

July 20, 2012

Mr. F. Thomas Lubozynski, P.E.  
Waste Program Administrator  
Solid and Hazardous Waste Program  
Florida Department of Environmental Protection, Central District  
3319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803-3767

Re: 16th Semi-Annual Water Quality Monitoring Report  
J.E.D. Solid Waste Management Facility, Osceola County, Florida  
Permit No. SO49-0199726-022  
WACS Facility ID #89544

Dear Mr. Lubozynski:

Submitted herewith is the subject report documenting the 16<sup>th</sup> semi-annual water quality monitoring event conducted at the J.E.D. Solid Waste Management (JED) Facility located in Osceola County, Florida. This report is being submitted as required for compliance with the conditions contained within the Monitoring Plan Implementation Schedule (MPIS) for the above referenced permit. In accordance with the permit conditions, this semi-annual water quality monitoring event was performed in May 2012. This report is being submitted within the sixty day period after receipt of the final analytical data reports from the laboratory. This report satisfies the semi-annual water quality monitoring compliance requirements as described in the Permit.

As noted in the revised MPIS, two electronic copies of the water quality report are being submitted to FDEP. Each electronic copy contains a pdf of the entire water quality report and the required ADaPT compatible electronic data deliverable (EDD) saved on a compact disk (CD). One CD is attached to this transmittal letter. The second CD containing an electronic copy of this report, including the EDD compatible with the ADaPT software has been sent to the attention of Mr. Clark Moore in Tallahassee, Florida.

If you have any questions or need additional information, please do not hesitate to contact Matthew Wissler at (813) 379-4386.

Sincerely,



Matthew P. Wissler  
Senior Hydrogeologist

Attachments

Copy: Mike Kaiser, WSI  
Clark Moore, FDEP Tallahassee

*Prepared For:*



**Omni Waste of Osceola County, LLC**

1501 Omni Way  
St. Cloud, Florida 34773

**16<sup>th</sup> SEMI-ANNUAL WATER QUALITY  
MONITORING REPORT**

**J.E.D. Solid Waste Management Facility**

**1501 Omni Way  
St. Cloud, Osceola County, Florida 34773**

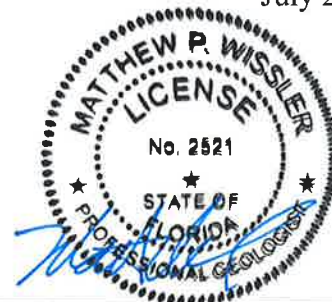
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Project No. FW2070

July 2012



Matthew Wissler, P.G.  
Florida Registration No. 2521  
Date: 7/20/12

## TABLE OF CONTENTS

<b>1. INTRODUCTION.....</b>	<b>1</b>
1.1 Terms of Reference .....	1
1.2 Overview .....	1
1.3 Site Description.....	1
<b>2. MONITORING WELL DETAILS .....</b>	<b>4</b>
2.1 Well Layout and Construction .....	4
2.2 Turbidity Issues.....	5
<b>3. MONITORING WELL SAMPLING .....</b>	<b>6</b>
3.1 Sampling Locations and Procedures .....	6
3.2 Sample Analyses .....	7
<b>4. ANALYTICAL RESULTS .....</b>	<b>8</b>
4.1 Field Parameters.....	8
4.2 Groundwater Monitoring Wells.....	8
4.3 Data Validation .....	12
4.4 Impact of Turbidity on Metals Concentrations .....	12
<b>5. GROUNDWATER LEVEL MEASUREMENTS AND FLOW DIRECTION</b>	<b>13</b>
5.1 Field Measurements .....	13
5.2 Water level Contours .....	13
<b>6. SURFACE WATER SAMPLING .....</b>	<b>14</b>
6.1 Sampling Locations and Procedures .....	14
<b>7. CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>15</b>
7.1 Sampling Locations .....	15
7.2 Sample Analyses .....	15

## **LIST OF TABLES**

Table 1	Summary of Monitoring Well Construction Details
Table 2	Summary of Final Field Parameter Results and Field Data
Table 3	Summary of Groundwater Analytical Results
Table 4	Groundwater Level Measurements

## **LIST OF FIGURES**

Figure 1	“B” Zone (Intermediate) Wells – Water Level Contours
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## **LIST OF APPENDICES**

<b>Appendix A:</b>	Water Quality Monitoring Certification FDEP Form 62-701.900(31)
<b>Appendix B:</b>	Field Sampling Logs
<b>Appendix C:</b>	Field Instrument Calibration Logs
<b>Appendix D:</b>	Chain-of-Custody Forms
<b>Appendix E:</b>	CD Containing Analytical Laboratory Reports



## **1. INTRODUCTION**

### **1.1 Terms of Reference**

On behalf of Omni Waste of Osceola County, LLC (Omni), Geosyntec Consultants (Geosyntec) has prepared the 16<sup>th</sup> semi-annual water quality monitoring report for the J.E.D. Solid Waste Management (JED) facility. This report summarizes and provides interpretation of the water quality monitoring performed in accordance with the Water Quality Monitoring Plan (Plan) prepared as part of the JED facility permit application. The requirements for executing the Plan were presented in Appendix 3 - Monitoring Plan Implementation Schedule (MPIS) of the current Permit (Permit Number SO49-0199726-022) that authorizes the development of Phases 1 through 4 at the JED facility issued by the Florida Department of Environmental Protection (FDEP) on 12 July 2012.

This report was prepared on behalf of Waste Services, Incorporated (WSI), parent company of Omni Waste of Osceola County, LLC, owner and operator of the JED facility by Mr. Matthew Wissler of Geosyntec. A completed water quality certification form (FDEP Form 62-701.900[31]) is included in **Appendix A**.

### **1.2 Overview**

The Plan and the MPIS describe a water quality monitoring program at the JED facility that has as its intent to: (i) measure and report groundwater and surface water conditions for the monitoring network; (ii) monitor the groundwater flow direction; (iii) monitor the groundwater and surface water quality on a semi-annual basis; and (iv) monitor leachate quality on an annual basis. The 16<sup>th</sup> semi-annual water quality monitoring event was completed from 8 May through 17 May 2012. This report includes presentation and discussions of the sample locations, sampling procedures, laboratory analyses and results, field data measurements, groundwater level measurements, groundwater flow direction and surface water quality monitoring. In addition, this report includes a comparison of the analytical results of this sampling event to applicable Groundwater Cleanup Target Levels (GCTLs) as promulgated in Chapter 62-777, Florida Administrative Code (FAC).

### **1.3 Site Description**

The JED facility is located in eastern Osceola County, Florida, west of highway U.S. 441, and approximately 6.5 miles south of Holopaw. The facility is a Class I landfill which is linked to highway U.S. 441 by a 2.9-mile access road. The JED facility comprises a total of approximately 2,179 acres. The landfill footprint at build-out will be approximately 360 acres and consist of 23 landfill cells that will provide available waste capacity for a period of approximately 30 years. The FDEP issued a permit to construct and operate Phase 1

development of the JED facility in October 2003. Phase 1 development includes four landfill cells (Cells 1 through 4), located in the northern part of the landfill encompassing approximately 54 acres. As part of Phase 1, forty-five (45) groundwater monitoring wells were installed in fifteen (15) clusters (MW-1 through MW-15) around the perimeter of the Phase 1 development area. The baseline water quality report for the Phase 1 monitoring well network was submitted to FDEP in May 2004. All components of the Phase 1 development have been constructed.

The FDEP issued a permit to construct and operate Phases 2 and 3 at the JED facility in March 2007. The development of Phases 2 and 3 includes six cells (Cells 5 through 10) with a total footprint of approximately 72 acres. As part of Phases 2 and 3 development, and as approved by FDEP, six (6) existing Phase 1 monitoring wells (MW-14 A, B, and C, and MW-15 A, B, and C), and ten (10) piezometers were decommissioned. The wells and piezometers were decommissioned to allow for construction of future cells, construction of a storm water retention basin located within Phases 2 and 3, and due to the close proximity of piezometers to the new network wells installed. The decommissioning of the monitoring wells and piezometers was discussed in the Phases 2 and 3 baseline water quality report. For the development of Phases 2 and 3, twenty-four (24) additional groundwater monitoring wells were installed in eight (8) well clusters (MW-16 through MW-23) around the perimeter of the Phases 2 and 3 development areas in September 2007. The baseline water quality report for the Phases 2 and 3 monitoring well network was submitted to FDEP in January 2008.

The FDEP issued a permit to construct and operate Phases 1 through 3 with vertical expansion at the JED facility in April 2008. In April 2009, the MPIS for the semi-annual water quality monitoring well network and sampling schedule were updated for Phases 1, 2 and 3. The modification included a reduction of the Phase 3 monitoring wells required to be sampled semi-annually until such time that waste placement commences in one of the Phase 3 cells (i.e., Cells 8, 9 and 10) and the sampling schedule was modified for the B-zone (intermediate) and C-zone (deep). These monitoring wells are now sampled on an alternating annual basis. The C-zone monitoring wells MW-1 through MW-13, MW-16, MW-19, MW-23 and B-zone monitoring well MW-16B are sampled in November and reported in January; B-zone monitoring wells MW-1 through MW-13, MW-16, MW-19, MW-23 and C-zone monitoring well MW-16C are sampled in May and reported in July. Cell 1 was completed in January 2004, Cell 4 was completed in May 2005, Cell 2 was completed in April 2006, Cell 3 was completed in October 2006, Cell 5 was completed in October 2007, Cell 6 was completed in July 2008, Cell 7 was completed in August 2010 and Cell 8 was completed in April 2012. During construction startup of Cell 8 in November 2011, monitoring well cluster MW22 (A, B and C) was decommissioned to accommodate the perimeter road access to Cell 8. The MW-22 cluster abandonment report was submitted to the FDEP in April 2012. The well cluster was replaced in March 2012 and located on the perimeter access road approximately 800 feet south of well cluster MW-23. The shallow, intermediate and deep monitoring wells were designated MW-22RA, MW-22RB and MW-22RC, respectively.

The FDEP issued a permit to construct a lateral expansion of the facility on August 8, 2011, which authorizes construction of Phases 3-8, Cells 8-23. Corresponding to the most recent 5-year permit renewal, the FDEP issued a permit to operate on 12 July 2012, authorizing disposal operations in Phases 1-4, Cells 1-13. The MPIS for the semi-annual water quality monitoring well network and sampling schedule was updated during the recent 5-year permit renewal and is provided as Appendix 3 of the current Permit; however, please note that the 16<sup>th</sup> semi-annual water quality monitoring event was performed under the MPIS dated April 2009 (Exhibit 1 of the previous permit SO49-0199726-015). For monitoring purposes, the JED facility was assigned Water Assurance Compliance System (WACS) facility identification number 89544.

## 2. MONITORING WELL DETAILS

### 2.1 Well Layout and Construction

For the Phase 1 development, forty five (45) groundwater monitoring wells were installed in fifteen (15) clusters (MW-1 through MW-15) around the perimeter of the Phase 1 development area. In accordance with the FDEP permit requirements monitoring well clusters were located such that the spacing between well clusters was no greater than 500 feet. For development of Phases 2 and 3, twenty four (24) groundwater monitoring wells were installed in eight (8) clusters (MW-16 through MW-23) around the perimeter of the Phases 2 and 3 development areas. In accordance with the FDEP permit requirements, the monitoring well clusters were located such that the spacing between detection well clusters (MW-16 through MW-21) was approximately 500 feet, and the spacing between background well clusters (MW-22R and MW-23) was approximately 800 feet. Each monitoring well cluster consisted of three (3) groundwater monitoring wells installed (i) across the water table to monitor the upper limit of the surficial aquifer (identified as A-zone [shallow] wells); (ii) within the lower limit of the upper surficial aquifer above the intermediate clay layer (identified as C-zone [deep] wells); and (iii) at an intermediate depth between the shallow and deep wells (identified as B-zone [intermediate] wells).

A layout depicting the location of groundwater monitoring wells installed for Phases 2 and 3, and the previously installed groundwater monitoring wells for Phase 1 are shown for the intermediate zone (“B” wells) on **Figure 1**. As shown, groundwater monitoring well clusters MW-1 through MW-13, MW-22R and MW-23 were installed along the top of the outer edge of the landfill perimeter berm. The ground surface at the location of the wells in the perimeter berm is at approximately Elevation 92 ft with respect to National Geodetic Vertical Datum of 1929 (NGVD, 1929). Groundwater monitoring well clusters MW-16 and MW-17 were installed along the outer edge of the landfill perimeter berm that serves as the initial storm water berm. The ground surface at these two well locations is at approximately Elevation 85 ft NGVD, 1929. Monitoring well clusters MW-18 through MW-21 were installed along the interim Phase 3 storm water berm at the southern limit of the Phase 3 development at approximately Elevation 84 ft NGVD, 1929. The locations of each well, in Florida state plane coordinates and latitude/longitude, and elevation NGVD, 1929 were surveyed by professional land surveyors licensed in the State of Florida.

Wells were constructed with 2-inch diameter schedule 40 PVC casing. The well screens were 10-ft in length with #6-slot (0.006-in.). A 30/45 graded silica sand was placed around the screen to a height of 2 to 3 ft above the top of the screen. A seal of 30/65 graded fine silica sand was placed above the sand filter around the screen. The remaining annular space from the top of the fine sand filter seal to the existing ground surface was grouted using a tremie pipe with a cement/bentonite mixture containing no more than 5 percent bentonite by dry weight. The PVC well casings were extended approximately 2.5 to 3 ft above the existing ground surface. Surface

completion consisted of a protective aluminum casing with a lockable cover set in a concrete pad. Each well was provided with a well cap, padlock, and an identification label. A summary of the monitoring well construction details are presented in **Table 1**.

## 2.2 Turbidity Issues

As discussed in the baseline water quality reports for the Phase 1, and Phases 2 and 3 monitoring networks, the formation around the screened intervals consists primarily of a fine, brown to dark brown, silty sand. Due to the subsurface formation properties, fine-grained and colloidal material are able to pass through the sand filter pack in many wells, primarily in the B-zone and C-zone wells. This is the case even though the wells are constructed using the smallest screen slot size (0.006 in.) commonly available. Most of the intermediate and deep wells had turbidity values in excess of the 20 nephelometric turbidity unit (NTU) criterion even after extended well development and the removal of multiple well volumes.

The difficulty in attaining the desired turbidity criterion was originally discussed at a meeting between Geosyntec and FDEP on 12 January 2004 during the well development activities associated with the wells installed as part of the Phase 1 development. Geosyntec notified FDEP again on 14 September 2007 of the elevated turbidity levels even after extended well development during development of the Phases 2 and 3 monitoring wells. In accordance with these discussions, it was agreed to collect field-filtered (1-micron) and unfiltered samples for metals analyses for any sample with a turbidity value greater than 20 NTU. The data generated by the dual sampling is expected to help demonstrate: (i) what effect turbidity may have on metal analyses (i.e., compare total and dissolved metals concentrations); and (ii) whether groundwater samples with turbidities greater than 20 NTU showed higher concentrations of metals than those samples with turbidities less than 20 NTU.

### **3. MONITORING WELL SAMPLING**

#### **3.1 Sampling Locations and Procedures**

In accordance with the MPIS, twenty-six (26) monitoring wells installed as part of the Phase 1 development and seven (7) of the monitoring wells installed as part of the Phase 2 and 3 development were sampled. Monitoring wells sampled this monitoring event included A and B-zone monitoring wells MW-1 through MW-13, MW-16, MW-19, MW-23 and C-Zone monitoring well MW-16C. Low-flow sampling techniques were used for groundwater sample collection. Except for the turbidity considerations as described in the previous section, all groundwater sampling was performed in accordance with the current applicable FDEP Standard Operating Procedures (DEP-SOP-001-01, December 2008) for groundwater sampling. Additionally, for quality control (QC) purposes, two equipment blanks were collected and analyzed.

Peristaltic pumps were used to purge and sample all A-zone (shallow) monitoring wells, deep zone well MW-16C and the majority of the B-zone (intermediate) groundwater monitoring wells. Because of continued issues relative to turbidity levels, a stainless steel submersible pump was used to purge and sample B-zone monitoring wells MW-8B, MW-16B and MW-19B. A submersible pump is utilized in select monitoring wells where the pump rate of the peristaltic pump is not sufficient to adequately purge the wells. New tubing (silicone and/or polyethylene) was used at each monitoring well.

During the purging process, a YSI 556 water quality meter equipped with a flow-through cell was used to monitor the following field parameters: pH; temperature; field conductivity; oxidation-reduction potential (ORP); and dissolved oxygen. Turbidity levels were measured using a LaMotte 2020e turbidity meter. Field parameters were recorded on sample collection forms, which are contained in **Appendix B**. Observations pertaining to the color of the groundwater samples collected were also noted on the sample collection forms. When the field parameters stabilized within the acceptable tolerances required by the FDEP SOP, well purging was considered complete and groundwater samples were collected. For wells where the turbidity was not less than 20 NTU, stability was established by purging at least 5 well volumes and observing variations in the measured turbidity. For problematic wells, once the turbidity had stabilized and all other parameters conformed to the guidance set forth in the FDEP SOP's, samples were collected. A non-filtered and field-filtered (1-micron) metals sample was collected from each monitoring well where turbidity measurements exceeded the 20 NTU level.

For monitoring wells where peristaltic pumps were used, volatile organic compound (VOC) sample vials were filled by removing the down well sample tubing, disconnecting the tubing from the water quality meter flow through cell, and reversing the flow direction on the peristaltic pump.

For the monitoring wells that were purged and sampled with the stainless steel submersible pump, all sample aliquots were filled directly from the down-well tubing.

The calibration of the water quality monitoring instruments was checked daily and re-calibrated when necessary. Water quality instrument calibration forms are presented in **Appendix C**. Samples were placed in coolers and packed with bagged ice for transport to the analytical laboratory. Chain-of-Custody (COC) forms were completed and accompanied the samples to the analytical laboratory. All COC forms are included in **Appendix D**. Trip blank samples accompanied all sample coolers with VOC samples. Temperature blanks were packed in each sample cooler and security seals were affixed to every cooler shipped.

### 3.2 Sample Analyses

Samples were analyzed by Columbia Analytical Services, Inc. (Columbia) of Jacksonville, Florida in accordance with the National Environmental Laboratory Accreditation Conference (NELAC) standards. Columbia holds certification from the Florida Department of Health (FDOH) for the analytical test methods used for this project and is certified in the State of Florida for analysis of environmental samples.

Groundwater samples were analyzed by Columbia for total ammonia as nitrogen (N), chlorides, nitrate, total dissolved solids (TDS), iron, mercury, sodium, and the 40 Code of Federal Regulations (CFR) Part 258 Appendix I parameters. Other required parameters (i.e., pH; temperature; conductivity; turbidity; ORP; and dissolved oxygen) were measured in the field during collection of the groundwater samples.



## 4. ANALYTICAL RESULTS

### 4.1 Field Parameters

**Table 2** provides a summary of the field measurements of selected water quality parameters utilized for determining sample stability for this semi-annual monitoring event. Please note that A-zone (shallow) monitoring wells MW-2, 3, 4, 5, 6 and 10 were dry at the time of this semi-annual sampling event. The cause is likely seasonal lack of precipitation and the de-watering of the offsite borrow area associated with construction activities (MW-2, 3, 4, 5 and 6 are along the west side of the landfill Cells and closest to the borrow area).

### 4.2 Groundwater Monitoring Wells

The analytical laboratory results for this groundwater sampling event have been transferred to a compact disc (CD) and are included in **Appendix E**. Analytical results have been summarized in **Table 3** to show all parameters where a constituent concentration was reported above the applicable FDEP Groundwater Cleanup Target Level (GCTL). Any parameter exceeding the GCTL has been highlighted orange. The following discussion regarding groundwater quality is limited to those parameters where the GCTL was exceeded in at least one groundwater monitoring well and has been organized by analytical method.

#### *Total Metals (Method 6020 and Method 7470 for Mercury)*

Arsenic was reported (above the method reporting limit [MRL]) in eight (8) A-zone and one (1) B-zone monitoring well in concentrations ranging from 1.1 to 16.8 micrograms per liter (µg/L). With the exception of the samples from MW-12A (10.1 µg/L) and MW-13A (16.8 µg/L) the reported concentrations were less than the GCTL of 10 µg/L. As discussed in the fourth biennial water quality monitoring report (November 2011), a positive correlation exists between iron and arsenic levels for monitoring wells at the site. This has been documented throughout the State of Florida, and is due to the fact that low levels of naturally occurring arsenic are bound up primarily by ferric (iron) hydroxides in many Florida soils. This has been discussed in previous correspondence with FDEP. The arsenic concentrations detected in MW-12A and MW-13A for the 16<sup>th</sup> semi-annual event is comparable to period of record data.

Iron was reported above the GCTL of 300 µg/L in ten (10) of the A-zone monitoring wells sampled with the concentrations ranging between 650 and 56,200 µg/L, with the highest concentration from MW-12A. Iron was reported above the GCTL in fifteen (15) of the B-zone monitoring wells and the concentrations ranged from 320 µg/L to 6,030



µg/L. Iron was detected above the GCTL in C-zone monitoring MW-16C at a concentration of 770 µg/L.

Iron has historically exceeded the GCTL in all wells at the site for all monitoring events including the baseline events. The iron concentrations reported for the 16<sup>th</sup> semi-annual event are consistent with period of record data.

#### *Ammonia-N (Method 350.1)*

Ammonia-N was detected in groundwater samples from all monitoring wells sampled this event with the exception of MW-6B. The concentrations in samples collected from A-zone monitoring wells ranged from 0.307 to 20.9 milligrams per liter (mg/L) with concentrations in MW-1A, 7A, 8A, 9A, 11A, 12A, 19A and 23A exceeding the GCTL (2.8 mg/L) and ranging from 3.05 mg/L to 20.9 mg/L. The highest reported concentration was in the sample from MW-9A (20.9 mg/L). The GCTL for Ammonia-N of 2.8 mg/L was not exceeded in any samples collected from B-zone monitoring wells and the reported concentrations ranged from 0.077 mg/L to 1.76 mg/L.

As indicated in recent correspondence by HDR, (Class I Permit Renewal Request for Additional Information – January 2012), given that the JED facility is a double geosynthetically lined landfill including a witness zone (secondary liner), an alternative and probable source of ammonia in groundwater at the JED facility includes naturally occurring sources of nitrogen containing compounds present in the organic rich soils. Under the right biogeochemical conditions, nitrogen containing compounds can be converted to ammonia under reducing geochemical conditions. Reducing conditions can be formed in a variety of ways including, shadow effect due to reduction of oxygen rich precipitation infiltration over a large area, displacement of oxygen by landfill gas immediately above the water table, and release of organic matter which promotes the growth of microorganisms which can consume oxygen.

As HDR noted, reductive dissolution is a plausible explanation for the detection of ammonia at the facility. Researchers have recently found good correlation with arsenic and ammonia with iron which supports the concept of reductive dissolution of iron hydroxide as a dominant reaction mobilizing these compounds in groundwater. The reductive dissolution of iron and the associated mobilization of iron in groundwater are well documented in literature. More recent research demonstrates this same mechanism can explain the release of arsenic at landfills. The mechanisms of iron and arsenic chemistry are well established; however, the presence of ammonia in groundwater at landfills has only recently been evaluated.

It has been reported that ammonium will co-precipitate with iron. Conversely as a result of reductive dissolution, ammonium would be mobilized in the groundwater if no other adsorption sites are readily available for the ammonium cation. As a cation, ammonium may be bound to soil particles through ion exchange. If high concentrations of  $\text{Fe}^{+2}$  are released (such as those that occur during reductive dissolution), an increase in ammonium ion concentrations in groundwater would be expected.

A large scale leachate release would produce pronounced concentration increases in groundwater, but the increases in ammonia seem to occur at the onset of construction without correlation to the filling sequence. Neither the constituents nor the concentrations detected in groundwater appear to correlate well with leachate. As discussed in the recent 4<sup>th</sup> Biennial Report, if detections in groundwater were due to a direct leachate release, the concentrations of various indicator constituents (such as chloride, sodium etc.) found in groundwater should be relatively proportional to those found in leachate samples, particularly given the close proximity of the groundwater wells to the leachate sumps, however this is not the case. The VOC's (and concentrations) detected in leachate are markedly different than the VOC fingerprint at individual wells (which further supports landfill gas as the source of the benzene in groundwater). A direct release of leachate should also indicate proportional levels of other indicator compounds such as sodium, chloride and metals concurrent with ammonia.

Although ammonia is considered a common leachate indicator, no definitive evidence of a leachate discharge exists. The preponderance of evidence does support the concept that the source of ammonia is from reductive dissolution reactions mobilizing ammonia present in site soils. Shallow groundwater at the site is strongly reducing favoring the process of reductive dissolution.

#### *Total Dissolved Solids (Method SM 2540C)*

TDS was detected above the MRL in all wells sampled during this sampling event with the concentration in MW-19A (731 mg/L) exceeding the GCTL of 500 mg/L.

#### *40 CFR Part 258, Appendix I Volatile Compounds (Method 8260)*

Benzene was detected above the GCTL of 1.0 µg/L in six (6) A-zone monitoring wells (MW-1A, 8A, 9A, 11A, 12A, and 13A) at concentrations ranging from 1.98 to 5.24 µg/L, and one (1) B-zone (MW-11B) monitoring well at a concentration of 4.96 µg/L.

### *Confirmation Samples*

In accordance with Chapter 62-701.510(7)(a) F.A.C. and Paragraph 5 of the MPIS (April 2009), the FDEP is to be notified within 14 days after the receipt of the laboratory data of any GCTL exceedances. The notification is to also inform the FDEP if any confirmational samples will be collected from any of the wells or if the data will be accepted as indicative of groundwater conditions. Omni notified Mr. Thomas Lubozynski (FDEP) in a letter dated 11 June 2012 of all the GCTL exceedances for which certified data was received by Omni. The letter also notified the FDEP that due to the change in concentration of iron in MW-12A and benzene in MW-11B from historical data Omni elected to collect confirmatory samples from these two wells. FDEP responded to the notification letter in an email from Ms. Gloria-Jean DePradine dated 12 June 2012 allowing the collection of confirmatory samples from MW-12A and MW-11B. On 14 June 2012 Omni collected the confirmatory samples. The reported concentration of iron from the confirmatory sample from MW-12A was 36,500 µg/L. The reported concentration of benzene from the confirmatory sample from MW-11B was 5.05 µg/L.

As indicated in recent correspondence by HDR, (Class I Permit Renewal Request for Additional Information – January 2012) the source of benzene in groundwater is likely attributed to landfill gas. As noted in the previous discussion for detections of Ammonia-N, neither the constituents nor the concentrations of VOC's detected in groundwater appear to correlate well with leachate results. As discussed in the recent 4<sup>th</sup> Biennial Report, if detections in groundwater were due to a direct leachate release, the concentrations of various indicator constituents (such as chloride, sodium etc.) found in groundwater should be relatively proportional to those found in leachate samples, particularly given the close proximity of the groundwater wells to the leachate sumps, however this is not the case. The VOC's (and concentrations) detected in leachate are markedly different than the VOC fingerprint at individual wells (which further supports landfill gas as the source of the benzene in groundwater).

Monitoring well MW-12A has historically had high iron concentrations. The baseline event reported a concentration of 1,330 µg/L; however the concentration has been as low as 400 µg/L during the 6<sup>th</sup> monitoring event in February 2007 and as high as 75,100 µg/L reported during the 8<sup>th</sup> monitoring event in May 2008. It is likely the elevated iron concentrations are naturally occurring and as mentioned previously in this report, may be due to oxidation-reduction conditions in the aquifer favoring an increase in soluble (ferrous) iron.

### 4.3 Data Validation

All analyses were performed within the method specified holding times.

Two equipment blanks were collected during the 16<sup>th</sup> semi-annual monitoring event. One (1) equipment blank was collected using the stainless steel submersible pump used for collection of the groundwater sample at MW-16B. The second equipment blank was collected using the peristaltic pump used for collection of the groundwater sample from MW-9A. De-ionized water supplied by Columbia was pumped through the decontaminated submersible pump and new tubing and analyzed for the same parameters as the groundwater samples. The same procedure was also used for the peristaltic pump and associated tubing.

Analysis of the QC sample collected through the submersible pump (Equipment Blank - 1) resulted in a detection of methylene chloride (16.4 µg/L); however, methylene chloride was not detected in any of the monitoring wells sampled with the submersible pump indicating this is most likely a laboratory contaminant. Sodium and nitrate were detected in the QC sample at a concentration below the method reporting limit. All other constituents analyzed for were not detected in the QC sample collected through the submersible pump.

Analysis of the QC sample collected through the peristaltic pump (Equipment Blank -2) resulted in a detection of methylene chloride (20.3 µg/L); however, methylene chloride was not detected in any of the monitoring wells sampled with the peristaltic pump indicating this is most likely a laboratory contaminant. Iron, sodium, and nitrate were detected in the QC sample at a concentration below the method reporting limit. All other constituents analyzed for were not detected in the QC sample collected through the peristaltic pump.

### 4.4 Impact of Turbidity on Metals Concentrations

Turbidity levels were less than the FDEP guidance of 20 NTUs in twenty six (26) of the twenty seven (27) wells sampled. A review of the analytical results for MW-19A (the only well sampled with a final measured turbidity level > 20 NTUs) shows no significant difference between the dissolved and total metals concentration. Historical data shows that the turbidity levels for the wells has improved over the course of the semi-annual water quality monitoring events and the need to continue collection of dissolved metal samples may no longer be necessary.

## 5. GROUNDWATER LEVEL MEASUREMENTS AND FLOW DIRECTION

### 5.1 Field Measurements

Groundwater level measurements were obtained on 8 May 2012 from all Phases 1 through 3 groundwater monitoring wells and the remaining piezometers installed as part of the original site hydrogeological investigation. All groundwater level measurements were made within an approximate 6-hr period. The groundwater level measurements from the monitoring wells and piezometers are presented in **Table 4**.

### 5.2 Water Level Contours

The water level contour map prepared from groundwater level measurements for the surficial aquifer in the B-zone (intermediate) is presented in **Figure 1**. Please note that previous contours utilized the upper surficial A-zone (shallow) wells; however, six (6) of the shallow wells (MW-2A, 3A, 4A, 5A, 6A and 10A) were dry during this sampling event, which warranted use of the intermediate zone (or B-zone) monitoring wells for preparation of the contour figure.

Historically, the direction of the horizontal component of groundwater flow for all three zones is predominantly east-northeast towards Bull Creek. However, the dewatering operation for the offsite Bronson's borrow area has created a localized groundwater depression on the west side of the Phase 1 and 2 development areas. Groundwater flow along the northwestern property boundary (near the MW-3, MW-4 and MW-5 monitoring well clusters) is predominantly west towards the dewatering area. The groundwater level elevation data collected from the remainder of the B-zone monitoring well network indicate the direction of the horizontal component of groundwater flow is predominantly east-northeast toward Bull Creek.

Historically, comparison of water levels between the A, B and C wells shows a similar vertical gradient ( $1\text{E}^{-3}$  ft/ft). These gradients are consistent with the regional gradient in the upper surficial aquifer and indicate an interconnected, sluggish flow regime in the saturated zone above the Intermediate Confining Unit (ICU).

## **6. SURFACE WATER SAMPLING**

### **6.1 Sampling Locations and Procedures**

As stated in the Permit, surface water samples are only to be collected when there is flow observed in Bull Creek. No flow was observed in Bull Creek, therefore, no surface water samples were collected during this monitoring event.

## **7. CONCLUSIONS AND RECOMMENDATIONS**

### **7.1 Sampling Locations**

The existing monitoring well network is adequate for monitoring purposes and no changes are recommended.

### **7.2 Sample Analyses**

The detections of ammonia, iron, and arsenic above the GCTLs in specific groundwater monitoring wells have been discussed in detail in the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> Biennial Technical Reports on Water Quality (November 2006, September 2008, November 2010 and November 2011, respectively). As discussed in Section 4.2, it is likely that the iron, arsenic and ammonia are not related to a leachate release from the disposal boundary, but rather mobilization of these constituents due to the presence of nitrogen containing compounds under reducing conditions. Our recommendation is to continue to monitor these constituents as part of the current MPIS.

As reported in the 4<sup>th</sup> Biennial Technical Report on Groundwater Quality it was originally thought that the prior detections of benzene were attributable to residual contamination from the erosion caused by surface water run-off from the landfill in the vicinity of MW-9A, but as benzene has been detected in more wells around the Phase 1 area it appears that this is not the primary cause. As discussed in Section 4.2, it is more likely that the elevated benzene and other volatile organic compound (VOCs) detections may be attributable to landfill gas migration. As a result of this, Omni has initiated several investigations and corrective measures related to landfill gas migration. The most recent included augmentation of the existing methane gas recovery system with two “test” supplemental gas recovery wells which was documented in a correspondence dated June 2011. It is anticipated that the addition of these two supplemental gas recovery wells within the sump areas at Cells 2 and 5 will help mitigate the methane migration issues which will result in a reduction of VOCs in groundwater samples collected at MW-

1A and MW-9A during subsequent semi-annual monitoring events. A Soil Vapor Extraction (SVE) Pilot Test Work Plan was submitted to the FDEP on 27 January 2012 and subsequently approved on 6 February 2012. In March 2012 the pilot vertical SVE wells were installed around the Cell 5 sump area. The vertical SVE system includes four (4) extraction wells and one (1) vadose zone aeration well. In April 2012 the horizontal SVE system was installed near monitoring well cluster MW-4, adjacent to Cell 1. The horizontal SVE system includes a 100-foot section of perforated pipe installed beneath the perimeter road. The vertical and horizontal pilot SVE systems are connected to the main gas collection system so that collected landfill gas is transmitted to the flare station for combustion. In May 2012 the pre-startup monitoring event of the pilot system was conducted including sampling of MW-1A and Cell 4 and Cell 5 leachate sumps for the parameters specified in the SVE Pilot Test Work Plan (please note that the SVE Pilot Test Work Plan specifies the sampling of MW-4A as well, however MW-4A was dry during this event). As per the SVE Pilot Test Work Plan, following initial startup of the pilot SVE system, monitoring of MW-1A and MW-4A will be performed on a quarterly basis with the results submitted in a status report to the FDEP.

Our recommendation is to continue semi-annual monitoring of these constituents as part of the current MPIS while the on-going gas migration investigation and SVE pilot study continues.

## TABLES



Table 1 (1 of 3)

**SUMMARY OF MONITORING WELL CONSTRUCTION DETAILS**  
**16th SEMI-ANNUAL WATER QUALITY MONITORING EVENT**  
**J.E.D. SOLID WASTE MANAGEMENT FACILITY**

Well Designation	Latitude (NAD 1983)	Longitude (NAD 1983)	WACS ID	Date Installed	Top of Casing Elevation, TOC (feet)	Total Depth (feet BTOC)	Screen Setting				Sand Pack (feet BTOC)	Fine-Grained Sand Seal (feet BTOC)
							(feet BTOC)		(feet Elevation)			
							Top	Bottom	Top	Bottom		
MW-1A	28 03 48.55	81 05 59.88	19900	9-Dec-03	95.1	23.0	13.0	23.0	82.1	72.1	10.6	8.2
MW-2A	28 03 51.99	81 05 59.90	19903	10-Dec-03	95.2	22.6	12.6	22.6	82.6	72.6	10.3	8.9
MW-3A	28 03 55.34	81 05 59.91	19906	11-Dec-03	94.6	22.8	12.8	22.8	81.9	71.9	10.4	9.0
MW-4A	28 03 58.97	81 05 59.92	19909	12-Dec-03	95.5	23.1	13.1	23.1	82.4	72.4	10.8	9.4
MW-5A	28 04 02.92	81 05 59.95	19912	24-Nov-03	95.3	22.5	12.5	22.5	82.8	72.8	10.1	9.1
MW-6A	28 04 06.50	81 05 59.15	19915	25-Nov-03	94.7	22.6	12.6	22.6	82.2	72.2	10.6	8.6
MW-7A	28 04 07.13	81 05 54.78	19918	26-Nov-03	95.5	23.3	13.3	23.3	82.2	72.2	10.3	9.3
MW-8A	28 04 06.20	81 05 50.64	19921	5-Dec-03	94.7	22.5	12.5	22.5	82.2	72.2	10.2	8.6
MW-9A	28 04 04.34	81 05 46.60	19924	4-Dec-03	94.7	22.4	12.4	22.4	82.3	72.3	10.0	8.6
MW-10A	28 04 00.07	81 05 44.77	19927	3-Dec-03	96.3	22.1	12.1	22.1	84.1	74.1	9.8	7.6
MW-11A	28 03 55.43	81 05 43.27	19930	3-Dec-03	93.6	22.8	12.8	22.8	80.7	70.7	10.5	9.1
MW-12A	28 03 52.08	81 05 43.26	19933	2-Dec-03	95.1	23.0	13.0	23.0	82.1	72.1	10.7	9.3
MW-13A	28 03 48.67	81 05 43.25	19936	8-Dec-03	95.2	22.5	12.5	22.5	82.7	72.7	10.2	7.7
MW-14A	Monitoring Well Abandoned 10 July 2007											
MW-15A	Monitoring Well Abandoned 10 July 2007											
MW-16A	28 03 44.55	81 05 40.22	22342	21-Sep-07	88.7	18.6	8.1	18.1	80.6	70.6	6.1	5.1
MW-17A	28 03 42.38	81 05 35.42	22345	22-Sep-07	88.9	19.9	9.4	19.4	79.5	69.5	7.4	6.4
MW-18A	28 03 37.21	81 05 35.16	22348	11-Sep-07	87.6	17.7	7.2	17.2	80.4	70.4	5.2	4.2
MW-19A	28 03 33.40	81 05 39.60	22351	11-Sep-07	87.5	17.7	7.2	17.2	80.4	70.4	5.2	4.2
MW-20A	28 03 31.82	81 05 45.45	22354	19-Sep-07	87.1	17.9	7.4	17.4	79.7	69.7	5.4	4.4
MW-21A	28 03 32.10	81 05 52.48	22357	14-Sep-07	87.2	18.0	7.5	17.5	79.7	69.7	5.5	4.5
MW-22A	Monitoring Well Abandoned 11 November 2011											
MW-22RA	28 03 34.703	81 06 0.622	28685	14-Mar-12	95.0	23.7	13.0	23.0	82.0	72.0	10.5	9.5
MW-23A	28 03 42.41	81 05 59.79	22363	25-Sep-07	97.9	27.8	17.3	27.3	80.7	70.7	15.3	14.3

Table 1 (2 of 3)

**SUMMARY OF MONITORING WELL CONSTRUCTION DETAILS  
16th SEMI-ANNUAL WATER QUALITY MONITORING EVENT  
J.E.D. SOLID WASTE MANAGEMENT FACILITY**

Well Designation	Latitude (NAD 1983)	Longitude (NAD 1983)	WACS ID	Date Installed	Top of Casing Elevation, TOC (feet)	Total Depth (feet BTOC)	Screen Setting				Sand Pack (feet BTOC)	Fine-Grained Sand Seal (feet BTOC)
							(feet BTOC)		(feet Elevation)			
							Top	Bottom	Top	Bottom		
MW-1B	28 03 48.59	81 05 59.89	19901	9-Dec-03	95.0	47.9	37.9	47.9	57.1	47.1	35.6	33.1
MW-2B	28 03 51.94	81 05 59.90	19904	10-Dec-03	95.2	48.3	38.3	48.3	56.9	46.9	36.0	34.6
MW-3B	28 03 55.31	81 05 59.91	19907	11-Dec-03	94.7	47.6	37.6	47.6	57.1	47.1	35.3	33.9
MW-4B	28 03 59.01	81 05 59.92	19910	12-Dec-03	95.2	47.4	37.4	47.4	57.8	47.8	35.1	33.5
MW-5B	28 04 02.88	81 05 59.95	19913	24-Nov-03	95.3	47.1	37.1	47.1	58.2	48.2	34.4	32.7
MW-6B	28 04 06.48	81 05 59.18	19916	25-Nov-03	94.6	47.4	37.4	47.4	57.2	47.2	34.9	33.5
MW-7B	28 04 07.13	81 05 54.81	19919	26-Nov-03	95.3	47.5	37.5	47.5	57.8	47.8	34.5	33.5
MW-8B	28 04 06.19	81 05 50.60	19922	5-Dec-03	94.6	49.6	39.6	49.6	55.0	45.0	37.1	35.6
MW-9B	28 04 04.31	81 05 46.56	19925	4-Dec-03	94.6	49.1	39.1	49.1	55.5	45.5	36.8	35.3
MW-10B	28 04 00.04	81 05 44.75	19928	3-Dec-03	96.2	48.3	38.3	48.3	58.0	48.0	35.9	33.9
MW-11B	28 03 55.40	81 05 43.27	19931	2-Dec-03	93.6	47.9	37.9	47.9	55.7	45.7	35.5	34.0
MW-12B	28 03 52.05	81 05 43.27	19934	1-Dec-03	95.0	49.0	39.0	49.0	56.1	46.1	36.6	35.1
MW-13B	28 03 48.64	81 05 43.24	19937	8-Dec-03	95.1	47.2	37.2	47.2	58.0	48.0	34.8	33.4
MW-14B	Monitoring Well Abandoned 10 July 2007											
MW-15B	Monitoring Well Abandoned 10 July 2007											
MW-16B	28 03 44.52	81 05 40.17	22343	21-Sep-07	88.7	38.1	27.6	37.6	61.1	51.1	25.6	24.6
MW-17B	28 03 42.35	81 05 35.36	22346	20-Sep-07	88.8	40.2	29.7	39.7	59.1	49.1	27.7	26.7
MW-18B	28 03 37.16	81 05 35.19	22349	11-Sep-07	87.4	37.8	27.3	37.3	60.1	50.1	25.3	24.3
MW-19B	28 03 33.38	81 05 39.66	22352	11-Sep-07	87.6	37.7	27.2	37.2	60.4	50.4	25.2	24.2
MW-20B	28 03 31.82	81 05 45.51	22355	19-Sep-07	87.3	37.8	27.3	37.3	60.0	50.0	25.3	24.3
MW-21B	28 03 32.09	81 05 52.55	22358	17-Sep-07	87.2	37.6	27.1	37.1	60.1	50.1	25.1	24.1
MW-22B	Monitoring Well Abandoned 11 November 2011											
MW-22RB	28 03 34.665	81 05 59.850	28686	15-Mar-12	94.9	46.1	35.5	45.5	59.4	49.4	33.0	28.0
MW-23B	28 03 42.46	81 05 59.79	22364	25-Sep-07	97.9	42.75	32.3	42.3	65.7	55.7	30.3	29.3

Table 1 (3 of 3)

**SUMMARY OF MONITORING WELL CONSTRUCTION DETAILS**  
**16th SEMI-ANNUAL WATER QUALITY MONITORING EVENT**  
**J.E.D. SOLID WASTE MANAGEMENT FACILITY**

Well Designation	Latitude (NAD 1983)	Longitude (NAD 1983)	WACS ID	Date Installed	Top of Casing Elevation, TOC (feet)	Total Depth (feet BTOC)	Screen Setting				Sand Pack (feet BTOC)	Fine-Grained Sand Seal (feet BTOC)
							(feet BTOC)		(feet Elevation)			
							Top	Bottom	Top	Bottom		
MW-1C	28 03 48.63	81 05 59.88	19902	9-Dec-03	95.2	75.2	65.2	75.2	30.0	20.0	62.9	61.4
MW-2C	28 03 51.90	81 05 59.89	19905	10-Dec-03	95.3	68.4	58.4	68.4	36.9	26.9	56.1	53.7
MW-3C	28 03 55.28	81 05 59.91	19908	11-Dec-03	94.7	68.7	58.7	68.7	36.0	26.0	56.3	54.8
MW-4C	28 03 59.04	81 05 59.92	19911	12-Dec-03	95.4	72.5	62.5	72.5	32.9	22.9	61.2	59.6
MW-5C	28 04 02.83	81 05 59.95	19914	24-Nov-03	95.4	73.0	63.0	73.0	32.4	22.4	60.7	58.7
MW-6C	28 04 06.46	81 05 59.22	19917	25-Nov-03	94.6	73.2	63.2	73.2	31.4	21.4	60.2	57.7
MW-7C	28 04 07.13	81 05 54.86	19920	25-Nov-03	94.9	73.3	63.3	73.3	31.6	21.6	60.3	59.3
MW-8C	28 04 06.17	81 05 50.55	19923	5-Dec-03	94.5	73.9	63.9	73.9	30.6	20.6	61.6	59.8
MW-9C	28 04 04.29	81 05 46.53	19926	4-Dec-03	94.5	73.8	63.8	73.8	30.8	20.8	61.4	59.4
MW-10C	28 04 00.01	81 05 44.74	19929	3-Dec-03	96.4	73.7	63.7	73.7	32.7	22.7	61.4	60.0
MW-11C	28 03 55.36	81 05 43.26	19932	2-Dec-03	93.7	73.4	63.4	73.4	30.3	20.3	61.0	59.6
MW-12C	28 03 52.01	81 05 43.26	19935	1-Dec-03	95.1	73.6	63.6	73.6	31.5	21.5	60.2	58.7
MW-13C	28 03 48.60	81 05 43.25	19938	8-Dec-03	95.0	73.0	63.0	73.0	32.1	22.1	60.7	58.2
MW-14C	Monitoring Well Abandoned 10 July 2007											
MW-15C	Monitoring Well Abandoned 10 July 2007											
MW-16C	28 03 44.50	81 05 40.11	22344	21-Sep-07	88.8	67.7	57.2	67.2	31.6	21.6	55.2	54.2
MW-17C	28 03 42.31	81 05 35.31	22347	20-Sep-07	88.9	67.3	56.8	66.8	32.0	22.0	54.8	53.8
MW-18C	28 03 37.10	81 05 35.22	22350	12-Sep-07	87.4	67.2	56.7	66.7	30.8	20.8	54.7	53.7
MW-19C	28 03 33.37	81 05 39.72	22353	10-Sep-07	87.4	66.7	56.2	66.2	31.2	21.2	54.2	53.2
MW-20C	28 03 31.82	81 05 45.57	22356	18-Sep-07	87.4	66.8	56.3	66.3	31.1	21.1	54.3	53.3
MW-21C	28 03 32.10	81 05 52.61	22359	17-Sep-07	87.1	62.6	52.1	62.1	35.1	25.1	50.1	49.1
MW-22C	Monitoring Well Abandoned 11 November 2011											
MW-22RC	28 03 34.629	81 05 59.854	28687	15-Mar-12	95.1	66.6	56.0	66.0	39.1	29.1	50.0	49.0
MW-23C	28 03 42.51	81 05 59.80	22365	24-Sep-07	97.9	67.1	56.6	66.6	41.4	31.4	54.6	53.6

Table 2

**SUMMARY OF FINAL FIELD PARAMETER RESULTS AND FIELD DATA**  
**16th SEMI-ANNUAL WATER QUALITY MONITORING EVENT**  
**J.E.D. SOLID WASTE MANAGEMENT FACILITY**

