5.0 FIELD EFFORTS

Initial (pre-injection) field efforts included a baseline groundwater sampling event, performed February 25 – 26, 2016 and February 29, 2016, in which ECT obtained groundwater samples from the 17 monitoring wells installed during the Phase II ESA for analysis of dieldrin, a organochlorine pesticide, by EPA method 8081B. Purging was accomplished using new high density polyethylene (HDPE) tubing and a peristaltic pump. Groundwater levels were measured and at least one well volume was purged before collecting the first set of field parameters (pH, specific conductance, dissolved oxygen [DO], turbidity, temperature and Oxygen Reduction Potential [ORP]). Thereafter, field parameters were recorded every two to three minutes until the stabilization criteria were met. Following stabilization, groundwater samples were obtained in accordance with the FDEP-SOP-00l/0l/FS2200 and placed in laboratory-prepared, appropriately preserved containers and stored on ice for transport to SGS Accutest Laboratories (Accutest), a National Environmental Laboratory Accreditation Program (NELAP) certified laboratory for analyses. The baseline groundwater sampling results are provided in **Table 2A** and **Figure 4**. Groundwater elevation data collected during baseline groundwater sampling is provided in **Table 3** and shown on **Figure 5A**. The groundwater flow direction on January 29, 2016 was observed to be in a northeasterly direction and generally consistent with historical data. The laboratory analytical reports are provided in **Appendix C.** Field notes, groundwater sampling logs and calibration logs are provided in **Appendix D.**

Additionally, initial field efforts included the replacement of monitoring well MW-10 which was damaged during interim source removal of arsenic-impacted soils in June 2015. ECT and our drilling subcontractor, Groundwater Protection, Inc. (GPI) mobilized to the Site on March 25, 2016 and installed replacement monitoring well MW-10R in the same general location as MW-10. MW-10R is constructed of 2-inch diameter polyvinyl chloride (PVC) screened from 10 to 20 feet (ft) below land surface (bls) using 0.006-inch slotted screen, with a 30/45 sand pack, and installed to 20 ft bls and flush mounted with a concrete pad (2 ft x 2 ft). The well completion log, well construction permit and well completion report is provided in **Appendix E**.

On March 27, 2016, ECT mobilized to the Site and prepared two 55-gallon drums of Petrox™ for injection in general accordance with the manufacturer's recommendations. The Petrox™ arrived in a cooler with dry ice and packaged in two plastic bags. Each plastic bag contained approximately five pounds of Petrox™, which was added to a 55-gallon drum and hydrated with approximately 50 gallons of water. The following morning, approximately 50lbs of dextrose was also added to the Petrox™ solution as a carbon (food) source to promote initial biological growth.

ECT and GPI mobilized to the Site on March 28, 2016 to implement Phase 1 of the ISBR Petrox™ injections around MW-10R and MW-11. Prior to the ISBR injection, ECT collected a baseline groundwater sample from the newly installed monitoring well MW-10R for analyses of dieldrin by EPA Method 8081B. One 55-gallon drum of Petrox™ was injected under low pressure at four injection points located in the four cardinal directions approximately 3ft from MW-10R and MW-11. The Petrox ™ was injected from 20 ft bls to 10 ft bls at rate of approximately 1.4

gallons per foot (gal/ft). Each injection point received approximately 13 gallons of prepared Petrox™ solution. The bio-injection was accomplished using a direct push technology (DPT) drill rig with a four-foot slotted stainless steel rod attachment. Refer to **Figure 6A** for the injection point locations. A photolog depicting fieldwork activities during the Phase 1 ISBR injections is provide in **Appendix F**.

Groundwater monitoring for Phase 1 design testing commenced two weeks following the ISBR injection event and then subsequently every other week for a total of six sampling events from March 28, 2016 to June 21, 2016. ECT obtained groundwater samples from MW-10R and MW-11 for analyses of dieldrin by EPA Method 8081B, TOC by EPA Method 9060A and HPC by HPC by EPA Method 9215B. Purging was accomplished using new high density polyethylene (HDPE) tubing and a peristaltic pump. Groundwater levels were measured and at least one well volume was purged before collecting the first set of field parameters (pH, specific conductance, DO, turbidity, temperature and ORP). Thereafter, field parameters were recorded every two to three minutes until the stabilization criteria were met. Following stabilization, groundwater samples were obtained in accordance with the FDEP-SOP-00l/0l/FS2200 and placed in laboratory-prepared, appropriately preserved containers and stored on ice for transport to Accutest for analyses of dieldrin and TOC and to Flowers Chemical Laboratories, Inc. (Flowers), a NELAP certified laboratory, for analyses of HPC. The groundwater analytical results for Phase 1 ISBR are provided in **Table 2A** and shown graphically in **Appendix G**. The laboratory analytical reports are provided in **Appendix C.** ECT also collected groundwater elevation data from 17 monitoring wells on May 11, 2016 which is provided in **Table 3** and shown on **Figure 5B**. The groundwater flow direction on May 11, 2016 was observed to be in a northeasterly direction and generally consistent with historical data. Field notes, groundwater sampling logs and calibration logs are provided in **Appendix D.**

Following the conclusion of phase 1 groundwater monitoring, the analytical results showed a favorable reduction in dieldrin concentrations at MW-10R. Dieldrin concentrations and MW-11 remained mostly unchanged during Phase 1. Based on the dieldrin concentration reduction at MW-10R, continuing with ISBR by conducting a second series injections of CL Solutions Petrox™ for Phase 2 of the design testing was deemed appropriate. Prior to initiating Phase 2 ISBR Injection, ECT collected a baseline groundwater sample from MW-1 for analyses of dieldrin by EPA Method 8081B on June 21, 2016.

On July 25, 2016, ECT mobilized to the Site and prepared four 55-gallon drums of Petrox™ for injection in general accordance with the manufacturer's recommendations. The Petrox™ arrived in a cooler with dry ice and packaged in drum liners. Each drum liner containing approximately five pounds of Petrox™ was placed inside a 55-gallon drum and hydrated with approximately 50 gallons of water. The next day, approximately 50lbs of dextrose per drum was added to the Petrox™ solution as a carbon (food) source to promote initial biological growth.

ECT and GPI mobilized to the Site on July 26, 2016 to implement Phase 2 of the ISBR Petrox™ injections around MW-1, MW-10R and MW-11. Petrox™ was injected under low pressure at four injection points located in the four cardinal directions approximately 3ft from MW-1 and MW-10R. The Petrox™ was injected from 20 ft bls to 10 ft bls at rate of approximately 1.4 gal/ft and the ground readily accepted the Petrox™ solution at each injection point near MW-1 and

MW-10R. Each injection point received approximately 13.75 gallons of prepared Petrox™ solution.

At MW-11, Petrox™ was injected under low pressure at 8 injection points; four in the four cardinal directions approximately 3ft from MW-11, and then three additional points located approximately 6 to 8 ft south on MW-11 and one point located approximately 6 to 8 ft north of MW-11. The Petrox™ was injected from 20 ft bls to 10 ft bls at various rates. To prevent daylighting during of the Petrox™ solution, near MW-11, GPI had to adjust the injection rate and depth. The bio-injection was accomplished using a DPT drill rig using a 2 ft attachment consisting of 2-ft rod with circular holes spaced uniformly apart. Refer to **Figure 6A** and **Figure 6B** for the design plan depicting the locations of the performed injection points. A photolog depicting fieldwork activities during the Phase 2 ISBR injections is provide in **Appendix F**.

Groundwater monitoring for Phase 2 design testing commenced one week following the ISBR injection event and then subsequently every week for a total of six sampling events from August 2, 2016 to September 6, 2016. ECT obtained groundwater samples from MW-10R and MW-11 for analyses of dieldrin by EPA Method 8081B, TOC by EPA Method 9060A and HPC by HPC by EPA Method 9215B. Purging was accomplished using new high density polyethylene (HDPE) tubing and a peristaltic pump. Groundwater levels were measured and at least one well volume was purged before collecting the first set of field parameters (pH, specific conductance, DO, turbidity, temperature and ORP). Thereafter, field parameters were recorded every two to three minutes until the stabilization criteria were met. Following stabilization, groundwater samples were obtained in accordance with the FDEP-SOP-00l/0l/FS2200 and placed in laboratory-prepared, appropriately preserved containers and stored on ice for transport to Accutest for analyses of dieldrin and TOC and to Flowers for analyses of HPC. The groundwater analytical results for Phase 2 ISBR are provided in **Table 2A** and shown graphically in **Appendix G**. The laboratory analytical reports are provided in **Appendix C.** Field notes, groundwater sampling logs and calibration logs are provided in **Appendix D.**

6.0 RESULTS

This section presents results for the completed ISBR design testing plan, including the following:

- Baseline analysis of groundwater
- Dieldrin concentration reduction (i.e., ISBR effectiveness)
- Microbial sustainability

6.1 Baseline Analysis of Groundwater

The baseline analysis of dieldrin was conducted on February 25, 26, and 29, 2016, in which ECT obtained groundwater samples from the 17 monitoring wells installed during the Phase II ESA. Following stabilization, groundwater samples were collected and placed in laboratory-prepared, appropriately preserved containers and stored on ice for transport to Accutest for analyses. The

results of this baseline groundwater sampling are provided in **Table 2A** and the laboratory analytical results provided in **Appendix C.**

6.2 Dieldrin Concentration Reduction

Monitoring well MW-1 showed a significant decrease in dieldrin concentrations (99.25%) from a baseline concentration of 3.2 µg/l to 0.024 µg/l. This is significantly lower than the concentration of 7.9 µg/l observed on January 27, 2014 during Phase II ESA groundwater sampling. On August 9, 2016, two weeks after the ISBR injection was performed near MW-1, analytical results indicated the HPC concentration was 33,500 cfu/ml, the following two weeks of analytical data showed a decline of the HPC concentration. The concentrations rose to 125,000 cfu/ml on August 30, 2016 and peaked at a concentration of 347,000 cfu/ml on September 6, 2016. The groundwater sample collected from MW-1 on September 6, 2016 was also sent to Osprey Biotechnics for analyses of HPC and specifically pseudomonas bacteria by standard spread plate Method 9215C. The analytical data reported a pseudomonas bacteria concentration of $8x10^4$ cfu/ml. One week after the ISBR injection, the dieldrin concentration was reduced from a baseline concentration of 3.2 µg/l to 0.35 µg/l. The dieldrin concentration was below the laboratory method detection limit (MDL) of 0.0067U µg/l on August 16, 2016 where the HPC concentration was too numerous to count (TNTC). There was a slight rebound in the dieldrin concentration over the following two weeks and the groundwater monitoring concluded on September 6, 2016 were the dieldrin concentration was recorded between the practical quantitation limit (PQL) and MDL with a concentration of 0.024I µg/l, which corresponded to the peak HPC concentration observed during the monitoring period. CL Solutions Petrox™ is supplied at one billion cells per milliliter and the target population of pseudomonas bacteria in the groundwater following injection is one million cells per milliliter. Pseudomonas bacteria may persist up to six months depending on site conditions and the availability of a viable food source. In discussions with CL Solutions, the higher the Pseudomonas population, the greater the degradation rate and populations of 10,000 to 100,000 cells per milliliter and higher may be considered an effective population. Therefore, Pseudomonas population of $8x10^4$ cfu/ml at the six-week mark following the ISBR injection fall within the effective population range. An HPC concentration of 347,000 cfu/ml indicates there may still be a viable microbial population present within the area around MW-1 may provide additional reduction in dieldrin concentrations.

Monitoring well MW-10R also showed a significant reduction in dieldrin concentrations with a 98.45% decrease from a baseline concentration of 2.2 µg/l to 0.034 µg/l. On April 11, 2016, two weeks after conducting the initial ISBR injection, the analytical results indicated that the concentrations of HPC were 30,600 cfu/ml and dieldrin concentrations were reduced from the baseline concentration of 2.2 µg/l to 0.24 µg/l on March 28, 2016. On August 9, 2016, two weeks after conducting the second ISBR injection, the analytical results indicated the HPC concentration was 53,900 cfu/ml and the dieldrin concentration fell to 0.066 µg/l. HPC concentrations appeared to decline over the following three weeks however, the dieldrin concentrations decreased by approximately 57.6% over those three weeks. At the conclusion of groundwater monitoring on September 6, 2016 the HPC concentration peaked at 377,000 cfu/ml and the corresponding dieldrin concentration of 0.034I µg/l. The groundwater sample collected from MW-10R on September 6, 2016 was also sent to Osprey Biotechnics for analyses of HPC and specifically pseudomonas bacteria by standard spread plate method 9215C. The analytical data reported a

pseudomonas bacteria concentration of $1.2x10^5$ cfu/ml. The concentration of pseudomonas bacteria present in the water column on September 6, 2016 is indicative of a good population at the 6-week mark following the CL Solution Petrox™ injection. Again, pseudomonas bacteria may persist up to six months depending on an available food source. An HPC concentration of 377,000 cfu/ml indicates there may still be a viable microbial population present within the area around MW-1 to allow for additional reduction in dieldrin concentrations.

Monitoring well MW-11 did not show as significant a reduction in dieldrin concentrations as demonstrated at MW-1 and MW-10R. The baseline groundwater concentration of dieldrin was 5.1 µg/l on February 29, 2016 and the last monitoring event, dated September 6, 2016, showed a concentration of 2.6 µg/l. Rebounding of the dieldrin concentration throughout the implementation of the ISBR DTP was recorded, including a maximum concentration of 5.8 µg/l recorded during the June 3, 2016 groundwater sampling event. Although reduction of dieldrin was not as prevalent as with MW-1 and MW-10R during the design testing, there was a reduction of 49.0% at the end of the 24-week groundwater monitoring period. Analytical results indicated that the concentrations of HPC did not exceed 6,630 cfu/ml until the September 6, 2016 sampling event, where the HPC at MW-11 was 14,400 cfu/ml and the corresponding dieldrin concentration was 2.6 µg/l. The groundwater sample collected from MW-11 on September 6, 2016 was also sent to Osprey Biotechnics for analyses of HPC and specifically the pseudomonas bacteria by standard spread plate method 9215C. The analytical data reported a pseudomonas bacteria concentration of $2.5x10^4$ cfu/ml at the six-week mark following the ISBR injection. The pseudomonas population at MW-11 is somewhat less when compared to the populations at MW-1 and MW-10R which may account for the reduced degradation rate of dieldrin when compared to MW-1 and MW-10R. The smaller population of microbes present in the initial sampling events at MW-11 may have been due to less than favorable injection conditions due to soil types located near MW-11. The areas around MW-1 and MW-10R were excavated to approximately 7.5 feet below land surface to remove arsenic-impacted soils during source removal activities June 2015. Both of these areas were backfilled with clean native soils which may be providing an avenue for better microbial distribution. In any event, the dieldrin concentration decreased by approximately 52.7% during the last week of groundwater monitoring.

The concentrations of dieldrin recorded over the 24-week period of groundwater monitoring during implementation of the ISBR DTP are presented in **Table 2A** and graphs providing a visual representation of dieldrin concentrations versus TOC and HPC are provided in **Appendix G**.

6.3 Microbial Sustainability

Heterotrophic microorganisms are comprised of bacteria, molds and yeast that oxidize organic and dissolved carbon as a food source. Heterotrophs typically use dissolved oxygen as the final electron acceptor for respiration but may also use other metabolic processes such as iron (III) and sulfate reduction to mineralize particulate and dissolved organic carbon in the absence of oxygen. CL Solutions Petrox™ is a highly concentrated blend of Pseudomonas organisms that thrive in both aerobic and anoxic environments. These organisms quickly cometabolize contaminants, in this case dieldrin, to naturally recyclable by-products allowing natural microbial fauna to be restored. TOC is comprised of particulate and dissolved organic carbon, including suspended particles, bacteria and dissolved organic macro molecules. As a food source, naturally occurring

organic carbon is typical available in the shallow aquifer as it is mainly derived from decomposing vegetation and organic matter in the soil. In more humid climates, such as Orange County, Florida, shallow aquifers generally acquire oxygen through the percolation of rainwater through the soil. Percolating rainwater also provides a vehicle for organic carbon transport. Heterotrophic bacteria require TOC (food source) and DO (electron acceptor) for growth and sustainability. Additionally, there are other factors such as temperature, pH, ORP and nutrients that contribute to the growth and sustainability of the heterotrophic microbial community. The intent of the design testing plan implementation was to evaluate CL Solutions Petrox™ ability to reduce dieldrin concentrations in the groundwater at the Site. Baseline groundwater sampling indicated the concentrations of dieldrin at MW-1, MW-10R and MW-11 were 3.2 µg/l, 2.2 µg/l and 5.1 µg/l, respectively. Even though these concentrations are several orders of magnitude above the dieldrin GCTL of 0.002 µg/l, they are small in comparison to the carbon required to sustain the microbial population. Each of the CL Solutions Petrox™ injections were supplemented with 50 lbs of dextrose to provide a carbon food source to jumpstart growth prior to the injection. Following the injections, dieldrin, HPC and TOC concentrations were analyzed over a 24-week period and the following sampling parameters, temperature, pH, DO, ORP, conductivity and turbidity were collected during each sampling event. Graphical analyses of dieldrin concentration reductions, HPC and TOC concentrations are presented in **Appendix G**. Additionally, a table of microbial sustainability parameters (TOC, ORP, DO, pH and temperature) is also provided in **Appendix G**.

HPC is the standard plate count procedure for estimating the number of live heterotrophic bacteria in water. This procedure measures heterotrophic bacteria colony formation on culture media. This methodology is somewhat subject to variability and human error when estimating higher values due to large dilution factors. Prior to ISBR injections baseline groundwater samples were collected for analyses of HPC by EPA Method 9125B. On March 28, 2016 the HPC for MW-10R was 930 cfu/ml and for MW-11 was 530 cfu/ml. The baseline HPC for MW-1 collected on June 21, 2016 was 1,980 cfu/ml. Groundwater sampling following the first injection at MW-1, MW-10R and MW-11 the HPC concentrations were greater than 2000 cfu/ml, 30,600 cfu/ml and 1,700 cfu/ml. HPC at MW-10R and MW-11 rose again following a second ISPR injection conducted on July 26, 2016. The peak HPC concentrations occurred at the end on the ground monitoring period with a concentration of 347,000 cfu/ml at MW-1 on September 26, 2016, 377,000 cfu/ml at MW-10R on September 6, 2016 and 23,000 cfu/ml at MW-11 on August 30, 2016. As discussed in the previous section, the target population of pseudomonas bacteria is 1,000,000 cells per milliliter in the groundwater at the time of injection. The HPC concentration discussed above concentrations appear to be less that the target value, but variability in determination of heterotrophic by the standard plate count method may also be a factor. Analytical data from Osprey Biotechnics for groundwater samples collected on September 6, 2016 indicated there was a viable population of pseudomonas bacteria six week following the Phase 2 ISBR injection.

The average TOC concentration at MW-1 was 221.3 mg/l. This value is relatively high when compared to typical values of TOC naturally occurring in groundwater in the central Florida region. The high TOC most likely is the result of biomass accumulation following the CL Solutions Petrox™ injection. One week following the injection, the TOC was recorded at 1,280 mg/l, which is indicative of the addition of dextrose and a corresponding HPC concentration of greater than 2,000 cfu/ml. At MW-10, the TOC concentration ranged from 1.4 mg/l (pre-injection) to 51.2 mg/with an average TOC concentration of 16 mg/l. At MW-11, the TOC

concentration was between 0.5 mg/l (pre-injection) to 39.6 mg/l with an average concentration of 6.1 mg/l. TOC concentrations at MW-11 varied considerably throughout the monitoring period and the microbial distribution was considerably less that at MW-1 and MW-10R. The TOC data suggest that there is a viable carbon (food) source available to foster microbial growth and sustainability.

The groundwater temperature ranged from approximately 18°C (March) to 30°C (September) during the ISBR groundwater monitoring. The average temperature over the course of the groundwater monitoring was 26.90°C. The ideal growth temperature of Petrox™ is 35°C and can die off in a temperature exceeding 40°C. The microbes should be effective in 10°C – 30°C groundwater temperature. This is a typical temperature range for groundwater in the shallow aquifer in Central Florida and is in a range that is conducive for microbial suitability.

The average pH over the 24-week groundwater monitoring period was 5.84 s.u. with values between 4.79 and 6.84 s.u. This is a typical range in the central Florida region for groundwater in the shallow aquifer. Petrox™ tolerates a wide range of pH conditions, from 5 to 9 s.u., without a significant population decline, outside of this range population can drop off quickly. Although pH at MW-1 was below 5.0 s.u. for two weeks, it appears the drop did not affect microbial population and the following week pH was within the effective range again. The remaining pH readings at the Site during the DTP implementation was within acceptable range for microbial sustainability.

The DO concentration was much more varied with the lowest concentration at MW-1 (0.05 mg/l) during baseline groundwater sampling and the highest concentration at MW-1 (3.30 mg/l) two weeks following the CL Petrox™ injection. The averaged DO concentration at MW-1, MW-10R and MW-11, including the baseline sampling event, was 1.22 mg/l, 1.18, mg/l and 1.03 mg/l, respectively. The groundwater at the Site is generally considered oxic with an average DO concentration above 0.5 mg/l. DO values are above the required concentration for microbial sustainability, especially considering ORP which is discussed below.

ORP is the measure of the groundwater's relative oxidizing power. In other words ORP is the measure of the balance between the oxygen available for metabolism and the carbon available as an food source. The redox state of groundwater is driven by a set of electron transfer reactions that are naturally occurring via metabolic processes, facilitated by microorganisms present in the groundwater. In relation to heterotrophic bacteria, ORP may provide an indication of the microbes' ability to transfer electrons between electron donors (TOC [dextrose]) and electron acceptors, (DO, nitrate, iron, sulfate, etc.). Heterotrophic bacteria compete aggressively for available electron donors and acceptors to extract energy for growth and sustainability within the aquifer. During this respiration process they metabolize organic carbon and produce enzymes that breakdown (cometabolize) pesticides such as dieldrin. DO will readily accept electrons and the oxygen-reducing heterotrophs will out-compete other microorganisms to utilize this easily accessible electron sink. The oxygen demand is proportional to the amount of dextrose added during the injection process. In relation to metabolic processes, if a positive ORP is maintained while the dextrose (TOC) decreases, the natural oxygen flux is sufficient for cometabolism. If the ORP decreases and the TOC concentration is high, the oxygen flux is insufficient to support cometabolism. Typically an ORP between -100 mV and +300 mV is what is required for the microbes to be effective. If ORP falls below -100 mV, then there is a possibility of no usable electron donor needed for the microbes' respiration increases. An ORP value above +650 mV

will kill most bacteria by oxidation. The average ORP at MW-1 was -6.5 mV with a range of -101 and +9.4 mV, the average ORP at MW-10R was -77.0mV with a range of -248 and +102 mV, and the average ORP at MW-11 was 3.2 mV with a range of -230 to +204 mV. Even though some of the ORP values fall outside of the effective range for metabolism, the overall data compiled suggest that the groundwater at the Site is favorable for oxygen-reducing heterotrophic bacteria sustainability.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The purpose of the ISBR DTP was to evaluate and test the product Petrox™ for the reduction of dieldrin concentrations in the groundwater in the areas of MW-1, MW-10, and MW-11, which exceeded GCTLs per Chapter 62-777 F.A.C. Dieldrin was reduced by 99.25% in MW-1, 98.45% in MW-10R and 49.0% in MW-11. The analytical data showed favorable results in the overall reduction of contaminate mass, however concentrations still remain above the dieldrin GCTL of 0.002 µg/l. It is our understanding that the concentrations of pseudomonas organisms contained in Petrox™ may persist up to six months following injection if a sufficient food source is available to provide sustainability. Therefore, attenuation of dieldrin-impacted groundwater at the Site may continue for several more months. One 55-gallon drum of prepared Pertrox™ is supplied at one billion cells per milliliter and the target population of pseudomonas bacteria in the groundwater following injection is one million cells per milliliter. To provide a remediation protocol for other dieldrin-impacted groundwater areas at the Creative Digital Village, one 55-gallon drum of Petrox™ has the ability to treat up to 55,000 gallons of groundwater depending on site conditions. The data suggests that ISBR technology, specifically CL Solutions Petrox™ for the reduction of dieldrin in the groundwater is a viable and cost-effective solution for the Site. The injection process is relatively simple with minimal impacts and may be suitable for other locations within the Creative Digital Village.

Monitoring wells MW-12, MW-13, MW-14, MW-15, MW-16, MW-17 located in the tennis courts area were abandoned in place on September 30, 2016 in accordance with the requirements of Chapter 40C-3.517(8) F.A.C. as laboratory analytical data indicated that groundwater samples collected for analyses of dieldrin were below laboratory's MDLs. Additionally, monitoring wells MW-2 and MW-7 located within the limits of the proposed Livingston Street extension were also abandoned in place as the groundwater collected at these monitoring wells was also below the laboratory MDL for dieldrin. The design testing monitoring wells MW-1, MW-10R and MW-11 will be abandoned at a later date, prior to road construction.

Dieldrin concentrations within the design testing wells were reduced by several orders of magnitude over the 24-week period following the ISBR injections. The dieldrin-impacted groundwater plume at the Site is less than ¼ acre in area, stable or shrinking, and contained within the property boundary. The pending Livingston Street Extension and other construction within the Creative Digital Village will provide an impervious surface over the area of impacted groundwater. To address the former USDA entomology laboratory, 81 soil borings were advanced across the Site, and soil samples were collected at varying depths and analyzed to determine soil quality during Phase II ESA activities. Laboratory analytical data collected during Phase II ESA activities indicated there were no Soil Cleanup Target Level (SCTL) exceedances in the 61 samples analyzed for dieldrin. Therefore, an engineering control monitoring and

maintenance plan (ECMMP) and subsequent Declaration of Restrictive Covenant (DRC) for a No Further Action (NFA) status with conditions pursuant to Rule 62-780.680(2) F.A.C. – Risk Management Options Level II may be applicable for the Site following construction of the Livingston Street Extension. Because ISBR may continue at the Site for the next few months, as a viable population of pseudomonas bacteria exists within the limits of the groundwater plume, and because natural attenuation may also provide additional degradation of dieldrin, we recommend collecting groundwater samples from the design testing monitoring wells prior to well abandonment activities as concentrations of dieldrin at that time may fall below GCTLs.

FIGURES

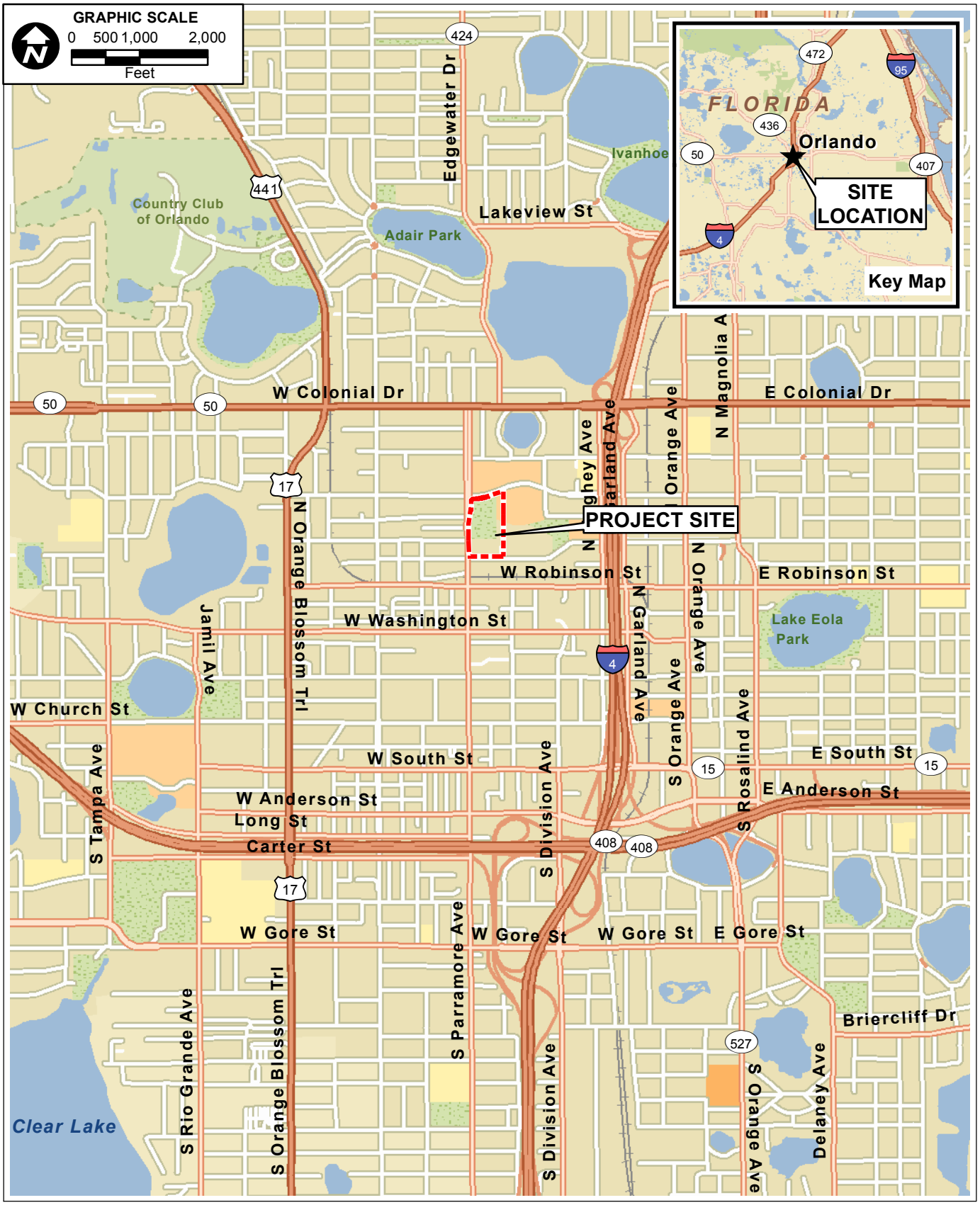

FIGURE 1.
LOCATION MAP
ORLANDO DOWNTOWN RECREATION COMPLEX & TENNIS CENTRE
CITY OF ORLANDO, ORANGE COUNTY, FLORIDA
SECTION 26, TOWNSHIP 22S, RANGE 29E

Sources: ESRI 2014 Street Maps; ECT, 2015.

ECT Environmental Consulting & Technology, Inc.

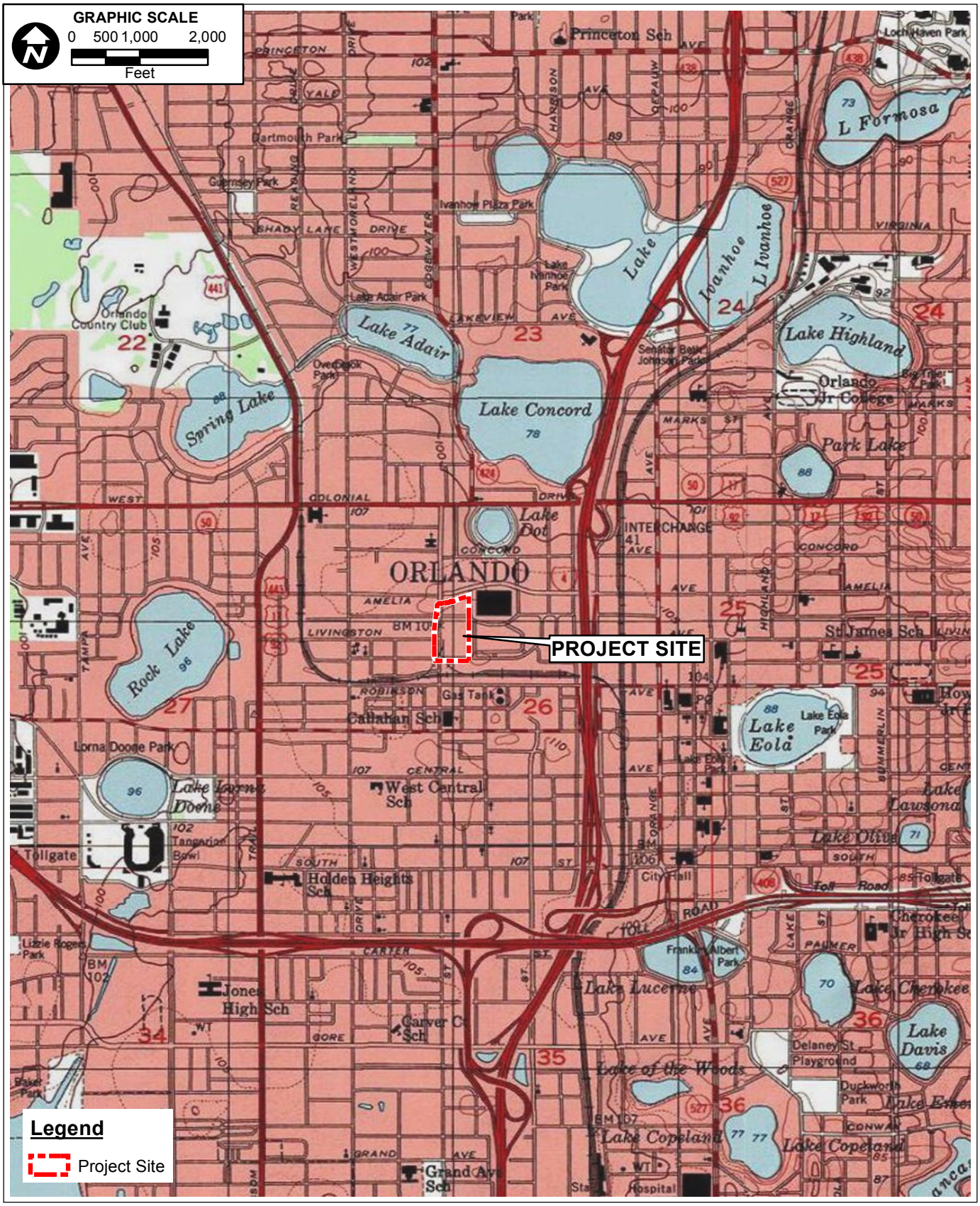

FIGURE 2.
USGS TOPOGRAPHIC MAP
ORLANDO DOWNTOWN RECREATION COMPLEX & TENNIS CENTRE
CITY OF ORLANDO, ORANGE COUNTY, FLORIDA
SECTION 26, TOWNSHIP 22S, RANGE 29E

Sources: USGS Quad: Orlando West, FL, 1980; ECT, 2015.

ECT Environmental Consulting & Technology, Inc.

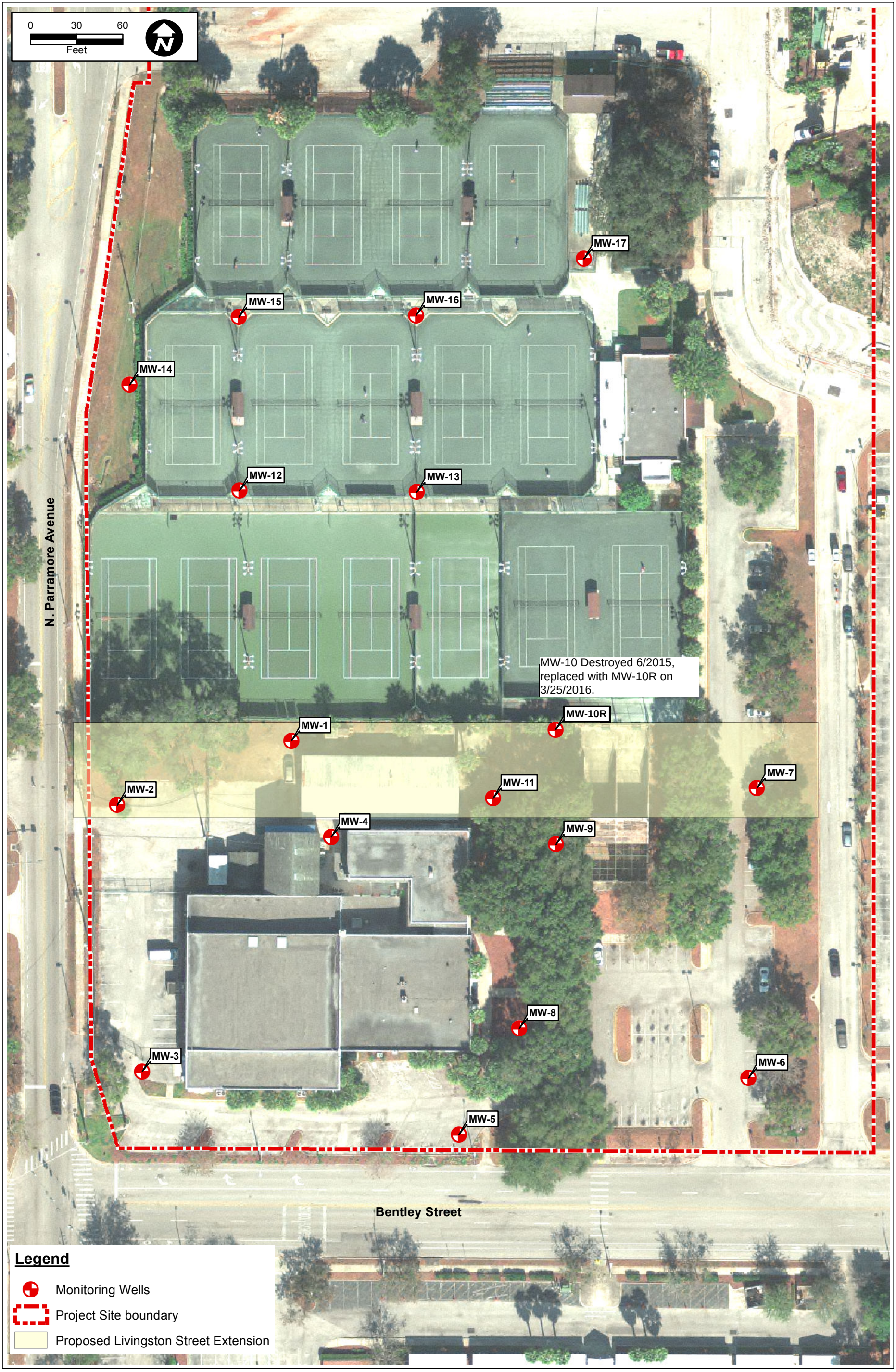

FIGURE 3.
SITE MAP
ORLANDO DOWNTOWN RECREATION COMPLEX & TENNIS CENTRE
CITY OF ORLANDO, ORANGE COUNTY, FLORIDA
SECTION 26, TOWNSHIP 22S, RANGE 29E

Sources: FDOT Imagery 2012; ECT, 2015.

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FIGURE 4.
BASELINE GROUNDWATER SAMPLING
ORLANDO DOWNTOWN RECREATION COMPLEX & TENNIS CENTRE
CITY OF ORLANDO, ORANGE COUNTY, FLORIDA
Source: FDOT Aerial, 2012; ECT, 2016.

ECT Environmental Consulting & Technology, Inc.

FIGURE 5A.
GROUNDWATER ELEVATION MAP - FEBRUARY 24, 2016
ORLANDO DOWNTOWN RECREATION COMPLEX & TENNIS CENTRE
CITY OF ORLANDO, ORANGE COUNTY, FLORIDA
Source: FDOT Aerial, 2012; ECT, 2016.

ECT Environmental Consulting & Technology, Inc.

FIGURE 5B.
GROUNDWATER ELEVATION MAP - MAY 11, 2016
ORLANDO DOWNTOWN RECREATION COMPLEX & TENNIS CENTRE
CITY OF ORLANDO, ORANGE COUNTY, FLORIDA
Source: FDOT Aerial, 2012; ECT, 2016.

ECT Environmental Consulting & Technology, Inc.

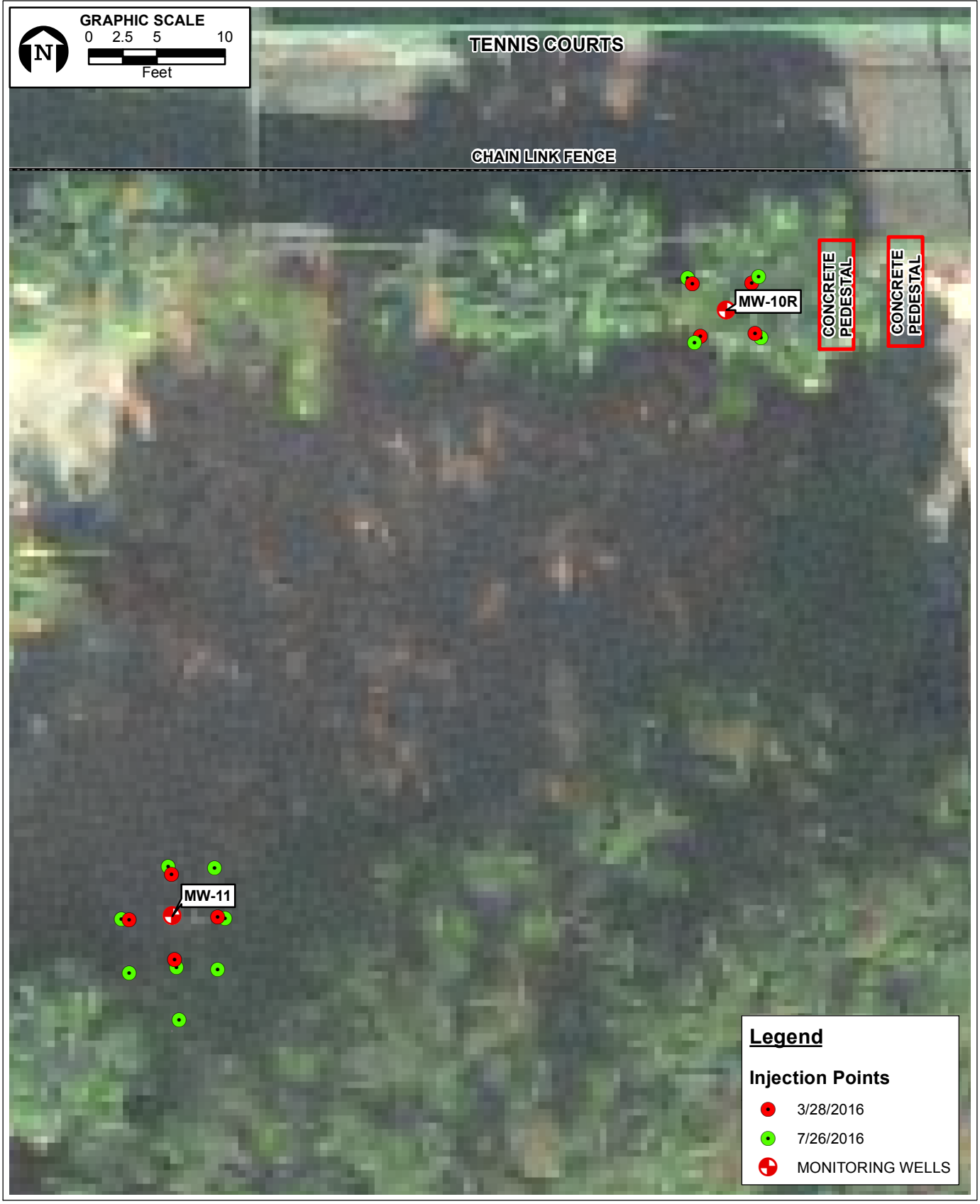

FIGURE 6A.
INJECTION POINT LOCATIONS AT MW-10R & MW-11
ORLANDO DOWNTOWN RECREATION COMPLEX & TENNIS CTR
CITY OF ORLANDO, ORANGE COUNTY, FLORIDA
SECTION 26, TOWNSHIP 22S, RANGE 29E

Sources: USGS Quad: Orlando West, FL, 1980; ECT, 2015.

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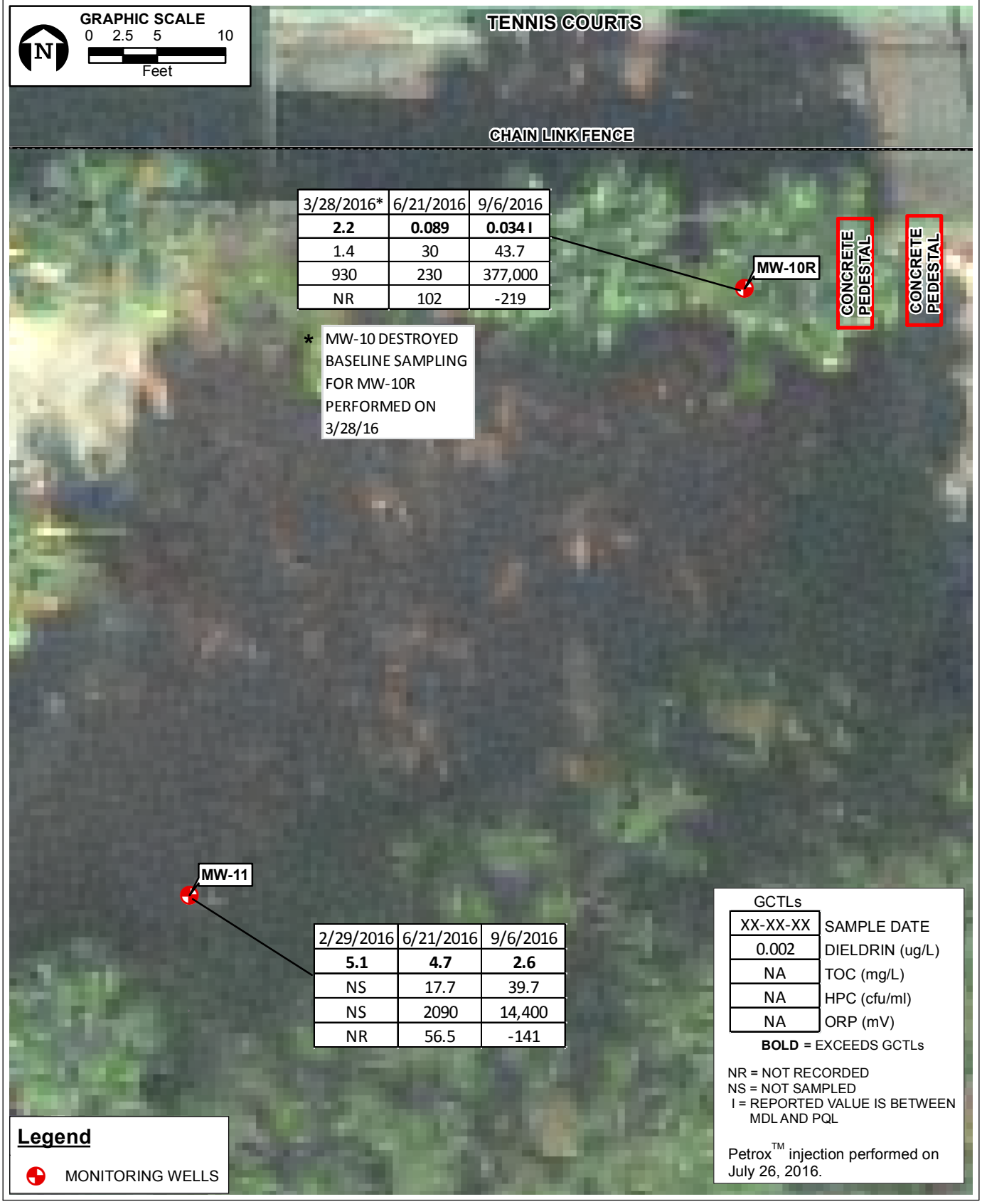
FIGURE 6B.
INJECTION POINT LOCATIONS AT MW-1
ORLANDO DOWNTOWN RECREATION COMPLEX & TENNIS CTR
CITY OF ORLANDO, ORANGE COUNTY, FLORIDA
SECTION 26, TOWNSHIP 22S, RANGE 29E
Sources: USGS Quad: Orlando West, FL, 1980; ECT, 2015.

ECT Environmental Consulting & Technology, Inc.



3/28/2016*	6/21/2016	9/6/2016
2.2	**0.089**	**0.034 I**
1.4	30	43.7
930	230	377,000
NR	102	-219

* MW-10 DESTROYED BASELINE SAMPLING FOR MW-10R PERFORMED ON 3/28/16

2/29/2016	6/21/2016	9/6/2016
5.1	**4.7**	**2.6**
NS	17.7	39.7
NS	2090	14,400
NR	56.5	-141

GCTLs

XX-XX-XX	SAMPLE DATE
0.002	DIELDRIN (ug/L)
NA	TOC (mg/L)
NA	HPC (cfu/ml)
NA	ORP (mV)

BOLD = EXCEEDS GCTLs

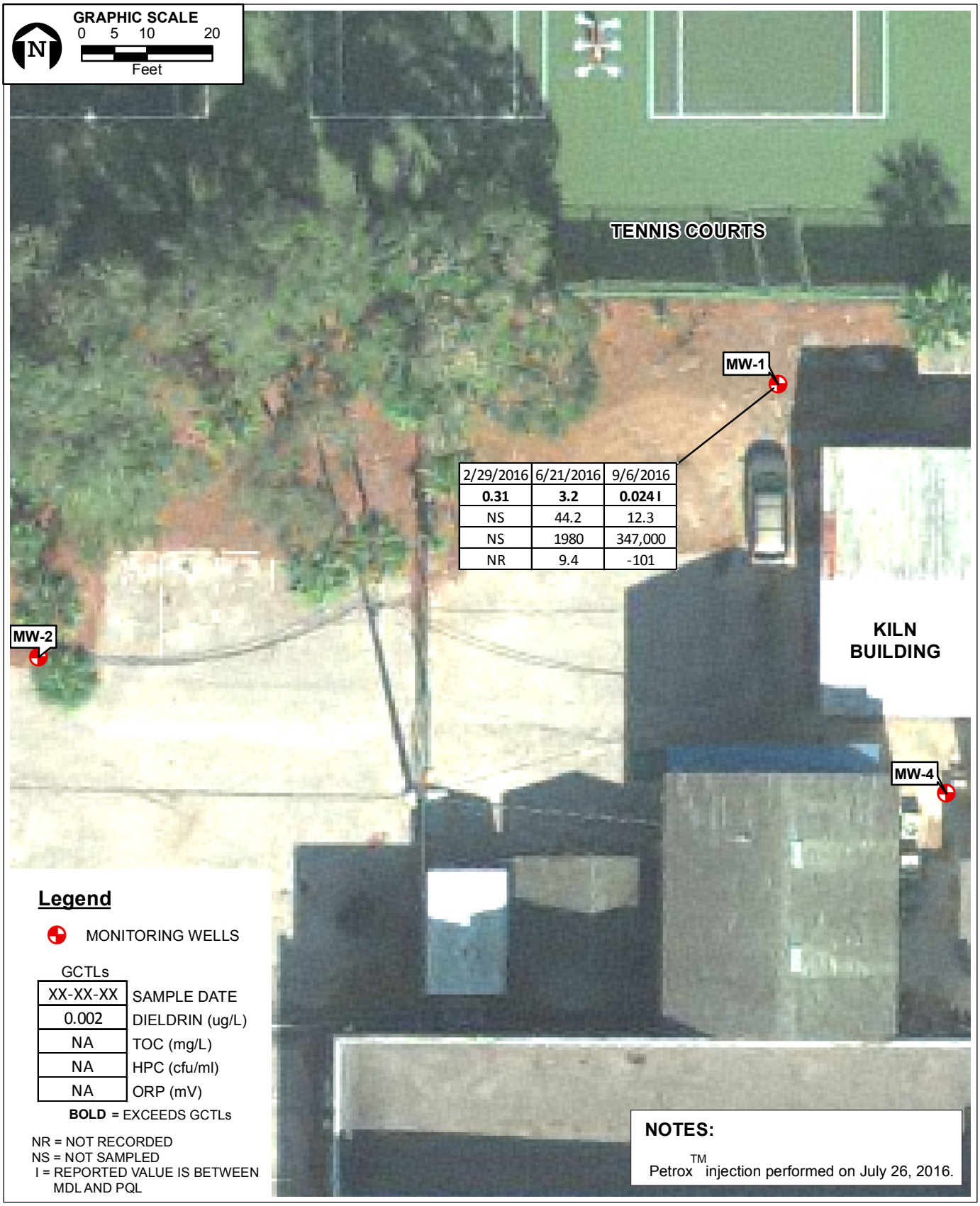
NR = NOT RECORDED
NS = NOT SAMPLED
I = REPORTED VALUE IS BETWEEN MDL AND PQL

Petrox™ injection performed on July 26, 2016.