Monitoring Well	Temperature (°C) <sup>1</sup>	pH (Standard Units)	Specific Conductance (uS/cm) <sup>2</sup>	Turbidity (NTUs) <sup>3</sup>	Oxidation-Reduction Potential (mV) <sup>4</sup>	Dissolved Oxygen (mg/L) <sup>5</sup>	Purging Method
MW-1A	25.60	4.83	173	0.0	-50.3	0.27	Peristaltic Pump
MW-2A	well dry at time of sampling event						
MW-3A	well dry at time of sampling event						
MW-4A	well dry at time of sampling event						
MW-5A	well dry at time of sampling event						
MW-6A	well dry at time of sampling event						
MW-7A	23.80	5.43	309	0.0	-100.9	0.19	Peristaltic Pump
MW-8A	24.12	4.82	307	0.9	-74.1	0.22	Peristaltic Pump
MW-9A	25.18	4.89	532	1.7	-97.2	0.19	Peristaltic Pump
MW-10A	well dry at time of sampling event						
MW-11A	27.86	5.38	283	6.6	-17.0	0.08	Peristaltic Pump
MW-12A	26.31	5.85	476	0.0	-27.8	0.15	Peristaltic Pump
MW-13A	26.81	5.33	189	1.2	-8.0	0.15	Peristaltic Pump
MW-16A	24.36	4.92	39	2.6	-70.7	0.15	Peristaltic Pump
MW-19A	25.68	5.98	551	46.2	-138.9	0.06	Peristaltic Pump
MW-23A	24.87	5.35	247	17.0	-131.3	0.13	Peristaltic Pump
MW-1B	25.49	5.73	163	0.0	-78.2	0.29	Peristaltic Pump
MW-2B	26.17	4.75	46	1.8	10.8	0.21	Peristaltic Pump
MW-3B	28.55	4.82	75	3.4	17.4	0.22	Peristaltic Pump
MW-4B	31.26	4.81	135	0.0	-47.1	0.21	Peristaltic Pump
MW-5B	24.67	4.37	68	0.0	-38.6	0.29	Peristaltic Pump
MW-6B	24.98	4.93	81	0.0	-64.6	0.40	Peristaltic Pump
MW-7B	24.18	4.54	313	0.0	-49.3	0.40	Peristaltic Pump
MW-8B	24.28	4.89	83	4.6	-77.0	0.09	Submersible Pump
MW-9B	25.05	4.73	206	0.0	-69.4	0.22	Peristaltic Pump
MW-10B	26.62	4.55	402	0.7	-25.2	0.31	Peristaltic Pump
MW-11B	26.64	4.92	218	0.0	-44.8	0.20	Peristaltic Pump
MW-12B	26.00	4.94	128	0.9	-10.4	0.33	Peristaltic Pump
MW-13B	26.21	4.86	131	0.5	17.8	0.34	Peristaltic Pump
MW-16B	24.00	4.97	44	18.2	-88.1	0.05	Submersible Pump
MW-19B	24.50	4.97	153	4.8	-48.6	0.06	Submersible Pump
MW-23B	24.75	4.43	473	0.0	37.8	0.22	Peristaltic Pump
MW-16C	24.03	5.12	106	0.3	-25.5	0.24	Peristaltic Pump

Notes:

<sup>1</sup> °C = degrees Celsius<sup>2</sup> uS/cm = micro Siemens per centimeter<sup>3</sup> NTU = Nephelometric Turbidity Units<sup>4</sup> mV = millivolts<sup>5</sup> mg/L = milligram per liter

Table 3

SUMMARY OF GROUNDWATER ANALYTICAL DATA  
16th SEMI-ANNUAL WATER QUALITY MONITORING EVENT  
J.E.D. SOLID WASTE MANAGEMENT FACILITY

Well ID	1,2 Dichloroethane	Cis-1,2 Dichloroethene	Benzene	Ethylbenzene	Toluene	Total Xylenes	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Mercury	Nickel	Selenium	Sodium	Thallium	Vanadium	Ammonia	Chloride	Nitrate as N	TDS
	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (mg/L)	GCTL (ug/L)	GCTL (ug/L)	GCTL (mg/L)	GCTL (mg/L)	GCTL (mg/L)	GCTL (mg/L)
	3	70	1	30	40	20	6	10	2,000	4	5	100	420	1,000	300	15	2	100	50	160	2	49	2.8	250	10	500
MW-1A	< 0.22	< 0.36	3.35	2.13	0.52 i	2.36	< 0.2	1.3	21.6	< 0.04	< 0.1	1.9	0.5 i	< 0.3	2,020	< 0.12	< 0.02	< 0.5	< 1.1	12.4	< 0.05	0.7 i	4.44	30.6	< 0.03	88
MW-1B	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	< 0.2	< 0.5	5.5	< 0.04	< 0.1	0.8 i	0.04 i	< 0.3	90 i	< 0.12	< 0.02	< 0.5	< 1.1	9.4	< 0.05	0.8 i	0.306	15.6	< 0.03	111
MW-2B	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	< 0.2	< 0.5	6.8	< 0.04	< 0.1	0.6 i	0.2 i	< 0.3	490	0.23 i	< 0.02	< 0.5	< 1.1	5.04	< 0.05	< 0.3	0.094	7.04	< 0.03	35
MW-3B	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	< 0.2	< 0.5	26.8	0.07 i	< 0.1	1.4	0.2 i	0.5 i	680	1.68	< 0.02	< 0.5	< 1.1	6.57	< 0.05	2.7	0.11	12	< 0.03	55
MW-4B	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	0.3 i	< 0.5	16.6	0.06 i	< 0.1	0.3 i	0.2 i	< 0.3	930	< 0.12	< 0.02	< 0.5	< 1.1	14.5	< 0.05	0.9 i	0.095	27.6	< 0.03	80
MW-5B	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	< 0.2	< 0.5	14.9	0.09 i	< 0.1	0.7 i	0.2 i	< 0.3	320	< 0.12	< 0.02	< 0.5	< 1.1	6.21	0.14 i	1.0 i	0.152	10.8	< 0.03	49
MW-6B	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	< 0.2	< 0.5	20.4	0.06 i	< 0.1	0.9 i	0.2 i	< 0.3	900	< 0.12	< 0.02	< 0.5	< 1.1	8.00	< 0.05	1.3 i	0.008 i	14.6	< 0.03	56
MW-7A	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	< 0.2	0.8 i	18.3	< 0.04	< 0.1	1.0	1.4	< 0.3	13,100	< 0.12	< 0.02	< 0.5	< 1.1	20.2	< 0.05	2.1	3.63	30.1	< 0.03	179
MW-7B	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	< 0.2	0.7 i	136	0.14 i	< 0.1	0.5 i	1.1	< 0.3	6,030	< 0.12	< 0.02	0.8 i	< 1.1	20.6	< 0.05	0.4 i	0.254	83.7	< 0.03	184
MW-8A	< 0.22	< 0.36	1.62	< 0.21	< 0.19	0.40 i	< 0.2	1.1	31.5	0.05 i	< 0.1	3.0	1.6	< 0.3	5,820	< 0.12	< 0.02	2.6	< 1.1	25.6	< 0.05	5.2	7.51	62.4	< 0.03	166
MW-8B	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	< 0.2	< 0.5	31.2	< 0.04	< 0.1	1.3	0.2 i	< 0.3	1,240	0.51	< 0.02	< 0.5	< 1.1	7.97	< 0.05	2.5	0.121	17.0	< 0.03	67
MW-9A	< 0.22	< 0.36	5.24	< 0.21	< 0.19	0.71	< 0.2	1.7	15.2	< 0.04	< 0.1	2.0	1.1	0.4 i	5,480	< 0.12	< 0.02	1.8 i	< 1.1	29.3	< 0.05	1.7 i	20.9	24.8	< 0.03	279
MW-9B	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	0.3 i	0.8 i	71.2	0.11 i	< 0.1	1.6	0.6 i	< 0.3	2,600	< 0.12	< 0.02	< 0.5	< 1.1	21.2	0.05 i	1.7 i	0.218	31.9	< 0.03	128
MW-10B	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	< 0.2	0.7 i	69.2	0.21 i	< 0.1	1.0	2.4	< 0.3	3,430	< 0.12	< 0.02	1.1 i	< 1.1	51.9	< 0.05	1.5 i	0.333	38.5	< 0.03	247
MW-11A	< 0.22	0.53 i	3.84	< 0.21	< 0.19	< 0.31	< 0.2	8.2	15.2	0.04 i	< 0.1	6.2	0.4 i	0.4 i	8,740	0.44 i	< 0.02	1.3 i	< 1.1	29.3	< 0.05	8.9	5.14	20.1	< 0.03	217
MW-11B	0.44 i	0.75 i	4.96	< 0.21	< 0.19	0.24 i	< 0.2	0.9 i	36.5	0.05 i	< 0.1	1.4	0.2 i	< 0.3	1,180	< 0.12	< 0.02	< 0.5	< 1.1	26.1	< 0.05	2.5	0.077	36.9	< 0.03	120
MW-12A	< 0.22	0.41 i	2.83	< 0.21	< 0.19	< 0.31	< 0.2	10.1	20.2	< 0.04	< 0.1	1.3	0.9 i	< 0.3	56,200	< 0.12	< 0.02	1.0 i	< 1.1	12.7	< 0.05	2.1	3.05	21.0	< 0.03	240
MW-12B	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	< 0.2	< 0.5	37.7	< 0.04	< 0.1	0.5 i	0.3 i	< 0.3	1,240	< 0.12	< 0.02	< 0.5	< 1.1	10.6	< 0.05	< 0.3	0.132	28.7	< 0.03	65
MW-13A	< 0.22	0.41 i	1.98	< 0.21	< 0.19	< 0.31	< 0.2	16.8	10.9	< 0.04	< 0.1	3.4	0.4 i	< 0.3	19,000	< 0.12	< 0.02	< 0.5	< 1.1	12.3	< 0.05	4.0	1.31	18.1	< 0.03	119
MW-13B	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	< 0.2	< 0.5	18.3	< 0.04	< 0.1	0.6 i	0.3 i	< 0.3	1,530	< 0.12	< 0.02	< 0.5	< 1.1	13.2	< 0.05	< 0.3	0.149	28.6	< 0.03	65
MW-16A	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	< 0.2	1.2	8.6	< 0.04	0.13 i	1.5	0.3 i	< 0.3	650	0.25 i	< 0.02	< 0.5	< 1.1	1.71	0.15 i	3.6	0.307	2.25	< 0.03	39
MW-16B	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	< 0.2	1.2	19.9	< 0.04	< 0.1	1.9	0.3 i	0.5 i	1,090	1.32	< 0.02	< 0.5	< 1.1	5.33	< 0.05	2.1	0.143	5.71	< 0.03	62
MW-16C	< 0.22	< 0.36	< 0.21	0.84 i	< 0.19	< 0.31	< 0.2	< 0.5	12.7	< 0.04	< 0.1	0.5 i	< 0.03	< 0.3	770	< 0.12	< 0.02	< 0.5	< 1.1	11.7	< 0.05	1.4 i	0.123	20.9	< 0.03	75
MW-19A	< 0.22	< 0.36	< 0.21	< 0.21	0.62 i	< 0.31	< 0.2	7.1	22.1	0.53	< 0.1	22.8	1.1	0.7 i	6,440	4.95	0.04 i	3.0	4.1	21.6	< 0.05	21	16.6	22.7	0.18 i	731
MW-19B	< 0.22	< 0.36	< 0.21	0.61 i	< 0.19	< 0.31	< 0.2	< 0.5	28	< 0.04	< 0.1	0.8 i	0.2 i	0.3 i	770	0.57	< 0.02	< 0.5	< 1.1	18.9	< 0.05	0.9 i	0.104	39.0	< 0.03	105
MW-23A	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	0.3 i	0.9 i	8.4	< 0.04	< 0.1	3.8	0.3 i	1.0 i	980	1.55	0.04 i	1.6 i	< 1.1	16.3	< 0.05	4.8	4.78	23.9	< 0.03	174
MW-23B	< 0.22	< 0.36	< 0.21	< 0.21	< 0.19	< 0.31	< 0.2	< 0.5	92.1	0.15 i	< 0.1	0.5 i	0.9 i	< 0.3	2,750	< 0.12	< 0.02	< 0.5	< 1.1	61.3	< 0.05	0.9 i	1.76	85.1	< 0.03	250

Notes:

Estimated value - reported between MDL and MRL

Detect

Exceeds GCTL

Table 4

(1 of 3)

**GROUNDWATER LEVEL MEASUREMENTS**  
**16th SEMI-ANNUAL WATER QUALITY MONITORING EVENT**  
**J.E.D. SOLID WASTE MANAGEMENT FACILITY**

<b>Site Name:</b> JED Solid Waste Management Facility				<b>Sampling Personnel:</b> Joe Terry		
<b>Location:</b> Osceola County, Florida				<b>Field Conditions:</b> clear, 76°F in A.M., high of 88°F		
<b>Date:</b> May 8, 2012						
Well ID	Time	TOC Elevation	Depth to Water (ft)	Well Depth (ft)	GW Elevation	Field Observations
DP-1						Piezometer Abandoned 3 October 2003
DP-2						Piezometer Abandoned 3 October 2003
DP-3						Piezometer Abandoned 16 January 2006
DP-4						Piezometer Abandoned 16 January 2006
DP-5						Piezometer Abandoned 10 July 2007
DP-6						Piezometer Abandoned 10 July 2007
DP-7						Piezometer Abandoned 10 July 2007
DP-8						Piezometer Abandoned 10 July 2007
DP-9						Piezometer Abandoned 10 July 2007
DP-10						Piezometer Abandoned 10 July 2007
DP-11						Piezometer Abandoned 10 July 2007
DP-12						Piezometer Abandoned 10 July 2007
DP-13						Piezometer Abandoned 11 July 2007
DP-14	9:45	81.97	7.45	18.62	74.52	
DP-15	9:45	81.98	7.46	53.70	74.52	
DP-16	9:02	82.57	7.01	18.53	75.56	
DP-17	9:07	82.58	7.07	53.75	75.51	
DP-18	12:35	84.38	6.85	52.90	77.53	
DP-19	12:35	84.34	6.75	18.40	77.59	
DP-20	14:00	83.07	6.93	18.35	NM	
DP-21	14:00	83.00	6.85	53.68	NM	
DP-22	9:30	81.00	6.61	18.63	74.39	
DP-23	9:30	81.27	6.57	53.73	74.70	
DP-24	9:15	82.22	6.91	18.52	75.31	
SZ-1						Piezometer Abandoned 10 July 2007
SZ-2	14:00	83.16	8.12	75.39	75.04	
SZ-3	9:30	81.27	7.03	78.85	74.24	
MW-1A	12:00	95.12	20.41	23.19	74.71	
MW-1B	12:00	95.00	20.26	48.11	74.74	
MW-1C	12:00	95.18	20.55	74.63	74.63	
MW-2A	11:53	95.21	dry	22.89	--	
MW-2B	11:53	95.17	23.41	48.31	71.76	
MW-2C	11:53	95.32	23.64	68.59	71.68	
MW-3A	11:45	94.64	dry	23.02	--	
MW-3B	11:45	94.68	25.93	47.89	68.75	
MW-3C	11:45	94.66	25.81	69.02	68.85	

Table 4

(2 of 3)

**GROUNDWATER LEVEL MEASUREMENTS**  
**16th SEMI-ANNUAL WATER QUALITY MONITORING EVENT**  
**J.E.D. SOLID WASTE MANAGEMENT FACILITY**

<b>Site Name:</b> JED Solid Waste Management Facility			<b>Sampling Personnel:</b> Joe Terry			
<b>Location:</b> Osceola County, Florida			<b>Field Conditions:</b> clear, 76°F in A.M., high of 88°F			
<b>Date:</b> May 8, 2012						
Well ID	Time	TOC Elevation	Depth to Water (ft)	Well Depth (ft)	GW Elevation	Field Observations
MW-4A	11:35	95.48	dry	23.33	--	
MW-4B	11:35	95.18	27.54	47.69	67.64	
MW-4C	11:35	95.39	27.45	72.73	67.94	
MW-5A	11:25	95.32	dry	22.76	--	
MW-5B	11:25	95.30	26.04	47.36	69.26	
MW-5C	11:25	95.39	25.51	73.32	69.88	
MW-6A	11:15	94.72	dry	22.88	--	
MW-6B	11:15	94.60	22.82	47.73	71.78	
MW-6C	11:15	94.58	22.75	73.28	71.83	
MW-7A	11:05	95.48	22.44	23.58	73.04	
MW-7B	11:05	95.27	22.24	48.18	73.03	
MW-7C	11:05	94.93	21.95	73.55	72.98	
MW-8A	10:50	94.67	20.90	22.76	73.77	
MW-8B	10:50	94.58	20.81	49.50	73.77	
MW-8C	10:50	94.50	20.74	73.99	73.76	
MW-9A	10:40	94.66	20.46	22.63	74.20	
MW-9B	10:40	94.63	20.45	49.33	74.18	
MW-9C	10:40	94.54	20.47	73.99	74.07	
MW-10A	10:30	96.25	dry	22.43	--	
MW-10B	10:30	96.23	21.95	48.48	74.28	
MW-10C	10:30	96.36	22.15	73.83	74.21	
MW-11A	10:20	93.56	19.02	22.89	74.54	
MW-11B	10:20	93.59	19.02	48.03	74.57	
MW-11C	10:20	93.65	19.09	73.78	74.56	
MW-12A	10:15	95.10	20.10	23.27	75.00	
MW-12B	10:15	95.01	20.10	49.19	74.91	
MW-12C	10:15	95.10	20.24	73.79	74.86	
MW-13A	10:10	95.19	19.91	22.79	75.28	
MW-13B	10:10	95.12	19.84	47.46	75.28	
MW-13C	10:10	95.04	19.82	73.26	75.22	
MW-14A	Monitoring Well Abandoned 10 July 2007					
MW-14B	Monitoring Well Abandoned 10 July 2007					
MW-14C	Monitoring Well Abandoned 10 July 2007					
MW-15A	Monitoring Well Abandoned 10 July 2007					
MW-15B	Monitoring Well Abandoned 10 July 2007					
MW-15C	Monitoring Well Abandoned 10 July 2007					

Table 4

(3 of 3)

**GROUNDWATER LEVEL MEASUREMENTS**  
**16th SEMI-ANNUAL WATER QUALITY MONITORING EVENT**  
**J.E.D. SOLID WASTE MANAGEMENT FACILITY**

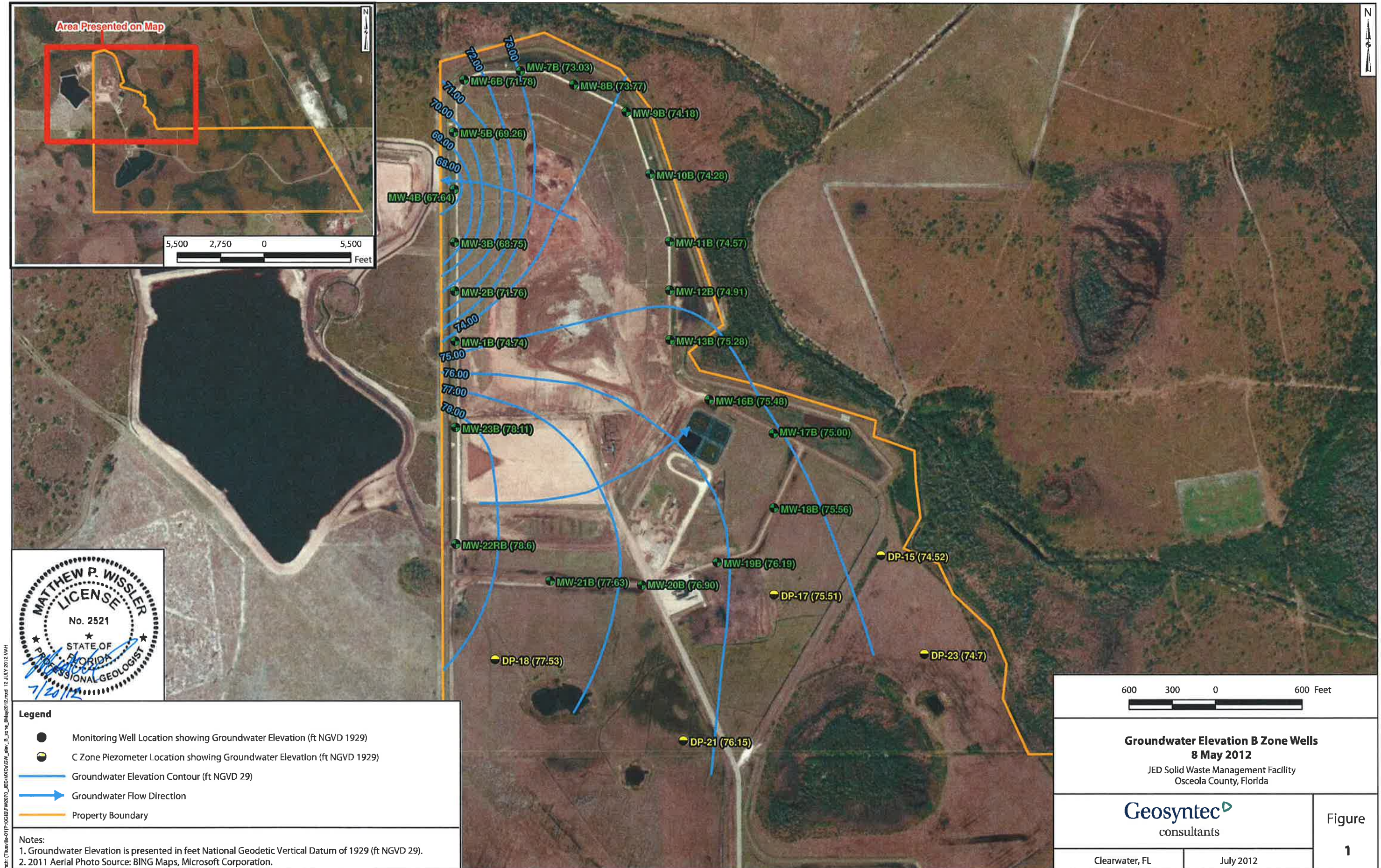
<b>Site Name:</b> JED Solid Waste Management Facility				<b>Sampling Personnel:</b> Joe Terry		
<b>Location:</b> Osceola County, Florida				<b>Field Conditions:</b> clear, 76°F in A.M., high of 88°F		
<b>Date:</b> May 8, 2012						
Well ID	Time	TOC Elevation	Depth to Water (ft)	Well Depth (ft)	GW Elevation	Field Observations
MW-16A	10:05	88.69	13.19	18.89	75.50	
MW-16B	10:05	88.73	13.25	38.38	75.48	
MW-16C	10:05	88.77	13.37	67.94	75.40	
MW-17A	9:55	88.86	13.82	20.17	75.04	
MW-17B	9:55	88.79	13.79	40.47	75.00	
MW-17C	9:55	88.85	13.87	67.55	74.98	
MW-18A	13:40	87.56	11.98	17.98	75.58	
MW-18B	13:40	87.43	11.87	38.10	75.56	
MW-18C	13:40	87.42	11.90	67.38	75.52	
MW-19A	13:30	87.54	11.36	17.93	76.18	
MW-19B	13:30	87.64	11.45	37.97	76.19	
MW-19C	13:30	87.44	11.33	66.95	76.11	
MW-20A	13:25	87.12	10.21	18.21	76.91	
MW-20B	13:25	87.27	10.37	38.05	76.90	
MW-20C	13:25	87.35	10.67	67.03	76.68	
MW-21A	13:15	87.20	9.60	18.32	77.60	
MW-21B	13:15	87.23	9.60	37.92	77.63	
MW-21C	13:15	87.13	9.56	62.48	77.57	
MW-22A	Monitoring Well Abandoned 11 November 2011					
MW-22B	Monitoring Well Abandoned 11 November 2011					
MW-22C	Monitoring Well Abandoned 11 November 2011					
MW-22RA	12:25	95.00	16.37	23.66	78.63	
MW-22RB	12:25	94.86	16.26	46.13	78.60	
MW-22RC	12:25	95.13	16.51	66.58	78.62	
MW-23A	12:15	97.90	19.79	28.03	78.11	
MW-23B	12:15	97.91	19.80	43.00	78.11	
MW-23C	12:15	97.93	19.87	67.32	78.06	
MW-24A	8:22	86.97	10.11	24.21	76.86	
MW-25A	9:20	82.36	7.27	24.76	75.09	
MW-26A	8:40	82.01	7.42	24.03	74.59	
MW-27C	8:31	81.66	6.98	58.37	74.68	

**Notes:** Well caps removed site wide and wells allowed to stabilize prior to measurements.



**FIGURE**







## **APPENDIX A**

### **Water Quality Monitoring Certification FDEP Form 62-701.900(31)**



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

DEP Form #: 62-701.900(31), F.A.C.

Form Title: Water Quality Monitoring Certification

Effective Date: January 6, 2010

Incorporated in Rule 62-701.510(9), F.A.C.

## WATER QUALITY MONITORING CERTIFICATION

### PART I GENERAL INFORMATION

- (1) Facility Name J.E.D. Soild Waste Management Facility  
Address 1501 Omni Way  
City Saint Cloud Zip 34773 County Osceola  
Telephone Number (407 ) 891-3720
- (2) WACS Facility ID 89544
- (3) DEP Permit Number SC49-0199726-017 & SO49-0199726-017
- (4) Authorized Representative's Name Mike Kaiser Title Engineer  
Address 1099 Miller Drive  
City Altamonte Springs Zip 32701 County Seminole  
Telephone Number (904 ) 673-0446  
Email address (if available) mkaiser@wsii.us

### CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submission of false information including the possibility of fine and imprisonment.

6/10/12  
(Date)

Mike Kaiser  
(Owner or Authorized Representative's Signature)

### PART II QUALITY ASSURANCE REQUIREMENTS

Sampling Organization Waste Services of Florida, Inc.  
Analytical Lab NELAC / HRS Certification # E82502  
Lab Name Columbia Analytical Services (CAS)  
Address 9143 Philips Highway, Suite 200 Jacksonville, Florida 32256  
Phone Number (904 ) 739-2277  
Email address (if available) cmyers@caslab.com

## **APPENDIX B**

### **Monitoring Well Sampling Logs**



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-1A	SAMPLE ID: MW-1A	DATE: May 16, 2012	

## PURGING DATA

[illegible]

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 1445		SAMPLING ENDED AT: 1455	
PUMP OR TUBING DEPTH IN WELL (feet): 22				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y (N)		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y (N)				TUBING Y (N) (replaced)			DUPLICATE: Y (N)			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
MW-1A	3	CG	40mL	HCL	Prefilled by lab		8260		RFPP	
MW-1A	3	CG	40mL	None	None		8011		RFPP	
MW-1A	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals		APP	
MW-1A	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>		APP	
MW-1A	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>		APP	
REMARKS: weather: overcast, occasional sprinkle, ~75°F odor: none										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After 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:**  $\pm 0.2$  units **Temperature:**  $\pm 0.2$  °C **Specific Conductance:**  $\pm 5\%$  **Dissolved Oxygen:** all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-1B	SAMPLE ID: MW-1B		DATE: May 16, 2012

## PURGING DATA

WELL DIAMETER (inches): 2.0		TUBING DIAMETER (inches): 0.25		WELL SCREEN INTERVAL DEPTH: 37.5 feet to 47.5 feet		STATIC DEPTH TO WATER (feet): 20.19		PURGE PUMP TYPE OR BAILER: peristaltic			
<b>WELL VOLUME PURGE:</b> 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) $= (\text{feet} - \text{feet}) \times 0.16 \text{ gallons/foot} = \text{gallons}$											
<b>EQUIPMENT VOLUME PURGE:</b> 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) $= 0.0 \text{ gallons} + (0.0026 \text{ gallons/foot} \times 55 \text{ feet}) + 0.12 \text{ gallons} = 0.3 \text{ gallons}$											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 43			FINAL PUMP OR TUBING DEPTH IN WELL (feet): 43			PURGING INITIATED AT: 1340		PURGING ENDED AT: 1410		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) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) $\text{mg/L}$ or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1400	1.4	1.4	0.07	20.23	5.72	25.45	163	0.36	0	clear	-84.4
1405	0.35	1.75	0.07	20.23	5.73	25.49	163	0.32	0	clear	-81.3
1410	0.35	2.1	0.07	20.23	5.73	25.49	163	0.29	0	clear	-78.2
<b>WELL CAPACITY</b> (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 <b>TUBING INSIDE DIA. CAPACITY</b> (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											
<b>PURGING EQUIPMENT CODES:</b> B = Bailer;    BP = Bladder Pump;    ESP = Electric Submersible Pump;    PP = Peristaltic Pump;    O = Other (Specify)											

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 1415		SAMPLING ENDED AT: 1425	
PUMP OR TUBING DEPTH IN WELL (feet): 43				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y (N)		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y (N)				TUBING Y (N) (replaced)			DUPLICATE: Y (N)			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
MW-1B	3	CG	40mL	HCL	Prefilled by lab		8260		RFPP	
MW-1B	3	CG	40mL	None	None		8011		RFPP	
MW-1B	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals		APP	
MW-1B	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>		APP	
MW-1B	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>		APP	
REMARKS: weather: Overcast, occasional sprinkle, ~75°C odor: none										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



Form FD 9000-24  
**GROUNDWATER SAMPLING LOG**

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-2B	SAMPLE ID: MW-2B		DATE: May 16, 2012

## PURGING DATA

WELL DIAMETER (inches): 2.0		TUBING DIAMETER (inches): 0.25		WELL SCREEN INTERVAL DEPTH: 38 feet to 48 feet		STATIC DEPTH TO WATER (feet): 23.32		PURGE PUMP TYPE OR BAILER: peristaltic			
<b>WELL VOLUME PURGE:</b> 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) $= (\text{feet} - \text{feet}) \times 0.16 \text{ gallons/foot} = \text{gallons}$											
<b>EQUIPMENT VOLUME PURGE:</b> 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) $= 0.0 \text{ gallons} + (0.0026 \text{ gallons/foot} \times 58 \text{ feet}) + 0.12 \text{ gallons} = 0.3 \text{ gallons}$											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 43			FINAL PUMP OR TUBING DEPTH IN WELL (feet): 43			PURGING INITIATED AT: 1515		PURGING ENDED AT: 1550		TOTAL VOLUME PURGED (gallons): 2.8	
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)	ORP (mV)
1535	1.6	1.6	0.08	23.37	4.66	26.16	45	0.26	2.3	clear	7.6
1540	0.4	2.0	0.08	23.37	4.75	26.15	46	0.21	1.8	clear	-6.3
1545	0.4	2.4	0.08	23.37	4.76	26.14	46	0.20	1.6	clear	2.3
1550	0.4	2.8	0.08	23.37	4.75	26.17	46	0.21	1.8	clear	10.8
<b>WELL CAPACITY (Gallons Per Foot):</b> 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 <b>TUBING INSIDE DIA. CAPACITY (Gal./Ft.):</b> 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 <b>PURGING EQUIPMENT CODES:</b> B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 1555		SAMPLING ENDED AT: 1608	
PUMP OR TUBING DEPTH IN WELL (feet): 43				TUBING MATERIAL CODE: PE			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			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-2B	3	CG	40mL	HCL	Prefilled by lab		8260	RFPP	<100	
MW-2B	3	CG	40mL	None	None		8011	RFPP	<100	
MW-2B	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals	APP	300	
MW-2B	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>	APP	300	
MW-2B	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>	APP	300	
REMARKS: weather: overcast, humid, ~78°F odor: none										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



Form FD 9000-24  
**GROUNDWATER SAMPLING LOG**

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-3B	SAMPLE ID: MW-3B	DATE: May 17, 2012	

## PURGING DATA

<b>WELL</b> DIAMETER (inches): 2.0		<b>TUBING</b> DIAMETER (inches): 0.25		<b>WELL SCREEN INTERVAL</b> DEPTH: 37.5 feet TO 47.5 feet		<b>STATIC DEPTH</b> TO WATER (feet): 22.60		<b>PURGE PUMP TYPE</b> OR BAILER: peristaltic			
<b>WELL VOLUME PURGE:</b> 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (                  feet –                  feet ) X      0.16 gallons/foot =                  gallons											
<b>EQUIPMENT VOLUME PURGE:</b> 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) =      0.0 gallons + ( 0.0026 gallons/foot X      55 feet ) +      0.12 gallons = 0.3 gallons											
<b>INITIAL PUMP OR TUBING</b>			<b>FINAL PUMP OR TUBING</b>			<b>PURGING INITIATED AT:</b>		<b>PURGING ENDED AT:</b>		<b>TOTAL VOLUME PURGED (gallons):</b>	
DEPTH IN WELL (feet): 43			DEPTH IN WELL (feet): 43			0725		0915		5.5	
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or gS/cm	DISSOLVED OXYGEN (circle units) $\frac{\text{mg}}{\text{L}}$ or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
0905	5.0	5.0	0.05	25.65	4.83	28.56	75	0.25	3.2	clear	11.9
0910	0.25	5.25	0.05	25.65	4.83	28.55	77	0.24	3.0	clear	13.1
0915	0.25	5.50	0.05	25.65	4.82	28.55	75	0.22	3.4	clear	17.4
<b>WELL CAPACITY (Gallons Per Foot):</b> 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 <b>TUBING INSIDE DIA. CAPACITY (Gal./Ft.):</b> 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											
<b>PURGING EQUIPMENT CODES:</b> B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

### SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: <i>0920</i>		SAMPLING ENDED AT: <i>0932</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>43</i>				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <i>(N)</i>		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y <i>(N)</i>				TUBING Y <i>(N)</i> (replaced)			DUPLICATE: Y <i>(N)</i>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			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				
<i>mw-3B</i>	3	CG	40mL	HCL	Prefilled by lab		8260	RFPP	<100	
<i>mw-3B</i>	3	CG	40mL	None	None		8011	RFPP	<100	
<i>mw-3B</i>	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals	APP	<i>200</i>	
<i>mw-3B</i>	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>	APP	<i>200</i>	
<i>mw-3B</i>	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>	APP	<i>200</i>	
REMARKS: weather: <i>hazy, cloudy, humid, 72°F</i> odor: <i>none</i>										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $< 20$  NTU; optionally  $+ 5$  NTU or  $+ 10\%$  (whichever is greater)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-4B	SAMPLE ID: MW-4B	DATE: May 17, 2017	

## PURGING DATA

WELL DIAMETER (inches): 2.0	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 37 feet to 47 feet	STATIC DEPTH TO WATER (feet): 27.11	PURGE PUMP TYPE OR BAILER: peristaltic
<b>WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY</b> (only fill out if applicable)				
$= ( \quad \text{feet} - \quad \text{feet} ) \times 0.16 \text{ gallons/foot} = \quad \text{gallons}$				
<b>EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME</b> (only fill out if applicable)				
$= 0.0 \text{ gallons} + ( 0.0026 \text{ gallons/foot} \times 55 \text{ feet} ) + 0.12 \text{ gallons} = 0.3 \text{ gallons}$				

[illegible]

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

[illegible]

REMARKS:  
weather: m. cloudy, humid, 72°F

odor: none

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



Form FD 9000-24  
**GROUNDWATER SAMPLING LOG**

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-5B	SAMPLE ID: MW-5B		DATE: May 17, 2012

## PURGING DATA

[illegible]

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 0805		SAMPLING ENDED AT: 0815	
PUMP OR TUBING DEPTH IN WELL (feet): 42				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <input checked="" type="checkbox"/> N		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N TUBING Y <input checked="" type="checkbox"/> N (replaced)							DUPLICATE: Y <input checked="" type="checkbox"/> N			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			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-5B	3	CG	40mL	HCL	Prefilled by lab		8260	RFPP	<100	
MW-5B	3	CG	40mL	None	None		8011	RFPP	<100	
MW-5B	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals	APP	250	
MW-5B	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>	APP	250	
MW-5B	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>	APP	250	
REMARKS: weather: m. cloudy, 72°F, humid odor: none										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $+ 5$  NTU or  $+ 10\%$  (whichever is greater)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-6B	SAMPLE ID: MW-6B	DATE:	

## PURGING DATA

<b>WELL</b> DIAMETER (inches): 2.0		<b>TUBING</b> DIAMETER (inches): 0.25		<b>WELL SCREEN INTERVAL</b> DEPTH: 37 feet to 47 feet		<b>STATIC DEPTH</b> TO WATER (feet): 22.91		<b>PURGE PUMP TYPE</b> OR BAILER: peristaltic			
<b>WELL VOLUME PURGE:</b> 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) <div style="text-align: center;">= (                  feet -                  feet ) X 0.16 gallons/foot =                  gallons</div>											
<b>EQUIPMENT VOLUME PURGE:</b> 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) <div style="text-align: center;">= 0.0 gallons + ( 0.0026 gallons/foot X 52 feet ) + 0.12 gallons = 0.3 gallons</div>											
<b>INITIAL PUMP OR TUBING</b> DEPTH IN WELL (feet): 42			<b>FINAL PUMP OR TUBING</b> DEPTH IN WELL (feet): 42			<b>PURGING</b> INITIATED AT: 1735		<b>PURGING</b> ENDED AT: 1805		<b>TOTAL VOLUME</b> 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) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) $\text{mg/L}$ or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1255	1.2	1.2	0.06	23.15	4.92	25.01	B2	0.43	0.0	clear	-59.5
1300	0.3	1.5	0.06	23.15	4.92	24.96	B1	0.41	0.0	clear	-62.6
1305	0.3	1.8	0.06	23.15	4.93	24.98	B1	0.40	0.0	clear	-64.6
<b>WELL CAPACITY</b> (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 <b>TUBING INSIDE DIA. CAPACITY</b> (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											
<b>PURGING EQUIPMENT CODES:</b> B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 1310		SAMPLING ENDED AT: 1317	
PUMP OR TUBING DEPTH IN WELL (feet): 42				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <u>N</u>		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y <u>N</u>				TUBING Y <u>N</u> (replaced)			DUPLICATE: Y <u>N</u>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			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-6B	3	CG	40mL	HCL	Prefilled by lab		8260	RFPP	<100	
MW-6B	3	CG	40mL	None	None		8011	RFPP	<100	
MW-6B	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals	APP	240	
MW-6B	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>	APP	240	
MW-6B	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>	APP	240	
REMARKS: weather: Overcast, Occasional sprinkle, ~75°F										
odor: none										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-7A	SAMPLE ID: MW-7A	DATE: May 16, 2012	

## PURGING DATA

<b>WELL</b> DIAMETER (inches): 2.0		<b>TUBING</b> DIAMETER (inches): 0.25		<b>WELL SCREEN INTERVAL</b> DEPTH: 13 feet to 23 feet		<b>STATIC DEPTH</b> TO WATER (feet): 22.51		<b>PURGE PUMP TYPE</b> OR BAILER: peristaltic			
<b>WELL VOLUME PURGE:</b> 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) $= (23.58 \text{ feet} - 22.51 \text{ feet}) \times 0.16 \text{ gallons/foot} = 0.2 \text{ gallons}$											
<b>EQUIPMENT VOLUME PURGE:</b> 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) $= 0.0 \text{ gallons} + (0.0026 \text{ gallons/foot} \times \text{feet}) + 0.12 \text{ gallons} = \text{gallons}$											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 23			FINAL PUMP OR TUBING DEPTH IN WELL (feet): 23			PURGING INITIATED AT: 1100		PURGING ENDED AT: 1200		TOTAL VOLUME PURGED (gallons): 2.4	
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $(\mu\text{S/cm})$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1150	2.0	2.0	0.04	22.61	5.43	23.81	309	0.18	0	clear	-104.1
1155	0.2	2.2	0.04	22.61	5.43	23.78	309	0.19	0	clear	-100.7
1200	0.2	2.4	0.04	22.61	5.43	23.80	309	0.19	0	clear	-100.9
<b>WELL CAPACITY (Gallons Per Foot):</b> 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 <b>TUBING INSIDE DIA. CAPACITY (Gal./Ft.):</b> 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											
<b>PURGING EQUIPMENT CODES:</b> B = Bailer;    BP = Bladder Pump;    ESP = Electric Submersible Pump;    PP = Peristaltic Pump;    O = Other (Specify)											

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: <i>1205</i>		SAMPLING ENDED AT: <i>1215</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>23</i>				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <i>(N)</i>		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y <i>(N)</i> TUBING Y <i>(N)</i> (replaced)							DUPLICATE: Y <i>(N)</i>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
<i>MW-7A</i>	3	CG	40mL	HCL	Prefilled by lab		8260		RFPP <100	
<i>MW-7A</i>	3	CG	40mL	None	None		8011		RFPP <100	
<i>MW-7A</i>	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals		APP <i>150</i>	
<i>MW-7A</i>	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>		APP <i>150</i>	
<i>MW-7A</i>	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>		APP <i>150</i>	
REMARKS: weather: <i>Overcast, humid, 78°</i> odor:										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After 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:**  $\pm 0.2$  units **Temperature:**  $\pm 0.2$  °C **Specific Conductance:**  $\pm 5\%$  **Dissolved Oxygen:** all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) **Turbidity:** all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-7B	SAMPLE ID: MW-7B	DATE: May 16, 2012	

## PURGING DATA

WELL DIAMETER (inches): 2.0		TUBING DIAMETER (inches): 0.25		WELL SCREEN INTERVAL DEPTH: 37.5 feet to 47.5 feet		STATIC DEPTH TO WATER (feet): 22.30		PURGE PUMP TYPE OR BAILER: peristaltic			
<b>WELL VOLUME PURGE:</b> 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (                 feet -                 feet ) X      0.16         gallons/foot =                 gallons											
<b>EQUIPMENT VOLUME PURGE:</b> 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) =      0.0   gallons + (   0.0026   gallons/foot X      48   feet ) +      0.12   gallons =   0.25   gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 43			FINAL PUMP OR TUBING DEPTH IN WELL (feet): 43			PURGING INITIATED AT: 1105		PURGING ENDED AT: 1135		TOTAL VOLUME PURGED (gallons): 1.5	
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)	ORP (mV)
1125	1.0	1.0	0.05	22.55	4.52	24.19	312	0.42	0.0	clear	-410.8
1130	0.25	1.25	0.05	22.55	4.54	24.22	313	0.4	0.0	clear	-49.0
1135	0.25	1.50	0.05	22.55	4.54	24.18	313	0.4	0.0	clear	-49.3
<b>WELL CAPACITY (Gallons Per Foot):</b> 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 <b>TUBING INSIDE DIA. CAPACITY (Gal./Ft.):</b> 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											
<b>PURGING EQUIPMENT CODES:</b> B = Bailer;    BP = Bladder Pump;    ESP = Electric Submersible Pump;    PP = Peristaltic Pump;    O = Other (Specify)											

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 1140		SAMPLING ENDED AT: 1147	
PUMP OR TUBING DEPTH IN WELL (feet): 43				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <u>(N)</u>		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y <u>(N)</u>				TUBING Y <u>(N)</u> (replaced)			DUPLICATE: Y <u>(N)</u>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
MW-7B	3	CG	40mL	HCL	Prefilled by lab		8260		RFPP	
MW-7B	3	CG	40mL	None	None		8011		RFPP	
MW-7B	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals		APP	
MW-7B	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>		APP	
MW-7B	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>		APP	
REMARKS: weather: overcast, humid, 78°F odor: none										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-9A	SAMPLE ID: MW-9A	DATE: May 16, 2012	

## PURGING DATA

WELL DIAMETER (inches): 2.0	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 12.5 feet to 22.5 feet	STATIC DEPTH TO WATER (feet): 20.07	PURGE PUMP TYPE OR BAILER: peristaltic
<b>WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY</b> (only fill out if applicable) $= (22.5 \text{ feet} - 20.07 \text{ feet}) \times 0.16 \text{ gallons/foot} = 0.3 \text{ gallons}$				
<b>EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME</b> (only fill out if applicable) $= 0.0 \text{ gallons} + (0.0026 \text{ gallons/foot} \times \text{feet}) + 0.12 \text{ gallons} = \text{gallons}$				

[illegible]

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: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 1005		SAMPLING ENDED AT: 1017	
PUMP OR TUBING DEPTH IN WELL (feet): 22				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <u>N</u>		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y <u>N</u>				TUBING Y <u>N</u> (replaced)			DUPLICATE: Y <u>N</u>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			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-BA	3	CG	40mL	HCL	Prefilled by lab		8260	RFPP	<100	
MW-BA	3	CG	40mL	None	None		8011	RFPP	<100	
MW-BA	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals	APP	150	
MW-BA	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>	APP	150	
MW-BA	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>	APP	150	

REMARKS:  
weather: m. cloudy, humid, 75°F  
odor: none

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $+ 5$  NTU or  $+ 10\%$  (whichever is greater)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-0B	SAMPLE ID: MW-0B		DATE: May 16, 2017

## PURGING DATA

[illegible]

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 1035		SAMPLING ENDED AT: 1040	
PUMP OR TUBING DEPTH IN WELL (feet): 45				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y (N)		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP (Y) N				TUBING Y (N) (replaced)			DUPLICATE: Y (N)			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			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-BB	3	CG	40mL	HCL	Prefilled by lab		8260	ESP	<100	
MW-BB	3	CG	40mL	None	None		8011	ESP	<100	
MW-BB	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals	ESP	350	
MW-BB	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>	ESP	350	
MW-BB	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>	ESP	350	
REMARKS: Initial turbidity: 57 NTU weather: m. cloudy, humid, 75% odor: none										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



Form FD 9000-24  
**GROUNDWATER SAMPLING LOG**

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-9A	SAMPLE ID: MW-9A	DATE: May 16, 2012	

## PURGING DATA

WELL DIAMETER (inches): 2.0		TUBING DIAMETER (inches): 0.25		WELL SCREEN INTERVAL DEPTH: 12 feet to 22 feet		STATIC DEPTH TO WATER (feet): 20.31		PURGE PUMP TYPE OR BAILER: peristaltic			
<b>WELL VOLUME PURGE:</b> 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (     22     feet -     20.31     feet ) X     0.16     gallons/foot =                      gallons											
<b>EQUIPMENT VOLUME PURGE:</b> 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) =     0.0     gallons + (     0.0026     gallons/foot X                      feet ) +     0.12     gallons =                      gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 21			FINAL PUMP OR TUBING DEPTH IN WELL (feet): 21			PURGING INITIATED AT: 0720		PURGING ENDED AT: 0900		TOTAL VOLUME PURGED (gallons): 5.0	
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) $\text{mg/L}$ or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
0850	4.5	4.5	0.05	20.50	4.90	25.14	527	0.25	2.4	c/cw	-102.0
0955	0.25	4.75	0.05	20.50	4.90	25.13	530	0.24	2.0	clear	-102.5
0900	0.25	5.00	0.05	20.50	4.89	25.10	532	0.19	1.7	clear	-97.2
<b>WELL CAPACITY</b> (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 <b>TUBING INSIDE DIA. CAPACITY</b> (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											
<b>PURGING EQUIPMENT CODES:</b> B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 0905		SAMPLING ENDED AT: 0915		
PUMP OR TUBING DEPTH IN WELL (feet): 21				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <u>N</u>		FILTER SIZE: _____ µm		
FIELD DECONTAMINATION: PUMP Y <u>N</u>				TUBING Y <u>N</u> (replaced)			DUPLICATE <u>Y</u>		N Equipment Blank		
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
MW-9A	3	CG	40mL	HCL	Prefilled by lab		8260		RFPP		
MW-9A	3	CG	40mL	None	None		8011		RFPP		
MW-9A	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals		APP		
MW-9A	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>		APP		
MW-9A	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>		APP		
REMARKS: weather: p. cloudy, humid, 75°F odor: sulfur-like				Collected an Equipment blank w/ lab supplied DI H <sub>2</sub> O. Filled sample bottles for same parameters as GW samples. Used new tubing. Sample ID: Equipment Blank-2 Sample time: 0930 end time: 0935							
MATERIAL CODES:				AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)							
SAMPLING EQUIPMENT CODES:				APP = After Peristaltic Pump; B = Bailor; 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-9B	SAMPLE ID: MW-9B	DATE: May 16, 2017	

WELL DIAMETER (inches): 2.0	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 39 feet to 49 feet	STATIC DEPTH TO WATER (feet): 20.30	PURGE PUMP TYPE OR BAILER: peristaltic
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$$= (\text{feet} - \text{feet}) \times 0.16 \text{ gallons/foot} = \text{gallons}$$
$$= 0.0 \text{ gallons} + (0.0026 \text{ gallons/foot} \times 55 \text{ feet}) + 0.12 \text{ gallons} = 0.26 \text{ gallons}$$

TOTAL VOLUME  
PURGED (gallons): 41.75

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

**SAMPLING EQUIPMENT CODES:** APP = After 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)

Revision Date: February 12, 2009



Form FD 9000-24  
**GROUNDWATER SAMPLING LOG**

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-10B	SAMPLE ID: MW-10B		DATE: May 15, 2012

## PURGING DATA

WELL DIAMETER (inches): 2.0	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 38 feet to 48 feet	STATIC DEPTH TO WATER (feet): 22.05	PURGE PUMP TYPE OR BAILER: peristaltic
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WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY

(only fill out if applicable)

$$= (\text{feet} - \text{feet}) \times 0.16 \text{ gallons/foot} = \text{gallons}$$

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME

(only fill out if applicable)

$$= 0.0 \text{ gallons} + (0.0026 \text{ gallons/foot} \times 50 \text{ feet}) + 0.12 \text{ gallons} = 0.25 \text{ gallons}$$

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 43	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 43	PURGING INITIATED AT: 1400	PURGING ENDED AT: 1435	TOTAL VOLUME PURGED (gallons): 1.75
--	--	-------------------------------	---------------------------	--

[illegible]

**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: Joe Terry / WSI	SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>	SAMPLING INITIATED AT: 1440	SAMPLING ENDED AT: 1450
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PUMP OR TUBING DEPTH IN WELL (feet): 43	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y <u>N</u> Filtration Equipment Type:	FILTER SIZE: ____ $\mu$ m
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FIELD DECONTAMINATION:	PUMP	Y	(N)	TUBING	Y	(N(replaced))	DUPLICATE:	Y	(N)
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[illegible]

weather: M. Sunny, slight breeze, humid, ~86°F

odor: none

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After 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:**  $\pm 0.2$  units **Temperature:**  $\pm 0.2$  °C **Specific Conductance:**  $\pm 5\%$  **Dissolved Oxygen:** all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) **Turbidity:** all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-11A	SAMPLE ID: MW-11A	DATE: May 15, 2012	

## PURGING DATA

[illegible]

### SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: <i>1330</i>		SAMPLING ENDED AT: <i>1340</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>21</i>				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <i>(N)</i>		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y <i>(N)</i> TUBING Y <i>(N) (replaced)</i>							DUPLICATE: Y <i>(N)</i>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			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				
<i>MW-1A</i>	3	CG	40mL	HCL	Prefilled by lab		8260	RFPP	<100	
<i>MW-1A</i>	3	CG	40mL	None	None		8011	RFPP	<100	
<i>MW-1A</i>	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals	APP	<i>200</i>	
<i>MW-1A</i>	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>	APP	<i>200</i>	
<i>MW-1A</i>	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>	APP	<i>200</i>	
REMARKS: weather: <i>M. Sunny, slight breeze, humid, ~82°F</i> odor: <i>none</i>										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After 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:**  $\pm 0.2$  units **Temperature:**  $\pm 0.2$  °C **Specific Conductance:**  $\pm 5\%$  **Dissolved Oxygen:** all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-11B	SAMPLE ID: MW-11B	DATE: May 15, 2012	

## PURGING DATA

[illegible]

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 1255		SAMPLING ENDED AT: 1305	
PUMP OR TUBING DEPTH IN WELL (feet): 43				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y (N)		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y (N)				TUBING Y (N) (replaced)			DUPLICATE: Y (N)			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
MW-11B	3	CG	40mL	HCL	Prefilled by lab		8260		RFPP	
MW-11B	3	CG	40mL	None	None		8011		RFPP	
MW-11B	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals		APP	
MW-11B	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>		APP	
MW-11B	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>		APP	
REMARKS: weather: misty, slight breeze, humid, ~82°F										
odor:										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After 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:**  $\pm 0.2$  units **Temperature:**  $\pm 0.2$  °C **Specific Conductance:**  $\pm 5\%$  **Dissolved Oxygen:** all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-12A	SAMPLE ID: MW-12A	DATE: May 15, 2012	

## PURGING DATA

[illegible]

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: <i>1150</i>		SAMPLING ENDED AT: <i>1158</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>21.5</i>				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <i>(N)</i>		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y <i>(N)</i>				TUBING Y <i>(N)</i> (replaced)			DUPLICATE: Y <i>(N)</i>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			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				
<i>MW-12A</i>	3	CG	40mL	HCL	Prefilled by lab		8260	RFPP	<100	
<i>MW-12A</i>	3	CG	40mL	None	None		8011	RFPP	<100	
<i>MW-12A</i>	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals	APP	<i>200</i>	
<i>MW-12A</i>	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>	APP	<i>200</i>	
<i>MW-12A</i>	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>	APP	<i>200</i>	
REMARKS: weather: <i>msunny, ~82°F, humid, slight breeze</i> odor: <i>none</i>										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-12B	SAMPLE ID: MW-12B		DATE: May 15, 2012

## PURGING DATA

<b>WELL</b> DIAMETER (inches): 2.0		<b>TUBING</b> DIAMETER (inches): 0.25		<b>WELL SCREEN INTERVAL</b> DEPTH: 39 feet to 49 feet		<b>STATIC DEPTH</b> TO WATER (feet): 20.25		<b>PURGE PUMP TYPE</b> OR BAILER: peristaltic			
<b>WELL VOLUME PURGE:</b> 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (                 feet -                 feet ) X      0.16      gallons/foot =                 gallons											
<b>EQUIPMENT VOLUME PURGE:</b> 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) =      0.0   gallons + (   0.0026   gallons/foot X      50      feet ) +      0.12   gallons =   0.25   gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 44			FINAL PUMP OR TUBING DEPTH IN WELL (feet): 44			PURGING INITIATED AT: 1050		PURGING ENDED AT: 1115		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) $\mu\text{mhos/cm}$ or ( $\mu\text{S/cm}$ )	DISSOLVED OXYGEN (circle units) $\frac{\text{mg/L}}{\% \text{ saturation}}$	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1105	1.2	1.2	0.08	20.39	7.94	26.04	129	0.43	1.5	clear	-7.1
1110	0.4	1.6	0.08	20.39	7.94	25.99	128	0.36	1.0	clear	-9.9
1115	0.4	2.0	0.08	20.39	7.94	26.00	128	0.33	0.9	clear	-10.4
<b>WELL CAPACITY</b> (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 <b>TUBING INSIDE DIA. CAPACITY</b> (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											
<b>PURGING EQUIPMENT CODES:</b> B = Bailer;   BP = Bladder Pump;   ESP = Electric Submersible Pump;   PP = Peristaltic Pump;   O = Other (Specify)											

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 1120		SAMPLING ENDED AT: 1130	
PUMP OR TUBING DEPTH IN WELL (feet): 44				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <u>N</u>		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y <u>N</u>				TUBING Y <u>N</u> (replaced)			DUPLICATE: Y <u>N</u>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
MW-12B	3	CG	40mL	HCL	Prefilled by lab		8260		RFPP	
MW-12B	3	CG	40mL	None	None		8011		RFPP	
MW-12B	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals		APP	
MW-12B	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>		APP	
MW-12B	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>		APP	
REMARKS: weather: misty, humid, ~82°F, slight breeze odor: none										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE  
NAME: J.E.D. SWMF (WACs Facility ID: 89544)

SITE  
LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773

WELL NO: MW-13A

SAMPLE ID: MW-13A

DATE: May 15, 2012

## PURGING DATA

WELL DIAMETER (inches): 2.0	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 12.5 feet to 22.5 feet	STATIC DEPTH TO WATER (feet): 20.04	PURGE PUMP TYPE OR BAILER: peristaltic
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**WELL VOLUME PURGE:** 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY

(only fill out if applicable)

= ( 22.5 feet - 20.04 feet ) X 0.16 gallons/foot = 0.4 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME

$$= 0.0 \text{ gallons} + (0.0026 \text{ gallons/foot} \times 30 \text{ feet}) + 0.12 \text{ gallons} = 0.2 \text{ gallons}$$

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 21	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 21	PURGING INITIATED AT: 0910	PURGING ENDED AT: 1010	TOTAL VOLUME PURGED (gallons): 36
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		CUMUL		BIRTH			COND	DISSOLVED			
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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	OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
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1000	3.0	3.0	0.06	20.23	5.32	26.83	190	0.19	1.3	c/ew	-0.2
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1005	0.3	3.3	0.06	20.23	5.34	26.78	187	0.15	1.1	Clear	-4.7
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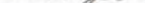
1010	0.3	3.6	0.06	20.23	5.33	26.81	189	0.15	1.2	Clear	-8.0
------	-----	-----	------	-------	------	-------	-----	------	-----	-------	------

**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: Joe Terry / WSI	SAMPLER(S) SIGNATURE(S): 	SAMPLING INITIATED AT: 10/15	SAMPLING ENDED AT: 10/25
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PUMP OR TUBING DEPTH IN WELL (feet): 21	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y <u>N</u> Filtration Equipment Type:	FILTER SIZE: _____ $\mu$ m
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FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N (replaced)) DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION	SAMPLE PRESERVATION	INTENDED	SAMPLING	SAMPLE PLUM
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SAMPLE CONTAINER SPECIFICATION	SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR	SAMPLING EQUIPMENT	SAMPLE PUMP FLOW RATE
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SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (ml)	FINAL pH	ANALYSIS AND/OR METHOD	EQUIPMENT CODE	FLOW RATE (mL per minute)
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ID CODE	CONTAINERS	CODE	VOLUME	SOLVENT	ADDED IN FIELD (mL)	pH	DATE	ANALYST	REMARKS
44443A	3	CG	40ml	HCl	Prefilled by lab		8260	BEPP	<100

14	3	CG	40ml	None	None	8011	BEPP	≤100
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14-15/7	5	CG	40mL	None	None		8011	RFFF	<100
	1	BE	500mL	UNG	Pre-filled bottle		Metal	ABP	100

1W-13A	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals	APP	225
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mw-13A	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>	APP	225
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W-13A	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>	APP	225
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[illegible]

REMARKS:

weather: m. sunny, ~80°F, humid

odor: none

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After 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:**  $\pm 0.2$  units **Temperature:**  $\pm 0.2$  °C **Specific Conductance:**  $\pm 5\%$  **Dissolved Oxygen:** all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-13B	SAMPLE ID: MW-13B	DATE: Mar 15, 2012	

## PURGING DATA

[illegible]

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 0945		SAMPLING ENDED AT: 0955	
PUMP OR TUBING DEPTH IN WELL (feet): 42				TUBING MATERIAL CODE: PE			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			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
MW-13B	3	CG	40mL	HCL	Prefilled by lab		8260		RFPP <100	
MW-13B	3	CG	40mL	None	None		8011		RFPP <100	
MW-13B	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals		APP 200	
MW-13B	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>		APP 200	
MW-13B	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>		APP 200	
REMARKS: weather: M. sunny, ~80°F, humid odor: none										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After 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:**  $\pm 0.2$  units **Temperature:**  $\pm 0.2$  °C **Specific Conductance:**  $\pm 5\%$  **Dissolved Oxygen:** all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) **Turbidity:** all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-16A	SAMPLE ID: MW-16A		DATE: May 14, 2012

## PURGING DATA

[illegible]

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 1105		SAMPLING ENDED AT: 1115	
PUMP OR TUBING DEPTH IN WELL (feet): 16				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y (N)		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y (N)				TUBING Y (N (replaced))			DUPLICATE: Y (N)			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			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-16A	3	CG	40mL	HCL	Prefilled by lab		8260	RFPP	<100	
MW-16A	3	CG	40mL	None	None		8011	RFPP	<100	
MW-16A	1	PE	250mL	HNO <sub>3</sub>	Prefilled by lab		Metals	APP	300	
MW-16A	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>	APP	300	
MW-16A	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>	APP	300	
REMARKS: weather: overcast, 77°F, humid odor: none										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-16B	SAMPLE ID: MW-16B		DATE: May 14, 2012

## PURGING DATA

<b>WELL</b>	<b>TUBING</b>	<b>WELL SCREEN INTERVAL</b>	<b>STATIC DEPTH</b>	<b>PURGE PUMP TYPE</b>							
DIAMETER (inches): 2.0	DIAMETER (inches): 0.375	DEPTH: 28 feet to 38 feet	TO WATER (feet): 13.37	OR BAILER: electric submersible							
<b>WELL VOLUME PURGE:</b> 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (                 feet –                                 feet ) X 0.16 gallons/foot =                     gallons											
<b>EQUIPMENT VOLUME PURGE:</b> 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) =         0.0 gallons + ( 0.006 gallons/foot X         40 feet ) + 0.12 gallons = 0.4 gallons											
<b>INITIAL PUMP OR TUBING DEPTH IN WELL (feet):</b> 33		<b>FINAL PUMP OR TUBING DEPTH IN WELL (feet):</b> 33		<b>PURGING INITIATED AT:</b> 0840							
				<b>PURGING ENDED AT:</b> 1010							
				<b>TOTAL VOLUME PURGED (gallons):</b> 18.0							
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)	ORP (mV)
1000	16.0	16.0	0.2	13.84	4.98	24.04	44	0.06	21.9	clear	-81.1
1005	1.0	17.0	0.2	13.84	4.97	23.99	44	0.06	18.0	clear	-85.0
1010	1.0	18.0	0.2	13.84	4.97	24.00	44	0.05	18.2	clear	-88.1
<b>WELL CAPACITY (Gallons Per Foot):</b> 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											
<b>TUBING INSIDE DIA. CAPACITY (Gal./Ft.):</b> 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											
<b>PURGING EQUIPMENT CODES:</b> B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 1015		SAMPLING ENDED AT: 1045	
PUMP OR TUBING DEPTH IN WELL (feet): 33				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y (N)		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP (Y) N				TUBING Y (N) (replaced)			-DUPLICATE: (Y) JT N		Equipment Blank	
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			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-16B	3	CG	40mL	HCL	Prefilled by lab		8260	ESP	<100	
MW-16B	3	CG	40mL	None	None		8011	ESP	<100	
MW-16B	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals	ESP		
MW-16B	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>	ESP		
MW-16B	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>	ESP		
REMARKS: weather: overcast, 77°F, humid Initial Turbidity: 55 NTU odor: none collected equip. blank with lab supplied DI H <sub>2</sub> O. Ran through decontaminated pump and new tubing into sample containers. Time: 1040 ID: Equipment Blank-1										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WAGs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-19A	SAMPLE ID: MW-19A	DATE: May 14, 2012	

## PURGING DATA

WELL DIAMETER (inches): 2.0		TUBING DIAMETER (inches): 0.25		WELL SCREEN INTERVAL DEPTH: 7.5 feet to 17.5 feet		STATIC DEPTH TO WATER (feet): 11.49		PURGE PUMP TYPE OR BAILER: peristaltic			
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) <div style="text-align: center;">= (                  feet -                  feet ) X      0.16      gallons/foot =                  gallons</div>											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) <div style="text-align: center;">=      0.0    gallons + (    0.0026    gallons/foot X                  feet ) +      0.12    gallons =                  gallons</div>											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15			FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15			PURGING INITIATED AT: 0815		PURGING ENDED AT: 1215		TOTAL VOLUME PURGED (gallons): 19.2	
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)	ORP (mV)
1205	18.4	18.4	0.08	11.95	5.98	25.71	550	0.07	46.5	brown	-145.6
1210	0.4	18.8	0.08	11.95	5.98	25.70	550	0.07	46.0	brown	-144.3
1215	0.4	19.2	0.08	11.95	5.98	25.68	551	0.06	46.2	brown	-138.9
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 = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: <i>1220</i>		SAMPLING ENDED AT: <i>1230</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>15</i>				TUBING MATERIAL CODE: PE			FIELD-FILTERED: <i>(Y)</i> N		FILTER SIZE: <i>1</i> $\mu$ m	
FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced)							DUPLICATE: Y N			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			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				
<i>MW-194</i>	3	CG	40mL	HCL	Prefilled by lab		8260	RFPP	<100	
<i>MW-194</i>	3	CG	40mL	None	None		8011	RFPP	<100	
<i>MW-194</i>	1	PE	<i>250 mL</i>	HNO <sub>3</sub>	Prefilled by lab		Metals	APP	<i>300</i>	
<i>MW-194</i>	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>	APP	<i>300</i>	
<i>MW-194</i>	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>	APP	<i>300</i>	
<i>MW-194</i>	1	<i>PE</i>	<i>500mL</i>	<i>HNO<sub>3</sub></i>	<i>Prefilled by lab</i>		<i>Dissolved metals</i>	<i>APP</i>	<i>300</i>	
REMARKS: weather: <i>Overcast, 77°F, humid</i> Initial turbidity: <i>46.3 NTU</i> Collected unfiltered and filtered samples for metal analysis odor: <i>none</i> turbidity after filter: <i>4.1 NTU</i>										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $+0.2$  mg/L or  $+10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $+5$  NTU or  $+10\%$  (whichever is greater)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-19B	SAMPLE ID: MW-19B	DATE: May 14, 2012	

## PURGING DATA

WELL DIAMETER (inches): 2.0		TUBING DIAMETER (inches): 0.375		WELL SCREEN INTERVAL DEPTH: 21.5 feet to 37.5 feet		STATIC DEPTH TO WATER (feet): 11.57		PURGE PUMP TYPE OR BAILER: electric submersible			
<b>WELL VOLUME PURGE:</b> 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (                      feet –                      feet ) X 0.16 gallons/foot =                      gallons											
<b>EQUIPMENT VOLUME PURGE:</b> 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = 0.0 gallons + ( 0.006 gallons/foot X 50 feet ) + 0.12 gallons = 0.5 gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 33			FINAL PUMP OR TUBING DEPTH IN WELL (feet): 33			PURGING INITIATED AT: 0815		PURGING ENDED AT: 1140		TOTAL VOLUME PURGED (gallons): 61.5	
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)	ORP (mV)
1130	58.5	58.5	0.3	12.03	4.97	24.49	153	0.11	4.2	clear	-56.1
1135	1.5	60	0.3	12.03	4.97	24.49	153	0.09	5.2	clear	-54.8
1140	1.5	61.5	0.3	12.03	4.97	24.50	153	0.06	4.8	clear	-48.6
<b>WELL CAPACITY (Gallons Per Foot):</b> 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 <b>TUBING INSIDE DIA. CAPACITY (Gal./Ft.):</b> 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											
<b>PURGING EQUIPMENT CODES:</b> B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: <i>1145</i>		SAMPLING ENDED AT: <i>1150</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>33</i>				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <i>(N)</i>		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP <i>(Y)</i> N TUBING Y <i>(N)</i> (replaced)							DUPLICATE: Y <i>(N)</i>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
<i>MW-14B</i>	3	CG	40mL	HCL	Prefilled by lab		8260		ESP	
<i>MW-14B</i>	3	CG	40mL	None	None		8011		ESP	
<i>MW-14B</i>	1	PE	250mL	HNO <sub>3</sub>	Prefilled by lab		Metals		ESP	
<i>MW-14B</i>	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>		ESP	
<i>MW-14B</i>	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>		ESP	
REMARKS: weather: <i>overcast, 77°F, humid</i> <i>Initial turbidity: 48.7 NTU</i> odor: <i>none</i>										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After 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:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $+ 5$  NTU or  $+ 10\%$  (whichever is greater)

Revision Date: February 12, 2009



Form FD 9000-24  
**GROUNDWATER SAMPLING LOG**

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-23A		SAMPLE ID: MW-23A	
		DATE: May 17, 2012	

## PURGING DATA

WELL DIAMETER (inches): 2.0		TUBING DIAMETER (inches): 0.25		WELL SCREEN INTERVAL DEPTH: 17.5 feet to 27.5 feet		STATIC DEPTH TO WATER (feet): 19.18		PURGE PUMP TYPE OR BAILER: peristaltic			
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) <div style="text-align: center;">= ( 27.5 feet - 19.18 feet ) X 0.16 gallons/foot = 1.4 gallons</div>											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) <div style="text-align: center;">= 0.0 gallons + ( 0.0026 gallons/foot X feet ) + 0.12 gallons = gallons</div>											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 24			FINAL PUMP OR TUBING DEPTH IN WELL (feet): 24			PURGING INITIATED AT: 0955		PURGING ENDED AT: 1105		TOTAL VOLUME PURGED (gallons): 4.9	
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)	ORP (mV)
1050	3.85	3.85	0.07	19.51	5.32	24.89	245	0.12	22	clear	-128.7
1055	0.35	4.2	0.07	19.51	5.34	24.89	247	0.12	19	clear	-125.7
1105	0.7	4.9	0.07	19.51	5.35	24.87	247	0.13	17	clear	-131.3
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 = Bailor;     BP = Bladder Pump;     ESP = Electric Submersible Pump;     PP = Peristaltic Pump;     O = Other (Specify)											

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 1110		SAMPLING ENDED AT: 1118	
PUMP OR TUBING DEPTH IN WELL (feet): 24				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y (N)		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y (N)				TUBING Y (N) (replaced)			DUPLICATE: Y (N)			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
MW-23A	3	CG	40mL	HCL	Prefilled by lab		8260		RFPP	
MW-23A	3	CG	40mL	None	None		8011		RFPP	
MW-23A	1	PE	500mL	HNO <sub>3</sub>	Prefilled by lab		Metals		APP	
MW-23A	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>		APP	
MW-23A	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>		APP	
REMARKS: weather: p. cloudy, humid, 76°F odor: none										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; 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:**  $\pm 0.2$  units **Temperature:**  $\pm 0.2$  °C **Specific Conductance:**  $\pm 5\%$  **Dissolved Oxygen:** all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE  
NAME: J.E.D. SWMF (WACs Facility ID: 89544)

**SITE**  
LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773

WELL NO: MW-23B

SAMPLE ID: MW-238

DATE: May 17, 2012

## PURGING DATA

WELL DIAMETER (inches): 2.0	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 32.5 feet to 42.5 feet	STATIC DEPTH TO WATER (feet): 19.19	PURGE PUMP TYPE OR BAILER: peristaltic
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WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY

(only fill out if applicable)

= (                  feet -                  feet ) X 0.16 gallons/foot =                  gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME

$$= 0.0 \text{ gallons} + (0.0026 \text{ gallons/foot} \times 55 \text{ feet}) + 0.12 \text{ gallons} = 0.3 \text{ gallons}$$


INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 38	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 38	PURGING INITIATED AT: 0955	PURGING ENDED AT: 1030	TOTAL VOLUME PURGED (gallons): 3.45
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[illegible]

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: Joe Terry / WSI	SAMPLER(S) SIGNATURE(S): 	SAMPLING INITIATED AT: 1035	SAMPLING ENDED AT: 1043
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PUMP OR TUBING DEPTH IN WELL (feet): 30	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) FILTER SIZE: _____ μm
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FIELD DECONTAMINATION:	PUMP	Y	N	TUBING	Y	N (replaced)	DUPLICATE:	Y	N
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SAMPLE CONTAINER SPECIFICATION	SAMPLE PRESERVATION	INTENDED	SAMPLING	SAMPLE RUMP
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SAMPLE CONTAINER IDENTIFICATION				SAMPLE PRESERVATION			INTERFER- ENCE ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

4W-338	3	CG	40mL	HCL	Prefilled by lab		8260	RFPP	<100
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3	CG	40mL	None	None	8011	RFPP	<100
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W FAD	1	PF	500ml	HNO <sub>3</sub>	Prefilled by lab		Metals	APP	250
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W-330	1	PE	125ml	H <sub>2</sub> SO <sub>4</sub>	Refilled by lab		NH <sub>4</sub>	APB	2.57
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W-238	1	PE	125ml	H <sub>2</sub> SO <sub>4</sub>	Filled by lab		NH <sub>3</sub>	APP	238
W-239	1	BE	250ml	None	None		TDS, CL, NO	APP	239

NW-238		FE	250ML	None	None		TDS, Cl, NO <sub>3</sub>	APP	JSO
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[illegible]

REMARKS:  
weather: m. cloudy, humid, 76%

odor: none

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After 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:**  $\pm 0.2$  units **Temperature:**  $\pm 0.2$  °C **Specific Conductance:**  $\pm 5\%$  **Dissolved Oxygen:** all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) **Turbidity:** all readings  $< 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009



## Form FD 9000-24

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-16C	SAMPLE ID: MW-16C	DATE: May 14 2012	

## PURGING DATA

[illegible]

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: 0935		SAMPLING ENDED AT: 0942		
PUMP OR TUBING DEPTH IN WELL (feet): 63				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <u>N</u>		FILTER SIZE: _____ µm		
FIELD DECONTAMINATION: PUMP Y <u>N</u>				TUBING Y <u>N</u> (replaced)			DUPLICATE: Y <u>N</u>				
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			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-16C	3	CG	40mL	HCL	Prefilled by lab		8260		RFPP		<100
MW-16C	3	CG	40mL	None	None		8011		RFPP		<100
MW-16C	1	PE	250mL <sup>500 PT</sup>	HNO <sub>3</sub>	Prefilled by lab		Metals		APP		275
MW-16C	1	PE	125mL	H <sub>2</sub> SO <sub>4</sub>	Prefilled by lab		NH <sub>3</sub>		APP		275
MW-16C	1	PE	250mL	None	None		TDS, Cl, NO <sub>3</sub>		APP		275
REMARKS: weather: overcast, 77°F, humid											
odor: none											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; 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:**  $\pm 0.2$  units **Temperature:**  $\pm 0.2$  °C **Specific Conductance:**  $\pm 5\%$  **Dissolved Oxygen:** all readings  $\leq 20\%$  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)

Revision Date: February 12, 2009



Form FD 9000-24  
**GROUNDWATER SAMPLING LOG**

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-11B	SAMPLE ID: MW-11B		DATE: June 14, 2017

## PURGING DATA

<b>WELL</b> DIAMETER (inches): 2.0		<b>TUBING</b> DIAMETER (inches): 0.25		<b>WELL SCREEN INTERVAL</b> DEPTH: 37.5 feet to 41.5 feet		<b>STATIC DEPTH</b> TO WATER (feet): 16.47		<b>PURGE PUMP TYPE</b> OR BAILER: peristaltic			
<b>WELL VOLUME PURGE:</b> 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (                      feet -                      feet ) X     0.16       gallons/foot =                      gallons											
<b>EQUIPMENT VOLUME PURGE:</b> 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) =     0.0   gallons + (   0.0026   gallons/foot X     50   feet ) +     0.12   gallons = 0.23   gallons											
<b>INITIAL PUMP OR TUBING</b> DEPTH IN WELL (feet): 43			<b>FINAL PUMP OR TUBING</b> DEPTH IN WELL (feet): 43			<b>PURGING</b> INITIATED AT: 1405		<b>PURGING</b> ENDED AT: 1555		<b>TOTAL VOLUME</b> PURGED (gallons): 8.8	
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 <u>or μS/cm</u>	DISSOLVED OXYGEN (circle units) <u>mg/L or</u> % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1540	7.6	7.6	0.08	16.60	4.68	27.17	232	0.55	0	clear	-105.2
1548	0.64	8.24	0.08	16.60	4.69	27.07	232	0.55	0	clear	-105.1
1555	0.56	8.8	0.08	16.60	4.69	27.10	231	0.52	0	clear	-116.1
<b>WELL CAPACITY</b> (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 <b>TUBING INSIDE DIA. CAPACITY</b> (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											
<b>PURGING EQUIPMENT CODES:</b> B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>			SAMPLING INITIATED AT: 1600		SAMPLING ENDED AT: 1605	
PUMP OR TUBING DEPTH IN WELL (feet): 43				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <input checked="" type="radio"/> N		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> N							TUBING Y <input checked="" type="radio"/> N (replaced)		DUPLICATE: Y <input checked="" type="radio"/> N	
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			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-11B	3	CG	40mL	HCL	Prefilled by lab		8260	RFPP	<100	
REMARKS:										
weather: m. cloudy, 90°F										
odor: none										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; 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:**  $\pm 0.2$  units **Temperature:**  $\pm 0.2$  °C **Specific Conductance:**  $\pm 5\%$  **Dissolved Oxygen:** all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) **Turbidity:** all readings  $< 20$  NTU; optionally  $+ 5$  NTU or  $+ 10\%$  (whichever is greater)

Revision Date: February 12, 2009



Form FD 9000-24  
**GROUNDWATER SAMPLING LOG**

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-12A	SAMPLE ID: MW-12A		DATE: June 14, 2012

## PURGING DATA

WELL DIAMETER (inches): 2.0		TUBING DIAMETER (inches): 0.25		WELL SCREEN INTERVAL DEPTH: 13 feet to 23 feet			STATIC DEPTH TO WATER (feet): 17.62		PURGE PUMP TYPE OR BAILER: peristaltic		
<b>WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY</b> (only fill out if applicable) $= (23 \text{ feet} - 17.62 \text{ feet}) \times 0.16 \text{ gallons/foot} = 0.9 \text{ gallons}$											
<b>EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME</b> (only fill out if applicable) $= 0.0 \text{ gallons} + (0.0026 \text{ gallons/foot} \times \text{feet}) + 0.12 \text{ gallons} = \text{gallons}$											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 21			FINAL PUMP OR TUBING DEPTH IN WELL (feet): 21			PURGING INITIATED AT: 1340		PURGING ENDED AT: 1520		TOTAL VOLUME PURGED (gallons): 8.0	
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)	ORP (mV)
1425	3.6	3.6	0.08	18.00	3.94	26.59	206	1.59	0	clear	13.2
1430	0.4	4.0	0.08	18.00	3.95	26.53	207	1.60	0	clear	14.8
1438	0.64	4.64	0.08	18.00	4.22	26.56	215	1.29	0	clear	-3.3
1443	0.4	5.04	0.08	18.00	4.47	26.57	227	1.23	0	clear	-26.0
1505	1.76	6.8	0.08	18.00	5.27	27.34	270	0.69	0	clear	-70.2
1510	0.4	7.2	0.08	18.00	5.23	27.36	271	0.66	0	clear	-75.9
1515	0.4	7.6	0.08	18.00	5.23	27.34	270	0.66	0	clear	-79.8
1520	0.4	8.0	0.08	18.00	5.25	27.37	272	0.66	0	clear	-80.6
<b>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</b> <b>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</b>											
<b>PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)</b>											

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Joe Terry / WSI				SAMPLER(S) SIGNATURE(S): <i>Joe Terry</i>			SAMPLING INITIATED AT: <i>1525</i>		SAMPLING ENDED AT: <i>1528</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>21</i>				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <input checked="" type="checkbox"/> (N)		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> (N)				TUBING Y <input checked="" type="checkbox"/> (N) (replaced)			DUPLICATE: Y <input checked="" type="checkbox"/> (N)			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			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				
<i>MW-12A</i>	<i>1</i>	<i>PE</i>	<i>500mL</i> <i>125mL</i> <i>DT 6-14-12</i>	<i>HNO<sub>3</sub></i>	<i>Prefilled by lab</i>		<i>Iron</i>	<i>APP</i>	<i>300</i>	
REMARKS: weather: <i>m. cloudy, 90°F, humid</i> odor: <i>none</i>										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPF = 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:**  $\pm 0.2$  units **Temperature:**  $\pm 0.2$  °C **Specific Conductance:**  $\pm 5\%$  **Dissolved Oxygen:** all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) **Turbidity:** all readings  $< 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

## **APPENDIX C**

### **Field Instrument Calibration Logs**



# Field Instrument Calibration Record

Site: IED SWDF Date: May 13, 2012

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AM

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME12953

Time: 1600

Calibration Standard			Instrument Response	Percent Deviation <sup>(1)</sup> or Difference	Allowable Deviation <sup>(2)</sup>	Calibrated? Yes or No	Type of Calibration <sup>(3)</sup>	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
C146449	Aug 1, 2013	pH = 4.00	4.10	0.10	0.2	Y	C	DT
C148066	Oct 6, 2013	pH = 7.00	7.10	0.10	0.2	Y	C	DT
C150016	Jan 4, 2013	pH = 10.00			0.2			
		Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
C251755	April 2013	Turbidity = 10 NTU	10.29	2.9	10%	Y	C	DT
		Turbidity = 50 NTU			6.5%			
C250574	Jan 24, 2013	Conductivity = 0.084 mS/cm	0.084	0.0	5%	Y	C	DT
C147260	Aug 30, 2013	Conductivity = 1.000 mS/cm	0.995	0.5	5%	Y	C	DT
	Per Table →	D.O. = 8.41 mg/L @ 24.0°C	8.51	0.092	0.2 mg/l	Y	C	DT

Date: May 14, 2012 Time: 1730

Calibration Standard			Instrument Response	Percent Deviation <sup>(1)</sup> or Difference	Allowable Deviation <sup>(2)</sup>	Calibrated? Yes or No	Type of Calibration <sup>(3)</sup>	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
C146449	Aug 1, 2013	pH = 4.00	4.08	0.08	0.2	Y	C	DT
C148066	Oct 6, 2013	pH = 7.00	7.10	0.10	0.2	Y	C	DT
C150016	Jan 4, 2013	pH = 10.00			0.2			
		Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
C251755	April 2013	Turbidity = 10 NTU	10.15	1.5	10%	Y	C	DT
		Turbidity = 50 NTU			6.5%			
C250574	Jan 24, 2013	Conductivity = 0.084 mS/cm	0.083	1.2	5%	Y	C	DT
C147260	Aug 30, 2013	Conductivity = 1.000 mS/cm	0.992	0.8	5%	Y	C	DT
	Per Table →	D.O. = 8.43 mg/L @ 23.9°C	8.39	0.044	0.2 mg/l	Y	C	DT

Note (1): Percent Deviation = (Standard Value – Instrument Response) ÷ Standard Value x 100

Note (2): Allowable Deviation: pH ± 0.2 of Standard Value; Conductivity ± 5 % of Standard Value; Salinity ± 3 % of Standard Value; DO ± 0.2 mg/L;

Turbidity 0.1-10 NTU ± 10% of Standard Value, 11-40 NTU ± 8% of Standard Value, 41-100 NTU ± 6.5% of Standard Value, >100 NTU ± 5% of Standard Value

Note (3): Initial, Continual, Final

# Field Instrument Calibration Record

Site: SET SWDE

Date: May 16, 2012

Water Quality Instrument Make: YSI

Instrument Model Number: 556

Instrument Serial Number: 0642173AM

Turbidity Instrument Make: LaMotte

Instrument Model Number: 2020e

Instrument Serial Number: ME12953

Time: 0545

Calibration Standard			Instrument Response	Percent Deviation <sup>(1)</sup> or Difference	Allowable Deviation <sup>(2)</sup>	Calibrated? Yes or No	Type of Calibration <sup>(3)</sup>	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
C146449	Aug 1, 2013	pH = 4.00	4.08	0.08	0.2	Y	C	PT
C148066	Oct 6, 2013	pH = 7.00	7.09	0.09	0.2	Y	C	PT
C150016	Jan 4, 2013	pH = 10.00			0.2			
		Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
C251755	April 2013	Turbidity = 10 NTU	10.29	2.9	10%	Y	C	PT
		Turbidity = 50 NTU			6.5%			
C250574	Jan 24, 2013	Conductivity = 0.084 mS/cm	0.084	0.0	5%	Y	C	PT
C147260	Aug 30, 2013	Conductivity = 1.000 mS/cm	0.991	0.9	5%	Y	C	PT
	Per Table →	D.O. = 8.48 mg/L @ 23.6°C	8.41	0.072	0.2 mg/l	Y	C	PT

Date: May 17, 2012

Time: 0600

Calibration Standard			Instrument Response	Percent Deviation <sup>(1)</sup> or Difference	Allowable Deviation <sup>(2)</sup>	Calibrated? Yes or No	Type of Calibration <sup>(3)</sup>	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
C146449	Aug 1, 2013	pH = 4.00	4.04	0.04	0.2	Y	C	PT
C148066	Oct 6, 2013	pH = 7.00	7.10	0.10	0.2	Y	C	PT
C150016	Jan 4, 2013	pH = 10.00			0.2			
		Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
C251755	April 2013	Turbidity = 10 NTU	10.04	0.4	10%	Y	C	PT
		Turbidity = 50 NTU			6.5%			
C250574	Jan 24, 2013	Conductivity = 0.084 mS/cm	0.084	0.0	5%	Y	C	PT
C147260	Aug 30, 2013	Conductivity = 1.000 mS/cm	0.989	1.1	5%	Y	C	PT
	Per Table →	D.O. = 8.514 mg/L @ 23.4°C	8.50	0.014	0.2 mg/l	Y	C	PT

Note (1): Percent Deviation = (Standard Value – Instrument Response) ÷ Standard Value x 100

Note (2): Allowable Deviation: pH ± 0.2 of Standard Value; Conductivity ± 5 % of Standard Value; Salinity ± 3 % of Standard Value; DO ± 0.2 mg/L;

Turbidity 0.1-10 NTU ± 10% of Standard Value, 11-40 NTU ± 8% of Standard Value, 41-100 NTU ± 6.5% of Standard Value, >100 NTU ± 5% of Standard Value

Note (3): Initial, Continual, Final



## Field Instrument Calibration Record

Site: JEB SWDIF Date: May 18, 2012

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: \_\_\_\_\_

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME12953

Time: 0600

Calibration Standard			Instrument Response	Percent Deviation <sup>(1)</sup> or Difference	Allowable Deviation <sup>(2)</sup>	Calibrated? Yes or No	Type of Calibration <sup>(3)</sup>	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
C146449	Aug 1, 2013	pH = 4.00	4.06	0.06	0.2	y	C	DT
C148066	Oct 6, 2013	pH = 7.00	7.09	0.09	0.2	y	C	DT
C150016	Jan 4, 2013	pH = 10.00			0.2			
		Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
C251755	April 2013	Turbidity = 10 NTU	10.08	0.8	10%	y	C	DT
		Turbidity = 50 NTU			6.5%			
C250574	Jan 24, 2013	Conductivity = 0.084 mS/cm	0.085	1.2	5%	y	C	DT
C147260	Aug 30, 2013	Conductivity = 1.000 mS/cm	0.993	0.7	5%	y	C	DT
	Per Table →	D.O. = 8.309 mg/L @ 24.7 °C	8.33	0.021	0.2 mg/l	y	C	DT

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Calibration Standard			Instrument Response	Percent Deviation <sup>(1)</sup> or Difference	Allowable Deviation <sup>(2)</sup>	Calibrated? Yes or No	Type of Calibration <sup>(3)</sup>	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
C146449	Aug 1, 2013	pH = 4.00			0.2			
C148066	Oct 6, 2013	pH = 7.00			0.2			
C150016	Jan 4, 2013	pH = 10.00			0.2			
		Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
C251755	April 2013	Turbidity = 10 NTU			10%			
		Turbidity = 50 NTU			6.5%			
C250574	Jan 24, 2013	Conductivity = 0.084 mS/cm			5%			
C147260	Aug 30, 2013	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = mg/L @ °C			0.2 mg/l			

Note (1): Percent Deviation = (Standard Value – Instrument Response) ÷ Standard Value x 100

Note (2): Allowable Deviation: pH ± 0.2 of Standard Value; Conductivity ± 5 % of Standard Value; Salinity ± 3 % of Standard Value; DO ± 0.2 mg/L;

Turbidity 0.1-10 NTU ± 10% of Standard Value, 11-40 NTU ± 8% of Standard Value, 41-100 NTU ± 6.5% of Standard Value, >100 NTU ± 5% of Standard Value

Note (3): Initial, Continual, Final

# Field Instrument Calibration Record

Site: JED SWDF Date: June 13, 2012

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AL

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME12953

Time: 1800

Calibration Standard			Instrument Response	Percent Deviation <sup>(1)</sup> or Difference	Allowable Deviation <sup>(2)</sup>	Calibrated? Yes or No	Type of Calibration <sup>(3)</sup>	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
C146449	Aug 1, 2013	pH = 4.00	4.00	0.00	0.2	Y	I	DT
C148066	Oct 6, 2013	pH = 7.00	7.00	0.00	0.2	Y	I	DT
C150016	Jan 4, 2013	pH = 10.00			0.2			
		Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
C251755	April 2013	Turbidity = 10 NTU	10.00	0.0	10%	Y	C	DT
C250574	Jan 24, 2013	Conductivity = 84 µS/cm	85	1.2	5%	Y	C	DT
C142041	March 2013	Conductivity = 500 µS/cm	483	3.4	5%	Y	C	DT
C147260	Aug 30, 2013	Conductivity = 1,000 µS/cm	982	1.8	5%	Y	C	DT
	Per Table →	D.O. = 8.203 mg/L @ 25.4 °C	8.19	0.013	0.2 mg/l	Y	I	DT

Date: June 14, 2012 Time: 1930

Calibration Standard			Instrument Response	Percent Deviation <sup>(1)</sup> or Difference	Allowable Deviation <sup>(2)</sup>	Calibrated? Yes or No	Type of Calibration <sup>(3)</sup>	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
C146449	Aug 1, 2013	pH = 4.00	4.03	0.03	0.2	Y	C	DT
C148066	Oct 6, 2013	pH = 7.00	7.00	0.00	0.2	Y	F	DT
C150016	Jan 4, 2013	pH = 10.00			0.2			
		Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
C251755	April 2013	Turbidity = 10 NTU	10.04	0.4	10%	Y	C	DT
C250574	Jan 24, 2013	Conductivity = 84 µS/cm	84	0.0	5%	Y	C	DT
C142041	March 2013	Conductivity = 500 µS/cm	488	2.4	5%	Y	C	DT
C147260	Aug 30, 2013	Conductivity = 1,000 µS/cm	988	1.2	5%	Y	C	DT
	Per Table →	D.O. = 8.356 mg/L @ 24.4 °C	8.36	0.004	0.2 mg/l	Y	F	DT

Note (1): Percent Deviation = (Standard Value – Instrument Response) ÷ Standard Value x 100

Note (2): Allowable Deviation: pH ± 0.2 of Standard Value; Conductivity ± 5 % of Standard Value; Salinity ± 3 % of Standard Value; DO ± 0.2 mg/L;

Turbidity 0.1-10 NTU ± 10% of Standard Value, 11-40 NTU ± 8% of Standard Value, 41-100 NTU ± 6.5% of Standard Value, >100 NTU ± 5% of Standard Value

Note (3): Initial, Continual, Final



## **APPENDIX D**

### **Chain-of-Custody Forms**



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PAGE 1 OF 1

CAS Contact

Distribution: White - Return to Originator; Yellow - Retained by Client

JSCOC-3/11





SR #

CAS Contact

www.caslab.com

Project Name JED SWDF		Project Number	
Project Manager Joe Terry		Email Address jterry@wsii.us	
Company/Address WSI 11500 43rd St. N. Clearwater, FL 33762			
Phone # 813-943-8633		FAX#	
Sampler's Signature <i>[Signature]</i>		Sampler's Printed Name Joe Terry	
CLIENT SAMPLE ID		LAB ID	
MW-10B		SAMPLING DATE 5.15.12	SAMPLING TIME 1440
MW-11A			1330
MW-11B			1255
MW-12A			1150
MW-12B			1120
MW-13A			1015
MW-13B		5.15.12	0945
Trip Blank		4.27.12	0830
SPECIAL INSTRUCTIONS/COMMENTS Cooler ID: 12136-JED		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) <input checked="" type="checkbox"/> STANDARD REQUESTED FAX DATE REQUESTED REPORT DATE	
REPORT REQUIREMENTS I. Results Only <input checked="" type="checkbox"/> II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data V. Specialized Forms / Custom Report Edate Yes No		INVOICE INFORMATION PO# BILL TO:	
SAMPLE RECEIPT: CONDITION/COOLER TEMP:		CUSTODY SEALS: Y N	
RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature <i>[Signature]</i>	Signature	Signature	Signature
Printed Name Joe Terry	Printed Name	Printed Name	Printed Name
Firm WSI	Firm	Firm	Firm
Date/Time 5.15.12/1600	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Retained by Client

JSCOC-3/11





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## **APPENDIX E**

### **CD Containing Analytical Laboratory Reports**





June 01, 2012

Service Request No: J1202364

Kirk Wills  
Waste Services of Florida, Inc.  
11500 43rd Street North  
Clearwater, FL 33762

**Laboratory Results for: JED SWDF**

Dear Kirk,

Enclosed are the results of the sample(s) submitted to our laboratory May 18, 2012  
For your reference, these analyses have been assigned our service request number **J1202364**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. If required, the laboratory can provide uncertainty measurements for each method employed in sample analysis; this uncertainty measurement would be generated using method validation studies and the laboratory's quality control data.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at [CMyers@caslab.com](mailto:CMyers@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc. dba ALS Environmental**

Craig Myers  
Project Manager



ADDRESS 9143 Philips Highway, Suite 200, Jacksonville, FL 32256

PHONE +1 904 739 2277 | FAX +1 904 739 2011

Columbia Analytical Services, Inc.

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RIGHT SOLUTIONS RIGHT PARTNER

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Received:** 5/18/12

### CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

#### Sample Receipt

Five water samples and one trip blank were received for analysis at Columbia Analytical Services on 5/18/12. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at  $\leq 6^{\circ}\text{C}$  upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

#### Volatile Organic Analyses:

Method 8260B: The upper control criterion was exceeded for the following analytes in Laboratory Control Sample (LCS) JQ1203402-01: trans-1,2-Dichloroethene. The analyte in question was not detected in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

#### Semi-Volatile Organic Analyses:

No significant data anomalies were noted with this analysis.

#### Metals Analyses:

No significant data anomalies were noted with this analysis.

#### General Chemistry Analyses:

No significant data anomalies were noted with this analysis.