FIGURE 7A.
ANALYTICAL SUMMARY FOR MW-10R & MW-11
ORLANDO DOWNTOWN RECREATION COMPLEX & TENNIS CTR
CITY OF ORLANDO, ORANGE COUNTY, FLORIDA
SECTION 26, TOWNSHIP 22S, RANGE 29E

Sources: USGS Quad: Orlando West, FL, 1980; ECT, 2015.

ECT Environmental Consulting & Technology, Inc.



2/29/2016	6/21/2016	9/6/2016
0.31	**3.2**	**0.024 I**
NS	44.2	12.3
NS	1980	347,000
NR	9.4	-101

FIGURE 7B.
ANALYTICAL SUMMARY FOR MW-1
ORLANDO DOWNTOWN RECREATION COMPLEX & TENNIS CTR
CITY OF ORLANDO, ORANGE COUNTY, FLORIDA
SECTION 26, TOWNSHIP 22S, RANGE 29E

Sources: USGS Quad: Orlando West, FL, 1980; ECT, 2015.

ECT Environmental Consulting & Technology, Inc.

TABLES

TABLE 1: MONITORING WELL CONSTRUCTION DETAILS

Site Name: Orlando Recreation Complex and Tennis Centre **WCU Site Id:** COM_320731

WELL NO.	DATE INSTALLED	INSTALLATION METHOD	TOP OF CASING ELEVATION*	SURFACE FINISH	TOTAL WELL DEPTH (FEET)	SCREENED INTERVAL (FTBLS)	WELL DIAMETER (IN.)
MW-1	1/17/2014	Hollow Stem Auger	97.19	Below Grade	20	10-20	2
MW-2	1/17/2014	Hollow Stem Auger	97.22	Below Grade	20	10-20	2
MW-3	1/17/2014	Hollow Stem Auger	96.44	Below Grade	20	10-20	2
MW-4	1/20/2014	Hollow Stem Auger	98.74	Below Grade	20	10-20	2
MW-5	1/20/2014	Hollow Stem Auger	96.63	Below Grade	20	10-20	2
MW-6	1/21/2014	Hollow Stem Auger	95.89	Below Grade	20	10-20	2
MW-7	1/21/2014	Hollow Stem Auger	95.98	Below Grade	20	10-20	2
MW-8	1/21/2014	Hollow Stem Auger	97.32	Below Grade	20	10-20	2
MW-9	1/22/2014	Hollow Stem Auger	97.53	Below Grade	20	10-20	2
MW-10	*DESTROYED*						
MW-10R	3/25/2016	Hollow Stem Auger	97.42	Below Grade	20	10-20	2
MW-11	1/22/2014	Hollow Stem Auger	97.08	Below Grade	20	10-20	2
MW-12	6/3/2014	Direct Push	97.70	Above Grade	20	10-20	1
MW-13	6/3/2014	Direct Push	98.14	Above Grade	20	10-20	1
MW-14	6/2/2014	Hollow Stem Auger	96.08	Below Grade	20	10-20	2
MW-15	6/3/2014	Direct Push	98.48	Above Grade	20	10-20	1
MW-16	6/3/2014	Direct Push	98.55	Above Grade	20	10-20	1
MW-17	6/2/2014	Hollow Stem Auger	97.43	Below Grade	20	10-20	2

Notes:

* = feet above mean sea level

FTBLS = feet below land surface

IN = inch

TABLE 2A: GROUNDWATER ANALYTICAL RESULTS - PESTICIDES AND HERBICIDES

Site Name: Orlando Recreation Complex and Tennis Centre

WCU Site Id: COM_320731

Sample Location	Date	Chlorinated Pesticides (EPA 8151)	2,4,5-T	Pesticide TCL List (EPA 8081)	Dieldrin	Endrin	Endrin Ketone	Beta-BHC	Gamma-BHC	Organophosphorus Pesticides (EPA 8141B)
	GCTL's		70		0.002	2		0.02	0.02	
	NADC		700		0.2	20		2	2	
MW-1	01/27/14	ND		ND	**7.9 b**	0.41 I	0.011 I	ND	ND	ND
	02/29/16	NS		NS	**0.31**	NS	NS	NS	NS	NS
	06/21/16	NS		NS	**3.2**	NS	NS	NS	NS	NS
	08/02/16	NS		NS	**0.35**	NS	NS	NS	NS	NS
	08/09/16	NS		NS	**0.45**	NS	NS	NS	NS	NS
	08/16/16	NS		NS	0.0067 U	NS	NS	NS	NS	NS
	08/25/16	NS		NS	**0.082**	NS	NS	NS	NS	NS
	08/30/16	NS		NS	**0.061**	NS	NS	NS	NS	NS
	09/06/16	NS		NS	**0.024 I**	NS	NS	NS	NS	NS
MW-2	01/27/14	ND		ND	**0.013I**	0.0094U	0.0094U	NS	NS	ND
	02/25/16	NS		NS	0.0067 U	NS	NS	NS	NS	NS
MW-3	01/27/14	ND		ND	0.0047U	0.0094U	0.0094U			ND
	02/25/16	NS		NSN	0.0070 U	NS	NS	NS	NS	NS
MW-4	02/29/16	NS		NS	**3.0**	NS	NS	NS	NS	NS
MW-5	01/27/14	ND		ND	0.0047 U	0.0094 U	0.0094 U	0.0047 U	0.0047 U	ND
	02/26/16	NS		NS	0.0070 U	NS	NS	NS	NS	NS
MW-6	01/27/14	ND		ND	**0.0047**	0.0094	0.0094	0.0047	0.0059	ND
	02/25/16	NS		NS	0.0070 U	NS	NS	NS	NS	NS
MW-7	01/27/14	ND		ND	0.0047U	0.0094U	0.0094U	0.0088	0.0049	ND
	02/25/16	NS		NS	0.0067 U	NS	NS	NS	NS	NS
MW-8	01/27/14	ND	0.048	ND	0.0047U	0.0094U	0.0094U	0.0047U	0.0047U	ND
	02/25/16	NS		NS	0.0067 U	NS	NS	NS	NS	NS
MW-9	01/28/14	ND		ND	**0.019 I**	0.0096 U	0.0096 U	0.0071	0.0048 U	ND
	02/26/16	NS		NS	**0.019 I**					
MW-10	01/28/14	ND		ND	**2.0b**	0.0095U	0.093	0.0048U	0.0048U	ND
		DESTROYED								
MW-10R	03/28/16	NS		NS	**2.2**	NS	NS	NS	NS	NS
	04/11/16	NS		NS	**0.24**	NS	NS	NS	NS	NS
	04/25/16	NS		NS	**0.35**	NS	NS	NS	NS	NS
	05/09/16	NS		NS	**0.25**	NS	NS	NS	NS	NS
	05/24/16	NS		NS	**0.19**	NS	NS	NS	NS	NS
	06/03/16	NS		NS	**0.29**	NS	NS	NS	NS	NS
	06/21/16	NS		NS	**0.089**	NS	NS	NS	NS	NS
	08/02/16	NS		NS	**0.063**	NS	NS	NS	NS	NS
	08/09/16	NS		NS	**0.066**	NS	NS	NS	NS	NS
	08/16/16	NS		NS	**0.054**	NS	NS	NS	NS	NS
	08/25/16	NS		NS	**0.054**	NS	NS	NS	NS	NS
	08/30/16	NS		NS	**0.28 I**	NS	NS	NS	NS	NS
	09/06/16	NS		NS	**0.034 I**	NS	NS	NS	NS	NS

TABLE 2A: GROUNDWATER ANALYTICAL RESULTS - PESTICIDES AND HERBICIDES

Site Name: Orlando Recreation Complex and Tennis Centre

WCU Site Id: COM_320731

	GCTL's NADC		70 700		0.002 0.2	2 20		0.02 2	0.02 2	
Sample Location	**Date**	**Chlorinated Pesticides (EPA 8151)**	**2,4,5-T**	**Pesticide TCL List (EPA 8081)**	**Dieldrin**	**Endrin**	**Endrin Ketone**	**Beta-BHC**	**Gamma-BHC**	**Organophosphorus Pesticides (EPA 8141B)**
MW-11	01/28/14	ND		ND	**3.9 b**	0.0095U	0.13	0.0048U	0.0048U	ND
	01/28/14*	ND		ND	**1.6 b**	0.0095U	0.081	0.0048U	0.0048U	ND
	02/29/16	NS		NS	**5.1**	NS	NS	NS	NS	NS
	03/28/16	NS		NS	**4.5**	NS	NS	NS	NS	NS
	04/11/16	NS		NS	**3.2**	NS	NS	NS	NS	NS
	04/25/16	NS		NS	**3.1**	NS	NS	NS	NS	NS
	05/09/16	NS		NS	**3.7**	NS	NS	NS	NS	NS
	05/24/16	NS		NS	**5.1**	NS	NS	NS	NS	NS
	06/03/16	NS		NS	**5.8**	NS	NS	NS	NS	NS
	06/21/16	NS		NS	**4.7**	NS	NS	NS	NS	NS
	08/02/16	NS		NS	**5**	NS	NS	NS	NS	NS
	08/09/16	NS		NS	**5.2**	NS	NS	NS	NS	NS
	08/16/16	NS		NS	**4.6**	NS	NS	NS	NS	NS
	08/25/16	NS		NS	**5.7**	NS	NS	NS	NS	NS
	08/30/16	NS		NS	**5.5**	NS	NS	NS	NS	NS
	09/06/16	NS		NS	**2.6**	NS	NS	NS	NS	NS
MW-12	06/06/14	ND		ND	0.0067 U	NS	NS	NS	NS	NS
	06/06/14*	ND		ND	0.0067 U	NS	NS	NS	NS	NS
	02/26/16	NS		NS	0.0070 U	NS	NS	NS	NS	NS
MW-13	02/26/16	ND		ND	0.0070 U	NS	NS	NS	NS	NS
MW-14	06/06/14	ND		ND	0.0067 U	NS	NS	NS	NS	NS
	02/25/16	NS		NS	0.0067 U	NS	NS	NS	NS	NS
MW-15	06/06/14	ND		ND	0.0067 U	NS	NS	NS	NS	NS
	02/26/16	NS		NS	0.0065 U	NS	NS	NS	NS	NS
MW-16	06/06/14	ND		ND	0.0067 U	NS	NS	NS	NS	NS
	02/26/16	NS		NS	0.0065 U	NS	NS	NS	NS	NS
MW-17	06/06/14	ND		ND	0.0070 U	NS	NS	NS	NS	NS
	02/26/16	NS		NS	0.0067 U	NS	NS	NS	NS	NS

Notes:

Units in ug/l unless otherwise noted
GCTL = Groundwater Cleanup Target Levels as provided in Chapter 62-777, F.A.C.
NADC = Natural Attenuation Default Concentrations as provided in Chapter 62-777, F.A.C.
BOLD = Exceedance of GCTLs
BOLD = Exceedance of GCTLs and NADC
NS = Not Sampled
ND = Nondetect
* Duplicate Sample
TCL = Target Compound List
I = The reported value is between the laboratory Method Detection Limit & the laboratory Pratical Quantitation Limit
O = Result is greater than the specified value
U = Analyte included in the analysis, but not detected
Z = Too numerous to count colonies on plate

TABLE 2B: GROUNDWATER ANALYTICAL RESULTS - METALS

Site Name: Orlando Recreation Complex and Tennis Centre

WCU Site Id: COM_320731

Sample Location	Date	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
	GCTL's	10	200	5	100	15	2	50	100
	NADC	100	2000	50	1000	150	20	500	1000
MW-1	01/27/14	2.4 U	9.4 I	0.50 U	2.0 U	1.1 U	0.038 I	2.3 U	0.77 U
	02/29/16	NS	NS	NS	NS	NS	NS	NS	NS
	06/21/16	NS	NS	NS	NS	NS	NS	NS	NS
	08/02/16	NS	NS	NS	NS	NS	NS	NS	NS
	08/09/16	NS	NS	NS	NS	NS	NS	NS	NS
	08/16/16	NS	NS	NS	NS	NS	NS	NS	NS
	08/25/16	NS	NS	NS	NS	NS	NS	NS	NS
	08/30/16	NS	NS	NS	NS	NS	NS	NS	NS
	09/06/16	NS	NS	NS	NS	NS	NS	NS	NS
MW-2	01/27/14	2.4U	8.1I	0.50U	2.0U	1.1U	0.030U	2.3U	0.77U
	02/25/16	NS	NS	NS	NS	NS	NS	NS	NS
MW-3	01/27/14	2.4U	25.3I	0.50U	2.0U	1.1U	0.030U	2.3U	0.77U
	02/25/16	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	02/29/16	NS	NS	NS	NS	NS	NS	NS	NS
MW-5	01/27/14	2.4 U	17.9 I	0.50 U	2.0 U	1.1 U	0.030 U	2.3 U	0.80 I
	02/26/16	NS	NS	NS	NS	NS	NS	NS	NS
MW-6	01/27/14	2.4U	12.8I	0.50U	2.0U	1.1U	0.030U	2.3U	0.90I
	02/25/16	NS	NS	NS	NS	NS	NS	NS	NS
MW-7	01/27/14	2.4U	14.4I	0.50U	2.0U	1.1U	0.030U	2.3U	0.77U
	02/25/16	NS	NS	NS	NS	NS	NS	NS	NS
MW-8	01/27/14	2.4U	9.2I	0.50U	2.0U	1.1U	0.030U	2.3U	0.77U
	02/25/16	NS	NS	NS	NS	NS	NS	NS	NS
MW-9	01/28/14	2.4 U	7.9 I	0.050 I	2.0 U	1.1 U	0.030 U	2.3 U	0.77 U
	02/26/16								
MW-10	01/28/14	2.4U	2.5I	0.50U	2.0U	1.1U	0.030U	2.3U	0.77U
		DESTROYED							
MW-10R	03/28/16	NS	NS	NS	NS	NS	NS	NS	NS
	04/11/16	NS	NS	NS	NS	NS	NS	NS	NS
	04/25/16	NS	NS	NS	NS	NS	NS	NS	NS
	05/09/16	NS	NS	NS	NS	NS	NS	NS	NS
	05/24/16	NS	NS	NS	NS	NS	NS	NS	NS
	06/03/16	NS	NS	NS	NS	NS	NS	NS	NS
	06/21/16	NS	NS	NS	NS	NS	NS	NS	NS
	08/02/16	NS	NS	NS	NS	NS	NS	NS	NS
	08/09/16	NS	NS	NS	NS	NS	NS	NS	NS
	08/16/16	NS	NS	NS	NS	NS	NS	NS	NS
	08/25/16	NS	NS	NS	NS	NS	NS	NS	NS
	08/30/16	NS	NS	NS	NS	NS	NS	NS	NS
	09/06/16	NS	NS	NS	NS	NS	NS	NS	NS

TABLE 2B: GROUNDWATER ANALYTICAL RESULTS - METALS

Site Name: Orlando Recreation Complex and Tennis Centre

WCU Site Id: COM_320731

	GCTL's	10	200	5	100	15	2	50	100
	NADC	100	2000	50	1000	150	20	500	1000
Sample Location	**Date**	**Arsenic**	**Barium**	**Cadmium**	**Chromium**	**Lead**	**Mercury**	**Selenium**	**Silver**
MW-11	01/28/14	2.4U	4.1I	0.50U	2.0U	1.1U	0.030U	2.3U	0.77U
	01/28/14*	2.4U	2.5I	0.50U	2.0U	1.1U	0.030U	2.3U	0.77U
	02/29/16	NS	NS	NS	NS	NS	NS	NS	NS
	03/28/16	NS	NS	NS	NS	NS	NS	NS	NS
	04/11/16	NS	NS	NS	NS	NS	NS	NS	NS
	04/25/16	NS	NS	NS	NS	NS	NS	NS	NS
	05/09/16	NS	NS	NS	NS	NS	NS	NS	NS
	05/24/16	NS	NS	NS	NS	NS	NS	NS	NS
	06/03/16	NS	NS	NS	NS	NS	NS	NS	NS
	06/21/16	NS	NS	NS	NS	NS	NS	NS	NS
	08/02/16	NS	NS	NS	NS	NS	NS	NS	NS
	08/09/16	NS	NS	NS	NS	NS	NS	NS	NS
	08/16/16	NS	NS	NS	NS	NS	NS	NS	NS
	08/25/16	NS	NS	NS	NS	NS	NS	NS	NS
	08/30/16	NS	NS	NS	NS	NS	NS	NS	NS
	09/06/16	NS	NS	NS	NS	NS	NS	NS	NS
MW-12	06/06/14	4.4 I	NS	NS	NS	NS	NS	NS	NS
	06/06/14*	2.4 U	NS	NS	NS	NS	NS	NS	NS
	02/26/16	NS	NS	NS	NS	NS	NS	NS	NS
MW-13	02/26/16	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	06/06/14	NS	NS	NS	NS	NS	NS	NS	NS
	02/25/16	NS	NS	NS	NS	NS	NS	NS	NS
MW-15	06/06/14	2.4U	NS	NS	NS	NS	NS	NS	NS
	02/26/16	NS	NS	NS	NS	NS	NS	NS	NS
MW-16	06/06/14	2.4U	NS	NS	NS	NS	NS	NS	NS
	02/26/16	NS	NS	NS	NS	NS	NS	NS	NS
MW-17	06/06/14	2.4U	NS	NS	NS	NS	NS	NS	NS
	02/26/16	NS	NS	NS	NS	NS	NS	NS	NS

Notes: Units in ug/l unless otherwise noted

GCTL = Groundwater Cleanup Target Levels as provided in Chapter 62-777, F.A.C.

NADC = Natural Attenuation Default Concentrations as provided in Chapter 62-777, F.A.C.

BOLD = Exceedance of GCTLs

BOLD = Exceedance of GCTLs and NADC

NS = Not Sampled

ND = Nondetect

* Duplicate Sample

TCL = Target Compound List

I = The reported value is between the laboratory Method Detection Limit & the laboratory Pratical Quantitation Limit

O = Result is greater than the specified value

U = Analyte included in the analysis, but not detected

Z = Too numerous to count colonies on plate

TABLE 2C: GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANICS

Site Name: Orlando Recreation Complex and Tennis Centre

WCU Site Id: COM_320731

Sample ID	Sample Location	Date	Benzene	Ethyl Benzene	Toluene	Total Xylenes	MTBE	Naphthalene	1-Methyl Naphthalene	2-Methyl Naphthalene	TRPH	Vinyl Chloride	Methylene Chloride	TCE
Groundwater Cleanup Target Levels			1	40	30	20	20	20	14	28	5000	1	5	3
Natural Attenuation Default Concentratio			100	400	300	200	200	200	140	280	50000	10	50	30
MW-4-012814	MW-4	01/28/14	0.6U	0.7U	0.7U	0.9U	0.5U	0.1U	0.3U	0.3U	119I	0.8U	1.0U	0.7U

Notes:

Bold = Exceedance of GCTLs

Groundwater Cleanup Target Levels as provided in Table II of Chapter 62-777, F.A.C.

ug/l = Micrograms Per Liter

Analytical Results = ug/l

I = The reported value is between the laboratory Method Detection Limit & the laboratory Pratical Quantitation Limit

U = Analyte included in the analysis, but not detected

NA - not analyzed

TABLE 3: GROUNDWATER ELEVATIONS

Site Name: Orlando Recreation Complex and Tennis Centre

WCU Site Id: COM_320731

WELL NO.	MW-1			MW-2			MW-3			MW-4			MW-5			MW-6		
DIAMETER	2			2			2			2			2			2		
WELL DEPTH	20			20			20			23			20			20		
SCREEN INTERVAL	10-20			10-20			10-20			13-23			10-20			10-20		
TOC ELEVATION	97.19			97.22			96.44			98.74			96.63			95.89		
DATE	**ELEV**	**DTW**	**DIFF**	**ELEV**	**DTW**	**DIFF**	**ELEV**	**DTW**	**DIFF**	**ELEV**	**DTW**	**DIFF**	**ELEV**	**DTW**	**DIFF**	**ELEV**	**DTW**	**DIFF**
01/27/14	84.35	12.84		84.47	12.75		84.60	11.84		86.09	12.65		84.44	12.19		84.25	11.64	
02/26/14	84.23	12.96	0.12	84.36	12.86	0.11	84.48	11.96	0.12	85.97	12.77	0.12	84.28	12.35	0.16	84.09	11.80	0.16
06/06/14		NR			NR			NR			NR			NR		.	NR	
07/21/14	84.17	13.02		84.27	12.95		84.44	12.00		85.89	12.85		84.26	12.37		84.04	11.85	
02/24/16	86.10	11.09	-1.93	86.27	10.95	-2.00	86.37	10.07	-1.93	87.88	10.86	-1.99	86.13	10.50	-1.87	85.92	9.97	-1.88
05/11/16	85.32	11.87	0.78	85.51	11.71	0.76	85.56	10.88	0.81	87.04	11.70	0.84	85.35	11.28	0.78	85.15	10.74	0.77
06/21/16	86.29	10.90	-0.97		NR			NR			NR			NR			NR	
08/02/16	85.87	11.32	0.42		NR			NR			NR			NR			NR	
08/09/16	86.06	11.13	-0.19		NR			NR			NR			NR			NR	
08/16/16	86.27	10.92	-0.21		NR			NR			NR			NR			NR	
08/24/16	86.39	10.80	-0.12		NR			NR			NR			NR			NR	
08/30/16	86.36	10.83	0.03		NR			NR			NR			NR			NR	
09/06/16	86.76	10.43	-0.40		NR			NR			NR			NR			NR	

Notes:

ELEV - evation in feet
DTW - depth to water
DIFF - difference
NR - not recorded

TABLE 3: GROUNDWATER ELEVATIONS

Site Name: Orlando Recreation Complex and Tennis Centre

WCU Site Id: COM_320731

SCREEN INTERVAL	10-20			10-20			10-20			10-20			10-20			10-20		
TOC ELEVATION	95.98			97.32			97.53			97.42			97.42			97.08		
DATE	**ELEV**	**DTW**	**DIFF**	**ELEV**	**DTW**	**DIFF**	**ELEV**	**DTW**	**DIFF**	**ELEV**	**DTW**	**DIFF**	**ELEV**	**DTW**	**DIFF**	**ELEV**	**DTW**	**DIFF**
01/27/14	84.03	11.95		84.34	12.98		84.19	13.34		84.06	13.36					84.16	12.92	
02/26/14	83.86	12.12	0.17	84.15	13.17	0.19	84.03	13.50	0.16	83.94	13.48	0.12				84.03	13.05	0.13
06/06/14		NR			NR			NR			NR						NR	
07/21/14	83.83	12.15		84.12	13.20		83.95	13.58		83.86	13.56					83.94	13.14	
02/24/16	85.72	10.26	-1.89	86.00	11.32	-1.88	85.86	11.67	-1.91	Destroyed 06/01/2015						85.86	11.22	-1.92
03/28/16	NR	NR		NR	NR		NR	NR					85.30	12.12		85.40	11.68	0.46
04/11/16	NR	NR		NR	NR		NR	NR					85.22	12.20	0.08	85.28	11.80	0.12
04/25/16	NR	NR		NR	NR		NR	NR					85.10	12.32	0.12	85.18	11.90	0.10
05/09/16	NR	NR		NR	NR		NR	NR					84.88	12.54	0.22	85.05	12.03	0.13
05/11/16	84.95	11.03		85.23	12.09		85.13	12.40					84.99	12.43	-0.11	85.08	12.00	-0.03
05/24/16		NR			NR			NR					84.92	12.50	0.07	85.03	12.05	0.05
06/03/16		NR			NR			NR					85.12	12.30	-0.20	85.29	11.79	-0.26
06/21/16		NR			NR			NR					85.87	11.55	-0.75	86.03	11.05	-0.74
08/02/16		NR			NR			NR					85.67	11.75	0.20	85.78	11.30	0.25
08/09/16		NR			NR			NR					85.61	11.81	0.06	85.70	11.38	0.08
08/16/16		NR			NR			NR					85.89	11.53	-0.28	86.01	11.07	-0.31
08/25/16		NR			NR			NR					85.98	11.44	-0.09	86.11	10.97	-0.10
08/30/16		NR			NR			NR					87.14	10.28	-1.16	86.44	10.64	-0.33
09/06/16		NR			NR			NR					86.31	11.11	0.83	86.47	10.61	-0.03

Notes:

ELEV - evation in feet
DTW - depth to water
DIFF - difference
NR - not recorded

TABLE 3: GROUNDWATER ELEVATIONS

Site Name: Orlando Recreation Complex and Tennis Centre

WCU Site Id: COM_320731

SCREEN INTERVAL	10-20			10-20			10-20			10-20			10-20			10-20		
TOC ELEVATION	97.70			98.14			96.08			98.48			98.55			97.43		
DATE	**ELEV**	**DTW**	**DIFF**	**ELEV**	**DTW**	**DIFF**	**ELEV**	**DTW**	**DIFF**	**ELEV**	**DTW**	**DIFF**	**ELEV**	**DTW**	**DIFF**	**ELEV**	**DTW**	**DIFF**
01/27/14		NI			NI			NI			NI			NI			NI	
02/26/14		NI			NI			NI			NI			NI			NI	
06/06/14	84.38	13.32		84.32	13.82		84.35	11.73		84.21	14.27		84.15	14.40		83.81	13.62	
07/21/14	84.01	13.69	0.37	83.89	14.25	0.43	83.98	12.10	0.37	83.80	14.68	0.41	82.71	15.84	1.44	83.41	14.02	0.40
02/24/16	85.89	11.81	-1.88	85.77	12.37	-1.88	85.93	10.15	-1.95	85.55	12.93	-1.75	85.55	13.00	-2.84	85.21	12.22	-1.80
05/11/16	85.16	12.54	0.73	85.02	13.12	0.75	85.16	10.92	0.77	84.93	13.55	0.62	84.85	13.70	0.70	84.48	12.95	0.73

Notes:

ELEV - evation in feet
DTW - depth to water
DIFF - difference
NR - not recorded

APPENDIX A

Florida Department of Environmental Protection

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

BY ELECTRONIC MAIL
david.bass@cityoforlando.net

Mr. David Bass
Assistant City Attorney
City of Orlando
400 South Orange Avenue
Orlando, Florida 32801

Orange County - Waste Cleanup
Creative Digital Village
68 acres of land within city limits of Orlando, FL generally located east of Parramore Avenue, south of Colonial Drive (S.R. 50), west of Hughey Avenue and north of a CSX Railroad
WCU Site ID: COM_320731
BF Site ID No: BF480401007
Limited Scope Remedial Action Plan Approval Order

Dear Mr. Bass:

The Central District's Waste Cleanup Program has reviewed the December 2015 "Design Testing Plan" (Limited Scope Remedial Action Plan "LSRAP"), which was submitted on your behalf by ECT, Inc. on December 31, 2015, for the Creative Digital Village Brownfield site in Orlando, Florida. Based on our review of the LSRAP, the Florida Department of Environmental Protection (Department) has determined that the actions proposed in the LSRAP represent a reasonable strategy toward partially accomplishing the cleanup objectives of Chapter 62-780, Florida Administrative Code (F.A.C.).

Pursuant to Rule 62-780.700(7)(a), F.A.C., the Department approves the LSRAP as described in this LSRAP Approval Order (Order). However, if it appears during LSRAP implementation that the remedial strategy is not effective, a request for modification of this Order, pursuant to Rule 62-780.700(14), F.A.C., may be submitted to the Department or the Department may require the preparation and submittal of a LSRAP Modification to enhance the active remediation. Depending on the nature of the modification, the Department may revoke this Order.

The implementation of the proposed Petrox 3™ injections for the dieldrin-impacted groundwater must be initiated within 120 days of the effective date of this Order, as required by Rule 62-780.700(10), F.A.C. However, according to the schedule included on Page 4-6 of the LSRAP, it is proposed to commence the LSRAP activities in January 2016, or upon approval of the LSRAP. Therefore, the implementation shall take place on or before March 4, 2016. Please provide the Department seven (7) days notice prior to conducting field activities.

Additionally, a baseline groundwater sampling event, which will include obtaining groundwater samples from the 17 monitoring wells installed during the Phase II Environmental Assessment for analysis of organochlorine pesticides by EPA Method 8081B, shall be completed prior to the initial injection. Since no ingredient in

PETROX exceeds a maximum contaminant level (MCL) allowed by the drinking water standards of Chapter 62-550, F.A.C., there are no underground injection control (UIC) parameters to monitor.

Groundwater monitoring for performance effectiveness shall be conducted during weeks 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, and 24 following the injections. Groundwater samples shall be obtained from monitoring wells MW-10R and MW-11 for analysis of organochlorine pesticides by EPA Method 8081B, heterotrophic plate count (HPC) by EPA Method 9215B, and total organic carbon (TOC) by EPA Method 9060A.

The LSRAP Implementation Report, which shall include the baseline and effectiveness groundwater sampling results and the injection volume and rate information, shall be submitted within 60 days of completion of the week 12 performance monitoring sampling event, or no later than September 30, 2016. The LSRAP Completion Report shall be submitted within 60 days of completion of the week 24 groundwater sampling event, or before December 30, 2016.

Please note that a LSRAP Modification Approval is required prior to implementation of injections in the vicinity of monitoring well MW-1. However, only field notification is required if the Phase 2 - Pump and Treat proposed in the LSRAP is implemented.

Please submit a digital copy of the submittals to DEP_CD@dep.state.fl.us, with a copy to Shabbir.Rizvi@dep.state.fl.us and George.Houston@dep.state.fl.us. If the file is very large, you may post it to the Waste Cleanup folder on the Central District's ftp site at: ftp://ftp.dep.state.fl.us/pub/incoming/Central_District/Waste_Cleanup/. After posting the document, send an e-mail to DEP_CD@dep.state.fl.us, with a copy to Shabbir.Rizvi@dep.state.fl.us and George.Houston@dep.state.fl.us, alerting us that it has been posted.

Please note: For site rehabilitation cost Voluntary Cleanup Tax Credit applications, the annual application deadline is January 31, or the following business day, of the year following the calendar year for which an applicant is claiming site rehabilitation costs. Therefore, all 2016 calendar year costs (i.e., site rehabilitation conducted and paid for in 2016) must be claimed in an application submitted by January 31, 2017. No prior year costs can be claimed.

A copy of the Voluntary Cleanup Tax Credit Rule and application can be found here http://www.dep.state.fl.us/waste/categories/vctc/pages/publications.htm.

Legal Issues

The Department's Order shall become final unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, Florida Statutes (F.S.), within 21 days of receipt of this Order. The procedures for petitioning for an administrative hearing are set forth below.

Persons affected by this Order have the following options:

(A) If you choose to accept the Department's decision regarding the LSRAP you do not have to do anything. This Order is final and effective as of the date of clerking this Order, which is indicated on the last page of this Order.

(B) If you choose to challenge the decision, you may do the following:

(1) File a request for an extension of time to file a petition for an administrative hearing with the Department's Agency Clerk in the Office of General Counsel within 21 days of receipt of this Order; such a request should be made if you wish to meet with the

Department in an attempt to informally resolve any disputes without first filing a petition for an administrative hearing; **or**

(2) File a petition for an administrative hearing with the Department's Agency Clerk in the Office of General Counsel within 21 days of receipt of this Order.

Please be advised that mediation of this decision pursuant to Section 120.573, F.S., is not available.

How to Request an Extension of Time to File a Petition for an Administrative Hearing

For good cause shown, pursuant to Rule 62-110.106(4), F.A.C., the Department may grant a request for an extension of time to file a petition for an administrative hearing. Such a request must be filed (received) by the Department's Agency Clerk in the Office of General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000, within 21 days of receipt of this Order. Petitioner, if different from City of Orlando, shall mail a copy of the request to the City of Orlando, 400 South Orange Avenue, Orlando, Florida 32801, Attention: Mr. David Bass, at the time of filing. Timely filing a request for an extension of time tolls the time period within which a petition for an administrative hearing must be made.

How to File a Petition for an Administrative Hearing

A person whose substantial interests are affected by this Order may petition for an administrative hearing under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) by the Department's Agency Clerk in the Office of General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000, within 21 days of receipt of this Order. Petitioner, if different from City of Orlando, shall mail a copy of the request to the City of Orlando, 400 South Orange Avenue, Orlando, Florida 32801, Attention: Mr. David Bass, at the time of filing. Failure to file a petition within this time period shall waive the right of anyone who may request an administrative hearing under Sections 120.569 and 120.57, F.S.

Pursuant to Section 120.569(2), F.S. and Rule 28-106.201, F.A.C., a petition for an administrative hearing shall contain the following information:

(a) The name, address, and telephone number of each petitioner; the name, address, and telephone number of the petitioner's representative, if any; the site owner's name and address, if different from the petitioner; and the name and address of the site;
(b) A statement of when and how each petitioner received notice of the Department's action or proposed action;
(c) An explanation of how each petitioner's substantial interests are or will be affected by the Department's action or proposed action;
(d) A statement of the disputed issues of material fact, or a statement that there are no disputed facts;
(e) A statement of the ultimate facts alleged, including a statement of the specific facts the petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the Department to take with respect to the Department's action or proposed action.

This Order is final and effective as of the date of clerking this Order, which is indicated on the last page of this Order. Timely filing a petition for an administrative hearing postpones the date this Order takes effect until the

Department issues either a final order pursuant to an administrative hearing or an Order Responding to Supplemental Information provided to the Department pursuant to meetings with the Department.

Judicial Review

Any party to this Order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the Department's Agency Clerk in the Office of General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days after this Order is filed with the Department's clerk (see below).

Questions

Any questions regarding the Department's review of your LSRAP should be directed to Tracy Jewsbury, P.E. at the letterhead above, by telephone at 407-897-4323, or by e-mail at tracy.jewsbury@dep.state.fl.us. Questions regarding legal issues should be referred to the Department's Office of General Counsel at (850) 245-2242. Contact with any of the above does not constitute a petition for an administrative hearing or a request for an extension of time to file a petition for an administrative hearing.

Sincerely,

Jeff Prather
Director, Central District

February 2, 2016
Date

JP/TLJ/gbl/tlj

FILING AND ACKNOWLEDGMENT:

FILED, on this date, pursuant to Section 120.52 F.S., with the designated Department Clerk, receipt of which is hereby acknowledged.

February 2, 2016
Clerk Date

c: Dan Dashtaki, City of Orlando – dan.dashtaki@cityoforlando.net
Jeff Peters, P.G., ECT – jpeters@ectinc.com
Jim Orioles, P.E., ECT – jorioles@ectinc.com
Bill Burns, City of Orlando – bill.burns@cityoforlando.net
George Houston, P.G., FDEP – george.houston@dep.state.fl.us

15Sep2014

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Bioremediation of Pesticides Using Petrox® to Meet Part per Trillion Remediation Goals

Summary

Petrox bioremediation successfully reduced pesticide contaminant concentrations in ground water at a pest control company in Florida. Dieldrin and heptachlor epoxide were found in ground water at concentrations exceeding state drinking water standards, which were measured in parts per trillion. After three applications of Petrox, the pesticide concentrations decreased more than 99% in three source area monitoring wells.

Geology and Hydrogeology

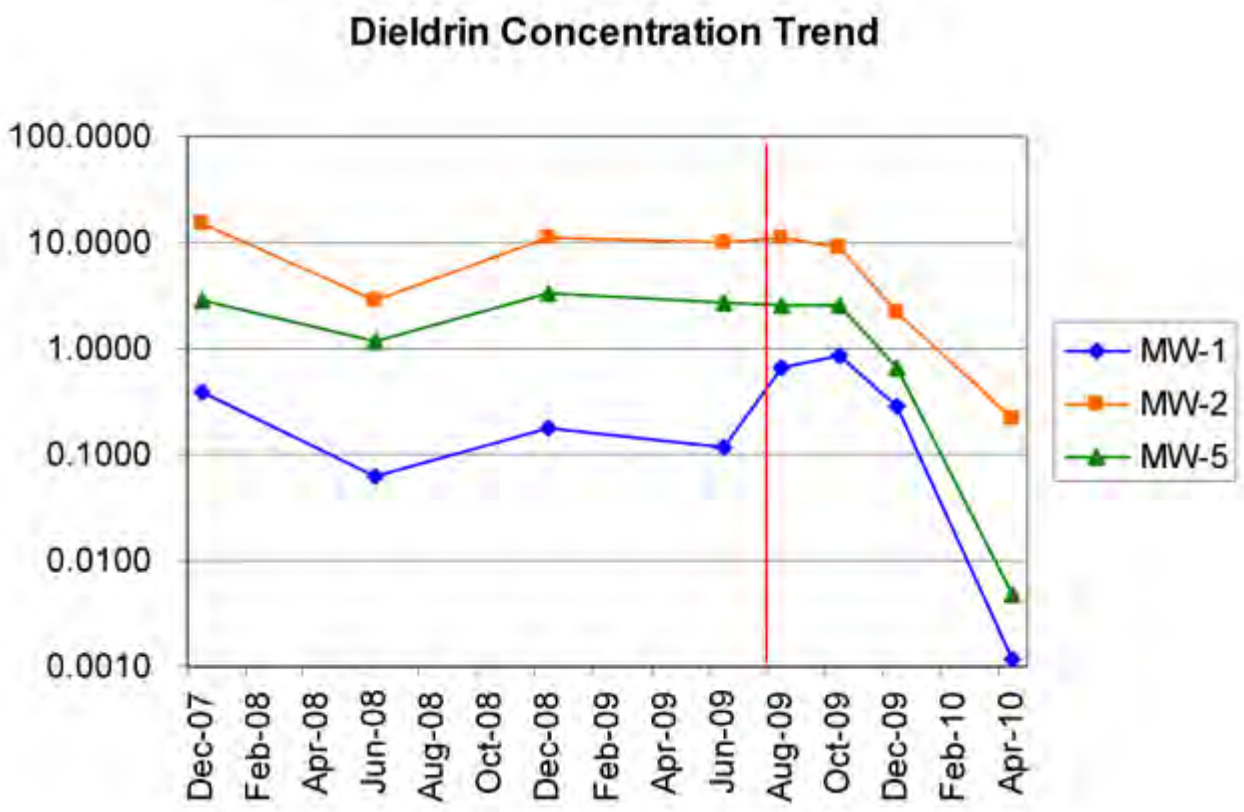
The site is set in the Florida Panhandle where thick coastal sediments characterize the shallow geology. The sediments underlying the site were fine-grained sand and silt more than 60 feet thick. The depth to the water table was approximately 45 feet.

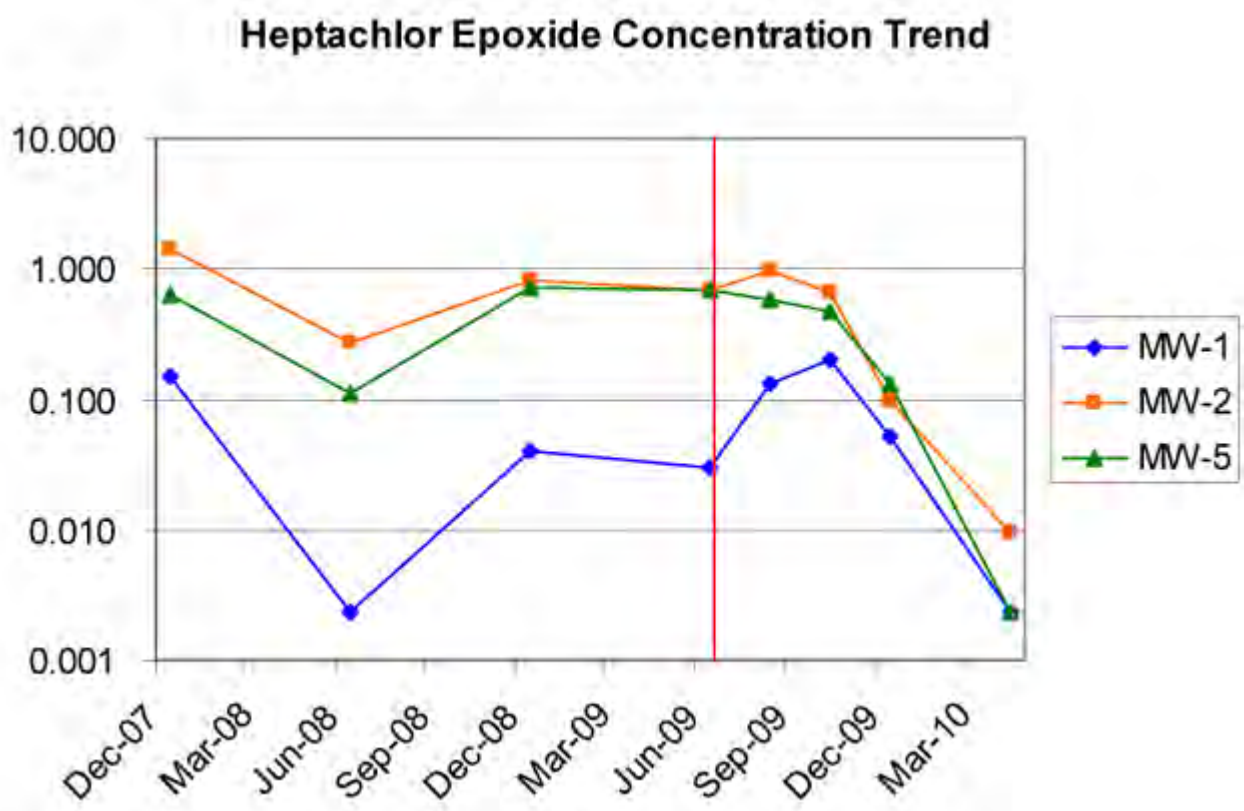
Contamination

Pesticides were found in shallow soil and ground water at the property. Pesticides had also migrated off the source property in the ground water. The pesticide concentrations in the ground water were relatively low, but exceeded state regulatory standards by orders of magnitude. Prior to remediation, the maximum concentration of dieldrin in ground water was 9.8 µg/L, while the remediation goal was 0.002 µg/L. Heptachlor epoxide was present in the source area ground water at 0.68 µg/L, with a remediation goal of 0.200 µg/L. The remediation challenge was to reduce the contamination levels from the very low initial concentrations to meet even lower remediation goals.

Remediation Design

Petrox bioremediation was direct injected into the ground water in three applications approximately 30 feet apart. During each injection 275 gallons of hydrated Petrox were injected into the three locations over a 15 foot thick interval. Monitoring wells in the treatment area were sampled to assess the progress of the remediation. Three injections were completed on 60 day intervals. The following charts show the contaminant concentration trends in the monitoring wells. The vertical red line shows the initiation of bioremediation.





Results

Despite the low initial concentration and dispersed contamination, Petrox bioremediation significantly reduced the contaminant concentrations over the full treatment area. The

heptachlor epoxide concentrations met the remediation goals in all monitoring wells in the treatment area. The maximum dieldrin concentration was reduced from 9.8 µg/L to 0.22 µg/L. After three treatments and less than 9 months, the dieldrin and heptachlor epoxide concentrations were reduced by more than 99%. The product cost for treatment was less than $15,000. Petrox provided an efficient, cost-effective remediation solution for the site.

APPENDIX B

15Sep2014

Share

Bioremediation of Pesticides Using Petrox® to Meet Part per Trillion Remediation Goals

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Geology and Hydrogeology

The site is set in the Florida Panhandle where thick coastal sediments characterize the shallow geology. The sediments underlying the site were fine-grained sand and silt more than 60 feet thick. The depth to the water table was approximately 45 feet.

Contamination

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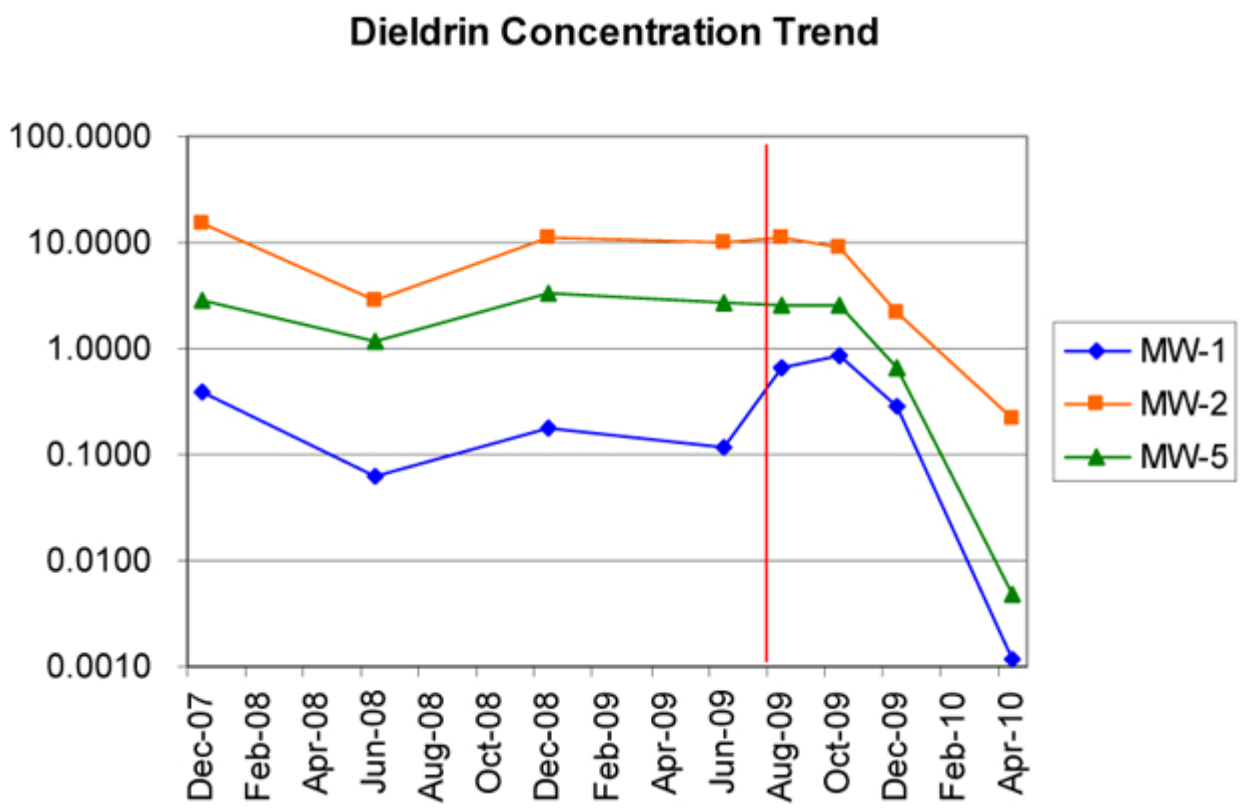

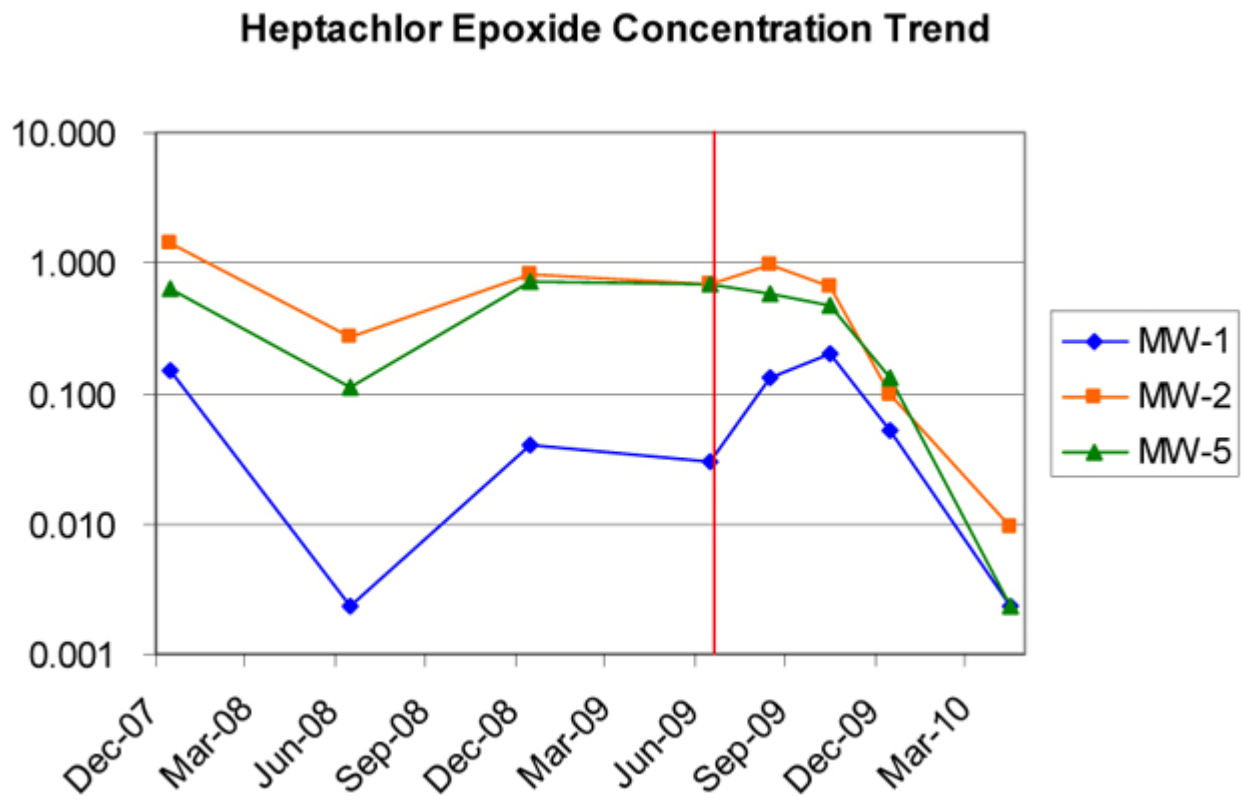

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Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 05/29/2015 Reviewed on 05/29/2015

* 1 Identification

· **Product identifier**

· **Trade name: Petrox**
· **Relevant identified uses of the substance or mixture and uses advised against**
· **Product description** Soil bioremediation solution used to neutralize pollutants.
· **Application of the substance / the mixture** Bioremediation of soil.