**State Certifications, Accreditations, and Licenses**

<b>Agency</b>	<b>Number</b>	<b>Expire Date</b>
Florida Department of Health	E82502	6/30/2012
North Carolina Department of Environment and Natural Resources	527	12/31/2012
Virginia Environmental Accreditation Program	460191	12/14/2012
Louisiana Department of Environmental Quality	02086	6/30/2012
Kentucky Division of Waste Management	63	7/5/2013
South Carolina Department of Health and Environmental Control	96021001	6/30/2012
Maine Department of Health and Human Services	2011006	2/3/2013
Pennsylvania Department of Environmental Protection	68-04835	7/31/2012
New Jersey Department of Environmental Protection	FL019	6/30/2012

## **Data Qualifiers**

### **Florida-DEP**

- ! Data deviates from historically established concentration ranges
- \* Not reported due to interference
- ? Data is rejected and should not be used
- A Value reported is the arithmetic mean of two or more determinations
- B Results based upon colony counts outside the acceptable range.
- D Measurement was made in the field.
- E Extra samples were taken at composite stations
- H Value based on field kit determination; results may not be accurate.
- I The reported value is between the laboratory method detection limit and the laboratory PQL.
- J Estimated value.
- K Off scale low. The value is less than the lowest calibration standard.
- L Off scale high. The analyte is above the acceptable level of quantitation.
- M The MDL/MRL has been elevated because the analyte could not be accurately quantified.
- N Presumptive evidence of presence of material.
- O Sampled, but analysis lost or not performed
- Q Sample held beyond the acceptable holding time.
- R Significant rain in the past 48 hours (typically in excess of 0.5 inches)
- T Estimated value, less than the MDL
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- X Insufficient individuals were present in the sample to achieve a minimum of 280 organisms for identification (Stream Condition Index Analysis only)
- Y The laboratory analysis was from an unpreserved or improperly preserved sample.
- Z Too many colonies were present, the numeric value represents the filtration volume



## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF

**Service Request:** J1202364

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1202364-001	MW-5B	5/17/2012	0805
J1202364-002	MW-4B	5/17/2012	0845
J1202364-003	MW-3B	5/17/2012	0920
J1202364-004	MW-23A	5/17/2012	1110
J1202364-005	MW-23B	5/17/2012	1035
J1202364-006	Trip Blank	5/17/2012	0000



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 08:05  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-5B  
**Lab Code:** J1202364-001

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/31/12 04:03	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/31/12 04:03	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/31/12 04:03	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/31/12 04:03	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/31/12 04:03	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/31/12 04:03	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/31/12 04:03	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/31/12 04:03	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/31/12 04:03	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/31/12 04:03	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/31/12 04:03	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/31/12 04:03	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/31/12 04:03	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/31/12 04:03	
2-Hexanone	2.20 U	25.0	2.20	1	05/31/12 04:03	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/31/12 04:03	
Acetone	5.60 U	50.0	5.60	1	05/31/12 04:03	
Acrylonitrile	1.50 U	10.0	1.50	1	05/31/12 04:03	
Benzene	0.210 U	1.00	0.210	1	05/31/12 04:03	
Bromochloromethane	0.270 U	5.00	0.270	1	05/31/12 04:03	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/31/12 04:03	
Bromoform	0.420 U	2.00	0.420	1	05/31/12 04:03	
Bromomethane	0.230 U	5.00	0.230	1	05/31/12 04:03	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/31/12 04:03	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/31/12 04:03	
Chlorobenzene	0.160 U	1.00	0.160	1	05/31/12 04:03	
Chloroethane	0.520 U	5.00	0.520	1	05/31/12 04:03	
Chloroform	0.350 U	1.00	0.350	1	05/31/12 04:03	
Chloromethane	0.360 U	1.00	0.360	1	05/31/12 04:03	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/31/12 04:03	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/31/12 04:03	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/31/12 04:03	
Dibromomethane	0.360 U	5.00	0.360	1	05/31/12 04:03	
Ethylbenzene	0.210 U	1.00	0.210	1	05/31/12 04:03	
Iodomethane	2.70 U	5.00	2.70	1	05/31/12 04:03	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/31/12 04:03	
Methylene Chloride	0.210 U	5.00	0.210	1	05/31/12 04:03	
o-Xylene	0.140 U	1.00	0.140	1	05/31/12 04:03	
Styrene	0.290 U	1.00	0.290	1	05/31/12 04:03	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/31/12 04:03	
Toluene	0.190 U	1.00	0.190	1	05/31/12 04:03	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/31/12 04:03	*

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 08:05  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-5B  
**Lab Code:** J1202364-001

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/31/12 04:03	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/31/12 04:03	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/31/12 04:03	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/31/12 04:03	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/31/12 04:03	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/31/12 04:03	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	113	72 - 121	05/31/12 04:03	
4-Bromofluorobenzene	98	86 - 113	05/31/12 04:03	
Dibromofluoromethane	106	86 - 112	05/31/12 04:03	
Toluene-d8	93	88 - 115	05/31/12 04:03	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 08:05  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-5B  
**Lab Code:** J1202364-001

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0198	0.00700	1	05/25/12 22:04	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0198	0.00700	1	05/25/12 22:04	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	97	70 - 130	05/25/12 22:04	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-5B  
**Lab Code:** J1202364-001

**Service Request:** J1202364  
**Date Collected:** 05/17/12 08:05  
**Date Received:** 05/18/12 09:35

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/22/12	5/21/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/22/12	5/21/12	
Barium, Total Recoverable	6020	<b>14.9</b>	ug/L	2.0	0.5	1	05/22/12	5/21/12	
Beryllium, Total Recoverable	6020	<b>0.09 I</b>	ug/L	0.50	0.04	1	05/22/12	5/21/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/22/12	5/21/12	
Chromium, Total Recoverable	6020	<b>0.7 I</b>	ug/L	1.0	0.2	1	05/22/12	5/21/12	
Cobalt, Total Recoverable	6020	<b>0.2 I</b>	ug/L	1.0	0.03	1	05/22/12	5/21/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/22/12	5/21/12	
Iron, Total Recoverable	6010B	<b>320</b>	ug/L	100	3	1	05/21/12	5/21/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/22/12	5/21/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/22/12	5/21/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/22/12	5/21/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/22/12	5/21/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/22/12	5/21/12	
Sodium, Total Recoverable	6010B	<b>6.21</b>	mg/L	0.50	0.03	1	05/21/12	5/21/12	
Thallium, Total Recoverable	6020	<b>0.14 I</b>	ug/L	0.20	0.05	1	05/22/12	5/21/12	
Vanadium, Total Recoverable	6020	<b>1.0 I</b>	ug/L	2.0	0.3	1	05/22/12	5/21/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/22/12	5/21/12	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-5B  
**Lab Code:** J1202364-001

**Service Request:** J1202364  
**Date Collected:** 05/17/12 08:05  
**Date Received:** 05/18/12 09:35  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.152</b>	mg/L	0.010	0.007	1	05/21/12 12:16	
Chloride	300.0	<b>10.8</b>	mg/L	0.50	0.11	1	05/18/12 13:43	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/18/12 13:43	
Solids, Total Dissolved	SM 2540 C	<b>49</b>	mg/L	10	10	1	05/22/12 14:05	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 08:45  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-4B  
**Lab Code:** J1202364-002

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/31/12 13:37	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/31/12 13:37	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/31/12 13:37	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/31/12 13:37	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/31/12 13:37	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/31/12 13:37	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/31/12 13:37	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/31/12 13:37	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/31/12 13:37	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/31/12 13:37	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/31/12 13:37	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/31/12 13:37	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/31/12 13:37	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/31/12 13:37	
2-Hexanone	2.20 U	25.0	2.20	1	05/31/12 13:37	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/31/12 13:37	
Acetone	5.60 U	50.0	5.60	1	05/31/12 13:37	
Acrylonitrile	1.50 U	10.0	1.50	1	05/31/12 13:37	
Benzene	0.210 U	1.00	0.210	1	05/31/12 13:37	
Bromochloromethane	0.270 U	5.00	0.270	1	05/31/12 13:37	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/31/12 13:37	
Bromoform	0.420 U	2.00	0.420	1	05/31/12 13:37	
Bromomethane	0.230 U	5.00	0.230	1	05/31/12 13:37	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/31/12 13:37	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/31/12 13:37	
Chlorobenzene	0.160 U	1.00	0.160	1	05/31/12 13:37	
Chloroethane	0.520 U	5.00	0.520	1	05/31/12 13:37	
Chloroform	0.350 U	1.00	0.350	1	05/31/12 13:37	
Chloromethane	0.360 U	1.00	0.360	1	05/31/12 13:37	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/31/12 13:37	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/31/12 13:37	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/31/12 13:37	
Dibromomethane	0.360 U	5.00	0.360	1	05/31/12 13:37	
Ethylbenzene	0.210 U	1.00	0.210	1	05/31/12 13:37	
Iodomethane	2.70 U	5.00	2.70	1	05/31/12 13:37	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/31/12 13:37	
Methylene Chloride	0.210 U	5.00	0.210	1	05/31/12 13:37	
o-Xylene	0.140 U	1.00	0.140	1	05/31/12 13:37	
Styrene	0.290 U	1.00	0.290	1	05/31/12 13:37	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/31/12 13:37	
Toluene	0.190 U	1.00	0.190	1	05/31/12 13:37	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/31/12 13:37	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 08:45  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-4B  
**Lab Code:** J1202364-002

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/31/12 13:37	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/31/12 13:37	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/31/12 13:37	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/31/12 13:37	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/31/12 13:37	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/31/12 13:37	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	107	72 - 121	05/31/12 13:37	
4-Bromofluorobenzene	94	86 - 113	05/31/12 13:37	
Dibromofluoromethane	104	86 - 112	05/31/12 13:37	
Toluene-d8	98	88 - 115	05/31/12 13:37	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 08:45  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-4B  
**Lab Code:** J1202364-002

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0199	0.00700	1	05/25/12 22:24	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0199	0.00700	1	05/25/12 22:24	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	122	70 - 130	05/25/12 22:24	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-4B  
**Lab Code:** J1202364-002

**Service Request:** J1202364  
**Date Collected:** 05/17/12 08:45  
**Date Received:** 05/18/12 09:35

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	<b>0.3 I</b>	ug/L	1.0	0.2	1	05/22/12	5/21/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/22/12	5/21/12	
Barium, Total Recoverable	6020	<b>16.6</b>	ug/L	2.0	0.5	1	05/22/12	5/21/12	
Beryllium, Total Recoverable	6020	<b>0.06 I</b>	ug/L	0.50	0.04	1	05/22/12	5/21/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/22/12	5/21/12	
Chromium, Total Recoverable	6020	<b>0.3 I</b>	ug/L	1.0	0.2	1	05/22/12	5/21/12	
Cobalt, Total Recoverable	6020	<b>0.2 I</b>	ug/L	1.0	0.03	1	05/22/12	5/21/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/22/12	5/21/12	
Iron, Total Recoverable	6010B	<b>930</b>	ug/L	100	3	1	05/21/12	5/21/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/22/12	5/21/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/22/12	5/21/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/22/12	5/21/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/22/12	5/21/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/22/12	5/21/12	
Sodium, Total Recoverable	6010B	<b>14.5</b>	mg/L	0.50	0.03	1	05/21/12	5/21/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/22/12	5/21/12	
Vanadium, Total Recoverable	6020	<b>0.9 I</b>	ug/L	2.0	0.3	1	05/22/12	5/21/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/22/12	5/21/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-4B  
**Lab Code:** J1202364-002

**Service Request:** J1202364  
**Date Collected:** 05/17/12 08:45  
**Date Received:** 05/18/12 09:35  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.095</b>	mg/L	0.010	0.007	1	05/21/12 12:19	
Chloride	300.0	<b>27.6</b>	mg/L	0.50	0.11	1	05/18/12 13:58	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/18/12 13:58	
Solids, Total Dissolved	SM 2540 C	<b>80</b>	mg/L	10	10	1	05/22/12 14:05	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 09:20  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-3B  
**Lab Code:** J1202364-003

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/31/12 03:09	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/31/12 03:09	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/31/12 03:09	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/31/12 03:09	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/31/12 03:09	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/31/12 03:09	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/31/12 03:09	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/31/12 03:09	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/31/12 03:09	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/31/12 03:09	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/31/12 03:09	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/31/12 03:09	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/31/12 03:09	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/31/12 03:09	
2-Hexanone	2.20 U	25.0	2.20	1	05/31/12 03:09	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/31/12 03:09	
Acetone	5.60 U	50.0	5.60	1	05/31/12 03:09	
Acrylonitrile	1.50 U	10.0	1.50	1	05/31/12 03:09	
Benzene	0.210 U	1.00	0.210	1	05/31/12 03:09	
Bromochloromethane	0.270 U	5.00	0.270	1	05/31/12 03:09	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/31/12 03:09	
Bromoform	0.420 U	2.00	0.420	1	05/31/12 03:09	
Bromomethane	0.230 U	5.00	0.230	1	05/31/12 03:09	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/31/12 03:09	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/31/12 03:09	
Chlorobenzene	0.160 U	1.00	0.160	1	05/31/12 03:09	
Chloroethane	0.520 U	5.00	0.520	1	05/31/12 03:09	
Chloroform	0.350 U	1.00	0.350	1	05/31/12 03:09	
Chloromethane	0.360 U	1.00	0.360	1	05/31/12 03:09	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/31/12 03:09	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/31/12 03:09	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/31/12 03:09	
Dibromomethane	0.360 U	5.00	0.360	1	05/31/12 03:09	
Ethylbenzene	0.210 U	1.00	0.210	1	05/31/12 03:09	
Iodomethane	2.70 U	5.00	2.70	1	05/31/12 03:09	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/31/12 03:09	
Methylene Chloride	0.210 U	5.00	0.210	1	05/31/12 03:09	
o-Xylene	0.140 U	1.00	0.140	1	05/31/12 03:09	
Styrene	0.290 U	1.00	0.290	1	05/31/12 03:09	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/31/12 03:09	
Toluene	0.190 U	1.00	0.190	1	05/31/12 03:09	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/31/12 03:09	*

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 09:20  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-3B  
**Lab Code:** J1202364-003

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/31/12 03:09	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/31/12 03:09	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/31/12 03:09	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/31/12 03:09	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/31/12 03:09	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/31/12 03:09	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	103	72 - 121	05/31/12 03:09	
4-Bromofluorobenzene	99	86 - 113	05/31/12 03:09	
Dibromofluoromethane	105	86 - 112	05/31/12 03:09	
Toluene-d8	100	88 - 115	05/31/12 03:09	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 09:20  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-3B  
**Lab Code:** J1202364-003

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0198	0.00700	1	05/25/12 22:44	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0198	0.00700	1	05/25/12 22:44	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	109	70 - 130	05/25/12 22:44	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 09:20  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-3B  
**Lab Code:** J1202364-003

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/22/12	5/21/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/22/12	5/21/12	
Barium, Total Recoverable	6020	<b>26.8</b>	ug/L	2.0	0.5	1	05/22/12	5/21/12	
Beryllium, Total Recoverable	6020	<b>0.07 I</b>	ug/L	0.50	0.04	1	05/22/12	5/21/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/22/12	5/21/12	
Chromium, Total Recoverable	6020	<b>1.4</b>	ug/L	1.0	0.2	1	05/22/12	5/21/12	
Cobalt, Total Recoverable	6020	<b>0.2 I</b>	ug/L	1.0	0.03	1	05/22/12	5/21/12	
Copper, Total Recoverable	6020	<b>0.5 I</b>	ug/L	1.0	0.3	1	05/22/12	5/21/12	
Iron, Total Recoverable	6010B	<b>680</b>	ug/L	100	3	1	05/21/12	5/21/12	
Lead, Total Recoverable	6020	<b>1.68</b>	ug/L	0.50	0.12	1	05/22/12	5/21/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/22/12	5/21/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/22/12	5/21/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/22/12	5/21/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/22/12	5/21/12	
Sodium, Total Recoverable	6010B	<b>6.57</b>	mg/L	0.50	0.03	1	05/21/12	5/21/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/22/12	5/21/12	
Vanadium, Total Recoverable	6020	<b>2.7</b>	ug/L	2.0	0.3	1	05/22/12	5/21/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/22/12	5/21/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-3B  
**Lab Code:** J1202364-003

**Service Request:** J1202364  
**Date Collected:** 05/17/12 09:20  
**Date Received:** 05/18/12 09:35  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.110</b>	mg/L	0.010	0.007	1	05/21/12 12:25	
Chloride	300.0	<b>12.0</b>	mg/L	0.50	0.11	1	05/18/12 14:30	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/18/12 14:30	
Solids, Total Dissolved	SM 2540 C	<b>55</b>	mg/L	10	10	1	05/22/12 14:05	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 11:10  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-23A  
**Lab Code:** J1202364-004

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/31/12 02:42	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/31/12 02:42	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/31/12 02:42	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/31/12 02:42	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/31/12 02:42	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/31/12 02:42	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/31/12 02:42	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/31/12 02:42	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/31/12 02:42	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/31/12 02:42	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/31/12 02:42	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/31/12 02:42	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/31/12 02:42	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/31/12 02:42	
2-Hexanone	2.20 U	25.0	2.20	1	05/31/12 02:42	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/31/12 02:42	
Acetone	5.60 U	50.0	5.60	1	05/31/12 02:42	
Acrylonitrile	1.50 U	10.0	1.50	1	05/31/12 02:42	
Benzene	0.210 U	1.00	0.210	1	05/31/12 02:42	
Bromochloromethane	0.270 U	5.00	0.270	1	05/31/12 02:42	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/31/12 02:42	
Bromoform	0.420 U	2.00	0.420	1	05/31/12 02:42	
Bromomethane	0.230 U	5.00	0.230	1	05/31/12 02:42	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/31/12 02:42	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/31/12 02:42	
Chlorobenzene	0.160 U	1.00	0.160	1	05/31/12 02:42	
Chloroethane	0.520 U	5.00	0.520	1	05/31/12 02:42	
Chloroform	0.350 U	1.00	0.350	1	05/31/12 02:42	
Chloromethane	0.360 U	1.00	0.360	1	05/31/12 02:42	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/31/12 02:42	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/31/12 02:42	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/31/12 02:42	
Dibromomethane	0.360 U	5.00	0.360	1	05/31/12 02:42	
Ethylbenzene	0.210 U	1.00	0.210	1	05/31/12 02:42	
Iodomethane	2.70 U	5.00	2.70	1	05/31/12 02:42	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/31/12 02:42	
Methylene Chloride	0.210 U	5.00	0.210	1	05/31/12 02:42	
o-Xylene	0.140 U	1.00	0.140	1	05/31/12 02:42	
Styrene	0.290 U	1.00	0.290	1	05/31/12 02:42	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/31/12 02:42	
Toluene	0.190 U	1.00	0.190	1	05/31/12 02:42	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/31/12 02:42	*

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 11:10  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-23A  
**Lab Code:** J1202364-004

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/31/12 02:42	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/31/12 02:42	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/31/12 02:42	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/31/12 02:42	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/31/12 02:42	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/31/12 02:42	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	105	72 - 121	05/31/12 02:42	
4-Bromofluorobenzene	99	86 - 113	05/31/12 02:42	
Dibromofluoromethane	103	86 - 112	05/31/12 02:42	
Toluene-d8	115	88 - 115	05/31/12 02:42	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 11:10  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-23A  
**Lab Code:** J1202364-004

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0198	0.00700	1	05/25/12 23:04	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0198	0.00700	1	05/25/12 23:04	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	116	70 - 130	05/25/12 23:04	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 11:10  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-23A  
**Lab Code:** J1202364-004

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	<b>0.3 I</b>	ug/L	1.0	0.2	1	05/22/12	5/21/12	
Arsenic, Total Recoverable	6020	<b>0.9 I</b>	ug/L	1.0	0.5	1	05/22/12	5/21/12	
Barium, Total Recoverable	6020	<b>8.4</b>	ug/L	2.0	0.5	1	05/22/12	5/21/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/22/12	5/21/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/22/12	5/21/12	
Chromium, Total Recoverable	6020	<b>3.8</b>	ug/L	1.0	0.2	1	05/22/12	5/21/12	
Cobalt, Total Recoverable	6020	<b>0.3 I</b>	ug/L	1.0	0.03	1	05/22/12	5/21/12	
Copper, Total Recoverable	6020	<b>1.0 I</b>	ug/L	1.0	0.3	1	05/22/12	5/21/12	
Iron, Total Recoverable	6010B	<b>980</b>	ug/L	100	3	1	05/21/12	5/21/12	
Lead, Total Recoverable	6020	<b>1.55</b>	ug/L	0.50	0.12	1	05/22/12	5/21/12	
Mercury, Total	7470A	<b>0.04 I</b>	ug/L	0.10	0.02	1	05/22/12	5/21/12	
Nickel, Total Recoverable	6020	<b>1.6 I</b>	ug/L	2.0	0.5	1	05/22/12	5/21/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/22/12	5/21/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/22/12	5/21/12	
Sodium, Total Recoverable	6010B	<b>16.3</b>	mg/L	0.50	0.03	1	05/21/12	5/21/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/22/12	5/21/12	
Vanadium, Total Recoverable	6020	<b>4.8</b>	ug/L	2.0	0.3	1	05/22/12	5/21/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/22/12	5/21/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-23A  
**Lab Code:** J1202364-004

**Service Request:** J1202364  
**Date Collected:** 05/17/12 11:10  
**Date Received:** 05/18/12 09:35  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>4.78</b>	mg/L	0.010	0.007	1	05/21/12 12:26	
Chloride	300.0	<b>23.9</b>	mg/L	0.50	0.11	1	05/18/12 15:15	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/18/12 15:15	
Solids, Total Dissolved	SM 2540 C	<b>174</b>	mg/L	10	10	1	05/23/12 10:45	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 10:35  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-23B  
**Lab Code:** J1202364-005

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/31/12 02:15	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/31/12 02:15	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/31/12 02:15	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/31/12 02:15	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/31/12 02:15	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/31/12 02:15	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/31/12 02:15	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/31/12 02:15	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/31/12 02:15	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/31/12 02:15	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/31/12 02:15	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/31/12 02:15	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/31/12 02:15	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/31/12 02:15	
2-Hexanone	2.20 U	25.0	2.20	1	05/31/12 02:15	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/31/12 02:15	
Acetone	5.60 U	50.0	5.60	1	05/31/12 02:15	
Acrylonitrile	1.50 U	10.0	1.50	1	05/31/12 02:15	
Benzene	0.210 U	1.00	0.210	1	05/31/12 02:15	
Bromochloromethane	0.270 U	5.00	0.270	1	05/31/12 02:15	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/31/12 02:15	
Bromoform	0.420 U	2.00	0.420	1	05/31/12 02:15	
Bromomethane	0.230 U	5.00	0.230	1	05/31/12 02:15	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/31/12 02:15	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/31/12 02:15	
Chlorobenzene	0.160 U	1.00	0.160	1	05/31/12 02:15	
Chloroethane	0.520 U	5.00	0.520	1	05/31/12 02:15	
Chloroform	0.350 U	1.00	0.350	1	05/31/12 02:15	
Chloromethane	0.360 U	1.00	0.360	1	05/31/12 02:15	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/31/12 02:15	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/31/12 02:15	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/31/12 02:15	
Dibromomethane	0.360 U	5.00	0.360	1	05/31/12 02:15	
Ethylbenzene	0.210 U	1.00	0.210	1	05/31/12 02:15	
Iodomethane	2.70 U	5.00	2.70	1	05/31/12 02:15	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/31/12 02:15	
Methylene Chloride	0.210 U	5.00	0.210	1	05/31/12 02:15	
o-Xylene	0.140 U	1.00	0.140	1	05/31/12 02:15	
Styrene	0.290 U	1.00	0.290	1	05/31/12 02:15	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/31/12 02:15	
Toluene	0.190 U	1.00	0.190	1	05/31/12 02:15	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/31/12 02:15	*



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 10:35  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-23B  
**Lab Code:** J1202364-005

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/31/12 02:15	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/31/12 02:15	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/31/12 02:15	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/31/12 02:15	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/31/12 02:15	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/31/12 02:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	106	72 - 121	05/31/12 02:15	
4-Bromofluorobenzene	96	86 - 113	05/31/12 02:15	
Dibromofluoromethane	102	86 - 112	05/31/12 02:15	
Toluene-d8	96	88 - 115	05/31/12 02:15	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 10:35  
**Date Received:** 05/18/12 09:35

**Sample Name:** MW-23B  
**Lab Code:** J1202364-005

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0200	0.00700	1	05/25/12 23:24	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0200	0.00700	1	05/25/12 23:24	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	126	70 - 130	05/25/12 23:24	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-23B  
**Lab Code:** J1202364-005

**Service Request:** J1202364  
**Date Collected:** 05/17/12 10:35  
**Date Received:** 05/18/12 09:35

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/22/12	5/21/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/22/12	5/21/12	
Barium, Total Recoverable	6020	<b>92.1</b>	ug/L	2.0	0.5	1	05/22/12	5/21/12	
Beryllium, Total Recoverable	6020	<b>0.15 I</b>	ug/L	0.50	0.04	1	05/22/12	5/21/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/22/12	5/21/12	
Chromium, Total Recoverable	6020	<b>0.5 I</b>	ug/L	1.0	0.2	1	05/22/12	5/21/12	
Cobalt, Total Recoverable	6020	<b>0.9 I</b>	ug/L	1.0	0.03	1	05/22/12	5/21/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/22/12	5/21/12	
Iron, Total Recoverable	6010B	<b>2750</b>	ug/L	100	3	1	05/21/12	5/21/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/22/12	5/21/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/22/12	5/21/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/22/12	5/21/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/22/12	5/21/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/22/12	5/21/12	
Sodium, Total Recoverable	6010B	<b>61.3</b>	mg/L	0.50	0.03	1	05/21/12	5/21/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/22/12	5/21/12	
Vanadium, Total Recoverable	6020	<b>0.9 I</b>	ug/L	2.0	0.3	1	05/22/12	5/21/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/22/12	5/21/12	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-23B  
**Lab Code:** J1202364-005

**Service Request:** J1202364  
**Date Collected:** 05/17/12 10:35  
**Date Received:** 05/18/12 09:35  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>1.76</b>	mg/L	0.010	0.007	1	05/21/12 12:27	
Chloride	300.0	<b>85.1</b>	mg/L	0.50	0.11	1	05/18/12 15:30	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/18/12 15:30	
Solids, Total Dissolved	SM 2540 C	<b>250</b>	mg/L	10	10	1	05/23/12 10:45	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 00:00  
**Date Received:** 05/18/12 09:35

**Sample Name:** Trip Blank  
**Lab Code:** J1202364-006

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/31/12 01:48	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/31/12 01:48	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/31/12 01:48	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/31/12 01:48	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/31/12 01:48	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/31/12 01:48	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/31/12 01:48	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/31/12 01:48	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/31/12 01:48	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/31/12 01:48	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/31/12 01:48	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/31/12 01:48	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/31/12 01:48	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/31/12 01:48	
2-Hexanone	2.20 U	25.0	2.20	1	05/31/12 01:48	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/31/12 01:48	
Acetone	5.60 U	50.0	5.60	1	05/31/12 01:48	
Acrylonitrile	1.50 U	10.0	1.50	1	05/31/12 01:48	
Benzene	0.210 U	1.00	0.210	1	05/31/12 01:48	
Bromochloromethane	0.270 U	5.00	0.270	1	05/31/12 01:48	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/31/12 01:48	
Bromoform	0.420 U	2.00	0.420	1	05/31/12 01:48	
Bromomethane	0.230 U	5.00	0.230	1	05/31/12 01:48	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/31/12 01:48	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/31/12 01:48	
Chlorobenzene	0.160 U	1.00	0.160	1	05/31/12 01:48	
Chloroethane	0.520 U	5.00	0.520	1	05/31/12 01:48	
Chloroform	0.350 U	1.00	0.350	1	05/31/12 01:48	
Chloromethane	0.360 U	1.00	0.360	1	05/31/12 01:48	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/31/12 01:48	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/31/12 01:48	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/31/12 01:48	
Dibromomethane	0.360 U	5.00	0.360	1	05/31/12 01:48	
Ethylbenzene	0.210 U	1.00	0.210	1	05/31/12 01:48	
Iodomethane	2.70 U	5.00	2.70	1	05/31/12 01:48	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/31/12 01:48	
Methylene Chloride	0.210 U	5.00	0.210	1	05/31/12 01:48	
o-Xylene	0.140 U	1.00	0.140	1	05/31/12 01:48	
Styrene	0.290 U	1.00	0.290	1	05/31/12 01:48	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/31/12 01:48	
Toluene	0.190 U	1.00	0.190	1	05/31/12 01:48	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/31/12 01:48	*

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12 00:00  
**Date Received:** 05/18/12 09:35

**Sample Name:** Trip Blank  
**Lab Code:** J1202364-006

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/31/12 01:48	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/31/12 01:48	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/31/12 01:48	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/31/12 01:48	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/31/12 01:48	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/31/12 01:48	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	106	72 - 121	05/31/12 01:48	
4-Bromofluorobenzene	92	86 - 113	05/31/12 01:48	
Dibromofluoromethane	106	86 - 112	05/31/12 01:48	
Toluene-d8	113	88 - 115	05/31/12 01:48	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203402-02

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/30/12 20:25	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/30/12 20:25	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/30/12 20:25	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/30/12 20:25	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/30/12 20:25	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/30/12 20:25	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/30/12 20:25	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/30/12 20:25	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/30/12 20:25	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/30/12 20:25	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/30/12 20:25	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/30/12 20:25	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/30/12 20:25	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/30/12 20:25	
2-Hexanone	2.20 U	25.0	2.20	1	05/30/12 20:25	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/30/12 20:25	
Acetone	5.60 U	50.0	5.60	1	05/30/12 20:25	
Acrylonitrile	1.50 U	10.0	1.50	1	05/30/12 20:25	
Benzene	0.210 U	1.00	0.210	1	05/30/12 20:25	
Bromochloromethane	0.270 U	5.00	0.270	1	05/30/12 20:25	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/30/12 20:25	
Bromoform	0.420 U	2.00	0.420	1	05/30/12 20:25	
Bromomethane	0.230 U	5.00	0.230	1	05/30/12 20:25	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/30/12 20:25	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/30/12 20:25	
Chlorobenzene	0.160 U	1.00	0.160	1	05/30/12 20:25	
Chloroethane	0.520 U	5.00	0.520	1	05/30/12 20:25	
Chloroform	0.350 U	1.00	0.350	1	05/30/12 20:25	
Chloromethane	0.360 U	1.00	0.360	1	05/30/12 20:25	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/30/12 20:25	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/30/12 20:25	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/30/12 20:25	
Dibromomethane	0.360 U	5.00	0.360	1	05/30/12 20:25	
Ethylbenzene	0.210 U	1.00	0.210	1	05/30/12 20:25	
Iodomethane	2.70 U	5.00	2.70	1	05/30/12 20:25	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/30/12 20:25	
Methylene Chloride	0.210 U	5.00	0.210	1	05/30/12 20:25	
o-Xylene	0.140 U	1.00	0.140	1	05/30/12 20:25	
Styrene	0.290 U	1.00	0.290	1	05/30/12 20:25	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/30/12 20:25	
Toluene	0.190 U	1.00	0.190	1	05/30/12 20:25	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/30/12 20:25	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203402-02

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/30/12 20:25	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/30/12 20:25	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/30/12 20:25	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/30/12 20:25	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/30/12 20:25	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/30/12 20:25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	112	72 - 121	05/30/12 20:25	
4-Bromofluorobenzene	94	86 - 113	05/30/12 20:25	
Dibromofluoromethane	110	86 - 112	05/30/12 20:25	
Toluene-d8	94	88 - 115	05/30/12 20:25	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203443-02

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/31/12 13:10	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/31/12 13:10	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/31/12 13:10	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/31/12 13:10	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/31/12 13:10	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/31/12 13:10	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/31/12 13:10	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/31/12 13:10	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/31/12 13:10	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/31/12 13:10	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/31/12 13:10	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/31/12 13:10	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/31/12 13:10	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/31/12 13:10	
2-Hexanone	2.20 U	25.0	2.20	1	05/31/12 13:10	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/31/12 13:10	
Acetone	5.60 U	50.0	5.60	1	05/31/12 13:10	
Acrylonitrile	1.50 U	10.0	1.50	1	05/31/12 13:10	
Benzene	0.210 U	1.00	0.210	1	05/31/12 13:10	
Bromochloromethane	0.270 U	5.00	0.270	1	05/31/12 13:10	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/31/12 13:10	
Bromoform	0.420 U	2.00	0.420	1	05/31/12 13:10	
Bromomethane	0.230 U	5.00	0.230	1	05/31/12 13:10	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/31/12 13:10	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/31/12 13:10	
Chlorobenzene	0.160 U	1.00	0.160	1	05/31/12 13:10	
Chloroethane	0.520 U	5.00	0.520	1	05/31/12 13:10	
Chloroform	0.350 U	1.00	0.350	1	05/31/12 13:10	
Chloromethane	0.360 U	1.00	0.360	1	05/31/12 13:10	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/31/12 13:10	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/31/12 13:10	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/31/12 13:10	
Dibromomethane	0.360 U	5.00	0.360	1	05/31/12 13:10	
Ethylbenzene	0.210 U	1.00	0.210	1	05/31/12 13:10	
Iodomethane	2.70 U	5.00	2.70	1	05/31/12 13:10	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/31/12 13:10	
Methylene Chloride	0.210 U	5.00	0.210	1	05/31/12 13:10	
o-Xylene	0.140 U	1.00	0.140	1	05/31/12 13:10	
Styrene	0.290 U	1.00	0.290	1	05/31/12 13:10	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/31/12 13:10	
Toluene	0.190 U	1.00	0.190	1	05/31/12 13:10	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/31/12 13:10	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203443-02

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/31/12 13:10	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/31/12 13:10	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/31/12 13:10	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/31/12 13:10	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/31/12 13:10	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/31/12 13:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	101	72 - 121	05/31/12 13:10	
4-Bromofluorobenzene	98	86 - 113	05/31/12 13:10	
Dibromofluoromethane	103	86 - 112	05/31/12 13:10	
Toluene-d8	88	88 - 115	05/31/12 13:10	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203266-01

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0200	0.00700	1	05/25/12 18:05	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0200	0.00700	1	05/25/12 18:05	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	88	70 - 130	05/25/12 18:05	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** J1202364-MB

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/22/12	5/21/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/22/12	5/21/12	
Barium, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/22/12	5/21/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/22/12	5/21/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/22/12	5/21/12	
Chromium, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/22/12	5/21/12	
Cobalt, Total Recoverable	6020	0.03 U	ug/L	1.0	0.03	1	05/22/12	5/21/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/22/12	5/21/12	
Iron, Total Recoverable	6010B	3 U	ug/L	100	3	1	05/21/12	5/21/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/22/12	5/21/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/22/12	5/21/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/22/12	5/21/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/22/12	5/21/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/22/12	5/21/12	
Sodium, Total Recoverable	6010B	<b>0.05 I</b>	mg/L	0.50	0.03	1	05/21/12	5/21/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/22/12	5/21/12	
Vanadium, Total Recoverable	6020	0.3 U	ug/L	2.0	0.3	1	05/22/12	5/21/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/22/12	5/21/12	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1202364-MB1

**Service Request:** J1202364  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	0.007 U	mg/L	0.010	0.007	1	05/21/12 12:15	
Chloride	300.0	0.11 U	mg/L	0.50	0.11	1	05/18/12 12:44	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/18/12 12:44	
Solids, Total Dissolved	SM 2540 C	10 U	mg/L	10	10	1	05/22/12 14:05	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1202364-MB2

**Service Request:** J1202364  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Solids, Total Dissolved	SM 2540 C	10 U	mg/L	10	10	1	05/23/12 10:45	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.**Service Request:** J1202364**Project:** JED SWDF**Sample Matrix:** Water**SURROGATE RECOVERY SUMMARY**

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Sample Name	Lab Code	1,2-Dichloroethane-d4	4-Bromofluorobenzene	Dibromofluoromethane
		72 - 121	86 - 113	86 - 112
MW-5B	J1202364-001	113	98	106
MW-4B	J1202364-002	107	94	104
MW-3B	J1202364-003	103	99	105
MW-23A	J1202364-004	105	99	103
MW-23B	J1202364-005	106	96	102
Trip Blank	J1202364-006	106	92	106
Lab Control Sample	JQ1203402-01	102	83	102
Method Blank	JQ1203402-02	112	94	110
Lab Control Sample	JQ1203443-01	109	92	109
Method Blank	JQ1203443-02	101	98	103



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.**Service Request:** J1202364**Project:** JED SWDF**Sample Matrix:** Water**SURROGATE RECOVERY SUMMARY**

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Sample Name	Lab Code	Toluene-d8
		88 - 115
MW-5B	J1202364-001	93
MW-4B	J1202364-002	98
MW-3B	J1202364-003	100
MW-23A	J1202364-004	115
MW-23B	J1202364-005	96
Trip Blank	J1202364-006	113
Lab Control Sample	JQ1203402-01	97
Method Blank	JQ1203402-02	94
Lab Control Sample	JQ1203443-01	110
Method Blank	JQ1203443-02	88

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Analyzed:** 05/30/12

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

**Units:** ug/L

**Basis:** NA

**Analysis Lot:** 293932

**Lab Control Sample**  
**JQ1203402-01**

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.1	20.0	95	77-118
1,1,1-Trichloroethane (TCA)	20.9	20.0	105	70-122
1,1,2,2-Tetrachloroethane	18.6	20.0	93	66-135
1,1,2-Trichloroethane	15.9	20.0	80	75-122
1,1-Dichloroethane (1,1-DCA)	20.9	20.0	104	79-117
1,1-Dichloroethene (1,1-DCE)	20.1	20.0	100	72-128
1,2,3-Trichloropropane	19.1	20.0	95	70-123
1,2-Dibromo-3-chloropropane (DBCP)	23.9	20.0	119	60-122
1,2-Dibromoethane (EDB)	19.0	20.0	95	76-118
1,2-Dichlorobenzene	20.6	20.0	103	81-115
1,2-Dichloroethane	19.9	20.0	99	70-117
1,2-Dichloropropane	17.0	20.0	85	79-117
1,4-Dichlorobenzene	20.5	20.0	102	82-115
2-Butanone (MEK)	102	100	102	62-138
2-Hexanone	94.7	100	95	74-127
4-Methyl-2-pentanone (MIBK)	85.9	100	86	77-120
Acetone	99.8	100	100	42-161
Acrylonitrile	100	100	100	63-132
Benzene	19.8	20.0	99	80-117
Bromochloromethane	20.0	20.0	100	78-118
Bromodichloromethane	17.1	20.0	85	75-118
Bromoform	18.3	20.0	92	63-121
Bromomethane	19.8	20.0	99	31-153
Carbon Disulfide	110	100	110	72-128
Carbon Tetrachloride	21.0	20.0	105	67-124
Chlorobenzene	19.1	20.0	95	83-118
Chloroethane	20.6	20.0	103	68-132
Chloroform	21.0	20.0	105	77-116
Chloromethane	18.9	20.0	95	60-128
cis-1,2-Dichloroethene	20.3	20.0	102	78-117
cis-1,3-Dichloropropene	18.5	20.0	93	80-119
Dibromochloromethane	19.7	20.0	99	74-121
Dibromomethane	17.3	20.0	86	76-117
Ethylbenzene	19.0	20.0	95	82-119
Iodomethane	95.4	100	95	51-137
m,p-Xylenes	39.0	40.0	98	79-122
Methylene Chloride	18.9	20.0	95	75-123
o-Xylene	19.0	20.0	95	80-119
Styrene	18.8	20.0	94	80-121
Tetrachloroethene (PCE)	19.6	20.0	98	75-126
Toluene	18.8	20.0	94	52-152

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Analyzed:** 05/30/12

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 293932

**Lab Control Sample**  
**JQ1203402-01**

<b>Analyte Name</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
trans-1,2-Dichloroethene	25.8	20.0	129 *	75-121
trans-1,3-Dichloropropene	18.1	20.0	91	76-118
trans-1,4-Dichloro-2-butene	19.1	20.0	95	10-198
Trichloroethene (TCE)	18.3	20.0	92	78-122
Trichlorofluoromethane	20.5	20.0	103	58-134
Vinyl Acetate	100	100	100	36-169
Vinyl Chloride	19.9	20.0	99	69-138



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Analyzed:** 05/31/12

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

**Units:** ug/L

**Basis:** NA

**Analysis Lot:** 294193

**Lab Control Sample**  
**JQ1203443-01**

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	18.9	20.0	95	77-118
1,1,1-Trichloroethane (TCA)	20.7	20.0	103	70-122
1,1,2,2-Tetrachloroethane	18.4	20.0	92	66-135
1,1,2-Trichloroethane	19.9	20.0	99	75-122
1,1-Dichloroethane (1,1-DCA)	20.7	20.0	104	79-117
1,1-Dichloroethene (1,1-DCE)	20.2	20.0	101	72-128
1,2,3-Trichloropropane	18.9	20.0	94	70-123
1,2-Dibromo-3-chloropropane (DBCP)	24.2	20.0	121	60-122
1,2-Dibromoethane (EDB)	17.8	20.0	89	76-118
1,2-Dichlorobenzene	17.2	20.0	86	81-115
1,2-Dichloroethane	19.8	20.0	99	70-117
1,2-Dichloropropane	17.4	20.0	87	79-117
1,4-Dichlorobenzene	18.4	20.0	92	82-115
2-Butanone (MEK)	110	100	110	62-138
2-Hexanone	99.8	100	100	74-127
4-Methyl-2-pentanone (MIBK)	102	100	102	77-120
Acetone	103	100	103	42-161
Acrylonitrile	98.9	100	99	63-132
Benzene	19.9	20.0	99	80-117
Bromochloromethane	20.3	20.0	102	78-118
Bromodichloromethane	20.1	20.0	101	75-118
Bromoform	18.0	20.0	90	63-121
Bromomethane	18.8	20.0	94	31-153
Carbon Disulfide	94.4	100	94	72-128
Carbon Tetrachloride	20.8	20.0	104	67-124
Chlorobenzene	18.1	20.0	91	83-118
Chloroethane	20.9	20.0	105	68-132
Chloroform	20.6	20.0	103	77-116
Chloromethane	18.8	20.0	94	60-128
cis-1,2-Dichloroethene	20.4	20.0	102	78-117
cis-1,3-Dichloropropene	20.6	20.0	103	80-119
Dibromochloromethane	18.1	20.0	90	74-121
Dibromomethane	20.3	20.0	102	76-117
Ethylbenzene	18.1	20.0	91	82-119
Iodomethane	92.9	100	93	51-137
m,p-Xylenes	36.3	40.0	91	79-122
Methylene Chloride	19.3	20.0	96	75-123
o-Xylene	16.8	20.0	84	80-119
Styrene	16.8	20.0	84	80-121
Tetrachloroethene (PCE)	18.5	20.0	92	75-126
Toluene	20.2	20.0	101	52-152

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Analyzed:** 05/31/12

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 294193

**Lab Control Sample**  
**JQ1203443-01**

<b>Analyte Name</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
trans-1,2-Dichloroethene	23.0	20.0	115	75-121
trans-1,3-Dichloropropene	20.5	20.0	103	76-118
trans-1,4-Dichloro-2-butene	18.4	20.0	92	10-198
Trichloroethene (TCE)	17.2	20.0	86	78-122
Trichlorofluoromethane	21.1	20.0	105	58-134
Vinyl Acetate	105	100	105	36-169
Vinyl Chloride	20.7	20.0	103	69-138

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.**Service Request:** J1202364**Project:** JED SWDF**Sample Matrix:** Water**SURROGATE RECOVERY SUMMARY****1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography****Analysis Method:** 8011**Extraction Method:** Method

1,1,1,2-Tetrachloroethane		
Sample Name	Lab Code	70 - 130
MW-5B	J1202364-001	97
MW-4B	J1202364-002	122
MW-3B	J1202364-003	109
MW-23A	J1202364-004	116
MW-23B	J1202364-005	126
Method Blank	JQ1203266-01	88
Lab Control Sample	JQ1203266-02	99



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Analyzed:** 05/25/12  
**Date Extracted:** 05/25/12

**Lab Control Sample Summary****1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 293716

**Lab Control Sample  
JQ1203266-02**

<b>Analyte Name</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
1,2-Dibromo-3-chloropropane (DBCP)	0.242	0.250	97	70-130
1,2-Dibromoethane (EDB)	0.265	0.250	106	70-130

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12  
**Date Received:** 05/18/12  
**Date Analyzed:** 5/22/12

**Duplicate Matrix Spike Summary**  
**Inorganic Parameters**

**Sample Name:** MW-5B  
**Lab Code:** J1202364-001

**Units:** ug/L  
**Basis:** NA

**Matrix Spike**  
J1202364-001MS

**Duplicate Matrix Spike**  
J1202364-001DMS

Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Antimony, Total Recoverable	6020	0.2	53.5	50.0	107	52.2	50.0	104	75-125	2	20
Arsenic, Total Recoverable	6020	0.5	51.5	50.0	103	49.7	50.0	99	75-125	4	20
Barium, Total Recoverable	6020	14.9	66.1	50.0	102	66.1	50.0	102	75-125	<1	20
Beryllium, Total Recoverable	6020	0.09	49.4	50.0	99	50.8	50.0	101	75-125	3	20
Cadmium, Total Recoverable	6020	0.10	51.2	50.0	102	50.9	50.0	102	75-125	<1	20
Chromium, Total Recoverable	6020	0.7	52.6	50.0	104	51.9	50.0	102	75-125	1	20
Cobalt, Total Recoverable	6020	0.2	53.1	50.0	106	52.1	50.0	104	75-125	2	20
Copper, Total Recoverable	6020	0.3	52.4	50.0	105	51.3	50.0	103	75-125	2	20
Lead, Total Recoverable	6020	0.12	50.8	50.0	102	51.0	50.0	102	75-125	<1	20
Nickel, Total Recoverable	6020	0.5	52.7	50.0	105	52.3	50.0	105	75-125	<1	20
Selenium, Total Recoverable	6020	1.1	37.8	50.0	76	38.3	50.0	77	75-125	1	20
Silver, Total Recoverable	6020	0.06	50.1	50.0	100	50.4	50.0	101	75-125	<1	20
Thallium, Total Recoverable	6020	0.14	50.7	50.0	101	51.0	50.0	102	75-125	<1	20
Vanadium, Total Recoverable	6020	1.0	53.8	50.0	106	51.5	50.0	101	75-125	4	20
Zinc, Total Recoverable	6020	1.6	104	100	104	101	100	101	75-125	3	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Analyzed:** 05/21/12 - 05/22/12

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** ug/L**Basis:** NA

**Lab Control Sample**  
J1202364-LCS

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Antimony, Total Recoverable	6020	53.3	50.0	107	80-120
Arsenic, Total Recoverable	6020	51.1	50.0	102	80-120
Barium, Total Recoverable	6020	52.2	50.0	104	80-120
Beryllium, Total Recoverable	6020	48.5	50.0	97	80-120
Cadmium, Total Recoverable	6020	50.8	50.0	102	80-120
Chromium, Total Recoverable	6020	51.8	50.0	104	80-120
Cobalt, Total Recoverable	6020	52.6	50.0	105	80-120
Copper, Total Recoverable	6020	52.0	50.0	104	80-120
Iron, Total Recoverable	6010B	5280	5000	106	80-120
Lead, Total Recoverable	6020	50.7	50.0	101	80-120
Mercury, Total	7470A	1.20	1.25	96	80-120
Nickel, Total Recoverable	6020	52.0	50.0	104	80-120
Selenium, Total Recoverable	6020	50.5	50.0	101	80-120
Silver, Total Recoverable	6020	50.3	50.0	101	80-120
Thallium, Total Recoverable	6020	50.9	50.0	102	80-120
Vanadium, Total Recoverable	6020	51.9	50.0	104	80-120
Zinc, Total Recoverable	6020	103	100	103	80-120



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Analyzed:** 5/21/12

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**  
J1202364-LCS

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Sodium, Total Recoverable	6010B	26.1	25.0	104	80-120

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Collected:** 05/17/12  
**Date Received:** 05/18/12  
**Date Analyzed:** 05/21/12

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-5B **Units:** mg/L  
**Lab Code:** J1202364-001 **Basis:** NA

					Duplicate Sample J1202364- 001DUP			
Analyte Name	Analysis Method	MRL	MDL	Sample Result	Result	Average	RPD	RPD Limit
Ammonia as Nitrogen	350.1	0.010	0.007	0.152	0.151	0.152	<1	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364**Date Collected:** 05/17/12**Date Received:** 05/18/12**Date Analyzed:** 05/21/12**Matrix Spike Summary**  
**Ammonia as Nitrogen**

**Sample Name:** MW-5B  
**Lab Code:** J1202364-001  
**Analysis Method:** 350.1

**Units:** mg/L**Basis:** NA**Matrix Spike**  
J1202364-001MS

<b>Analyte Name</b>	<b>Sample Result</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Ammonia as Nitrogen	0.152	1.12	1.00	97	90-110

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Analyzed:** 05/18/12 - 05/22/12

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:** mg/L**Basis:** NA**Lab Control Sample**

J1202364-LCS1

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Ammonia as Nitrogen	350.1	0.990	1.00	99	90-110
Chloride	300.0	52.8	50.0	106	90-110
Nitrate as Nitrogen	300.0	5.19	5.00	104	90-110
Solids, Total Dissolved	SM 2540 C	303	300	101	85-115

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202364  
**Date Analyzed:** 05/23/12

**Lab Control Sample Summary**  
**Solids, Total Dissolved**

**Analysis Method:** SM 2540 C

**Units:** mg/L

**Basis:** NA

**Analysis Lot:** 292824

<b>Sample Name</b>	<b>Lab Code</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Lab Control Sample	J1202364-LCS2	289	300	96	85-115

Cooler Receipt Form

Client: WSI  
Project: JED SWDF

Service Request #: 31202364

Cooler received on 5/18/12

and opened on 5/18/12 by \_\_\_\_\_

COURIER: ALS ☒ UPS ☐ FEDEX ☐ Client ☐ Other \_\_\_\_\_ Airbill # 1ZX5W0982210006712

- 1 Were custody seals on outside of cooler? ☒ Yes ☐ No  
If yes, how many and where? # 1 on lid other \_\_\_\_\_
- 2 Were seals intact and signature and date correct? ☒ Yes ☐ No ☐ N/A
- 3 Were custody papers properly filled out? ☒ Yes ☐ No ☐ N/A
- 4 Temperature of cooler(s) upon receipt (Should be > 0°C and < 6°C) 4.6°C
- 5 Thermometer ID 71
- 6 Temperature Blank Present? ☒ Yes ☐ No
- 7 Were Ice or Ice Packs present ☒ Ice ☐ Ice Packs ☐ No
- 8 Did all bottles arrive in good condition (unbroken, etc....)? ☒ Yes ☐ No ☐ N/A
- 9 Type of packing material present  
☐ Netting ☐ Vial Holder ☒ Bubble Wrap  
☐ Paper ☐ Styrofoam ☐ Other ☐ N/A
- 10 Were all bottle labels complete (sample ID, preservation, etc....)? ☒ Yes ☐ No ☐ N/A
- 11 Did all bottle labels and tags agree with custody papers? ☒ Yes ☐ No ☐ N/A
- 12 Were the correct bottles used for the tests indicated? ☒ Yes ☐ No ☐ N/A
- 13 Were all of the preserved bottles received with the appropriate preservative?  
☒ HNO3 pH<2 ☒ H2SO4 pH<2 ☐ ZnAc2/NaOH pH>9 ☐ NaOH pH>12 ☐ HCl pH<2  
Preservative additions noted below
- 14 Were all samples received within analysis holding times? ☒ Yes ☐ No ☐ N/A
- 15 Were all VOA vials free of air bubbles? If present, note below ☒ Yes ☐ No ☐ N/A KK 5/18/12
- 16 Where did the bottles originate? ☒ ALS ☐ Client

Sample ID	Reagent	Lot #	ml added	Initials Date/Time

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted:

Date:







June 01, 2012

Service Request No: J1202333

Kirk Wills  
Waste Services of Florida, Inc.  
11500 43rd Street North  
Clearwater, FL 33762

**Laboratory Results for: JED SWDF**

Dear Kirk,

Enclosed are the results of the sample(s) submitted to our laboratory May 17, 2012  
For your reference, these analyses have been assigned our service request number **J1202333**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. If required, the laboratory can provide uncertainty measurements for each method employed in sample analysis; this uncertainty measurement would be generated using method validation studies and the laboratory's quality control data.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at [CMyers@caslab.com](mailto:CMyers@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc. dba ALS Environmental**

Craig Myers  
Project Manager



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Columbia Analytical Services, Inc.

Part of the ALS Group A Campbell Brothers Limited Company

Environmental

[www.caslab.com](http://www.caslab.com) ■ [www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Received:** 5/17/12

### CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

#### Sample Receipt

Eleven water samples and two trip blanks were received for analysis at Columbia Analytical Services on 5/17/12. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at  $\leq 6^{\circ}\text{C}$  upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

#### Volatile Organic Analyses:

Method 8260B: The upper control criterion was exceeded for the following analyte in Laboratory Control Samples (LCS) JQ1203314-03 and JQ1203342-01: Bromoform. The analyte in question was not detected in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

#### Semi-Volatile Organic Analyses:

Method 8011: The upper control criterion was exceeded for the following analyte in the Continuing Calibration Verification (CCV): 1,2-Dibromo-3-chloropropane. The field samples analyzed in this sequence did not contain the analyte in question above the Method Reporting Limit (MRL). Since the apparent problem equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8011: The upper control criterion was exceeded for the following surrogate in Method Blank JQ1203265-01: 1,1,1,2-Tetrachloroethane. No target analytes were detected in the Method Blank. Since the apparent problem equates to a high bias, the data quality is not significantly affected. No further corrective action was appropriate.

#### Metals Analyses:

Method 6020: The matrix spike recoveries of Selenium for sample MW-9A were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. No further corrective action was appropriate.

#### General Chemistry Analyses:

No significant data anomalies were noted with this analysis.

Approved by  Date 6/1/2012

**State Certifications, Accreditations, and Licenses**

<b>Agency</b>	<b>Number</b>	<b>Expire Date</b>
Florida Department of Health	E82502	6/30/2012
North Carolina Department of Environment and Natural Resources	527	12/31/2012
Virginia Environmental Accreditation Program	460191	12/14/2012
Louisiana Department of Environmental Quality	02086	6/30/2012
Kentucky Division of Waste Management	63	7/5/2013
South Carolina Department of Health and Environmental Control	96021001	6/30/2012
Maine Department of Health and Human Services	2011006	2/3/2013
Pennsylvania Department of Environmental Protection	68-04835	7/31/2012
New Jersey Department of Environmental Protection	FL019	6/30/2012

## **Data Qualifiers**

### **Florida-DEP**

- ! Data deviates from historically established concentration ranges
- \* Not reported due to interference
- ? Data is rejected and should not be used
- A Value reported is the arithmetic mean of two or more determinations
- B Results based upon colony counts outside the acceptable range.
- D Measurement was made in the field.
- E Extra samples were taken at composite stations
- H Value based on field kit determination; results may not be accurate.
- I The reported value is between the laboratory method detection limit and the laboratory PQL.
- J Estimated value.
- K Off scale low. The value is less than the lowest calibration standard.
- L Off scale high. The analyte is above the acceptable level of quantitation.
- M The MDL/MRL has been elevated because the analyte could not be accurately quantified.
- N Presumptive evidence of presence of material.
- O Sampled, but analysis lost or not performed
- Q Sample held beyond the acceptable holding time.
- R Significant rain in the past 48 hours (typically in excess of 0.5 inches)
- T Estimated value, less than the MDL
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- X Insufficient individuals were present in the sample to achieve a minimum of 280 organisms for identification (Stream Condition Index Analysis only)
- Y The laboratory analysis was from an unpreserved or improperly preserved sample.
- Z Too many colonies were present, the numeric value represents the filtration volume



## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF

**Service Request:** J1202333

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1202333-001	MW-9A	5/16/2012	0905
J1202333-002	MW-9B	5/16/2012	0835
J1202333-003	MW-8A	5/16/2012	1005
J1202333-004	MW-8B	5/16/2012	1035
J1202333-005	MW-6B	5/16/2012	1310
J1202333-006	Equipment Blank-2	5/16/2012	0930
J1202333-007	Trip Blank-1	5/16/2012	0000
J1202333-008	MW-1A	5/16/2012	1445
J1202333-009	MW-1B	5/16/2012	1415
J1202333-010	MW-7A	5/16/2012	1205
J1202333-011	MW-7B	5/16/2012	1140
J1202333-012	MW-2B	5/16/2012	1555
J1202333-013	Trip Blank-2	5/16/2012	0000

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 09:05  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-9A  
**Lab Code:** J1202333-001

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/27/12 02:23	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/27/12 02:23	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/27/12 02:23	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/27/12 02:23	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/27/12 02:23	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/27/12 02:23	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/27/12 02:23	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/27/12 02:23	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/27/12 02:23	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/27/12 02:23	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/27/12 02:23	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/27/12 02:23	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/27/12 02:23	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/27/12 02:23	
2-Hexanone	2.20 U	25.0	2.20	1	05/27/12 02:23	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/27/12 02:23	
Acetone	5.60 U	50.0	5.60	1	05/27/12 02:23	
Acrylonitrile	1.50 U	10.0	1.50	1	05/27/12 02:23	
Benzene	<b>5.24</b>	1.00	0.210	1	05/27/12 02:23	
Bromochloromethane	0.270 U	5.00	0.270	1	05/27/12 02:23	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/27/12 02:23	
Bromoform	0.420 U	2.00	0.420	1	05/27/12 02:23	*
Bromomethane	0.230 U	5.00	0.230	1	05/27/12 02:23	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/27/12 02:23	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/27/12 02:23	
Chlorobenzene	0.160 U	1.00	0.160	1	05/27/12 02:23	
Chloroethane	0.520 U	5.00	0.520	1	05/27/12 02:23	
Chloroform	0.350 U	1.00	0.350	1	05/27/12 02:23	
Chloromethane	0.360 U	1.00	0.360	1	05/27/12 02:23	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/27/12 02:23	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/27/12 02:23	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/27/12 02:23	
Dibromomethane	0.360 U	5.00	0.360	1	05/27/12 02:23	
Ethylbenzene	0.210 U	1.00	0.210	1	05/27/12 02:23	
Iodomethane	2.70 U	5.00	2.70	1	05/27/12 02:23	
m,p-Xylenes	<b>0.370 I</b>	2.00	0.310	1	05/27/12 02:23	
Methylene Chloride	0.210 U	5.00	0.210	1	05/27/12 02:23	
o-Xylene	<b>0.340 I</b>	1.00	0.140	1	05/27/12 02:23	
Styrene	0.290 U	1.00	0.290	1	05/27/12 02:23	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/27/12 02:23	
Toluene	0.190 U	1.00	0.190	1	05/27/12 02:23	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/27/12 02:23	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 09:05  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-9A  
**Lab Code:** J1202333-001

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/27/12 02:23	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/27/12 02:23	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/27/12 02:23	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/27/12 02:23	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/27/12 02:23	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/27/12 02:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	96	72 - 121	05/27/12 02:23	
4-Bromofluorobenzene	106	86 - 113	05/27/12 02:23	
Dibromofluoromethane	90	86 - 112	05/27/12 02:23	
Toluene-d8	112	88 - 115	05/27/12 02:23	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 09:05  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-9A  
**Lab Code:** J1202333-001

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00709 U	0.0202	0.00709	1	05/26/12 06:24	5/25/12	
1,2-Dibromoethane (EDB)	0.00709 U	0.0202	0.00709	1	05/26/12 06:24	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	92	70 - 130	05/26/12 06:24	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-9A  
**Lab Code:** J1202333-001

**Service Request:** J1202333  
**Date Collected:** 05/16/12 09:05  
**Date Received:** 05/17/12 09:20  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Arsenic, Total Recoverable	6020	1.7	ug/L	1.0	0.5	1	05/21/12	5/17/12	
Barium, Total Recoverable	6020	15.2	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/21/12	5/17/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/21/12	5/17/12	
Chromium, Total Recoverable	6020	2.0	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Cobalt, Total Recoverable	6020	1.1	ug/L	1.0	0.03	1	05/21/12	5/17/12	
Copper, Total Recoverable	6020	0.4 I	ug/L	1.0	0.3	1	05/21/12	5/17/12	
Iron, Total Recoverable	6010B	5480	ug/L	100	3	1	05/18/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/21/12	5/17/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	1.8 I	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/21/12	5/17/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/21/12	5/17/12	
Sodium, Total Recoverable	6010B	29.3	mg/L	0.50	0.03	1	05/18/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/21/12	5/17/12	
Vanadium, Total Recoverable	6020	1.7 I	ug/L	2.0	0.3	1	05/21/12	5/17/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/21/12	5/17/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-9A  
**Lab Code:** J1202333-001

**Service Request:** J1202333  
**Date Collected:** 05/16/12 09:05  
**Date Received:** 05/17/12 09:20  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>20.9</b>	mg/L	0.050	0.035	5	05/21/12 12:01	
Chloride	300.0	<b>24.8</b>	mg/L	0.50	0.11	1	05/17/12 15:33	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/17/12 15:33	
Solids, Total Dissolved	SM 2540 C	<b>279</b>	mg/L	10	10	1	05/18/12 14:05	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 08:35  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-9B  
**Lab Code:** J1202333-002

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/27/12 02:53	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/27/12 02:53	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/27/12 02:53	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/27/12 02:53	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/27/12 02:53	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/27/12 02:53	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/27/12 02:53	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/27/12 02:53	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/27/12 02:53	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/27/12 02:53	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/27/12 02:53	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/27/12 02:53	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/27/12 02:53	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/27/12 02:53	
2-Hexanone	2.20 U	25.0	2.20	1	05/27/12 02:53	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/27/12 02:53	
Acetone	5.60 U	50.0	5.60	1	05/27/12 02:53	
Acrylonitrile	1.50 U	10.0	1.50	1	05/27/12 02:53	
Benzene	0.210 U	1.00	0.210	1	05/27/12 02:53	
Bromochloromethane	0.270 U	5.00	0.270	1	05/27/12 02:53	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/27/12 02:53	
Bromoform	0.420 U	2.00	0.420	1	05/27/12 02:53	*
Bromomethane	0.230 U	5.00	0.230	1	05/27/12 02:53	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/27/12 02:53	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/27/12 02:53	
Chlorobenzene	0.160 U	1.00	0.160	1	05/27/12 02:53	
Chloroethane	0.520 U	5.00	0.520	1	05/27/12 02:53	
Chloroform	0.350 U	1.00	0.350	1	05/27/12 02:53	
Chloromethane	0.360 U	1.00	0.360	1	05/27/12 02:53	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/27/12 02:53	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/27/12 02:53	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/27/12 02:53	
Dibromomethane	0.360 U	5.00	0.360	1	05/27/12 02:53	
Ethylbenzene	0.210 U	1.00	0.210	1	05/27/12 02:53	
Iodomethane	2.70 U	5.00	2.70	1	05/27/12 02:53	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/27/12 02:53	
Methylene Chloride	0.210 U	5.00	0.210	1	05/27/12 02:53	
o-Xylene	0.140 U	1.00	0.140	1	05/27/12 02:53	
Styrene	0.290 U	1.00	0.290	1	05/27/12 02:53	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/27/12 02:53	
Toluene	0.190 U	1.00	0.190	1	05/27/12 02:53	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/27/12 02:53	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 08:35  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-9B  
**Lab Code:** J1202333-002

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/27/12 02:53	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/27/12 02:53	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/27/12 02:53	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/27/12 02:53	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/27/12 02:53	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/27/12 02:53	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	91	72 - 121	05/27/12 02:53	
4-Bromofluorobenzene	103	86 - 113	05/27/12 02:53	
Dibromofluoromethane	90	86 - 112	05/27/12 02:53	
Toluene-d8	110	88 - 115	05/27/12 02:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 08:35  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-9B  
**Lab Code:** J1202333-002

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0197	0.00700	1	05/26/12 06:44	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0197	0.00700	1	05/26/12 06:44	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	102	70 - 130	05/26/12 06:44	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-9B  
**Lab Code:** J1202333-002

**Service Request:** J1202333  
**Date Collected:** 05/16/12 08:35  
**Date Received:** 05/17/12 09:20  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	<b>0.3 I</b>	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Arsenic, Total Recoverable	6020	<b>0.8 I</b>	ug/L	1.0	0.5	1	05/21/12	5/17/12	
Barium, Total Recoverable	6020	<b>71.2</b>	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Beryllium, Total Recoverable	6020	<b>0.11 I</b>	ug/L	0.50	0.04	1	05/21/12	5/17/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/21/12	5/17/12	
Chromium, Total Recoverable	6020	<b>1.6</b>	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Cobalt, Total Recoverable	6020	<b>0.6 I</b>	ug/L	1.0	0.03	1	05/21/12	5/17/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/21/12	5/17/12	
Iron, Total Recoverable	6010B	<b>2600</b>	ug/L	100	3	1	05/18/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/21/12	5/17/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/21/12	5/17/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/21/12	5/17/12	
Sodium, Total Recoverable	6010B	<b>21.2</b>	mg/L	0.50	0.03	1	05/18/12	5/17/12	
Thallium, Total Recoverable	6020	<b>0.05 I</b>	ug/L	0.20	0.05	1	05/21/12	5/17/12	
Vanadium, Total Recoverable	6020	<b>1.7 I</b>	ug/L	2.0	0.3	1	05/21/12	5/17/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/21/12	5/17/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-9B  
**Lab Code:** J1202333-002

**Service Request:** J1202333  
**Date Collected:** 05/16/12 08:35  
**Date Received:** 05/17/12 09:20  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.218</b>	mg/L	0.010	0.007	1	05/21/12 12:01	
Chloride	300.0	<b>31.9</b>	mg/L	0.50	0.11	1	05/17/12 16:18	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/17/12 16:18	
Solids, Total Dissolved	SM 2540 C	<b>128</b>	mg/L	10	10	1	05/18/12 14:05	



## COLUMBIA ANALYTICAL SERVICES, INC.

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## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 10:05  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-8A  
**Lab Code:** J1202333-003

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/27/12 03:23	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/27/12 03:23	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/27/12 03:23	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/27/12 03:23	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/27/12 03:23	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/27/12 03:23	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/27/12 03:23	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/27/12 03:23	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/27/12 03:23	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/27/12 03:23	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/27/12 03:23	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/27/12 03:23	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/27/12 03:23	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/27/12 03:23	
2-Hexanone	2.20 U	25.0	2.20	1	05/27/12 03:23	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/27/12 03:23	
Acetone	5.60 U	50.0	5.60	1	05/27/12 03:23	
Acrylonitrile	1.50 U	10.0	1.50	1	05/27/12 03:23	
Benzene	<b>1.62</b>	1.00	0.210	1	05/27/12 03:23	
Bromochloromethane	0.270 U	5.00	0.270	1	05/27/12 03:23	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/27/12 03:23	
Bromoform	0.420 U	2.00	0.420	1	05/27/12 03:23	*
Bromomethane	0.230 U	5.00	0.230	1	05/27/12 03:23	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/27/12 03:23	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/27/12 03:23	
Chlorobenzene	0.160 U	1.00	0.160	1	05/27/12 03:23	
Chloroethane	0.520 U	5.00	0.520	1	05/27/12 03:23	
Chloroform	0.350 U	1.00	0.350	1	05/27/12 03:23	
Chloromethane	0.360 U	1.00	0.360	1	05/27/12 03:23	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/27/12 03:23	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/27/12 03:23	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/27/12 03:23	
Dibromomethane	0.360 U	5.00	0.360	1	05/27/12 03:23	
Ethylbenzene	0.210 U	1.00	0.210	1	05/27/12 03:23	
Iodomethane	2.70 U	5.00	2.70	1	05/27/12 03:23	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/27/12 03:23	
Methylene Chloride	0.210 U	5.00	0.210	1	05/27/12 03:23	
o-Xylene	<b>0.400 I</b>	1.00	0.140	1	05/27/12 03:23	
Styrene	0.290 U	1.00	0.290	1	05/27/12 03:23	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/27/12 03:23	
Toluene	0.190 U	1.00	0.190	1	05/27/12 03:23	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/27/12 03:23	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 10:05  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-8A  
**Lab Code:** J1202333-003

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/27/12 03:23	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/27/12 03:23	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/27/12 03:23	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/27/12 03:23	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/27/12 03:23	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/27/12 03:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	96	72 - 121	05/27/12 03:23	
4-Bromofluorobenzene	105	86 - 113	05/27/12 03:23	
Dibromofluoromethane	90	86 - 112	05/27/12 03:23	
Toluene-d8	106	88 - 115	05/27/12 03:23	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 10:05  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-8A  
**Lab Code:** J1202333-003

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0199	0.00700	1	05/26/12 07:03	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0199	0.00700	1	05/26/12 07:03	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	79	70 - 130	05/26/12 07:03	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 10:05  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-8A  
**Lab Code:** J1202333-003

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Arsenic, Total Recoverable	6020	<b>1.1</b>	ug/L	1.0	0.5	1	05/21/12	5/17/12	
Barium, Total Recoverable	6020	<b>31.5</b>	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Beryllium, Total Recoverable	6020	<b>0.05 I</b>	ug/L	0.50	0.04	1	05/21/12	5/17/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/21/12	5/17/12	
Chromium, Total Recoverable	6020	<b>3.0</b>	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Cobalt, Total Recoverable	6020	<b>1.6</b>	ug/L	1.0	0.03	1	05/21/12	5/17/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/21/12	5/17/12	
Iron, Total Recoverable	6010B	<b>5820</b>	ug/L	100	3	1	05/18/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/21/12	5/17/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	<b>2.6</b>	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/21/12	5/17/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/21/12	5/17/12	
Sodium, Total Recoverable	6010B	<b>25.6</b>	mg/L	0.50	0.03	1	05/18/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/21/12	5/17/12	
Vanadium, Total Recoverable	6020	<b>5.2</b>	ug/L	2.0	0.3	1	05/21/12	5/17/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/21/12	5/17/12	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-8A  
**Lab Code:** J1202333-003

**Service Request:** J1202333  
**Date Collected:** 05/16/12 10:05  
**Date Received:** 05/17/12 09:20  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>7.51</b>	mg/L	0.010	0.007	1	05/21/12 12:02	
Chloride	300.0	<b>62.4</b>	mg/L	0.50	0.11	1	05/17/12 16:33	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/17/12 16:33	
Solids, Total Dissolved	SM 2540 C	<b>166</b>	mg/L	10	10	1	05/18/12 14:05	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 10:35  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-8B  
**Lab Code:** J1202333-004

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/27/12 03:53	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/27/12 03:53	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/27/12 03:53	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/27/12 03:53	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/27/12 03:53	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/27/12 03:53	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/27/12 03:53	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/27/12 03:53	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/27/12 03:53	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/27/12 03:53	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/27/12 03:53	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/27/12 03:53	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/27/12 03:53	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/27/12 03:53	
2-Hexanone	2.20 U	25.0	2.20	1	05/27/12 03:53	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/27/12 03:53	
Acetone	5.60 U	50.0	5.60	1	05/27/12 03:53	
Acrylonitrile	1.50 U	10.0	1.50	1	05/27/12 03:53	
Benzene	0.210 U	1.00	0.210	1	05/27/12 03:53	
Bromochloromethane	0.270 U	5.00	0.270	1	05/27/12 03:53	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/27/12 03:53	
Bromoform	0.420 U	2.00	0.420	1	05/27/12 03:53	*
Bromomethane	0.230 U	5.00	0.230	1	05/27/12 03:53	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/27/12 03:53	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/27/12 03:53	
Chlorobenzene	0.160 U	1.00	0.160	1	05/27/12 03:53	
Chloroethane	0.520 U	5.00	0.520	1	05/27/12 03:53	
Chloroform	0.350 U	1.00	0.350	1	05/27/12 03:53	
Chloromethane	0.360 U	1.00	0.360	1	05/27/12 03:53	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/27/12 03:53	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/27/12 03:53	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/27/12 03:53	
Dibromomethane	0.360 U	5.00	0.360	1	05/27/12 03:53	
Ethylbenzene	0.210 U	1.00	0.210	1	05/27/12 03:53	
Iodomethane	2.70 U	5.00	2.70	1	05/27/12 03:53	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/27/12 03:53	
Methylene Chloride	0.210 U	5.00	0.210	1	05/27/12 03:53	
o-Xylene	0.140 U	1.00	0.140	1	05/27/12 03:53	
Styrene	0.290 U	1.00	0.290	1	05/27/12 03:53	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/27/12 03:53	
Toluene	0.190 U	1.00	0.190	1	05/27/12 03:53	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/27/12 03:53	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 10:35  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-8B  
**Lab Code:** J1202333-004

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/27/12 03:53	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/27/12 03:53	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/27/12 03:53	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/27/12 03:53	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/27/12 03:53	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/27/12 03:53	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	94	72 - 121	05/27/12 03:53	
4-Bromofluorobenzene	103	86 - 113	05/27/12 03:53	
Dibromofluoromethane	91	86 - 112	05/27/12 03:53	
Toluene-d8	112	88 - 115	05/27/12 03:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 10:35  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-8B  
**Lab Code:** J1202333-004

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0198	0.00700	1	05/26/12 07:23	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0198	0.00700	1	05/26/12 07:23	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	76	70 - 130	05/26/12 07:23	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 10:35  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-8B  
**Lab Code:** J1202333-004

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/21/12	5/17/12	
Barium, Total Recoverable	6020	<b>31.2</b>	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/21/12	5/17/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/21/12	5/17/12	
Chromium, Total Recoverable	6020	<b>1.3</b>	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Cobalt, Total Recoverable	6020	<b>0.2 I</b>	ug/L	1.0	0.03	1	05/21/12	5/17/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/21/12	5/17/12	
Iron, Total Recoverable	6010B	<b>1240</b>	ug/L	100	3	1	05/18/12	5/17/12	
Lead, Total Recoverable	6020	<b>0.51</b>	ug/L	0.50	0.12	1	05/21/12	5/17/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/21/12	5/17/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/21/12	5/17/12	
Sodium, Total Recoverable	6010B	<b>7.97</b>	mg/L	0.50	0.03	1	05/18/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/21/12	5/17/12	
Vanadium, Total Recoverable	6020	<b>2.5</b>	ug/L	2.0	0.3	1	05/21/12	5/17/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/21/12	5/17/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-8B  
**Lab Code:** J1202333-004

**Service Request:** J1202333  
**Date Collected:** 05/16/12 10:35  
**Date Received:** 05/17/12 09:20  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.121</b>	mg/L	0.010	0.007	1	05/21/12 12:03	
Chloride	300.0	<b>17.0</b>	mg/L	0.50	0.11	1	05/17/12 16:48	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/17/12 16:48	
Solids, Total Dissolved	SM 2540 C	<b>67</b>	mg/L	10	10	1	05/18/12 14:05	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 13:10  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-6B  
**Lab Code:** J1202333-005

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/27/12 04:23	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/27/12 04:23	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/27/12 04:23	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/27/12 04:23	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/27/12 04:23	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/27/12 04:23	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/27/12 04:23	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/27/12 04:23	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/27/12 04:23	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/27/12 04:23	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/27/12 04:23	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/27/12 04:23	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/27/12 04:23	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/27/12 04:23	
2-Hexanone	2.20 U	25.0	2.20	1	05/27/12 04:23	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/27/12 04:23	
Acetone	5.60 U	50.0	5.60	1	05/27/12 04:23	
Acrylonitrile	1.50 U	10.0	1.50	1	05/27/12 04:23	
Benzene	0.210 U	1.00	0.210	1	05/27/12 04:23	
Bromochloromethane	0.270 U	5.00	0.270	1	05/27/12 04:23	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/27/12 04:23	
Bromoform	0.420 U	2.00	0.420	1	05/27/12 04:23	*
Bromomethane	0.230 U	5.00	0.230	1	05/27/12 04:23	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/27/12 04:23	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/27/12 04:23	
Chlorobenzene	0.160 U	1.00	0.160	1	05/27/12 04:23	
Chloroethane	0.520 U	5.00	0.520	1	05/27/12 04:23	
Chloroform	0.350 U	1.00	0.350	1	05/27/12 04:23	
Chloromethane	0.360 U	1.00	0.360	1	05/27/12 04:23	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/27/12 04:23	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/27/12 04:23	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/27/12 04:23	
Dibromomethane	0.360 U	5.00	0.360	1	05/27/12 04:23	
Ethylbenzene	0.210 U	1.00	0.210	1	05/27/12 04:23	
Iodomethane	2.70 U	5.00	2.70	1	05/27/12 04:23	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/27/12 04:23	
Methylene Chloride	0.210 U	5.00	0.210	1	05/27/12 04:23	
o-Xylene	0.140 U	1.00	0.140	1	05/27/12 04:23	
Styrene	0.290 U	1.00	0.290	1	05/27/12 04:23	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/27/12 04:23	
Toluene	0.190 U	1.00	0.190	1	05/27/12 04:23	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/27/12 04:23	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 13:10  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-6B  
**Lab Code:** J1202333-005

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/27/12 04:23	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/27/12 04:23	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/27/12 04:23	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/27/12 04:23	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/27/12 04:23	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/27/12 04:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	93	72 - 121	05/27/12 04:23	
4-Bromofluorobenzene	103	86 - 113	05/27/12 04:23	
Dibromofluoromethane	92	86 - 112	05/27/12 04:23	
Toluene-d8	107	88 - 115	05/27/12 04:23	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 13:10  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-6B  
**Lab Code:** J1202333-005

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0200	0.00700	1	05/25/12 19:25	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0200	0.00700	1	05/25/12 19:25	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	75	70 - 130	05/25/12 19:25	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-6B  
**Lab Code:** J1202333-005

**Service Request:** J1202333  
**Date Collected:** 05/16/12 13:10  
**Date Received:** 05/17/12 09:20

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/21/12	5/17/12	
Barium, Total Recoverable	6020	<b>20.4</b>	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Beryllium, Total Recoverable	6020	<b>0.06 I</b>	ug/L	0.50	0.04	1	05/21/12	5/17/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/21/12	5/17/12	
Chromium, Total Recoverable	6020	<b>0.9 I</b>	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Cobalt, Total Recoverable	6020	<b>0.2 I</b>	ug/L	1.0	0.03	1	05/21/12	5/17/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/21/12	5/17/12	
Iron, Total Recoverable	6010B	<b>900</b>	ug/L	100	3	1	05/18/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/21/12	5/17/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/21/12	5/17/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/21/12	5/17/12	
Sodium, Total Recoverable	6010B	<b>8.00</b>	mg/L	0.50	0.03	1	05/18/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/21/12	5/17/12	
Vanadium, Total Recoverable	6020	<b>1.3 I</b>	ug/L	2.0	0.3	1	05/21/12	5/17/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/21/12	5/17/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-6B  
**Lab Code:** J1202333-005

**Service Request:** J1202333  
**Date Collected:** 05/16/12 13:10  
**Date Received:** 05/17/12 09:20  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.008 I</b>	mg/L	0.010	0.007	1	05/21/12 12:04	
Chloride	300.0	<b>14.6</b>	mg/L	0.50	0.11	1	05/17/12 17:03	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/17/12 17:03	
Solids, Total Dissolved	SM 2540 C	<b>56</b>	mg/L	10	10	1	05/18/12 14:05	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 09:30  
**Date Received:** 05/17/12 09:20

**Sample Name:** Equipment Blank-2  
**Lab Code:** J1202333-006

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/27/12 01:53	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/27/12 01:53	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/27/12 01:53	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/27/12 01:53	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/27/12 01:53	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/27/12 01:53	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/27/12 01:53	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/27/12 01:53	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/27/12 01:53	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/27/12 01:53	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/27/12 01:53	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/27/12 01:53	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/27/12 01:53	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/27/12 01:53	
2-Hexanone	2.20 U	25.0	2.20	1	05/27/12 01:53	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/27/12 01:53	
Acetone	5.60 U	50.0	5.60	1	05/27/12 01:53	
Acrylonitrile	1.50 U	10.0	1.50	1	05/27/12 01:53	
Benzene	0.210 U	1.00	0.210	1	05/27/12 01:53	
Bromochloromethane	0.270 U	5.00	0.270	1	05/27/12 01:53	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/27/12 01:53	
Bromoform	0.420 U	2.00	0.420	1	05/27/12 01:53	*
Bromomethane	0.230 U	5.00	0.230	1	05/27/12 01:53	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/27/12 01:53	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/27/12 01:53	
Chlorobenzene	0.160 U	1.00	0.160	1	05/27/12 01:53	
Chloroethane	0.520 U	5.00	0.520	1	05/27/12 01:53	
Chloroform	0.350 U	1.00	0.350	1	05/27/12 01:53	
Chloromethane	0.360 U	1.00	0.360	1	05/27/12 01:53	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/27/12 01:53	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/27/12 01:53	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/27/12 01:53	
Dibromomethane	0.360 U	5.00	0.360	1	05/27/12 01:53	
Ethylbenzene	0.210 U	1.00	0.210	1	05/27/12 01:53	
Iodomethane	2.70 U	5.00	2.70	1	05/27/12 01:53	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/27/12 01:53	
Methylene Chloride	20.3	5.00	0.210	1	05/27/12 01:53	
o-Xylene	0.140 U	1.00	0.140	1	05/27/12 01:53	
Styrene	0.290 U	1.00	0.290	1	05/27/12 01:53	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/27/12 01:53	
Toluene	0.190 U	1.00	0.190	1	05/27/12 01:53	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/27/12 01:53	



**COLUMBIA ANALYTICAL SERVICES, INC.**

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## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 09:30  
**Date Received:** 05/17/12 09:20

**Sample Name:** Equipment Blank-2  
**Lab Code:** J1202333-006

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/27/12 01:53	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/27/12 01:53	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/27/12 01:53	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/27/12 01:53	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/27/12 01:53	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/27/12 01:53	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	87	72 - 121	05/27/12 01:53	
4-Bromofluorobenzene	106	86 - 113	05/27/12 01:53	
Dibromofluoromethane	88	86 - 112	05/27/12 01:53	
Toluene-d8	113	88 - 115	05/27/12 01:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 09:30  
**Date Received:** 05/17/12 09:20

**Sample Name:** Equipment Blank-2  
**Lab Code:** J1202333-006

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00707 U	0.0202	0.00707	1	05/25/12 19:44	5/25/12	
1,2-Dibromoethane (EDB)	0.00707 U	0.0202	0.00707	1	05/25/12 19:44	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	105	70 - 130	05/25/12 19:44	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 09:30  
**Date Received:** 05/17/12 09:20

**Sample Name:** Equipment Blank-2  
**Lab Code:** J1202333-006

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/21/12	5/17/12	
Barium, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/21/12	5/17/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/21/12	5/17/12	
Chromium, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Cobalt, Total Recoverable	6020	0.03 U	ug/L	1.0	0.03	1	05/21/12	5/17/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/21/12	5/17/12	
Iron, Total Recoverable	6010B	<b>4 I</b>	ug/L	100	3	1	05/18/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/21/12	5/17/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/21/12	5/17/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/21/12	5/17/12	
Sodium, Total Recoverable	6010B	<b>0.42 I</b>	mg/L	0.50	0.03	1	05/18/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/21/12	5/17/12	
Vanadium, Total Recoverable	6020	0.3 U	ug/L	2.0	0.3	1	05/21/12	5/17/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/21/12	5/17/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 09:30  
**Date Received:** 05/17/12 09:20

**Sample Name:** Equipment Blank-2  
**Lab Code:** J1202333-006

**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	0.007 U	mg/L	0.010	0.007	1	05/21/12 12:05	
Chloride	300.0	0.11 U	mg/L	0.50	0.11	1	05/17/12 17:18	
Nitrate as Nitrogen	300.0	<b>0.17 I</b>	mg/L	0.20	0.03	1	05/17/12 17:18	
Solids, Total Dissolved	SM 2540 C	10 U	mg/L	10	10	1	05/18/12 14:05	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 00:00  
**Date Received:** 05/17/12 09:20

**Sample Name:** Trip Blank-1  
**Lab Code:** J1202333-007

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/27/12 01:24	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/27/12 01:24	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/27/12 01:24	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/27/12 01:24	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/27/12 01:24	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/27/12 01:24	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/27/12 01:24	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/27/12 01:24	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/27/12 01:24	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/27/12 01:24	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/27/12 01:24	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/27/12 01:24	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/27/12 01:24	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/27/12 01:24	
2-Hexanone	2.20 U	25.0	2.20	1	05/27/12 01:24	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/27/12 01:24	
Acetone	5.60 U	50.0	5.60	1	05/27/12 01:24	
Acrylonitrile	1.50 U	10.0	1.50	1	05/27/12 01:24	
Benzene	0.210 U	1.00	0.210	1	05/27/12 01:24	
Bromochloromethane	0.270 U	5.00	0.270	1	05/27/12 01:24	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/27/12 01:24	
Bromoform	0.420 U	2.00	0.420	1	05/27/12 01:24	*
Bromomethane	0.230 U	5.00	0.230	1	05/27/12 01:24	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/27/12 01:24	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/27/12 01:24	
Chlorobenzene	0.160 U	1.00	0.160	1	05/27/12 01:24	
Chloroethane	0.520 U	5.00	0.520	1	05/27/12 01:24	
Chloroform	0.350 U	1.00	0.350	1	05/27/12 01:24	
Chloromethane	0.360 U	1.00	0.360	1	05/27/12 01:24	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/27/12 01:24	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/27/12 01:24	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/27/12 01:24	
Dibromomethane	0.360 U	5.00	0.360	1	05/27/12 01:24	
Ethylbenzene	0.210 U	1.00	0.210	1	05/27/12 01:24	
Iodomethane	2.70 U	5.00	2.70	1	05/27/12 01:24	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/27/12 01:24	
Methylene Chloride	0.210 U	5.00	0.210	1	05/27/12 01:24	
o-Xylene	0.140 U	1.00	0.140	1	05/27/12 01:24	
Styrene	0.290 U	1.00	0.290	1	05/27/12 01:24	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/27/12 01:24	
Toluene	0.190 U	1.00	0.190	1	05/27/12 01:24	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/27/12 01:24	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 00:00  
**Date Received:** 05/17/12 09:20

**Sample Name:** Trip Blank-1  
**Lab Code:** J1202333-007

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/27/12 01:24	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/27/12 01:24	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/27/12 01:24	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/27/12 01:24	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/27/12 01:24	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/27/12 01:24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	93	72 - 121	05/27/12 01:24	
4-Bromofluorobenzene	111	86 - 113	05/27/12 01:24	
Dibromofluoromethane	92	86 - 112	05/27/12 01:24	
Toluene-d8	114	88 - 115	05/27/12 01:24	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 14:45  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-1A  
**Lab Code:** J1202333-008

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/27/12 04:53	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/27/12 04:53	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/27/12 04:53	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/27/12 04:53	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/27/12 04:53	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/27/12 04:53	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/27/12 04:53	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/27/12 04:53	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/27/12 04:53	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/27/12 04:53	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/27/12 04:53	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/27/12 04:53	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/27/12 04:53	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/27/12 04:53	
2-Hexanone	2.20 U	25.0	2.20	1	05/27/12 04:53	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/27/12 04:53	
Acetone	5.60 U	50.0	5.60	1	05/27/12 04:53	
Acrylonitrile	1.50 U	10.0	1.50	1	05/27/12 04:53	
Benzene	<b>3.35</b>	1.00	0.210	1	05/27/12 04:53	
Bromochloromethane	0.270 U	5.00	0.270	1	05/27/12 04:53	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/27/12 04:53	
Bromoform	0.420 U	2.00	0.420	1	05/27/12 04:53	*
Bromomethane	0.230 U	5.00	0.230	1	05/27/12 04:53	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/27/12 04:53	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/27/12 04:53	
Chlorobenzene	0.160 U	1.00	0.160	1	05/27/12 04:53	
Chloroethane	0.520 U	5.00	0.520	1	05/27/12 04:53	
Chloroform	0.350 U	1.00	0.350	1	05/27/12 04:53	
Chloromethane	0.360 U	1.00	0.360	1	05/27/12 04:53	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/27/12 04:53	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/27/12 04:53	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/27/12 04:53	
Dibromomethane	0.360 U	5.00	0.360	1	05/27/12 04:53	
Ethylbenzene	<b>2.13</b>	1.00	0.210	1	05/27/12 04:53	
Iodomethane	2.70 U	5.00	2.70	1	05/27/12 04:53	
m,p-Xylenes	<b>1.72</b> <b>I</b>	2.00	0.310	1	05/27/12 04:53	
Methylene Chloride	0.210 U	5.00	0.210	1	05/27/12 04:53	
o-Xylene	<b>0.640</b> <b>I</b>	1.00	0.140	1	05/27/12 04:53	
Styrene	0.290 U	1.00	0.290	1	05/27/12 04:53	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/27/12 04:53	
Toluene	<b>0.520</b> <b>I</b>	1.00	0.190	1	05/27/12 04:53	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/27/12 04:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 14:45  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-1A  
**Lab Code:** J1202333-008

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/27/12 04:53	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/27/12 04:53	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/27/12 04:53	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/27/12 04:53	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/27/12 04:53	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/27/12 04:53	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	93	72 - 121	05/27/12 04:53	
4-Bromofluorobenzene	103	86 - 113	05/27/12 04:53	
Dibromofluoromethane	91	86 - 112	05/27/12 04:53	
Toluene-d8	111	88 - 115	05/27/12 04:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 14:45  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-1A  
**Lab Code:** J1202333-008

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0199	0.00700	1	05/25/12 20:04	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0199	0.00700	1	05/25/12 20:04	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	90	70 - 130	05/25/12 20:04	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 14:45  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-1A  
**Lab Code:** J1202333-008

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Arsenic, Total Recoverable	6020	<b>1.3</b>	ug/L	1.0	0.5	1	05/21/12	5/17/12	
Barium, Total Recoverable	6020	<b>21.6</b>	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/21/12	5/17/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/21/12	5/17/12	
Chromium, Total Recoverable	6020	<b>1.9</b>	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Cobalt, Total Recoverable	6020	<b>0.5 I</b>	ug/L	1.0	0.03	1	05/21/12	5/17/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/21/12	5/17/12	
Iron, Total Recoverable	6010B	<b>2020</b>	ug/L	100	3	1	05/18/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/21/12	5/17/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/21/12	5/17/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/21/12	5/17/12	
Sodium, Total Recoverable	6010B	<b>12.4</b>	mg/L	0.50	0.03	1	05/18/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/21/12	5/17/12	
Vanadium, Total Recoverable	6020	<b>0.7 I</b>	ug/L	2.0	0.3	1	05/21/12	5/17/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/21/12	5/17/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
  
**Sample Name:** MW-1A  
**Lab Code:** J1202333-008

**Service Request:** J1202333  
**Date Collected:** 05/16/12 14:45  
**Date Received:** 05/17/12 09:20  
  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>4.44</b>	mg/L	0.010	0.007	1	05/21/12 12:06	
Chloride	300.0	<b>30.6</b>	mg/L	0.50	0.11	1	05/17/12 18:03	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/17/12 18:03	
Solids, Total Dissolved	SM 2540 C	<b>88</b>	mg/L	10	10	1	05/22/12 13:10	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 14:15  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-1B  
**Lab Code:** J1202333-009

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/27/12 05:22	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/27/12 05:22	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/27/12 05:22	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/27/12 05:22	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/27/12 05:22	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/27/12 05:22	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/27/12 05:22	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/27/12 05:22	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/27/12 05:22	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/27/12 05:22	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/27/12 05:22	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/27/12 05:22	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/27/12 05:22	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/27/12 05:22	
2-Hexanone	2.20 U	25.0	2.20	1	05/27/12 05:22	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/27/12 05:22	
Acetone	5.60 U	50.0	5.60	1	05/27/12 05:22	
Acrylonitrile	1.50 U	10.0	1.50	1	05/27/12 05:22	
Benzene	0.210 U	1.00	0.210	1	05/27/12 05:22	
Bromochloromethane	0.270 U	5.00	0.270	1	05/27/12 05:22	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/27/12 05:22	
Bromoform	0.420 U	2.00	0.420	1	05/27/12 05:22	*
Bromomethane	0.230 U	5.00	0.230	1	05/27/12 05:22	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/27/12 05:22	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/27/12 05:22	
Chlorobenzene	0.160 U	1.00	0.160	1	05/27/12 05:22	
Chloroethane	0.520 U	5.00	0.520	1	05/27/12 05:22	
Chloroform	0.350 U	1.00	0.350	1	05/27/12 05:22	
Chloromethane	0.360 U	1.00	0.360	1	05/27/12 05:22	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/27/12 05:22	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/27/12 05:22	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/27/12 05:22	
Dibromomethane	0.360 U	5.00	0.360	1	05/27/12 05:22	
Ethylbenzene	0.210 U	1.00	0.210	1	05/27/12 05:22	
Iodomethane	2.70 U	5.00	2.70	1	05/27/12 05:22	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/27/12 05:22	
Methylene Chloride	0.210 U	5.00	0.210	1	05/27/12 05:22	
o-Xylene	0.140 U	1.00	0.140	1	05/27/12 05:22	
Styrene	0.290 U	1.00	0.290	1	05/27/12 05:22	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/27/12 05:22	
Toluene	0.190 U	1.00	0.190	1	05/27/12 05:22	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/27/12 05:22	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 14:15  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-1B  
**Lab Code:** J1202333-009

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/27/12 05:22	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/27/12 05:22	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/27/12 05:22	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/27/12 05:22	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/27/12 05:22	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/27/12 05:22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	93	72 - 121	05/27/12 05:22	
4-Bromofluorobenzene	100	86 - 113	05/27/12 05:22	
Dibromofluoromethane	92	86 - 112	05/27/12 05:22	
Toluene-d8	109	88 - 115	05/27/12 05:22	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 14:15  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-1B  
**Lab Code:** J1202333-009

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00703 U	0.0201	0.00703	1	05/25/12 20:24	5/25/12	
1,2-Dibromoethane (EDB)	0.00703 U	0.0201	0.00703	1	05/25/12 20:24	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	119	70 - 130	05/25/12 20:24	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 14:15  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-1B  
**Lab Code:** J1202333-009

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/21/12	5/17/12	
Barium, Total Recoverable	6020	<b>5.5</b>	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/21/12	5/17/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/21/12	5/17/12	
Chromium, Total Recoverable	6020	<b>0.8 I</b>	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Cobalt, Total Recoverable	6020	<b>0.04 I</b>	ug/L	1.0	0.03	1	05/21/12	5/17/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/21/12	5/17/12	
Iron, Total Recoverable	6010B	<b>90 I</b>	ug/L	100	3	1	05/18/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/21/12	5/17/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/21/12	5/17/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/21/12	5/17/12	
Sodium, Total Recoverable	6010B	<b>9.40</b>	mg/L	0.50	0.03	1	05/18/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/21/12	5/17/12	
Vanadium, Total Recoverable	6020	<b>0.8 I</b>	ug/L	2.0	0.3	1	05/21/12	5/17/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/21/12	5/17/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-1B  
**Lab Code:** J1202333-009