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Osprey Biotechnics, Inc.
1833A 57th Street
Sarasota, FL 34243
941-351-2700
· **Emergency telephone number:** Chemtrec 1-800-424-9300 or outside USA 1-703-527-3887

* 2 Hazard(s) Identification

· **Classification of the substance or mixture**

GHS03 Flame over circle

Ox. Sol. 2 H272 May intensify fire; oxidizer

GHS07

Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H332 Harmful if inhaled.
Eye Irrit. 2A H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.

· **Label elements**
· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**

GHS03 GHS07

· **Signal word** Danger

· **Hazard-determining components of labeling:**
Trade Secret
Sodium Nitrate
· **Hazard statements**
May intensify fire; oxidizer.
Harmful if swallowed or if inhaled.
Causes serious eye irritation.
May cause respiratory irritation.
· **Precautionary statements**
Take any precaution to avoid mixing with combustibles.
Keep away from heat.

(Contd. on page 2)

Keep/Store away from clothing/combustible materials.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wear protective gloves / eye protection / face protection.
Wear eye protection / face protection.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If swallowed: Call a poison center/doctor if you feel unwell.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If eye irritation persists: Get medical advice/attention.
Rinse mouth.
In case of fire: Use for extinction: CO2, powder or water spray.
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· ***Unknown acute toxicity:***
18 percent of the mixture consists of ingredient(s) of unknown toxicity.

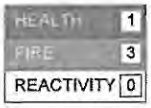
· ***Classification system:***

· ***NFPA ratings (scale 0 - 4)***

Health = 2
Fire = 3
Reactivity = 0

The substance possesses oxidizing properties.

· ***HMIS-ratings (scale 0 - 4)***



Health = 1
Fire = 3
Reactivity = 0

· ***Hazard(s) not otherwise classified (HNOC):*** None

* **3 Composition/information on ingredients**

· ***Chemical characterization: Mixtures***

· ***Description:*** Mixture of substances listed below with nonhazardous additions.

· ***Dangerous Components:***

	Trade Secret Acute Tox. 4, H302; Acute Tox. 4, H332; STOT SE 3, H335; Eye Irrit. 2B, H320; Combustible Dust	25-50%
7631-99-4	Sodium Nitrate Ox. Sol. 2, H272; Eye Irrit. 2A, H319	15-35%

4 First aid measures

· ***Description of first aid measures***

· ***General information:***
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

(Contd. on page 3)

· ***After inhalation:***
Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist.
In case of unconsciousness, place patient securely on side position for transportation.
· ***After skin contact:*** Generally the product does not irritate the skin.
· ***After eye contact:*** Rinse opened eye for several minutes under running water. Then consult a doctor.
· ***After swallowing:*** Immediately call a doctor.
· ***Information for doctor:***
· ***Most important symptoms and effects, both acute and delayed:*** No further relevant information available.
· ***Indication of any immediate medical attention and special treatment needed***
No further relevant information available.

* 5 Fire-fighting measures

· ***Extinguishing media***
· ***Suitable extinguishing agents:*** Use fire fighting measures that suit the environment.
· ***Special hazards arising from the substance or mixture***
If incinerated, product will release the following: Sodium Oxides, Nitrogen Oxides (NOx), Carbon Oxides, Sulfur Oxides.
· ***Advice for firefighters***
Product has a combustible dust hazard. Avoid generating dust while extinguishing any fires.
Wet or damp material may start to decompose and release heat causing any nearby combustibles to catch fire. If containers begin to discolor or vent violently, emergency responders should evacuate area.
Use water spray to cool unopened containers.
When product decomposes, it will release oxygen, which may intensify fires. Use caution.
· ***Protective equipment:***
Mouth respiratory protective device.
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

6 Accidental release measures

· ***Personal precautions, protective equipment and emergency procedures***
Mount respiratory protective device.
· ***Environmental precautions:*** Do not allow to enter sewers/ surface or ground water.
· ***Methods and material for containment and cleaning up:***
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
Dispose of the collected material according to regulations.
· ***Reference to other sections***
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

* 7 Handling and storage

· ***Handling:***
· ***Precautions for safe handling***
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
· ***Information about protection against explosions and fires:***
Protect from heat.
Keep protective respiratory device available.

(Contd. on page 4)

· ***Conditions for safe storage, including any incompatibilities***
Store away from strong acids, strong bases, strong oxidizing agents, strong reducing agents, powdered metals, organic materials, Alkali metals, Alkaline earth metals, Cyanides and Thiocyanates.
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:***
Store below 32 °F and keep frozen until ready to hydrate.
· ***Information about storage in one common storage facility:*** Not required.
· ***Further information about storage conditions:***
Keep receptacle tightly sealed.
Protect from heat and direct sunlight.
· ***Specific end use(s)*** No further relevant information available.

* **8 Exposure controls/personal protection**

· ***Additional information about design of technical systems:*** No further data; see section 7.

· ***Control parameters***
All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use local exhaust at filling zones and where leakage and dust formation is probable. Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.
· ***Components with occupational exposure limits:***
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· ***Additional information:*** The lists that were valid during the creation of this SDS were used as basis.

· ***Exposure controls***
· ***Personal protective equipment:***
· ***General protective and hygienic measures:***
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing and wash before reuse.
Wash hands before breaks and at the end of work.
· ***Breathing equipment:***
Use suitable respiratory protective device in case of insufficient ventilation.
Not necessary if room is well-ventilated.
· ***Protection of hands:***
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Select glove material based on penetration times, rates of diffusion and degradation.
· ***Material of gloves***
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.
· ***Penetration time of glove material***
The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.
· ***Eye protection:***

Safety glasses

(Contd. on page 5)

* [illegible]

· **Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Crystalline powder
Color:	Light Tan
· **Odor:**	Savory
· **Odor threshold:**	Not determined.
· **pH-value @ 20 °C (68 °F):**	< 8
· **Change in condition**	
Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	600 °C (1112 °F)
· **Flash point:**	210 °C (410 °F)
· **Flammability (solid, gaseous):**	Contact with combustible material may cause fire.
· **Ignition temperature:**	
Decomposition temperature:	Not determined.
· **Auto igniting:**	Product is not self-igniting.
· **Danger of explosion:**	Not determined.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapor pressure:**	Not applicable.
· **Density:**	
Relative density	Not determined.
Vapor density	Not applicable.
Evaporation rate	Not applicable.
· **Solubility in / Miscibility with**	
Water:	Soluble.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· **Solvent content:**	
Organic solvents:	0.0 %
Solids content:	100.0 %
· **Other information**	No further relevant information available.

*

· **Reactivity** No further relevant information available.
· **Chemical stability** Stable under normal conditions.
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.

(Contd. on page 6)

· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:**
Strong acids, strong bases, strong oxidizing agents, strong reducing agents, powdered metals, organic materials, Alkali metals, Alkaline earth metals, Cyanides and Thiocyanates.
· **Hazardous decomposition products:**
Sodium Oxides, Nitrogen Oxides (NOx), Carbon Oxides, Sulfur Oxides.

* **11 Toxicological Information**

· **Information on toxicological effects**
· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** No irritating effect.
· **on the eye:** Causes serious eye irritation.
· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Irritant

· **Carcinogenic categories**
· **IARC (International Agency for Research on Cancer)**
Substance is not listed.

None of the ingredients are listed.

· **NTP (National Toxicology Program)**
None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**
None of the ingredients are listed.

* **12 Ecological Information**

· **Toxicity**
· **Aquatic toxicity:**
7631-99-4 Sodium Nitrate
EC50 6000 mg/l (Water flea)
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:** Not known to be hazardous to water.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

* **13 Disposal Information**

· **Waste treatment methods**
· **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 7)

· **Uncleaned packagings:**
· **Recommendation:**
Packagings that cannot be cleansed are to be disposed of in the same manner as the product.
Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

· **UN-Number**	
· **DOT, ADR, IMDG, IATA**	UN1479
· **UN proper shipping name**	
· **DOT**	Oxidizing solid, n.o.s. (Sodium nitrate)
· **ADR**	UN1479 Oxidizing solid, n.o.s. (Sodium nitrate)
· **IMDG, IATA**	OXIDIZING SOLID, N.O.S. (SODIUM NITRATE)
· **Transport hazard class(es)**	
· **DOT**	
· **Class**	5.1 Oxidizing substances
· **Label**	5.1
· **ADR**	
· **Class**	5.1 (O2) Oxidizing substances
· **Label**	5.1
· **IMDG, IATA**	
· **Class**	5.1 Oxidizing substances
· **Label**	5.1
· **Packing group**	
· **DOT, ADR, IMDG, IATA**	III
· **Environmental hazards:**	Not applicable.
· **Special precautions for user**	Warning: Oxidizing substances
· **Danger code (Kemler):**	50
· **EMS Number:**	F-A,S-Q
· **Segregation groups**	Powdered metals, ammonium compounds, cyanides, peroxides
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **DOT**	
· **Quantity limitations**	On passenger aircraft/rail: 25 kg On cargo aircraft only: 100 kg

(Contd. on page 8)

· **ADR**

· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g

· **IMDG**

· **Limited quantities (LQ)**	5 kg
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· **UN "Model Regulation":**	UN1479, Oxidizing solid, n.o.s. (Sodium nitrate), 5.1, III

* 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

50-99-7 glucose
7631-99-4 Sodium Nitrate
7772-98-7 Sodium thiosulphate

· **California Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 9)

· **Hazard pictograms**

GHS03 GHS07

· **Signal word** Danger

· **Hazard-determining components of labeling:**
Trade Secret
Sodium Nitrate

· **Hazard statements**
May intensify fire; oxidizer.
Harmful if swallowed or if inhaled.
Causes serious eye irritation.
May cause respiratory irritation.

· **Precautionary statements**
Take any precaution to avoid mixing with combustibles.
Keep away from heat.
Keep/Store away from clothing/combustible materials.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wear protective gloves / eye protection / face protection.
Wear eye protection / face protection.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If swallowed: Call a poison center/doctor if you feel unwell.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If eye irritation persists: Get medical advice/attention.
Rinse mouth.
In case of fire: Use for extinction: CO2, powder or water spray.
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

The product is subject to be classified according with the latest version of the regulations on hazardous substances.

· **State Right to Know**

	Trade Secret Acute Tox. 4, H302; Acute Tox. 4, H332; STOT SE 3, H335; Eye Irrit. 2B, H320; Combustible Dust	25-50%
CAS: 50-99-7	glucose	25-50%
CAS: 7631-99-4	Sodium Nitrate Ox. Sol. 2, H272; Eye Irrit. 2A, H319	15-35%
CAS: 91079-46-8	Peptones, soybean	5-10%
CAS: 7772-98-7 RTECS: XN6476000	Sodium thiosulphate	≤ 2.5%

All ingredients are listed.

(Contd. on page 10)

· ***Chemical safety assessment:*** A Chemical Safety Assessment has not been carried out.

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· ***Date of preparation / last revision*** 05/29/2015 / -

· ***Abbreviations and acronyms:***

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
Ox. Sol. 2: Oxidising Solids, Hazard Category 2
Acute Tox. 4: Acute toxicity, Hazard Category 4
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

· **** Data compared to the previous version altered.***

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

APPENDIX C

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

e-Hardcopy 2.0
Automated Report

Technical Report for

ECT

Orlando Rec Center; 649 Bentley St, Orlando, FL

160140

SGS Accutest Job Number: FA31688

Sampling Date: 02/25/16

Report to:

ECT
3660 Maguire Blvd Suite 107
Orlando, FL 32803
jpeters@ectinc.com; jorioles@ectinc.com

ATTN: Jeff Peters

Total number of pages in report: 14

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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SGS Accutest

Sample Summary

ECT

Job No: FA31688

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160140

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA31688-1	02/25/16	10:14	RBKB	02/25/16	AQ	Ground Water	MW-7 022516
FA31688-2	02/25/16	11:02	RBKB	02/25/16	AQ	Ground Water	MW-6 022516
FA31688-3	02/25/16	11:44	RBKB	02/25/16	AQ	Ground Water	MW-3 022516
FA31688-4	02/25/16	12:49	RBKB	02/25/16	AQ	Ground Water	MW-14 022516
FA31688-5	02/25/16	14:20	RBKB	02/25/16	AQ	Ground Water	MW-2 022516
FA31688-6	02/25/16	15:14	RBKB	02/25/16	AQ	Ground Water	MW-8 022516

Summary of Hits

Job Number: FA31688
Account: ECT
Project: Orlando Rec Center; 649 Bentley St, Orlando, FL
Collected: 02/25/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA31688-1	**MW-7 022516**					
No hits reported in this sample.						
FA31688-2	**MW-6 022516**					
No hits reported in this sample.						
FA31688-3	**MW-3 022516**					
No hits reported in this sample.						
FA31688-4	**MW-14 022516**					
No hits reported in this sample.						
FA31688-5	**MW-2 022516**					
No hits reported in this sample.						
FA31688-6	**MW-8 022516**					
No hits reported in this sample.						

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-7 022516		
Lab Sample ID:	FA31688-1	**Date Sampled:**	02/25/16
Matrix:	AQ - Ground Water	**Date Received:**	02/25/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT376335.D	1	03/01/16	NG	02/29/16	OP59520	GTT1753
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.0067 U	0.040	0.0067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		42-127%
2051-24-3	Decachlorobiphenyl	84%		27-127%

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6 022516		
Lab Sample ID:	FA31688-2	**Date Sampled:**	02/25/16
Matrix:	AQ - Ground Water	**Date Received:**	02/25/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT376336.D	1	03/01/16	NG	02/29/16	OP59520	GTT1753
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.0070 U	0.042	0.0070	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	100%		42-127%
2051-24-3	Decachlorobiphenyl	76%		27-127%

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3 022516		
Lab Sample ID:	FA31688-3	**Date Sampled:**	02/25/16
Matrix:	AQ - Ground Water	**Date Received:**	02/25/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT376337.D	1	03/01/16	NG	02/29/16	OP59520	GTT1753
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.0070 U	0.042	0.0070	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		42-127%
2051-24-3	Decachlorobiphenyl	80%		27-127%

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-14 022516		
Lab Sample ID:	FA31688-4	**Date Sampled:**	02/25/16
Matrix:	AQ - Ground Water	**Date Received:**	02/25/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT376338.D	1	03/01/16	NG	02/29/16	OP59520	GTT1753
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.0067 U	0.040	0.0067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	103%		42-127%
2051-24-3	Decachlorobiphenyl	85%		27-127%

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2 022516		
Lab Sample ID:	FA31688-5	**Date Sampled:**	02/25/16
Matrix:	AQ - Ground Water	**Date Received:**	02/25/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT376341.D	1	03/01/16	NG	02/29/16	OP59520	GTT1753
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.0067 U	0.040	0.0067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		42-127%
2051-24-3	Decachlorobiphenyl	86%		27-127%

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8 022516		
Lab Sample ID:	FA31688-6	**Date Sampled:**	02/25/16
Matrix:	AQ - Ground Water	**Date Received:**	02/25/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT376342.D	1	03/01/16	NG	02/29/16	OP59520	GTT1753
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.0067 U	0.040	0.0067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		42-127%
2051-24-3	Decachlorobiphenyl	83%		27-127%

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA31688 PAGE_____OF_____

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: ECT Inc.
Address: 3660 Maguire Blvd
City: Orlando State: Zip:
Project Contact: Jeff Peters E-mail: jpeters@ectinc.com
Phone#: 407-903-0005
Sampler(s) Name(s) (Printed): Ryan Burns / Katie Ballew

Project Information

Project Name: Orlando Rec. Center
Street: Bentley St.
City: Orlando State: FL
Project #: 160140
Fax #:
Client Purchase Order #: 160140

Analytical Information

P8081 DIELDRIN

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Accutest Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MeOH	P8081 DIELDRIN	LAB USE ONLY
1	MW-7 022516	022516	10:14	RB/KB	GW	2		2								X2	
2	MW-6 022516	022516	11:02	RB/KB	GW	2		2								X2	
3	MW-3 022516	022516	11:44	RB/KB	GW	2		2								X2	
4	MW-14 022516	022516	12:49	RB/KB	GW	2		2								X2	
5	MW-2 022516	022516	2:20	RB/KB	GW	2		2								X2	
6	MW-8 022516	022516	3:14	RB/KB	GW	2		2								X2	

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

ECT rate turnaround

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by :	Date Time:	Received By:
1	022516 16:35	2/25/16 1635	3		4
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal In Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers:) Cooler Temperature (s) Celsius: 3.2

4.1
4

FA31688: Chain of Custody
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ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA31688 CLIENT: ECT PROJECT: 160140

DATE/TIME RECEIVED: 2/25/16 1635 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER [DELIVERY] OTHER:

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.2
- [ ] OBSERVED TEMPS: 3.0
- [ ] CORRECTED TEMPS: 3.2 (USED FOR LIMS)

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

TEST STRIP LOT#s pH 0-3 204413A pH 10-12 219813A OTHER (specify) _____

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE 2/26/16 REVIEWER SIGNATURE/DATE JC 2-26-16

NF 11/15 receipt confirmation 111015.xls

4.1

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FA31688: Chain of Custody

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SGS ACCUTEST FA31688

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

e-Hardcopy 2.0
Automated Report

Technical Report for

ECT

Orlando Rec Center; 649 Bentley St, Orlando, FL

160140

SGS Accutest Job Number: FA31765

Sampling Date: 02/26/16

Report to:

ECT
3660 Maguire Blvd Suite 107
Orlando, FL 32803
jpeters@ectinc.com; jorioles@ectinc.com

ATTN: Jeff Peters

Total number of pages in report: 15

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

SGS Accutest is the sole authority for authorizing edits or modifications to this document.
Unauthorized modification of this report is strictly prohibited.

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SGS Accutest

Sample Summary

ECT

Job No: FA31765

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160140

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA31765-1	02/26/16	09:07	RBKB	02/26/16	AQ	Ground Water	MW17022616
FA31765-2	02/26/16	10:01	RBKB	02/26/16	AQ	Ground Water	MW12022616
FA31765-3	02/26/16	12:42	RBKB	02/26/16	AQ	Ground Water	MW5022616
FA31765-4	02/26/16	13:30	RBKB	02/26/16	AQ	Ground Water	MW13022616
FA31765-5	02/26/16	14:06	RBKB	02/26/16	AQ	Ground Water	MW15022616
FA31765-6	02/26/16	14:42	RBKB	02/26/16	AQ	Ground Water	MW16022616
FA31765-7	02/26/16	15:29	RBKB	02/26/16	AQ	Ground Water	MW9022616

Summary of Hits

Job Number: FA31765
Account: ECT
Project: Orlando Rec Center; 649 Bentley St, Orlando, FL
Collected: 02/26/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA31765-1	**MW17022616**					
No hits reported in this sample.						
FA31765-2	**MW12022616**					
No hits reported in this sample.						
FA31765-3	**MW5022616**					
Dieldrin [a]		0.0070 I	0.038	0.0065	ug/l	SW846 8081B
FA31765-4	**MW13022616**					
No hits reported in this sample.						
FA31765-5	**MW15022616**					
No hits reported in this sample.						
FA31765-6	**MW16022616**					
No hits reported in this sample.						
FA31765-7	**MW9022616**					
Dieldrin [a]		0.019 I	0.038	0.0065	ug/l	SW846 8081B

(a) All hits confirmed by dual column analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW17022616		
Lab Sample ID:	FA31765-1	**Date Sampled:**	02/26/16
Matrix:	AQ - Ground Water	**Date Received:**	02/26/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT376344.D	1	03/01/16	NG	02/29/16	OP59520	GTT1753
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.0067 U	0.040	0.0067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	105%		42-127%
2051-24-3	Decachlorobiphenyl	97%		27-127%

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW12022616		
Lab Sample ID:	FA31765-2	**Date Sampled:**	02/26/16
Matrix:	AQ - Ground Water	**Date Received:**	02/26/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT376345.D	1	03/01/16	NG	02/29/16	OP59520	GTT1753
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.0070 U	0.042	0.0070	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		42-127%
2051-24-3	Decachlorobiphenyl	55%		27-127%

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5022616		
Lab Sample ID:	FA31765-3	**Date Sampled:**	02/26/16
Matrix:	AQ - Ground Water	**Date Received:**	02/26/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT376346.D	1	03/01/16	NG	02/29/16	OP59520	GTT1753
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.0070	0.038	0.0065	ug/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		42-127%
2051-24-3	Decachlorobiphenyl	85%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13022616		
Lab Sample ID:	FA31765-4	**Date Sampled:**	02/26/16
Matrix:	AQ - Ground Water	**Date Received:**	02/26/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT376347.D	1	03/01/16	NG	02/29/16	OP59520	GTT1753
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.0070 U	0.042	0.0070	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		42-127%
2051-24-3	Decachlorobiphenyl	91%		27-127%

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW15022616		
Lab Sample ID:	FA31765-5	**Date Sampled:**	02/26/16
Matrix:	AQ - Ground Water	**Date Received:**	02/26/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT376348.D	1	03/01/16	NG	02/29/16	OP59520	GTT1753
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.0065 U	0.038	0.0065	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	112%		42-127%
2051-24-3	Decachlorobiphenyl	90%		27-127%

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW16022616		
Lab Sample ID:	FA31765-6	**Date Sampled:**	02/26/16
Matrix:	AQ - Ground Water	**Date Received:**	02/26/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT376349.D	1	03/01/16	NG	02/29/16	OP59520	GTT1753
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.0065 U	0.038	0.0065	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	113%		42-127%
2051-24-3	Decachlorobiphenyl	82%		27-127%

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW9022616		
Lab Sample ID:	FA31765-7	**Date Sampled:**	02/26/16
Matrix:	AQ - Ground Water	**Date Received:**	02/26/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT376350.D	1	03/01/16	NG	02/29/16	OP59520	GTT1753
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.019	0.038	0.0065	ug/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		42-127%
2051-24-3	Decachlorobiphenyl	82%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

FA31765

Accutest JOB # PAGE_____OF_____

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: ECT, Inc.
Address: 3660 Maguire Blvd.
City: Orlando State: Zip:
Project Contact: Jeff Peters E-mail: jpeters@ectinc.com
Phone#: 407-903-0005
Sampler(s) Name(s) (Printed): Ryan Burns / Katie Ballew

Project Information

Project Name: Orlando Rec Center
Street: Bentley St.
City: Orlando State:
Project #: 160140
Fax #:
Client Purchase Order #: 160140

Analytical Information: P8081 Dieldrin

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

Accutest Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	NaEDA	P8081 Dieldrin	LAB USE ONLY
1	MW17022616	2/26/16	9:07	RB/KB	GW	2		X								X	
2	MW12022616	022616	10:01	RB/KB	GW	2		X								X	
3	MW5022616	022616	12:42	RB/KB	GW	2		X								X	
4	MW13022616	022616	1:30	RB/KB	GW	2		X								X	
5	MW15022616	022616	2:06	RB/KB	GW	2		X								X	
6	MW16022616	022616	2:42	RB/KB	GW	2		X								X	
7	MW9022616	022616	3:29	RB/KB	GW	2		X								X	

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

ECT rate turnaround

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by :	Date Time:	Received By:
1 Ryan Burns	022616 4:31	2 [signature] 02/26/16 16:31	3		4
Relinquished by:	**Date Time:**	**Received By:**	**Relinquished by:**	**Date Time:**	**Received By:**
5		6	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3.5

4.1
4

FA31765: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA31765 CLIENT: ECT PROJECT: 160140

DATE/TIME RECEIVED: 2/26/16 1631 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER DELIVERY OTHER:

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.2
- [ ] OBSERVED TEMPS: 3.3
- [ ] CORRECTED TEMPS: 3.5 (USED FOR LIMS)

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM 5-GRAM

NUMBER OF 5035 FIELD KITS ?

NUMBER OF LAB FILTERED METALS ?

TEST STRIP LOT#s pH 0-3 204413A pH 10-12 219813A OTHER (specify)

SUMMARY OF COMMENTS: 8081 received in (2) 250mL ambers.

TECHNICIAN SIGNATURE/DATE 2/27/16 REVIEWER SIGNATURE/DATE 2/27/16

NF 11/15 receipt confirmation 111015.xls

4.1

4

FA31765: Chain of Custody

Page 2 of 2

SGS ACCUTEST FA31765

Sample Summary

ECT

Job No: FA31789

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160140

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA31789-1	02/29/16	10:17	RB	02/29/16	AQ	Ground Water	MW-4 022916
FA31789-2	02/29/16	11:51	RB	02/29/16	AQ	Ground Water	MW-1 022916
FA31789-3	02/29/16	12:57	RB	02/29/16	AQ	Ground Water	MW-11 022916

Report of Analysis

Client Sample ID:	MW-4 022916		
Lab Sample ID:	FA31789-1	**Date Sampled:**	02/29/16
Matrix:	AQ - Ground Water	**Date Received:**	02/29/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK76180.D	4	03/08/16	NG	03/05/16	OP59598	GKK2465
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	3.0	0.16	0.027	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		42-127%
2051-24-3	Decachlorobiphenyl	91%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1 022916		
Lab Sample ID:	FA31789-2	**Date Sampled:**	02/29/16
Matrix:	AQ - Ground Water	**Date Received:**	02/29/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK76181.D	1	03/08/16	NG	03/05/16	OP59598	GKK2465
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.31	0.040	0.0067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		42-127%
2051-24-3	Decachlorobiphenyl	64%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11 022916		
Lab Sample ID:	FA31789-3	**Date Sampled:**	02/29/16
Matrix:	AQ - Ground Water	**Date Received:**	02/29/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK76182.D	5	03/08/16	NG	03/05/16	OP59598	GKK2465
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	5.1	0.21	0.035	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	119%		42-127%
2051-24-3	Decachlorobiphenyl	88%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Chain of Custody

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Accutest JOB # FA31789 PAGE_____OF_____

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: ECT Inc.
Address: 3660 Maguire Blvd
City: Orlando State: FL Zip: 32803
Project Contact: Jeff Peters E-mail: peters@ectinc.com
Phone#: 407-903-0005
Sampler(s) Name(s) /Printed): Ryan Burns

Project Information

Project Name: Orlando Rec Center
Street: Bentley St.
City: Orlando State: FL
Project #: 160140
Fax #:
Client Purchase Order #: 160140

Analytical Information

P8081 Dieldrin

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Accutest Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	P8081 Dieldrin	LAB USE ONLY
1	MW-4 022916	022916	10:17	RB	GW	2		X								X	
2	MW-1 022916	022916	~~12:57~~ 11:57	RB	GW	2		X								X	
3	MW-11 022916	022916	12:57	RB	GW	2		X								X	

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

ECT Rate Turnaround

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by :	Date Time:	Received By:
1 [signature]	022916 3:03	2 J. Coyle (FedEx) 15:03 2-29-16	3		4
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3-2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA31789 CLIENT: FCT PROJECT: 16 0140

DATE/TIME RECEIVED: 2-29-16 15:03 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER (DELIVERY) OTHER:

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.2
- [ ] OBSERVED TEMPS: 3.0
- [ ] CORRECTED TEMPS: 3.2 (USED FOR LIMS)

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

TEST STRIP LOT#s pH 0-3 204413A pH 10-12 219813A OTHER (specify) _____

SUMMARY OF COMMENTS: (8081) on 280 w/ AuBBA3

TECHNICIAN SIGNATURE/DATE JC 2-29-16 REVIEWER SIGNATURE/DATE

NF 11/15 receipt confirmation 111015.xls

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www.accutest.com

Accutest JOB # FA31789 PAGE 1 OF 2

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: GEOLOGICAL RESOURCES, INC
Address: 3502 HAYES ROAD
City: MONROE State: NC Zip: 28110
Project Contact: Corey Buchanan E-mail: cnb@geologicalr
Phone#: 704-845-4010
Sampler(s) Name(s) (Printed): COREY N. Buchanan

Project Information

Project Name: KINGSWAY #3
Street: 1010 SOUTH NEW HOPE ROAD
City: GASTONIA State: NC
Project #: 3995
Fax #: FACILITY ID # 158006
Client Purchase Order #: 1857

Analytical Information

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

Accutest Sample #	Field ID / Point of Collection		Collection Date	Time	Sampled By	Matrix	Total # of Bottles	Container Information: OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MeOH	GRO	8260	VPH									Lab Use Only
1	SP-1 (0-200)	Hot	7/29/16	1124	CNB	SO	3									2	X											
2	UST-1-1 (11')	Hot		1429																								
3	UST-1-2 (11')			1436																								
4	UST-2-1 (11')	Hot		1441																								
5	UST-2-2 (11')			1443																								
6	~~UST~~ DI-1/2 (3')			1453																								
7	PP-1 (2')			1501																								
8	SW-N (8')			1511					1				2			3		X	X									
9	SW-E (7')			1516																								
10	SW-S (8')			1520																								
11	SW-W (7')			1523																								
12	BASE-1 (13')			1526																								

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

ACCUTEST 2828-C QUEEN C CLT. NC 28203

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1 Corey N. Buchanan	7/29/16 1840	2 FEDEX 808754297158	3 FX		4 7/30/16 9:30
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3.2

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

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www.accutest.com

Accutest JOB # FA31799 PAGE 2 OF 2

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: GEOLOGICAL RESOURCES, INC
Address: 3502 HAYES ROAD
City: MONROE State: NC Zip: 28110
Project Contact: Corey Buchanan E-mail: cnb@geo.
Phone#: 704-845-4010
Sampler(s) Name(s) (Printed): Corey Buchanan

Project Information

Project Name: KINGSWAY #3
Street: 1010 SOUTH NEW HOPE ROAD
City: GASTONIA State: NC
Project #: 3995
Fax #: FACILITY ID #15806
Client Purchase Order #: 1857

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Date (Collection)	Time (Collection)	Sampled By (Collection)	Matrix (Collection)	Total # of Bottles (Container Information)	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	GRO	8260	VPH										Matrix Codes / LAB USE ONLY
	TEMP BLANK	7/29/16	—	CNB	WQ	1		1																				

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

ACCUTEST 2828-C QUEEN C CLT NC 28205

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by :	Date Time:	Received By:
1 Corey Buchanan	7/29/16 1140	2 FEDEX 8875297158	3 FX		4 3/1/16 9:30
Relinquished by:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
5		6	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3-2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA31799 CLIENT: GRI PROJECT: 3995

DATE/TIME RECEIVED: 3/1/16 9:30 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: [FEDEX] UPS ACCUTEST COURIER DELIVERY OTHER:

AIRBILL NUMBERS: 8087 5429 7158

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.2
- [ ] OBSERVED TEMPS: 3.0
- [ ] CORRECTED TEMPS: 3.2 (USED FOR LIMS)

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#
  {APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM 5-GRAM

NUMBER OF 5035 FIELD KITS ? 12

NUMBER OF LAB FILTERED METALS ?

TEST STRIP LOT#s pH 0-3 204413A pH 10-12 219813A OTHER (specify)

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE 3/1/16 REVIEWER SIGNATURE/DATE 3/1/16

NF 11/15 receipt confirmation 111015.xls

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

e-Hardcopy 2.0
Automated Report

Technical Report for

ECT

Orlando Rec Center; 649 Bentley St, Orlando, FL

160140.0001

SGS Accutest Job Number: FA32649

Sampling Date: 03/28/16

Report to:

ECT

jpeters@ectinc.com

ATTN: Jeff Peters

Total number of pages in report: **12**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001)
DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177),
AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

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Section 4: Misc. Forms **10**
4.1: Chain of Custody 11

Sample Summary

ECT

Job No: FA32649

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160140.0001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA32649-1	03/28/16	08:35	RB	03/28/16	AQ	Ground Water	MW-11
FA32649-2	03/28/16	09:32	RB	03/28/16	AQ	Ground Water	MW-10R

Summary of Hits

Job Number: FA32649
Account: ECT
Project: Orlando Rec Center; 649 Bentley St, Orlando, FL
Collected: 03/28/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA32649-1	**MW-11**					
Dieldrin [a]		4.5	0.40	0.067	ug/l	SW846 8081B
Total Organic Carbon		0.50 I	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA32649-2	**MW-10R**					
Dieldrin [a]		2.2	0.38	0.065	ug/l	SW846 8081B
Total Organic Carbon		1.4	1.0	0.23	mg/l	SM5310 B-11/SW9060A

(a) All hits confirmed by dual column analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA32649-1	**Date Sampled:**	03/28/16
Matrix:	AQ - Ground Water	**Date Received:**	03/28/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT376801.D	10	04/04/16	NG	04/01/16	OP59936	GTT1771
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	4.5	0.40	0.067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		42-127%
2051-24-3	Decachlorobiphenyl	113%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA32649-1	**Date Sampled:**	03/28/16
Matrix:	AQ - Ground Water	**Date Received:**	03/28/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	0.50 I	1.0	0.23	mg/l	1	03/30/16 23:30	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA32649-2	**Date Sampled:**	03/28/16
Matrix:	AQ - Ground Water	**Date Received:**	03/28/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT376804.D	10	04/04/16	NG	04/01/16	OP59936	GTT1771
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	2.2	0.38	0.065	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		42-127%
2051-24-3	Decachlorobiphenyl	122%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA32649-2	**Date Sampled:**	03/28/16
Matrix:	AQ - Ground Water	**Date Received:**	03/28/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	1.4	1.0	0.23	mg/l	1	03/30/16 23:47	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

FA32649

Accutest JOB # PAGE_____OF_____

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: ECT, Inc.
Address: 3660 Maguire Blvd
City: Orlando State: FL Zip: 32803
Project Contact: Jim Orioles E-mail: jorioles@ectinc.com
Phone#: 407-903-0005
Sampler(s) Name(s) (Printed)

Project Information

Project Name: Orlando Rec Center
Street: 649 Bentley St
City: Orlando State: FL
Project #: 14410.0001
Fax #
Client Purchase Order #

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Collection DATE	Collection TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	8081 Pesticides	TOC
1	MW-11	3/28	0835	RB	GW	4		2	2							2	2
2	MW-10R	3/28	0932	RB	GW	4		2	2							2	2

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

ECT Rate

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	03281610:16	2 ASE 3/28/16 10:16	3		4
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 1.8

4.1 4

FA32649: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA32649 CLIENT: ECT INC. PROJECT: ORLANDO REC. CENTER

DATE/TIME RECEIVED: 03/28/16 10:16 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER DELIVERY OTHER:

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TEMPERATURE INFORMATION

- [ ] IR THERM ID #1 CORR. FACTOR +0.2
- [ ] OBSERVED TEMPS: 2.0
- [ ] CORRECTED TEMPS: 1.8 (USED FOR LIMS)

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM 5-GRAM

NUMBER OF 5035 FIELD KITS ?

NUMBER OF LAB FILTERED METALS ?

TEST STRIP LOT#s pH 0-3 204413A pH 10-12 219813A OTHER (specify)

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE 3/28/16 REVIEWER SIGNATURE/DATE 03/28/16

NF 11/15 receipt confirmation 111015.xls

4.1

4

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

ECT-Orlando
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec. Center
Date Sampled: Mar 28, 2016
Mar 30, 2016; Invoice: 294140

Report Summary

Date Received: Mar 28, 2016

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
294140GW1	MW-11	SM9215 B	TRB	Main Lab	Ground Water
294140GW2	MW-10R	SM9215 B	TRB	Main Lab	Ground Water

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

Jefferson S. Flowers, Ph.D.
President/Technical Director

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

ECT-Orlando
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec. Center
Date Sampled: Mar 28, 2016
Mar 30, 2016; Invoice: 294140

Analysis Report

Lab #: 294140GW1 **Sampled:** 03/28/16 08:35 AM **Desc:** MW-11

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	530	cfu/ml	1.00	1.00	1.00	10307688	SM9215 B		03/28/16

Lab #: 294140GW2 **Sampled:** 03/28/16 09:32 AM **Desc:** MW-10R

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	930	cfu/ml	1.00	1.00	1.00	10307688	SM9215 B		03/28/16

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

ECT-Orlando
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec. Center
Date Sampled: Mar 28, 2016
Mar 30, 2016; Invoice: 294140

Quality Report

Quality Control Batch: 10307688 **Analyst:** TRB

Blank	**Result**	**Units**
HPC_2day@35	1.00U	cfu/ml

FLOWERS CHEMICAL LABORATORIES INC.
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812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

ECT-Orlando
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec. Center
Date Sampled: Mar 28, 2016
Mar 30, 2016; Invoice: 294140

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a as received basis.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

160140-0001

Check Box That Applies To Your Location

- [x] **Flowers Chemical Laboratories, Inc.**
  481 Newburyport Ave.
  Altamonte Springs, FL 32701
  Bus: 407-339-5984
  Fax: 407-260-6110
- [ ] **Flowers Chemical Labs-South**
  West Park Industrial Plaza
  571 N.W. Mercantile Pl., Ste. 111
  Port St. Lucie, FL 34986
  Bus: 772-343-8006
  Fax: 772-343-8089
- [ ] **Flowers Chemical Labs-North**
  812 S.W. Harvey Greene Dr.
  Madison, FL 32340
  Bus: 850-973-6878
  Fax: 850-973-6878
- [ ] **Flowers Chemical Labs-Keys**
  3980 Overseas Highway, Ste. 103
  Marathon, FL 33050
  Bus: 305-743-8598
  Fax: 305-743-8598

FLOWERS CHEMICAL LABORATORIES INCORPORATED

DOWNLOAD REPORTS, INVOICES AND CHAINS OF CUSTODY www.flowerslabs.com

Client: ECT-Orlando
Address: 3660 Maguire Blvd, Orlando, FL 32803
Phone: 407-903-8005
Sampled By (PRINT): Ryan Burns 3/28/16
Sampler Signature: [signature]
Date Sampled: 3/28/16

Project Name: Orlando Rec Center
Client Contact: Jim Oriolos
FCL Project Manager: Jane Flowers
Requested Due Date / 10 Day Standard OR MM DD YY
P.O. #
FAX
E-MAIL
Rush Charges May Apply
Pick-Up Fee $
Vehicle Surcharge $
Sampling Fee $

GW - ground water DW - drinking water WW - wastewater
SW - surface water SO - soil/solid SL - sludge HW - waste

ITEM NO.	SAMPLE ID	DATE	TIME	MATRIX	(LAB USE ONLY) LAB NO.	PRESERVATIVES: NONE	H_2SO_4	HNO_3	HCl	$Na_2S_2O_3$	ANALYSES REQUEST: HPC 2016	COMMENTS	Total # Containers
1	MW-11	3/28/16	0835	GW		X					X	2.1°C	1
2	MW-10R	3/28/16	0932	GW		X					X		1
3													
4													
5													
6													
7													
8													
9													
10													

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
[signature]	3/28/16	1306							[signature]	3/28/16	1306

FINANCE CHARGES APPLIED TO PAST DUE INVOICES

- **WHITE** - Lab Copy - To Be Scanned
- **YELLOW** - Client Copy

Rev 04-08

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e-Hardcopy 2.0
Automated Report

Technical Report for

ECT

Orlando Rec Center; 649 Bentley St, Orlando, FL

160140-0001

SGS Accutest Job Number: FA33017

Sampling Date: 04/11/16

Report to:

ECT

jpeters@ectinc.com

ATTN: Jeff Peters

Total number of pages in report: 12

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001)
DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177),
AK, AR, GA, KY, MA, NV, OK, UT, WA

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4.1: Chain of Custody 11

Sample Summary

ECT

Job No: FA33017

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160140-0001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA33017-1	04/11/16	10:59	ELKB	04/11/16	AQ	Ground Water	MW-10R
FA33017-2	04/11/16	10:10	ELKB	04/11/16	AQ	Ground Water	MW-11

Summary of Hits

Job Number: FA33017
Account: ECT
Project: Orlando Rec Center; 649 Bentley St, Orlando, FL
Collected: 04/11/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA33017-1	**MW-10R**					
Dieldrin [a]		0.24	0.038	0.0065	ug/l	SW846 8081B
Total Organic Carbon		2.4	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA33017-2	**MW-11**					
Dieldrin [a]		3.2	0.15	0.026	ug/l	SW846 8081B
Total Organic Carbon		0.90 I	1.0	0.23	mg/l	SM5310 B-11/SW9060A

(a) All hits confirmed by dual column analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA33017-1	**Date Sampled:**	04/11/16
Matrix:	AQ - Ground Water	**Date Received:**	04/11/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT376981.D	1	04/15/16	NG	04/14/16	OP60078	GTT1780
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.24	0.038	0.0065	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	52%		42-127%
2051-24-3	Decachlorobiphenyl	54%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA33017-1	**Date Sampled:**	04/11/16
Matrix:	AQ - Ground Water	**Date Received:**	04/11/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	2.4	1.0	0.23	mg/l	1	04/13/16 03:43	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA33017-2	**Date Sampled:**	04/11/16
Matrix:	AQ - Ground Water	**Date Received:**	04/11/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT376990.D	4	04/15/16	NG	04/14/16	OP60078	GTT1780
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	3.2	0.15	0.026	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		42-127%
2051-24-3	Decachlorobiphenyl	81%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA33017-2	**Date Sampled:**	04/11/16
Matrix:	AQ - Ground Water	**Date Received:**	04/11/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	0.90 I	1.0	0.23	mg/l	1	04/13/16 04:05	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

Accutest Laboratories Southeast
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA33017 PAGE____OF____

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: ECT
Address: 3660 Maguire Blvd
City: Orlando State: FL Zip: 34789
Project Contact: Jim Oriolles E-mail: oriolles@etinc.com
Phone#: 407-903-0005
Sampler(s) Name(s) (Printed): Elizabeth Lamug

Project Information

Project Name: Orlando Rec Center
Street: 645 Bentley Street
City: Orlando State: FL
Project #: 164140-0001
Fax #:
Client Purchase Order #:

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Accutest Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	8081 Dieldrin	TOC	LAB USE ONLY
1	MW-10R	4/11	1059	EL/KB	GW	4		2	2							2	2	
2	MW-11	4/11	1010	EL/KB	GW	4		2	2							2	2	

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [X] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by :	Date Time:	Received By:
1	4/11/16 11:32	2 11:32 04/11/16	3		4
Relinquished by:	**Date Time:**	**Received By:**	**Relinquished by:**	**Date Time:**	**Received By:**
5		6	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3-8

4.1
4

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA33017 CLIENT: ECT PROJECT: ORLANDO RBC CENTER

DATE/TIME RECEIVED: 4-11-16 11:32 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER (DELIVERY) OTHER:

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.2
- [ ] OBSERVED TEMPS: 3.0
- [ ] CORRECTED TEMPS: 3.2 (USED FOR LIMS)

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM 5-GRAM

NUMBER OF 5035 FIELD KITS ?

NUMBER OF LAB FILTERED METALS ?

TEST STRIP LOT#s pH 0-3 230315 pH 10-12 219813A OTHER (specify)

SUMMARY OF COMMENTS: (8081) on 280 w/ Ambers

TECHNICIAN SIGNATURE/DATE 4-11-16 REVIEWER SIGNATURE/DATE 4/11/16

NF 11/15 RECEIPTLOG040416.xls

4.1

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FA33017: Chain of Custody

Page 2 of 2

SGS ACCUTEST FA33017

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Apr 11, 2016
Apr 14, 2016; Invoice: 295423

Report Summary

Date Received: Apr 11, 2016

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
295423GW1	MW-10R	SM9215 B	TRB	Main Lab	Ground Water
295423GW2	MW-11	SM9215 B	TRB	Main Lab	Ground Water

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

Jefferson S. Flowers, Ph.D.
President/Technical Director

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Apr 11, 2016
Apr 14, 2016; Invoice: 295423

Analysis Report

Lab #: 295423GW1 **Sampled:** 04/11/16 10:10 AM **Desc:** MW-10R

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	30600	cfu/ml	1.00	1.00	1.00	10309044	SM9215 B		04/11/16

Lab #: 295423GW2 **Sampled:** 04/11/16 10:10 AM **Desc:** MW-11

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	1700	cfu/ml	1.00	1.00	1.00	10309044	SM9215 B		04/11/16

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Apr 11, 2016
Apr 14, 2016; Invoice: 295423

Quality Report

Quality Control Batch: 10309044	**Analyst:** TRB	
Blank	**Result**	**Units**
HPC_2day@35	1.00U	cfu/ml

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Apr 11, 2016
Apr 14, 2016; Invoice: 295423

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Check Box That Applies To Your Location

☐ **Flowers Chemical Laboratories, Inc.**
481 Newburyport Ave.
Altamonte Springs, FL 32701
Bus: 407-339-5984
Fax: 407-260-6110

☐ **Flowers Chemical Labs-South**
West Park Industrial Plaza
571 N.W. Mercantile Pl., Ste. 111
Port St. Lucie, FL 34986
Bus: 772-343-8006
Fax: 772-343-8089

☐ **Flowers Chemical Labs-North**
812 S.W. Harvey Greene Dr.
Madison, FL 32340
Bus: 850-973-3878
Fax: 850-973-6878

☐ **Flowers Chemical Labs-Keys**
3980 Overseas Highway, Ste. 103
Marathon, FL 33050
Bus: 305-743-8598
Fax: 305-743-8598

FLOWERS CHEMICAL LABORATORIES INCORPORATED

DOWNLOAD REPORTS, INVOICES AND CHAINS OF CUSTODY www.flowerslabs.com

Client	Environmental Consulting & Technology, Inc.	Project Name: Orlando Downtown Rec Center	P.O. #
Address	3660 Maguire Boulevard, Suite 107	Client Contact: Jim Orioles	FAX
	Orlando, Florida 32803	FCL Project Manager	E-MAIL: jorioles@ectinc.com
Phone	(407) 903-0005	Requested Due Date 10 Day Standard OR	Rush Charges May Apply
Sampled By (PRINT): Elizabeth Lamug		Pick-Up Fee $ / Vehicle Surcharge $	Sampling Fee $
Sampler Signature: E Lamug	Date Sampled: 4/11/16		

GW - ground water DW - drinking water WW - wastewater
SW - surface water S - soil/solid SL - sludge HW - waste

ITEM NO	SAMPLE ID	DATE	TIME	MATRIX	(LAB USE ONLY) LAB NO.	PRESERVATIVES: NONE	H_2SO_4	HNO_3	HCl	$Na_2S_2O_3$	ANALYSES REQUEST: HPC - EPA 9215B	COMMENTS: 3.1°C	Total # Containers
1	MW-10R	4/11/16	1010	GW		X					X		1
2	MW-11	4/11/16	1010	GW		X					X		1
3													
4													
5													
6													
7													
8													
9													
10													

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
										4/11/16	12:00

FINANCE CHARGES APPLIED TO PAST DUE INVOICES

• **WHITE** - Lab Copy - To Be Scanned • **YELLOW** - Client Copy

Rev 04-08

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

e-Hardcopy 2.0
Automated Report

Technical Report for

ECT

Orlando Rec Center; 649 Bentley St, Orlando, FL

160140.0001

SGS Accutest Job Number: FA33400

Sampling Date: 04/25/16

Report to:

ECT

jpeters@ectinc.com

ATTN: Jeff Peters

Total number of pages in report: **12**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001)
DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177),
AK, AR, GA, KY, MA, NV, OK, UT, WA

This report shall not be reproduced, except in its entirety, without the written approval of SGS Accutest.
Test results relate only to samples analyzed.

SGS Accutest is the sole authority for authorizing edits or modifications to this document.
Unauthorized modification of this report is strictly prohibited.

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3.2: FA33400-2: MW-11-042516 8
Section 4: Misc. Forms **10**
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Sample Summary

ECT

Job No: FA33400

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160140.0001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA33400-1	04/25/16	13:24	KBEL	04/26/16	AQ	Ground Water	MW-10R-042516
FA33400-2	04/25/16	12:32	KBEL	04/26/16	AQ	Ground Water	MW-11-042516

Summary of Hits

Job Number: FA33400
Account: ECT
Project: Orlando Rec Center; 649 Bentley St, Orlando, FL
Collected: 04/25/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA33400-1	**MW-10R-042516**					
Dieldrin		0.35	0.042	0.0070	ug/l	SW846 8081B
Total Organic Carbon		2.4	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA33400-2	**MW-11-042516**					
Dieldrin [a]		3.1	0.21	0.035	ug/l	SW846 8081B
Total Organic Carbon		1.6	1.0	0.23	mg/l	SM5310 B-11/SW9060A

(a) All hits confirmed by dual column analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-10R-042516		
Lab Sample ID:	FA33400-1	**Date Sampled:**	04/25/16
Matrix:	AQ - Ground Water	**Date Received:**	04/26/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TT377124.D	1	04/27/16	NG	04/27/16	OP60226	GTT1784
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.35	0.042	0.0070	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		42-127%
2051-24-3	Decachlorobiphenyl	101%		27-127%

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10R-042516		
Lab Sample ID:	FA33400-1	**Date Sampled:**	04/25/16
Matrix:	AQ - Ground Water	**Date Received:**	04/26/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	2.4	1.0	0.23	mg/l	1	05/03/16 04:29	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-11-042516		
Lab Sample ID:	FA33400-2	**Date Sampled:**	04/25/16
Matrix:	AQ - Ground Water	**Date Received:**	04/26/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT377149.D	5	04/29/16	NG	04/27/16	OP60226	GTT1785
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	3.1	0.21	0.035	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		42-127%
2051-24-3	Decachlorobiphenyl	104%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11-042516		
Lab Sample ID:	FA33400-2	**Date Sampled:**	04/25/16
Matrix:	AQ - Ground Water	**Date Received:**	04/26/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	1.6	1.0	0.23	mg/l	1	05/03/16 04:50	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast

ACCUTEST LABORATORIES

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA33400 PAGE_____OF_____

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: FCT, Inc.
Address: 3660 Maguire Blvd
City: Orlando State: FL Zip: 32803
Project Contact: Jim Oriolks E-mail: joriolks@fctinc.com
Phone#: 407-903-0005
Sampler(s) Name(s) (Printed): Elizabeth Lanning / Katie Ballew

Project Information

Project Name: Orlando Bus Center
Street: 649 Bentley Street
City: Orlando State: FL
Project #: 160140-0001
Fax #:
Client Purchase Order #:

Analytical Information

Accutest Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	Pesticides/Dieldrin	TOC									LAB USE ONLY
1	MW-10R-042516	4/25	1224	KB	GW	~~2~~4		2	2							2	2									
2	MW-11-042516	4/25	1232	KB	GW	~~2~~4		2	2							2	2									

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by :	Date Time:	Received By:
1	4/25 2:07	14:07 04/25/16	3		4
Relinquished by:	**Date Time:**	**Received By:**	**Relinquished by:**	**Date Time:**	**Received By:**
5		6	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3-2

4.1
4

FA33400: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA33400 CLIENT: ECT PROJECT: Orlando Rec Center

DATE/TIME RECEIVED: 4/25/16 1407 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER DELIVERY OTHER:

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.2
- [ ] OBSERVED TEMPS: 3.0
- [ ] CORRECTED TEMPS: 3.2 (USED FOR LIMS)

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

TEST STRIP LOT#s pH 0-3 230315 pH 10-12 219813A OTHER (specify) _____

SUMMARY OF COMMENTS: - (8081) in 250 mL ambers

TECHNICIAN SIGNATURE/DATE 4/26/16 REVIEWER SIGNATURE/DATE JC 4-26-16

NF 11/15 RECEIPTLOG040416.xls

4.1

4

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Apr 25, 2016
Apr 28, 2016; Invoice: 296809

Report Summary

Date Received: Apr 25, 2016

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
296809GW1	MW-10R	SM9215 B	CLL	Main Lab	Ground Water
296809GW2	MW-11	SM9215 B	CLL	Main Lab	Ground Water

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

Jefferson S. Flowers, Ph.D.
President/Technical Director

FLOWERS CHEMICAL LABORATORIES INC.
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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Apr 25, 2016
Apr 28, 2016; Invoice: 296809

Analysis Report

Lab #: 296809GW1 **Sampled:** 04/25/16 01:24 PM **Desc:** MW-10R

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	1880	cfu/ml	1.00	1.00	1.00	10310183	SM9215 B		04/25/16

Lab #: 296809GW2 **Sampled:** 04/25/16 12:32 PM **Desc:** MW-11

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	210	cfu/ml	1.00	1.00	1.00	10310183	SM9215 B		04/25/16

FLOWERS CHEMICAL LABORATORIES INC.

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Apr 25, 2016
Apr 28, 2016; Invoice: 296809

Quality Report

Quality Control Batch: 10310183	**Analyst:** CLL	
Blank	**Result**	**Units**
HPC_2day@35	1.00U	cfu/ml

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Apr 25, 2016
Apr 28, 2016; Invoice: 296809

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Check Box That Applies To Your Location

☒ **Flowers Chemical Laboratories, Inc.**
481 Newburyport Ave.
Altamonte Springs, FL 32701
Bus: 407-339-5984
Fax: 407-260-6110

☐ **Flowers Chemical Labs-South**
West Park Industrial Plaza
571 N.W. Mercantile Pl., Ste. 111
Port St. Lucie, FL 34986
Bus: 772-343-8006
Fax: 772-343-8089

☐ **Flowers Chemical Labs-North**
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Fax: 850-973-6878

☐ **Flowers Chemical Labs-Keys**
3980 Overseas Highway, Ste. 103
Marathon, FL 33050
Bus: 305-743-8598
Fax: 305-743-8598

FLOWERS CHEMICAL LABORATORIES INCORPORATED

DOWNLOAD REPORTS, INVOICES AND CHAINS OF CUSTODY www.flowerslabs.com

Client	Environmental Consulting & Technology, Inc.	Project Name: Orlando Downtown Rec Center	P.O. #
Address	3660 Maguire Boulevard, Suite 107	Client Contact: Jim Orioles	FAX
	Orlando, Florida 32803	FCL Project Manager	E-MAIL: jorioles@ectinc.com
Phone	(407) 903-0005	~~Requested Due Date~~ 10 Day Standard OR	Rush Charges May Apply
Sampled By (PRINT):	Katie Ballew / Elizabeth Lamus	Pick-Up Fee $ / Vehicle Surcharge $	Sampling Fee $
Sampler Signature	(E Lamus)	Date Sampled: 4/25/15	

GW - ground water DW - drinking water WW - wastewater
SW - surface water S - soil/solid SL - sludge HW - waste

ITEM NO.	SAMPLE ID	DATE	TIME	MATRIX	(LAB USE ONLY) LAB NO.	NONE	H_2SO_4	HNO_3	HCl	$Na_2S_2O_3$			HPC - EPA 9215B								COMMENTS	Total # Containers
1	MW-10R	4/25/16	1124	GW		X							X									
2	MW-11	4/25/16	1232	GW		X							X									
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

PRESERVATIVES: NONE, H_2SO_4, HNO_3, HCl, $Na_2S_2O_3$
ANALYSES REQUEST: HPC - EPA 9215B
COMMENTS: 3.3°C

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
										4/25/16	1428

FINANCE CHARGES APPLIED TO PAST DUE INVOICES

• **WHITE** - Lab Copy - To Be Scanned • **YELLOW** - Client Copy

Rev 04-08

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e-Hardcopy 2.0
Automated Report

Technical Report for

ECT

Orlando Rec Center; 649 Bentley St, Orlando, FL

160140

SGS Accutest Job Number: FA33777

Sampling Date: 05/09/16

Report to:

ECT
3660 Maguire Blvd Suite 107
Orlando, FL 32803
jpeters@ectinc.com; jorioles@ectinc.com

ATTN: Jeff Peters

Total number of pages in report: **12**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

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Unauthorized modification of this report is strictly prohibited.

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SGS Accutest

Sample Summary

ECT

Job No: FA33777

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160140

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA33777-1	05/09/16	10:48	RBKBI	05/09/16	AQ	Ground Water	MW-10R
FA33777-2	05/09/16	10:01	RBKBI	05/09/16	AQ	Ground Water	MW-11

Summary of Hits

Job Number: FA33777
Account: ECT
Project: Orlando Rec Center; 649 Bentley St, Orlando, FL
Collected: 05/09/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA33777-1	**MW-10R**					
Dieldrin [a]		0.25	0.042	0.0070	ug/l	SW846 8081B
Total Organic Carbon		1.6	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA33777-2	**MW-11**					
Dieldrin [a]		3.7	0.42	0.070	ug/l	SW846 8081B
Total Organic Carbon		0.87 I	1.0	0.23	mg/l	SM5310 B-11/SW9060A

(a) All hits confirmed by dual column analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA33777-1	**Date Sampled:**	05/09/16
Matrix:	AQ - Ground Water	**Date Received:**	05/09/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT377354.D	1	05/11/16	NG	05/11/16	OP60408	GTT1792
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.25	0.042	0.0070	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	119%		42-127%
2051-24-3	Decachlorobiphenyl	81%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA33777-1	**Date Sampled:**	05/09/16
Matrix:	AQ - Ground Water	**Date Received:**	05/09/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	1.6	1.0	0.23	mg/l	1	05/11/16 00:11	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA33777-2	**Date Sampled:**	05/09/16
Matrix:	AQ - Ground Water	**Date Received:**	05/09/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT377369.D	10	05/12/16	NG	05/11/16	OP60408	GTT1793
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	3.7	0.42	0.070	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		42-127%
2051-24-3	Decachlorobiphenyl	91%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA33777-2	**Date Sampled:**	05/09/16
Matrix:	AQ - Ground Water	**Date Received:**	05/09/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	0.87 I	1.0	0.23	mg/l	1	05/11/16 00:28	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA33777 PAGE_____OF_____

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: ECT
Address: 3660 Maguire Blvd
City: Orlando State: FL Zip: 32803
Project Contact: Jim Oriolos E-mail: Joriolos@actinc.com
Phone#: 407-903-0005
Sampler(s) Name(s) (Printed): K. Bellew / E. Lamug

Project Information

Project Name: Orlando Downtown Rec Center
Street: 649 Bentley St.
City: Orlando State: FL
Project #:
Fax #:
Client Purchase Order #:

Analytical Information

Dieldrin (8081B) | TCL 90LOA

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Accutest Sample #	Field ID / Point of Collection	Collection DATE	Collection TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH-ZnAc	DI WATER	MEOH	Dieldrin (8081B)	TCL 90LOA	LAB USE ONLY
1	MW-10R	5/9	1048	KB	GW	4		2	2							X	X	
2	MW-11	5/9	1001	KB	GW	4		2	2							X	X	

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by :	Date Time:	Received By:
1		2 5/9/16 1:14	3		4
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3.0

4.1
4

FA33777: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA 33777 CLIENT: ECT PROJECT: ORLANDO DOWN TOWN

DATE/TIME RECEIVED: 5-9-16 11:44 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER (DELIVERY) OTHER:

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR 0.0
- [ ] OBSERVED TEMPS: 3.0
- [ ] CORRECTED TEMPS: 3.0 (USED FOR LIMS)

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

TEST STRIP LOT#s pH 0-3 230315 pH 10-12 219813A OTHER (specify) _____

SUMMARY OF COMMENTS: (8081) ON 250ml AMBERS

TECHNICIAN SIGNATURE/DATE JC 5-9-16 REVIEWER SIGNATURE/DATE _____

NF 11/15 RECEIPTLOG040416.xls

4.1

4

FA33777: Chain of Custody

Page 2 of 2

SGS ACCUTEST FA33777

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: May 9, 2016
May 13, 2016; Invoice: 297994

Report Summary

Date Received: May 9, 2016 FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
297994GW1	MW-10R	HPC	TRB	Main Lab	Ground Water
297994GW2	MW-11	HPC	TRB	Main Lab	Ground Water

Certificate of Results
Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

Jefferson S. Flowers, Ph.D.
President/Technical Director

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: May 9, 2016
May 13, 2016; Invoice: 297994

Analysis Report

Lab #: 297994GW1 **Sampled:** 05/09/16 10:48 AM **Desc:** MW-10R

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	3030	cfu/ml	1.00	1.00	1.00	10311434	HPC		05/09/16

Lab #: 297994GW2 **Sampled:** 05/09/16 10:01 AM **Desc:** MW-11

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	2440	cfu/ml	1.00	1.00	1.00	10311434	HPC		05/09/16

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: May 9, 2016
May 13, 2016; Invoice: 297994

Quality Report

Quality Control Batch: 10311434 **Analyst:** TRB

Blank	**Result**	**Units**
HPC_2day@35	1.00U	cfu/ml

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3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: May 9, 2016
May 13, 2016; Invoice: 297994

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on an average of dilutions of 2 or 3 plates.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

e-Hardcopy 2.0
Automated Report

Technical Report for

ECT

Orlando Rec Center; 649 Bentley St, Orlando, FL

160140

SGS Accutest Job Number: FA34206

Sampling Date: 05/24/16

Report to:

ECT
3660 Maguire Blvd Suite 107
Orlando, FL 32803
jpeters@ectinc.com; jorioles@ectinc.com

ATTN: Jeff Peters

Total number of pages in report: 12

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

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4.1: Chain of Custody 11

SGS Accutest

Sample Summary

ECT

Job No: FA34206

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160140

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA34206-1	05/24/16	10:43	RBKB	05/24/16	AQ	Ground Water	MW-11
FA34206-2	05/24/16	11:24	RBKB	05/24/16	AQ	Ground Water	MW-10R

Summary of Hits

Job Number: FA34206
Account: ECT
Project: Orlando Rec Center; 649 Bentley St, Orlando, FL
Collected: 05/24/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA34206-1	**MW-11**					
Dieldrin [a]		5.1	0.38	0.065	ug/l	SW846 8081B
Total Organic Carbon		0.74 I	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA34206-2	**MW-10R**					
Dieldrin [a]		0.19	0.038	0.0065	ug/l	SW846 8081B
Total Organic Carbon		1.6	1.0	0.23	mg/l	SM5310 B-11/SW9060A

(a) All hits confirmed by dual column analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA34206-1	**Date Sampled:**	05/24/16
Matrix:	AQ - Ground Water	**Date Received:**	05/24/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT377603.D	10	05/31/16	NG	05/26/16	OP60605	GTT1803
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	5.1	0.38	0.065	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		42-127%
2051-24-3	Decachlorobiphenyl	86%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA34206-1	**Date Sampled:**	05/24/16
Matrix:	AQ - Ground Water	**Date Received:**	05/24/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	0.74 I	1.0	0.23	mg/l	1	05/25/16 21:12	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA34206-2	**Date Sampled:**	05/24/16
Matrix:	AQ - Ground Water	**Date Received:**	05/24/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK76668.D	1	05/27/16	NG	05/26/16	OP60605	GKK2481
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.19	0.038	0.0065	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		42-127%
2051-24-3	Decachlorobiphenyl	81%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA34206-2	**Date Sampled:**	05/24/16
Matrix:	AQ - Ground Water	**Date Received:**	05/24/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	1.6	1.0	0.23	mg/l	1	05/25/16 21:30	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

FA34206

Accutest JOB # PAGE_____OF____

Accutest Quote # SKIFF#

Client / Reporting Information

Company Name: ECT
Address: 3660 Maguire Blvd
City: Orlando State: FL Zip: 32803
Project Contact: Jeff Peters E-mail: jpeters@ectinc.com
Phone: 407-903-0005
Sampler(s) Name(s) (Printed): Ryan Burns / Katie Ballew

Project Information

Project Name: Rec Center
Street
City State
Project #
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

Accutest Sample #	Field ID / Point of Collection	Collection DATE	Collection TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	Dieldrin (EPA 608(B))	TOC (EPA 9060A)	~~TPHC (EPA 8015B)~~ TB									LAB USE ONLY
1	MW-11	5/24	10:43	RB/KB	GW	4		X	X							X	X	X									
2	MW-10R	5/24	11:24	RB/KB	GW	4		X	X							X	X	X									

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- ☐ 10 Days Standard
- ☐ 7 Day RUSH _____
- ☐ 5 Day RUSH _____
- ☐ 3 Day EMERGENCY _____
- ☐ 2 Day EMERGENCY _____
- ☐ 1 Day EMERGENCY _____
- ☐ OTHER _____

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by :	Date Time:	Received By:
1	5/24 12:11	2 1217 5/24/16	3		4
Relinquished by:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
5		6	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3.6

4.1

4

FA34206: Chain of Custody
Page 1 of 2

[illegible]

DATE/TIME RECEIVED: 5/25/16 1227 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER DELIVERY OTHER: _____

AIRBILL NUMBERS: _____

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.0
- [ ] OBSERVED TEMPS: 3.6
- [ ] CORRECTED TEMPS: 3.6 (USED FOR LIMS)

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

TEST STRIP LOT#s pH 0-3 230315 pH 10-12 219813A OTHER (specify) _____

SUMMARY OF COMMENTS: 8081 received in (2) 250ml ambers.

TECHNICIAN SIGNATURE/DATE [signature] 5/25/16 REVIEWER SIGNATURE/DATE [signature] 5/25/16

NF 11/15 RECEIPTLOG040416.xls

4.1

4

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Rec Cntr
Date Sampled: May 24, 2016
May 26, 2016; Invoice: 299450

Report Summary

Date Received: May 24, 2016

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
299450GW1	MW-11	SM9215 B	TRB	Main Lab	Ground Water
299450GW2	MW-10R	SM9215 B	TRB	Main Lab	Ground Water

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

NELAP ACCREDITED TNI LABORATORY

Jefferson S. Flowers, Ph.D.
President/Technical Director

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Rec Cntr
Date Sampled: May 24, 2016
May 26, 2016; Invoice: 299450

Analysis Report

Lab #: 299450GW1 **Sampled:** 05/24/16 10:43 AM **Desc:** MW-11

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	334	cfu/ml	1.00	1.00	1.00	10312547	SM9215 B		05/24/16

Lab #: 299450GW2 **Sampled:** 05/24/16 11:24 AM **Desc:** MW-10R

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	168	cfu/ml	1.00	1.00	1.00	10312547	SM9215 B		05/24/16

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Rec Cntr
Date Sampled: May 24, 2016
May 26, 2016; Invoice: 299450

Quality Report

Quality Control Batch: 10312547 **Analyst:** TRB

Blank	**Result**	**Units**
HPC_2day@35	1.00U	cfu/ml

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Rec Cntr
Date Sampled: May 24, 2016
May 26, 2016; Invoice: 299450

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Check Box That Applies To Your Location

- [x] **Flowers Chemical Laboratories, Inc.**
481 Newburyport Ave.
Altamonte Springs, FL 32701
Bus: 407-339-5984
Fax: 407-260-6110

- [ ] **Flowers Chemical Labs-South**
West Park Industrial Plaza
571 N.W. Mercantile Pl., Ste. 111
Port St. Lucie, FL 34986
Bus: 772-343-8006
Fax: 772-343-8089

- [ ] **Flowers Chemical Labs-North**
812 S.W. Harvey Greene Dr.
Madison, FL 32340
Bus: 850-973-6878
Fax: 850-973-6878

- [ ] **Flowers Chemical Labs-Keys**
3980 Overseas Highway, Ste. 103
Marathon, FL 33050
Bus: 305-743-8598
Fax: 305-743-8598

FLOWERS CHEMICAL LABORATORIES INCORPORATED

DOWNLOAD REPORTS, INVOICES AND CHAINS OF CUSTODY www.flowerslabs.com

Client: ECT Inc.	Project Name: Rec Center	P.O. #
Address: 3660 Maguire Blvd	Client Contact: Jeff Peters	FAX
	FCL Project Manager	E-MAIL: jpeters@ectinc.com
Phone: 407-903-0005	Requested Due Date: 10 Day Standard OR MM DD YY	Rush Charges May Apply
Sampled By (PRINT): Ryan Burns	Pick-Up Fee $ / Vehicle Surcharge $	Sampling Fee $
Sampler Signature: [signature]	Date Sampled: 05/24/16	

GW - ground water DW - drinking water WW - wastewater
SW - surface water SO - soil/solid SL - sludge HW - waste

ITEM NO.	SAMPLE ID	DATE	TIME	MATRIX	(LAB USE ONLY) LAB NO.	NONE	H_2SO_4	HNO_3	HCl	$Na_2S_2O_3$		ANALYSES REQUEST: HPC (EPA 9215B)								COMMENTS	Total # Containers
1	MW-11	05/24/16	~~11:24~~ 10:43	GW		X						X									1
2	MW-10R	↓	11:24	↓		X						X									1
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
[signature]	05/24/16								[signature]	5/24/16	12:38

FINANCE CHARGES APPLIED TO PAST DUE INVOICES

• **WHITE** - Lab Copy - To Be Scanned • **YELLOW** - Client Copy

Rev 04-08

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e-Hardcopy 2.0
Automated Report

Technical Report for

ECT

Orlando Rec Center; 649 Bentley St, Orlando, FL

160140

SGS Accutest Job Number: FA34468

Sampling Date: 06/03/16

Report to:

ECT
3660 Maguire Blvd Suite 107
Orlando, FL 32803
jpeters@ectinc.com; jorioles@ectinc.com

ATTN: Jeff Peters

Total number of pages in report: **12**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

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4.1: Chain of Custody 11

SGS Accutest

Sample Summary

ECT

Job No: FA34468

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160140

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA34468-1	06/03/16	10:25	RB	06/03/16	AQ	Ground Water	MW 11
FA34468-2	06/03/16	11:09	RB	06/03/16	AQ	Ground Water	MW 10R

Summary of Hits

Job Number: FA34468
Account: ECT
Project: Orlando Rec Center; 649 Bentley St, Orlando, FL
Collected: 06/03/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA34468-1	**MW 11**					
Dieldrin [a]		5.8	0.42	0.070	ug/l	SW846 8081B
Total Organic Carbon		4.6	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA34468-2	**MW 10R**					
Dieldrin [a]		0.29	0.083	0.014	ug/l	SW846 8081B
Total Organic Carbon		1.9	1.0	0.23	mg/l	SM5310 B-11/SW9060A

(a) All hits confirmed by dual column analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW 11		
Lab Sample ID:	FA34468-1	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/03/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT377680.D	10	06/10/16	NG	06/09/16	OP60741	GTT1808
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	5.8	0.42	0.070	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		42-127%
2051-24-3	Decachlorobiphenyl	106%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW 11		
Lab Sample ID:	FA34468-1	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/03/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	4.6	1.0	0.23	mg/l	1	06/06/16 22:39	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW 10R		
Lab Sample ID:	FA34468-2	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/03/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT377683.D	1	06/10/16	NG	06/09/16	OP60741	GTT1808
Run #2							

	Initial Volume	Final Volume
Run #1	120 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.29	0.083	0.014	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		42-127%
2051-24-3	Decachlorobiphenyl	93%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW 10R		
Lab Sample ID:	FA34468-2	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/03/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	1.9	1.0	0.23	mg/l	1	06/06/16 22:54	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast

Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA34468 PAGE_____OF_____

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: ECT
Address: 3660 Maguire Blvd ste 107
City: Orlando State: FL Zip: 32803
Project Contact: Jeff Peters E-mail: jpeters@ectinc.com
Phone#: 407-903-0005
Sampler(s) Name(s) (Printed): Ryan Burns

Project Information

Project Name: Downtown Rec Center
Street: 649 Bentley St
City: Orlando State: FL
Project #:
Fax #:
Client Purchase Order #:

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	HNO3	H2SO4	NaOH+ZnAc	DI Water	MeOH	Dieldrin (Epa 8081B)	TOC (EPA 9060A)	HPC (EPA 9215B)								Matrix Codes
	MW 11	6/3	10:25	RB	GW	6			X						X	X	X								①
	MW 10R	6/3	11:09	RB	GW	6			X						X	X	X								②

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- ☐ 10 Days Standard
- ☐ 7 Day RUSH
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY
- ☐ OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	6/3 11:59	2 J. Coppel (ASR) 11:59 6-3-16	3		4
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 4.5

4.1 4

FA34468: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA34468 CLIENT: ECT PROJECT: Downtown Rec Center

DATE/TIME RECEIVED: 6/3/16 1159 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER DELIVERY OTHER:

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.0
- [ ] OBSERVED TEMPS: 4.5
- [ ] CORRECTED TEMPS: 4.5 (USED FOR LIMS)

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

TEST STRIP LOT#s pH 0-3 230315 pH 10-12 219813A OTHER (specify) _____

SUMMARY OF COMMENTS: 8081 received in (2) 250ml ambers

TECHNICIAN SIGNATURE/DATE 6/3/16 REVIEWER SIGNATURE/DATE 6-3-16

NF 11/15 RECEIPTLOG040416.xls

4.1

4

FA34468: Chain of Custody

Page 2 of 2

SGS ACCUTEST FA34468

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

ECT-Orlando
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Jun 3, 2016
Jun 6, 2016; Invoice: 300328

Report Summary

Date Received: Jun 3, 2016

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
300328GW1	MW-11	SM9215 B	TRB	Main Lab	Ground Water
300328GW2	MW-10R	SM9215 B	TRB	Main Lab	Ground Water

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

Jefferson S. Flowers, Ph.D.
President/Technical Director

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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ECT-Orlando
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Jun 3, 2016
Jun 6, 2016; Invoice: 300328

Analysis Report

Lab #: 300328GW1 **Sampled:** 06/03/16 10:25 AM **Desc:** MW-11

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	3350	cfu/ml	1.00	1.00	1.00	10313243	SM9215 B		06/03/16

Lab #: 300328GW2 **Sampled:** 06/03/16 11:09 AM **Desc:** MW-10R

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	480	cfu/ml	1.00	1.00	1.00	10313243	SM9215 B		06/03/16

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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ECT-Orlando
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Jun 3, 2016
Jun 6, 2016; Invoice: 300328

Quality Report

Quality Control Batch: 10313243 **Analyst:** TRB

Blank	**Result**	**Units**
HPC_2day@35	1.00U	cfu/ml

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

ECT-Orlando
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Jun 3, 2016
Jun 6, 2016; Invoice: 300328

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Check Box That Applies To Your Location

- [x] **Flowers Chemical Laboratories, Inc.**
481 Newburyport Ave.
Altamonte Springs, FL 32701
Bus: 407-339-5984
Fax: 407-260-6110

- [ ] **Flowers Chemical Labs-South**
West Park Industrial Plaza
571 N.W. Mercantile Pl., Ste. 111
Port St. Lucie, FL 34986
Bus: 772-343-8006
Fax: 772-343-8089

- [ ] **Flowers Chemical Labs-North**
812 S.W. Harvey Greene Dr.
Madison, FL 32340
Bus: 850-973-6878
Fax: 850-973-6878

- [ ] **Flowers Chemical Labs-Keys**
3980 Overseas Highway, Ste. 103
Marathon, FL 33050
Bus: 305-743-8598
Fax: 305-743-8598

FLOWERS CHEMICAL LABORATORIES INCORPORATED

DOWNLOAD REPORTS, INVOICES AND CHAINS OF CUSTODY www.flowerslabs.com

Client: ECT Inc.
Address: 3660 Maguire Blvd Ste 107, Orlando, FL 32803
Phone: 407-903-0005
Sampled By (PRINT): Ryan Burns
Sampler Signature: Ryan B
Date Sampled: 06/03/16

Project Name: Orlando Rec Center
Client Contact: Jim Ortoles
FCL Project Manager:
Requested Due Date 10 Day Standard OR MM DD YY
P.O. #:
FAX:
E-MAIL: jortoles@ectinc.com
Rush Charges May Apply
Pick-Up Fee $ Vehicle Surcharge $ Sampling Fee $

GW - ground water DW - drinking water WW - wastewater
SW - surface water SO - soil/solid SL - sludge HW - waste

ITEM NO.	SAMPLE ID	DATE	TIME	MATRIX	(LAB USE ONLY) LAB NO.	NONE	H_2SO_4	HNO_3	HCl	$Na_2S_2O_3$	ANALYSES REQUEST: HCl TM TRSE	COMMENTS: 3.7	Total # Containers
1	MW-11	060316	11:25	GW		X					X		1
2	MW-10R	060316	11:09	GW		X					X		1
3													
4													
5													
6													
7													
8													
9													
10													

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
										6/3/16	1709

FINANCE CHARGES APPLIED TO PAST DUE INVOICES

- **WHITE** - Lab Copy - To Be Scanned
- **YELLOW** - Client Copy

Rev 04-08

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

e-Hardcopy 2.0
Automated Report

Technical Report for

ECT

Orlando Rec Center; 649 Bentley St, Orlando, FL

160140

SGS Accutest Job Number: FA34901

Sampling Date: 06/21/16

Report to:

ECT

jpeters@ectinc.com

ATTN: Jeff Peters

Total number of pages in report: **14**

Norm Farmer
Technical Director

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

This report shall not be reproduced, except in its entirety, without the written approval of SGS Accutest.

Test results relate only to samples analyzed.

SGS Accutest is the sole authority for authorizing edits or modifications to this document.
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SGS Accutest LabLink@170854 12:40 06-Sep-2016

Sample Summary

ECT

Job No: FA34901

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160140

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA34901-1	06/21/16	12:30	KB	06/21/16	AQ	Ground Water	MW-1
FA34901-2	06/21/16	11:17	KB	06/21/16	AQ	Ground Water	MW-10R
FA34901-3	06/21/16	10:17	KB	06/21/16	AQ	Ground Water	MW-11

Summary of Hits

Job Number: FA34901
Account: ECT
Project: Orlando Rec Center; 649 Bentley St, Orlando, FL
Collected: 06/21/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA34901-1	**MW-1**					
Dieldrin [a]		3.2	0.43	0.073	ug/l	SW846 8081B
Total Organic Carbon		44.2	1.7	0.40	mg/l	SM5310 B-11/SW9060A
FA34901-2	**MW-10R**					
Dieldrin [a]		0.089	0.040	0.0067	ug/l	SW846 8081B
Total Organic Carbon		30.0	2.0	0.46	mg/l	SM5310 B-11/SW9060A
FA34901-3	**MW-11**					
Dieldrin [a]		4.7	0.42	0.070	ug/l	SW846 8081B
Total Organic Carbon		17.7	1.0	0.23	mg/l	SM5310 B-11/SW9060A

(a) All hits confirmed by dual column analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA34901-1	**Date Sampled:**	06/21/16
Matrix:	AQ - Ground Water	**Date Received:**	06/21/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK77171.D	10	06/28/16	NG	06/25/16	OP60903	GKK2496
Run #2							

	Initial Volume	Final Volume
Run #1	230 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	3.2	0.43	0.073	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		42-127%
2051-24-3	Decachlorobiphenyl	96%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA34901-1	**Date Sampled:**	06/21/16
Matrix:	AQ - Ground Water	**Date Received:**	06/21/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	44.2	1.7	0.40	mg/l	1.7	06/22/16 22:23	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

SGS ACCUTEST
FA34901

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA34901-2	**Date Sampled:**	06/21/16
Matrix:	AQ - Ground Water	**Date Received:**	06/21/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT377883.D	1	06/27/16	NG	06/25/16	OP60903	GTT1816
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.089	0.040	0.0067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	109%		42-127%
2051-24-3	Decachlorobiphenyl	91%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA34901-2	**Date Sampled:**	06/21/16
Matrix:	AQ - Ground Water	**Date Received:**	06/21/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	30.0	2.0	0.46	mg/l	2	06/23/16 09:56	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA34901-3	**Date Sampled:**	06/21/16
Matrix:	AQ - Ground Water	**Date Received:**	06/21/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK77172.D	10	06/28/16	NG	06/25/16	OP60903	GKK2496
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	4.7	0.42	0.070	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		42-127%
2051-24-3	Decachlorobiphenyl	103%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA34901-3	**Date Sampled:**	06/21/16
Matrix:	AQ - Ground Water	**Date Received:**	06/21/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	17.7	1.0	0.23	mg/l	1	06/22/16 23:08	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA34901 PAGE 1 OF 1

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: ECT
Address: 3660 Maguire Blvd #107
City: Orlando State: FL Zip: 32803
Project Contact: Jim Oriales E-mail: joriales@ectinc.com
Phone#: 407-903-0005
Sampler(s) Name(s) (Printed): E. Lamung / K Ballew

Project Information

Project Name: Orlando Rec Center
Street: 649 Bentley
City: Orlando State: FL
Project #
Fax #
Client Purchase Order #

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MeOH	TOC	Dieldrin								
1	MW-1	6/21	1330	KB	GW	4		X	X							X	X								
2	MW-10R	6/21	1117	KB	GW	4		X	X							X	X								
3	MW-11	6/21	1017	KB	GW	4		X	X							X	X								

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler	Date Time:	Received By:	Relinquished by :	Date Time:	Received By:
1	6/21/16 1255	2 1255 6/21/16	3		4
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3.8

4.1 4

FA34901: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA34901 CLIENT: ECT PROJECT: ORLANDO REC CENTER

DATE/TIME RECEIVED: 6-21-16 12:55 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER (DELIVERY) OTHER:

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR 0.0
- [ ] OBSERVED TEMPS: 3.2
- [ ] CORRECTED TEMPS: 3.2 (USED FOR LIMS)

SAMPLE INFORMATION

- JC [X] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

TEST STRIP LOT#s pH 0-3 230315 pH 10-12 219813A OTHER (specify) _____

SUMMARY OF COMMENTS: DIELDRIN AROCLOR 250 ml BOTTLES

TECHNICIAN SIGNATURE/DATE 6-21-16 REVIEWER SIGNATURE/DATE 6/21/16

NF 11/15 RECEIPTLOG040416.xls

4.1

4

FA34901: Chain of Custody

Page 2 of 2

SGS ACCUTEST FA34901

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Jun 21, 2016
Jun 23, 2016; Invoice: 301867

Report Summary

Date Received: Jun 21, 2016

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
301867GW1	MW-10R	SM9215 B	TRB	Main Lab	Ground Water
301867GW2	MW-11	SM9215 B	TRB	Main Lab	Ground Water
301867GW3	MW-1	SM9215 B	TRB	Main Lab	Ground Water

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

Jefferson S. Flowers, Ph.D.
President/Technical Director

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Jun 21, 2016
Jun 23, 2016; Invoice: 301867

Analysis Report

Lab #: 301867GW1 **Sampled:** 06/21/16 11:17 AM **Desc:** MW-10R

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	230	cfu/ml	1.00	1.00	1.00	10314757	SM9215 B		06/21/16

Lab #: 301867GW2 **Sampled:** 06/21/16 10:17 AM **Desc:** MW-11

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	2090	cfu/ml	1.00	1.00	1.00	10314757	SM9215 B		06/21/16

Lab #: 301867GW3 **Sampled:** 06/21/16 12:30 PM **Desc:** MW-1

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	1980	cfu/ml	1.00	1.00	1.00	10314757	SM9215 B		06/21/16

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Jun 21, 2016
Jun 23, 2016; Invoice: 301867

Quality Report

Quality Control Batch: 10314757 **Analyst:** TRB

Blank	**Result**	**Units**
HPC_2day@35	1.00U	cfu/ml

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Jun 21, 2016
Jun 23, 2016; Invoice: 301867

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Check Box That Applies To Your Location

- [x] **Flowers Chemical Laboratories, Inc.**
  481 Newburyport Ave.
  Altamonte Springs, FL 32701
  Bus: 407-339-5984
  Fax: 407-260-6110

- [ ] **Flowers Chemical Labs-South**
  West Park Industrial Plaza
  571 N.W. Mercantile Pl., Ste. 111
  Port St. Lucie, FL 34986
  Bus: 772-343-8006
  Fax: 772-343-8089

- [ ] **Flowers Chemical Labs-North**
  812 S.W. Harvey Greene Dr.
  Madison, FL 32340
  Bus: 850-973-6878
  Fax: 850-973-6878

- [ ] **Flowers Chemical Labs-Keys**
  3980 Overseas Highway, Ste. 103
  Marathon, FL 33050
  Bus: 305-743-8598
  Fax: 305-743-8598

FLOWERS CHEMICAL LABORATORIES INCORPORATED

DOWNLOAD REPORTS, INVOICES AND CHAINS OF CUSTODY www.flowerslabs.com

Client: Environmental Consulting + Technology, Inc.
Address: 3660 Maguire Blvd., Ste 107, Orlando, FL 32803
Phone: (407) 903-0005
Sampled By (PRINT): Katie Gallew / Elizabeth Lamug
Sampler Signature:
Date Sampled: 6/21/16

Project Name: Orlando Downtown Rec Center
Client Contact: Jim Orioles
FCL Project Manager:
Requested Due Date 10 Day Standard OR MM DD YY
Pick-Up Fee $ Vehicle Surcharge $ Sampling Fee $

P.O. #
FAX
E-MAIL: jdrioles@ectinc.com
Rush Charges May Apply

GW - ground water DW - drinking water WW - wastewater
SW - surface water SO - soil/solid SL - sludge HW - waste

ITEM NO.	SAMPLE ID	DATE	TIME	MATRIX	(LAB USE ONLY) LAB NO.	NONE	H_2SO_4	HNO_3	HCl	$Na_2S_2O_3$	HRL-EPA 9215B	COMMENTS	Total # Containers
1	MW-10R	6/21/16	1117	GW		X					X	2.1°C	1
2	MW-11	6/21/16	1017	GW		X					X		1
3	MW-1	6/21/16	1230	GW		X					X		1
4													
5													
6													
7													
8													
9													
10													

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
										6/21/16	1322

FINANCE CHARGES APPLIED TO PAST DUE INVOICES

- **WHITE** - Lab Copy - To Be Scanned
- **YELLOW** - Client Copy

Rev 04-08

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

e-Hardcopy 2.0
Automated Report

Technical Report for

ECT

Orlando Rec Center; 649 Bentley St, Orlando, FL

160173

SGS Accutest Job Number: FA35828

Sampling Date: 08/02/16

Report to:

ECT
3660 Maguire Blvd Suite 107
Orlando, FL 32803
jpeters@ectinc.com; jorioles@ectinc.com

ATTN: Jeff Peters

Total number of pages in report: **14**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

This report shall not be reproduced, except in its entirety, without the written approval of SGS Accutest.

Test results relate only to samples analyzed.

SGS Accutest is the sole authority for authorizing edits or modifications to this document.
Unauthorized modification of this report is strictly prohibited.

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SGS Accutest

Sample Summary

ECT

Job No: FA35828

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160173

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA35828-1	08/02/16	10:05	EL	08/02/16	AQ	Ground Water	MW-11
FA35828-2	08/02/16	11:07	EL	08/02/16	AQ	Ground Water	MW-10R
FA35828-3	08/02/16	12:24	EL	08/02/16	AQ	Ground Water	MW-1

2

Summary of Hits

Job Number: FA35828
Account: ECT
Project: Orlando Rec Center; 649 Bentley St, Orlando, FL
Collected: 08/02/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA35828-1	**MW-11**					
Dieldrin [a]		5.0	0.42	0.070	ug/l	SW846 8081B
Total Organic Carbon		0.79 I	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA35828-2	**MW-10R**					
Dieldrin [a]		0.063	0.038	0.0065	ug/l	SW846 8081B
Total Organic Carbon		4.2	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA35828-3	**MW-1**					
Dieldrin [a]		0.35	0.040	0.0067	ug/l	SW846 8081B
Total Organic Carbon		1280	50	12	mg/l	SM5310 B-11/SW9060A

(a) All hits confirmed by dual column analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA35828-1	**Date Sampled:**	08/02/16
Matrix:	AQ - Ground Water	**Date Received:**	08/02/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT378479.D	10	08/04/16	NG	08/03/16	OP61314	GTT1833
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	5.0	0.42	0.070	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		42-127%
2051-24-3	Decachlorobiphenyl	83%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA35828-1	**Date Sampled:**	08/02/16
Matrix:	AQ - Ground Water	**Date Received:**	08/02/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	0.79 I	1.0	0.23	mg/l	1	08/04/16 14:42	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA35828-2	**Date Sampled:**	08/02/16
Matrix:	AQ - Ground Water	**Date Received:**	08/02/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT378438.D	1	08/03/16	NG	08/03/16	OP61314	GTT1832
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.063	0.038	0.0065	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	112%		42-127%
2051-24-3	Decachlorobiphenyl	71%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA35828-2	**Date Sampled:**	08/02/16
Matrix:	AQ - Ground Water	**Date Received:**	08/02/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	4.2	1.0	0.23	mg/l	1	08/04/16 15:40	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA35828-3	**Date Sampled:**	08/02/16
Matrix:	AQ - Ground Water	**Date Received:**	08/02/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT378439.D	1	08/03/16	NG	08/03/16	OP61314	GTT1832
Run #2 [b]	TT378480.D	1	08/04/16	NG	08/03/16	OP61314	GTT1833

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2	250 ml	5.0 ml

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.35	0.040	0.0067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	62%	53%	42-127%
2051-24-3	Decachlorobiphenyl	21% [c]	22%	27-127%

(a) All hits confirmed by dual column analysis.
(b) Confirmation run for surrogate recoveries.
(c) Outside control limits due to matrix interference. Confirmed by reanalysis. Insufficient sample for re-extraction.

U = Not detected MDL = Method Detection Limit I = Result > = MDL but < PQL J = Estimated value
PQL = Practical Quantitation Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA35828-3	**Date Sampled:**	08/02/16
Matrix:	AQ - Ground Water	**Date Received:**	08/02/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	1280	50	12	mg/l	50	08/10/16 12:40	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast

ACCUTEST LABORATORIES

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA35828 PAGE_____OF_____

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: ECT, Inc
Address: 3660 Maguire Blvd
City: Orlando State: FL Zip: 32803
Project Contact: Jim Oriales E-mail: joriales@ectinc.com
Phone#: (407) 903-0005
Sampler(s) Name(s) (Printed): Elizabeth Lanung

Project Information

Project Name: Orlando Rec Center
Street: 649 Bentley St.
City: Orlando State: FL
Project #: 160473
Fax #:
Client Purchase Order #:

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Accutest Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH/ZnAc	DI WATER	MeOH	Dieldrin	TOC
1	MW-11	8/2	1005	EL	GW	2		X	X							X	X
2	MW-10R	8/2	1107	EL	GW	2		X	X							X	X
3	MW-1	8/2	1004	EL	GW	2		X	X							X	X

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [X] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by :	Date Time:	Received By:
1 Elizabeth Lanung	8/2/16 2:30	2 [illegible] (ALSE) 8-2-16 14:30	3		4
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3.7

4.1
4

FA35828: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA35828 CLIENT: ECT PROJECT: Orlando Rec Center

DATE/TIME RECEIVED: 8/2/16 1430 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER (DELIVERY) OTHER:

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.0
- [ ] OBSERVED TEMPS: 3.7
- [ ] CORRECTED TEMPS: 3.7 (USED FOR LIMS)

SAMPLE INFORMATION

- [x] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

(APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

TEST STRIP LOT#s pH 0-3 230315 pH 10-12 219813A OTHER (specify) _____

SUMMARY OF COMMENTS: Received (1) vial for TOC. (1) 250ml amber for Dieldrin.

TECHNICIAN SIGNATURE/DATE 8/2/16 REVIEWER SIGNATURE/DATE 8.2.16

NF 11/15 RECEIPTLOG040416.xls

4.1

4

FA35828: Chain of Custody

Page 2 of 2

SGS ACCUTEST FA35828

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Aug 2, 2016
Aug 4, 2016; Invoice: 305825

Report Summary

Date Received: Aug 2, 2016

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
305825GW1	MW-10R	SM9215 B	TRB	Main Lab	Ground Water
305825GW2	MW-11	SM9215 B	TRB	Main Lab	Ground Water
305825GW3	MW-1	SM9215 B	TRB	Main Lab	Ground Water

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

Jefferson S. Flowers, Ph.D.
President/Technical Director

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Aug 2, 2016
Aug 4, 2016; Invoice: 305825

Analysis Report

Lab #: 305825GW1 **Sampled:** 08/02/16 11:07 AM **Desc:** MW-10R

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	2090	cfu/ml	1.00	1.00	1.00	10317970	SM9215 B		08/02/16

Lab #: 305825GW2 **Sampled:** 08/02/16 10:05 AM **Desc:** MW-11

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	171	cfu/ml	1.00	1.00	1.00	10317970	SM9215 B		08/02/16

Lab #: 305825GW3 **Sampled:** 08/02/16 12:24 PM **Desc:** MW-1

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	2000 O	cfu/ml	1.00	1.00	1.00	10317970	SM9215 B		08/02/16

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Aug 2, 2016
Aug 4, 2016; Invoice: 305825

Quality Report

Quality Control Batch: 10317970	**Analyst:** TRB	
Blank	**Result**	**Units**
HPC_2day@35	1.00U	cfu/ml

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Aug 2, 2016
Aug 4, 2016; Invoice: 305825

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis.
Duplicate 1.0 and 0.1mL plates were prepared. "O", means "over" 2000 cfu/1mL, could not be counted.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Check Box That Applies To Your Location

☒ **Flowers Chemical Laboratories, Inc.**
481 Newburyport Ave.
Altamonte Springs, FL 32701
Bus: 407-339-5984
Fax: 407-260-6110

☐ **Flowers Chemical Labs-South**
West Park Industrial Plaza
571 N.W. Mercantile Pl., Ste. 111
Port St. Lucie, FL 34986
Bus: 772-343-8006
Fax: 772-343-8089

☐ **Flowers Chemical Labs-North**
812 S.W. Harvey Greene Dr.
Madison, FL 32340
Bus: 850-973-6878
Fax: 850-973-6878

☐ **Flowers Chemical Labs-Keys**
3980 Overseas Highway, Ste. 103
Marathon, FL 33050
Bus: 305-743-8598
Fax: 305-743-8598

FLOWERS CHEMICAL LABORATORIES INCORPORATED

DOWNLOAD REPORTS, INVOICES AND CHAINS OF CUSTODY www.flowerslabs.com

Client: Environmental Consulting + Tech - Orl	Project Name: Orlando Rec Center	P.O. #
Address: 3660 Maguire Boulevard, Suite 107, Orlando, Florida 32803	Client Contact: Jim Orioles	FAX
	FCL Project Manager	E-MAIL: jorioles@ectinc.com
Phone: (407) 903-0005	Requested Due Date 10 Day Standard OR MM DD YY	Rush Charges May Apply
Sampled By (PRINT): Elizabeth Lamug	Pick-Up Fee $ / Vehicle Surcharge $	Sampling Fee $
Sampler Signature / Date Sampled: 8/2/16		

GW - ground water DW - drinking water WW - wastewater
SW - surface water SO - soil/solid SL - sludge HW - waste

ITEM NO.	SAMPLE ID	DATE	TIME	MATRIX	(LAB USE ONLY) LAB NO.	NONE	H_2SO_4	HNO_3	HCl	$Na_2S_2O_3$		ANALYSES REQUEST: HPC								COMMENTS: 3.0°C	Total # Containers
1	MW-10R	8/2/16	1107	GW		X						X									1
2	MW-11	8/2/16	1005	GW		X						X									1
3	MW-1	8/2/16	1224	GW		X						X									1
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
E Lamug	8/2/16	2:00									
										8/2/16	1304

FINANCE CHARGES APPLIED TO PAST DUE INVOICES

• **WHITE** - Lab Copy - To Be Scanned • **YELLOW** - Client Copy

Rev 04-08

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

e-Hardcopy 2.0
Automated Report

Technical Report for

ECT

Orlando Rec Center; 649 Bentley St, Orlando, FL

160140

SGS Accutest Job Number: FA36020

Sampling Date: 08/09/16

Report to:

ECT
3660 Maguire Blvd Suite 107
Orlando, FL 32803
jpeters@ectinc.com; jorioles@ectinc.com

ATTN: Jeff Peters

Total number of pages in report: **14**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

This report shall not be reproduced, except in its entirety, without the written approval of SGS Accutest.
Test results relate only to samples analyzed.

SGS Accutest is the sole authority for authorizing edits or modifications to this document.
Unauthorized modification of this report is strictly prohibited.

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SGS Accutest

Sample Summary

ECT

Job No: FA36020

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160140

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA36020-1	08/09/16	13:56	BC	08/11/16	AQ	Ground Water	MW-10R
FA36020-2	08/09/16	14:53	BC	08/11/16	AQ	Ground Water	MW-11
FA36020-3	08/09/16	15:58	BC	08/11/16	AQ	Ground Water	MW-1

Summary of Hits

Job Number: FA36020
Account: ECT
Project: Orlando Rec Center; 649 Bentley St, Orlando, FL
Collected: 08/09/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA36020-1	**MW-10R**					
Dieldrin [a]		0.066	0.043	0.0073	ug/l	SW846 8081B
Total Organic Carbon		4.3	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA36020-2	**MW-11**					
Dieldrin [a]		5.2	0.43	0.073	ug/l	SW846 8081B
Total Organic Carbon		1.1	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA36020-3	**MW-1**					
Dieldrin [a]		0.45	0.045	0.0076	ug/l	SW846 8081B
Total Organic Carbon		173	6.0	1.4	mg/l	SM5310 B-11/SW9060A

(a) All hits confirmed by dual column analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA36020-1	**Date Sampled:**	08/09/16
Matrix:	AQ - Ground Water	**Date Received:**	08/11/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK78060.D	1	08/18/16	NG	08/16/16	OP61501	GKK2521
Run #2							

	Initial Volume	Final Volume
Run #1	230 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.066	0.043	0.0073	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		42-127%
2051-24-3	Decachlorobiphenyl	92%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA36020-1	**Date Sampled:**	08/09/16
Matrix:	AQ - Ground Water	**Date Received:**	08/11/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	4.3	1.0	0.23	mg/l	1	08/11/16 13:35	VK	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA36020-2	**Date Sampled:**	08/09/16
Matrix:	AQ - Ground Water	**Date Received:**	08/11/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK78061.D	10	08/18/16	NG	08/16/16	OP61501	GKK2521
Run #2							

	Initial Volume	Final Volume
Run #1	230 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	5.2	0.43	0.073	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	109%		42-127%
2051-24-3	Decachlorobiphenyl	112%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA36020-2	**Date Sampled:**	08/09/16
Matrix:	AQ - Ground Water	**Date Received:**	08/11/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	1.1	1.0	0.23	mg/l	1	08/11/16 14:20	VK	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA36020-3	**Date Sampled:**	08/09/16
Matrix:	AQ - Ground Water	**Date Received:**	08/11/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK78064.D	1	08/18/16	NG	08/16/16	OP61501	GKK2521
Run #2							

	Initial Volume	Final Volume
Run #1	220 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.45	0.045	0.0076	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		42-127%
2051-24-3	Decachlorobiphenyl	74%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA36020-3	**Date Sampled:**	08/09/16
Matrix:	AQ - Ground Water	**Date Received:**	08/11/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	173	6.0	1.4	mg/l	1	08/11/16 14:55	VK	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast

ACCUTEST LABORATORIES

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA36020 PAGE_____ OF_____

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: ECT
Address: 3660 Maguire Blvd. Ste 107
City: Orlando State: FL Zip: 32803
Project Contact: Jane Oriolet E-mail:
Phone#: 407-903-0005
Sampler(s) Name(s) (Printed): Brad Carrick

Project Information

Project Name: Orl. Downtown Rec. Ctr.
Street: 645 Beardly St.
City: Orlando State: FL
Project #:
Fax #:
Client Purchase Order #:

Analytical Information

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

Accutest Sample #	Field ID / Point of Collection	Collection DATE	Collection TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MeOH	Dieldrin (EPA 8081B)	TOC (EPA 9060A)	LAB USE ONLY
1	MW-10K	8/9/16	1356	BC	GW	5			X							X	X	
2	MW-11	8/9/16	1453	"	"	5			X							X	X	
3	MW-1	8/9/16	1559	"	"	5			X							X	X	

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- ☐ 10 Days Standard
- ☐ 7 Day RUSH
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY
- ☐ OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

08:00

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1 [signature]	9Aug 1700	2 [signature] ASE 8/10/16 11:30	3 [signature] ASE 8/10/16 1500		4 J. Coppe (ALPA) 8-11-16
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 3-2

4.1

4

FA36020: Chain of Custody

Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA36020 CLIENT: ECT PROJECT: ORLANDO DOWNTOWN

DATE/TIME RECEIVED: 8-11-16 08:00 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS (ACCUTEST COURIER) DELIVERY OTHER:

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.4
- [ ] OBSERVED TEMPS: 3.6
- [ ] CORRECTED TEMPS: 3.2 (USED FOR LIMS)

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#
  {APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM 5-GRAM

NUMBER OF 5035 FIELD KITS ?

NUMBER OF LAB FILTERED METALS ?