**Service Request:** J1202333  
**Date Collected:** 05/16/12 14:15  
**Date Received:** 05/17/12 09:20  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.306</b>	mg/L	0.010	0.007	1	05/21/12 12:07	
Chloride	300.0	<b>15.6</b>	mg/L	0.50	0.11	1	05/17/12 18:17	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/17/12 18:17	
Solids, Total Dissolved	SM 2540 C	<b>111</b>	mg/L	10	10	1	05/22/12 13:10	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 12:05  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-7A  
**Lab Code:** J1202333-010

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/27/12 05:52	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/27/12 05:52	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/27/12 05:52	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/27/12 05:52	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/27/12 05:52	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/27/12 05:52	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/27/12 05:52	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/27/12 05:52	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/27/12 05:52	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/27/12 05:52	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/27/12 05:52	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/27/12 05:52	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/27/12 05:52	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/27/12 05:52	
2-Hexanone	2.20 U	25.0	2.20	1	05/27/12 05:52	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/27/12 05:52	
Acetone	5.60 U	50.0	5.60	1	05/27/12 05:52	
Acrylonitrile	1.50 U	10.0	1.50	1	05/27/12 05:52	
Benzene	0.210 U	1.00	0.210	1	05/27/12 05:52	
Bromochloromethane	0.270 U	5.00	0.270	1	05/27/12 05:52	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/27/12 05:52	
Bromoform	0.420 U	2.00	0.420	1	05/27/12 05:52	*
Bromomethane	0.230 U	5.00	0.230	1	05/27/12 05:52	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/27/12 05:52	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/27/12 05:52	
Chlorobenzene	0.160 U	1.00	0.160	1	05/27/12 05:52	
Chloroethane	0.520 U	5.00	0.520	1	05/27/12 05:52	
Chloroform	0.350 U	1.00	0.350	1	05/27/12 05:52	
Chloromethane	0.360 U	1.00	0.360	1	05/27/12 05:52	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/27/12 05:52	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/27/12 05:52	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/27/12 05:52	
Dibromomethane	0.360 U	5.00	0.360	1	05/27/12 05:52	
Ethylbenzene	0.210 U	1.00	0.210	1	05/27/12 05:52	
Iodomethane	2.70 U	5.00	2.70	1	05/27/12 05:52	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/27/12 05:52	
Methylene Chloride	0.210 U	5.00	0.210	1	05/27/12 05:52	
o-Xylene	0.140 U	1.00	0.140	1	05/27/12 05:52	
Styrene	0.290 U	1.00	0.290	1	05/27/12 05:52	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/27/12 05:52	
Toluene	0.190 U	1.00	0.190	1	05/27/12 05:52	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/27/12 05:52	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 12:05  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-7A  
**Lab Code:** J1202333-010

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/27/12 05:52	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/27/12 05:52	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/27/12 05:52	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/27/12 05:52	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/27/12 05:52	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/27/12 05:52	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	91	72 - 121	05/27/12 05:52	
4-Bromofluorobenzene	105	86 - 113	05/27/12 05:52	
Dibromofluoromethane	91	86 - 112	05/27/12 05:52	
Toluene-d8	112	88 - 115	05/27/12 05:52	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 12:05  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-7A  
**Lab Code:** J1202333-010

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0198	0.00700	1	05/25/12 20:44	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0198	0.00700	1	05/25/12 20:44	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	95	70 - 130	05/25/12 20:44	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-7A  
**Lab Code:** J1202333-010

**Service Request:** J1202333  
**Date Collected:** 05/16/12 12:05  
**Date Received:** 05/17/12 09:20  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Arsenic, Total Recoverable	6020	<b>0.8 I</b>	ug/L	1.0	0.5	1	05/21/12	5/17/12	
Barium, Total Recoverable	6020	<b>18.3</b>	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/21/12	5/17/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/21/12	5/17/12	
Chromium, Total Recoverable	6020	<b>1.0</b>	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Cobalt, Total Recoverable	6020	<b>1.4</b>	ug/L	1.0	0.03	1	05/21/12	5/17/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/21/12	5/17/12	
Iron, Total Recoverable	6010B	<b>13100</b>	ug/L	100	3	1	05/18/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/21/12	5/17/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/21/12	5/17/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/21/12	5/17/12	
Sodium, Total Recoverable	6010B	<b>20.2</b>	mg/L	0.50	0.03	1	05/18/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/21/12	5/17/12	
Vanadium, Total Recoverable	6020	<b>2.1</b>	ug/L	2.0	0.3	1	05/21/12	5/17/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/21/12	5/17/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-7A  
**Lab Code:** J1202333-010

**Service Request:** J1202333  
**Date Collected:** 05/16/12 12:05  
**Date Received:** 05/17/12 09:20  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>3.63</b>	mg/L	0.010	0.007	1	05/21/12 12:12	
Chloride	300.0	<b>30.1</b>	mg/L	0.50	0.11	1	05/17/12 18:32	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/17/12 18:32	
Solids, Total Dissolved	SM 2540 C	<b>179</b>	mg/L	10	10	1	05/22/12 13:10	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 11:40  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-7B  
**Lab Code:** J1202333-011

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/27/12 06:22	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/27/12 06:22	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/27/12 06:22	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/27/12 06:22	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/27/12 06:22	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/27/12 06:22	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/27/12 06:22	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/27/12 06:22	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/27/12 06:22	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/27/12 06:22	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/27/12 06:22	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/27/12 06:22	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/27/12 06:22	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/27/12 06:22	
2-Hexanone	2.20 U	25.0	2.20	1	05/27/12 06:22	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/27/12 06:22	
Acetone	5.60 U	50.0	5.60	1	05/27/12 06:22	
Acrylonitrile	1.50 U	10.0	1.50	1	05/27/12 06:22	
Benzene	0.210 U	1.00	0.210	1	05/27/12 06:22	
Bromochloromethane	0.270 U	5.00	0.270	1	05/27/12 06:22	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/27/12 06:22	
Bromoform	0.420 U	2.00	0.420	1	05/27/12 06:22	*
Bromomethane	0.230 U	5.00	0.230	1	05/27/12 06:22	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/27/12 06:22	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/27/12 06:22	
Chlorobenzene	0.160 U	1.00	0.160	1	05/27/12 06:22	
Chloroethane	0.520 U	5.00	0.520	1	05/27/12 06:22	
Chloroform	0.350 U	1.00	0.350	1	05/27/12 06:22	
Chloromethane	0.360 U	1.00	0.360	1	05/27/12 06:22	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/27/12 06:22	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/27/12 06:22	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/27/12 06:22	
Dibromomethane	0.360 U	5.00	0.360	1	05/27/12 06:22	
Ethylbenzene	0.210 U	1.00	0.210	1	05/27/12 06:22	
Iodomethane	2.70 U	5.00	2.70	1	05/27/12 06:22	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/27/12 06:22	
Methylene Chloride	0.210 U	5.00	0.210	1	05/27/12 06:22	
o-Xylene	0.140 U	1.00	0.140	1	05/27/12 06:22	
Styrene	0.290 U	1.00	0.290	1	05/27/12 06:22	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/27/12 06:22	
Toluene	0.190 U	1.00	0.190	1	05/27/12 06:22	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/27/12 06:22	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 11:40  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-7B  
**Lab Code:** J1202333-011

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/27/12 06:22	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/27/12 06:22	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/27/12 06:22	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/27/12 06:22	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/27/12 06:22	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/27/12 06:22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	93	72 - 121	05/27/12 06:22	
4-Bromofluorobenzene	102	86 - 113	05/27/12 06:22	
Dibromofluoromethane	90	86 - 112	05/27/12 06:22	
Toluene-d8	111	88 - 115	05/27/12 06:22	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 11:40  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-7B  
**Lab Code:** J1202333-011

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0200	0.00700	1	05/25/12 21:04	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0200	0.00700	1	05/25/12 21:04	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	99	70 - 130	05/25/12 21:04	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-7B  
**Lab Code:** J1202333-011

**Service Request:** J1202333  
**Date Collected:** 05/16/12 11:40  
**Date Received:** 05/17/12 09:20  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Arsenic, Total Recoverable	6020	<b>0.7 I</b>	ug/L	1.0	0.5	1	05/21/12	5/17/12	
Barium, Total Recoverable	6020	<b>136</b>	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Beryllium, Total Recoverable	6020	<b>0.14 I</b>	ug/L	0.50	0.04	1	05/21/12	5/17/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/21/12	5/17/12	
Chromium, Total Recoverable	6020	<b>0.5 I</b>	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Cobalt, Total Recoverable	6020	<b>1.1</b>	ug/L	1.0	0.03	1	05/21/12	5/17/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/21/12	5/17/12	
Iron, Total Recoverable	6010B	<b>6030</b>	ug/L	100	3	1	05/18/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/21/12	5/17/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	<b>0.8 I</b>	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/21/12	5/17/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/21/12	5/17/12	
Sodium, Total Recoverable	6010B	<b>20.6</b>	mg/L	0.50	0.03	1	05/18/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/21/12	5/17/12	
Vanadium, Total Recoverable	6020	<b>0.4 I</b>	ug/L	2.0	0.3	1	05/21/12	5/17/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/21/12	5/17/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-7B  
**Lab Code:** J1202333-011

**Service Request:** J1202333  
**Date Collected:** 05/16/12 11:40  
**Date Received:** 05/17/12 09:20  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.254</b>	mg/L	0.010	0.007	1	05/21/12 12:13	
Chloride	300.0	<b>83.7</b>	mg/L	0.50	0.11	1	05/17/12 18:47	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/17/12 18:47	
Solids, Total Dissolved	SM 2540 C	<b>184</b>	mg/L	10	10	1	05/22/12 13:10	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 15:55  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-2B  
**Lab Code:** J1202333-012

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/29/12 13:25	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/29/12 13:25	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/29/12 13:25	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/29/12 13:25	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/29/12 13:25	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/29/12 13:25	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/29/12 13:25	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/29/12 13:25	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/29/12 13:25	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/29/12 13:25	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/29/12 13:25	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/29/12 13:25	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/29/12 13:25	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/29/12 13:25	
2-Hexanone	2.20 U	25.0	2.20	1	05/29/12 13:25	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/29/12 13:25	
Acetone	5.60 U	50.0	5.60	1	05/29/12 13:25	
Acrylonitrile	1.50 U	10.0	1.50	1	05/29/12 13:25	
Benzene	0.210 U	1.00	0.210	1	05/29/12 13:25	
Bromochloromethane	0.270 U	5.00	0.270	1	05/29/12 13:25	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/29/12 13:25	
Bromoform	0.420 U	2.00	0.420	1	05/29/12 13:25	*
Bromomethane	0.230 U	5.00	0.230	1	05/29/12 13:25	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/29/12 13:25	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/29/12 13:25	
Chlorobenzene	0.160 U	1.00	0.160	1	05/29/12 13:25	
Chloroethane	0.520 U	5.00	0.520	1	05/29/12 13:25	
Chloroform	0.350 U	1.00	0.350	1	05/29/12 13:25	
Chloromethane	0.360 U	1.00	0.360	1	05/29/12 13:25	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/29/12 13:25	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/29/12 13:25	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/29/12 13:25	
Dibromomethane	0.360 U	5.00	0.360	1	05/29/12 13:25	
Ethylbenzene	0.210 U	1.00	0.210	1	05/29/12 13:25	
Iodomethane	2.70 U	5.00	2.70	1	05/29/12 13:25	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/29/12 13:25	
Methylene Chloride	0.210 U	5.00	0.210	1	05/29/12 13:25	
o-Xylene	0.140 U	1.00	0.140	1	05/29/12 13:25	
Styrene	0.290 U	1.00	0.290	1	05/29/12 13:25	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/29/12 13:25	
Toluene	0.190 U	1.00	0.190	1	05/29/12 13:25	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/29/12 13:25	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 15:55  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-2B  
**Lab Code:** J1202333-012

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/29/12 13:25	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/29/12 13:25	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/29/12 13:25	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/29/12 13:25	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/29/12 13:25	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/29/12 13:25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	94	72 - 121	05/29/12 13:25	
4-Bromofluorobenzene	107	86 - 113	05/29/12 13:25	
Dibromofluoromethane	93	86 - 112	05/29/12 13:25	
Toluene-d8	111	88 - 115	05/29/12 13:25	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 15:55  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-2B  
**Lab Code:** J1202333-012

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0197	0.00700	1	05/25/12 21:44	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0197	0.00700	1	05/25/12 21:44	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	102	70 - 130	05/25/12 21:44	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 15:55  
**Date Received:** 05/17/12 09:20

**Sample Name:** MW-2B  
**Lab Code:** J1202333-012

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/21/12	5/17/12	
Barium, Total Recoverable	6020	<b>6.8</b>	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/21/12	5/17/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/21/12	5/17/12	
Chromium, Total Recoverable	6020	<b>0.6 I</b>	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Cobalt, Total Recoverable	6020	<b>0.2 I</b>	ug/L	1.0	0.03	1	05/21/12	5/17/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/21/12	5/17/12	
Iron, Total Recoverable	6010B	<b>490</b>	ug/L	100	3	1	05/18/12	5/17/12	
Lead, Total Recoverable	6020	<b>0.23 I</b>	ug/L	0.50	0.12	1	05/21/12	5/17/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/21/12	5/17/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/21/12	5/17/12	
Sodium, Total Recoverable	6010B	<b>5.04</b>	mg/L	0.50	0.03	1	05/18/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/21/12	5/17/12	
Vanadium, Total Recoverable	6020	0.3 U	ug/L	2.0	0.3	1	05/21/12	5/17/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/21/12	5/17/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-2B  
**Lab Code:** J1202333-012

**Service Request:** J1202333  
**Date Collected:** 05/16/12 15:55  
**Date Received:** 05/17/12 09:20  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.094</b>	mg/L	0.010	0.007	1	05/21/12 12:14	
Chloride	300.0	<b>7.04</b>	mg/L	0.50	0.11	1	05/17/12 19:32	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/17/12 19:32	
Solids, Total Dissolved	SM 2540 C	<b>35</b>	mg/L	10	10	1	05/22/12 13:10	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 00:00  
**Date Received:** 05/17/12 09:20

**Sample Name:** Trip Blank-2  
**Lab Code:** J1202333-013

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/29/12 12:55	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/29/12 12:55	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/29/12 12:55	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/29/12 12:55	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/29/12 12:55	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/29/12 12:55	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/29/12 12:55	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/29/12 12:55	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/29/12 12:55	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/29/12 12:55	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/29/12 12:55	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/29/12 12:55	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/29/12 12:55	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/29/12 12:55	
2-Hexanone	2.20 U	25.0	2.20	1	05/29/12 12:55	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/29/12 12:55	
Acetone	5.60 U	50.0	5.60	1	05/29/12 12:55	
Acrylonitrile	1.50 U	10.0	1.50	1	05/29/12 12:55	
Benzene	0.210 U	1.00	0.210	1	05/29/12 12:55	
Bromochloromethane	0.270 U	5.00	0.270	1	05/29/12 12:55	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/29/12 12:55	
Bromoform	0.420 U	2.00	0.420	1	05/29/12 12:55	*
Bromomethane	0.230 U	5.00	0.230	1	05/29/12 12:55	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/29/12 12:55	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/29/12 12:55	
Chlorobenzene	0.160 U	1.00	0.160	1	05/29/12 12:55	
Chloroethane	0.520 U	5.00	0.520	1	05/29/12 12:55	
Chloroform	0.350 U	1.00	0.350	1	05/29/12 12:55	
Chloromethane	0.360 U	1.00	0.360	1	05/29/12 12:55	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/29/12 12:55	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/29/12 12:55	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/29/12 12:55	
Dibromomethane	0.360 U	5.00	0.360	1	05/29/12 12:55	
Ethylbenzene	0.210 U	1.00	0.210	1	05/29/12 12:55	
Iodomethane	2.70 U	5.00	2.70	1	05/29/12 12:55	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/29/12 12:55	
Methylene Chloride	0.210 U	5.00	0.210	1	05/29/12 12:55	
o-Xylene	0.140 U	1.00	0.140	1	05/29/12 12:55	
Styrene	0.290 U	1.00	0.290	1	05/29/12 12:55	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/29/12 12:55	
Toluene	0.190 U	1.00	0.190	1	05/29/12 12:55	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/29/12 12:55	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12 00:00  
**Date Received:** 05/17/12 09:20

**Sample Name:** Trip Blank-2  
**Lab Code:** J1202333-013

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/29/12 12:55	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/29/12 12:55	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/29/12 12:55	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/29/12 12:55	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/29/12 12:55	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/29/12 12:55	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	94	72 - 121	05/29/12 12:55	
4-Bromofluorobenzene	104	86 - 113	05/29/12 12:55	
Dibromofluoromethane	93	86 - 112	05/29/12 12:55	
Toluene-d8	114	88 - 115	05/29/12 12:55	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203314-04

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/26/12 21:23	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/26/12 21:23	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/26/12 21:23	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/26/12 21:23	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/26/12 21:23	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/26/12 21:23	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/26/12 21:23	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/26/12 21:23	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/26/12 21:23	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/26/12 21:23	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/26/12 21:23	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/26/12 21:23	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/26/12 21:23	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/26/12 21:23	
2-Hexanone	2.20 U	25.0	2.20	1	05/26/12 21:23	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/26/12 21:23	
Acetone	5.60 U	50.0	5.60	1	05/26/12 21:23	
Acrylonitrile	1.50 U	10.0	1.50	1	05/26/12 21:23	
Benzene	0.210 U	1.00	0.210	1	05/26/12 21:23	
Bromochloromethane	0.270 U	5.00	0.270	1	05/26/12 21:23	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/26/12 21:23	
Bromoform	0.420 U	2.00	0.420	1	05/26/12 21:23	
Bromomethane	0.230 U	5.00	0.230	1	05/26/12 21:23	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/26/12 21:23	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/26/12 21:23	
Chlorobenzene	0.160 U	1.00	0.160	1	05/26/12 21:23	
Chloroethane	0.520 U	5.00	0.520	1	05/26/12 21:23	
Chloroform	0.350 U	1.00	0.350	1	05/26/12 21:23	
Chloromethane	0.360 U	1.00	0.360	1	05/26/12 21:23	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/26/12 21:23	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/26/12 21:23	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/26/12 21:23	
Dibromomethane	0.360 U	5.00	0.360	1	05/26/12 21:23	
Ethylbenzene	0.210 U	1.00	0.210	1	05/26/12 21:23	
Iodomethane	2.70 U	5.00	2.70	1	05/26/12 21:23	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/26/12 21:23	
Methylene Chloride	0.210 U	5.00	0.210	1	05/26/12 21:23	
o-Xylene	0.140 U	1.00	0.140	1	05/26/12 21:23	
Styrene	0.290 U	1.00	0.290	1	05/26/12 21:23	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/26/12 21:23	
Toluene	0.190 U	1.00	0.190	1	05/26/12 21:23	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/26/12 21:23	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203314-04

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/26/12 21:23	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/26/12 21:23	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/26/12 21:23	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/26/12 21:23	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/26/12 21:23	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/26/12 21:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	92	72 - 121	05/26/12 21:23	
4-Bromofluorobenzene	107	86 - 113	05/26/12 21:23	
Dibromofluoromethane	87	86 - 112	05/26/12 21:23	
Toluene-d8	113	88 - 115	05/26/12 21:23	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203342-02

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/29/12 12:25	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/29/12 12:25	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/29/12 12:25	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/29/12 12:25	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/29/12 12:25	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/29/12 12:25	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/29/12 12:25	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/29/12 12:25	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/29/12 12:25	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/29/12 12:25	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/29/12 12:25	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/29/12 12:25	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/29/12 12:25	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/29/12 12:25	
2-Hexanone	2.20 U	25.0	2.20	1	05/29/12 12:25	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/29/12 12:25	
Acetone	5.60 U	50.0	5.60	1	05/29/12 12:25	
Acrylonitrile	1.50 U	10.0	1.50	1	05/29/12 12:25	
Benzene	0.210 U	1.00	0.210	1	05/29/12 12:25	
Bromochloromethane	0.270 U	5.00	0.270	1	05/29/12 12:25	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/29/12 12:25	
Bromoform	0.420 U	2.00	0.420	1	05/29/12 12:25	
Bromomethane	0.230 U	5.00	0.230	1	05/29/12 12:25	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/29/12 12:25	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/29/12 12:25	
Chlorobenzene	0.160 U	1.00	0.160	1	05/29/12 12:25	
Chloroethane	0.520 U	5.00	0.520	1	05/29/12 12:25	
Chloroform	0.350 U	1.00	0.350	1	05/29/12 12:25	
Chloromethane	0.360 U	1.00	0.360	1	05/29/12 12:25	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/29/12 12:25	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/29/12 12:25	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/29/12 12:25	
Dibromomethane	0.360 U	5.00	0.360	1	05/29/12 12:25	
Ethylbenzene	0.210 U	1.00	0.210	1	05/29/12 12:25	
Iodomethane	2.70 U	5.00	2.70	1	05/29/12 12:25	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/29/12 12:25	
Methylene Chloride	0.210 U	5.00	0.210	1	05/29/12 12:25	
o-Xylene	0.140 U	1.00	0.140	1	05/29/12 12:25	
Styrene	0.290 U	1.00	0.290	1	05/29/12 12:25	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/29/12 12:25	
Toluene	0.190 U	1.00	0.190	1	05/29/12 12:25	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/29/12 12:25	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203342-02

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/29/12 12:25	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/29/12 12:25	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/29/12 12:25	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/29/12 12:25	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/29/12 12:25	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/29/12 12:25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	92	72 - 121	05/29/12 12:25	
4-Bromofluorobenzene	105	86 - 113	05/29/12 12:25	
Dibromofluoromethane	91	86 - 112	05/29/12 12:25	
Toluene-d8	114	88 - 115	05/29/12 12:25	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203265-01

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0200	0.00700	1	05/26/12 00:04	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0200	0.00700	1	05/26/12 00:04	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	161	70 - 130	05/26/12 00:04	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203266-01

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0200	0.00700	1	05/25/12 18:05	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0200	0.00700	1	05/25/12 18:05	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	88	70 - 130	05/25/12 18:05	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** J1202333-MB

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/21/12	5/17/12	
Barium, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/21/12	5/17/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/21/12	5/17/12	
Chromium, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/21/12	5/17/12	
Cobalt, Total Recoverable	6020	0.03 U	ug/L	1.0	0.03	1	05/21/12	5/17/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/21/12	5/17/12	
Iron, Total Recoverable	6010B	<b>3 I</b>	ug/L	100	3	1	05/18/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/21/12	5/17/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/21/12	5/17/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/21/12	5/17/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/21/12	5/17/12	
Sodium, Total Recoverable	6010B	0.03 U	mg/L	0.50	0.03	1	05/18/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/21/12	5/17/12	
Vanadium, Total Recoverable	6020	0.3 U	ug/L	2.0	0.3	1	05/21/12	5/17/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/21/12	5/17/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1202333-MB1

**Service Request:** J1202333  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	0.007 U	mg/L	0.010	0.007	1	05/21/12 11:37	
Chloride	300.0	0.11 U	mg/L	0.50	0.11	1	05/17/12 15:03	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/17/12 15:03	
Solids, Total Dissolved	SM 2540 C	10 U	mg/L	10	10	1	05/18/12 14:05	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1202333-MB2

**Service Request:** J1202333  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Solids, Total Dissolved	SM 2540 C	10 U	mg/L	10	10	1	05/22/12 13:10	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333

**SURROGATE RECOVERY SUMMARY**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Sample Name	Lab Code	1,2-Dichloroethane-d4	4-Bromofluorobenzene	Dibromofluoromethane
		72 - 121	86 - 113	86 - 112
MW-9A	J1202333-001	96	106	90
MW-9B	J1202333-002	91	103	90
MW-8A	J1202333-003	96	105	90
MW-8B	J1202333-004	94	103	91
MW-6B	J1202333-005	93	103	92
Equipment Blank-2	J1202333-006	87	106	88
Trip Blank-1	J1202333-007	93	111	92
MW-1A	J1202333-008	93	103	91
MW-1B	J1202333-009	93	100	92
MW-7A	J1202333-010	91	105	91
MW-7B	J1202333-011	93	102	90
MW-2B	J1202333-012	94	107	93
Trip Blank-2	J1202333-013	94	104	93
Lab Control Sample	JQ1203314-03	89	103	89
Method Blank	JQ1203314-04	92	107	87
Lab Control Sample	JQ1203342-01	99	99	96
Method Blank	JQ1203342-02	92	105	91

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333

**SURROGATE RECOVERY SUMMARY**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Sample Name	Lab Code	Toluene-d8
		88 - 115
MW-9A	J1202333-001	112
MW-9B	J1202333-002	110
MW-8A	J1202333-003	106
MW-8B	J1202333-004	112
MW-6B	J1202333-005	107
Equipment Blank-2	J1202333-006	113
Trip Blank-1	J1202333-007	114
MW-1A	J1202333-008	111
MW-1B	J1202333-009	109
MW-7A	J1202333-010	112
MW-7B	J1202333-011	111
MW-2B	J1202333-012	111
Trip Blank-2	J1202333-013	114
Lab Control Sample	JQ1203314-03	112
Method Blank	JQ1203314-04	113
Lab Control Sample	JQ1203342-01	110
Method Blank	JQ1203342-02	114



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Analyzed:** 05/26/12

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

**Units:** ug/L

**Basis:** NA

**Analysis Lot:** 293512

**Lab Control Sample**  
**JQ1203314-03**

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	21.9	20.0	109	77-118
1,1,1-Trichloroethane (TCA)	17.3	20.0	86	70-122
1,1,2,2-Tetrachloroethane	21.5	20.0	107	66-135
1,1,2-Trichloroethane	20.6	20.0	103	75-122
1,1-Dichloroethane (1,1-DCA)	16.7	20.0	83	79-117
1,1-Dichloroethene (1,1-DCE)	18.2	20.0	91	72-128
1,2,3-Trichloropropane	20.5	20.0	103	70-123
1,2-Dibromo-3-chloropropane (DBCP)	21.1	20.0	106	60-122
1,2-Dibromoethane (EDB)	20.9	20.0	105	76-118
1,2-Dichlorobenzene	20.7	20.0	104	81-115
1,2-Dichloroethane	15.7	20.0	78	70-117
1,2-Dichloropropane	16.7	20.0	83	79-117
1,4-Dichlorobenzene	20.6	20.0	103	82-115
2-Butanone (MEK)	84.0	100	84	62-138
2-Hexanone	107	100	107	74-127
4-Methyl-2-pentanone (MIBK)	105	100	105	77-120
Acetone	85.1	100	85	42-161
Acrylonitrile	80.7	100	81	63-132
Benzene	16.2	20.0	81	80-117
Bromochloromethane	16.5	20.0	82	78-118
Bromodichloromethane	16.7	20.0	83	75-118
Bromoform	26.3	20.0	132 *	63-121
Bromomethane	18.0	20.0	90	31-153
Carbon Disulfide	99.9	100	100	72-128
Carbon Tetrachloride	17.6	20.0	88	67-124
Chlorobenzene	21.1	20.0	106	83-118
Chloroethane	17.4	20.0	87	68-132
Chloroform	16.4	20.0	82	77-116
Chloromethane	16.1	20.0	81	60-128
cis-1,2-Dichloroethene	16.4	20.0	82	78-117
cis-1,3-Dichloropropene	21.0	20.0	105	80-119
Dibromochloromethane	22.1	20.0	111	74-121
Dibromomethane	16.8	20.0	84	76-117
Ethylbenzene	22.6	20.0	113	82-119
Iodomethane	96.3	100	96	51-137
m,p-Xylenes	42.4	40.0	106	79-122
Methylene Chloride	17.2	20.0	86	75-123
o-Xylene	21.4	20.0	107	80-119
Styrene	22.0	20.0	110	80-121
Tetrachloroethene (PCE)	22.8	20.0	114	75-126
Toluene	22.5	20.0	113	52-152

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Analyzed:** 05/26/12

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 293512

**Lab Control Sample**  
**JQ1203314-03**

<b>Analyte Name</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
trans-1,2-Dichloroethene	16.9	20.0	84	75-121
trans-1,3-Dichloropropene	20.5	20.0	102	76-118
trans-1,4-Dichloro-2-butene	20.7	20.0	104	10-198
Trichloroethene (TCE)	17.4	20.0	87	78-122
Trichlorofluoromethane	17.6	20.0	88	58-134
Vinyl Acetate	68.6	100	69	36-169
Vinyl Chloride	17.4	20.0	87	69-138

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Analyzed:** 05/29/12

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

**Units:** ug/L

**Basis:** NA

**Analysis Lot:** 293646

**Lab Control Sample**  
**JQ1203342-01**

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	22.7	20.0	113	77-118
1,1,1-Trichloroethane (TCA)	19.5	20.0	97	70-122
1,1,2,2-Tetrachloroethane	21.7	20.0	109	66-135
1,1,2-Trichloroethane	20.8	20.0	104	75-122
1,1-Dichloroethane (1,1-DCA)	17.1	20.0	85	79-117
1,1-Dichloroethene (1,1-DCE)	18.4	20.0	92	72-128
1,2,3-Trichloropropane	19.8	20.0	99	70-123
1,2-Dibromo-3-chloropropane (DBCP)	22.1	20.0	111	60-122
1,2-Dibromoethane (EDB)	21.6	20.0	108	76-118
1,2-Dichlorobenzene	20.6	20.0	103	81-115
1,2-Dichloroethane	17.9	20.0	89	70-117
1,2-Dichloropropane	16.7	20.0	84	79-117
1,4-Dichlorobenzene	21.3	20.0	107	82-115
2-Butanone (MEK)	87.9	100	88	62-138
2-Hexanone	110	100	110	74-127
4-Methyl-2-pentanone (MIBK)	107	100	107	77-120
Acetone	83.5	100	83	42-161
Acrylonitrile	87.2	100	87	63-132
Benzene	16.9	20.0	84	80-117
Bromochloromethane	18.6	20.0	93	78-118
Bromodichloromethane	18.5	20.0	93	75-118
Bromoform	28.8	20.0	144 *	63-121
Bromomethane	18.8	20.0	94	31-153
Carbon Disulfide	100	100	100	72-128
Carbon Tetrachloride	19.4	20.0	97	67-124
Chlorobenzene	22.3	20.0	111	83-118
Chloroethane	16.5	20.0	83	68-132
Chloroform	17.6	20.0	88	77-116
Chloromethane	16.0	20.0	80	60-128
cis-1,2-Dichloroethene	16.9	20.0	84	78-117
cis-1,3-Dichloropropene	21.5	20.0	108	80-119
Dibromochloromethane	23.1	20.0	115	74-121
Dibromomethane	17.9	20.0	90	76-117
Ethylbenzene	22.1	20.0	110	82-119
Iodomethane	101	100	101	51-137
m,p-Xylenes	42.5	40.0	106	79-122
Methylene Chloride	16.9	20.0	85	75-123
o-Xylene	21.3	20.0	107	80-119
Styrene	22.3	20.0	112	80-121
Tetrachloroethene (PCE)	23.6	20.0	118	75-126
Toluene	22.2	20.0	111	52-152

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Analyzed:** 05/29/12

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 293646

**Lab Control Sample**  
**JQ1203342-01**

<b>Analyte Name</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
trans-1,2-Dichloroethene	16.9	20.0	85	75-121
trans-1,3-Dichloropropene	21.9	20.0	109	76-118
trans-1,4-Dichloro-2-butene	22.3	20.0	112	10-198
Trichloroethene (TCE)	18.5	20.0	92	78-122
Trichlorofluoromethane	19.4	20.0	97	58-134
Vinyl Acetate	85.0	100	85	36-169
Vinyl Chloride	17.0	20.0	85	69-138

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.**Service Request:** J1202333**Project:** JED SWDF**Sample Matrix:** Water**SURROGATE RECOVERY SUMMARY****1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography****Analysis Method:** 8011**Extraction Method:** Method

1,1,1,2-Tetrachloroethane		
Sample Name	Lab Code	70 - 130
MW-9A	J1202333-001	92
MW-9B	J1202333-002	102
MW-8A	J1202333-003	79
MW-8B	J1202333-004	76
MW-6B	J1202333-005	75
Equipment Blank-2	J1202333-006	105
MW-1A	J1202333-008	90
MW-1B	J1202333-009	119
MW-7A	J1202333-010	95
MW-7B	J1202333-011	99
MW-2B	J1202333-012	102
Method Blank	JQ1203265-01	161
Lab Control Sample	JQ1203265-02	101
Method Blank	JQ1203266-01	88
Lab Control Sample	JQ1203266-02	99
MW-6B	JQ1203266-03	69
MW-6B	JQ1203266-04	76



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12  
**Date Received:** 05/17/12  
**Date Analyzed:** 05/25/12  
**Date Extracted:** 05/25/12

## Duplicate Matrix Spike Summary

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

**Sample Name:** MW-6B **Units:** ug/L  
**Lab Code:** J1202333-005 **Basis:** NA  
**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Matrix Spike JQ1203266-03				Duplicate Matrix Spike JQ1203266-04					
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.220	0.251	88	0.234	0.249	94	65-135	6	30
1,2-Dibromoethane (EDB)	ND	0.204	0.251	81	0.210	0.249	85	65-135	3	30

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Analyzed:** 05/26/12  
**Date Extracted:** 05/25/12

**Lab Control Sample Summary****1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 293716

**Lab Control Sample  
JQ1203265-02**

<b>Analyte Name</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
1,2-Dibromo-3-chloropropane (DBCP)	0.249	0.250	100	70-130
1,2-Dibromoethane (EDB)	0.225	0.250	90	70-130

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Analyzed:** 05/25/12  
**Date Extracted:** 05/25/12

**Lab Control Sample Summary****1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 293716

**Lab Control Sample  
JQ1203266-02**

<b>Analyte Name</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
1,2-Dibromo-3-chloropropane (DBCP)	0.242	0.250	97	70-130
1,2-Dibromoethane (EDB)	0.265	0.250	106	70-130

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12  
**Date Received:** 05/17/12  
**Date Analyzed:** 5/21/12

**Duplicate Matrix Spike Summary**  
**Inorganic Parameters**

**Sample Name:** MW-9A  
**Lab Code:** J1202333-001

**Units:** ug/L  
**Basis:** NA

**Matrix Spike**  
J1202333-001MS

**Duplicate Matrix Spike**  
J1202333-001DMS

Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Antimony, Total Recoverable	6020	0.2	50.7	50.0	101	50.4	50.0	101	75-125	<1	20
Arsenic, Total Recoverable	6020	1.7	51.1	50.0	99	50.8	50.0	98	75-125	<1	20
Barium, Total Recoverable	6020	15.2	66.3	50.0	102	66.2	50.0	102	75-125	<1	20
Beryllium, Total Recoverable	6020	0.04	49.3	50.0	99	48.0	50.0	96	75-125	3	20
Cadmium, Total Recoverable	6020	0.10	48.7	50.0	97	49.2	50.0	98	75-125	1	20
Chromium, Total Recoverable	6020	2.0	50.9	50.0	98	50.1	50.0	96	75-125	1	20
Cobalt, Total Recoverable	6020	1.1	51.4	50.0	101	51.2	50.0	100	75-125	<1	20
Copper, Total Recoverable	6020	0.4	49.6	50.0	98	49.1	50.0	97	75-125	<1	20
Lead, Total Recoverable	6020	0.12	49.0	50.0	98	48.2	50.0	96	75-125	2	20
Nickel, Total Recoverable	6020	1.8	52.6	50.0	102	51.8	50.0	100	75-125	2	20
Selenium, Total Recoverable	6020	1.1	16.5	50.0	33 *	15.8	50.0	32 *	75-125	4	20
Silver, Total Recoverable	6020	0.06	48.9	50.0	98	48.4	50.0	97	75-125	<1	20
Thallium, Total Recoverable	6020	0.05	48.6	50.0	97	49.0	50.0	98	75-125	<1	20
Vanadium, Total Recoverable	6020	1.7	51.1	50.0	99	50.9	50.0	99	75-125	<1	20
Zinc, Total Recoverable	6020	1.6	97.1	100	97	97.8	100	98	75-125	<1	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Analyzed:** 05/18/12 - 05/21/12

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** ug/L**Basis:** NA

**Lab Control Sample**  
J1202333-LCS

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Antimony, Total Recoverable	6020	50.7	50.0	101	80-120
Arsenic, Total Recoverable	6020	48.9	50.0	98	80-120
Barium, Total Recoverable	6020	49.8	50.0	100	80-120
Beryllium, Total Recoverable	6020	49.4	50.0	99	80-120
Cadmium, Total Recoverable	6020	49.6	50.0	99	80-120
Chromium, Total Recoverable	6020	49.5	50.0	99	80-120
Cobalt, Total Recoverable	6020	49.5	50.0	99	80-120
Copper, Total Recoverable	6020	50.6	50.0	101	80-120
Iron, Total Recoverable	6010B	4960	5000	99	80-120
Lead, Total Recoverable	6020	49.5	50.0	99	80-120
Mercury, Total	7470A	1.15	1.25	92	80-120
Nickel, Total Recoverable	6020	50.5	50.0	101	80-120
Selenium, Total Recoverable	6020	48.5	50.0	97	80-120
Silver, Total Recoverable	6020	50.0	50.0	100	80-120
Thallium, Total Recoverable	6020	48.9	50.0	98	80-120
Vanadium, Total Recoverable	6020	49.9	50.0	100	80-120
Zinc, Total Recoverable	6020	97.4	100	97	80-120

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Analyzed:** 5/18/12

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**  
J1202333-LCS

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Sodium, Total Recoverable	6010B	25.0	25.0	100	80-120



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12  
**Date Received:** 05/17/12  
**Date Analyzed:** 05/17/12

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-9A  
**Lab Code:** J1202333-001

**Units:** mg/L  
**Basis:** NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample J1202333-001DUP1	Average	RPD	RPD Limit
					Result			
Chloride	300.0	0.50	0.11	24.8	24.5	24.7	<1	20
Nitrate as Nitrogen	300.0	0.20	0.03	0.03	0.03	NC	NC	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12  
**Date Received:** 05/17/12  
**Date Analyzed:** 05/17/12

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-7B  
**Lab Code:** J1202333-011

**Units:** mg/L  
**Basis:** NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample J1202333-011DUP3	Average	RPD	RPD Limit
					Result			
Chloride	300.0	0.50	0.11	83.7	83.9	83.8	<1	20
Nitrate as Nitrogen	300.0	0.20	0.03	0.03	0.03	NC	NC	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12  
**Date Received:** 05/17/12  
**Date Analyzed:** 05/18/12

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-8A  
**Lab Code:** J1202333-003

**Units:** mg/L  
**Basis:** NA

					Duplicate Sample J1202333- 003DUP2			
Analyte Name	Analysis Method	MRL	MDL	Sample Result	Result	Average	RPD	RPD Limit
Solids, Total Dissolved	SM 2540 C	10	10	166	172	169	4	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12  
**Date Received:** 05/17/12  
**Date Analyzed:** 5/17/12

**Matrix Spike Summary**  
**Chloride**

**Sample Name:** MW-9A  
**Lab Code:** J1202333-001

**Units:** mg/L  
**Basis:** NA

**Matrix Spike**  
J1202333-001MS1

<b>Analyte Name</b>	<b>Method</b>	<b>Sample Result</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Chloride	300.0	24.8	75.3	50.0	101	90-110
Nitrate as Nitrogen	300.0	0.03	4.88	5.00	98	90-110

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Collected:** 05/16/12  
**Date Received:** 05/17/12  
**Date Analyzed:** 5/17/12

**Matrix Spike Summary**  
**Chloride**

**Sample Name:** MW-7B  
**Lab Code:** J1202333-011

**Units:** mg/L  
**Basis:** NA

**Matrix Spike**  
J1202333-011MS2

<b>Analyte Name</b>	<b>Method</b>	<b>Sample Result</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Chloride	300.0	83.7	130	50.0	92	90-110
Nitrate as Nitrogen	300.0	0.03	4.95	5.00	99	90-110

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Analyzed:** 05/17/12 - 05/21/12

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:** mg/L**Basis:** NA**Lab Control Sample**

J1202333-LCS1

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Ammonia as Nitrogen	350.1	0.990	1.00	99	90-110
Chloride	300.0	52.4	50.0	105	90-110
Nitrate as Nitrogen	300.0	5.14	5.00	103	90-110
Solids, Total Dissolved	SM 2540 C	298	300	99	85-115



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202333  
**Date Analyzed:** 05/22/12

**Lab Control Sample Summary**  
**Solids, Total Dissolved**

**Analysis Method:** SM 2540 C

**Units:** mg/L

**Basis:** NA

**Analysis Lot:** 292679

<b>Sample Name</b>	<b>Lab Code</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Lab Control Sample	J1202333-LCS2	294	300	98	85-115

**Cooler Receipt Form**

Client: WSI

Service Request #: 57202333

Project: JED SWDF

Cooler received on 5-17-12

and opened on 5-17-12 by SC

COURIER: ALS ☒ UPS ☐ FEDEX Client Other \_\_\_\_\_ Airbill # 12 XSW 0982210006736

- 1 Were custody seals on outside of cooler? ☒ Yes ☐ No  
If yes, how many and where? # 1 on lid other \_\_\_\_\_
- 2 Were seals intact and signature and date correct? ☒ Yes ☐ No ☐ N/A
- 3 Were custody papers properly filled out? ☒ Yes ☐ No ☐ N/A
- 4 Temperature of cooler(s) upon receipt (Should be > 0°C and < 6°C) 3.1 1.7 \_\_\_\_\_
- 5 Thermometer ID 771 171 \_\_\_\_\_
- 6 Temperature Blank Present? ☒ Yes ☐ No
- 7 Were Ice or Ice Packs present ☒ Ice ☐ Ice Packs ☐ No
- 8 Did all bottles arrive in good condition (unbroken, etc....)? ☒ Yes ☐ No ☐ N/A
- 9 Type of packing material present  
Netting ☐ Vial Holder ☐ Bubble Wrap ☒  
Paper ☐ Styrofoam ☐ Other ☐ N/A
- 10 Were all bottle labels complete (sample ID, preservation, etc....)? ☒ Yes ☐ No ☐ N/A
- 11 Did all bottle labels and tags agree with custody papers? ☒ Yes ☐ No ☐ N/A
- 12 Were the correct bottles used for the tests indicated? ☒ Yes ☐ No ☐ N/A
- 13 Were all of the preserved bottles received with the appropriate preservative?  
☒ HNO3 pH<2 ☒ H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2  
Preservative additions noted below \_\_\_\_\_
- 14 Were all samples received within analysis holding times? ☒ Yes ☐ No ☐ N/A
- 15 Were all VOA vials free of air bubbles? If present, note below ☒ Yes ☐ No ☐ N/A
- 16 Where did the bottles originate? ☒ ALS ☐ Client

Sample ID	Reagent	Lot #	ml added	Initials Date/Time

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted:

Date:

## CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

9143 Phillips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

(904) 739-2011

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**CONCLUSIONS**

# RS

51202333

CAS Contact

Project Name <b>JED SWDF</b>		Project Number		ANALYSIS REQUESTED (Include Method Number and C		J1202333		Waste Services of Florida, Inc. JED SWDF		5	
Project Manager <b>Joe Terry</b>		Email Address <b>jterry@wsf.com</b>		PRESERVATIVE		1 0 3 0 2		1		2	
Company Address <b>WSF</b>		11500 413 <sup>rd</sup> St. N.		NUMBER OF CONTAINERS		8260		8011		Metals	
Phone #		Clearwater, FL 33762		FAX#							
213-943-8633		Joe Terry		Sampler's Printed Name		Joe Terry					
CLIENT SAMPLE ID		LAB ID		SAMPLING DATE		TIME		MATRIX			
MW-9A				5-16-12		0905		GW		9 3 3 1 1 1	
MW-9B				0835							
MW-8A				1005							
MW-8B				1035							
MW-6B				1310				GW			
Equipment Blank-2				5-16-12		0930		H <sub>2</sub> O		9 3 3 1 1 1	
Trip Blank				4-27-12		1000		H <sub>2</sub> O		2 2	
SPECIAL INSTRUCTIONS/COMMENTS		Cooler ID: 12137-JED-2		TURNAROUND REQUIREMENTS		RUSH (SURCHARGES APPLY)		STANDARD		REQUESTED FAX DATE	
See QAPP <input type="checkbox"/>		SAMPLE RECEIPT: CONDITION/COOLER TEMP:		CUSTODY SEALS: Y N		RECEIVED BY		RELINQUISHED BY		RECEIVED BY	
RELINQUISHED BY		RELINQUISHED BY		RELINQUISHED BY		RELINQUISHED BY		RELINQUISHED BY		RELINQUISHED BY	
Signature		Signature		Signature		Signature		Signature		Signature	
Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name	
Firm		Firm		Firm		Firm		Firm		Firm	
Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time	
5-16-12/1630		5-17-12 0920		5-17-12 0920		5-17-12 0920		5-17-12 0920		5-17-12 0920	

**Distribution:** White - Return to Originator; Yellow - Retained by Client

ISCOC-3/11



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

SR # 51202333  
CAS Contact

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PAGE 1 OF 1

www.caslab.com

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and PRESERVATIVE)										
Project Manager		Email Address												
Company/Address														
JED SWDF		Joe Terry		10302										
WSI		jerry@caslab.com		B260 B261 B262 B263 B264 B265 B266 B267 B268 B269 B270 B271 B272 B273 B274 B275 B276 B277 B278 B279 B280 B281 B282 B283 B284 B285 B286 B287 B288 B289 B290 B291 B292 B293 B294 B295 B296 B297 B298 B299 B300										
11500 43rd St. N														
Clearwater, FL 33762														
Phone # 813-943-8633		FAX #												
Sampler's Signature Joe Terry		Sampler's Printed Name Joe Terry												
CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX										
MW-1A		5-16-12	1445	GW	9	3	3	1	1	1				
MW-1B			1415		9	3	3	1	1	1				
MW-7A			1205		9	3	3	1	1	1				
MW-7B			1140		9	3	3	1	1	1				
MW-2B		5-16-12	1555	GW	9	3	3	1	1	1				
Trip Blank		4-26-12	0900	Dist	2	2								
SPECIAL INSTRUCTIONS/COMMENTS														
Cooler ID: 12137-5ED-1														
See QAPP <input type="checkbox"/>														
SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____														
RELINQUISHED BY					RECEIVED BY					CUSTODY SEALS: Y N				
Signature Joe Terry					Signature [Signature]					RELINQUISHED BY				
Printed Name Joe Terry					Printed Name [Name]					RECEIVED BY				
Firm WSI					Firm [Firm]					RELINQUISHED BY				
Date/Time 5-16-12/1630					Date/Time 5-17-12 0920					RECEIVED BY				
Distribution: White - Return to Originator; Yellow - Retained by Client														

1. HCL  
2. HNO<sub>3</sub>  
3. H<sub>2</sub>SO<sub>4</sub>  
4. NaOH  
5. Zn Acetate  
6. MeOH  
7. NaHSO<sub>4</sub>  
8. Other \_\_\_\_\_

REMARKS/ALTERNATE DESCRIPTION

SR # 51202333  
CAS Contact

J1202333  
Waste Services of Florida, Inc.  
JED SWDF

11500 43rd St. N  
Clearwater, FL 33762  
Phone # 813-943-8633  
FAX #  
Sampler's Signature Joe Terry  
Sampler's Printed Name Joe Terry

ANALYSIS REQUESTED (Include Method Number and PRESERVATIVE)

10302

B260  
B261  
B262  
B263  
B264  
B265  
B266  
B267  
B268  
B269  
B270  
B271  
B272  
B273  
B274  
B275  
B276  
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B289  
B290  
B291  
B292  
B293  
B294  
B295  
B296  
B297  
B298  
B299  
B300

1. HCL  
2. HNO<sub>3</sub>  
3. H<sub>2</sub>SO<sub>4</sub>  
4. NaOH  
5. Zn Acetate  
6. MeOH  
7. NaHSO<sub>4</sub>  
8. Other \_\_\_\_\_

REMARKS/ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS

Cooler ID: 12137-5ED-1

See QAPP ☐

SAMPLE RECEIPT: CONDITION/COOLER TEMP: \_\_\_\_\_

RELINQUISHED BY

RECEIVED BY

CUSTODY SEALS: Y N

Signature Joe Terry

Printed Name Joe Terry

Firm WSI

Date/Time 5-16-12/1630

Signature [Signature]

Printed Name [Name]

Firm [Firm]

Date/Time 5-17-12 0920

Distribution: White - Return to Originator; Yellow - Retained by Client



May 31, 2012

Service Request No: J1202313

Kirk Wills  
Waste Services of Florida, Inc.  
11500 43rd Street North  
Clearwater, FL 33762

**Laboratory Results for: JED SWDF**

Dear Kirk,

Enclosed are the results of the sample(s) submitted to our laboratory May 16, 2012  
For your reference, these analyses have been assigned our service request number **J1202313**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. If required, the laboratory can provide uncertainty measurements for each method employed in sample analysis; this uncertainty measurement would be generated using method validation studies and the laboratory's quality control data.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at [CMyers@caslab.com](mailto:CMyers@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc. dba ALS Environmental**

Craig Myers  
Project Manager



ADDRESS 9143 Philips Highway, Suite 200, Jacksonville, FL 32256

PHONE +1 904 739 2277 | FAX +1 904 739 2011

Columbia Analytical Services, Inc.