TEST STRIP LOT#s pH 0-3 230315 pH 10-12 219813A OTHER (specify)

SUMMARY OF COMMENTS: (8081) ON 250 ml AMBERS

TECHNICIAN SIGNATURE/DATE JC 8-11-16 REVIEWER SIGNATURE/DATE 8/11/16

NF 11/15 RECEIPTLOG040416.xls

4.1

4

FA36020: Chain of Custody

Page 2 of 2

SGS ACCUTEST FA36020

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Aug 9, 2016
Aug 11, 2016; Invoice: 306595

Report Summary

Date Received: Aug 9, 2016

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
306595GW1	MW-10R	SM9215 B	TRB	Main Lab	Ground Water
306595GW2	MW-11	SM9215 B	TRB	Main Lab	Ground Water
306595GW3	MW-1	SM9215 B	TRB	Main Lab	Ground Water

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

Jefferson S. Flowers, Ph.D.
President/Technical Director

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Aug 9, 2016
Aug 11, 2016; Invoice: 306595

Analysis Report

Lab #: 306595GW1 **Sampled:** 08/09/16 01:56 PM **Desc:** MW-10R

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	53900	cfu/ml	1.00	1.00	1.00	10318504	SM9215 B		08/09/16

Lab #: 306595GW2 **Sampled:** 08/09/16 02:53 PM **Desc:** MW-11

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	6630	cfu/ml	1.00	1.00	1.00	10318504	SM9215 B		08/09/16

Lab #: 306595GW3 **Sampled:** 08/09/16 03:58 PM **Desc:** MW-1

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	33500	cfu/ml	1.00	1.00	1.00	10318504	SM9215 B		08/09/16

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Aug 9, 2016
Aug 11, 2016; Invoice: 306595

Quality Report

Quality Control Batch: 10318504 **Analyst:** TRB

Blank	**Result**	**Units**
HPC_2day@35	1.00U	cfu/ml

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Aug 9, 2016
Aug 11, 2016; Invoice: 306595

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

☐ Flowers Chemical Laboratories, Inc.
481 Newburyport Ave.
Altamonte Springs, FL 32701
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Fax: 407-260-6110

☐ Flowers Chemical Labs-South
West Park Industrial Plaza
571 N.W. Mercantile Pl., Ste. 111
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812 S.W. Harvey Greene Dr.
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Fax: 850-973-6878

☐ Flowers Chemical Labs-Keys
3980 Overseas Highway, Ste. 103
Marathon, FL 33050
Bus: 305-743-8598
Fax: 305-743-8598

FLOWERS CHEMICAL LABORATORIES INCORPORATED

DOWNLOAD REPORTS, INVOICES AND CHAINS OF CUSTODY www.flowerslabs.com

Client	Environmental Consulting & Technology, Inc.	Project Name	Orlando Downtown Rec Center
P.O. #			
Address	3660 Maguire Boulevard, Suite 107	Client Contact	Jim Orioles
FAX			
	Orlando, Florida 32803	FCL Project Manager	
E-MAIL	jorioles@ectinc.com		
Phone	(407) 903-0005	Requested Due Date 10 Day Standard OR	Rush Charges May Apply
Sampled By (PRINT)	B. Carrick	Pick-Up Fee $	Vehicle Surcharge $
Sampling Fee $			
Sampler Signature	[signature]	Date Sampled	9 Aug 16

GW - ground water DW - drinking water WW - wastewater
SW - surface water S - soil/solid SL - sludge HW - waste

ITEM NO	SAMPLE ID	DATE	TIME	MATRIX	(LAB USE ONLY) LAB NO.	NONE	H_2SO_4	HNO_3	HCl	$Na_2S_2O_3$			HPC - EPA 9215B								COMMENTS	Total # Containers
1	MW-10R	9Aug16	1356	GW		X							X									
2	MW-11		1453	GW		X							X									
3	MW-1		1558	GW		X							X									
4																						
5																						
6																						
7																						
8																						
9																						
10																						

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
[signature]	9Aug16	1645	[signature]	8/9/16	4:50	[signature]	8/9/16				

FINANCE CHARGES APPLIED TO PAST DUE INVOICES

• WHITE - Lab Copy - To Be Scanned • YELLOW - Client Copy

Rev 04 08

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e-Hardcopy 2.0
Automated Report

Technical Report for

ECT

Orlando Rec Center; 649 Bentley St, Orlando, FL

160140

SGS Accutest Job Number: FA36194

Sampling Date: 08/16/16

Report to:

ECT
3660 Maguire Blvd Suite 107
Orlando, FL 32803
jpeters@ectinc.com; jorioles@ectinc.com

ATTN: Jeff Peters

Total number of pages in report: **14**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

SGS Accutest is the sole authority for authorizing edits or modifications to this document.
Unauthorized modification of this report is strictly prohibited.

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SGS Accutest

Sample Summary

ECT

Job No: FA36194

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160140

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA36194-1	08/16/16	12:20	BC	08/18/16	AQ	Ground Water	MW-1
FA36194-2	08/16/16	10:17	BC	08/18/16	AQ	Ground Water	MW-10R
FA36194-3	08/16/16	11:03	BC	08/18/16	AQ	Ground Water	MW-11

Summary of Hits

Job Number: FA36194
Account: ECT
Project: Orlando Rec Center; 649 Bentley St, Orlando, FL
Collected: 08/16/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA36194-1	**MW-1**					
Total Organic Carbon [a]		14.7	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA36194-2	**MW-10R**					
Dieldrin [b]		0.054	0.042	0.0070	ug/l	SW846 8081B
Total Organic Carbon		14.1	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA36194-3	**MW-11**					
Dieldrin [b]		4.6	0.40	0.067	ug/l	SW846 8081B
Total Organic Carbon		0.68 I	1.0	0.23	mg/l	SM5310 B-11/SW9060A

(a) Sample was not preserved to a pH < 2.
(b) All hits confirmed by dual column analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA36194-1	**Date Sampled:**	08/16/16
Matrix:	AQ - Ground Water	**Date Received:**	08/18/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK78107.D	1	08/22/16	NG	08/19/16	OP61556	GKK2522
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.0067 U	0.040	0.0067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		42-127%
2051-24-3	Decachlorobiphenyl	64%		27-127%

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA36194-1	**Date Sampled:**	08/16/16
Matrix:	AQ - Ground Water	**Date Received:**	08/18/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon [a]	14.7	1.0	0.23	mg/l	1	08/22/16 21:10	FN	SM5310 B-11/SW9060A

(a) Sample was not preserved to a pH < 2.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA36194-2	**Date Sampled:**	08/16/16
Matrix:	AQ - Ground Water	**Date Received:**	08/18/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK78108.D	1	08/22/16	NG	08/19/16	OP61556	GKK2522
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.054	0.042	0.0070	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%		42-127%
2051-24-3	Decachlorobiphenyl	117%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA36194-2	**Date Sampled:**	08/16/16
Matrix:	AQ - Ground Water	**Date Received:**	08/18/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	14.1	1.0	0.23	mg/l	1	08/22/16 21:29	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA36194-3	**Date Sampled:**	08/16/16
Matrix:	AQ - Ground Water	**Date Received:**	08/18/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK78115.D	10	08/22/16	NG	08/19/16	OP61556	GKK2522
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	4.6	0.40	0.067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	115%		42-127%
2051-24-3	Decachlorobiphenyl	128% [b]		27-127%

(a) All hits confirmed by dual column analysis.
(b) Outside control limits due to dilution.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA36194-3	**Date Sampled:**	08/16/16
Matrix:	AQ - Ground Water	**Date Received:**	08/18/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	0.68 I	1.0	0.23	mg/l	1	08/22/16 21:49	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA36194 PAGE_____OF_____

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: ECT
Address: 3660 Maguire Blvd
City: Orlando State: FL Zip: 32803
Project Contact: Jim Drooks E-mail: jdrooks@ectinc.com
Phone#:
Sampler(s) Name(s) (Printed): Brad Carrick

Project Information

Project Name: Orlando Air Center
Street:
City: State:
Project #:
Fax #:
Client Purchase Order #:

Analytical Information

Diesel 8015B
TOC 9060A

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Accutest Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH-ZNAC	DI WATER	MEOH	Diesel 8015B	TOC 9060A	LAB USE ONLY
1	MW-1	8/16	0920	BC	GW	4		X	X							X	X	
2	MW-10R	8/16	1017	BC	GW	4		X	X							X	X	
3	MW-11	8/16	1103	BC	GW	4		X	X							X	X	

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished By Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
	8/17/16 10:30	2 James Llorca 8-17-16 1070	3 James Llorca 8-17-16 1915		4 8/18/16
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3.0

4.1
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FA36194: Chain of Custody
Page 1 of 2

SGS ACCUTEST - ORLANDO SAMPLE RECEIPT CONFIRMATION

SGS ACCUTEST'S JOB NUMBER: FA36194 CLIENT: ECT PROJECT: Orlando Rec Center

DATE/TIME RECEIVED: 8/18/16 800 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER DELIVERY OTHER: _____

AIRBILL NUMBERS: _____

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.4
- [ ] OBSERVED TEMPS: 3.4
- [ ] CORRECTED TEMPS: 3.0 (USED FOR LIMS)

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

TEST STRIP LOT#s pH 0-3 230315 pH 10-12 219813A OTHER (specify) _____

SUMMARY OF COMMENTS: 8081 in (2) 250mL ambers.

TECHNICIAN SIGNATURE/DATE [signature] 8/18/16 REVIEWER SIGNATURE/DATE KD 8-18-16

NF 02/16 receipt confirmation 020116.xls

4.1

4

FA36194: Chain of Custody

Page 2 of 2

SGS ACCUTEST FA36194

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Aug 16, 2016
Aug 20, 2016; Invoice: 307146

Report Summary

Date Received: Aug 16, 2016

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
307146GW1	MW-10R	SM9215 B	TRB	Main Lab	Ground Water
307146GW2	MW-11	SM9215 B	TRB	Main Lab	Ground Water
307146GW3	MW-1	SM9215 B	TRB	Main Lab	Ground Water

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

Jefferson S. Flowers, Ph.D.
President/Technical Director

FLOWERS CHEMICAL LABORATORIES INC.

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Aug 16, 2016
Aug 20, 2016; Invoice: 307146

Analysis Report

Lab #: 307146GW1 **Sampled:** 08/16/16 10:17 AM **Desc:** MW-10R

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	1170	cfu/ml	1.00	1.00	1.00	10319085	SM9215 B		08/16/16

Lab #: 307146GW2 **Sampled:** 08/16/16 11:03 AM **Desc:** MW-11

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	390	cfu/ml	1.00	1.00	1.00	10319085	SM9215 B		08/16/16

Lab #: 307146GW3 **Sampled:** 08/16/16 12:20 PM **Desc:** MW-1

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	20000 Z	cfu/ml	1.00	1.00	1.00	10319085	SM9215 B		08/16/16

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Aug 16, 2016
Aug 20, 2016; Invoice: 307146

Quality Report

Quality Control Batch: 10319085 **Analyst:** TRB

Blank	**Result**	**Units**
HPC_2day@35	1.00U	cfu/ml

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Downtown Rec Center
Date Sampled: Aug 16, 2016
Aug 20, 2016; Invoice: 307146

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis. Sample MW-1 greatest dilution of 0.001mL colony forming units were too numerous to count, so "Z" flagged.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Check Box That Applies To Your Location

☐ **Flowers Chemical Laboratories, Inc.**
481 Newburyport Ave.
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Bus: 407-339-5984
Fax: 407-260-6110

☐ **Flowers Chemical Labs-South**
West Park Industrial Plaza
571 N.W. Mercantile Pl., Ste. 111
Port St. Lucie, FL 34986
Bus: 772-343-5006
Fax: 772-343-8089

☐ **Flowers Chemical Labs-North**
812 S.W. Harvey Greene Dr.
Madison, FL 32340
Bus: 850-973-6878
Fax: 850-973-6878

☐ **Flowers Chemical Labs-Keys**
3980 Overseas Highway, Ste. 103
Marathon, FL 33050
Bus: 305-743-8598
Fax: 305-743-8[illegible]08

FLOWERS CHEMICAL LABORATORIES INCORPORATED

DOWNLOAD REPORTS, INVOICES AND CHAINS OF CUSTODY www.flowerslabs.com

Client	Environmental Consulting & Technology, Inc.	Project Name	Orlando Downtown Rec Center
Address	3660 Maguire Boulevard, Suite 107	Client Contact	Jim Orioles
	Orlando, Florida 32803	FCL Project Manager	
Phone	(407) 903-0005	Requested Due Date 10 Day Standard OR	
Sampled By (PRINT):	Brad Carrick	Pick-Up Fee $	Vehicle Surcharge $
Sampler Signature		Date Sampled	16 Aug 16

P.O. #

FAX

E-MAIL jorioles@ectinc.com

Rush Charges May Apply

Sampling Fee $

GW - ground water DW - drinking water WW - wastewater
SW - surface water S - soil/solid SL - sludge HW - waste

ITEM NO	SAMPLE ID	DATE	TIME	MATRIX	(LAB USE ONLY) LAB NO.	NONE	H_2SO_4	HNO_3	HCl	$Na_2S_2O_3$		HPC - EPA 9215B								COMMENTS	Total # Containers
1	MW-10R	16 Aug 16	1017	GW		X						X									1
2	MW-11	"	1103	GW		X						X									1
3	MW-1	"	1220	GW		X						X									1
4																					
5																					
6																					
7																					
8																					
9																					
10																					

2.7 oz

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
ECT	16 Aug 16									8/16/16	1449

FINANCE CHARGES APPLIED TO PAST DUE INVOICES

• **WHITE** - Lab Copy - To Be Scanned • **YELLOW** - Client Copy

Rev 04-08

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

e-Hardcopy 2.0
Automated Report

Technical Report for

ECT

Orlando Rec Center; 649 Bentley St, Orlando, FL

160140

SGS Accutest Job Number: FA36451

Sampling Dates: 08/24/16 - 08/25/16

Report to:

ECT

jpeters@ectinc.com

ATTN: Jeff Peters

Total number of pages in report: **14**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

SGS Accutest is the sole authority for authorizing edits or modifications to this document.
Unauthorized modification of this report is strictly prohibited.

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SGS Accutest LabLink@170852 11:35 06-Sep-2016

Sample Summary

ECT

Job No: FA36451

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160140

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA36451-1	08/25/16	10:50	RB	08/26/16	AQ	Ground Water	MW-1
FA36451-2	08/25/16	09:40	RB	08/26/16	AQ	Ground Water	MW-10R
FA36451-3	08/24/16	10:47	RB	08/26/16	AQ	Ground Water	MW-11

Summary of Hits

Job Number: FA36451
Account: ECT
Project: Orlando Rec Center; 649 Bentley St, Orlando, FL
Collected: 08/24/16 thru 08/25/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA36451-1	**MW-1**					
Dieldrin [a]		0.082	0.040	0.0067	ug/l	SW846 8081B
Total Organic Carbon		13.7	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA36451-2	**MW-10R**					
Dieldrin [a]		0.054	0.040	0.0067	ug/l	SW846 8081B
Total Organic Carbon		51.2	2.3	0.53	mg/l	SM5310 B-11/SW9060A
FA36451-3	**MW-11**					
Dieldrin [a]		5.7	0.42	0.070	ug/l	SW846 8081B
Total Organic Carbon		3.2	1.0	0.23	mg/l	SM5310 B-11/SW9060A

(a) All hits confirmed by dual column analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA36451-1	**Date Sampled:**	08/25/16
Matrix:	AQ - Ground Water	**Date Received:**	08/26/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK78424.D	1	09/02/16	NG	08/30/16	OP61688	GKK2532
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.082	0.040	0.0067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	67%		42-127%
2051-24-3	Decachlorobiphenyl	44%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA36451-1	**Date Sampled:**	08/25/16
Matrix:	AQ - Ground Water	**Date Received:**	08/26/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	13.7	1.0	0.23	mg/l	1	08/30/16 11:15	VK	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA36451-2	**Date Sampled:**	08/25/16
Matrix:	AQ - Ground Water	**Date Received:**	08/26/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK78425.D	1	09/02/16	NG	08/30/16	OP61688	GKK2532
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.054	0.040	0.0067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		42-127%
2051-24-3	Decachlorobiphenyl	103%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA36451-2	**Date Sampled:**	08/25/16
Matrix:	AQ - Ground Water	**Date Received:**	08/26/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	51.2	2.3	0.53	mg/l	1	08/30/16 11:30	VK	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA36451-3	**Date Sampled:**	08/24/16
Matrix:	AQ - Ground Water	**Date Received:**	08/26/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK78421.D	10	09/02/16	NG	08/30/16	OP61688	GKK2532
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	5.7	0.42	0.070	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		42-127%
2051-24-3	Decachlorobiphenyl	95%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA36451-3	**Date Sampled:**	08/24/16
Matrix:	AQ - Ground Water	**Date Received:**	08/26/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	3.2	1.0	0.23	mg/l	1	08/30/16 11:49	VK	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast

Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA36451 PAGE 1 OF 1

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: ECT, Inc.
Address: 3160 Maguire Blvd
City: Orlando State: FL Zip: 32803
Project Contact: Jim Quiles E-mail: JQUILES@ECTINC.COM
Phone#: 407-903-0005
Sampler(s) Name(s) (Printed): Ryan Burns

Project Information

Project Name: Orlando Res Center
Street
City State
Project #
Fax #
Client Purchase Order #

Analytical Information

Accutest Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MeOH	Dieldrin	TOC
1	MW-1	8/25	1050	EC				X	X							X	X
2	MW-10R	8/25	1140	EC				X	X							X	X
3	MW-11	8/24	1047	EC				X	X							X	X

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	8/26/16 900	2 8/26/16 905	3	8/26/16 950	4 8/26/16 950
Relinquished by:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
5		6	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3.7

4.1

4

FA36451: Chain of Custody

Page 1 of 2

SGS ACCUTEST - ORLANDO SAMPLE RECEIPT CONFIRMATION

SGS ACCUTEST'S JOB NUMBER: FA36451 CLIENT: ECI PROJECT: Orlando Rec Center

DATE/TIME RECEIVED: 8/26/16 950 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER DELIVERY OTHER:

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM 5-GRAM

NUMBER OF 5035 FIELD KITS ?

NUMBER OF LAB FILTERED METALS ?

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.4
- [ ] OBSERVED TEMPS: 3.6
- [ ] CORRECTED TEMPS: 3.2 (USED FOR LIMS)

SAMPLE INFORMATION

- [x] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

TEST STRIP LOT#s pH 0-3 230315 pH 10-12 219813A OTHER (specify)

SUMMARY OF COMMENTS: Received (1) 40mL vial for Sample #2. Received (3) vials for Sample #3. Each sample has (2) 250mL ambers for Dieldrin.

TECHNICIAN SIGNATURE/DATE 8/26/16 REVIEWER SIGNATURE/DATE 8-26-16

NF 02/16

receipt confirmation 020116.xls

4.1

4

FLOWERS CHEMICAL LABORATORIES INC.

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Aug 24, 2016
Aug 26, 2016; Invoice: 307915

Report Summary

Date Received: Aug 24, 2016

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
307915GW1	MW-11	SM9215 B	TRB	Main Lab	Ground Water

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

Jefferson S. Flowers, Ph.D.
President/Technical Director

FLOWERS CHEMICAL LABORATORIES INC.
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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Aug 24, 2016
Aug 26, 2016; Invoice: 307915

Analysis Report

Lab #: 307915GW1 **Sampled:** 08/24/16 10:47 AM **Desc:** MW-11

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	4200	cfu/ml	1.00	1.00	1.00	10319646	SM9215 B		08/24/16

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Aug 24, 2016
Aug 26, 2016; Invoice: 307915

Quality Report

Quality Control Batch: 10319646	**Analyst:** TRB	
Blank	**Result**	**Units**
HPC_2day@35	1.00U	cfu/ml

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Aug 24, 2016
Aug 26, 2016; Invoice: 307915

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Check Box That Applies To Your Location

- [x] **Flowers Chemical Laboratories, Inc.**
481 Newburyport Ave.
Altamonte Springs, FL 32701
Bus: 407-339-5984
Fax: 407-260-6110

- [ ] **Flowers Chemical Labs-South**
West Park Industrial Plaza
571 N.W. Mercantile Pl., Ste. 111
Port St. Lucie, FL 34986
Bus: 772-343-8006
Fax: 772-343-8089

- [ ] **Flowers Chemical Labs-North**
812 S.W. Harvey Greene Dr.
Madison, FL 32340
Bus: 850-973-6878
Fax: 850-973-6878

- [ ] **Flowers Chemical Labs-Keys**
3980 Overseas Highway, Ste. 103
Marathon, FL 33050
Bus: 305-743-8598
Fax: 305-743-8598

FLOWERS CHEMICAL LABORATORIES INCORPORATED

DOWNLOAD REPORTS, INVOICES AND CHAINS OF CUSTODY www.flowerslabs.com

Client: Environmental Consulting + Tech.-Orl
Address: 3660 Maguire Blvd, Ste. 107, Orlando, FL 32803
Phone: 407-903-0005
Sampled By (PRINT): Ryan Burns
Sampler Signature:
Date Sampled: 8-24-16

Project Name: Orlando Rec Center
Client Contact: Jim Drioles
FCL Project Manager:
Requested Due Date 10 Day Standard OR MM DD YY
P.O. #:
FAX:
E-MAIL: jdrioles@ectinc.com
Rush Charges May Apply
Pick-Up Fee $
Vehicle Surcharge $
Sampling Fee $

GW - ground water DW - drinking water WW - wastewater
SW - surface water SO - soil/solid SL - sludge HW - waste

ITEM NO.	SAMPLE ID	DATE	TIME	MATRIX	(LAB USE ONLY) LAB NO.	PRESERVATIVES: NONE	H_2SO_4	HNO_3	HCl	$Na_2S_2O_3$	ANALYSES REQUEST: HPC	COMMENTS	Total # Containers
1	MW-11	8/24	1047	GW		X					X	1.5 oz	1
2													
3													
4													
5													
6													
7													
8													
9													
10													

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
										8/24/16	1239

FINANCE CHARGES APPLIED TO PAST DUE INVOICES

• **WHITE** - Lab Copy - To Be Scanned
• **YELLOW** - Client Copy

Rev 04-08

FLOWERS CHEMICAL LABORATORIES INC.
P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Aug 25, 2016
Aug 29, 2016; Invoice: 308060

Invoice

Description	Amount	Units	Extension
HPC	40.00	2	80.00
TOTAL			80.00

This invoice is due upon receipt.

VISA, MasterCard, and American Express cards will be accepted.

There will be a 1.5% service charge per month on all unpaid balances.

FLOWERS CHEMICAL LABORATORIES INC.

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Aug 25, 2016
Aug 29, 2016; Invoice: 308060

Report Summary

Date Received: Aug 25, 2016

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
308060GW1	MW-10R	SM9215 B	TRB	Main Lab	Ground Water
308060GW2	MW-1	SM9215 B	TRB	Main Lab	Ground Water

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

Jefferson S. Flowers, Ph.D.
President/Technical Director

FLOWERS CHEMICAL LABORATORIES INC.

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Aug 25, 2016
Aug 29, 2016; Invoice: 308060

Analysis Report

Lab #: 308060GW1 **Sampled:** 08/25/16 09:13 AM **Desc:** MW-10R

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	3480	cfu/ml	1.00	1.00	1.00	10319729	SM9215 B		08/25/16

Lab #: 308060GW2 **Sampled:** 08/25/16 10:20 AM **Desc:** MW-1

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	9000	cfu/ml	1.00	1.00	1.00	10319729	SM9215 B		08/25/16

FLOWERS CHEMICAL LABORATORIES INC.

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Aug 25, 2016
Aug 29, 2016; Invoice: 308060

Quality Report

Quality Control Batch: 10319729 **Analyst:** TRB

Blank	**Result**	**Units**
HPC_2day@35	1.00U	cfu/ml

FLOWERS CHEMICAL LABORATORIES INC.
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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: n/a
Client Project #: Orlando Rec Center
Date Sampled: Aug 25, 2016
Aug 29, 2016; Invoice: 308060

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

e-Hardcopy 2.0
Automated Report

Technical Report for

ECT

Orlando Rec Center; 649 Bentley St, Orlando, FL

160473

SGS Accutest Job Number: FA36539

Sampling Date: 08/30/16

Report to:

ECT
3660 Maguire Blvd Suite 107
Orlando, FL 32803
jpeters@ectinc.com; jorioles@ectinc.com

ATTN: Jeff Peters

Total number of pages in report: **14**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

SGS Accutest is the sole authority for authorizing edits or modifications to this document.
Unauthorized modification of this report is strictly prohibited.

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SGS Accutest

Sample Summary

ECT

Job No: FA36539

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160473

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA36539-1	08/30/16	10:44	BC	08/30/16	AQ	Ground Water	MW-11
FA36539-2	08/30/16	11:28	BC	08/30/16	AQ	Ground Water	MW-10R
FA36539-3	08/30/16	12:07	BC	08/30/16	AQ	Ground Water	MW-1

2

Summary of Hits

Job Number: FA36539
Account: ECT
Project: Orlando Rec Center; 649 Bentley St, Orlando, FL
Collected: 08/30/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA36539-1	**MW-11**					
Dieldrin [a]		5.5	0.40	0.067	ug/l	SW846 8081B
Total Organic Carbon		6.4	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA36539-2	**MW-10R**					
Dieldrin [a]		0.028 I	0.038	0.0065	ug/l	SW846 8081B
Total Organic Carbon		48.5	2.0	0.46	mg/l	SM5310 B-11/SW9060A
FA36539-3	**MW-1**					
Dieldrin [a]		0.061	0.037	0.0062	ug/l	SW846 8081B
Total Organic Carbon		11.2	1.0	0.23	mg/l	SM5310 B-11/SW9060A

(a) All hits confirmed by dual column analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA36539-1	**Date Sampled:**	08/30/16
Matrix:	AQ - Ground Water	**Date Received:**	08/30/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK78441.D	10	09/02/16	NG	09/01/16	OP61726	GKK2532
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	5.5	0.40	0.067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	134% [b]		42-127%
2051-24-3	Decachlorobiphenyl	110%		27-127%

(a) All hits confirmed by dual column analysis.
(b) Outside control limits due to dilution.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA36539-1	**Date Sampled:**	08/30/16
Matrix:	AQ - Ground Water	**Date Received:**	08/30/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	6.4	1.0	0.23	mg/l	1	09/01/16 21:30	VK	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA36539-2	**Date Sampled:**	08/30/16
Matrix:	AQ - Ground Water	**Date Received:**	08/30/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT379168.D	1	09/07/16	NG	09/01/16	OP61726	GTT1856
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.028	0.038	0.0065	ug/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		42-127%
2051-24-3	Decachlorobiphenyl	69%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA36539-2	**Date Sampled:**	08/30/16
Matrix:	AQ - Ground Water	**Date Received:**	08/30/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	48.5	2.0	0.46	mg/l	2	09/01/16 22:22	VK	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA36539-3	**Date Sampled:**	08/30/16
Matrix:	AQ - Ground Water	**Date Received:**	08/30/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK78451.D	1	09/02/16	NG	09/01/16	OP61726	GKK2532
Run #2							

	Initial Volume	Final Volume
Run #1	270 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.061	0.037	0.0062	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		42-127%
2051-24-3	Decachlorobiphenyl	53%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA36539-3	**Date Sampled:**	08/30/16
Matrix:	AQ - Ground Water	**Date Received:**	08/30/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	11.2	1.0	0.23	mg/l	1	09/01/16 22:39	VK	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA36539 PAGE_____OF_____

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: ECT
Address: 7660 Maguire Blvd
City: Orlando State: FL Zip: 32803
Project Contact: Jeff Peters E-mail: jpetersectinc.com
Phone#: 407-903-0005
Sampler(s) Name(s) (Printed): Brad Carrick

Project Information

Project Name: Orlando Rec Center
Street: Bentley St.
City: Orlando State: FL
Project #: 160473
Fax #:
Client Purchase Order #: 160473

Analytical Information: 8081 Dieldrin; TOC

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI Water	MeOH	8081 Dieldrin	TOC	Lab Use Only
1	MW-11	083016	1044	BC	GW	4		2	2							2	2	
2	MW-10R	↓	1128	↓	↓	4		2	2							2	2	
3	MW-1	↓	1207	↓	↓	4		2	2							2	2	

TURNAROUND TIME (Business Days) — Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by :	Date Time:	Received By:
1	8/30/16 1300	2	3		4
Relinquished by:	**Date Time:**	**Received By:**	**Relinquished by:**	**Date Time:**	**Received By:**
5		6	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 3.2

4.1 4

FA36539: Chain of Custody
Page 1 of 2

SGS ACCUTEST - ORLANDO SAMPLE RECEIPT CONFIRMATION

SGS ACCUTEST'S JOB NUMBER: FA 36 539 CLIENT: ECT PROJECT: 16 0473

DATE/TIME RECEIVED: 8-30-16 13:00 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER (DELIVERY) OTHER:

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.4
- [ ] OBSERVED TEMPS: 3.6
- [ ] CORRECTED TEMPS: 3.2 (USED FOR LIMS)

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM 5-GRAM

NUMBER OF 5035 FIELD KITS ?

NUMBER OF LAB FILTERED METALS ?

TEST STRIP LOT#s pH 0-3 230315 pH 10-12 219813A OTHER (specify)

SUMMARY OF COMMENTS: (8081) on 250 ml Ambers

TECHNICIAN SIGNATURE/DATE 8-30-16 REVIEWER SIGNATURE/DATE KD 8-30-16

NF 02/16 receipt confirmation 020116.xls

4.1

4

FA36539: Chain of Custody

Page 2 of 2

SGS ACCUTEST FA36539

FLOWERS CHEMICAL LABORATORIES INC.

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: 160473
Client Project #: Orlando Rec Center
Date Sampled: Aug 30, 2016
Sep 1, 2016; Invoice: 308405

Report Summary

Date Received: Aug 30, 2016

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
308405GW1	MW-11	SM9215 B	TRB	Main Lab	Ground Water
308405GW2	MW-10R	SM9215 B	TRB	Main Lab	Ground Water
308405GW3	MW-1	SM9215 B	TRB	Main Lab	Ground Water

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

Jefferson S. Flowers, Ph.D.
President/Technical Director

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: 160473
Client Project #: Orlando Rec Center
Date Sampled: Aug 30, 2016
Sep 1, 2016; Invoice: 308405

Analysis Report

Lab #: 308405GW1 **Sampled:** 08/30/16 10:44 AM **Desc:** MW-11

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	23000	cfu/ml	1.00	1.00	1.00	10320042	SM9215 B		08/30/16

Lab #: 308405GW2 **Sampled:** 08/30/16 11:28 AM **Desc:** MW-10R

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	2180	cfu/ml	1.00	1.00	1.00	10320042	SM9215 B		08/30/16

Lab #: 308405GW3 **Sampled:** 08/30/16 12:07 PM **Desc:** MW-1

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	125000	cfu/ml	1.00	1.00	1.00	10320042	SM9215 B		08/30/16

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: 160473
Client Project #: Orlando Rec Center
Date Sampled: Aug 30, 2016
Sep 1, 2016; Invoice: 308405

Quality Report

Quality Control Batch: 10320042 **Analyst:** TRB

Blank	**Result**	**Units**
HPC_2day@35	1.00U	cfu/ml

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Environmental Consulting & Technology, Inc.
3660 Maguire Blvd., Ste. 107
Orlando,FL 32803

PO #: 160473
Client Project #: Orlando Rec Center
Date Sampled: Aug 30, 2016
Sep 1, 2016; Invoice: 308405

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

e-Hardcopy 2.0
Automated Report

Technical Report for

ECT

Orlando Rec Center; 649 Bentley St, Orlando, FL

160140

SGS Accutest Job Number: FA36671

Sampling Date: 09/06/16

Report to:

ECT
3660 Maguire Blvd Suite 107
Orlando, FL 32803
jpeters@ectinc.com; jorioles@ectinc.com

ATTN: Jeff Peters

Total number of pages in report: **14**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

SGS Accutest is the sole authority for authorizing edits or modifications to this document.
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SGS Accutest

Sample Summary

ECT

Job No: FA36671

Orlando Rec Center; 649 Bentley St, Orlando, FL
Project No: 160140

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA36671-1	09/06/16	10:32	RB	09/06/16	AQ	Ground Water	MW-11
FA36671-2	09/06/16	11:19	RB	09/06/16	AQ	Ground Water	MW-10R
FA36671-3	09/06/16	12:25	RB	09/06/16	AQ	Ground Water	MW-1

Summary of Hits

Job Number: FA36671
Account: ECT
Project: Orlando Rec Center; 649 Bentley St, Orlando, FL
Collected: 09/06/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA36671-1	**MW-11**					
Dieldrin [a]		2.6	0.40	0.067	ug/l	SW846 8081B
Total Organic Carbon		39.7	1.7	0.40	mg/l	SM5310 B-11/SW9060A
FA36671-2	**MW-10R**					
Dieldrin [a]		0.034 I	0.043	0.0073	ug/l	SW846 8081B
Total Organic Carbon		43.7	1.9	0.45	mg/l	SM5310 B-11/SW9060A
FA36671-3	**MW-1**					
Dieldrin [a]		0.024 I	0.042	0.0070	ug/l	SW846 8081B
Total Organic Carbon		12.3	1.0	0.23	mg/l	SM5310 B-11/SW9060A

(a) All hits confirmed by dual column analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA36671-1	**Date Sampled:**	09/06/16
Matrix:	AQ - Ground Water	**Date Received:**	09/06/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT379309.D	10	09/13/16	NG	09/08/16	OP61797	GTT1860
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	2.6	0.40	0.067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	102%		42-127%
2051-24-3	Decachlorobiphenyl	109%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA36671-1	**Date Sampled:**	09/06/16
Matrix:	AQ - Ground Water	**Date Received:**	09/06/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	39.7	1.7	0.40	mg/l	1.7	09/08/16 01:45	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA36671-2	**Date Sampled:**	09/06/16
Matrix:	AQ - Ground Water	**Date Received:**	09/06/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT379267.D	1	09/12/16	NG	09/08/16	OP61797	GTT1859
Run #2							

	Initial Volume	Final Volume
Run #1	230 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.034	0.043	0.0073	ug/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		42-127%
2051-24-3	Decachlorobiphenyl	103%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	FA36671-2	**Date Sampled:**	09/06/16
Matrix:	AQ - Ground Water	**Date Received:**	09/06/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	43.7	1.9	0.45	mg/l	1.9	09/08/16 02:03	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA36671-3	**Date Sampled:**	09/06/16
Matrix:	AQ - Ground Water	**Date Received:**	09/06/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	TT379268.D	1	09/12/16	NG	09/08/16	OP61797	GTT1859
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	PQL	MDL	Units	Q
60-57-1	Dieldrin	0.024	0.042	0.0070	ug/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	99%		42-127%
2051-24-3	Decachlorobiphenyl	45%		27-127%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL = Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA36671-3	**Date Sampled:**	09/06/16
Matrix:	AQ - Ground Water	**Date Received:**	09/06/16
		Percent Solids:	n/a
Project:	Orlando Rec Center; 649 Bentley St, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	12.3	1.0	0.23	mg/l	1	09/08/16 02:21	FN	SM5310 B-11/SW9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA36671 PAGE_____OF_____

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: ECT
Address: 3660 Maguire Blvd
City: Orlando State: FL Zip: 32803
Project Contact: Jim Oriales E-mail: joriales@ectinc.com
Phone#: 407-903-0005
Sampler(s) Name(s) (Printed): Ryan Burns

Project Information

Project Name: Orlando Rec Center
Street: Bentley St.
City: Orlando State:
Project #: 160473
Fax #:
Client Purchase Order #: 160473

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Accutest Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaS2O3/ZnAc	DI WATER	MeOH	PESTICIDES DRIN	TOC										LAB USE ONLY
1	MW-11	090616	10:32	RB	GW	4		2	2							X	X										
2	MW-10R	↓	11:19	↓	↓	4		2	2							X	X										
3	MW-1	↓	12:25	↓	↓	4		2	2							X	X										

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	090616 12:53	2	3 9/6/16 13:10		4 9/6/16 13:10
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 4.7

4.1
4

FA36671: Chain of Custody
Page 1 of 2

SGS ACCUTEST - ORLANDO SAMPLE RECEIPT CONFIRMATION

SGS ACCUTEST'S JOB NUMBER: FA36671 CLIENT: ECT PROJECT: Orlando Rec Center

DATE/TIME RECEIVED: 9/6/16 1310 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER (DELIVERY) OTHER:

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.4
- [ ] OBSERVED TEMPS: 5.1
- [ ] CORRECTED TEMPS: 4.7 (USED FOR LIMS)

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

TEST STRIP LOT#s pH 0-3 230315 pH 10-12 219813A OTHER (specify) _____

SUMMARY OF COMMENTS: 8081 in (2) 250ml ambers.

TECHNICIAN SIGNATURE/DATE 9/6/16 REVIEWER SIGNATURE/DATE KD 9/6/16

NF 02/16 receipt confirmation 020116.xls

4.1

4

FA36671: Chain of Custody

Page 2 of 2

SGS ACCUTEST FA36671

FLOWERS CHEMICAL LABORATORIES INC.

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Environmental Consulting & Technology,Inc.
3660 Maguire Blvd.,Ste. 107
Orlando,FL 32803

PO #: 160473
Client Project #: Orlando Downtown Rec Center
Date Sampled: Sep 6, 2016
Sep 8, 2016; Invoice: 308869

Invoice

Description	Amount	Units	Extension
HPC	40.00	3	120.00
TOTAL			120.00

This invoice is due upon receipt.

VISA, MasterCard, and American Express cards will be accepted.

There will be a 1.5% service charge per month on all unpaid balances.

FLOWERS CHEMICAL LABORATORIES INC.

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Environmental Consulting & Technology,Inc.
3660 Maguire Blvd.,Ste. 107
Orlando,FL 32803

PO #: 160473
Client Project #: Orlando Downtown Rec Center
Date Sampled: Sep 6, 2016
Sep 8, 2016; Invoice: 308869

Report Summary

Date Received: Sep 5, 2016

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
308869GW1	MW-10R	SM9215 B	TRB	Main Lab	Ground Water
308869GW2	MW-11	SM9215 B	TRB	Main Lab	Ground Water
308869GW3	MW-1	SM9215 B	TRB	Main Lab	Ground Water

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

Jefferson S. Flowers, Ph.D.
President/Technical Director

FLOWERS CHEMICAL LABORATORIES INC.

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Environmental Consulting & Technology,Inc.
3660 Maguire Blvd.,Ste. 107
Orlando,FL 32803

PO #: 160473
Client Project #: Orlando Downtown Rec Center
Date Sampled: Sep 6, 2016
Sep 8, 2016; Invoice: 308869

Analysis Report

Lab #: 308869GW1 **Sampled:** 09/06/16 11:19 AM **Desc:** MW-10R

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	377000	cfu/ml	1.00	1.00	1.00	10320485	SM9215 B		09/06/16

Lab #: 308869GW2 **Sampled:** 09/06/16 10:23 AM **Desc:** MW-11

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	14400	cfu/ml	1.00	1.00	1.00	10320485	SM9215 B		09/06/16

Lab #: 308869GW3 **Sampled:** 09/06/16 12:25 PM **Desc:** MW-1

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
HPC_2day@35	347000	cfu/ml	1.00	1.00	1.00	10320485	SM9215 B		09/06/16

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
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812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
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Environmental Consulting & Technology,Inc.
3660 Maguire Blvd.,Ste. 107
Orlando,FL 32803

PO #: 160473
Client Project #: Orlando Downtown Rec Center
Date Sampled: Sep 6, 2016
Sep 8, 2016; Invoice: 308869

Quality Report

Quality Control Batch: 10320485	**Analyst:** TRB	
Blank	**Result**	**Units**
HPC_2day@35	1.00U	cfu/ml

FLOWERS CHEMICAL LABORATORIES INC.
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Environmental Consulting & Technology,Inc.
3660 Maguire Blvd.,Ste. 107
Orlando,FL 32803

PO #: 160473
Client Project #: Orlando Downtown Rec Center
Date Sampled: Sep 6, 2016
Sep 8, 2016; Invoice: 308869

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Check Box That Applies To Your Location

☒ **Flowers Chemical Laboratories, Inc.**
481 Newburyport Ave.
Altamonte Springs, FL 32701
Bus: 407-339-5984
Fax: 407-260-6110

☐ **Flowers Chemical Labs-South**
West Park Industrial Plaza
571 N.W. Mercantile Pl., Ste. 111
Port St. Lucie, FL 34986
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☐ **Flowers Chemical Labs-North**
812 S.W. Harvey Greene Dr.
Madison, FL 32340
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☐ **Flowers Chemical Labs-Keys**
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Client	Environmental Consulting & Technology, Inc.	Project Name: Orlando Downtown Rec Center	P.O. # 160473
Address	3660 Maguire Boulevard, Suite 107	Client Contact: Jim Orioles	FAX
	Orlando, Florida 32803	FCL Project Manager: Jim Orioles	E-MAIL: jorioles@ectinc.com
Phone	(407) 903-0005	Requested Due Date 10 Day Standard OR	Rush Charges May Apply
Sampled By (PRINT): Ryan Burns		Pick-Up Fee $ / Vehicle Surcharge $	Sampling Fee $
Sampler Signature: [signature]	Date Sampled: 09/06/16		

GW - ground water DW - drinking water WW - wastewater
SW - surface water S - soil/solid SL - sludge HW - waste

ITEM NO.	SAMPLE ID	DATE	TIME	MATRIX	(LAB USE ONLY) LAB NO.	NONE	H_2SO_4	HNO_3	HCl	$Na_2S_2O_3$	HPC - EPA 9215B	Total # Containers
1	MW-10R	090616	~~10~~ 11:19	GW	308869GW1	X					X	1
2	MW-11	↓	10:32	GW	2	X					X	1
3	MW-1	↓	12:25	GW	3	X					X	1
4												
5												
6												
7												
8												
9												
10												

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
[signature] / ECT	090616		[signature]	9/6	1523				[signature]	9/7/16	0706

FINANCE CHARGES APPLIED TO PAST DUE INVOICES

• **WHITE** - Lab Copy - To Be Scanned • **YELLOW** - Client Copy

Rev 04-08

1833 A 57th Street, Sarasota, FL 34243
(941) 351-2700

PLATE COUNT ANALYSIS SUMMARY REPORT

Site Name: Orlando Rec Center
Samples Collected by:

Sample ID	Date/ Time Collected	Date/ Time Received	Date/ Time Plated	Sample Matrix	Sample Size	Analysis Requested
MW-11		9/7/2016 1300	9/7/2016 1340	GW	40 mL	Petrox
MW-10R		9/7/2016 1300	9/7/2016 1340	GW	40 mL	Petrox
MW-1		9/7/2016 1300	9/7/2016 1340	GW	40 mL	Petrox

Procedures: Testing procedure followed Standard Spread Plate Method 9215C.

Each sample was serially diluted into sterile buffer solutions and dilutions aseptically transferred and plated onto Trypticase Soy Agar (TSA). Plates were then incubated at 25°C with results read at 48 hours. Counts are reported as Colony Forming Units per milliliter of sample (CFU/ml).

Results

Sample ID	Date/Time Analyzed	Lab pH	Total Count	*Pseudo*. Count
MW-11	9/13/2016 1034	6.38	4.5 E 5	2.5 E 4
MW-10R	9/13/2016 1036	6.46	< 1 E 4	1.2 E 5
MW-1	9/13/2016 1038	6.72	1.5 E 4	8 E 4

APPENDIX D

ECT DAILY FIELD LOG

PROJECT INFORMATION

Project & Task #: 160140 ~~00003~~ **Date:** 02/25/2016

Time	Comments
8:00	Ryan Burns (ECT) loads light-duty vehicle 0-2
	with equipment.
8:20	ECT mobilizes to site to meet Katie Ballew (BFA).
8:40	ECT arrives on site. BFA is on site. Tailgate Safety
	Meeting held. Scope of work reviewed. Rec center
	administration notified we are on site.
8:45	Ryan and Katie mobilize to BFA office to
	aquire needed tools.
9:30	Ryan and Katie return to site.
9:50	Begin purging MW-7.
10:14	Finish purging, collect sample: MW-7 022516 ORP-161
	Equipment decon
10:37	Begin purging MW-6.
11:02	Finish purging, collect ~~MW-6~~ KB sample: MW-6 022516 ORP-222
	Equipment decon
11:20	Begin purging MW-3.
11:44	Finish purging, collect sample: MW-3 022516 ORP-181
	Equipment decon
12:11	Begin purging MW-14.
12:49	Finish purging. Collect sample: MW-14 022516 ORP-162
	Equipment decon
1:00	Ryan and Katie load equipment and leave site for lunch.
1:30	Return to site from lunch.
1:54	Begin purging MW-2.
2:20	Finish purging, collect sample: MW-2 022516 ORP (-160)
	Equipment decon
2:50	Begin purging MW-8.
3:14	Finish ~~sampling~~ KB purging MW-8. (collect sample: MW-8 022516 ORP ~~(-154)~~) ORP KB
	Equipment decon
3:30	Ryan and Katie load equipment into vehicles. Katie departs site.
4:10	Ryan leaves site to take samples on wet ice to Accutest.

Recorded by: Ryan Burns Date: 02/25/2016

Reviewed by: Date:

Location

Date 02/26/2016

Project / Client Orlando Rec Center - 160140

7:30 Ryan (ECT) loads equipment into light-duty vehicle 0-2.
7:45 Ryan mobilizes to site.
8:00 Ryan arrives on site.
8:05 Katie (BFA) arrives on site. Tailgate Safety Meeting held. Rec center staff notified we are on site.
8:43 Begin purging MW-17.
9:07 Finish purging. Collect sample: MW-17 022616
Decon equipment
9:38 Begin purging MW-12. ORP-~~(92)~~ (122) DB
10:01 Finish purging MW-12. Collect sample: MW-12 022616
~~10:24~~ DB Decon equipment
10:24 Begin purging MW-13. ORP (
Note D.O. probe malfunction. Cancel purging and called for replacement.
11:45 Chad Downing (ECT) arrives on site with pre-calibrated equipment replacement.
11:50 Chad departs from site.
12:18 Start purging MW-5 * ORP 384
12:42 Finish purging. Collect Sample MW5022616. Decon equipment

Location

Date 2/26/2016

Project / Client Orlando Rec Center - 160140

MW-13
1:16 Start purging * ORP 232
1:30 Finish purging. Collect Sample MW13022616
Decon equipment
MW-15
1:54 Start purging * 212 ORP
2:06 Finish Purging. Collect sample MW15022616
Decon equipment.
MW-16
2:28 Start Purging * ORP 215
2:42 Finish Purging. Collect Sample MW16022616
Decon equipment
MW-9
3:11 Start Purging * ORP 203
3:29 Finish Purging Collect sample MW9022616
3:50 Load equipment into vehicles and depart site.
4:00 Ryan takes samples on ice to accutest
4:45 Ryan arrives at office

Location

Date 02/29/2016

Project / Client Orlando Rec Center - 160140

8:35 Ryan Burns (ECT) mobilizes to site.
8:55 ECT arrives on site to meet Katie Ballew (BFA). Health + Safety Meeting held, scope of work discussed. Staff notified we are on site.
~~9:34~~ 9:43 Start purging. MW4 *ORP(280)
10:00 Trouble shoot YSI - high DO
10:10 Trouble shooting finished
10:17 Finish purging. collect sample MW4 022916 Decon Equipment
11:26 Begin purging MW1. *ORP(-84)
11:51 Finish purging. collect sample. MW1022916 Decon equipment
12:18 Begin purging MW11. *ORP (160)
12:57 Finish purging collect sample MW11022916 Decon equipment.
1:30 Returned to MW-17 to collect ORP.
1:50 Finish collecting MW-17 ORP. ORP(118)
2:00 Ryan loads equipment into vehicle 0-2. Katie departs site.
2:30 Ryan departs site and mobilizes to deliver samples on ice to Accutest

Location

Date 02/29/2016

Project / Client Orlando Rec Center - 160140

3:30 Ryan returns rented equipment to Cyclone instruments
4:00 Ryan returns to office.

*All ~~equip~~ equipment calibrated prior to sampling each day.

*All samples placed on wet ice.

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: **Orlando Rec Centre**	SITE LOCATION: 649 Bentley Street, Orlando, Fl
WELL NO: MW-1	SAMPLE ID: MW 1022916 — DATE: 2/29/2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 11.09	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.09 feet) X .16 gallons/foot = 1.42 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	PURGING INITIATED AT: 11:26	PURGING ENDED AT: 11:51	TOTAL VOLUME PURGED (gallons): 2

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
11:45	1.5	1.5	.08	11.4	5.55	23.65	307	.48	3.27	Clear	None
11:48	.25	1.75	.08	11.38	5.53	23.57	309	.47	2.34	Clear	None
11:51	.25	2	.08	11.38	5.50	23.56	310	.46	2.53	Clear	None

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. Burns / K. Ballew	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 11:51	SAMPLING ENDED AT: 11:55
PUMP OR TUBING DEPTH IN WELL (feet): 16'	TUBING MATERIAL CODE: HD	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-1 022916	2	AG	250mL	None	—	—	P8081 Dieldrin	App	250

REMARKS: Weather: cool, clear, breezy

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME:	Orlando Rec Center	SITE LOCATION:	649 Bentley St Orlando Fl
WELL NO:	MW-2	SAMPLE ID: MW-2 022516	DATE: 2/25/2016

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2"	0.25	10 TO 20	10.95	PP

WELL VOLUME PURGE: 1 WELL VOL. = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)

(20 feet - 10.95 feet) X 0.16 gallons/foot = 1.448 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)

(gallons + (gallons/foot X feet) + gallons) = 0 gallons

INITIAL PUMP OR TUBING DEPTH (feet):	FINAL PUMP OR TUBING DEPTH (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
16'	16'	01:54	02:20	2.4

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	CONDUCTIVITY (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
02:11	1.5	1.5	0.08	10.9	6.72	25.87	148.8	0.78	0.7	CLEAR	NONE
02:14	0.03	1.8	0.08	10.94	6.69	25.7	145.2	0.78	0.8	CLEAR	NONE
02:17	0.03	2.1	0.08	10.95	6.68	25.76	145.1	0.72	0.3	CLEAR	NONE
02:20	0.03	2.4	0.08	10.95	6.68	25.71	143.1	0.71	0.4	CLEAR	NONE

pH: ± 0.2 units Temperature: ± 0.2 C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater)
Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

SAMPLE CONTAINER SPECIFICATION

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPING START:	SAMPLING ENDED AT:
R. BURNS / K. BALLEW		02:20	02:22
PUMP OR TUBING DEPTH IN WELL (feet): 16'	SAMPLE PUMP FLOW RATE (mL per minute): 250	TUBING MATERIAL CODE:	HD
FIELD DECONTAMINATION (Y/N): N	FIELD-FILTERED (Y/N): N / FILTRATION EQUIPMENT TYPE:	FILTER SIZE (µm):	DUPLICATE (Y/N): N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	VOL. ADDED IN FIELD (mL)	FINAL pH		
MW-2 022516	2	AG	250 mL	NONE	NA	NA	P8081DIELDRIN	APP

REMARKS: WEATHER: clear, cool, windy

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Me

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

GROUNDWATER SAMPLING LOG

SITE NAME:	Orlando Rec Center	SITE LOCATION:	649 Bentley St Orlando Fl
WELL NO:	MW-3	SAMPLE ID: MW-3 022516	DATE: 2/25/2016

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2"	0.25	10 TO 20	10.07	PP

WELL VOLUME PURGE: 1 WELL VOL. = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)

(20 feet - 10.07 feet) X 0.16 gallons/foot = 1.5888 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)

(gallons + (gallons/foot X feet) + gallons) = 0 gallons

INITIAL PUMP OR TUBING DEPTH (feet):	FINAL PUMP OR TUBING DEPTH (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
16'	16'	11:20	11:44	2.5

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	CONDUCTIVITY (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
11:35	1.6	1.6	0.08	10.1	6.03	25.45	217	0.53	1.5	CLEAR	NONE
11:38	0.03	1.9	0.08	10.01	6	25.27	213.5	0.5	1.8	CLEAR	NONE
11:41	0.03	2.2	0.08	10.01	6	25.28	214.7	0.49	1	CLEAR	NONE
11:44	0.03	2.5	0.08	10.01	6.02	25.29	213.6	0.49	1	CLEAR	NONE

pH: ± 0.2 units Temperature: ± 0.2 C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater)
Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

SAMPLE CONTAINER SPECIFICATION

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPING START:	SAMPLING ENDED AT:
R. BURNS / K. BALLEW		11:44	11:46

PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE:
16'	250	HD

FIELD DECONTAMINATION (Y/N):	FIELD-FILTERED (Y/N):	FILTRATION EQUIPMENT TYPE:	FILTER SIZE (µm):	DUPLICATE (Y/N):
N	N			N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	VOL. ADDED IN FIELD (mL)	FINAL pH		
MW-3 022516	2	AG	250 mL	NONE	NA	NA	P8081DIELDRIN	APP

REMARKS: WEATHER: clear, cool, windy

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Me

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: **Orlando Rec Centre**	SITE LOCATION: 649 Bentley Street, Orlando, Fl
WELL NO: MW-4	SAMPLE ID: MW-4 022916	DATE: 02/29/2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 10.86	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 10.86 feet) X 0.16 gallons/foot = 1.46 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	PURGING ~~FB~~ 43 INITIATED AT: 9:34	PURGING ENDED AT: 10:17	TOTAL VOLUME PURGED (gallons): 2

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
10:11	1.5	1.5	.08	10.95	6.43	21.99	62	6.28	2.25	clear	none
10:14	~~0.5~~ 0.25	1.75	.08	10.95	6.27	22.62	62	6.14	1.81	clear	none
10:17	0.25	2.00	.08	10.95	6.20	22.64	62	6.08	2.07	Clear	None

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. Burns / K. Ballew	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 10:17	SAMPLING ENDED AT: 10:20
PUMP OR TUBING DEPTH IN WELL (feet): 16'	TUBING MATERIAL CODE: HD	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-4 022916	2	AG	250mL	None	—	—	P8081 Dieldrin	APP	250

REMARKS:
weather: cool, clear, breezy

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: **Orlando Rec Centre**	SITE LOCATION: 649 Bentley Street, Orlando, Fl
WELL NO: MW-5	SAMPLE ID: MW-5 022616 / DATE: 2/26/2016

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 10.50	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 10.50 feet) X .16 gallons/foot = 1.52 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	PURGING INITIATED AT: 12:18	PURGING ENDED AT: 12:42	TOTAL VOLUME PURGED (gallons): 2

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
12:36	1.5	1.5	.08	10.5	~~6~~ 5.82 KB	25.97	137	.90	3.4	clear	None
12:39	.25	1.75	.08	10.5	5.77	26.06	136	.85	2.81	clear	None
12:42	.25	2	.08	10.5	5.75	26.03	136	.82	2.76	clear	None

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Ryan B. / Katie B.	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 12:42	SAMPLING ENDED AT: 12:45
PUMP OR TUBING DEPTH IN WELL (feet): 16'	TUBING MATERIAL CODE: HD	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-5 022616	2	AG	250mL	None	—	—	P8081Dieldrin	~~A~~ PP	~~0~~ KB

REMARKS: Weather: Cool, Sunny, breezy

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME:	Orlando Rec Center	SITE LOCATION:	649 Bentley St Orlando Fl
WELL NO: MW-6	SAMPLE ID: MW-6 022516	DATE:	2/25/2016

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2"	0.25	10 TO 20	9.97	PP

WELL VOLUME PURGE: 1 WELL VOL. = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)

(20 feet - 9.97 feet) X 0.16 gallons/foot = 1.6048 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)

(gallons + (gallons/foot X feet) + gallons) = 0 gallons

INITIAL PUMP OR TUBING DEPTH (feet):	FINAL PUMP OR TUBING DEPTH (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
16'	16'	10:37	11:02	2.4

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	CONDUCTIVITY (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
10:53	1.6	1.6	0.08	10	5.99	26.06	142.7	1.03	0.3	CLEAR	NONE
10:56	0.03	1.9	0.08	10	5.98	26.04	142.7	1	0.3	CLEAR	NONE
10:59	0.03	2.2	0.08	10	5.99	25.84	142.8	1	0.3	CLEAR	NONE
11:02	0.03	2.4	0.08	10	5.99	25.79	142.9	1	0.3	CLEAR	NONE

pH: ± 0.2 units Temperature: ± 0.2 C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation, optionally, ± 0.2 mg/L or ± 10% (whichever is greater)
Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
R. BURNS / K. BALLEW		11:02	11:04
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE:	HD
FIELD DECONTAMINATION (Y/N): N	FIELD-FILTERED (Y/N): N	FILTRATION EQUIPMENT TYPE:	FILTER SIZE (µm): / DUPLICATE (Y/N): N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	VOL. ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
MW-6 022516	2	AG	250 mL	NONE	NA	NA	P8081DIELDRIN	APP

REMARKS: WEATHER: clear, cool, windy

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon, O = Other (Specify)
SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Me

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

GROUNDWATER SAMPLING LOG

SITE NAME:	Orlando Rec Center	SITE LOCATION:	649 Bentley Street Orlando Fl
WELL NO: MW-7	SAMPLE ID: MW-7 022516	DATE:	2/25/2016

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2"	0.25	10 TO 20	10.26	PP

WELL VOLUME PURGE: 1 WELL VOL. = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)

(20 feet - 10.26 feet) X 0.16 gallons/foot = 1 5584 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)

(gallons + (gallons/foot X feet) + gallons) = 0 gallons

INITIAL PUMP OR TUBING DEPTH (feet):	FINAL PUMP OR TUBING DEPTH (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
16'	16'	09:47	10:14	2

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004, 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	CONDUCTIVITY (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
10:05	1.5	1.5	0.08	10.3	5.82	22.1	165	0.39	1.3	clear	none
10:08	0.02	1.7	0.08	10.3	5.83	22.02	164	0.39	1	clear	none
10:11	0.02	1.9	0.08	10.3	5.83	21.96	164.1	0.36	0.9	clear	none
10:14	0.02	2	0.08	10.3	5.83	22.3	160.1	0.34	1	clear	none

pH: ± 0.2 units Temperature: ± 0.2 C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation, optionally, ± 0.2 mg/L or ± 10% (whichever is greater)
Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
R. BURNS / K. BALLEW		10:14	10:16

PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE:
16'	250	HD

FIELD DECONTAMINATION (Y/N):	FIELD-FILTERED (Y/N):	FILTRATION EQUIPMENT TYPE:	FILTER SIZE (µm):	DUPLICATE (Y/N):
N	N			N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	VOL. ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
MW-7 022516	2	AG	250 mL	NONE	NA	NA	P8081DIELDRIN	APP

REMARKS: WEATHER: clear, cool, windy

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Me

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: **Orlando Rec Centre**	SITE LOCATION: 649 Bentley Street, Orlando, Fl
WELL NO: MW-8	SAMPLE ID: MW-8022516	DATE: 2/25/2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 11.32	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.32 feet) X .16 gallons/foot = 1.38 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	PURGING INITIATED AT: 2:50	PURGING ENDED AT: 3:14	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
3:08	1.5	1.5	.08	11.35	5.74	23.91	343	.32	1.35	clear	None
3:11	.25	1.75	.08	11.35	5.70	23.95	341	.32	1.30	clear	None
3:14	.25	2	.08	11.35	5.68	23.97	338	.31	1.07	clear	None

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. Burns / K. Ballew	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 3:14	SAMPLING ENDED AT: 3:17
PUMP OR TUBING DEPTH IN WELL (feet): 16'	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-8 022516	2	AG	250mL	ICE	—	~~5.68~~	P8081 Dieldrin	APP	~~0.08~~ 250

REMARKS: weather: cool, sunny, breezy

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: **Orlando Rec Centre**	SITE LOCATION: 649 Bentley Street, Orlando, Fl
WELL NO: MW-9	SAMPLE ID: MW9022616 — DATE: 02/26/2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 11.67	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.67 feet) X .16 gallons/foot = 1.3 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	PURGING INITIATED AT: 3:11	PURGING ENDED AT: 3:29	TOTAL VOLUME PURGED (gallons): 1.8

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
3:23	1.3	1.3	.08	11.73	6.53	22.55	130	.56	3.08	clear	None
3:26	.25	1.55	.08	11.71	6.50	22.56	131	.53	2.04	clear	None
3:29	.25	1.8	.08	11.71	6.45	22.60	132	.50	1.68	clear	None

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. Burns / K. Ballew	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 3:29	SAMPLING ENDED AT: 3:32
PUMP OR TUBING DEPTH IN WELL (feet): 16'	TUBING MATERIAL CODE: HD	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y N (replaced)	DUPLICATE: Y (N)	

	SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
	SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-9	022616	2	AG	250mL	None	—	—	P8081 Dieldrin	APP	250

REMARKS: Weather: Cool, sunny, breezy

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: **Orlando Rec Centre**		SITE LOCATION: 649 Bentley Street, Orlando, Fl	
WELL NO: MW-11	SAMPLE ID: MW1102291 6		DATE: 2/29/2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 11.22	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.22 feet) X .16 gallons/foot = 1.4 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16' KB ~~12:18~~	PURGING INITIATED AT: 12:18	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
12:36	1.5 KB	1.5	.08	11.3	5.44	22.85	84	1.76	3.70	Clear	None
12:39	.25	1.75	.08	11.3	5.41	22.96	84	1.75	4.76	clear	None
12:42	.25	2	.08	11.3	5.41	22.99	84	1.69	715 AU	milky	None
12:45	.25	2.25	.08	11.3	5.39	22.99	85	1.54	57.9 NTU	milky	None
12:48	.25	2.50	.08	11.3	5.42	22.76	88	1.87	39.1	cloudy	None
12:51	.25	2.75	.08	11.3	5.41	22.80	86	1.75	8.66	clear	None
12:54	.25	3.00	.08	11.3	5.38	22.81	85	1.66	5.92	clear	None
12:57	.25	3.25	.08	11.3	5.36	22.91	84	1.68	4.77	clear	None

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. Burns / K. Ballew	SAMPLER(S) SIGNATURE(S): [signature] [signature]	SAMPLING INITIATED AT: 12:57	SAMPLING ENDED AT: 1:00
PUMP OR TUBING DEPTH IN WELL (feet): 16'	TUBING MATERIAL CODE: HD	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-11 022916	2	AG	250 mL	None	—	—	P8081 Dieldrin	App	250

REMARKS:
Weather: cool, clear, breezy

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME:	Orlando Rec Center	SITE LOCATION:	649 Bentley St Orlando Fl
WELL NO: MW-12	SAMPLE ID: MW-12 022616	DATE:	2/26/2016

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2"	0.25	10 TO 20	11.81	PP

WELL VOLUME PURGE: 1 WELL VOL. = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)

(20 feet - 11.81 feet) X 0.04 gallons/foot = 0.3276 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)

(gallons + (gallons/foot X feet) + gallons) = 0 gallons

INITIAL PUMP OR TUBING DEPTH (feet):	FINAL PUMP OR TUBING DEPTH (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
16'	16'	09:38	10:01	2.1

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	CONDUCTIVITY (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	ORP
09:43	0.03	0.3	0.8	11.8	6.21	25.79	210.9	1.12	56.7	MILKY	NONE	92
09:46	0.03	0.6	0.8	11.85	6.21	25.61	207	1.06	46.2	MILKY	NONE	95
09:49	0.03	0.9	0.8	11.84	6.22	25.68	208.6	0.81	29	MILKY	NONE	103
09:52	0.03	1.2	0.8	11.81	6.21	25.79	210	0.74	27.2	MILKY	NONE	109
09:55	0.03	1.5	0.8	11.81	6.21	25.91	208.1	0.76	17.2	CLEAR	NONE	113
09:58	0.03	1.8	0.8	11.82	6.21	25.9	209.2	0.76	8.9	CLEAR	NONE	118
10:01	0.03	2.1	0.8	11.82	6.21	25.82	207.4	0.79	5	CLEAR	NONE	122

pH: ± 0.2 units Temperature: ± 0.2 C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater)
Turbidity: all readings < 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

SAMPLE CONTAINER SPECIFICATION

SAMPLED BY (PRINT) / AFFILIATION: R. BURNS / K. BALLEW	SAMPLER(S) SIGNATURES:	SAMPING START: 10:01	SAMPLING ENDED AT: 10:06
PUMP OR TUBING DEPTH IN WELL (feet): 16'	SAMPLE PUMP FLOW RATE (mL per minute): 250	TUBING MATERIAL CODE: HD	
FIELD DECONTAMINATION (Y/N): N	FIELD-FILTERED (Y/N): N / FILTRATION EQUIPMENT TYPE:	FILTER SIZE (µm):	DUPLICATE (Y/N): N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	VOL. ADDED IN FIELD (mL)	FINAL pH		
MW-12 022616	2	AG	250 mL	NONE	NA	NA	P8081DIELDRIN	APP

REMARKS: WEATHER: clear, cool, windy

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene, S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Me

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Orlando Rec Centre	SITE LOCATION: 649 Bentley Street, Orlando, Fl
WELL NO: MW-13	SAMPLE ID: MW-13 022616 — DATE: 02/26/2016

PURGING DATA

WELL DIAMETER (inches): 1	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 12.37	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 12.37 feet) X 0.04 gallons/foot = 0.31 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	PURGING INITIATED AT: 1:16	PURGING ENDED AT: 1:30	TOTAL VOLUME PURGED (gallons): 1.06

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1:21	.31	.31	.08	12.4	6.64	24.37	226	2.42	20.2	clear	None
1:24	.25	.56	.08	12.4	6.58	24.48	227	2.25	15.4	clear	None
1:27	.25	.81	.08	12.4	6.54	24.61	223	2.17	9.85	clear	None
1:30	.25	1.06	.08	12.4	6.53	24.52	221	2.15	5.50	clear	None

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. Burns / K. Ballew	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1:30	SAMPLING ENDED AT: 1:34
PUMP OR TUBING DEPTH IN WELL (feet): 16'	TUBING MATERIAL CODE: HD	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-13 022616	2	AG	250mL	None	—	—	P8081 DIELDRIN	APP	250

REMARKS: Weather: Cool, Sunny, Breezy

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME:	Orlando Rec Center	SITE LOCATION:	649 Bentley St Orlando Fl
WELL NO:	MW-14	SAMPLE ID:	MW-14 022516
DATE:	2/25/2016		

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2"	0.25	10 TO 20	10.15	PP

WELL VOLUME PURGE: 1 WELL VOL. = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)

(20 feet - 10.15 feet) X 0.16 gallons/foot = 1.576 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)

(gallons + (gallons/foot X feet) + gallons) = 0 gallons

INITIAL PUMP OR TUBING DEPTH (feet):	FINAL PUMP OR TUBING DEPTH (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
16'	16'	12:11	12:49	2.8

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	CONDUCTIVITY (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
12:34	1.5	1.5	0.08	10.14	6.67	23.59	262.3	4.64	0.9	CLEAR	NONE
12:37	0.03	1.8	0.08	10.14	6.67	23.59	262.2	4.6	0.6	CLEAR	NONE
12:40	0.01	1.9	0.08	10.14	6.68	23.58	265.5	4.55	0.7	CLEAR	NONE
12:43	0.03	2.2	0.08	10.14	6.68	23.59	265.3	4.41	0.9	CLEAR	NONE
12:46	0.03	2.5	0.08	10.14	6.68	23.49	264	4.37	0.8	CLEAR	NONE
12:49	0.03	2.8	0.08	10.14	6.69	23.67	265.7	4.38	0.8	CLEAR	NONE

pH: ± 0.2 units Temperature: ± 0.2 C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater)
Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

SAMPLE CONTAINER SPECIFICATION

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPING START:	SAMPLING ENDED AT:
R. BURNS / K. BALLEW		12:49	12:52

PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE:
16'	250	HD

FIELD DECONTAMINATION (Y/N):	FIELD-FILTERED (Y/N):	FILTRATION EQUIPMENT TYPE:	FILTER SIZE (µm):	DUPLICATE (Y/N):
N	N			N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	VOL. ADDED IN FIELD (mL)	FINAL pH		
MW-14 022516	2	AG	250 mL	NONE	NA	NA	P8081DIELDRIN	APP

REMARKS: WEATHER: clear, cool, windy. High DO- waited til stabilized and took sample

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Me

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Orlando Rec Centre		SITE LOCATION: 649 Bentley Street, Orlando, Fl	
WELL NO: MW-15	SAMPLE ID: MW15022616		DATE: 02/26/2016

PURGING DATA

WELL DIAMETER (inches): 1	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 12.93	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 12.93 feet) X .04 gallons/foot = .28 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	PURGING INITIATED AT: 1:54	PURGING ENDED AT: 2:06	TOTAL VOLUME PURGED (gallons): .81

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
2:00	.3	.3	.08	12.85	6.56	23.81	255	.80	2.11	Clear	None
2:03	.25 KB	.56	.08	12.85	6.50	23.75	259	.82	1.64	clear	None
2:06	.25 KB	.81	.08	12.85	6.48	23.81	242	.73	1.47	clear	None

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. Burns / K. Ballew	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 2:06	SAMPLING ENDED AT: 2:10
PUMP OR TUBING DEPTH IN WELL (feet): 16'	TUBING MATERIAL CODE: HD	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-15 022616	2	AG	250mL	None	—	—	P8081 Dieldrin	APP	250

REMARKS: Weather: cool, sunny, breezy

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Orlando Rec Centre		SITE LOCATION: 649 Bentley Street, Orlando, Fl	
WELL NO: MW-16	SAMPLE ID: MW16022616		DATE: 02/26/2016

PURGING DATA

WELL DIAMETER (inches): 1	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 13.00	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 13.00 feet) X .04 gallons/foot = .28 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	PURGING INITIATED AT: 2:28	PURGING ENDED AT: 2:42	TOTAL VOLUME PURGED (gallons): 1.06

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
KB 2:~~28~~ 33	.3	.3	.08	12.99	6.42	23.94	266	1.01	24	milky	None
2:36	.25	.56	.08	12.99	6.44	23.86	273	.92	8.2	~~milky~~ KB	None cl
2:39	.25	.81	.08	12.99	6.45	23.83	274	.87	4.77	clear	None
2:42	.25	1.06	.08	12.99	6.45	23.85	275	.81	3.63	clear	None

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. Burns / K. Ballew	SAMPLER(S) SIGNATURE(S): [signature] KB	SAMPLING INITIATED AT: 2:42	SAMPLING ENDED AT: 2:45
PUMP OR TUBING DEPTH IN WELL (feet): 16'	TUBING MATERIAL CODE: HD	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-16 022616	2	AG	250mL	None	—	—	P8081 Dieldrin	APP	250

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME:	Orlando Rec Center	SITE LOCATION:	649 Bentley St Orlando Fl
WELL NO: MW-17	SAMPLE ID: MW-17 022616	DATE:	2/26/2016

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2"	0.25	10 TO 20	12.22	PP

WELL VOLUME PURGE: 1 WELL VOL. = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)

(20 feet - 12.22 feet) X 0.16 gallons/foot = 1.2448 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)

(gallons + (gallons/foot X feet) + gallons) = 0 gallons

INITIAL PUMP OR TUBING DEPTH (feet):	FINAL PUMP OR TUBING DEPTH (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
16'	16'	08:43	09:07	1.9

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	CONDUCTIVITY (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
08:58	1.2	1.2	0.08	12.25	6.36	23.26	488.4	1.01	0.8	CLEAR	NONE
09:01	0.02	1.5	0.08	12.25	6.37	23.23	483.5	0.97	0.7	CLEAR	NONE
09:04	0.02	1.7	0.08	12.25	6.35	23.31	483.1	1.07	0.7	CLEAR	NONE
09:07	0.02	1.9	0.08	12.25	6.36	23.29	479.8	1.01	1.1	CLEAR	NONE

pH: ± 0.2 units Temperature: ± 0.2 C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater)
Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

SAMPLE CONTAINER SPECIFICATION

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPING START:	SAMPLING ENDED AT:
R. BURNS / K. BALLEW		09:07	09:10

PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE:
16'	250	HD

FIELD DECONTAMINATION (Y/N):	FIELD-FILTERED (Y/N):	FILTRATION EQUIPMENT TYPE:	FILTER SIZE (µm):	DUPLICATE (Y/N):
N	N			N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	VOL. ADDED IN FIELD (mL)	FINAL pH		
MW-17 022616	2	AG	250 mL	NONE	NA	NA	P8081DIELDRIN	APP

REMARKS: WEATHER: clear, cool, windy

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Me

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

ECT Environmental Consulting & Technology, Inc.

GROUNDWATER LEVEL DATA FORM

PROJECT INFORMATION

Project & Task #: 160140 **Date:** 02/24/2016

LEVEL DATA

Well #	Time	Total Depth	Ref. Elevation	Depth to GW	GW Elevation	Order	Observations/Comments
MW-16	2:40	20'		13.00		1	
MW-15	2:45	20'		12.93		2	
MW-12	2:50	20'		11.81		3	
MW-13	2:55	20'		12.37		4	
MW-17	3:02	20'		12.22		5	
MW-7	3:10	20'		10.26		6	
MW-6	3:15	20'		9.97		7	
MW-11	3:20	20'		11.22		8	
MW-9	3:25	20'		11.67		9	
MW-8	3:29	20'		11.32		10	
MW-5	3:33	20'		10.50		11	
MW-3	3:40	20'		10.07		12	
MW-2	3:45	20'		10.95		13	
MW-14	3:50	20'		10.15		14	
MW-1	3:55	20'		11.09		15	
MW-4	2:45	20'		10.86		16	Manhole and surrounding area under water on 02/24/16. DTW collected 02/25/16

SIGNED INITIALS

Measured by: Ryan Burns **Date:** 03/01/2016

Recorded by: Katie Ballew **Date:** 03/01/2016

Reviewed by: **Date:**

EQUIPMENT DESCRIPTION & DECONTAMINATION

Description & S/N: Heron Dipper T

Decontaminate between wells? ☒ Yes or ☐ No

Procedure 4.1.9.1? ☒ Yes or ☐ No Other? (describe)

Field Instrument Calibration Records

INSTRUMENT (MAKE/MODEL#)	In-situ Troll 9500	INSTRUMENT #	51652

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard	Type	Value	Origin	Date Purchased	Expiration Date
Standard A	DO	100	Saturated Air	N/A	N/A
Standard B	Turbidity	0	DI Water	N/A	N/A
Standard C	pH	4	Oakton		Apr-17
Standard D	pH	7	Oakton		Jun-16
Standard E	pH	10	Oakton		Aug-17
Standard F	Conductivity	1500	Oakton		May-16
Standard G	ORP	470	Hanna		Sep-15

DATE (yy/mm/dd)	TIME (HHMM)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	DEVIATION (%)	RECALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
15/02/25	8:10	A	100	100		No	Init	KB
		B	0	0.1		No	Init	KB
		D	7	7.96		Yes	Init	KB
		F	1500	1514		Yes	Init	KB
		G	470	470		No	Init	KB
15/02/26	7:35	A	100	100		No	Cont	KB
		B	0	0.1		No	Cont	KB
		D	7	7.01		No	Cont	KB
		F	1500	1503		No	Cont	KB
		G	470	470		No	Cont	KB

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) YSI Model 556 Instrument # 6L1239AT
ORP- American Marine ORP/Redox Monitor # Q561935

Parameter: *[check all that apply]*

___ TEMPERATURE _X_CONDUCTIVITY ___SALINITY _X_pH _X_ORP
___TURBIDITY ___RESIDUAL CHLORINE _X_DO ___OTHER_____

STANDARDS pH: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A 7.0 LOT # 141125C EXP. 6/16
Standard B 4.0 LOT # 151007A EXP. 10/16
Standard C _____ LOT # _____ EXP. _____

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
02/26/16	10:30	A	7.0	7.0	0%	Yes	INIT	AB
02/26/16	10:35	B	4.0	4.0	0%	Yes	INIT	AB
02/29/16	8:00	A	7.0	7.0	0%	Yes	INIT	AB
02/29/16	8:05	B	4.0	4.0	0%	Yes	INIT	AB

STANDARDS Conductivity: *[Specifiy the type(s) of standrads used for calibration, the orgin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A 1000 LOT # 276719D EXP. 11/16
Standard B _____ LOT # _____ EXP. _____

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
02/26/16	10:40	A	1000	1000	0%	Yes	INIT	AB
02/29/16	8:10	A	1000	1000	0%	Yes	INIT	AB

STANDARDS Dissolved Oxygen: *[Specify the type(s) of standards used for calibration, the origin*

FIELD INSTRUMENT CALIBRATION RECORDS

of the standardsthe standard values, and the date the standards were prepared or purchased.]

Standard A **AIR 100% HUMIDITY**

Standard B

Standard C

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
02/26/16	10:45	A	100%	100%	0%	Yes	INIT	AB
02/29/16	8:15	A	100%	100%	0%	Yes	INIT	AB

STANDARDS ORP: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A 470 LOT # EXP.

Standard B LOT # EXP.

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
02/26/16		A	470	470	0%	Yes	INIT	AB

Location Orlando Rec Center Date 3/28/~~198~~ 2016 13

Project / Client 160140 City of Orlando

EST Zone Overcast/Cloudy 74°F

0700 Ryan Burns, ECT) arrives at office, begins loading Rental vehicle with supplies

0715 Jim Orsolas, ECT, arrives on Site, checked in with REC center Staff

0730 Jim puts 50lbs of Dextrose in each drum of Petrox for MW-10R and MW-11

0735 Ryan mobilizes to Site

0750 Ryan and Jim review Scope & HASP

0805 Groundwater Protection Inc (GPI) arrive on Site. Scope and HASP Reviewed.

0810 Ryan begins purging MW-11

0835 Sampling of MW-11 initiated

0840 Elizabeth Lanung (Beth), ECT arrives on Site

0845 Katie Ballew, BFA, arrives on site.

0900 Ryan begins purging MW-10R

Location Orlando Rec Center Date 03/28/2016
Project / Client 160140 City of Orlando
EST Zone Overcast/Cloudy 74°F

0920 GPI breaks ground on 1st injection point on west side
0932 Purging of MW-10R complete, Ryan begins sampling
0938 ~~0940~~ GPI is waiting for fitting to arrive to begin injection. Ryan completes sampling of MW-10R. Ryan and Katy begin cleaning up sampling equipment
0957 Ryan leaves site.
1000 Fitting arrives
1003 GPI begins injection of Petrox starting at 20ftbs. Injection is performed at approx. 1.4 gal/min. A quater of a drum will be used at each well.
1010 1st injection complete, move rig to N. injection pt at MW-11.
1015 GPI breaks ground on N. injection point
1024 N. injection complete, GPI moves rig to S. injection pt at MW-11
1027 GPI breakground on S. injection pt.

Location Orlando Rec Center Date 3/28/2016
Project / Client 160140 City of Orlando
EST Zone Overcast/Cloudy 74°F

1035 Injection complete for S. injection pt., GPI moves rig to E. injection pt. of MW-11
1039 GPI breaks ground on E. injection pt.
1043 GPI begins injection into E. injection pt.
1051 GPI completes injection at E. injection pt. Begins decon of equipment
1054 GPI moves rig to MW-10R for next injection event. Set up at N. injection pt.
1100 Dan and Tracy w/ City of Orlando on site, Jim goes over tasks done so far and scope
1105 GPI breaks ground on N. injection pt at MW-10R
1110 GPI begins injection at N. injection pt.
1120 Injection at N. injection pt. complete, GPI moves rig to

Location Orlando Rec Center Date 3/28/2016

Project / Client 160140 City of Orlando

EST Zone Overcast/Cloudy 74°F

Katy begin filling injection holes at MW-11.

1130 HPI breaks ground on E. injection pt at MW-10R.

1138 HPI begins injection at E. injection point.

11:42 Injection complete at E. injection pt. HPI moves rig to W. injection pt.

1146 HPI breaks ground on W. injection pt. at MW-10R

~~11:48 Dan~~ EL

1150 HPI begins injection at W. injection pt. at MW-10R

1156 W. injection complete HPI moves rig to S. injection point.

1159 HPI breaks ground on S. injection point at MW-10R

1203 HPI begins injection at S injection pt.

1210 Dan and Tracy leave site. HPI Completes S. injection and begins Cleaning up. Beth and Katie fill

Location Orlando Rec Center Date 3/28/2016

Project / Client 160140 City of Orlando

EST Zone Overcast/Cloudy 74°F

1233 - Katie leaves site

1250 - HPI, Beth and Jim leave site.

NFE

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-10R	SAMPLE ID: MW-10R	DATE: MARCH 28, 2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): ~~2~~ 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 12.12	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 12.12 feet) X 0.16 gallons/foot = 1.3 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15'	PURGING INITIATED AT: 9:06	PURGING ENDED AT: 9:31	TOTAL VOLUME PURGED (gallons): 2

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
9:24	1.5	1.5	.08	12.17	5.80	19.25	215	1.8	2.4	Clear	None
9:28	.25	1.75	.08	12.18	5.77	19.27	213	1.75	1.82	Clear	None
9:31	.25	2	.08	12.18	5.77	19.38	211	1.74	2.06	Clear	None

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Ryan Burns	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 9:32	SAMPLING ENDED AT: 9:38
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING (Y) N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-10R	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	315
MW-10R	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	315
MW-10R	1 ~~2~~	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	315

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-11	SAMPLE ID: MW-11	DATE: MARCH 28, 2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 11.68	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.68 feet) X 0.16 gallons/foot = 1.33 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15'	PURGING INITIATED AT: 8:10	PURGING ENDED AT: 8:34	TOTAL VOLUME PURGED (gallons): 2.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
8:28	1.5	1.5	0.08	11.69	5.97	18.42	97	2.2 24.2	0.69	clear	none
8:31	0.25	1.75	0.08	11.69	5.95	18.42	98	2.1 23.3	0.55	clear	none
8:34	0.25	2.00	0.08	11.69	5.98	18.43	97	2.1 23.3	0.47	clear	none

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Ryan Burns	SAMPLER(S) SIGNATURE(S): Ryan Burns	SAMPLING INITIATED AT: 8:35	SAMPLING ENDED AT: 8:42
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-11	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	315
MW-11	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	315
MW-11	~~2~~ 1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	315

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) YSI 556 Instrument # 03L0628 AE

Parameter: *[check all that apply]*

___ TEMPERATURE _X_CONDUCTIVITY ___SALINITY _X_pH _X_ORP

___TURBIDITY ___RESIDUAL CHLORINE _X_DO ___OTHER_____

STANDARDS pH: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **7.0** LOT # 141125C EXP. 6/16

Standard B **4.0** LOT # 151007A EXP. 10/16

Standard C 10.0 LOT # 141125D EXP. 6/16

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
03/28/16	7:10	A	7.0	7.06	0.8%	Yes	INIT	AB
↓	7:14	B	4.0	3.98	0.5%	Yes	INIT	AB
	7:17	C	10.0	10.09	0.9%	Yes	INIT	AB

STANDARDS Conductivity: *[Specifiy the type(s) of standrads used for calibration, the orgin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **1000** LOT # 151218B EXP. 12/16

Standard B _____ LOT # _____ EXP. _____

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
03/28/16	7:20	A	1000	1012	1.2%	Yes	INIT	AB

FIELD INSTRUMENT CALIBRATION RECORDS

STANDARDS Dissolved Oxygen: *[Specify the type(s) of standards used for calibration, the origin of the standardsthe standard values, and the date the standards were prepared or purchased.]*

Standard A **AIR 100% HUMIDITY**

Standard B

Standard C

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
03/28/16	7:25	A	100%	100.3%	0.3%	Yes	INIT	DB

STANDARDS ORP: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A LOT # EXP.

Standard B LOT # EXP.

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
		A					INIT	

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) ~~LaMotte 2020~~ Hach 2100Q Instrument # 13120C029987

Parameter: *[check all that apply]*

___ TEMPERATURE ___CONDUCTIVITY ___SALINITY ___Ph ___ORP

_X_ TURBIDITY ___RESIDUAL CHLORINE ___DO ___OTHER_____

STANDARDS Turbidity: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A ~~0.0~~ 20.0 LOT # ____ EXP. ____

Standard B **1.0** LOT # NA EXP. NA

Standard C **10.0** LOT # ____ EXP. ____

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
03/28/16	7:30	A	20.0	20.2	1%	Yes	INIT	AB
		B	1.0				INIT	
		C	10.0				INIT	

Location Orlando Rec Center Date 4/11/16

Project / Client Rec Center - 160140

649 Bentley St. Orlando, FL

0800 - ~~Arrived~~ Elizabeth Lanning, ECT, arrived at office to pick up coolers and paperwork

0815 - Beth stopped for ice

0820 - Arrive on site at Rec Center 70°F, Sunny, No breeze. Beth begins prepping for sampling & checks in w/ security at front desk

0842 - Katie Ballew, BFA, arrived on site Katie has no battery pack Beth calls office for further instruction.

0850 Katie drives truck up to fence, we sample from there Katie begins setting up to sample MW-11. Beth preps lab sheets, lab kits & paperwork Equipment has already been calibrated, See calibration sheet

0925 Purging of MW-11 initiated

1010 Purging of MW-11 complete, Katie begins sampling.

Location _____ Date 4/11/16

Project / Client Rec Center

1014 Sampling of MW-11 complete, Katie begin setting up to sample MW-10R. Beth prepares sample jars

1035 Purging of MW-10R initiated

1059 Purging of MW-10R complete, Katie begins sampling

1105 Sampling of MW-10R complete. Beth + Katie begin cleaning up

1118 Katie off site to deliver samples to Accutest. Beth picks out with security, completes paperwork

1125 Beth off site, heads to Flowers laboratories to drop off APC samples

1200 Arrive @ Flowers Labs to drop off samples. Stop into speak with June + pick up new sample jars + cooler

1220 Beth leaves lab heads back to office

1300 Beth stops for lunch

1345 Beth leaves and goes back to office

Location _____ Date _____

Project / Client _____

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL	
WELL NO: MW-10R	SAMPLE ID: MW-10R	DATE: APRIL 11, 2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 12.2	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 12.2 feet) X 0.16 gallons/foot = 1.25 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17	PURGING INITIATED AT: 1035	PURGING ENDED AT: 1059	TOTAL VOLUME PURGED (gallons): ~~1.05~~ 2.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1050	1.25	1.25	.08	12.2	5.75	23.82	325	2.74	12.5	clear	Sulfur 226
1053	0.25	1.50	.08	12.2	5.76	23.74	315	3.01	11.8	clear	Sulfur 236
1056	0.25	1.75	.08	12.2	5.76	23.77	298	3.02	9.24	Clear	Sulfur 241
1059	0.25	2.00	.08	12.2	5.76	23.73	294	3.06	8.45	clear	Sulfur 242

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- E. Lanning / K. Ballew-BFA	SAMPLER(S) SIGNATURE(S): E. Lanning / [illegible]	SAMPLING INITIATED AT: 1059	SAMPLING ENDED AT: 1105
PUMP OR TUBING DEPTH IN WELL (feet): 17	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N replaced) DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-10R	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-10R	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	200
MW-10R	2	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	303

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL	
WELL NO: MW-11	SAMPLE ID: MW-11	DATE: APRIL 11, 2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 11.8	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.8 feet) X 0.16 gallons/foot = 1.31 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 18	PURGING INITIATED AT: 9:25	PURGING ENDED AT: 10:40	TOTAL VOLUME PURGED (gallons): 3.55

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	
9:43	1.50	1.50	.08	11.70	5.51	22.85	82	2.88	79.9	Cloudy white	None	233
9:46	0.25	1.75	.08	11.75	5.50	22.92	83	3.20	70.9	"	None	232.
9:49	0.25	2.00	.08	11.70	5.52	23.02	84	2.80	40.2	"	None	232.
9:59	0.80	2.80	.08	11.7	5.55	22.86	82	3.10	21.3	Slightly cloudy	None	232.
10:02	0.25	3.05	.08	11.7	5.55	22.99	82	3.02	15.5	"	None	231.
10:05	0.25	3.30	.08	11.7	5.54	23.08	80	3.08	14.1	"	None	230
10:08	0.25	3.55	.08	11.7	5.54	23.00	80	3.09	12.1	Clear	None	230.

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- E. Lanuzg / K. Ballew / BFA	SAMPLER(S) SIGNATURE(S): E Lanuzg /	SAMPLING INITIATED AT: 10:10	SAMPLING ENDED AT: 10:14
PUMP OR TUBING DEPTH IN WELL (feet): 18	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-11	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-11	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	~~200~~ 303 200
MW-11	2	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	~~200~~ 200 303

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Location Orlando Rec Center Date 4/25/16

Project / Client City of Orlando, 76°F, Sunny, breezy All times EST Zone

0800 Elizabeth Samuz, ECT, arrives at office, gathers equipment
0815 Beth mobilizes to Site. Stops at gas station for ice, no ice, get large cup of ice.
0830 Beth arrives at Site
0900 Katie Ballew arrives on Site. Forgot tubing, leaves Site.
0930 Katie Ballew back on site. With BFA.
0945 Katie calibrates equipment.
1000 Start setting up to purge MW-11
1030 BFA's equipment not working properly
1045 Beth leaves Site, returns to ECT to get ECT's equipment
1140 Beth back on Site, begin Calibrating equipment
~~1232~~ 1211 Purging of MW-11 initiated.
1230 Purging complete, Katie begins sampling MW-11
1236 Sampling of MW-11 complete.

Location Orlando Rec Center Date 4/25/16

Project / Client

1324 Purging complete, Katie begins sampling MW-10R
1330 Sampling of MW-10R complete. Beth & Katie clean & put away equipment.
1405 Beth and Katie leave Site. Beth mobs to Flowers lab, Katie to Accutest
1430 Beth arrives at Flowers labs, leaves off samples & Flower's cooler
1520 Beth back at office

NPE

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) YSI 556 MPS Instrument # 08K100598

Parameter: *[check all that apply]*

___ TEMPERATURE _X_CONDUCTIVITY ___SALINITY _X_pH _X_ORP
___TURBIDITY ___RESIDUAL CHLORINE _X_DO ___OTHER_____

STANDARDS pH: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **7.0** LOT # 5GL825 EXP. 12/17
Standard B **4.0** LOT # 5GL345 EXP. 12/17
Standard C **10.0** LOT # 5GL339 EXP. 12/17

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
4/25/16	1140	A	7.0	6.8	-2.9	yes	INIT	EZ
↓	1140	B	4.0	4.0	0	↓	INIT	EZ
↓	1140	C	10.0	9.9	-1	↓	INIT	EZ

STANDARDS Conductivity: *[Specifiy the type(s) of standrads used for calibration, the orgin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **1000** LOT # 6GA182 EXP. 1/17
Standard B _____ LOT # _____ EXP. _____

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
4/25/16	1140	A	1000	981	-1.9	yes	INIT	EZ

FIELD INSTRUMENT CALIBRATION RECORDS

STANDARDS Dissolved Oxygen: *[Specify the type(s) of standards used for calibration, the origin of the standardsthe standard values, and the date the standards were prepared or purchased.]*

Standard A **AIR 100% HUMIDITY**

Standard B

Standard C

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
4/25/16	1140	A	100%	100%	0	NO	INIT	EK

STANDARDS ORP: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A 200mV LOT # 86B582 EXP. 11/16

Standard B LOT # EXP.

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
4/25/16	1140	A	200	198	-1	NO	INIT	EK

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) **LaMotte 2020we** Instrument # 11090C012172

Parameter: *[check all that apply]*

___ TEMPERATURE ___CONDUCTIVITY ___SALINITY ___Ph ___ORP

_X_ TURBIDITY ___RESIDUAL CHLORINE ___DO ___OTHER_____

STANDARDS Turbidity: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **0.0** LOT # DI Water EXP. NA

Standard B EZ ~~1.0~~ 10.0 LOT # 29601801 EXP. 6/16

Standard C EZ ~~10.0~~ 100 LOT # 2684901 EXP. 6/16

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
4/25/16	1140	A	0.0	0.1	≈0	NO	INIT	EZ
↓	↓	B	10 ~~1.0~~	↓	↓	↓	INIT	EZ
↓	↓	C	100 ~~10.0~~	↓	↓	↓	INIT	EZ

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-10R	SAMPLE ID: MW-10R - 042516	DATE: APRIL 25, 2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 12.32	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20.0 feet – 12.32 feet) X .16 gallons/foot = 1.23 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17	PURGING INITIATED AT: 1300	PURGING ENDED AT: 1324	TOTAL VOLUME PURGED (gallons): 2.25

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	ORP
1312	1.25	1.25	0.08	12.40	5.77	25.43	411	0.36	9.16	clear	unknown	
1315	0.25	1.50	0.08	12.35	5.69	25.16	404	0.36	8.38	clear	unknown	
1318	0.25	1.75	0.08	12.35	5.76	25.58	400	0.36	7.17	clear	unknown	20.0
1321	0.25	2.00	0.08	12.35	5.77	25.39	392	0.35	7.40	clear	unknown	16.
1324	0.25	2.25	0.08	12.35	5.81	25.57	388	0.36	5.92	clear	unknown	15.

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Elamug / K Ballew - BFA	SAMPLER(S) SIGNATURE(S): E Lamug	SAMPLING INITIATED AT: 1324	SAMPLING ENDED AT: 1330
PUMP OR TUBING DEPTH IN WELL (feet): 17	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-10R	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-10R	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	303
MW-10R	2	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	303

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Orlando Downtown Rec Center	SITE LOCATION: 649 Bentley St., Orlando, FL	
WELL NO: MW-11	SAMPLE ID: MW-11-042516	DATE: 4/25/2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 11.9	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.9 feet) X 0.16 gallons/foot = 1.30 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17	PURGING INITIATED AT: 1211	PURGING ENDED AT: 1232	TOTAL VOLUME PURGED (gallons): 2.0

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	OR
1226	1.50	1.50	0.08	11.9	5.36	23.63	95	0.51	6.23	clear	unknown	20
1229	0.25	1.75	0.08	11.9	5.47	23.74	95	0.43	4.80	clear	"	20
1232	0.25	2.00	0.08	11.9	5.50	23.73	96	0.37	3.90	clear	"	16

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT-Elamug BFA-KBallew	SAMPLER(S) SIGNATURE(S): Elamug	SAMPLING INITIATED AT: 1232	SAMPLING ENDED AT: 1236
PUMP OR TUBING DEPTH IN WELL (feet): 17	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-11	2	AG	250ml	None	—	—	Dieldrin	APP	303
MW-11	2	AG	40ml	HCL	—	<2	TOC	APP	303
MW-11	2	PE	100ml	None	—	—	HPC	APP	303

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Location Orlando Rec Center Date 5/9/16

Project / Client 649 Bentley Orlando, FL

76°F Sunny No Breeze

All times EST.

0830 ~~Arrive~~ Elizabeth Lanning, ECT, arrives on site, checks in with front desk. No guard available with key, wait in car and start paperwork

0855 get key for picnic area begin setting up

0900 BFA arrives, Katie Ballew, in BFA vehicle, helps set up.

0910 Beth begins calibrating

~~0945~~

0937 Purging of MW-11 initiated

0945 Jim Oroles, ECT, arrives on site, brings paperwork.

1001 Purging of MW-11 complete

1005 Jim leaves site, Katie completes sampling

1027 Purging of MW-10R initiated

1048 Purging complete, sampling initiated

1054 Katie completes sampling

Location Orlando Rec Center Date 5/9/16

Project / Client

begin cleaning up

1130 Beth and Katie leave site. Katie to mobilize to accutest and flowers labs to drop off samples

1200 Beth arrives at office

NFE

Elanny

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-10R	SAMPLE ID: MW-10R	DATE: MAY 9, 2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 12.54	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 12.54 feet) X 0.16 gallons/foot = 1.19 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17	PURGING INITIATED AT: 1027	PURGING ENDED AT: 10:48	TOTAL VOLUME PURGED (gallons): 2.10

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	DBP
10:39	0.20	~~0.20~~ 1.20	0.10	12.55	5.86	20.56	298	1.41	2.99	Clear	Sulfur	60.1
10:42	0.30	1.50	0.10	12.55	5.81	20.52	292	0.46	2.44	Clear	Sulfur	51.9
10:45	0.30	1.80	0.10	12.55	5.81	20.45	285	0.39	2.13	Clear	none	47.2
10:48	0.30	2.10	0.10	12.55	5.78	20.49	281	0.36	1.94	Clear	none	42.6

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Elaning/KBallew-BFA	SAMPLER(S) SIGNATURE(S): Elaning	SAMPLING INITIATED AT: 1048	SAMPLING ENDED AT: 10:54
PUMP OR TUBING DEPTH IN WELL (feet): 17	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-10R	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	378
MW-10R	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	378
MW-10R	~~2~~ 1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	378

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

.06

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL	
WELL NO: MW-11	SAMPLE ID: MW-11	DATE: MAY 9, 2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 12.03	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 12.03 feet) X 0.16 gallons/foot = 1.28 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17	PURGING INITIATED AT: 9:39	PURGING ENDED AT: 10:01	TOTAL VOLUME PURGED (gallons): 2.10

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	
9:55	1.50	1.50	0.10	12.08	5.69	18.35	92	0.27	5.70	clear	unknown	DRY
9:58	0.30	1.80	0.10	12.08	5.69	18.37	93	0.26	4.49	Clear	unknown	48.4
10:01	0.30	2.10	0.10	12.08	5.69	18.35	93	0.25	3.74	Clear		47.6
												49.9

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Elanug / KBallew-BFA	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 10:01	SAMPLING ENDED AT: 10:05
PUMP OR TUBING DEPTH IN WELL (feet): 17	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-11	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	378
MW-11	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	378
MW-11	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	378

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) YSI 556 MPS Instrument # 08K100598

Parameter: *[check all that apply]*

___ TEMPERATURE _X_CONDUCTIVITY ___SALINITY _X_pH _X_ORP

___TURBIDITY ___RESIDUAL CHLORINE _X_DO ___OTHER_____

STANDARDS pH: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **7.0** LOT # 56L825 EXP. 12/17

Standard B **4.0** LOT # 56L345 EXP. 12/17

Standard C 10.0 LOT # 56L339 EXP. 12/17

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
05/9/16	910	A	7.0	6.9	1.43	NO	INIT	EZ
↓	↓	B	4.0	3.9	2.5	NO	INIT	EZ
↓	↓	C	10.0	10.0	Ø	NO	"	EZ

STANDARDS Conductivity: *[Specifiy the type(s) of standrads used for calibration, the orgin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **1000** LOT # 6GA182 EXP. 1/17

Standard B _____ LOT # _____ EXP. _____

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
05/9/16	925	A	1000	983	1.7	yes	INIT	

FIELD INSTRUMENT CALIBRATION RECORDS

STANDARDS Dissolved Oxygen: *[Specify the type(s) of standards used for calibration, the origin of the standardsthe standard values, and the date the standards were prepared or purchased.]*

Standard A **AIR 100% HUMIDITY**

Standard B

Standard C

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
5/9/16	935	A	100%	100%	0	NO	INIT	EZ

STANDARDS ORP: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A 200mV LOT # 868582 EXP. 11/14

Standard B LOT # EXP.

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
5/9/16	945	A	200	202	1%	NO	INIT	EZ

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) La Motte 20 2one Instrument # 11090C202172

Parameter: *[check all that apply]*

___ TEMPERATURE ___CONDUCTIVITY ___SALINITY ___Ph ___ORP

_X_TURBIDITY ___RESIDUAL CHLORINE ___DO ___OTHER_____

STANDARDS Turbidity: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **0.0** LOT # DI water EXP. NA

Standard B ~~1.0~~ 10.0 LOT # 2961801 EXP. 4/16

Standard C ~~10.0~~ 1000 LOT # 2684901 EXP. 6/16

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
5/9/16	945	A	0.0	0	0	NO	INIT	EZ
↓	↓	B	1.0	1.0	0	NO	INIT	EZ
↓	↓	C	10.0	9.8	2%	~~NO~~ YES EZ	INIT	EZ

Location Orlando Rec Center Date 05/24/16

Project / Client 649 Bentley St Orlando, FL

80°F Sunny, no breeze

7:30	Ryan Burns (ECT) arrives at office and preps vehicle O-5 (F-150 XC) for field work.
8:40	Ryan mobilizes to site.
9:00	Ryan on site. Katie Ballew (BFA) on site already. HASP + scope discussed. Staff notified we are on site.
9:20	ECT calibrates equipment. Troubleshooting required.
10:21	Begin purging MW-11.
10:43	Purging complete. Collect sample: MW-11. See log.
11:06	Begin purging MW-10R.
11:24	Purging complete. Collect sample: MW-10R. See log.
11:30	CoC filled out. Logs completed.
11:55	ECT + BFA clean site.
12:05pm	ECT + BFA off site to deliver samples on ice.
1:00pm	Ryan returns to office.

RPB

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-10R	SAMPLE ID: MW-10R	DATE: MAY 24, 2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 12.5	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 12.5 feet) X .16 gallons/foot = 1.2 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 11:06	PURGING ENDED AT: 11:24	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	OR
11:18	1.2	1.2		12.54	5.72	26.9	288.9	.39	16.0	cloudy ~~Clear~~	unknown ~~None~~	55.
11:21	.25	1.45	.08	12.54	5.72	26.9	282.5	.38	13.0	clear	unknown	51.
11:24	.25	1.70	.08	12.54	5.72	26.8	283.3	.37	9.18	clear	unknown	47

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT-	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 11:24	SAMPLING ENDED AT: 11:32
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-10R	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	
MW-10R	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	
MW-10R	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL	
WELL NO: MW-11	SAMPLE ID: MW-11	DATE: MAY 24, 2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): .25	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 12.05	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 12.05 feet) X .16 gallons/foot = 1.27 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 10:21	PURGING ENDED AT: 10:43	TOTAL VOLUME PURGED (gallons): 2.0

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	ORP
10:37 KB	1.30	1.3		12.05	5.96	24.5	85.8	.75	4.36	Clear	None	126.
10:40	~~33~~ 3 KB	1.6		12.05	5.95	24.5	86	.75	3.88	Clear	None	122
10:43	~~33~~ 4 KB	2.0		12.05	5.94	24.5	86.4	.72	3.65	Clear	None	114.

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Ryan Burns BFA- Katie Ballew	SAMPLER(S) SIGNATURE(S): / Kat Ballew	SAMPLING INITIATED AT: 10:43	SAMPLING ENDED AT: 10:54
PUMP OR TUBING DEPTH IN WELL (feet): 17	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING (Y) N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-11	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	
MW-11	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	
MW-11	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Boldly "X" this box if there is qualified data on this page.