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RIGHT SOLUTIONS RIGHT PARTNER

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Received:** 5/16/12

### CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

#### Sample Receipt

Seven water samples and one trip blank were received for analysis at Columbia Analytical Services on 5/16/12. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at  $\leq 6^{\circ}\text{C}$  upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

#### Volatile Organic Analyses:

No significant data anomalies were noted with this analysis.

#### Semi-Volatile Organic Analyses:

Method 8011: The upper control criterion was exceeded for the following analyte in the Continuing Calibration Verification (CCV): 1,2-Dibromo-3-chloropropane. The field samples analyzed in this sequence did not contain the analyte in question above the Method Reporting Limit (MRL). Since the apparent problem equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8011: The upper control criterion was exceeded for the following surrogate in Method Blank JQ1203265-01: 1,1,1,2-Tetrachloroethane. No target analytes were detected in the Method Blank. Since the apparent problem equates to a high bias, the data quality is not significantly affected. No further corrective action was appropriate.

Method 8011: The control criterion was exceeded for the following surrogate in sample MW-11A due to suspected matrix interferences: 1,1,1,2-Tetrachloroethane. A large emulsion was generated during the extraction of this sample, which may have contributed to its poor surrogate recovery. No further corrective action was appropriate.

#### Metals Analyses:

Method 6020: The matrix spike recoveries of Selenium for sample MW-10B were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. No further corrective action was appropriate.

#### General Chemistry Analyses:

No significant data anomalies were noted with this analysis.

Approved by  Date 5/31/2012



**State Certifications, Accreditations, and Licenses**

<b>Agency</b>	<b>Number</b>	<b>Expire Date</b>
Florida Department of Health	E82502	6/30/2012
North Carolina Department of Environment and Natural Resources	527	12/31/2012
Virginia Environmental Accreditation Program	460191	12/14/2012
Louisiana Department of Environmental Quality	02086	6/30/2012
Kentucky Division of Waste Management	63	7/5/2013
South Carolina Department of Health and Environmental Control	96021001	6/30/2012
Maine Department of Health and Human Services	2011006	2/3/2013
Pennsylvania Department of Environmental Protection	68-04835	7/31/2012
New Jersey Department of Environmental Protection	FL019	6/30/2012

## **Data Qualifiers**

### **Florida-DEP**

- ! Data deviates from historically established concentration ranges
- \* Not reported due to interference
- ? Data is rejected and should not be used
- A Value reported is the arithmetic mean of two or more determinations
- B Results based upon colony counts outside the acceptable range.
- D Measurement was made in the field.
- E Extra samples were taken at composite stations
- H Value based on field kit determination; results may not be accurate.
- I The reported value is between the laboratory method detection limit and the laboratory PQL.
- J Estimated value.
- K Off scale low. The value is less than the lowest calibration standard.
- L Off scale high. The analyte is above the acceptable level of quantitation.
- M The MDL/MRL has been elevated because the analyte could not be accurately quantified.
- N Presumptive evidence of presence of material.
- O Sampled, but analysis lost or not performed
- Q Sample held beyond the acceptable holding time.
- R Significant rain in the past 48 hours (typically in excess of 0.5 inches)
- T Estimated value, less than the MDL
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- X Insufficient individuals were present in the sample to achieve a minimum of 280 organisms for identification (Stream Condition Index Analysis only)
- Y The laboratory analysis was from an unpreserved or improperly preserved sample.
- Z Too many colonies were present, the numeric value represents the filtration volume

## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF

**Service Request:** J1202313

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1202313-001	MW-10B	5/15/2012	1440
J1202313-002	MW-11A	5/15/2012	1330
J1202313-003	MW-11B	5/15/2012	1255
J1202313-004	MW-12A	5/15/2012	1150
J1202313-005	MW-12B	5/15/2012	1120
J1202313-006	MW-13A	5/15/2012	1015
J1202313-007	MW-13B	5/15/2012	0945
J1202313-008	Trip Blank	5/15/2012	0000

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 14:40  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-10B  
**Lab Code:** J1202313-001

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/21/12 16:18	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/21/12 16:18	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/21/12 16:18	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/21/12 16:18	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/21/12 16:18	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/21/12 16:18	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/21/12 16:18	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/21/12 16:18	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/21/12 16:18	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/21/12 16:18	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/21/12 16:18	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/21/12 16:18	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/21/12 16:18	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/21/12 16:18	
2-Hexanone	2.20 U	25.0	2.20	1	05/21/12 16:18	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/21/12 16:18	
Acetone	5.60 U	50.0	5.60	1	05/21/12 16:18	
Acrylonitrile	1.50 U	10.0	1.50	1	05/21/12 16:18	
Benzene	0.210 U	1.00	0.210	1	05/21/12 16:18	
Bromochloromethane	0.270 U	5.00	0.270	1	05/21/12 16:18	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/21/12 16:18	
Bromoform	0.420 U	2.00	0.420	1	05/21/12 16:18	
Bromomethane	0.230 U	5.00	0.230	1	05/21/12 16:18	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/21/12 16:18	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/21/12 16:18	
Chlorobenzene	0.160 U	1.00	0.160	1	05/21/12 16:18	
Chloroethane	0.520 U	5.00	0.520	1	05/21/12 16:18	
Chloroform	0.350 U	1.00	0.350	1	05/21/12 16:18	
Chloromethane	0.360 U	1.00	0.360	1	05/21/12 16:18	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/21/12 16:18	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/21/12 16:18	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/21/12 16:18	
Dibromomethane	0.360 U	5.00	0.360	1	05/21/12 16:18	
Ethylbenzene	0.210 U	1.00	0.210	1	05/21/12 16:18	
Iodomethane	2.70 U	5.00	2.70	1	05/21/12 16:18	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/21/12 16:18	
Methylene Chloride	0.210 U	5.00	0.210	1	05/21/12 16:18	
o-Xylene	0.140 U	1.00	0.140	1	05/21/12 16:18	
Styrene	0.290 U	1.00	0.290	1	05/21/12 16:18	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/21/12 16:18	
Toluene	0.190 U	1.00	0.190	1	05/21/12 16:18	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/21/12 16:18	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 14:40  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-10B  
**Lab Code:** J1202313-001

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/21/12 16:18	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/21/12 16:18	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/21/12 16:18	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/21/12 16:18	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/21/12 16:18	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/21/12 16:18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	102	72 - 121	05/21/12 16:18	
4-Bromofluorobenzene	105	86 - 113	05/21/12 16:18	
Dibromofluoromethane	101	86 - 112	05/21/12 16:18	
Toluene-d8	105	88 - 115	05/21/12 16:18	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 14:40  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-10B  
**Lab Code:** J1202313-001

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0199	0.00700	1	05/26/12 03:44	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0199	0.00700	1	05/26/12 03:44	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	76	70 - 130	05/26/12 03:44	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 14:40  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-10B  
**Lab Code:** J1202313-001

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Arsenic, Total Recoverable	6020	<b>0.7 I</b>	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Barium, Total Recoverable	6020	<b>69.2</b>	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Beryllium, Total Recoverable	6020	<b>0.21 I</b>	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Chromium, Total Recoverable	6020	<b>1.0</b>	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Cobalt, Total Recoverable	6020	<b>2.4</b>	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Iron, Total Recoverable	6010B	<b>3430</b>	ug/L	100	3	1	05/17/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	<b>1.1 I</b>	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Sodium, Total Recoverable	6010B	<b>51.9</b>	mg/L	0.50	0.03	1	05/17/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Vanadium, Total Recoverable	6020	<b>1.5 I</b>	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-10B  
**Lab Code:** J1202313-001

**Service Request:** J1202313  
**Date Collected:** 05/15/12 14:40  
**Date Received:** 05/16/12 09:50  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.333</b>	mg/L	0.010	0.007	1	05/21/12 11:24	
Chloride	300.0	<b>38.5</b>	mg/L	0.50	0.11	1	05/16/12 17:19	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/16/12 17:19	
Solids, Total Dissolved	SM 2540 C	<b>247</b>	mg/L	10	10	1	05/18/12 14:05	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 13:30  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-11A  
**Lab Code:** J1202313-002

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/21/12 16:49	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/21/12 16:49	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/21/12 16:49	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/21/12 16:49	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/21/12 16:49	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/21/12 16:49	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/21/12 16:49	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/21/12 16:49	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/21/12 16:49	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/21/12 16:49	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/21/12 16:49	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/21/12 16:49	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/21/12 16:49	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/21/12 16:49	
2-Hexanone	2.20 U	25.0	2.20	1	05/21/12 16:49	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/21/12 16:49	
Acetone	5.60 U	50.0	5.60	1	05/21/12 16:49	
Acrylonitrile	1.50 U	10.0	1.50	1	05/21/12 16:49	
Benzene	<b>3.84</b>	1.00	0.210	1	05/21/12 16:49	
Bromochloromethane	0.270 U	5.00	0.270	1	05/21/12 16:49	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/21/12 16:49	
Bromoform	0.420 U	2.00	0.420	1	05/21/12 16:49	
Bromomethane	0.230 U	5.00	0.230	1	05/21/12 16:49	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/21/12 16:49	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/21/12 16:49	
Chlorobenzene	0.160 U	1.00	0.160	1	05/21/12 16:49	
Chloroethane	0.520 U	5.00	0.520	1	05/21/12 16:49	
Chloroform	0.350 U	1.00	0.350	1	05/21/12 16:49	
Chloromethane	0.360 U	1.00	0.360	1	05/21/12 16:49	
cis-1,2-Dichloroethene	<b>0.530 I</b>	1.00	0.360	1	05/21/12 16:49	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/21/12 16:49	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/21/12 16:49	
Dibromomethane	0.360 U	5.00	0.360	1	05/21/12 16:49	
Ethylbenzene	0.210 U	1.00	0.210	1	05/21/12 16:49	
Iodomethane	2.70 U	5.00	2.70	1	05/21/12 16:49	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/21/12 16:49	
Methylene Chloride	0.210 U	5.00	0.210	1	05/21/12 16:49	
o-Xylene	0.140 U	1.00	0.140	1	05/21/12 16:49	
Styrene	0.290 U	1.00	0.290	1	05/21/12 16:49	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/21/12 16:49	
Toluene	0.190 U	1.00	0.190	1	05/21/12 16:49	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/21/12 16:49	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 13:30  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-11A  
**Lab Code:** J1202313-002

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/21/12 16:49	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/21/12 16:49	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/21/12 16:49	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/21/12 16:49	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/21/12 16:49	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/21/12 16:49	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	72 - 121	05/21/12 16:49	
4-Bromofluorobenzene	105	86 - 113	05/21/12 16:49	
Dibromofluoromethane	101	86 - 112	05/21/12 16:49	
Toluene-d8	102	88 - 115	05/21/12 16:49	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 13:30  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-11A  
**Lab Code:** J1202313-002

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0199	0.00700	1	05/26/12 04:04	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0199	0.00700	1	05/26/12 04:04	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	63	70 - 130	05/26/12 04:04	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 13:30  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-11A  
**Lab Code:** J1202313-002

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Arsenic, Total Recoverable	6020	8.2	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Barium, Total Recoverable	6020	15.2	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Beryllium, Total Recoverable	6020	0.04 I	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Chromium, Total Recoverable	6020	6.2	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Cobalt, Total Recoverable	6020	0.4 I	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Copper, Total Recoverable	6020	0.4 I	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Iron, Total Recoverable	6010B	8740	ug/L	100	3	1	05/17/12	5/17/12	
Lead, Total Recoverable	6020	0.44 I	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	1.3 I	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Sodium, Total Recoverable	6010B	29.3	mg/L	0.50	0.03	1	05/17/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Vanadium, Total Recoverable	6020	8.9	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-11A  
**Lab Code:** J1202313-002

**Service Request:** J1202313  
**Date Collected:** 05/15/12 13:30  
**Date Received:** 05/16/12 09:50  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>5.14</b>	mg/L	0.010	0.007	1	05/21/12 11:27	
Chloride	300.0	<b>20.1</b>	mg/L	0.50	0.11	1	05/16/12 18:04	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/16/12 18:04	
Solids, Total Dissolved	SM 2540 C	<b>217</b>	mg/L	10	10	1	05/18/12 14:05	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 12:55  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-11B  
**Lab Code:** J1202313-003

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/21/12 17:19	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/21/12 17:19	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/21/12 17:19	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/21/12 17:19	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/21/12 17:19	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/21/12 17:19	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/21/12 17:19	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/21/12 17:19	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/21/12 17:19	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/21/12 17:19	
1,2-Dichloroethane	<b>0.440 I</b>	1.00	0.220	1	05/21/12 17:19	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/21/12 17:19	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/21/12 17:19	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/21/12 17:19	
2-Hexanone	2.20 U	25.0	2.20	1	05/21/12 17:19	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/21/12 17:19	
Acetone	5.60 U	50.0	5.60	1	05/21/12 17:19	
Acrylonitrile	1.50 U	10.0	1.50	1	05/21/12 17:19	
Benzene	<b>4.96</b>	1.00	0.210	1	05/21/12 17:19	
Bromochloromethane	0.270 U	5.00	0.270	1	05/21/12 17:19	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/21/12 17:19	
Bromoform	0.420 U	2.00	0.420	1	05/21/12 17:19	
Bromomethane	0.230 U	5.00	0.230	1	05/21/12 17:19	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/21/12 17:19	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/21/12 17:19	
Chlorobenzene	0.160 U	1.00	0.160	1	05/21/12 17:19	
Chloroethane	0.520 U	5.00	0.520	1	05/21/12 17:19	
Chloroform	0.350 U	1.00	0.350	1	05/21/12 17:19	
Chloromethane	0.360 U	1.00	0.360	1	05/21/12 17:19	
cis-1,2-Dichloroethene	<b>0.750 I</b>	1.00	0.360	1	05/21/12 17:19	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/21/12 17:19	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/21/12 17:19	
Dibromomethane	0.360 U	5.00	0.360	1	05/21/12 17:19	
Ethylbenzene	0.210 U	1.00	0.210	1	05/21/12 17:19	
Iodomethane	2.70 U	5.00	2.70	1	05/21/12 17:19	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/21/12 17:19	
Methylene Chloride	0.210 U	5.00	0.210	1	05/21/12 17:19	
o-Xylene	<b>0.240 I</b>	1.00	0.140	1	05/21/12 17:19	
Styrene	0.290 U	1.00	0.290	1	05/21/12 17:19	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/21/12 17:19	
Toluene	0.190 U	1.00	0.190	1	05/21/12 17:19	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/21/12 17:19	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 12:55  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-11B  
**Lab Code:** J1202313-003

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/21/12 17:19	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/21/12 17:19	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/21/12 17:19	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/21/12 17:19	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/21/12 17:19	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/21/12 17:19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	99	72 - 121	05/21/12 17:19	
4-Bromofluorobenzene	108	86 - 113	05/21/12 17:19	
Dibromofluoromethane	101	86 - 112	05/21/12 17:19	
Toluene-d8	104	88 - 115	05/21/12 17:19	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 12:55  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-11B  
**Lab Code:** J1202313-003

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0199	0.00700	1	05/26/12 04:24	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0199	0.00700	1	05/26/12 04:24	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	73	70 - 130	05/26/12 04:24	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 12:55  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-11B  
**Lab Code:** J1202313-003

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Arsenic, Total Recoverable	6020	<b>0.9 I</b>	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Barium, Total Recoverable	6020	<b>36.5</b>	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Beryllium, Total Recoverable	6020	<b>0.05 I</b>	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Chromium, Total Recoverable	6020	<b>1.4</b>	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Cobalt, Total Recoverable	6020	<b>0.2 I</b>	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Iron, Total Recoverable	6010B	<b>1180</b>	ug/L	100	3	1	05/17/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Sodium, Total Recoverable	6010B	<b>26.1</b>	mg/L	0.50	0.03	1	05/17/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Vanadium, Total Recoverable	6020	<b>2.5</b>	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-11B  
**Lab Code:** J1202313-003

**Service Request:** J1202313  
**Date Collected:** 05/15/12 12:55  
**Date Received:** 05/16/12 09:50  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.077</b>	mg/L	0.010	0.007	1	05/21/12 11:33	
Chloride	300.0	<b>36.9</b>	mg/L	0.50	0.11	1	05/16/12 18:19	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/16/12 18:19	
Solids, Total Dissolved	SM 2540 C	<b>120</b>	mg/L	10	10	1	05/18/12 14:05	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 11:50  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-12A  
**Lab Code:** J1202313-004

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/21/12 17:49	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/21/12 17:49	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/21/12 17:49	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/21/12 17:49	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/21/12 17:49	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/21/12 17:49	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/21/12 17:49	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/21/12 17:49	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/21/12 17:49	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/21/12 17:49	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/21/12 17:49	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/21/12 17:49	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/21/12 17:49	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/21/12 17:49	
2-Hexanone	2.20 U	25.0	2.20	1	05/21/12 17:49	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/21/12 17:49	
Acetone	5.60 U	50.0	5.60	1	05/21/12 17:49	
Acrylonitrile	1.50 U	10.0	1.50	1	05/21/12 17:49	
Benzene	<b>2.83</b>	1.00	0.210	1	05/21/12 17:49	
Bromochloromethane	0.270 U	5.00	0.270	1	05/21/12 17:49	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/21/12 17:49	
Bromoform	0.420 U	2.00	0.420	1	05/21/12 17:49	
Bromomethane	0.230 U	5.00	0.230	1	05/21/12 17:49	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/21/12 17:49	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/21/12 17:49	
Chlorobenzene	0.160 U	1.00	0.160	1	05/21/12 17:49	
Chloroethane	0.520 U	5.00	0.520	1	05/21/12 17:49	
Chloroform	0.350 U	1.00	0.350	1	05/21/12 17:49	
Chloromethane	0.360 U	1.00	0.360	1	05/21/12 17:49	
cis-1,2-Dichloroethene	<b>0.410 I</b>	1.00	0.360	1	05/21/12 17:49	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/21/12 17:49	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/21/12 17:49	
Dibromomethane	0.360 U	5.00	0.360	1	05/21/12 17:49	
Ethylbenzene	0.210 U	1.00	0.210	1	05/21/12 17:49	
Iodomethane	2.70 U	5.00	2.70	1	05/21/12 17:49	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/21/12 17:49	
Methylene Chloride	0.210 U	5.00	0.210	1	05/21/12 17:49	
o-Xylene	0.140 U	1.00	0.140	1	05/21/12 17:49	
Styrene	0.290 U	1.00	0.290	1	05/21/12 17:49	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/21/12 17:49	
Toluene	0.190 U	1.00	0.190	1	05/21/12 17:49	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/21/12 17:49	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 11:50  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-12A  
**Lab Code:** J1202313-004

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/21/12 17:49	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/21/12 17:49	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/21/12 17:49	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/21/12 17:49	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/21/12 17:49	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/21/12 17:49	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	72 - 121	05/21/12 17:49	
4-Bromofluorobenzene	105	86 - 113	05/21/12 17:49	
Dibromofluoromethane	99	86 - 112	05/21/12 17:49	
Toluene-d8	106	88 - 115	05/21/12 17:49	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 11:50  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-12A  
**Lab Code:** J1202313-004

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00705 U	0.0201	0.00705	1	05/26/12 05:04	5/25/12	
1,2-Dibromoethane (EDB)	0.00705 U	0.0201	0.00705	1	05/26/12 05:04	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	102	70 - 130	05/26/12 05:04	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-12A  
**Lab Code:** J1202313-004

**Service Request:** J1202313  
**Date Collected:** 05/15/12 11:50  
**Date Received:** 05/16/12 09:50  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Arsenic, Total Recoverable	6020	<b>10.1</b>	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Barium, Total Recoverable	6020	<b>20.2</b>	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Chromium, Total Recoverable	6020	<b>1.3</b>	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Cobalt, Total Recoverable	6020	<b>0.9 I</b>	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Iron, Total Recoverable	6010B	<b>56200</b>	ug/L	100	3	1	05/17/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	<b>1.0 I</b>	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Sodium, Total Recoverable	6010B	<b>12.7</b>	mg/L	0.50	0.03	1	05/17/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Vanadium, Total Recoverable	6020	<b>2.1</b>	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-12A  
**Lab Code:** J1202313-004

**Service Request:** J1202313  
**Date Collected:** 05/15/12 11:50  
**Date Received:** 05/16/12 09:50  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>3.05</b>	mg/L	0.010	0.007	1	05/21/12 11:33	
Chloride	300.0	<b>21.0</b>	mg/L	0.50	0.11	1	05/16/12 18:34	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/16/12 18:34	
Solids, Total Dissolved	SM 2540 C	<b>240</b>	mg/L	10	10	1	05/18/12 14:05	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 11:20  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-12B  
**Lab Code:** J1202313-005

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/21/12 18:19	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/21/12 18:19	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/21/12 18:19	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/21/12 18:19	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/21/12 18:19	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/21/12 18:19	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/21/12 18:19	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/21/12 18:19	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/21/12 18:19	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/21/12 18:19	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/21/12 18:19	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/21/12 18:19	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/21/12 18:19	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/21/12 18:19	
2-Hexanone	2.20 U	25.0	2.20	1	05/21/12 18:19	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/21/12 18:19	
Acetone	5.60 U	50.0	5.60	1	05/21/12 18:19	
Acrylonitrile	1.50 U	10.0	1.50	1	05/21/12 18:19	
Benzene	0.210 U	1.00	0.210	1	05/21/12 18:19	
Bromochloromethane	0.270 U	5.00	0.270	1	05/21/12 18:19	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/21/12 18:19	
Bromoform	0.420 U	2.00	0.420	1	05/21/12 18:19	
Bromomethane	0.230 U	5.00	0.230	1	05/21/12 18:19	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/21/12 18:19	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/21/12 18:19	
Chlorobenzene	0.160 U	1.00	0.160	1	05/21/12 18:19	
Chloroethane	0.520 U	5.00	0.520	1	05/21/12 18:19	
Chloroform	0.350 U	1.00	0.350	1	05/21/12 18:19	
Chloromethane	0.360 U	1.00	0.360	1	05/21/12 18:19	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/21/12 18:19	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/21/12 18:19	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/21/12 18:19	
Dibromomethane	0.360 U	5.00	0.360	1	05/21/12 18:19	
Ethylbenzene	0.210 U	1.00	0.210	1	05/21/12 18:19	
Iodomethane	2.70 U	5.00	2.70	1	05/21/12 18:19	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/21/12 18:19	
Methylene Chloride	0.210 U	5.00	0.210	1	05/21/12 18:19	
o-Xylene	0.140 U	1.00	0.140	1	05/21/12 18:19	
Styrene	0.290 U	1.00	0.290	1	05/21/12 18:19	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/21/12 18:19	
Toluene	0.190 U	1.00	0.190	1	05/21/12 18:19	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/21/12 18:19	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 11:20  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-12B  
**Lab Code:** J1202313-005

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/21/12 18:19	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/21/12 18:19	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/21/12 18:19	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/21/12 18:19	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/21/12 18:19	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/21/12 18:19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	72 - 121	05/21/12 18:19	
4-Bromofluorobenzene	102	86 - 113	05/21/12 18:19	
Dibromofluoromethane	101	86 - 112	05/21/12 18:19	
Toluene-d8	103	88 - 115	05/21/12 18:19	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 11:20  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-12B  
**Lab Code:** J1202313-005

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0197	0.00700	1	05/26/12 05:24	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0197	0.00700	1	05/26/12 05:24	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	98	70 - 130	05/26/12 05:24	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-12B  
**Lab Code:** J1202313-005

**Service Request:** J1202313  
**Date Collected:** 05/15/12 11:20  
**Date Received:** 05/16/12 09:50  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Barium, Total Recoverable	6020	37.7	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Chromium, Total Recoverable	6020	0.5 I	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Cobalt, Total Recoverable	6020	0.3 I	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Iron, Total Recoverable	6010B	1240	ug/L	100	3	1	05/17/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Sodium, Total Recoverable	6010B	10.6	mg/L	0.50	0.03	1	05/17/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Vanadium, Total Recoverable	6020	0.3 U	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-12B  
**Lab Code:** J1202313-005

**Service Request:** J1202313  
**Date Collected:** 05/15/12 11:20  
**Date Received:** 05/16/12 09:50  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.132</b>	mg/L	0.010	0.007	1	05/21/12 11:34	
Chloride	300.0	<b>28.7</b>	mg/L	0.50	0.11	1	05/16/12 18:49	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/16/12 18:49	
Solids, Total Dissolved	SM 2540 C	<b>65</b>	mg/L	10	10	1	05/18/12 14:05	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 10:15  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-13A  
**Lab Code:** J1202313-006

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/21/12 18:49	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/21/12 18:49	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/21/12 18:49	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/21/12 18:49	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/21/12 18:49	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/21/12 18:49	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/21/12 18:49	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/21/12 18:49	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/21/12 18:49	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/21/12 18:49	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/21/12 18:49	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/21/12 18:49	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/21/12 18:49	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/21/12 18:49	
2-Hexanone	2.20 U	25.0	2.20	1	05/21/12 18:49	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/21/12 18:49	
Acetone	5.60 U	50.0	5.60	1	05/21/12 18:49	
Acrylonitrile	1.50 U	10.0	1.50	1	05/21/12 18:49	
Benzene	<b>1.98</b>	1.00	0.210	1	05/21/12 18:49	
Bromochloromethane	0.270 U	5.00	0.270	1	05/21/12 18:49	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/21/12 18:49	
Bromoform	0.420 U	2.00	0.420	1	05/21/12 18:49	
Bromomethane	0.230 U	5.00	0.230	1	05/21/12 18:49	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/21/12 18:49	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/21/12 18:49	
Chlorobenzene	0.160 U	1.00	0.160	1	05/21/12 18:49	
Chloroethane	0.520 U	5.00	0.520	1	05/21/12 18:49	
Chloroform	0.350 U	1.00	0.350	1	05/21/12 18:49	
Chloromethane	0.360 U	1.00	0.360	1	05/21/12 18:49	
cis-1,2-Dichloroethene	<b>0.410 I</b>	1.00	0.360	1	05/21/12 18:49	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/21/12 18:49	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/21/12 18:49	
Dibromomethane	0.360 U	5.00	0.360	1	05/21/12 18:49	
Ethylbenzene	0.210 U	1.00	0.210	1	05/21/12 18:49	
Iodomethane	2.70 U	5.00	2.70	1	05/21/12 18:49	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/21/12 18:49	
Methylene Chloride	0.210 U	5.00	0.210	1	05/21/12 18:49	
o-Xylene	0.140 U	1.00	0.140	1	05/21/12 18:49	
Styrene	0.290 U	1.00	0.290	1	05/21/12 18:49	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/21/12 18:49	
Toluene	0.190 U	1.00	0.190	1	05/21/12 18:49	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/21/12 18:49	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 10:15  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-13A  
**Lab Code:** J1202313-006

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/21/12 18:49	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/21/12 18:49	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/21/12 18:49	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/21/12 18:49	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/21/12 18:49	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/21/12 18:49	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	72 - 121	05/21/12 18:49	
4-Bromofluorobenzene	106	86 - 113	05/21/12 18:49	
Dibromofluoromethane	99	86 - 112	05/21/12 18:49	
Toluene-d8	104	88 - 115	05/21/12 18:49	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 10:15  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-13A  
**Lab Code:** J1202313-006

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0200	0.00700	1	05/26/12 05:44	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0200	0.00700	1	05/26/12 05:44	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	82	70 - 130	05/26/12 05:44	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 10:15  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-13A  
**Lab Code:** J1202313-006

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Arsenic, Total Recoverable	6020	<b>16.8</b>	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Barium, Total Recoverable	6020	<b>10.9</b>	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Chromium, Total Recoverable	6020	<b>3.4</b>	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Cobalt, Total Recoverable	6020	<b>0.4 I</b>	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Iron, Total Recoverable	6010B	<b>19000</b>	ug/L	100	3	1	05/17/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Sodium, Total Recoverable	6010B	<b>12.3</b>	mg/L	0.50	0.03	1	05/17/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Vanadium, Total Recoverable	6020	<b>4.0</b>	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-13A  
**Lab Code:** J1202313-006

**Service Request:** J1202313  
**Date Collected:** 05/15/12 10:15  
**Date Received:** 05/16/12 09:50  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>1.31</b>	mg/L	0.010	0.007	1	05/21/12 11:35	
Chloride	300.0	<b>18.1</b>	mg/L	0.50	0.11	1	05/16/12 19:04	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/16/12 19:04	
Solids, Total Dissolved	SM 2540 C	<b>119</b>	mg/L	10	10	1	05/18/12 14:05	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 09:45  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-13B  
**Lab Code:** J1202313-007

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/21/12 19:19	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/21/12 19:19	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/21/12 19:19	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/21/12 19:19	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/21/12 19:19	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/21/12 19:19	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/21/12 19:19	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/21/12 19:19	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/21/12 19:19	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/21/12 19:19	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/21/12 19:19	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/21/12 19:19	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/21/12 19:19	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/21/12 19:19	
2-Hexanone	2.20 U	25.0	2.20	1	05/21/12 19:19	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/21/12 19:19	
Acetone	5.60 U	50.0	5.60	1	05/21/12 19:19	
Acrylonitrile	1.50 U	10.0	1.50	1	05/21/12 19:19	
Benzene	0.210 U	1.00	0.210	1	05/21/12 19:19	
Bromochloromethane	0.270 U	5.00	0.270	1	05/21/12 19:19	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/21/12 19:19	
Bromoform	0.420 U	2.00	0.420	1	05/21/12 19:19	
Bromomethane	0.230 U	5.00	0.230	1	05/21/12 19:19	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/21/12 19:19	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/21/12 19:19	
Chlorobenzene	0.160 U	1.00	0.160	1	05/21/12 19:19	
Chloroethane	0.520 U	5.00	0.520	1	05/21/12 19:19	
Chloroform	0.350 U	1.00	0.350	1	05/21/12 19:19	
Chloromethane	0.360 U	1.00	0.360	1	05/21/12 19:19	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/21/12 19:19	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/21/12 19:19	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/21/12 19:19	
Dibromomethane	0.360 U	5.00	0.360	1	05/21/12 19:19	
Ethylbenzene	0.210 U	1.00	0.210	1	05/21/12 19:19	
Iodomethane	2.70 U	5.00	2.70	1	05/21/12 19:19	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/21/12 19:19	
Methylene Chloride	0.210 U	5.00	0.210	1	05/21/12 19:19	
o-Xylene	0.140 U	1.00	0.140	1	05/21/12 19:19	
Styrene	0.290 U	1.00	0.290	1	05/21/12 19:19	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/21/12 19:19	
Toluene	0.190 U	1.00	0.190	1	05/21/12 19:19	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/21/12 19:19	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 09:45  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-13B  
**Lab Code:** J1202313-007

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/21/12 19:19	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/21/12 19:19	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/21/12 19:19	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/21/12 19:19	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/21/12 19:19	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/21/12 19:19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	101	72 - 121	05/21/12 19:19	
4-Bromofluorobenzene	104	86 - 113	05/21/12 19:19	
Dibromofluoromethane	97	86 - 112	05/21/12 19:19	
Toluene-d8	102	88 - 115	05/21/12 19:19	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 09:45  
**Date Received:** 05/16/12 09:50

**Sample Name:** MW-13B  
**Lab Code:** J1202313-007

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00705 U	0.0201	0.00705	1	05/26/12 06:04	5/25/12	
1,2-Dibromoethane (EDB)	0.00705 U	0.0201	0.00705	1	05/26/12 06:04	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	106	70 - 130	05/26/12 06:04	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-13B  
**Lab Code:** J1202313-007

**Service Request:** J1202313  
**Date Collected:** 05/15/12 09:45  
**Date Received:** 05/16/12 09:50  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Barium, Total Recoverable	6020	<b>18.3</b>	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Chromium, Total Recoverable	6020	<b>0.6 I</b>	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Cobalt, Total Recoverable	6020	<b>0.3 I</b>	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Iron, Total Recoverable	6010B	<b>1530</b>	ug/L	100	3	1	05/17/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Sodium, Total Recoverable	6010B	<b>13.2</b>	mg/L	0.50	0.03	1	05/17/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Vanadium, Total Recoverable	6020	0.3 U	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-13B  
**Lab Code:** J1202313-007

**Service Request:** J1202313  
**Date Collected:** 05/15/12 09:45  
**Date Received:** 05/16/12 09:50  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.149</b>	mg/L	0.010	0.007	1	05/21/12 11:36	
Chloride	300.0	<b>28.6</b>	mg/L	0.50	0.11	1	05/16/12 19:48	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/16/12 19:48	
Solids, Total Dissolved	SM 2540 C	<b>65</b>	mg/L	10	10	1	05/18/12 14:05	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 00:00  
**Date Received:** 05/16/12 09:50

**Sample Name:** Trip Blank  
**Lab Code:** J1202313-008

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/21/12 19:47	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/21/12 19:47	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/21/12 19:47	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/21/12 19:47	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/21/12 19:47	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/21/12 19:47	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/21/12 19:47	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/21/12 19:47	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/21/12 19:47	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/21/12 19:47	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/21/12 19:47	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/21/12 19:47	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/21/12 19:47	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/21/12 19:47	
2-Hexanone	2.20 U	25.0	2.20	1	05/21/12 19:47	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/21/12 19:47	
Acetone	5.60 U	50.0	5.60	1	05/21/12 19:47	
Acrylonitrile	1.50 U	10.0	1.50	1	05/21/12 19:47	
Benzene	0.210 U	1.00	0.210	1	05/21/12 19:47	
Bromochloromethane	0.270 U	5.00	0.270	1	05/21/12 19:47	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/21/12 19:47	
Bromoform	0.420 U	2.00	0.420	1	05/21/12 19:47	
Bromomethane	0.230 U	5.00	0.230	1	05/21/12 19:47	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/21/12 19:47	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/21/12 19:47	
Chlorobenzene	0.160 U	1.00	0.160	1	05/21/12 19:47	
Chloroethane	0.520 U	5.00	0.520	1	05/21/12 19:47	
Chloroform	0.350 U	1.00	0.350	1	05/21/12 19:47	
Chloromethane	0.360 U	1.00	0.360	1	05/21/12 19:47	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/21/12 19:47	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/21/12 19:47	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/21/12 19:47	
Dibromomethane	0.360 U	5.00	0.360	1	05/21/12 19:47	
Ethylbenzene	0.210 U	1.00	0.210	1	05/21/12 19:47	
Iodomethane	2.70 U	5.00	2.70	1	05/21/12 19:47	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/21/12 19:47	
Methylene Chloride	0.210 U	5.00	0.210	1	05/21/12 19:47	
o-Xylene	0.140 U	1.00	0.140	1	05/21/12 19:47	
Styrene	0.290 U	1.00	0.290	1	05/21/12 19:47	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/21/12 19:47	
Toluene	0.190 U	1.00	0.190	1	05/21/12 19:47	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/21/12 19:47	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12 00:00  
**Date Received:** 05/16/12 09:50

**Sample Name:** Trip Blank  
**Lab Code:** J1202313-008

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/21/12 19:47	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/21/12 19:47	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/21/12 19:47	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/21/12 19:47	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/21/12 19:47	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/21/12 19:47	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	99	72 - 121	05/21/12 19:47	
4-Bromofluorobenzene	107	86 - 113	05/21/12 19:47	
Dibromofluoromethane	100	86 - 112	05/21/12 19:47	
Toluene-d8	101	88 - 115	05/21/12 19:47	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203129-02

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/21/12 13:48	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/21/12 13:48	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/21/12 13:48	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/21/12 13:48	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/21/12 13:48	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/21/12 13:48	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/21/12 13:48	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/21/12 13:48	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/21/12 13:48	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/21/12 13:48	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/21/12 13:48	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/21/12 13:48	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/21/12 13:48	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/21/12 13:48	
2-Hexanone	2.20 U	25.0	2.20	1	05/21/12 13:48	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/21/12 13:48	
Acetone	5.60 U	50.0	5.60	1	05/21/12 13:48	
Acrylonitrile	1.50 U	10.0	1.50	1	05/21/12 13:48	
Benzene	0.210 U	1.00	0.210	1	05/21/12 13:48	
Bromochloromethane	0.270 U	5.00	0.270	1	05/21/12 13:48	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/21/12 13:48	
Bromoform	0.420 U	2.00	0.420	1	05/21/12 13:48	
Bromomethane	0.230 U	5.00	0.230	1	05/21/12 13:48	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/21/12 13:48	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/21/12 13:48	
Chlorobenzene	0.160 U	1.00	0.160	1	05/21/12 13:48	
Chloroethane	0.520 U	5.00	0.520	1	05/21/12 13:48	
Chloroform	0.350 U	1.00	0.350	1	05/21/12 13:48	
Chloromethane	0.360 U	1.00	0.360	1	05/21/12 13:48	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/21/12 13:48	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/21/12 13:48	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/21/12 13:48	
Dibromomethane	0.360 U	5.00	0.360	1	05/21/12 13:48	
Ethylbenzene	0.210 U	1.00	0.210	1	05/21/12 13:48	
Iodomethane	2.70 U	5.00	2.70	1	05/21/12 13:48	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/21/12 13:48	
Methylene Chloride	0.210 U	5.00	0.210	1	05/21/12 13:48	
o-Xylene	0.140 U	1.00	0.140	1	05/21/12 13:48	
Styrene	0.290 U	1.00	0.290	1	05/21/12 13:48	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/21/12 13:48	
Toluene	0.190 U	1.00	0.190	1	05/21/12 13:48	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/21/12 13:48	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203129-02

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/21/12 13:48	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/21/12 13:48	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/21/12 13:48	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/21/12 13:48	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/21/12 13:48	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/21/12 13:48	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	101	72 - 121	05/21/12 13:48	
4-Bromofluorobenzene	105	86 - 113	05/21/12 13:48	
Dibromofluoromethane	101	86 - 112	05/21/12 13:48	
Toluene-d8	99	88 - 115	05/21/12 13:48	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203265-01

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0200	0.00700	1	05/26/12 00:04	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0200	0.00700	1	05/26/12 00:04	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	161	70 - 130	05/26/12 00:04	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1202313-MB

**Service Request:** J1202313  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Barium, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Chromium, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Cobalt, Total Recoverable	6020	0.03 U	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Iron, Total Recoverable	6010B	<b>3 I</b>	ug/L	100	3	1	05/17/12	5/17/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/18/12	5/17/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Sodium, Total Recoverable	6010B	0.03 U	mg/L	0.50	0.03	1	05/17/12	5/17/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Vanadium, Total Recoverable	6020	0.3 U	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1202313-MB

**Service Request:** J1202313  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	0.007 U	mg/L	0.010	0.007	1	05/21/12 11:06	
Chloride	300.0	0.11 U	mg/L	0.50	0.11	1	05/16/12 16:49	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/16/12 16:49	
Solids, Total Dissolved	SM 2540 C	10 U	mg/L	10	10	1	05/18/12 14:05	

**COLUMBIA ANALYTICAL SERVICES, INC.**

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QA/QC Report

**Client:** Waste Services of Florida, Inc.**Service Request:** J1202313**Project:** JED SWDF**Sample Matrix:** Water**SURROGATE RECOVERY SUMMARY**

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Sample Name	Lab Code	1,2-Dichloroethane-d4	4-Bromofluorobenzene	Dibromofluoromethane
		72 - 121	86 - 113	86 - 112
MW-10B	J1202313-001	102	105	101
MW-11A	J1202313-002	100	105	101
MW-11B	J1202313-003	99	108	101
MW-12A	J1202313-004	100	105	99
MW-12B	J1202313-005	100	102	101
MW-13A	J1202313-006	100	106	99
MW-13B	J1202313-007	101	104	97
Trip Blank	J1202313-008	99	107	100
Lab Control Sample	JQ1203129-01	99	104	100
Method Blank	JQ1203129-02	101	105	101

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.**Service Request:** J1202313**Project:** JED SWDF**Sample Matrix:** Water**SURROGATE RECOVERY SUMMARY**

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Sample Name	Lab Code	Toluene-d8
		88 - 115
MW-10B	J1202313-001	105
MW-11A	J1202313-002	102
MW-11B	J1202313-003	104
MW-12A	J1202313-004	106
MW-12B	J1202313-005	103
MW-13A	J1202313-006	104
MW-13B	J1202313-007	102
Trip Blank	J1202313-008	101
Lab Control Sample	JQ1203129-01	103
Method Blank	JQ1203129-02	99

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Analyzed:** 05/21/12

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

**Units:** ug/L

**Basis:** NA

**Analysis Lot:** 292494

**Lab Control Sample**  
**JQ1203129-01**

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	21.5	20.0	108	77-118
1,1,1-Trichloroethane (TCA)	20.5	20.0	103	70-122
1,1,2,2-Tetrachloroethane	21.9	20.0	110	66-135
1,1,2-Trichloroethane	20.4	20.0	102	75-122
1,1-Dichloroethane (1,1-DCA)	19.7	20.0	98	79-117
1,1-Dichloroethene (1,1-DCE)	21.2	20.0	106	72-128
1,2,3-Trichloropropane	20.0	20.0	100	70-123
1,2-Dibromo-3-chloropropane (DBCP)	19.7	20.0	99	60-122
1,2-Dibromoethane (EDB)	21.1	20.0	105	76-118
1,2-Dichlorobenzene	19.7	20.0	99	81-115
1,2-Dichloroethane	19.3	20.0	97	70-117
1,2-Dichloropropane	20.4	20.0	102	79-117
1,4-Dichlorobenzene	20.0	20.0	100	82-115
2-Butanone (MEK)	104	100	104	62-138
2-Hexanone	107	100	107	74-127
4-Methyl-2-pentanone (MIBK)	103	100	103	77-120
Acetone	94.3	100	94	42-161
Acrylonitrile	101	100	101	63-132
Benzene	20.0	20.0	100	80-117
Bromochloromethane	20.3	20.0	102	78-118
Bromodichloromethane	20.3	20.0	102	75-118
Bromoform	23.3	20.0	116	63-121
Bromomethane	21.7	20.0	108	31-153
Carbon Disulfide	107	100	107	72-128
Carbon Tetrachloride	20.2	20.0	101	67-124
Chlorobenzene	21.5	20.0	107	83-118
Chloroethane	21.2	20.0	106	68-132
Chloroform	20.0	20.0	100	77-116
Chloromethane	19.2	20.0	96	60-128
cis-1,2-Dichloroethene	19.8	20.0	99	78-117
cis-1,3-Dichloropropene	22.0	20.0	110	80-119
Dibromochloromethane	21.7	20.0	108	74-121
Dibromomethane	20.3	20.0	102	76-117
Ethylbenzene	21.4	20.0	107	82-119
Iodomethane	104	100	104	51-137
m,p-Xylenes	41.9	40.0	105	79-122
Methylene Chloride	19.2	20.0	96	75-123
o-Xylene	21.8	20.0	109	80-119
Styrene	21.6	20.0	108	80-121
Tetrachloroethene (PCE)	21.6	20.0	108	75-126
Toluene	21.6	20.0	108	52-152

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Analyzed:** 05/21/12

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 292494

**Lab Control Sample**  
**JQ1203129-01**

<b>Analyte Name</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
trans-1,2-Dichloroethene	20.0	20.0	100	75-121
trans-1,3-Dichloropropene	22.7	20.0	113	76-118
trans-1,4-Dichloro-2-butene	23.8	20.0	119	10-198
Trichloroethene (TCE)	20.5	20.0	103	78-122
Trichlorofluoromethane	21.1	20.0	105	58-134
Vinyl Acetate	106	100	106	36-169
Vinyl Chloride	21.9	20.0	110	69-138

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.**Service Request:** J1202313**Project:** JED SWDF**Sample Matrix:** Water**SURROGATE RECOVERY SUMMARY****1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography****Analysis Method:** 8011**Extraction Method:** Method

1,1,1,2-Tetrachloroethane		
Sample Name	Lab Code	70 - 130
MW-10B	J1202313-001	76
MW-11A	J1202313-002	63
MW-11B	J1202313-003	73
MW-12A	J1202313-004	102
MW-12B	J1202313-005	98
MW-13A	J1202313-006	82
MW-13B	J1202313-007	106
Method Blank	JQ1203265-01	161
Lab Control Sample	JQ1203265-02	101



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Analyzed:** 05/26/12  
**Date Extracted:** 05/25/12

**Lab Control Sample Summary****1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 293716

**Lab Control Sample  
JQ1203265-02**

<b>Analyte Name</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
1,2-Dibromo-3-chloropropane (DBCP)	0.249	0.250	100	70-130
1,2-Dibromoethane (EDB)	0.225	0.250	90	70-130

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12  
**Date Received:** 05/16/12  
**Date Analyzed:** 5/17/12

**Duplicate Matrix Spike Summary**  
**Inorganic Parameters**

**Sample Name:** MW-11A  
**Lab Code:** J1202313-002

**Units:** ug/L  
**Basis:** NA

**Matrix Spike**  
J1202313-002MS2

**Duplicate Matrix Spike**  
J1202313-002DMS2

<b>Analyte Name</b>	<b>Method</b>	<b>Sample Result</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>
Iron, Total Recoverable	6010B	8740	13700	5000	98	13600	5000	96	75-125	<1	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12  
**Date Received:** 05/16/12  
**Date Analyzed:** 5/17/12