Form FD9000-8 **CALIBRATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)** *11-10-05*

Project/Site: Orlando Rec Center Date: 05/23/16 Meter # _____

Temperature (Quarterly) *For Date of Last Temperature Verification see* _____ *in log book* _____

Dissolved Oxygen	**DEP SOP FT 1500**	Initials	Date	Time	Probe Charge	Probe Gain	mg/L	Temp °c	% DO	Saturation mg/L (from chart)	Pass or Fail
											Acceptance Criteria:+/-0.3mg/l
CAL ICV CCV				9:58					100.0		P F
CAL ICV CCV				10:10					100.0%		P F
CAL ICV CCV				1:40					100.12		P F
CAL ICV CCV											P F
CAL ICV CCV											P F
CAL ICV CCV											P F
CAL ICV CCV											P F

Specific Conductance	**DEP SOP FT 1200**	Initials	Date	Time	Standard µmhos/cm	Exp. Date	Lot #	Bottle #	Cell Constant	Reading µmhos/cm	Pass or Fail
											Acceptance Criteria: +/- 5%
CAL ICV CCV		RB	05/24/16	9:40	1000	12/16	1512188			1000	P F
CAL ICV CCV		RB	↓	9:44	1000	↓	↓			1001	P F
CAL ICV CCV		RB	↓	1:37	1000	↓	↓			1001	P F
CAL ICV CCV											P F
CAL ICV CCV											P F
CAL ICV CCV											P F
CAL ICV CCV											P F

pH	**DEP SOP FT 1100**	Initials	Date	Time	Standard SU	Exp. Date	Lot #	Bottle #	Slope	Reading SU	Pass or Fail
											Acceptance Criteria: +/- 0.2 SU
CAL ICV CCV		RB	05/24/16	9:25	7	6/16	141125C			7.00	P F
CAL ICV CCV		RB	↓	9:28	10	6/16	141125D			10.01	P F
CAL ICV CCV		RB	↓	9:31	4	10/16	151007A			3.99	P F
CAL ICV CCV		RB	↓	9:33	7	6/16	141125C			7.00	P F
CAL ICV CCV		RB	↓	9:35	10	6/16	141125D			10.02	P F
CAL ICV CCV		RB	↓	9:37	4	10/16	151007A			4.01	P F
CAL ICV CCV		RB	↓	1:30	7	6/16	141125C			7.04	P F
CAL ICV CCV		RB	↓	1:33	10	6/16	141125D			10.02	P F
CAL ICV CCV		RB	↓	1:35	4	10/16	151007A			4.03	P F

Maintenance: Weekly pH Slope: _____ Specific Conductance Probe Cleaned? Yes No Dissolved Oxygen Membrane Changed: Yes No

Notes:

Perform only in Calibrate Mode: **CAL** - Calibrate -
Perform only in Run Mode: **ICV** - Initial Calibration Verification
Perform only in Run Mode: **CCV** - Continuing Calibration Verification

FIELD INSTRUMENT CALIBRATION RECORDS

STANDARDS Dissolved Oxygen: *[Specify the type(s) of standards used for calibration, the origin of the standardsthe standard values, and the date the standards were prepared or purchased.]*

Standard A **AIR 100% HUMIDITY**

Standard B

Standard C

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
		A	100%				INIT	

YSI Pro Plus

STANDARDS ORP: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A 200 ~~mV~~ mV LOT # EXP.

Standard B LOT # EXP.

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
05/24/16	10:17	A	200	200	0%	Yes	INIT	RB

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) ~~Ha~~ Lamotte 2020we Instrument # _____

Parameter: *[check all that apply]*

___ TEMPERATURE ___CONDUCTIVITY ___SALINITY ___Ph ___ORP

_X_TURBIDITY ___RESIDUAL CHLORINE ___DO ___OTHER_____

STANDARDS Turbidity: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **0.0** LOT # _____ EXP. _____

Standard B **1.0** LOT # _____ EXP. _____

Standard C **10.0** LOT # _____ EXP. _____

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
05/24/16	10:20	A	0.0	0.0	0 %	Yes	INIT	RB
↓	10:22	B	1.0	1.0	0 %	Yes	INIT	RB
↓	10:24	C	10.0	10.0	0 %	Yes	INIT	RB

Location Orlando Rec Center Date 6/3/16

Project / Client 649 Bentley St Orlando FL

86° Partly Cloudy no breeze

8:00 AM	Ryan Burns (ECT) arrives at office, calibrates equipment and loads light-duty vehicle 0-5 (F-150 XL) with supplies.
9:00 AM	Ryan mobilizes to site.
9:15 AM	Ryan on site, BFA (Katie Ballew) already on site. Ryan finishes calibrating.
10:08 AM	Begin purging MW-11.
10:25 AM	Purging complete. Collect sample: MW-11. See log.
10:48 AM	Begin purging MW-10R.
11:09 AM	Purging complete. Collect sample: MW-10R.
11:20 AM	ECT + BFA clean site and fill out CoC. All samples placed on wet ice for delivery to lab.
11:40 AM	BFA off site. Delivering samples to accutest
11:50 AM	Ryan off site. Delivering samples to Flowers Lab.
2:00 PM	Ryan arrives at office.

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-10R	SAMPLE ID: MW-10R	DATE: JUNE ~~6~~ 3, 2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 12.3	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 12.3 feet) X .16 gallons/foot = 1.25 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	PURGING INITIATED AT: 10:48 AM	PURGING ENDED AT: 11:09 AM	TOTAL VOLUME PURGED (gallons): 1.75

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
11:03	1.25	1.25	0.08	12.29	5.77	26.9	258.1	.54	2.94	clear	unknown
11:06	.25	1.50	0.08	12.29	5.77	26.4	255.0	.55	2.29	clear	unknown
11:09	.25	1.75	0.08	12.29	5.77	26.4	251.7	.56	2.00	clear	unknown

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Ryan Burns	SAMPLER(S) SIGNATURE(S): Ryan B	SAMPLING INITIATED AT: 11:09 AM	SAMPLING ENDED AT: 11:19 AM
PUMP OR TUBING DEPTH IN WELL (feet): 16'	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-10R	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-10R	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	↓
MW-10R	2	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	↓

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-11	SAMPLE ID: MW-11	DATE: JUNE ~~8~~ 3, 2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): ~~12.3~~ 11.79	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.79 feet) X .16 gallons/foot = 1.3 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16	PURGING INITIATED AT: 10:08 AM	PURGING ENDED AT: 10:25 AM	TOTAL VOLUME PURGED (gallons): 1.7

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
10:20	1.3	1.3	0.11	11.79	6.02	24.2	95.7	.57	5.74	clear	unknown
10:23	~~0.2~~ .3	1.65	0.7	11.81	5.99	24.2	95.2	.62	4.88	clear	unknown
10:25	.2	1.7	0.7	11.81	5.97	24.3	94.6	.60	4.27	clear	unknown

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Ryan Burns / BFA Katie Ballew	SAMPLER(S) SIGNATURE(S): [signature] / [signature]	SAMPLING INITIATED AT: 10:25 AM	SAMPLING ENDED AT: 10:34 AM
PUMP OR TUBING DEPTH IN WELL (feet): 16'	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-11	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-11	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	↓
MW-11	2	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	↓

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) YSI Pro Plus Instrument # 14B104670

Parameter: *[check all that apply]*

___ TEMPERATURE _X_CONDUCTIVITY ___SALINITY _X_pH _X_ORP
___TURBIDITY ___RESIDUAL CHLORINE _X_DO ___OTHER_____

STANDARDS pH: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **7.0** LOT # 160411B EXP. 10/17
Standard B **4.0** LOT # 160411A EXP. 4/17
Standard C 10.0 LOT # 160212C EXP. 8/17

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
06/03/16	8:05	A	7.0	7.01	~~.00~~1%	Yes	INIT	RB
↓	8:07	B	4.0	4.00	0%	Yes	INIT	RB
	8:09	C	10.0	9.99	~~.00~~1%	Yes	INIT	RB
	2:10	A	7.0	7.07	~~.01~~%	Yes	CONT	RB
	2:12	B	4.0	4.03	~~.01~~%	Yes	CONT	RB
	2:14	C	10.0	10.01	~~.00~~1%	Yes	CONT	RB

STANDARDS Conductivity: *[Specifiy the type(s) of standrads used for calibration, the orgin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **1000** LOT # 151218B EXP. 12/16
Standard B _____ LOT # _____ EXP. _____

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
06/03/16	8:12	A	1000	1001	0%	Yes	INIT	RB
↓	2:16	A	1000	1012	1.2%	Yes	CONT	RB

FIELD INSTRUMENT CALIBRATION RECORDS

STANDARDS Dissolved Oxygen: *[Specify the type(s) of standards used for calibration, the origin of the standardsthe standard values, and the date the standards were prepared or purchased.]*

Standard A **AIR 100% HUMIDITY**

Standard B

Standard C

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
03/06/16	8:25	A	100%	100%	0%	Yes	INIT	RB
↓	2:30	A	100%	100.1%	~~.001~~ 0%	Yes	CONT	RB

STANDARDS ORP: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A 200 mV LOT # 66C1101 EXP. 12/16

Standard B LOT # ~~191~~ EXP.

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
06/03/16	9:25	A	200	200	0 %	Yes	INIT	RB
↓	2:35	A	200	197	1.5%	Yes	CONT	RB

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) Lamotte 2020we Instrument # 2105-1412

Parameter: *[check all that apply]*

___ TEMPERATURE ___CONDUCTIVITY ___SALINITY ___Ph ___ORP

_X_TURBIDITY ___RESIDUAL CHLORINE ___DO ___OTHER_____

STANDARDS Turbidity: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **0.0** LOT # C582192 EXP. 2/17

Standard B **1.0** LOT # C577685 EXP. 10/16

Standard C **10.0** LOT # C471805 EXP. 7/16

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
06/03/16	~~2:40~~ 8:30	A	0.0	0	0%	Yes	INIT	RB
	~~2:43~~ 8:33	B	1.0	1.0	0%	Yes	INIT	RB
	~~2:45~~ 8:36	C	10.0	10.0	0%	Yes	INIT	RB
	2:40	A	0.0	0	0%	Yes	CONT	RB
	2:43	B	1.0	1.0	0%	Yes	CONT	RB
	2:45	C	10.0	10.0	0%	Yes	CONT	RB

Location Orlando Rec Center Date 6/21/16

Project / Client 649 Bentley St, Orlando, FL

85°, Breezy, Partly Cloudy

All times Eastern Standard

0815 Elizabeth Lamug (Beth) w/ ECT arrives at office and begins loading ECT truck 0-5.

0840 Truck is loaded, Beth mobilizes to site.

0900 Beth stops at 7-11 to buy ice

0912 Beth arrives on site, Katie Ballew (Katie) with BFA is already on site. Begin unloading equipment

0929 Beth begins calibrating equipment See Calibration log. Katie sets up to sample MW-11

0953 Purging of MW-11 initiated

1017 Purging of MW-11 complete, Katie begins sampling.

1026 Sampling complete, Beth & Katie begin setting up for sampling at MW-10R.

1053 Purging of MW-10R initiated

1117 Purging complete, Katie begins sampling MW-10R

1127 Sampling complete, Beth &

Location Orlando Rec Center Date 6/21/16

Project / Client

11:40 Trailer parked on MW-1, well is close enough to sample

1206 Purging of MW-1 initiated

1220 Purging complete, Katie begins sampling MW-1

1235 Sampling complete. Katie & Beth load truck

1250 Trucks loaded, Beth mobs to Flowers bks and Katie mobs to Accutest

1322 Beth drops off samples at Flowers

1402 Beth arrives at office, cleans out truck for the day

1440 Back in office

NFE

E Lamug

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-1	SAMPLE ID: MW-1	DATE: JUNE 21, 2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 10.90	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 10.90 feet) X 0.16 gallons/foot = 1.46 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17	PURGING INITIATED AT: 1206	PURGING ENDED AT: 1230	TOTAL VOLUME PURGED (gallons): 2.06

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	ORP
12:24	1.50	1.50	0.08	11.10	5.86	27.0	255.0	0.05	4.03	Clear	Sulfur	68
12:27	0.25	1.75	0.08	11.00	5.86	26.9	256.1	0.05	3.58	Clear	Sulfur	7.1
12:30	0.25	2.00	0.08	11.00	5.85	26.7	255.7	0.05	2.76	Clear	Sulfur	9.4

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Elamug / BFA- KBallew	SAMPLER(S) SIGNATURE(S): Elamug / [illegible]	SAMPLING INITIATED AT: 1230	SAMPLING ENDED AT: 1235
PUMP OR TUBING DEPTH IN WELL (feet): 17	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-1	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-1	2	AG	40ml	HCL	-	<2	TOC (EPA 9060A)	APP	303
MW-1	2	PE	100ml	None	-	-	HPC (EPA 9215B)	APP	303

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

7.53
1.8
10:11

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-11	SAMPLE ID: MW-11	DATE: JUNE 20, 2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 11.05	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.05 feet) X .16 gallons/foot = 1.4 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17	PURGING INITIATED AT: 9:53	PURGING ENDED AT: 10:17	TOTAL VOLUME PURGED (gallons): 2.0

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
10:11	1.50	1.50	0.08	11.10	6.00	24.8	97.8	0.46	1.02	clear	none
10:14	0.25	1.75	0.08	11.10	5.98	25.0	96.3	0.52	0.78	clear	none
10:17	0.25	2.00	0.08	11.10	5.96	24.9	96.9	0.56	0.71	clear	none

ORP
79.1
65.
56.

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT-Elamug / BFA-KBallew	SAMPLER(S) SIGNATURE(S): Elamug / [illegible]	SAMPLING INITIATED AT: 10:17	SAMPLING ENDED AT: 10:26
PUMP OR TUBING DEPTH IN WELL (feet): 17	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-11	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-11	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	303
MW-11	2	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	303

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-10R	SAMPLE ID: MW-10R	DATE: JUNE 20, 2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4"	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 11.55	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.55 feet) X 0.16 gallons/foot = 1.36 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17	PURGING INITIATED AT: 10:53	PURGING ENDED AT: 1117	TOTAL VOLUME PURGED (gallons): 2.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
11:11	1.50	1.50	0.08	11.55	5.98	26.4	757	1.08	2.05	clear	none
11:14	0.25	1.75	0.08	11.55	5.98	27.0	745	1.06	1.73	clear	none
11:17	0.25	2.00	0.08	11.55	5.95	27.0	742	1.16	1.85	clear	none

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Elanwig / BFA - KBallew	SAMPLER(S) SIGNATURE(S): Elanwig	SAMPLING INITIATED AT: 1117	SAMPLING ENDED AT: 1127
PUMP OR TUBING DEPTH IN WELL (feet): 17	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-10R	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-10R	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	303
MW-10R	2	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	303

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) YSI Pro Plus Instrument # 14B104670

Parameter: *[check all that apply]*

___ TEMPERATURE _X_CONDUCTIVITY ___SALINITY _X_pH _X_ORP
___TURBIDITY ___RESIDUAL CHLORINE _X_DO ___OTHER_____

STANDARDS pH: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **7.0** LOT # 160411B EXP. 10/17
Standard B **4.0** LOT # 151007A EXP. 10/16
Standard C 10.0 LOT # 160212C EXP. 08/17

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
6/21/16	929	A	7.0	7.21		yes	INIT	EZ
6/21/16	929	B	4.0	3.99		NO	INIT	EZ
6/21/16	929	C	10.0	9.93		yes	Init	EZ

STANDARDS Conductivity: *[Specifiy the type(s) of standrads used for calibration, the orgin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **1000** LOT # 151218B EXP. 12/16
Standard B _____ LOT # _____ EXP. _____

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
6/21/16	929	A	1000	993		yes	INIT	EZ

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) LaMotte 2020we Instrument # 26862

Parameter: *[check all that apply]*

___ TEMPERATURE ___CONDUCTIVITY ___SALINITY ___Ph ___ORP

_X_TURBIDITY ___RESIDUAL CHLORINE ___DO ___OTHER_____

STANDARDS Turbidity: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **0.0** LOT # _____ EXP. _____

Standard B **1.0** LOT # _____ EXP. _____

Standard C **10.0** LOT # _____ EXP. _____

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
6/21/16	945	A	0.0	0.0		NO	INIT	EZ
6/21/16	945	B	1.0	1.02		NO	INIT	EZ
6/21/16	945	C	10.0	9.87			INIT	EZ

ECT DAILY FIELD LOG

PROJECT INFORMATION

Project & Task #: Orlando Rec Center 1600473-0001 **Date:** 25 July 2016

Time	Comments
1600	Jim Orioles with ECT Leaves for Orlando
	Rec Center
1630	Jim Orioles Arrives on Site and Checks in
	with Rec Center Staff
1635	Elizabeth Lamus with ECT Arrives on
	Site with Petrox
1650	Elizabeth with ECT off Site
1700	Jim Orioles Preparing the four 55-gallon
	drums for Petrox Hydration
1730	Hydrating Petrox
1800	Hydrating Petrox
1830	Hydrating Petrox
1900	Petrox Hydration Complete. Jim Orioles locked
	gate and Checked out with Rec Center Staff
1930	Jim Orioles arrives at Orlando office
	Picked up Dextrose for Petrox injection Scheduled
	for 0800 on July 26, 2016.
	NFE

Recorded by: James J. Orioles Date: 25 July 2016

Reviewed by: Date:

ECT DAILY FIELD LOG

PROJECT INFORMATION

Project & Task #: Orlando Rec Center 160473-0001 **Date:** 26 July 2016

Time	Comments
0550	Jim Oriolos leaves house in Lake Mary for the Orlando Downtown Recreation Center in personal vehicle.
0620	Jim Oriolos arrives on Site at the Rec Center located at 649 Bentley Street Orlando, Florida. Light Clouds / Hot Humid weather
0640	Filling four 55-gallon drums with dextrose. 50lbs per drum
0700	Checked in with Rec Center Staff
0715	Mixing dextrose with a PVC Pipe by Stirring each drum 3 to 4 minutes
0730	Removed Bricks around MW-11 at the Proposed injection Point Locations. Stirred drums
0745	Stirred Drums
0800	Stirred Drums
0815	Stirred Drums
0830	Stirred Drums
0845	Stirred Drums
0900	Groundwater Protection On Site
0930	Drillers are Setting up DPT rig at MW-11
0945	Injecting Petrox at MW-11 - injection Point 1 Injection Point one took all of the Petrox very quickly. Approximately 13.75 gallons. Injections are from 20 ft bls to 10 ft bls (approximate water table elevation) injection rod is 2 feet in Length with ciculiar holes. Injection rate is approximately 2.29 gallons every 2 feet. The injection for Point 2 & 3 covered the entire Range 20 to 10 ft bls
1000	Continuing with injection
1015	Issues with Injection Point 4. The ground is "tight" and not taking all of the Petrox. Especially in the 14 ft bls to 10 ft bls range. The Petrox is bubbling up

Recorded by: James J. Oriolos Date: 26 July 2016

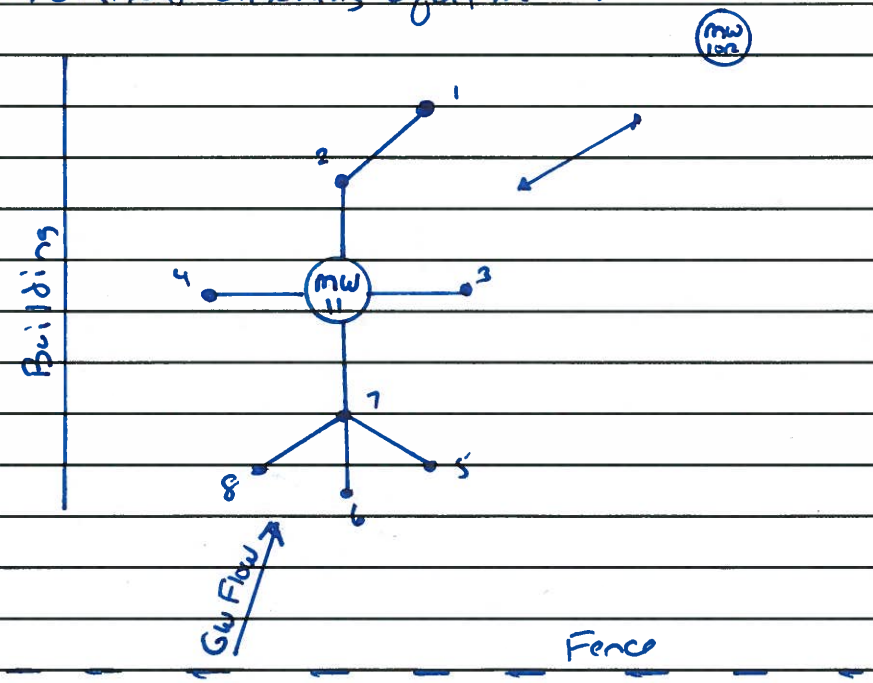
Reviewed by: Date:

ECT DAILY FIELD LOG

PROJECT INFORMATION

Project & Task #: Orlando Rec Center 1600473-0001 **Date:** 26 July 2016

Time	Comments
	to the Surfafe. The injection rate was reduced
	and the rod was moved up and down the soil column
	in an attempt to inject the Prescribed 13.75 gallons
	approximately 10 gallons was injected at Point 4.
1030	Preparing the Second 55-gallon Drum of Petrox
	Solution for injection at MW-11. Injection
	at Point 5. ground was tight. Approximately 15 gal.
1045	injection Point 6 Complete. Approximately 14 gallons. Tight
1055	injection Point 7. ground is Very tight
1105	injection Point 8 Completed with approximately 16 gal.
1110	MW-11 injections Complete. Moving Rig to
	MW 10R and Cleaning equipment.



1120	Set up at 1120 on MW 10R
1125	injecting at Point 1 - 13.75 gallons from
	20 ft bls to 10 ft bls
1130	Elizabeth Lamus with ECT on Site
1140	Completed Injection Point 2

Recorded by: James J Oriolet Date: 26 July 2016

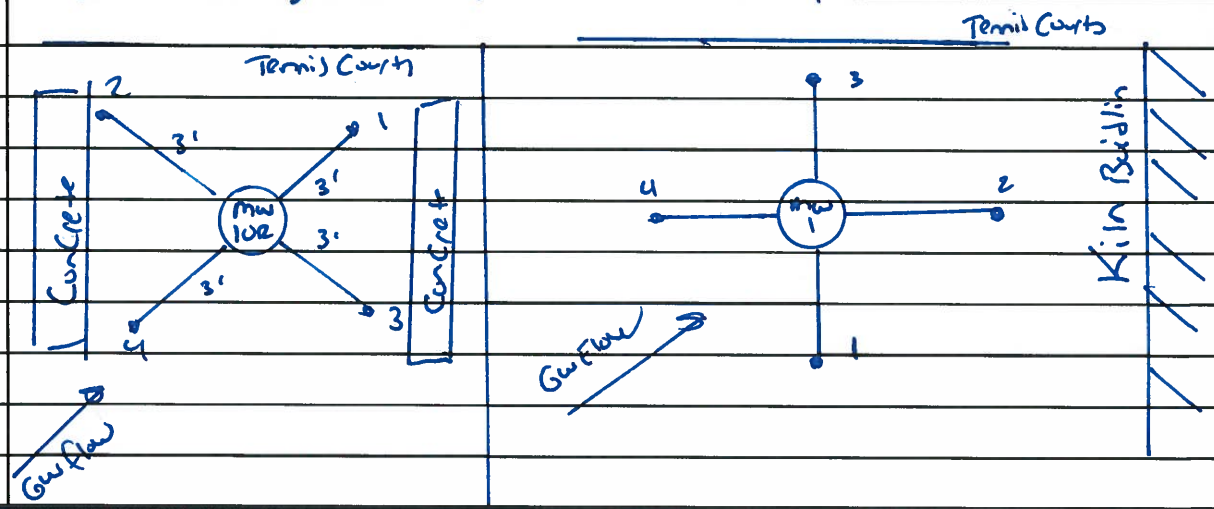
Reviewed by: Date:

ECT DAILY FIELD LOG

PROJECT INFORMATION

Project & Task #: Orlando Rec Center 160473-0001 **Date:** 26 July 2016

Time	Comments
1150	Completed Injection Point 3.
1200	Completed Injection Point 4. Each injection
	went well. the ground accepted all of the Potrox
	Solution over the injection range 20 ft bls to
	10 ft bls. Approximately 13.75 gallons each
1215	Drillers break for Lunch
1230	ECT Replacing bricks at MW-11 and Cleaning
	55 gallon drums and removing Cardboard trash (dextrose boxes)
	from the back picnic Area and Placing in On Site
	dumpster
1245	ECT finished Cleaning up back Area and restoring
	bricks
1305	Drillers returned from Lunch break and mobolizing
	drill rig to MW-1 behind the Kiln building
1315	Potrox injection Commenced at injection Point 1
1320	Injection Point 2 Complete
1325	Injection Point 3 Complete
1330	Injection Point 4 Complete. Injections at
	each Point went well. The ground accepted all of
	the Potrox over the 20 ft bls to 10 ftbls Range
	approximately 13.75 gallons at each Point.



Recorded by: James J. Oriolés **Date:** 26 July 2016

Reviewed by: **Date:**

ECT DAILY FIELD LOG

PROJECT INFORMATION

Project & Task #: Orlando Rec Center 160473-0001 **Date:** 26 July 2016

Time	Comments
1340	Injections Complete. Groundwater Protection
	Cleaning up and demobolizing
1345	Jim Orioles Checks out with Rec Center Staff
	and Secures the Picnic area gate with Rec Center
	Lock. Jim Orioles off Site
1400	Elizabeth Lamus and Groundwater Protection
	Off Site.
1420	ECT arrives at office

NFE

Recorded by: James J Orioles Date: 26 July 2016

Reviewed by: Date:

Location Orlando Rec Center Date 8/2/16

Project / Client City of Orlando
649 Bentley St, Orlando, FL

0815 Elizabeth Lenny (Beth) + Brooke Bayer with ECT, leave office in O-5 and make to Site
83°F, Sunny, Slight Breeze
All times Eastern Standard
0835 Beth + Brooke pick up ice
0845 Beth + Brooke arrive on Site, check in w/ front desk & unlock gate
0902 Begin unloading truck
0915 Lady with Summer camp informs us they are having breakfast at nearby picnics. I inform her of our activities and advise her of cautions she & her group should take.
0938 Begin purging MW-11
1002 Summer Camp group leaves area.
1005 Purging complete, begin sampling MW-11
1008 Sampling of MW-11 complete
Prepare to sample MW-10R

Location Orlando Rec Center Date 8/2/16

Project / Client

1040 Purging of MW-10R initiated.
1107 Purging complete, Sampling of MW-10R initiated.
1111 Sampling of MW-10R complete, Prepare to sample MW-1. Get key to unlock back gate from front desk.
11:35 Unlock back gate, Brooke returns key to front desk.
~~Begin S~~ EY
11:51 ~~Sampling~~ Purging of MW-1 initiated
12:24 Sampling began at MW-1
12:30 Sampling of MW-1 complete
12:41 Beth + Brooke leave Site, make to Flowers Labs to drop off PPC Samples
1304 Arrive at Flowers, drop off samples
1310 Beth + Brooke on lunch
1340 Beth + Brook leave lunch, make to Acentech to drop off canvas

28

Location Orlando Rec Center Date 8/2/16

Project / Client

1430 arrive at Accutest, drop off Dieldrin & TOC Samples
1435 Move to office
1505 arrive at office, unload truck.

NFE

Fleming

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) LaMotte 2020we Instrument # 2020E 26862

Parameter: *[check all that apply]*

___ TEMPERATURE ___CONDUCTIVITY ___SALINITY ___Ph ___ORP

_X_TURBIDITY ___RESIDUAL CHLORINE ___DO ___OTHER_____

STANDARDS Turbidity: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **0.0** LOT # C582192 EXP. 2/17

Standard B **1.0** LOT # EXP. 10/16

Standard C **10.0** LOT # C471805 EXP. 7/16

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
8/1/16	4:10	A	0.0	0.0	0	no	INIT	EL
8/1/16	4:18	B	1.0	1.19	19%	yes	INIT	EL
8/1/16	4:25	C	10.0	9.92	-0.8%	yes	INIT	EL

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) YSI ProPlus Instrument # 14B104670

Parameter: *[check all that apply]*

___ TEMPERATURE _X_CONDUCTIVITY ___SALINITY _X_pH _X_ORP
___TURBIDITY ___RESIDUAL CHLORINE _X_DO ___OTHER_____

STANDARDS pH: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **7.0** LOT # 160411B EXP. 10/17
Standard B **4.0** LOT # 160411A EXP. 4/17
Standard C 10.0 LOT # 160212C EXP. 8/17

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
8/1/16	3:40	A	7.0	6.95	-.71	yes	INIT	EZ
8/1/16	3:48	B	4.0	4.47	11.75%	yes	INIT	EZ
8/1/16	3:48	C	10.0	9.92	-0.8%	yes	init	EZ

STANDARDS Conductivity: *[Specifiy the type(s) of standrads used for calibration, the orgin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **1000** LOT # 151218B EXP. 12/16
Standard B _____ LOT # _____ EXP. _____

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
8/1/16	4:05	A	1000	1020	2%	yes	INIT	EZ

FIELD INSTRUMENT CALIBRATION RECORDS

STANDARDS Dissolved Oxygen: *[Specify the type(s) of standards used for calibration, the origin of the standardsthe standard values, and the date the standards were prepared or purchased.]*

Standard A **AIR 100% HUMIDITY**

Standard B

Standard C

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
8/1/16	3:30	A	100%	108.1 %	8.1	yes	INIT	EZ

STANDARDS ORP: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A LOT # EXP.

Standard B LOT # EXP.

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
		A					INIT	

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL	
WELL NO: MW-1	SAMPLE ID: MW-1	DATE: 8/2/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 11.32	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.32 feet) X .16 gallons/foot = 1.39 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1151	PURGING ENDED AT: 12:24	TOTAL VOLUME PURGED (gallons): 2.75

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
12:09	1.50	1.50	0.08	11.63	4.82	27.4	647	2.51	33.8	yellowish	slight unknown
12:12	0.25	1.75	0.08	11.63	4.81	27.2	581	2.01	32.3	light yellow	"
12:15	0.25	2.00	0.08	11.63	4.79	27.1	538	1.55	31.4	light yellow	strong odor
12:18	0.25	2.25	0.08	11.63	4.79	27.1	499	1.18	29.0	light yellow	"
12:21	0.25	2.50	0.08	11.63	4.79	27.2	480	1.06	26.4	light yellow	lighter odor
12:24	0.25	2.75	0.08	11.63	4.79	27.5	472	1.00	25.8	light yellow	light odor

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Elamug / B Bayer	SAMPLER(S) SIGNATURE(S): Elamug / Brooke Bayer	SAMPLING INITIATED AT: 1224	SAMPLING ENDED AT: 1230
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N) (replaced) DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-1	1	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-1	1	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	303
MW-1	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	303

REMARKS:
ORP = -50.0

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-10R	SAMPLE ID: MW-10R	DATE: 8/2/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 11.75	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.75 feet) X 0.16 gallons/foot = 1.32 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17	PURGING INITIATED AT: 1040	PURGING ENDED AT: 1107	TOTAL VOLUME PURGED (gallons): 2.25

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1058	1.50	1.50	0.08	11.83	5.88	28.5	767	2.26	1.25	clear	none
1101	0.25	1.75	0.08	11.83	5.91	28.5	759	1.84	1.22	clear	none
1104	0.25	2.00	0.08	11.83	5.92	28.2	748	1.80	1.22	clear	none
1107	0.25	2.25	0.08	11.83	5.92	28.2	740	1.85	0.87	clear	none

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Elaning / BBayer	SAMPLER(S) SIGNATURE(S): Elaning / Brooke Bayer	SAMPLING INITIATED AT: 1107	SAMPLING ENDED AT: 11:11
PUMP OR TUBING DEPTH IN WELL (feet): 17	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-10R	1	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-10R	1	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	303
MW-10R	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	303

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-11	SAMPLE ID: MW-11	DATE: 8/2/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 11.30	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.30 feet) X 0.16 gallons/foot = 1.39 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17	PURGING INITIATED AT: 0938	PURGING ENDED AT: 10:05	TOTAL VOLUME PURGED (gallons): 2.25

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. ~~(circle units) mmhos/cm~~ or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
9:56	1.50	1.50	.08	11.35	6.05	25.7	98.2	7.1	0.90	Clear	None
9:59	0.25	1.75	.08	11.35	6.02	25.7	96.7	0.57	0.85	Clear	None
10:02	0.25	2.00	.08	11.35	5.99	25.6	94.9	0.59	0.75	Clear	None
10:05	0.25	2.25	.08	11.35	5.97	25.7	95.4	0.58	0.70	Clear	None

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Elanug / BBayer	SAMPLER(S) SIGNATURE(S): Elanug / Brooke Bayer	SAMPLING INITIATED AT: 10:05	SAMPLING ENDED AT: 1008
PUMP OR TUBING DEPTH IN WELL (feet): 17	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-11	1	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-11	1	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	303
MW-11	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	303

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

ECT GROUND WATER LEVEL DATA FORM

PROJECT INFORMATION

Project & Task #: 160473

LEVEL DATA

Well #	Time	Total Depth	Ref. Elevation	Depth to GW	GW Elevation	Order	Observations/comments
MW-11	0922	20	97.08	11.30	85.78	1	
MW-10R	1027	20	97.42	11.75	85.67	2	
MW-1	1132	20	97.19	11.19	86.00	3	

SIGNED INITIALS

Measured by: Elizabeth Lamug Date: 8/2/16

Recorded by: Brooke Bayer Date: 8/2/16

Reviewed by: Date:

Description ID or S/N:

Decontamination between wells? Y or N (circle one)

SOP procedure FC1000 (Y or N) or other (describe)

PAGE 1 OF 1

Location Orlando Rec Center Date 08/07/2016

Project / Client 160473 City of Orlando

EST Zone Cloudy, 88°F

1300	Brad Carrick and Brooke Bayer of ECT arrive on Site via light duty work vehicle O-5.
1305	Check in with Rec Center employee and retrieve key for locked area. Begin set up.
1325	Measure static depth to ground water in MW-10R.
1336	Begin purging MW-10R for ground water sampling.
1359	Completed groundwater sampling at MW-10R.
1412	Begin set up for groundwater sampling at MW-11.
1430	Measure static depth to ground-water in MW-11.
1433	Begin purging MW-11 for ground-water sampling.
~~1452~~ BB 1503	Completed groundwater sampling at MW-11.
1513	Begin set up for groundwater sampling at MW-1.
1531	Measure static depth to ground-water in MW-1.

2' 30

Location Orlando Rec Center Date 08/09/2016

Project / Client 160473 City of Orlando

EST Zone Cloudy, 88°F

1538	Begin purging MW-1 for groundwater sampling.
1601	Completed groundwater sampling at MW-1.
1620	Site cleaned, ECT off Site. Mobilize to Flowers Chemical Laboratories, Inc.
1650	Samples delivered. ECT mobilized to office.
1725	ECT arrive at office.

NFE

BB

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-11	SAMPLE ID: MW-11	DATE: 08/09/2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 11.38	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.38 feet) X 0.16 gallons/foot = 1.38 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~~13~~ 16	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~~13~~ 16	PURGING INITIATED AT: 1433	PURGING ENDED AT: 1452	TOTAL VOLUME PURGED (gallons): 1.9

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1448	1.5	1.5	0.1	11.41	5.78	27.0	95.7	0.33	0.69	None	None
1450	0.2	1.7	0.1	11.41	5.77	26.6	94.2	0.33	0.51	None	None
1452	0.2	1.9	0.1	11.41	5.75	26.9	92.1	0.35	0.46	None	None

OR
45
48
50

BB

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Brad Carrick	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1453	SAMPLING ENDED AT: 1503
PUMP OR TUBING DEPTH IN WELL (feet): ~~13~~ 16	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-11	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	≥200
MW-11	3	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	≥200
MW-11	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	≥200

BB

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-10R	SAMPLE ID: MW-10R	DATE: 08/09/2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 11.81	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.81 feet) X 0.16 gallons/foot = 1.31 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16	PURGING INITIATED AT: 1336	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	OR
1350 BB	1.5	1.5	0.1	11.85	5.82	28.1	734	0.62	0.60	None	None	-6
1353	0.2	1.7	0.1	11.85	5.85	28.0	737	0.50	0.46	None	None	-11
1355	0.2	1.9	0.1	11.85	5.86	28.0	736	0.49	0.51	None	None	-17

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Brad Carrick	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1356	SAMPLING ENDED AT: 1359
PUMP OR TUBING DEPTH IN WELL (feet): 16	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-10R	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	≥200
MW-10R	BB ~~2~~ 3	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	≥200
MW-10R	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	≥200

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL
WELL NO: MW-1	SAMPLE ID: MW-1 — DATE: 08/09/2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 11.13	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.13 feet) X 0.16 gallons/foot = 1.42 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16	PURGING INITIATED AT: 1538	PURGING ENDED AT: 1557	TOTAL VOLUME PURGED (gallons): 1.9

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1553	1.5	1.5	0.1	11.39	4.95	27.3	403.1	0.08	13.3	Yellow	organic OR
1555	0.2	1.7	0.1	11.39	4.97	27.5	399.9	0.15	9.96	Yellow	organic
1557	0.2	1.9	0.1	11.39	4.98	27.4	391.4	0.11	9.19	Yellow	organic

BB

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Brad Carrick	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1558	SAMPLING ENDED AT: 1601
PUMP OR TUBING DEPTH IN WELL (feet): 16	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-1	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	≥ 200
MW-1	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	≥ 200
MW-1	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	≥ 200

BB

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

ECT GROUND WATER LEVEL DATA FORM

PROJECT INFORMATION

Project & Task #: 160473.0001

LEVEL DATA

Well #	Time	Total Depth	Ref. Elevation	Depth to GW	GW Elevation	Order	Observations/comments
MW10R	1325			11.81			
mw-11	1430			11.38			
mw-1	1531			11.13			

SIGNED INITIALS

Measured by: Brad Carrick Date: 08/09/2016

Recorded by: Brooke Bayer Date: 08/09/2016

Reviewed by: Date:

Description ID or S/N: Heron Dipper-T

Decontamination between wells? (Y) or N (circle one)

SOP procedure FC1000 (Y) or N) or other (describe)

PAGE_____OF_____

FIELD INSTRUMENT CALIBRATION RECORDS

STANDARDS Dissolved Oxygen: *[Specify the type(s) of standards used for calibration, the origin of the standardsthe standard values, and the date the standards were prepared or purchased.]*

Standard A **AIR 100% HUMIDITY**
Standard B
Standard C

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
08/09/16	08:36	A	100%	100.2	.2%	No	INIT	BC
9Aug16	1740	A	100%	100%	—	N	CONT	BC

STANDARDS ORP: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A 200 mV LOT # 6GC1101 EXP. 12/16
Standard B LOT # EXP.

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
08/09/16	08:41	A	200	195.8	2.1%	No	INIT	BC
9Aug16	1742	A	200	198.0	-1%	N	Cont	BC

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) YSI PP Instrument # 14B104670

Parameter: *[check all that apply]*

___ TEMPERATURE _X_CONDUCTIVITY ___SALINITY _X_pH _X_ORP
___TURBIDITY ___RESIDUAL CHLORINE _X_DO ___OTHER_____

STANDARDS pH: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A 7.0 LOT # 160411B EXP. 10/17
Standard B 4.0 LOT # 151007A EXP. 10/16
Standard C 10.0 LOT # 160212C EXP. 8/17

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
08/09/16	08:09	A	7.0	6.98	0.3%	No	INIT	BC
08/09/16	08:02	B	4.0	4.08	2%	No	INIT	BC
08/09/16	08:17	C	10.0	10.04	0.4%	No	INIT	BC
9Aug16	1745	A	7.00	7.02	+.02	N	Cont	RL
		B	4.00	3.97	-.03			
		C	10.00	10.00	0			

STANDARDS Conductivity: *[Specifiy the type(s) of standrads used for calibration, the orgin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A 1000 LOT # 160411D EXP. 4/17
Standard B 447 LOT # 160212D EXP. 2/17

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
08/09/16	0830	A	1000	980	2%	N ~~2%~~	INIT	BC
08/09/16	08:27	B	447	395.0	11.6%	YES	INIT	BC
9Aug16	1750	A	1000	997	-.3%	N	CONT	RL
"	"	B	447	447	—	N	"	"

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) **LaMotte 2020we** Instrument # 2105 - 1412

Parameter: *[check all that apply]*

___ TEMPERATURE ___CONDUCTIVITY ___SALINITY ___Ph ___ORP

_X_TURBIDITY ___RESIDUAL CHLORINE ___DO ___OTHER_____

STANDARDS Turbidity: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **0.0** LOT # C582192 EXP. 2/17

Standard B **1.0** LOT # C577685 EXP. 10/16

Standard C **10.0** LOT # C471805 EXP. 7/16

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
08/09/16	07:44	A	0.0	-0.05	5%	Yes ~~No~~ BB	INIT	BB
08/09/16	07:49	B	1.0	1.06	6%	BB ~~No~~ Yes	INIT	BB
08/09/16	07:54	C	10.0	9.29	7.1%	BB ~~No~~ Yes	INIT	BB
9 Aug 16	1758	A	0	0	—	Y	CONT	TK
1	1	B	1.0	1.00	—	1	1	1
1	1	C	10.0	10.1	+1%	1	1	1

Location Orlando Rec Center Date 8/16/2016

Project / Client 160473 City of Orlando

EST Zone Partly Cloudy, 84°F

0900	Brad Carrick and Brooke Bayer (ECT) mobilize to Site in Light Duty work vehicle O-5.
0925	ECT arrives on Site.
0930	Check in with Rec Center employee and retrieve key for locked area. Begin set up.
0945	Measured static depth to water at ~~to~~ MW-10R.
0957	Began purging MW-10R.
1016	Purging ended.
1017	MW-10R sampled.
1036	Measured static depth to water at MW-11.
1043	Began purging MW-11.
1102	Purging ended.
1103	MW-11 sampled.
1115	Begin hydration break
1130	Hydration break over. Begin set up at MW-1.
1147	Measured static depth to water at MW-1.
1200	Began purging MW-1.
1219	Purging ended.

Location Orlando Rec Center Date 8/16/2016

Project / Client 160473 City of Orlando

EST zone Cloudy, 84°F

1220	MW-1 sampled.
1245	Site cleaned. ECT off Site and mobilized to Flowers Laboratory.
1330	Lunch Break
1400	Travel to Flowers
1445	Drop off samples @ Flowers, travel to office
1530	Arrive @ office safe.

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-1	SAMPLE ID: MW-1	DATE: 8/16/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8 OD	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 10.92	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 10.92 feet) X 0.16 gallons/foot = 1.45 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15.5	PURGING INITIATED AT: 1200	PURGING ENDED AT: 1219	TOTAL VOLUME PURGED (gallons): 1.9

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1215	1.5	1.5	0.1	10.95	6.29	28.8	195.3	3.40	32.1	None	None
1217	0.2	1.7	0.1	10.95	6.24	29.4	180.1	3.36	32.5	None	None
1219	0.2	1.9	0.1	10.95	6.15	29.9	175.2	3.30	32.8	None	None

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Brad Carrick / ECT	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1220	SAMPLING ENDED AT: 1226
PUMP OR TUBING DEPTH IN WELL (feet): 15.5	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-1	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	≥200
MW-1	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	≥200
MW-1	2	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	≥200

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL	
WELL NO: MW-10R	SAMPLE ID: MW-10R	DATE: 8/16/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8 OD	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 11.53	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.53 feet) X 0.16 gallons/foot = 1.36 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16	PURGING INITIATED AT: 9:57	PURGING ENDED AT: 10:16	TOTAL VOLUME PURGED (gallons): 1.9

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	
1012	1.5	1.5	0.1	11.59	5.94	28.0	850	0.23	1.35	None	None	24
1014	0.2	1.7	0.1	11.59	5.92	28.4	848	0.21	1.10	None	None	24
1016	0.2	1.9	0.1	11.59	5.92	27.7	858	0.21	1.11	None	None	24

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Brad Carrick / ECT	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1017	SAMPLING ENDED AT: 1023
PUMP OR TUBING DEPTH IN WELL (feet): 16	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-10R	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	≥200
MW-10R	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	≥200
MW-10R	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	≥200

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-11	SAMPLE ID: MW-11	DATE: 8/16/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 11.07	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.07 feet) X 0.16 gallons/foot = 1.43 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15.5	PURGING INITIATED AT: 1043	PURGING ENDED AT: 1102	TOTAL VOLUME PURGED (gallons): 1.9

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1058	1.5	1.5	0.1	11.12	5.88	25.8	113.1	0.73	0.40	None	None
1100	0.2	1.7	0.1	11.12	5.89	25.9	111.7	0.71	0.44	None	None
1102	0.2	1.9	0.1	11.12	5.87	26.1	110.4	0.68	0.44	None	None

BB

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Brad Carrick	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1103	SAMPLING ENDED AT: 1109
PUMP OR TUBING DEPTH IN WELL (feet): 15.5	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-11	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	≥200
MW-11	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	≥200
MW-11	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	≥200

BB

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

ECT GROUND WATER LEVEL DATA FORM

PROJECT INFORMATION

Project & Task #: 160473.0001

LEVEL DATA

Well #	Time	Total Depth	Ref. Elevation	Depth to GW	GW Elevation	Order	Observations/comments
MW-10R	9:45			11.53		1	
MW-11	10:36			11.07		2	
MW-1	11:47			10.92		3	

SIGNED INITIALS

Measured by: Brooke Bayer Date: 8/16/2016

Recorded by: Brooke Bayer Date: 8/16/2016

Reviewed by: Date:

Description ID or S/N: Heron Dipper-T

Decontamination between wells? (Y) or N (circle one)

SOP procedure FC1000 (Y) or N) or other (describe)

PAGE_____OF_____

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) YSI Instrument # _____

Parameter: *[check all that apply]*

___ TEMPERATURE _X_CONDUCTIVITY ___SALINITY _X_pH _X_ORP
___TURBIDITY ___RESIDUAL CHLORINE _X_DO ___OTHER_____

STANDARDS pH: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **7.0** LOT # 411B EXP. 10/17
Standard B **4.0** LOT # 411A EXP. 4/17
Standard C 10 LOT # 212C EXP. 8/17

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
16Aug16	0815	A	7.0	7.03	+.03	Y	INIT	RL
		B	4.0	4.04	+.04		INIT	
		C	10.0	10.02	+.02		"	
16Aug16	1236	A	7.0	7.00	—	N	CCV	RL
		B	4.0	4.04	+.04			
		C	10.0	10.02	+.02			

STANDARDS Conductivity: *[Specifiy the type(s) of standrads used for calibration, the orgin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **1000** LOT # 411D EXP. 4/17
Standard B 447 LOT # 212D EXP. 4/17

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
16Aug16	0820	A	1000	1003	+.3%	N	INIT	RL
"	"	B	447	446.8	-.1%	"	"	"
16Aug16	1231	A	1000	1008	+.8%	N	CCV	RL
"	"	B	447	447.9	+.5%	"	"	"

FIELD INSTRUMENT CALIBRATION RECORDS

STANDARDS Dissolved Oxygen: *[Specify the type(s) of standards used for calibration, the origin of the standardsthe standard values, and the date the standards were prepared or purchased.]*

Standard A **AIR 100% HUMIDITY**

Standard B

Standard C

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
16 Aug 16	0823	A	100%	100%	—	N	INIT	Re
16 Aug 16	1237	A	100%	100%	—	N	CCV	Re

STANDARDS ORP: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A LOT # EXP.

Standard B LOT # EXP.

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
16 Aug 16	0825	A	200	200	—	N	INIT	Re
16 Aug 16	1239	B	200	200	—	N	CCV	Re

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) La Motte / 2020we Instrument # 2105-1412

Parameter: *[check all that apply]*

___ TEMPERATURE ___CONDUCTIVITY ___SALINITY ___Ph ___ORP

_X_TURBIDITY ___RESIDUAL CHLORINE ___DO ___OTHER_____

STANDARDS Turbidity: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **0.0** LOT # C582192 EXP. 2/17

Standard B **1.0** LOT # C577685 EXP. 10/16

Standard C **10.0** LOT # C471805 EXP. 7/16

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
8/16/16	8:16	A	0.0	0.01	1%	No	INIT	BB
8/16/16	8:18	B	1.0	1.02	2%	No	INIT	BB
8/16/16	8:25	C	10.0	10.00	0%	Yes	INIT	BB
16 Aug 16	1330	A	0	0.02	+2%	N	CCV	BC
↓	↓	B	1.0	1.00	—	↓	↓	↓
↓	↓	C	10.0	10.0	—	↓	↓	↓
				BC				

Location Orlando Rec Center Date 8/24/16

Project / Client 160473 City of Orlando
649 Bentley Street, Orlando

All times EST
Cloudy, 88°F, Breezy
0830 - Load equipment into Elizabeth Lanning Personal Vehicle & ECT Rental from Enterprise.
0845 - Call Katie at BFA to ensure she has equipment that reads ORP, it does.
0850 - Elizabeth Lanning (Beth) departs office, mobs to Site.
0910 - Beth arrives on Site. Katie Ballew, BFA, already on site
0930 - Ryan Burns, ECT, arrives on Site, helps Katie set up MW-11
1020 - Begins raining, pause purging for rain, start 3 mins later
~~1030~~ - Purging complete,
1047 Begin Sampling MW-11
1051 Sampling complete, begins raining again. Pack up.
1110 Ryan mobs to accelerat and

Location _____ Date 8/24/16

Project / Client _____

Flowers. Beth moves back to office
11:30 Beth arrives back at office unloads car.

Location Orlando Rec Center Date 8/25/16

Project / Client 160423 City of Orlando
649 Bentley St., Orlando, FL

All times EST.
Sunny, 82°F, slight breeze
0830 Elizabeth Lamug (Beth) arrives on site, checks in at front desk (in personal vehicle)
0850 Chad Downings arrives in Enterprise rental. Begin setting up for GW sampling
0913 Purging of MW-10R initiated
0915 Sample bottle breaks, Chad leaves site to pick up new bottle from office
0940 Purging complete, sampling initiated
0946 Sampling completed, begin packing up to move to MW-1.
0956 Chad back on site. Moves to MW-1, lock wouldn't work. Informed front desk
0950 Begin setting up
1020 Begin purging MW-1.
1050 Purging complete, begin sampling MW-1
1056 Sampling complete begin cleaning up

Location Orlando Rec Center Date 8/25/16

Project / Client

1125 Depart Rec Center. Chad mobes to office, Beth mobes to Flowers
1220 Beth drops off samples at Flowers, mobes to office.
1300 Beth takes lunch
1330 Off lunch, mobes to office
1356 Arrive at office.

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL
WELL NO: MW-1	SAMPLE ID: MW-1	DATE: 8/25/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 10.80	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 10.80 feet) X 0.16 gallons/foot = 1.47 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15	PURGING INITIATED AT: 1020	PURGING ENDED AT: 1050	TOTAL VOLUME PURGED (gallons): 2.50

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
10:38	1.50	1.50	0.08	11.00	6.44	26.25	0.229	20.76	18.1	light brown	strong petroleum odor
10:41	0.25	1.75	0.08	11.02	6.43	26.19	0.228	82.02	12.1	"	"
10:44	0.25	2.00	0.08	11.02	6.40	26.07	0.226	80.14	10.3	clear	"
10:47	0.25	2.25	0.08	11.02	6.38	26.11	0.225	33.61	8.66	clear	"
10:50	0.25	2.50	0.08	11.02	6.37	26.10	0.225	33.11	8.29	clear	slight odor

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Elamug / CDowaing	SAMPLER(S) SIGNATURE(S): E Lamug	SAMPLING INITIATED AT: 1050	SAMPLING ENDED AT: 1056
PUMP OR TUBING DEPTH IN WELL (feet): 15	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-1	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-1	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	303
MW-1	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	303

REMARKS:
ORP = -59.2

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL

WELL NO: MW-10R	SAMPLE ID: MW-10R	DATE: 8/25/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 11.44	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.44 feet) X 0.16 gallons/foot = 1.37 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15	PURGING INITIATED AT: 9:13	PURGING ENDED AT: 9:40	TOTAL VOLUME PURGED (gallons): 2.25

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
9:31	1.50	1.50	0.08	11.46	5.92	26.50	1163	1.94	4.48	Clear ~~4.48~~	Strong unknown
9:34	.25	1.75	.08	11.46	5.90	26.61	1179	2.30	2.30	clear	"
9:37	.25	2.00	.08	11.46	5.90	26.75	1190	2.30	2.30	clear	"
9:40	.25	2.25	.08	11.46	5.90	26.68	1188	2.52	2.52	clear	unknown

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Elamug / CDowning	SAMPLER(S) SIGNATURE(S): E Elamug	SAMPLING INITIATED AT: 940	SAMPLING ENDED AT: 946
PUMP OR TUBING DEPTH IN WELL (feet): 15	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-10R	1	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-10R	1	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	303
MW-10R	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	303

REMARKS:
ORP = -201

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL
WELL NO: MW-11 / SAMPLE ID: MW-11	DATE: 8/24/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 10.97	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 10.97 feet) X 0.16 gallons/foot = 1.44 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15	PURGING INITIATED AT: 1017	PURGING ENDED AT: 1047	TOTAL VOLUME PURGED (gallons): 2.25

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1038	1.50	1.50	.08	10.97	6.22	25.97	128.09	0.15	2.17	clear	none
1041	0.25	~~0.2~~ 1.75	.08	10.97	6.22	26.14	126.54	0.15	2.28	clear	none
1044	0.25	2.0	.08	10.97	6.22	26.10	126.81	0.14	2.32	clear	none
1047	0.25	2.25	.08	10.97	6.22	26.15	125.87	0.16	1.83	clear	none

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Elamug / K Ballew	SAMPLER(S) SIGNATURE(S): Elamug	SAMPLING INITIATED AT: 1047	SAMPLING ENDED AT: 1051
PUMP OR TUBING DEPTH IN WELL (feet): 15	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-11	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	≈ 303
MW-11	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	≈ 303
MW-11	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	≈ 303

REMARKS: ORP- 1.2
Purging Paused for 3 mins while rain slowed down

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

ECT GROUND WATER LEVEL DATA FORM

PROJECT INFORMATION

Project & Task #: 160493

LEVEL DATA

Well #	Time	Total Depth	Ref. Elevation	Depth to GW	GW Elevation	Order	Observations/comments
MW-1	1014	20		10.80			
MW-10R	0900	20		11.44			
MW-11	1013	20		10.97			

SIGNED INITIALS

Measured by: E. Lanning Date: 8/25/16

Recorded by: E. Lanning Date: 8/25/16

Reviewed by: Date:

Description ID or S/N: _____

Decontamination between wells? (Y) or N (circle one)

SOP procedure FC1000 (Y) or N) or other (describe)

PAGE 1 OF 1

REVISION 4 - 12/22/05

M:\ECT Field Forms\GW LEVEL FORMS

Y

160473
Orlando Rec Center

FIELD INSTRUMENT CALIBRATION RECORDS

STANDARDS Dissolved Oxygen: *[Specify the type(s) of standards used for calibration, the origin of the standardsthe standard values, and the date the standards were prepared or purchased.]*

Standard A **AIR 100% HUMIDITY**
Standard B
Standard C

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
		A	100%				INIT	

STANDARDS ORP: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A 200 mV LOT # 6GC1101 EXP. 12/16
Standard B LOT # EXP.

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
08/24/16	9:55	A	200	200	0%	No	INIT	AB

Location Orlando Rec Center Date 8/30/16

Project / Client 160473/Bentley St/City of Orl.

649 Bentley Street EST weather - cloudy

0730 Troubleshoot YSI D.O. + calibrate YSI + turbidimeter.
0900 Mobilize to Cyclone Instruments
0920 Arrive at Cyclone, rent YSI $56.
0955 Arrive at rec center.
1022 Begin purging MW-11. Ryan Burns (ECT) heads back to cyclone for ORP meter. Brad Carrick (ECT) stays on site.
★ ECT mobilized in light duty vehicle O-5.
1040 Ryan B. returns to site.
1044 Purging complete. Collect sample: MW-11.
1105 Begin purging MW-10R.
1128 Purging complete. Collect sample: MW-10R.
1145 Begin purging MW-1.
1207 Collect sample: MW-1.
1230 ECT off site to deliver samples on ice.
1545 ECT return to office.

RB

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL	
WELL NO: MW-11	SAMPLE ID: MW-11	DATE: 08/30/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 10.83	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 10.83 feet) X 0.16 gallons/foot = 1.47 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15.5'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15.5'	PURGING INITIATED AT: 1022	PURGING ENDED AT: 1043	TOTAL VOLUME PURGED (gallons): 2.1

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1037	1.5	1.5	0.1	10.87	5.86	25.22	142	1.58	1.86	NONE	NONE
1039	0.2	1.7	0.1	10.87	5.81	25.22	138	1.54	0.30	"	"
1041	0.2	1.9	0.1	10.87	5.81	25.23	138	1.49	0.26	"	"
1043	0.2	2.1	0.1	10.87	5.81	25.24	138	1.48	0.27	"	"

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Brad Carrick / ECT	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1044	SAMPLING ENDED AT: 1050
PUMP OR TUBING DEPTH IN WELL (feet): 15.5'	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-11	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	≥ 200
MW-11	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	"
MW-11	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	"

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL	
WELL NO: MW-10R	SAMPLE ID: MW-10R	DATE: 30 Aug 16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 2"	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 10.28	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 10.28 feet) X 0.16 gallons/foot = 1.56 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15.5'	PURGING INITIATED AT: 1105	PURGING ENDED AT: 1127	TOTAL VOLUME PURGED (gallons): 2.2

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1121	1.6	1.6	0.1	10.33	5.91	26.44	1304	1.25	0.56	NONE	NONE
1123	0.2	1.8	0.1	10.33	5.91	26.52	1303	1.27	0.51	"	"
1125	0.2	2.0	0.1	10.33	5.91	26.55	1303	1.29	0.48	"	"
1127	0.2	2.2	0.1	10.33	5.91	26.58	1303	1.22	0.43	"	"

RG

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- B. Carrick/ECT	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1128	SAMPLING ENDED AT: 1134
PUMP OR TUBING DEPTH IN WELL (feet): 15.5'	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-10R	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	≥200
MW-10R	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	"
MW-10R	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	"

RG

REMARKS:
-163.7 = ORP

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL	
WELL NO: MW-1	SAMPLE ID: MW-1	DATE: 08/30/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 10.64	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 10.64 feet) X .16 gallons/foot = 1.49 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15'	PURGING INITIATED AT: 1145	PURGING ENDED AT: 1206	TOTAL VOLUME PURGED (gallons): 2.1

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1200	1.50	1.50	0.1	10.80	6.50	28.65	255	1.49	3.91	NONE	NONE
1202	0.2	1.7	0.1	10.80	6.50	28.69	255	1.13	3.88	"	"
1204	0.2	1.9	0.1	10.80	6.50	28.69	255	1.02	3.76	"	"
1206	0.2	2.1	0.1	10.80	6.50	28.70	255	1.03	3.61	"	"

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- B. Carrick / ECT	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1207	SAMPLING ENDED AT: 1212
PUMP OR TUBING DEPTH IN WELL (feet): 15'	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-1	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	≥200
MW-1	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	"
MW-1	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	"

REMARKS:
-80.6 = ORP

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

ECT GROUND WATER LEVEL DATA FORM

PROJECT INFORMATION

Project & Task #: 160473.0001

LEVEL DATA

Well #	Time	Total Depth	Ref. Elevation	Depth to GW	GW Elevation	Order	Observations/comments
MW-11	~~11:00~~	20'		10.83		1	
MW-10R	10:15 11:00	20'		10.28		2	
MW-1	11:40	20'		10.64		3	

SIGNED INITIALS

Measured by: Brad Carrick Date: 08/30/16

Recorded by: Ryan Burns Date: 08/30/16

Reviewed by: Date:

Description ID or S/N: Heron Dipper T

Decontamination between wells? Y or N (circle one)

SOP procedure FC1000 (Y or N) or other (describe)

PAGE_____OF_____

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) _____ Instrument # _____

Parameter: *[check all that apply]*

___ TEMPERATURE _X_CONDUCTIVITY ___SALINITY _X_pH _X_ORP

___TURBIDITY ___RESIDUAL CHLORINE _X_DO ___OTHER_____

STANDARDS pH: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **7.0** LOT # 160411B EXP. 10/17

Standard B **4.0** LOT # 160411A EXP. 4/17

Standard C 10.0 LOT # 160212C EXP. 8/17

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
08/30/16	8:37	A	7.0	6.99	.01%	No	INIT	AB
↓	8:40	B	4.0	4.01	+.01	No	INIT	AB
↓	8:43	C	10.0	9.88	-.12	No	INIT	AB

STANDARDS Conductivity: *[Specifiy the type(s) of standrads used for calibration, the orgin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **1000** LOT # _____ EXP. _____

Standard B 447 LOT # _____ EXP. _____

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
8/30/16	0847	A	1000	1000			INIT	
↓	0849	B	447	447.2				

FIELD INSTRUMENT CALIBRATION RECORDS

STANDARDS Dissolved Oxygen: *[Specify the type(s) of standards used for calibration, the origin of the standardsthe standard values, and the date the standards were prepared or purchased.]*

Standard A **AIR 100% HUMIDITY**

Standard B

Standard C

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
08/30/16	9:00	A	100%	100%	—	Yes	INIT	RB

STANDARDS ORP: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A LOT # EXP.

Standard B LOT # EXP.

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
08/30/16	8:53	A	200	200	0%	Yes	INIT	DB

FIELD INSTRUMENT CALIBRATION RECORDS

Instrument (Make/Model #) Lamotte 2020we Instrument # 2020E 26862

Parameter: *[check all that apply]*

___ TEMPERATURE ___CONDUCTIVITY ___SALINITY ___Ph ___ORP

_X_TURBIDITY ___RESIDUAL CHLORINE ___DO ___OTHER_____

STANDARDS Turbidity: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased.]*

Standard A **0.0** LOT # C582192 EXP. 2/17

Standard B **1.0** LOT # EXP. 10/16

Standard C **10.0** LOT # C471805 EXP. 7/16

DATE mm/dd/yy	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
08/30/16	08:00	A	0.0	0	0	Yes	INIT	AB
↓	↓	B	1.0	1.0	0	↓	INIT	↓
↓	↓	C	10.0	10.0	0	↓	INIT	↓

Location Orlando Rec Center Date 09/06/16

Project / Client 160473 - City of Orlando

649 Bentley Street, Orlando

9:40	BFA + ECT (Katie B + Ryan B.) on site. ECT mobilized in ~~light duty vehicle (O-S)~~ (RB personal vehicle.
9:45	Rec center staff notified of field event.
10:07	Begin purging MW-11.
1032	Collect sample: MW-11
~~1114~~ RB 1056	Begin purging MW-10R.
1119	Collect sample: MW-10R.
1157	Begin purging MW-1
1225	Collect sample: MW-1.
1245	BFA + ECT clean site BFA delivers samples to Accutest. ECT delivers to Flowers.
~~1500~~	
1530	All samples delivered to lab on ice Ryan B. goes to house from lab

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL	
WELL NO: MW-11	SAMPLE ID: MW-11	DATE: 09/06/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 10.61	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 10.61 feet) X .16 gallons/foot = 1.50 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15'	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 10:07	PURGING ENDED AT: 10:31	TOTAL VOLUME PURGED (gallons): 2

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	
10:25	1.50	1.50	0.08	10.65	5.85	26.28	284.69	1.09	0.51	clear	none	-15
10:28	0.25	1.75	0.08	10.65	5.85	26.29	278.67	.62	0.87	clear	none	-14
10:31	0.25	2.00	0.08	10.65	5.86	26.31	275.15	.49	0.75	clear	none	-12

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Ryan Burns	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 10:32	SAMPLING ENDED AT: 10:45
PUMP OR TUBING DEPTH IN WELL (feet): 15'	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-11	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-11	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	↓
MW-11	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	↓

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL	
WELL NO: MW-10R	SAMPLE ID: MW-10R	DATE: 9/06/2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 11.11	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 11.11 feet) X .16 gallons/foot = 1.42 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16	PURGING INITIATED AT: 10:56	PURGING ENDED AT: 11:18	TOTAL VOLUME PURGED (gallons): 2

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	OR
11:12	1.5	1.5	.08	11.14	5.97	27.84	1,132.7	.85	.95	clear	unknown	22
11:15	.25	1.75	.08	11.14	5.98	27.76	1,129.02	.66	.89	clear	unknown	22
11:18	.25	2	.08	11.14	5.98	27.69	1,123.3	.60	.72	clear	unknown	21

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Ryan Burns	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 11:19	SAMPLING ENDED AT: 11:25
PUMP OR TUBING DEPTH IN WELL (feet): 16'	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-10R	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-10R	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	↓
MW-10R	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: ORLANDO DOWNTOWN RECREATION CENTRE	SITE LOCATION: 649 BENTLEY STREET, ORLANDO, FL	
WELL NO: MW-1	SAMPLE ID: MW-1	DATE: 09/06/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10.0 feet to 20.0 feet	STATIC DEPTH TO WATER (feet): 10.43	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 10.43 feet) X .16 gallons/foot = 1.53 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15'	PURGING INITIATED AT: 11:57	PURGING ENDED AT: 12:24	TOTAL VOLUME PURGED (gallons): 2.25

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	
12:18	1.75	1.75	0.08	10.65	6.80	28.95	175.33	.18	11.19	clear	none	-96
12:21	.25	2	.08	10.65	6.81	28.84	173.36	.21	10.5	clear	none	-94
12:24	.25	2.25	.08	10.65	6.84	28.97	168.08	.17	10.1	clear	none	-16

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ECT- Ryan Burns	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 12:25	SAMPLING ENDED AT: 12:40
PUMP OR TUBING DEPTH IN WELL (feet): 15'	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-1	2	AG	250 ml	None	-	-	Dieldrin (EPA 8081B)	APP	303
MW-1	2	AG	40 ml	HCL	-	<2	TOC (EPA 9060A)	APP	↓
MW-1	1	PE	100 ml	None	-	-	HPC (EPA 9215B)	APP	↓

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

ECT GROUND WATER LEVEL DATA FORM

PROJECT INFORMATION

Project & Task #: 160473.0001

LEVEL DATA

Well #	Time	Total Depth	Ref. Elevation	Depth to GW	GW Elevation	Order	Observations/comments
MW-11	10:00	20'		10.61		1	
MW-10R	10:50	20'		11.11		2	
MW-1	12:20	20'		10.43		3	

SIGNED INITIALS

Measured by: Ryan Burns Date: 09/06/16

Recorded by: Ryan Burns Date: " "

Reviewed by: Date:

Description ID or S/N: Heron Dipper T

Decontamination between wells? Y or N (circle one)

SOP procedure FC1000 (Y or N) or other (describe)

PAGE_____OF_____

Field Instrument Calibration Records

INSTRUMENT (MAKE/MODEL#)	In-situ Troll	INSTRUMENT #

STANDARDS: [Specify the type(s) of standards used for calibration, the orig
the standard values, and the date the standards were prepared or

Standard	Type	Value	Origin	Date Pu
Standard A	DO	100	Saturated Air	N/A
Standard B	Turbidity	0, 15, 100	Hanna	N/A
Standard C	pH	4	Oakton	
Standard D	pH	7	Oakton	
Standard E	pH	10	Oakton	
Standard F	Conductivity	1500	Oakton	
Standard G	ORP	470	Hanna	

DATE (yy/mm/dd)	TIME (HHMM)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	DEVIATION (%)
16/08/25	8:00	A	100	93	
		B	0, 15, 100	0, 15, 100	
		D	7	7.41	
		F	1500	1328	
	8:45	G	470	470	
16/09/06	9:00	A	100	92.3	
		B	0, 15, 100	0, 15, 100	
		D	7	7.44	
		F	1500	1323.4	
		G	470	471.4	

	51652
gin of the standards, purchased]	
rchased	Expiration Date
	N/A
	N/A
	Apr-17
	Jun-16
	Aug-17
	May-16
	Sep-15

RECALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
Y	Init	kb
Y	Init	kb
Y	Init	kb
Y	Init	kb
N	Init	kb
Y	Cont	kb
Y	Cont	kb
Y	Cont	kb
Y	Cont	kb
N	Cont	kb

APPENDIX E

WELL COMPLETION LOG

Water Mgmt. Dist.:
Permit Number:

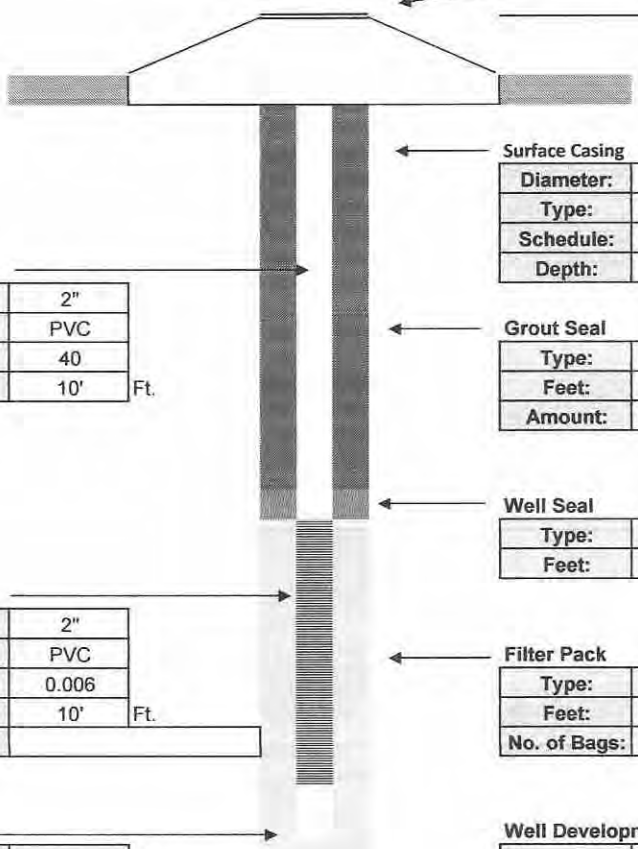
Work Order: 316049
Type of Well: Monitor
Well Number: MW 10R
Method Used: H S A
Borehole Diaz. 8"

Site Information:
Name: Orlando Rec Center
Address: 649 Bentley St.
C,S,Z: Orlando, FL
S/T/R:

Client / Consultant Information
Consultant: ECT
Field Rep: James Orioles

Well Diameter	Well Type	Well Depth	Screen Length	Casing Length	Bags Grout	Sand Bags/Weight	Filter Type	Well Seal
2"	PVC	20'	10'	10'	1	5 / 50 lbs.	30/45	30/65
40 ←	Schedule	Slot Size: →	0.006		6'	← Feet →	12'	2'

Surface Completion
8" Flush



Surface Casing

Diameter:	
Type:	
Schedule:	
Depth:	

Intermediate Casing

Diameter:	
Type:	
Schedule:	
Depth:	

Well Casing

Diameter:	2"	
Type:	PVC	
Schedule:	40	
Length:	10'	Ft.

Grout Seal

Type:	I / II PORTLAND	
Feet:	6'	
Amount:	1	Bags

Well Seal

Type:	30/65
Feet:	2'

Well Screen

Diameter:	2"	
Type:	PVC	
Slot:	0.006	
Length:	10'	Ft.
Note:		

Filter Pack

Type:	30/45
Feet:	12'
No. of Bags:	5 / 50 lbs.

Sump

Length:		Ft.
Type:		

Well Development

Water Level:	12.5'		
Method:	Honda		
Start:	Cloudy	Finish:	Clear
Time:	0.5 Hr		
GPM:	0.75		

Contractor Information

Contractor #:	9311
Completion:	3/25/2016
Driller:	Dave Longino
Lead Hand:	Gamalier Rivera
3rd Man:	NA
Drill Rig:	7720

Company:	Drillpro LLC d/b/a Groundwater Protection
Address:	2300 Silver Star Road
C,S,Z:	Orlando, Florida 32804-3310
Phone/FAX:	(407) 426-7885 / (407) 426-7586

Florida Dept. of Health in ORANGE COUNTY

XXXXXXXX

Orange County Health Department
800 N. Mercy Dr., Suite 1 Orlando, FL 32808
Phone 407 - 521-2630

Permit # 160268 Fee **$40.00**
Date Issued **3/21/2016**
WellLocation **649 Bentley Street**
S **26** T **22** R **29** **Orlando**

Permit for: **New Well Construction**
Primary Use: Monitoring
Issued to

Groundwater Protecti Lic # 9311
James Hinst
2300 Silver Star Rd
Orlando FL 32804

Construction Specifics

Drilling Meth:		Type Well:	
Annular Mat:		Casing Mat:	**PVC**
Casing joined by		Well Diameter	**2** in
Grout:		Casing depth	**10** ft
Pump Type:		Exceed 75psi	**No**
Tank Type:		Electric	**No**
Delineated:			

Well must meet all required setbacks
Authority Chapter 36-A Orange County Well Code

STATE OF FLORIDA WELL COMPLETION REPORT

- ☐ Southwest
- ☐ Northwest
- ☐ St. Johns River
- ☐ South Florida
- ☐ Suwannee River
- ☐ DEP
- ■ Delegated Authority (if Applicable) : Orange County

PLEASE FILL OUT ALL APPLICABLE FIELDS
(* Denotes Required FieldS Where Applicable)

Date Stamp

Official Use Only

1. *Permit Number 160268 CUP/WUP No. _____ DID Number _____ 62-524 Delineation No. _____

2. * Number of permitted wells constructed, repaired, or abandoned 1 * Number of permitted wells not constructed, repaired, or abandoned 0

3. * Owner's Name City of Orlando 4. * Completion Date 3/25/2016 5. Florida Unique ID _____

6. 649 Bentley St - Orlando
* Well Location - Address, Road Name or Number, City, ZIP

7. * County Orange * Section 26 Land Grant _____ * Township 22 * Range 29

8. Latitude _____ Longitude _____

9. Data Obtained From : _____ GPS _____ Map _____ Survey Datum: _____ NAD 27 _____ NAD 83 _____ WGS 84

10* TYPE OF WORK: X Construction ____ Repair ____ Modification ____ Abandonment

11. Specify Intended Use(s) of Well(s):

____ Domestic	____ Landscape Irrigation	____ Agricultural Irrigation	____ Site Investigation
____ Bottled Water Supply	____ Recreation Area Irrigation	____ Livestock	X Monitoring
____ Public Water Supply (Limited Use/DOH)		____ Nursery Irrigation	____ Test
____ Public Water Supply (Community or Non Community/DEP)		____ Commercial / Industrial	____ Earth - Coupled Geothermal
____ Class I Injection		____ Golf Course Irrigation	____ HVAC Supply
			____ HVAC Return

Class V Injection: ____ Recharge ____ Commercial/Industrial Disposal ____ Aquifer Storage & Recovery ____ Drainage

Remediation : ____ Recovery ____ Air Sparge ____ Other (Describe) _____

____ Other (Describe) _____

12. *Drill Method: X Auger ____ Cable Tool ____ Rotary ____ Combination (Two or More Methods) ____ Jetted ____ Sonic

____ Horizontal Drilling ____ Hydraulic Point (Direct Push) ____ Other _____

13. *Measured Static Water Level ____ ft. Measured Pumping Water Level NA ft. After NA Hours a NA GPM

14. *Measuring Point (Describe) Land Surface Which is 0 ft. ____ Above ____ Below Land Surface * Flowing ____ Yes X No

15.* Casing Material: ____ Black Steel ____ Galvanized X PVC ____ Stainless Steel ____ Not Cased Other _____

16.* Total Well Depth: 20 ft. Cased Depth 10 ft. Open Hole From: ____ to ____ ft. Screen:From 10 to 20 ft. Slot Size 0.006

*** ABANDONMENT** ____ **OTHER (Explain)** _____

From ____ ft. To ____ ft. No of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other

From ____ ft. To ____ ft. No of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other

*** SURFACE CASING DIAMETER & DEPTH**

Diam. ____ in. From ____ ft. To ____ ft. # of bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other

Diam. ____ in. From ____ ft. To ____ ft. # of bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other

*** PRIMARY CASING DIAMETER & DEPTH**

Diam. 2 in. From 0 ft. To 6 ft. # of bags 1 Seal Material (Check One): X Neat Cement ____ Bentonite ____ Other

Diam. 2 in. From 6 ft. To 10 ft. # of bags 1.5 Seal Material (Check One): ____ Neat Cement ____ Bentonite X Other : SAND

Diam. ____ in. From ____ ft. To ____ ft. # of bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other :

*** LINER CASING DIAMETER & DEPTH**

Diam. ____ in. From ____ ft. To ____ ft. # of bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other

Diam. ____ in. From ____ ft. To ____ ft. # of bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other

*** TELESCOPE CASING DIAMETER & DEPTH**

Diam. ____ in. From ____ ft. To ____ ft. # of bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other

Diam. ____ in. From ____ ft. To ____ ft. # of bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other

PUMP TYPE (If Known)

____ Centrifugal ____ Jet ____ Submersible ____ Turbine

Horsepower ____ Pump Capacity (GPM) ____

Pump depth ____ ft. Intake Depth ____ ft.

CHEMICAL ANALYSIS (When Required)

Iron ____ ppm Sulfate ____ ppm Chloride ____ ppm

____ Laboratory Test ____ Field Test Kit

WATER WELL CONTRACTOR

* Contractor Name: James Hinst * License No. 9311 Email Address: Jim@drillprollc.com

*Contractor's Signature : James Hinst * Driller's Name : Dave Longino

I certify that the information in this report is accurate & true.

* Permit No. 160268

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
PHONE (352) 796-7211 OR (800) 423-1476
WWW.SWFWMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
4049 REID STREET, PALATKA, FL 32178-1427
PHONE: (386) 329-4500
WWW.SJRWMD.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
152 WATER MANAGEMENT DR., HAVANA FL 32333-4712
(US HIGHWAY 90, 10 MILES WEST OF TALLAHASSEE)
PHONE: (850) 539-5999
WWW.NWFWMD.STATE.FL.US

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FL 33416-4680
PHONE: (561) 686-8800
WWW.SFWMD.GOV

SUWANNEE RIVER WATER MANAGEMENT DISTRICE
9225 CR 49
LIVE OAK, FL 32060
PHONE: (386) 362-1001 OR (800) 226-1066 (FLORIDA ONLY)
WWW.MYSUWANNEERIVER.COM

DRILL CUTTINGS LOG (Examine cuttings every 20 ft. or at formation changes. Note cavities and depth to producing zones.

From	To	Color	Grain Size (F, M, C)	Material
0 ft.	20 ft.	Lt Grey	F	Sand
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			

COMMENTS

Detailed Site Map of Well Location

GP WO 316049

MW 10R 28°32'51.51" N 81°23'17.26" W

N

Give distances from all reference point or structures, septic systems, sanitary hazards, and contamination sources within 500 ft. of well

APPENDIX F

Site Name: Orlando Downtown Recreation Complex & Tennis Centre Parcel Brownfield Cooperative Agreement BF-00-D10313	Site Location: 649 Bentley Street, Orlando, Florida 32801

Photo No.: 1

Date: 3/28/2016

Direction Photo Taken: Northeast

Description:
GPI prepping Petrox for injections and ECT and BFA performing baseline groundwater sampling at MW-10R.

Site Name: Orlando Downtown Recreation Complex & Tennis Centre Parcel Brownfield Cooperative Agreement BF-00-D10313	Site Location: 649 Bentley Street, Orlando, Florida 32801

Photo No.: 2

Date: 3/28/2016

Direction Photo Taken: North

Description:
First Petrox injection at MW-11.

ECT Environmental Consulting & Technology, Inc.

Site Name: Orlando Downtown Recreation Complex & Tennis Centre Parcel Brownfield Cooperative Agreement BF-00-D10313	Site Location: 649 Bentley Street, Orlando, Florida 32801

Photo No.: 3

Date: 3/28/2016

Direction Photo Taken: North

Description:
Second Petrox injection at MW-11.

Site Name: Orlando Downtown Recreation Complex & Tennis Centre Parcel Brownfield Cooperative Agreement BF-00-D10313	Site Location: 649 Bentley Street, Orlando, Florida 32801

Photo No.: 4

Date: 3/28/2016

Direction Photo Taken: Southeast

Description:
First Petrox injection at MW-10R.

ECT Environmental Consulting & Technology, Inc.

Site Name: Orlando Downtown Recreation Complex & Tennis Centre Parcel Brownfield Cooperative Agreement BF-00-D10313	Site Location: 649 Bentley Street, Orlando, Florida 32801

Photo No.: 5

Date: 7/26/2016

Direction Photo Taken: Northeast

Description:
First Petrox injection at MW-11.

Site Name: Orlando Downtown Recreation Complex & Tennis Centre Parcel Brownfield Cooperative Agreement BF-00-D10313	Site Location: 649 Bentley Street, Orlando, Florida 32801

Photo No.: 6

Date: 7/26/2016

Direction Photo Taken: North

Description:
Second Petrox injection at MW-11.

Site Name: Orlando Downtown Recreation Complex & Tennis Centre Parcel Brownfield Cooperative Agreement BF-00-D10313	Site Location: 649 Bentley Street, Orlando, Florida 32801

Photo No.: 7

Date: 7/26/2016

Direction Photo Taken: North

Description:
First Petrox injection at MW-10R.

Site Name: Orlando Downtown Recreation Complex & Tennis Centre Parcel Brownfield Cooperative Agreement BF-00-D10313	Site Location: 649 Bentley Street, Orlando, Florida 32801

Photo No.: 8

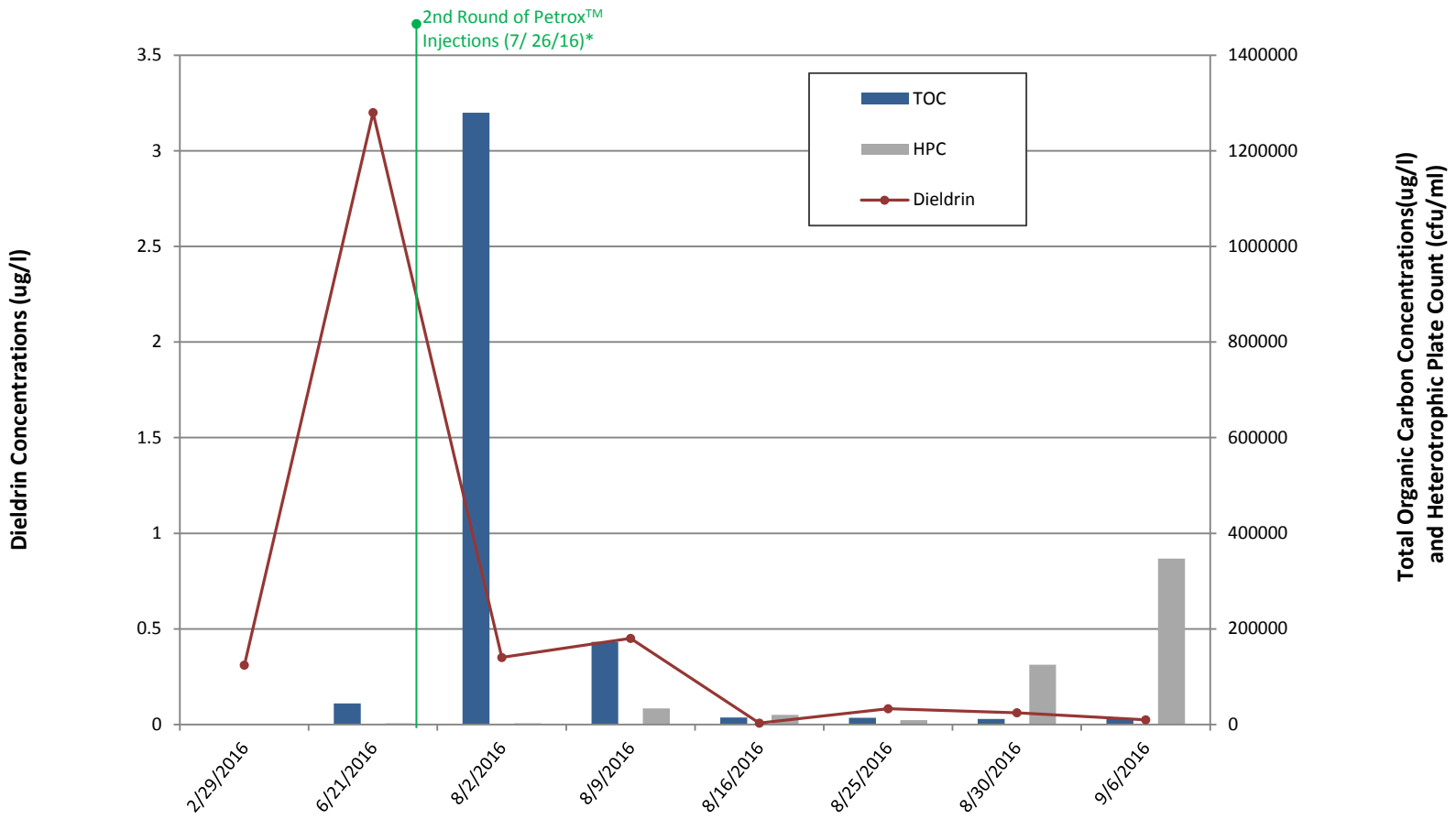
Date: 7/26/2016

Direction Photo Taken: Southeast

Description:
First Petrox injection at MW-1.

APPENDIX G

MW-1 Dieldrin Reduction Comparison



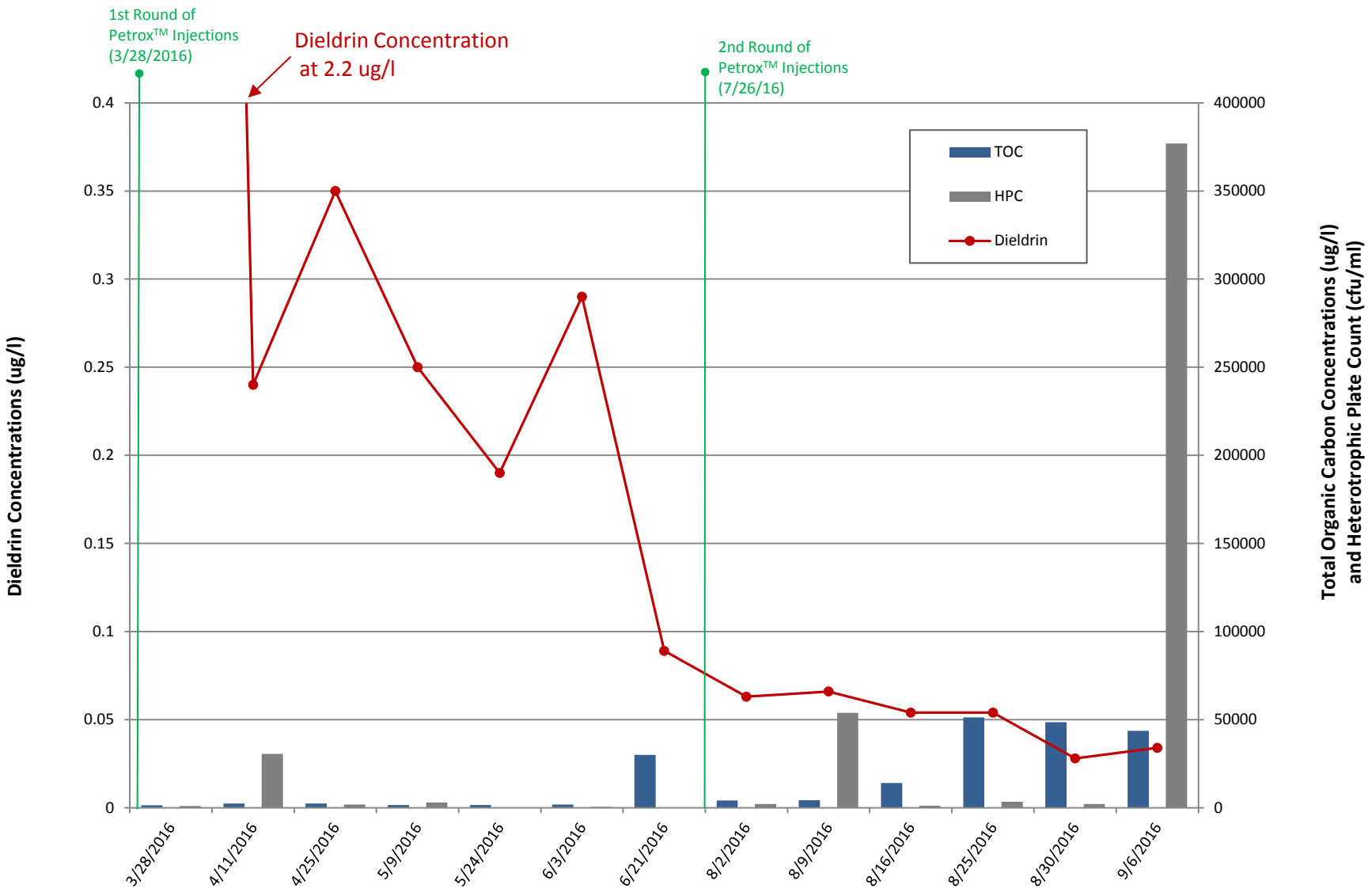
*Only one round of injections performed at MW-1

MW-1 Dieldrin Reduction Comparison

GCTLs	0.002	N/A	N/A	N/A
NADC	0.2	N/A	N/A	N/A
Date	**Dieldrin (ug/l)**	**TOC (ug/l)**	**HPC (cfu/ml)**	**ORP (mV)**
2/29/2016	0.31	NS	NS	NR
6/21/2016	3.2	44200	1980	9.4
8/2/2016	0.35	1280000	2000 O	-50.2
8/9/2016	0.45	173000	33500	-55.7
8/16/2016	0.0067 U	14700	20000 Z	-58.1
8/25/2016	0.082	13700	9000	-59.2
8/30/2016	0.061	11200	125000	-80.6
9/6/2016	0.024 I	12300	347000	-101

I = Indicates a result greater than or equal to the method detection limit, but less than practical quantitation limit.
O = Result is greater than the specified value.
U = Indicates a result less than the method detection limit.
Z = Too numerous to count colonies on plate.

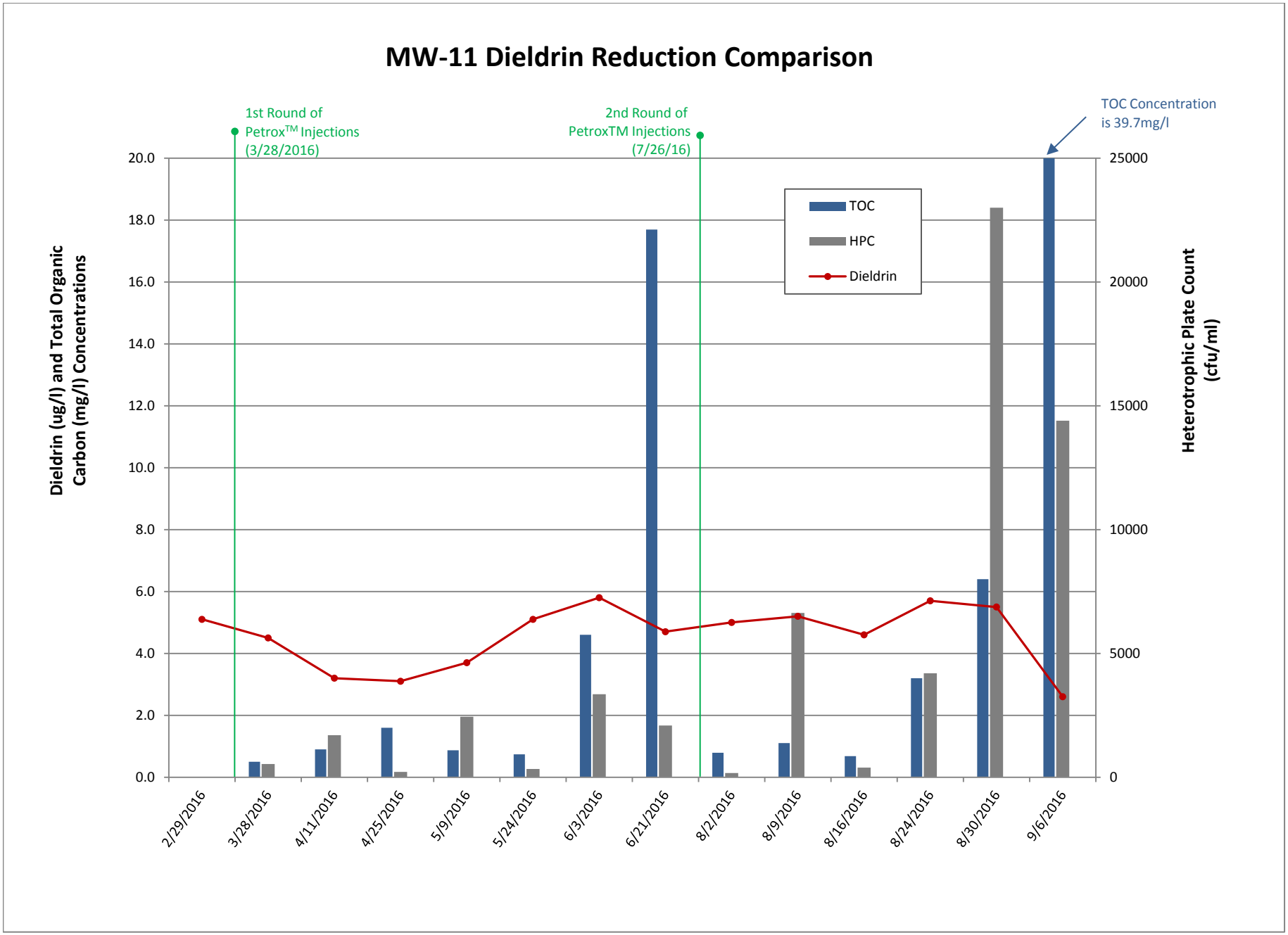
MW-10R Dieldrin Reduction Comparison



MW-10R Dieldrin Reduction Comparison

GCTLs	0.002	N/A	N/A	N/A
NADC	0.2	N/A	N/A	N/A
Date	**Dieldrin (ug/l)**	**TOC (ug/l)**	**HPC (cfu/ml)**	**ORP (mV)**
3/28/2016	2.2	1400	930	NR
4/11/2016	0.24	2400	30600	-242
4/25/2016	0.35	2400	1880	15
5/9/2016	0.25	1600	3030	42.6
5/24/2016	0.19	1600	168	47
6/3/2016	0.29	1900	480	NR
6/21/2016	0.089	30000	230	102.0
8/2/2016	0.063	4200	2090	37.9
8/9/2016	0.066	4300	53900	-17.3
8/16/2016	0.054	14100	1170	-248
8/25/2016	0.054	51200	3480	-201
8/30/2016	0.028 I	48500	2180	-163.7
9/6/2016	0.034 I	43700	377000	-219

I = Indicates a result greater than or equal to the method detection limit, but less than practical quantitation limit.
O = Result is greater than the specified value.
U = Indicates a result less than the method detection limit.
Z = Too numerous to count colonies on plate.


MW-11 Dieldrin Reduction Comparison
1st Round of Petrox™ Injections (3/28/2016)
2nd Round of PetroxTM Injections (7/26/16)
TOC Concentration is 39.7mg/l
TOC
HPC
Dieldrin
Dieldrin (ug/l) and Total Organic Carbon (mg/l) Concentrations
Heterotrophic Plate Count (cfu/ml)
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
25000
20000
15000
10000
5000
0
2/29/2016
3/28/2016
4/11/2016
4/25/2016
5/9/2016
5/24/2016
6/3/2016
6/21/2016
8/2/2016
8/9/2016
8/16/2016
8/24/2016
8/30/2016
9/6/2016

MW-11 Dieldrin Reduction Comparison

GCTLs	0.002	N/A	N/A	N/A
NADC	0.2	N/A	N/A	N/A
Date	**Dieldrin (ug/l)**	**TOC (mg/l)**	**HPC (cfu/ml)**	**ORP (mV)**
2/29/2016	5.1	NS	NS	NR
3/28/2016	4.5	0.50 I	530	NR
4/11/2016	3.2	0.90 I	1700	-230
4/25/2016	3.1	1.6	210	16
5/9/2016	3.7	0.87 I	2440	49.9
5/24/2016	5.1	0.74 I	334	114.2
6/3/2016	5.8	4.6	3350	NR
6/21/2016	4.7	17.7	2090	56.5
8/2/2016	5.0	0.79 I	171	204.0
8/9/2016	5.2	1.1	6630	50.3
8/16/2016	4.6	0.68 I	390	1.8
8/24/2016	5.7	3.2	4200	1.2
8/30/2016	5.5	6.4	23000	-88.1
9/6/2016	2.6	39.7	14400	-141

I = Indicates a result greater than or equal to the method detection limit, but less than practical quantitation limit.
O = Result is greater than the specified value.
U = Indicates a result less than the method detection limit.
Z = Too numerous to count colonies on plate.

REC CENTER SAMPLING PARAMETERS- MICROBIAL SUSTAINABILITY

Site Name: Orlando Recreation Complex and Tennis Centre **WCU Site Id:** COM_320731

Date	MW-1					
	HPC	TOC	temp	ph	DO	ORP
2/29/2016			23.56	5.5	0.48	
3/28/2016						
4/11/2016						
4/25/2016						
5/9/2016						
5/24/2016						
6/3/2016						
6/21/2106	1980	44.2	26.7	5.85	0.05	9.4
8/2/2016	2000	1280	27.5	4.79	1	-50.2
8/9/2016	33500	173	27.4	4.98	0.11	-55.7
8/16/2016	20000	14.7	29.9	6.15	3.3	-58.1
8/24/2016	9000	13.7	26.1	6.37	2.68	-59.2
8/30/2016	125000	11.2	28.7	6.5	1.03	-80.6
9/6/2016	347000	12.3	28.97	6.84	0.17	-101
Min	1980	11.2	23.56	4.79	0.05	-101
Max	347000	1280	29.9	6.84	3.3	9.4
Average	98607	315.6	27.23	5.86	1.22	-54.1

Notes: Pre ISBR Injection 3/28/2016
ISBR Injection 7/26/2016

REC CENTER SAMPLING PARAMETERS- MICROBIAL SUSTAINABILITY

Site Name: Orlando Recreation Complex and Tennis Centre **WCU Site Id:** COM_320731

Date	MW-10R					
	HPC	TOC	temp	ph	DO	ORP
2/29/2016						
3/28/2016	930	1.4	19.38	5.77	1.74	
4/11/2016	30600	2.4	23.73	5.76	3.06	-242
4/25/2016	1880	2.4	25.57	5.81	0.36	15
5/9/2016	3030	1.6	20.49	5.78	0.36	42.6
5/24/2016	168	1.6	26.8	5.72	0.37	47
6/3/2016	480	1.9	26.4	5.77	0.56	
6/21/2106	230	30	27	5.95	1.16	102
8/2/2016	2090	4.2	28.2	5.92	1.85	37.9
8/9/2016	53900	4.3	28	5.86	0.49	-17.3
8/16/2016	1170	14.1	27.7	5.92	0.21	-248
8/24/2016	3480	51.2	26.68	5.9	2.52	-201
8/30/2016	2180	48.5	26.58	5.91	1.22	-163.7
9/6/2016	377000	43.7	27.49	5.98	0.6	-219
Min	168	1.4	19.38	5.72	0.21	-248
Max	377000	51.2	28.2	5.98	3.06	102
Average	56954	17.3	25.44	5.85	1.18	-76.3

Notes: Notes: Pre ISBR Injection 3/28/2016
ISBR Injection 7/26/2016

REC CENTER SAMPLING PARAMETERS- MICROBIAL SUSTAINABILITY

Site Name: Orlando Recreation Complex and Tennis Centre **WCU Site Id:** COM_320731

Date	MW-11					
	HPC	TOC	temp	ph	DO	ORP
2/29/2016			22.91	5.36	1.68	
3/28/2016	530	0.5	18.43	5.98	2.2	
4/11/2016	1700	0.9	23	5.54	3.09	-230
4/25/2016	210	1.6	23.73	5.5	0.36	16
5/9/2016	2440	0.87	18.35	5.69	0.25	49.9
5/24/2016	334	0.74	24.5	5.94	0.72	114.2
6/3/2016	3350	4.6	24.3	5.97	0.6	
6/21/2106	2090	17.7	24.9	5.96	0.56	56.5
8/2/2016	171	0.79	25.7	5.97	0.58	204
8/9/2016	6630	1.1	26.9	5.75	0.35	50.3
8/16/2016	390	0.68	26.1	5.87	0.68	1.8
8/24/2016	4200	3.2	26.15	6.22	0.16	1.2
8/30/2016	23000	6.4	25.24	5.81	1.48	-88.1
9/6/2016	14400	39.7	26.31	5.86	0.49	-141
Min	171	0.5	18.35	5.36	0.16	-230
Max	23000	39.7	26.9	6.22	3.09	204
Average	5507.73	7.93	23.86	5.81	1.03	0.68

Notes: Notes: Pre ISBR Injection 3/28/2016
ISBR Injection 7/26/2016

REC CENTER SAMPLING PARAMETERS- MICROBIAL SUSTAINABILITY

Site Name: Orlando Recreation Complex and Tennis Centre **WCU Site Id:** COM_320731

Date	SITE					
	HPC	TOC	ORP	ph	temp	DO
2/29/2016				5.43	23.24	1.08
3/28/2016	730.00	0.95		5.88	18.91	1.97
4/11/2016	16150.00	1.65	-236.00	5.65	23.37	3.08
4/25/2016	1045.00	2.00	15.50	5.66	24.65	0.36
5/9/2016	2735.00	1.24	46.25	5.74	19.42	0.31
5/24/2016	251.00	1.17	80.60	5.83	25.65	0.55
6/3/2016	1915.00	3.25		5.87	25.35	0.58
6/21/2106	1433.33	30.63	55.97	5.92	26.20	0.59
8/2/2016	1420.33	428.33	63.90	5.56	27.13	1.14
8/9/2016	31343.33	59.47	-7.57	5.53	27.43	0.32
8/16/2016	7186.67	9.83	-101.43	5.98	27.90	1.40
8/24/2016	5560.00	22.70	-86.33	6.16	26.31	1.79
8/30/2016	50060.00	22.03	-110.80	6.07	26.84	1.24
9/6/2016	246133.33	31.90	-153.67	6.23	27.59	0.42
Min	251	0.95	-236	4.79	18.35	0.05
Max	246133	428.33	80.6	6.84	29.90	26.90
Average	40823	69.63	-45.31	5.84	25.51	1.14

Notes: Notes: Pre ISBR Injection 3/28/2016
ISBR Injection 7/26/2016