**Duplicate Matrix Spike Summary**  
**Inorganic Parameters**

**Sample Name:** MW-11A  
**Lab Code:** J1202313-002

**Units:** mg/L  
**Basis:** NA

**Matrix Spike**  
J1202313-002MS2

**Duplicate Matrix Spike**  
J1202313-002DMS2

Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Sodium, Total Recoverable	6010B	29.3	54.1	25.0	99	54.0	25.0	99	75-125	<1	20

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12  
**Date Received:** 05/16/12  
**Date Analyzed:** 05/17/12 - 05/18/12

**Duplicate Matrix Spike Summary**  
**Inorganic Parameters**

**Sample Name:** MW-10B  
**Lab Code:** J1202313-001

**Units:** ug/L  
**Basis:** NA

**Matrix Spike**  
J1202313-001MS1

**Duplicate Matrix Spike**  
J1202313-001DMS1

Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Antimony, Total Recoverable	6020	0.2	51.3	50.0	103	50.3	50.0	101	75-125	2	20
Arsenic, Total Recoverable	6020	0.7	51.0	50.0	101	50.7	50.0	100	75-125	<1	20
Barium, Total Recoverable	6020	69.2	122	50.0	106	118	50.0	98	75-125	3	20
Beryllium, Total Recoverable	6020	0.21	48.0	50.0	96	48.5	50.0	97	75-125	1	20
Cadmium, Total Recoverable	6020	0.10	50.3	50.0	101	50.2	50.0	100	75-125	<1	20
Chromium, Total Recoverable	6020	1.0	51.6	50.0	101	51.0	50.0	100	75-125	1	20
Cobalt, Total Recoverable	6020	2.4	53.2	50.0	102	52.9	50.0	101	75-125	<1	20
Copper, Total Recoverable	6020	0.3	48.3	50.0	97	49.0	50.0	98	75-125	1	20
Lead, Total Recoverable	6020	0.12	49.9	50.0	100	49.4	50.0	99	75-125	<1	20
Mercury, Total	7470A	0.02	1.1	1.25	85	1.1	1.25	85	75-125	<1	20
Nickel, Total Recoverable	6020	1.1	52.0	50.0	102	50.7	50.0	99	75-125	3	20
Selenium, Total Recoverable	6020	1.1	24.3	50.0	49 *	24.3	50.0	49 *	75-125	<1	20
Silver, Total Recoverable	6020	0.06	49.4	50.0	99	49.1	50.0	98	75-125	<1	20
Thallium, Total Recoverable	6020	0.05	50.0	50.0	100	49.1	50.0	98	75-125	2	20
Vanadium, Total Recoverable	6020	1.5	52.2	50.0	101	51.7	50.0	100	75-125	<1	20
Zinc, Total Recoverable	6020	1.6	98.4	100	98	97.9	100	98	75-125	<1	20

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Analyzed:** 05/17/12 - 05/18/12

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** ug/L**Basis:** NA

**Lab Control Sample**  
J1202313-LCS

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Antimony, Total Recoverable	6020	52.2	50.0	104	80-120
Arsenic, Total Recoverable	6020	50.7	50.0	101	80-120
Barium, Total Recoverable	6020	50.9	50.0	102	80-120
Beryllium, Total Recoverable	6020	50.9	50.0	102	80-120
Cadmium, Total Recoverable	6020	51.1	50.0	102	80-120
Chromium, Total Recoverable	6020	51.6	50.0	103	80-120
Cobalt, Total Recoverable	6020	51.4	50.0	103	80-120
Copper, Total Recoverable	6020	50.5	50.0	101	80-120
Iron, Total Recoverable	6010B	4910	5000	98	80-120
Lead, Total Recoverable	6020	52.3	50.0	105	80-120
Mercury, Total	7470A	1.15	1.25	92	80-120
Nickel, Total Recoverable	6020	51.2	50.0	102	80-120
Selenium, Total Recoverable	6020	49.7	50.0	99	80-120
Silver, Total Recoverable	6020	51.4	50.0	103	80-120
Thallium, Total Recoverable	6020	52.0	50.0	104	80-120
Vanadium, Total Recoverable	6020	50.1	50.0	100	80-120
Zinc, Total Recoverable	6020	102	100	102	80-120

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Analyzed:** 5/17/12

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**  
J1202313-LCS

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Sodium, Total Recoverable	6010B	25.2	25.0	101	80-120

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12  
**Date Received:** 05/16/12  
**Date Analyzed:** 05/16/12 - 05/21/12

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-10B  
**Lab Code:** J1202313-001

**Units:** mg/L  
**Basis:** NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample J1202313-001DUP	Average	RPD	RPD Limit
					Result			
Ammonia as Nitrogen	350.1	0.010	0.007	0.333	0.337	0.335	1	20
Chloride	300.0	0.50	0.11	38.5	38.5	38.5	<1	20
Nitrate as Nitrogen	300.0	0.20	0.03	0.03	0.03	NC	NC	20

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Collected:** 05/15/12  
**Date Received:** 05/16/12  
**Date Analyzed:** 05/16/12 - 05/21/12

**Matrix Spike Summary**  
**Ammonia as Nitrogen**

**Sample Name:** MW-10B  
**Lab Code:** J1202313-001

**Units:** mg/L  
**Basis:** NA

**Matrix Spike**  
J1202313-001MS

<b>Analyte Name</b>	<b>Method</b>	<b>Sample Result</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Ammonia as Nitrogen	350.1	0.333	1.29	1.00	96	90-110
Chloride	300.0	38.5	88.4	50.0	100	90-110
Nitrate as Nitrogen	300.0	0.03	4.97	5.00	99	90-110

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202313  
**Date Analyzed:** 05/16/12 - 05/21/12

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:** mg/L**Basis:** NA**Lab Control Sample**

J1202313-LCS

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Ammonia as Nitrogen	350.1	0.981	1.00	98	90-110
Chloride	300.0	52.5	50.0	105	90-110
Nitrate as Nitrogen	300.0	5.16	5.00	103	90-110
Solids, Total Dissolved	SM 2540 C	298	300	99	85-115

Cooler Receipt Form

Client: WSD

Service Request #: J/2023/3

Project: JED SWDP

Cooler received on 5-16-12

and opened on 5-16-12 by SL

COURIER: ALS (UPS) FEDEX Client Other \_\_\_\_\_ Airbill # 1Z X5W 0982 210006745

- 1 Were custody seals on outside of cooler? Yes No  
If yes, how many and where? #: 1 on lid other
- 2 Were seals intact and signature and date correct? Yes No N/A
- 3 Were custody papers properly filled out? Yes No N/A
- 4 Temperature of cooler(s) upon receipt (Should be > 0°C and < 6°C) 9.8
- 5 Thermometer ID T11
- 6 Temperature Blank Present? Yes No
- 7 Were Ice or Ice Packs present Ice Ice Packs No
- 8 Did all bottles arrive in good condition (unbroken, etc....)? Yes No N/A
- 9 Type of packing material present  
Netting Vial Holder Bubble Wrap  
Paper Styrofoam Other N/A
- 10 Were all bottle labels complete (sample ID, preservation, etc....)? Yes No N/A
- 11 Did all bottle labels and tags agree with custody papers? Yes No N/A
- 12 Were the correct bottles used for the tests indicated? Yes No N/A
- 13 Were all of the preserved bottles received with the appropriate preservative?  
HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2  
Preservative additions noted below
- 14 Were all samples received within analysis holding times? Yes No N/A
- 15 Were all VOA vials free of air bubbles? If present, note below Yes No N/A
- 16 Where did the bottles originate? ALS Client

Sample ID	Reagent	Lot #	ml added	Initials Date/Time

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted:

Date:



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

9143 Philips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

SPR #

51202313

CAS Contact

[illegible]

**Distribution:** White - Return to Originator: Yellow - Retained by Client

JSCOC-3/11



May 31, 2012

Service Request No: J1202270

Kirk Wills  
Waste Services of Florida, Inc.  
11500 43rd Street North  
Clearwater, FL 33762

**Laboratory Results for: JED SWDF**

Dear Kirk,

Enclosed are the results of the sample(s) submitted to our laboratory May 15, 2012  
For your reference, these analyses have been assigned our service request number **J1202270**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. If required, the laboratory can provide uncertainty measurements for each method employed in sample analysis; this uncertainty measurement would be generated using method validation studies and the laboratory's quality control data.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at [CMyers@caslab.com](mailto:CMyers@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc. dba ALS Environmental**

Craig Myers  
Project Manager



ADDRESS 9143 Philips Highway, Suite 200, Jacksonville, FL 32256

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Columbia Analytical Services, Inc.

Part of the ALS Group A Campbell Brothers Limited Company

Environmental

[www.caslab.com](http://www.caslab.com) ■ [www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Received:** 5/15/12

### CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

#### Sample Receipt

Six water samples and one trip blank were received for analysis at Columbia Analytical Services on 5/15/12. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at  $\leq 6^{\circ}\text{C}$  upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

#### Volatile Organic Analyses:

No significant data anomalies were noted with this analysis.

#### Semi-Volatile Organic Analyses:

Method 8011: The upper control criterion was exceeded for the following surrogate in Method Blank JQ1203265-01: 1,1,1,2-Tetrachloroethane. No target analytes were detected in the Method Blank. Since the apparent problem equates to a high bias, the data quality is not significantly affected. No further corrective action was appropriate.

#### Metals Analyses:

Methods 6020/7470A: The matrix spike recoveries of several analytes for samples MW-16A and MW-19A were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. No further corrective action was appropriate.

#### General Chemistry Analyses:

No significant data anomalies were noted with this analysis.

**State Certifications, Accreditations, and Licenses**

<b>Agency</b>	<b>Number</b>	<b>Expire Date</b>
Florida Department of Health	E82502	6/30/2012
North Carolina Department of Environment and Natural Resources	527	12/31/2012
Virginia Environmental Accreditation Program	460191	12/14/2012
Louisiana Department of Environmental Quality	02086	6/30/2012
Kentucky Division of Waste Management	63	7/5/2013
South Carolina Department of Health and Environmental Control	96021001	6/30/2012
Maine Department of Health and Human Services	2011006	2/3/2013
Pennsylvania Department of Environmental Protection	68-04835	7/31/2012
New Jersey Department of Environmental Protection	FL019	6/30/2012



## **Data Qualifiers**

### **Florida-DEP**

- ! Data deviates from historically established concentration ranges
- \* Not reported due to interference
- ? Data is rejected and should not be used
- A Value reported is the arithmetic mean of two or more determinations
- B Results based upon colony counts outside the acceptable range.
- D Measurement was made in the field.
- E Extra samples were taken at composite stations
- H Value based on field kit determination; results may not be accurate.
- I The reported value is between the laboratory method detection limit and the laboratory PQL.
- J Estimated value.
- K Off scale low. The value is less than the lowest calibration standard.
- L Off scale high. The analyte is above the acceptable level of quantitation.
- M The MDL/MRL has been elevated because the analyte could not be accurately quantified.
- N Presumptive evidence of presence of material.
- O Sampled, but analysis lost or not performed
- Q Sample held beyond the acceptable holding time.
- R Significant rain in the past 48 hours (typically in excess of 0.5 inches)
- T Estimated value, less than the MDL
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- X Insufficient individuals were present in the sample to achieve a minimum of 280 organisms for identification (Stream Condition Index Analysis only)
- Y The laboratory analysis was from an unpreserved or improperly preserved sample.
- Z Too many colonies were present, the numeric value represents the filtration volume

## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF

**Service Request:** J1202270

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1202270-001	MW-16A	5/14/2012	1105
J1202270-002	MW-16B	5/14/2012	1015
J1202270-003	MW-16C	5/14/2012	0935
J1202270-004	MW-19A	5/14/2012	1220
J1202270-005	MW-19B	5/14/2012	1145
J1202270-006	Equipment Blank-1	5/14/2012	1040
J1202270-007	Trip Blank	5/14/2012	0000

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 11:05  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-16A  
**Lab Code:** J1202270-001

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/17/12 14:45	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/17/12 14:45	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/17/12 14:45	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/17/12 14:45	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/17/12 14:45	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/17/12 14:45	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/17/12 14:45	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/17/12 14:45	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/17/12 14:45	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/17/12 14:45	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/17/12 14:45	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/17/12 14:45	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/17/12 14:45	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/17/12 14:45	
2-Hexanone	2.20 U	25.0	2.20	1	05/17/12 14:45	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/17/12 14:45	
Acetone	5.60 U	50.0	5.60	1	05/17/12 14:45	
Acrylonitrile	1.50 U	10.0	1.50	1	05/17/12 14:45	
Benzene	0.210 U	1.00	0.210	1	05/17/12 14:45	
Bromochloromethane	0.270 U	5.00	0.270	1	05/17/12 14:45	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/17/12 14:45	
Bromoform	0.420 U	2.00	0.420	1	05/17/12 14:45	
Bromomethane	0.230 U	5.00	0.230	1	05/17/12 14:45	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/17/12 14:45	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/17/12 14:45	
Chlorobenzene	0.160 U	1.00	0.160	1	05/17/12 14:45	
Chloroethane	0.520 U	5.00	0.520	1	05/17/12 14:45	
Chloroform	0.350 U	1.00	0.350	1	05/17/12 14:45	
Chloromethane	0.360 U	1.00	0.360	1	05/17/12 14:45	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/17/12 14:45	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/17/12 14:45	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/17/12 14:45	
Dibromomethane	0.360 U	5.00	0.360	1	05/17/12 14:45	
Ethylbenzene	0.210 U	1.00	0.210	1	05/17/12 14:45	
Iodomethane	2.70 U	5.00	2.70	1	05/17/12 14:45	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/17/12 14:45	
Methylene Chloride	0.210 U	5.00	0.210	1	05/17/12 14:45	
o-Xylene	0.140 U	1.00	0.140	1	05/17/12 14:45	
Styrene	0.290 U	1.00	0.290	1	05/17/12 14:45	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/17/12 14:45	
Toluene	0.190 U	1.00	0.190	1	05/17/12 14:45	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/17/12 14:45	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 11:05  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-16A  
**Lab Code:** J1202270-001

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/17/12 14:45	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/17/12 14:45	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/17/12 14:45	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/17/12 14:45	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/17/12 14:45	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/17/12 14:45	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	86	72 - 121	05/17/12 14:45	
4-Bromofluorobenzene	104	86 - 113	05/17/12 14:45	
Dibromofluoromethane	88	86 - 112	05/17/12 14:45	
Toluene-d8	111	88 - 115	05/17/12 14:45	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 11:05  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-16A  
**Lab Code:** J1202270-001

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0198	0.00700	1	05/26/12 01:44	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0198	0.00700	1	05/26/12 01:44	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	115	70 - 130	05/26/12 01:44	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 11:05  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-16A  
**Lab Code:** J1202270-001

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Arsenic, Total Recoverable	6020	<b>1.2</b>	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Barium, Total Recoverable	6020	<b>8.6</b>	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Cadmium, Total Recoverable	6020	<b>0.13 I</b>	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Chromium, Total Recoverable	6020	<b>1.5</b>	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Cobalt, Total Recoverable	6020	<b>0.3 I</b>	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Iron, Total Recoverable	6010B	<b>650</b>	ug/L	100	3	1	05/16/12	5/16/12	
Lead, Total Recoverable	6020	<b>0.25 I</b>	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/17/12	5/16/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Sodium, Total Recoverable	6010B	<b>1.71</b>	mg/L	0.50	0.03	1	05/16/12	5/16/12	
Thallium, Total Recoverable	6020	<b>0.15 I</b>	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Vanadium, Total Recoverable	6020	<b>3.6</b>	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16A  
**Lab Code:** J1202270-001

**Service Request:** J1202270  
**Date Collected:** 05/14/12 11:05  
**Date Received:** 05/15/12 09:30  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.307</b>	mg/L	0.010	0.007	1	05/21/12 11:11	
Chloride	300.0	<b>2.25</b>	mg/L	0.50	0.11	1	05/15/12 15:05	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/15/12 15:05	
Solids, Total Dissolved	SM 2540 C	<b>39</b>	mg/L	10	10	1	05/16/12 13:22	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 10:15  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-16B  
**Lab Code:** J1202270-002

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/17/12 14:15	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/17/12 14:15	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/17/12 14:15	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/17/12 14:15	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/17/12 14:15	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/17/12 14:15	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/17/12 14:15	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/17/12 14:15	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/17/12 14:15	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/17/12 14:15	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/17/12 14:15	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/17/12 14:15	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/17/12 14:15	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/17/12 14:15	
2-Hexanone	2.20 U	25.0	2.20	1	05/17/12 14:15	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/17/12 14:15	
Acetone	5.60 U	50.0	5.60	1	05/17/12 14:15	
Acrylonitrile	1.50 U	10.0	1.50	1	05/17/12 14:15	
Benzene	0.210 U	1.00	0.210	1	05/17/12 14:15	
Bromochloromethane	0.270 U	5.00	0.270	1	05/17/12 14:15	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/17/12 14:15	
Bromoform	0.420 U	2.00	0.420	1	05/17/12 14:15	
Bromomethane	0.230 U	5.00	0.230	1	05/17/12 14:15	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/17/12 14:15	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/17/12 14:15	
Chlorobenzene	0.160 U	1.00	0.160	1	05/17/12 14:15	
Chloroethane	0.520 U	5.00	0.520	1	05/17/12 14:15	
Chloroform	0.350 U	1.00	0.350	1	05/17/12 14:15	
Chloromethane	0.360 U	1.00	0.360	1	05/17/12 14:15	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/17/12 14:15	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/17/12 14:15	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/17/12 14:15	
Dibromomethane	0.360 U	5.00	0.360	1	05/17/12 14:15	
Ethylbenzene	0.210 U	1.00	0.210	1	05/17/12 14:15	
Iodomethane	2.70 U	5.00	2.70	1	05/17/12 14:15	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/17/12 14:15	
Methylene Chloride	0.210 U	5.00	0.210	1	05/17/12 14:15	
o-Xylene	0.140 U	1.00	0.140	1	05/17/12 14:15	
Styrene	0.290 U	1.00	0.290	1	05/17/12 14:15	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/17/12 14:15	
Toluene	0.190 U	1.00	0.190	1	05/17/12 14:15	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/17/12 14:15	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 10:15  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-16B  
**Lab Code:** J1202270-002

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/17/12 14:15	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/17/12 14:15	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/17/12 14:15	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/17/12 14:15	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/17/12 14:15	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/17/12 14:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	86	72 - 121	05/17/12 14:15	
4-Bromofluorobenzene	103	86 - 113	05/17/12 14:15	
Dibromofluoromethane	90	86 - 112	05/17/12 14:15	
Toluene-d8	108	88 - 115	05/17/12 14:15	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 10:15  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-16B  
**Lab Code:** J1202270-002

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0198	0.00700	1	05/26/12 02:04	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0198	0.00700	1	05/26/12 02:04	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	91	70 - 130	05/26/12 02:04	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 10:15  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-16B  
**Lab Code:** J1202270-002

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Arsenic, Total Recoverable	6020	<b>1.2</b>	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Barium, Total Recoverable	6020	<b>19.9</b>	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Chromium, Total Recoverable	6020	<b>1.9</b>	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Cobalt, Total Recoverable	6020	<b>0.3 I</b>	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Copper, Total Recoverable	6020	<b>0.5 I</b>	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Iron, Total Recoverable	6010B	<b>1090</b>	ug/L	100	3	1	05/16/12	5/16/12	
Lead, Total Recoverable	6020	<b>1.32</b>	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/17/12	5/16/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Sodium, Total Recoverable	6010B	<b>5.33</b>	mg/L	0.50	0.03	1	05/16/12	5/16/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Vanadium, Total Recoverable	6020	<b>2.1</b>	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16B  
**Lab Code:** J1202270-002

**Service Request:** J1202270  
**Date Collected:** 05/14/12 10:15  
**Date Received:** 05/15/12 09:30  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.143</b>	mg/L	0.010	0.007	1	05/21/12 11:11	
Chloride	300.0	<b>5.71</b>	mg/L	0.50	0.11	1	05/15/12 15:50	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/15/12 15:50	
Solids, Total Dissolved	SM 2540 C	<b>62</b>	mg/L	10	10	1	05/16/12 13:22	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 09:35  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-16C  
**Lab Code:** J1202270-003

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/17/12 13:46	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/17/12 13:46	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/17/12 13:46	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/17/12 13:46	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/17/12 13:46	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/17/12 13:46	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/17/12 13:46	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/17/12 13:46	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/17/12 13:46	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/17/12 13:46	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/17/12 13:46	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/17/12 13:46	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/17/12 13:46	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/17/12 13:46	
2-Hexanone	2.20 U	25.0	2.20	1	05/17/12 13:46	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/17/12 13:46	
Acetone	5.60 U	50.0	5.60	1	05/17/12 13:46	
Acrylonitrile	1.50 U	10.0	1.50	1	05/17/12 13:46	
Benzene	0.210 U	1.00	0.210	1	05/17/12 13:46	
Bromochloromethane	0.270 U	5.00	0.270	1	05/17/12 13:46	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/17/12 13:46	
Bromoform	0.420 U	2.00	0.420	1	05/17/12 13:46	
Bromomethane	0.230 U	5.00	0.230	1	05/17/12 13:46	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/17/12 13:46	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/17/12 13:46	
Chlorobenzene	0.160 U	1.00	0.160	1	05/17/12 13:46	
Chloroethane	0.520 U	5.00	0.520	1	05/17/12 13:46	
Chloroform	0.350 U	1.00	0.350	1	05/17/12 13:46	
Chloromethane	0.360 U	1.00	0.360	1	05/17/12 13:46	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/17/12 13:46	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/17/12 13:46	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/17/12 13:46	
Dibromomethane	0.360 U	5.00	0.360	1	05/17/12 13:46	
Ethylbenzene	<b>0.840</b> I	1.00	0.210	1	05/17/12 13:46	
Iodomethane	2.70 U	5.00	2.70	1	05/17/12 13:46	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/17/12 13:46	
Methylene Chloride	0.210 U	5.00	0.210	1	05/17/12 13:46	
o-Xylene	0.140 U	1.00	0.140	1	05/17/12 13:46	
Styrene	0.290 U	1.00	0.290	1	05/17/12 13:46	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/17/12 13:46	
Toluene	0.190 U	1.00	0.190	1	05/17/12 13:46	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/17/12 13:46	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 09:35  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-16C  
**Lab Code:** J1202270-003

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/17/12 13:46	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/17/12 13:46	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/17/12 13:46	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/17/12 13:46	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/17/12 13:46	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/17/12 13:46	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	86	72 - 121	05/17/12 13:46	
4-Bromofluorobenzene	102	86 - 113	05/17/12 13:46	
Dibromofluoromethane	89	86 - 112	05/17/12 13:46	
Toluene-d8	110	88 - 115	05/17/12 13:46	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 09:35  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-16C  
**Lab Code:** J1202270-003

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00705 U	0.0201	0.00705	1	05/26/12 02:24	5/25/12	
1,2-Dibromoethane (EDB)	0.00705 U	0.0201	0.00705	1	05/26/12 02:24	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	122	70 - 130	05/26/12 02:24	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16C  
**Lab Code:** J1202270-003

**Service Request:** J1202270  
**Date Collected:** 05/14/12 09:35  
**Date Received:** 05/15/12 09:30  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Barium, Total Recoverable	6020	<b>12.7</b>	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Chromium, Total Recoverable	6020	<b>0.5 I</b>	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Cobalt, Total Recoverable	6020	0.03 U	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Iron, Total Recoverable	6010B	<b>770</b>	ug/L	100	3	1	05/16/12	5/16/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/17/12	5/16/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Sodium, Total Recoverable	6010B	<b>11.7</b>	mg/L	0.50	0.03	1	05/16/12	5/16/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Vanadium, Total Recoverable	6020	<b>1.4 I</b>	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16C  
**Lab Code:** J1202270-003

**Service Request:** J1202270  
**Date Collected:** 05/14/12 09:35  
**Date Received:** 05/15/12 09:30  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.123</b>	mg/L	0.010	0.007	1	05/21/12 11:12	
Chloride	300.0	<b>20.9</b>	mg/L	0.50	0.11	1	05/15/12 16:04	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/15/12 16:04	
Solids, Total Dissolved	SM 2540 C	<b>75</b>	mg/L	10	10	1	05/16/12 13:22	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 12:20  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-19A  
**Lab Code:** J1202270-004

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/17/12 13:16	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/17/12 13:16	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/17/12 13:16	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/17/12 13:16	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/17/12 13:16	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/17/12 13:16	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/17/12 13:16	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/17/12 13:16	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/17/12 13:16	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/17/12 13:16	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/17/12 13:16	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/17/12 13:16	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/17/12 13:16	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/17/12 13:16	
2-Hexanone	2.20 U	25.0	2.20	1	05/17/12 13:16	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/17/12 13:16	
Acetone	5.60 U	50.0	5.60	1	05/17/12 13:16	
Acrylonitrile	1.50 U	10.0	1.50	1	05/17/12 13:16	
Benzene	0.210 U	1.00	0.210	1	05/17/12 13:16	
Bromochloromethane	0.270 U	5.00	0.270	1	05/17/12 13:16	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/17/12 13:16	
Bromoform	0.420 U	2.00	0.420	1	05/17/12 13:16	
Bromomethane	0.230 U	5.00	0.230	1	05/17/12 13:16	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/17/12 13:16	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/17/12 13:16	
Chlorobenzene	0.160 U	1.00	0.160	1	05/17/12 13:16	
Chloroethane	0.520 U	5.00	0.520	1	05/17/12 13:16	
Chloroform	0.350 U	1.00	0.350	1	05/17/12 13:16	
Chloromethane	0.360 U	1.00	0.360	1	05/17/12 13:16	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/17/12 13:16	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/17/12 13:16	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/17/12 13:16	
Dibromomethane	0.360 U	5.00	0.360	1	05/17/12 13:16	
Ethylbenzene	0.210 U	1.00	0.210	1	05/17/12 13:16	
Iodomethane	2.70 U	5.00	2.70	1	05/17/12 13:16	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/17/12 13:16	
Methylene Chloride	0.210 U	5.00	0.210	1	05/17/12 13:16	
o-Xylene	0.140 U	1.00	0.140	1	05/17/12 13:16	
Styrene	0.290 U	1.00	0.290	1	05/17/12 13:16	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/17/12 13:16	
Toluene	0.620 I	1.00	0.190	1	05/17/12 13:16	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/17/12 13:16	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 12:20  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-19A  
**Lab Code:** J1202270-004

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/17/12 13:16	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/17/12 13:16	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/17/12 13:16	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/17/12 13:16	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/17/12 13:16	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/17/12 13:16	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	87	72 - 121	05/17/12 13:16	
4-Bromofluorobenzene	103	86 - 113	05/17/12 13:16	
Dibromofluoromethane	88	86 - 112	05/17/12 13:16	
Toluene-d8	113	88 - 115	05/17/12 13:16	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 12:20  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-19A  
**Lab Code:** J1202270-004

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0197	0.00700	1	05/26/12 02:44	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0197	0.00700	1	05/26/12 02:44	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	110	70 - 130	05/26/12 02:44	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 12:20  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-19A  
**Lab Code:** J1202270-004

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Dissolved	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Arsenic, Dissolved	6020	6.4	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Arsenic, Total Recoverable	6020	7.1	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Barium, Dissolved	6020	15.6	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Barium, Total Recoverable	6020	22.1	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Beryllium, Dissolved	6020	0.22 I	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Beryllium, Total Recoverable	6020	0.53	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Cadmium, Dissolved	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Chromium, Dissolved	6020	13.8	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Chromium, Total Recoverable	6020	22.8	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Cobalt, Dissolved	6020	0.9 I	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Cobalt, Total Recoverable	6020	1.1	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Copper, Dissolved	6020	0.3 I	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Copper, Total Recoverable	6020	0.7 I	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Iron, Dissolved	6010B	4430	ug/L	100	3	1	05/16/12	5/16/12	
Iron, Total Recoverable	6010B	6440	ug/L	100	3	1	05/16/12	5/16/12	
Lead, Dissolved	6020	1.95	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Lead, Total Recoverable	6020	4.95	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Mercury, Dissolved	7470A	0.02 U	ug/L	0.10	0.02	1	05/17/12	5/16/12	
Mercury, Total	7470A	0.04 I	ug/L	0.10	0.02	1	05/17/12	5/16/12	
Nickel, Dissolved	6020	1.8 I	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Nickel, Total Recoverable	6020	3.0	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Selenium, Dissolved	6020	3.0	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Selenium, Total Recoverable	6020	4.1	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Silver, Dissolved	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Sodium, Dissolved	6010B	21.9	mg/L	0.50	0.03	1	05/16/12	5/16/12	
Sodium, Total Recoverable	6010B	21.6	mg/L	0.50	0.03	1	05/16/12	5/16/12	
Thallium, Dissolved	6020	0.15 I	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Vanadium, Dissolved	6020	17.1	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Vanadium, Total Recoverable	6020	20.7	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Zinc, Dissolved	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-19A  
**Lab Code:** J1202270-004

**Service Request:** J1202270  
**Date Collected:** 05/14/12 12:20  
**Date Received:** 05/15/12 09:30  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>16.6</b>	mg/L	0.050	0.035	5	05/21/12 11:13	
Chloride	300.0	<b>22.7</b>	mg/L	0.50	0.11	1	05/15/12 16:19	
Nitrate as Nitrogen	300.0	<b>0.18 I</b>	mg/L	0.20	0.03	1	05/15/12 16:19	
Solids, Total Dissolved	SM 2540 C	<b>731</b>	mg/L	10	10	1	05/16/12 13:22	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 11:45  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-19B  
**Lab Code:** J1202270-005

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/17/12 12:46	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/17/12 12:46	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/17/12 12:46	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/17/12 12:46	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/17/12 12:46	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/17/12 12:46	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/17/12 12:46	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/17/12 12:46	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/17/12 12:46	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/17/12 12:46	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/17/12 12:46	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/17/12 12:46	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/17/12 12:46	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/17/12 12:46	
2-Hexanone	2.20 U	25.0	2.20	1	05/17/12 12:46	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/17/12 12:46	
Acetone	5.60 U	50.0	5.60	1	05/17/12 12:46	
Acrylonitrile	1.50 U	10.0	1.50	1	05/17/12 12:46	
Benzene	0.210 U	1.00	0.210	1	05/17/12 12:46	
Bromochloromethane	0.270 U	5.00	0.270	1	05/17/12 12:46	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/17/12 12:46	
Bromoform	0.420 U	2.00	0.420	1	05/17/12 12:46	
Bromomethane	0.230 U	5.00	0.230	1	05/17/12 12:46	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/17/12 12:46	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/17/12 12:46	
Chlorobenzene	0.160 U	1.00	0.160	1	05/17/12 12:46	
Chloroethane	0.520 U	5.00	0.520	1	05/17/12 12:46	
Chloroform	0.350 U	1.00	0.350	1	05/17/12 12:46	
Chloromethane	0.360 U	1.00	0.360	1	05/17/12 12:46	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/17/12 12:46	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/17/12 12:46	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/17/12 12:46	
Dibromomethane	0.360 U	5.00	0.360	1	05/17/12 12:46	
Ethylbenzene	0.610 I	1.00	0.210	1	05/17/12 12:46	
Iodomethane	2.70 U	5.00	2.70	1	05/17/12 12:46	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/17/12 12:46	
Methylene Chloride	0.210 U	5.00	0.210	1	05/17/12 12:46	
o-Xylene	0.140 U	1.00	0.140	1	05/17/12 12:46	
Styrene	0.290 U	1.00	0.290	1	05/17/12 12:46	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/17/12 12:46	
Toluene	0.190 U	1.00	0.190	1	05/17/12 12:46	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/17/12 12:46	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 11:45  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-19B  
**Lab Code:** J1202270-005

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/17/12 12:46	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/17/12 12:46	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/17/12 12:46	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/17/12 12:46	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/17/12 12:46	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/17/12 12:46	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	87	72 - 121	05/17/12 12:46	
4-Bromofluorobenzene	102	86 - 113	05/17/12 12:46	
Dibromofluoromethane	90	86 - 112	05/17/12 12:46	
Toluene-d8	112	88 - 115	05/17/12 12:46	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 11:45  
**Date Received:** 05/15/12 09:30

**Sample Name:** MW-19B  
**Lab Code:** J1202270-005

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0199	0.00700	1	05/26/12 03:04	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0199	0.00700	1	05/26/12 03:04	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	103	70 - 130	05/26/12 03:04	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-19B  
**Lab Code:** J1202270-005

**Service Request:** J1202270  
**Date Collected:** 05/14/12 11:45  
**Date Received:** 05/15/12 09:30

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Barium, Total Recoverable	6020	<b>28.0</b>	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Chromium, Total Recoverable	6020	<b>0.8 I</b>	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Cobalt, Total Recoverable	6020	<b>0.2 I</b>	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Copper, Total Recoverable	6020	<b>0.3 I</b>	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Iron, Total Recoverable	6010B	<b>770</b>	ug/L	100	3	1	05/16/12	5/16/12	
Lead, Total Recoverable	6020	<b>0.57</b>	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/17/12	5/16/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Sodium, Total Recoverable	6010B	<b>18.9</b>	mg/L	0.50	0.03	1	05/16/12	5/16/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Vanadium, Total Recoverable	6020	<b>0.9 I</b>	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-19B  
**Lab Code:** J1202270-005

**Service Request:** J1202270  
**Date Collected:** 05/14/12 11:45  
**Date Received:** 05/15/12 09:30  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	<b>0.104</b>	mg/L	0.010	0.007	1	05/21/12 11:14	
Chloride	300.0	<b>39.0</b>	mg/L	0.50	0.11	1	05/15/12 16:34	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/15/12 16:34	
Solids, Total Dissolved	SM 2540 C	<b>105</b>	mg/L	10	10	1	05/16/12 13:22	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 10:40  
**Date Received:** 05/15/12 09:30

**Sample Name:** Equipment Blank-1  
**Lab Code:** J1202270-006

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/17/12 12:17	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/17/12 12:17	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/17/12 12:17	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/17/12 12:17	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/17/12 12:17	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/17/12 12:17	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/17/12 12:17	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/17/12 12:17	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/17/12 12:17	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/17/12 12:17	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/17/12 12:17	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/17/12 12:17	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/17/12 12:17	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/17/12 12:17	
2-Hexanone	2.20 U	25.0	2.20	1	05/17/12 12:17	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/17/12 12:17	
Acetone	5.60 U	50.0	5.60	1	05/17/12 12:17	
Acrylonitrile	1.50 U	10.0	1.50	1	05/17/12 12:17	
Benzene	0.210 U	1.00	0.210	1	05/17/12 12:17	
Bromochloromethane	0.270 U	5.00	0.270	1	05/17/12 12:17	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/17/12 12:17	
Bromoform	0.420 U	2.00	0.420	1	05/17/12 12:17	
Bromomethane	0.230 U	5.00	0.230	1	05/17/12 12:17	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/17/12 12:17	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/17/12 12:17	
Chlorobenzene	0.160 U	1.00	0.160	1	05/17/12 12:17	
Chloroethane	0.520 U	5.00	0.520	1	05/17/12 12:17	
Chloroform	0.350 U	1.00	0.350	1	05/17/12 12:17	
Chloromethane	0.360 U	1.00	0.360	1	05/17/12 12:17	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/17/12 12:17	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/17/12 12:17	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/17/12 12:17	
Dibromomethane	0.360 U	5.00	0.360	1	05/17/12 12:17	
Ethylbenzene	0.210 U	1.00	0.210	1	05/17/12 12:17	
Iodomethane	2.70 U	5.00	2.70	1	05/17/12 12:17	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/17/12 12:17	
Methylene Chloride	16.4	5.00	0.210	1	05/17/12 12:17	
o-Xylene	0.140 U	1.00	0.140	1	05/17/12 12:17	
Styrene	0.290 U	1.00	0.290	1	05/17/12 12:17	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/17/12 12:17	
Toluene	0.190 U	1.00	0.190	1	05/17/12 12:17	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/17/12 12:17	



## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 10:40  
**Date Received:** 05/15/12 09:30

**Sample Name:** Equipment Blank-1  
**Lab Code:** J1202270-006

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/17/12 12:17	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/17/12 12:17	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/17/12 12:17	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/17/12 12:17	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/17/12 12:17	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/17/12 12:17	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	76	72 - 121	05/17/12 12:17	
4-Bromofluorobenzene	106	86 - 113	05/17/12 12:17	
Dibromofluoromethane	83	86 - 112	05/17/12 12:17	
Toluene-d8	113	88 - 115	05/17/12 12:17	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 10:40  
**Date Received:** 05/15/12 09:30

**Sample Name:** Equipment Blank-1  
**Lab Code:** J1202270-006

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00707 U	0.0202	0.00707	1	05/26/12 03:24	5/25/12	
1,2-Dibromoethane (EDB)	0.00707 U	0.0202	0.00707	1	05/26/12 03:24	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	126	70 - 130	05/26/12 03:24	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 10:40  
**Date Received:** 05/15/12 09:30

**Sample Name:** Equipment Blank-1  
**Lab Code:** J1202270-006

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Barium, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Chromium, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Cobalt, Total Recoverable	6020	0.03 U	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Iron, Total Recoverable	6010B	3 U	ug/L	100	3	1	05/16/12	5/16/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/17/12	5/16/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Sodium, Total Recoverable	6010B	<b>0.36 I</b>	mg/L	0.50	0.03	1	05/16/12	5/16/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Vanadium, Total Recoverable	6020	0.3 U	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 10:40  
**Date Received:** 05/15/12 09:30

**Sample Name:** Equipment Blank-1  
**Lab Code:** J1202270-006

**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	0.007 U	mg/L	0.010	0.007	1	05/21/12 11:19	
Chloride	300.0	0.11 U	mg/L	0.50	0.11	1	05/15/12 16:49	
Nitrate as Nitrogen	300.0	<b>0.18 I</b>	mg/L	0.20	0.03	1	05/15/12 16:49	
Solids, Total Dissolved	SM 2540 C	10 U	mg/L	10	10	1	05/16/12 13:22	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 00:00  
**Date Received:** 05/15/12 09:30

**Sample Name:** Trip Blank  
**Lab Code:** J1202270-007

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/17/12 11:47	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/17/12 11:47	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/17/12 11:47	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/17/12 11:47	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/17/12 11:47	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/17/12 11:47	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/17/12 11:47	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/17/12 11:47	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/17/12 11:47	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/17/12 11:47	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/17/12 11:47	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/17/12 11:47	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/17/12 11:47	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/17/12 11:47	
2-Hexanone	2.20 U	25.0	2.20	1	05/17/12 11:47	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/17/12 11:47	
Acetone	5.60 U	50.0	5.60	1	05/17/12 11:47	
Acrylonitrile	1.50 U	10.0	1.50	1	05/17/12 11:47	
Benzene	0.210 U	1.00	0.210	1	05/17/12 11:47	
Bromochloromethane	0.270 U	5.00	0.270	1	05/17/12 11:47	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/17/12 11:47	
Bromoform	0.420 U	2.00	0.420	1	05/17/12 11:47	
Bromomethane	0.230 U	5.00	0.230	1	05/17/12 11:47	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/17/12 11:47	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/17/12 11:47	
Chlorobenzene	0.160 U	1.00	0.160	1	05/17/12 11:47	
Chloroethane	0.520 U	5.00	0.520	1	05/17/12 11:47	
Chloroform	0.350 U	1.00	0.350	1	05/17/12 11:47	
Chloromethane	0.360 U	1.00	0.360	1	05/17/12 11:47	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/17/12 11:47	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/17/12 11:47	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/17/12 11:47	
Dibromomethane	0.360 U	5.00	0.360	1	05/17/12 11:47	
Ethylbenzene	0.210 U	1.00	0.210	1	05/17/12 11:47	
Iodomethane	2.70 U	5.00	2.70	1	05/17/12 11:47	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/17/12 11:47	
Methylene Chloride	0.210 U	5.00	0.210	1	05/17/12 11:47	
o-Xylene	0.140 U	1.00	0.140	1	05/17/12 11:47	
Styrene	0.290 U	1.00	0.290	1	05/17/12 11:47	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/17/12 11:47	
Toluene	0.190 U	1.00	0.190	1	05/17/12 11:47	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/17/12 11:47	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12 00:00  
**Date Received:** 05/15/12 09:30

**Sample Name:** Trip Blank  
**Lab Code:** J1202270-007

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/17/12 11:47	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/17/12 11:47	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/17/12 11:47	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/17/12 11:47	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/17/12 11:47	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/17/12 11:47	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	83	72 - 121	05/17/12 11:47	
4-Bromofluorobenzene	103	86 - 113	05/17/12 11:47	
Dibromofluoromethane	89	86 - 112	05/17/12 11:47	
Toluene-d8	112	88 - 115	05/17/12 11:47	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203047-04

**Units:** ug/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	0.190 U	1.00	0.190	1	05/17/12 11:17	
1,1,1-Trichloroethane (TCA)	0.170 U	1.00	0.170	1	05/17/12 11:17	
1,1,2,2-Tetrachloroethane	0.290 U	1.00	0.290	1	05/17/12 11:17	
1,1,2-Trichloroethane	0.400 U	1.00	0.400	1	05/17/12 11:17	
1,1-Dichloroethane (1,1-DCA)	0.300 U	1.00	0.300	1	05/17/12 11:17	
1,1-Dichloroethene (1,1-DCE)	0.160 U	1.00	0.160	1	05/17/12 11:17	
1,2,3-Trichloropropane	0.420 U	2.00	0.420	1	05/17/12 11:17	
1,2-Dibromo-3-chloropropane (DBCP)	2.30 U	5.00	2.30	1	05/17/12 11:17	
1,2-Dibromoethane (EDB)	0.460 U	1.00	0.460	1	05/17/12 11:17	
1,2-Dichlorobenzene	0.480 U	1.00	0.480	1	05/17/12 11:17	
1,2-Dichloroethane	0.220 U	1.00	0.220	1	05/17/12 11:17	
1,2-Dichloropropane	0.190 U	1.00	0.190	1	05/17/12 11:17	
1,4-Dichlorobenzene	0.160 U	1.00	0.160	1	05/17/12 11:17	
2-Butanone (MEK)	3.80 U	10.0	3.80	1	05/17/12 11:17	
2-Hexanone	2.20 U	25.0	2.20	1	05/17/12 11:17	
4-Methyl-2-pentanone (MIBK)	1.10 U	25.0	1.10	1	05/17/12 11:17	
Acetone	5.60 U	50.0	5.60	1	05/17/12 11:17	
Acrylonitrile	1.50 U	10.0	1.50	1	05/17/12 11:17	
Benzene	0.210 U	1.00	0.210	1	05/17/12 11:17	
Bromochloromethane	0.270 U	5.00	0.270	1	05/17/12 11:17	
Bromodichloromethane	0.220 U	1.00	0.220	1	05/17/12 11:17	
Bromoform	0.420 U	2.00	0.420	1	05/17/12 11:17	
Bromomethane	0.230 U	5.00	0.230	1	05/17/12 11:17	
Carbon Disulfide	2.40 U	10.0	2.40	1	05/17/12 11:17	
Carbon Tetrachloride	0.340 U	1.00	0.340	1	05/17/12 11:17	
Chlorobenzene	0.160 U	1.00	0.160	1	05/17/12 11:17	
Chloroethane	0.520 U	5.00	0.520	1	05/17/12 11:17	
Chloroform	0.350 U	1.00	0.350	1	05/17/12 11:17	
Chloromethane	0.360 U	1.00	0.360	1	05/17/12 11:17	
cis-1,2-Dichloroethene	0.360 U	1.00	0.360	1	05/17/12 11:17	
cis-1,3-Dichloropropene	0.200 U	1.00	0.200	1	05/17/12 11:17	
Dibromochloromethane	0.210 U	1.00	0.210	1	05/17/12 11:17	
Dibromomethane	0.360 U	5.00	0.360	1	05/17/12 11:17	
Ethylbenzene	0.210 U	1.00	0.210	1	05/17/12 11:17	
Iodomethane	2.70 U	5.00	2.70	1	05/17/12 11:17	
m,p-Xylenes	0.310 U	2.00	0.310	1	05/17/12 11:17	
Methylene Chloride	0.210 U	5.00	0.210	1	05/17/12 11:17	
o-Xylene	0.140 U	1.00	0.140	1	05/17/12 11:17	
Styrene	0.290 U	1.00	0.290	1	05/17/12 11:17	
Tetrachloroethene (PCE)	0.220 U	1.00	0.220	1	05/17/12 11:17	
Toluene	0.190 U	1.00	0.190	1	05/17/12 11:17	
trans-1,2-Dichloroethene	0.190 U	1.00	0.190	1	05/17/12 11:17	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203047-04

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
trans-1,3-Dichloropropene	0.230 U	1.00	0.230	1	05/17/12 11:17	
trans-1,4-Dichloro-2-butene	2.20 U	20.0	2.20	1	05/17/12 11:17	
Trichloroethene (TCE)	0.360 U	1.00	0.360	1	05/17/12 11:17	
Trichlorofluoromethane	0.240 U	20.0	0.240	1	05/17/12 11:17	
Vinyl Acetate	1.90 U	10.0	1.90	1	05/17/12 11:17	
Vinyl Chloride	0.360 U	1.00	0.360	1	05/17/12 11:17	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	83	72 - 121	05/17/12 11:17	
4-Bromofluorobenzene	106	86 - 113	05/17/12 11:17	
Dibromofluoromethane	86	86 - 112	05/17/12 11:17	
Toluene-d8	115	88 - 115	05/17/12 11:17	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203265-01

**Units:** ug/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2-Dibromo-3-chloropropane (DBCP)	0.00700 U	0.0200	0.00700	1	05/26/12 00:04	5/25/12	
1,2-Dibromoethane (EDB)	0.00700 U	0.0200	0.00700	1	05/26/12 00:04	5/25/12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	161	70 - 130	05/26/12 00:04	

## COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** J1202270-MB

**Basis:** NA

## Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Dissolved	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Arsenic, Dissolved	6020	0.5 U	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Arsenic, Total Recoverable	6020	0.5 U	ug/L	1.0	0.5	1	05/17/12	5/16/12	
Barium, Dissolved	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Barium, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Beryllium, Dissolved	6020	0.04 U	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Beryllium, Total Recoverable	6020	0.04 U	ug/L	0.50	0.04	1	05/17/12	5/16/12	
Cadmium, Dissolved	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Cadmium, Total Recoverable	6020	0.10 U	ug/L	0.40	0.10	1	05/17/12	5/16/12	
Chromium, Dissolved	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Chromium, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	05/17/12	5/16/12	
Cobalt, Dissolved	6020	0.03 U	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Cobalt, Total Recoverable	6020	0.03 U	ug/L	1.0	0.03	1	05/17/12	5/16/12	
Copper, Dissolved	6020	0.3 U	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Copper, Total Recoverable	6020	0.3 U	ug/L	1.0	0.3	1	05/17/12	5/16/12	
Iron, Dissolved	6010B	3 U	ug/L	100	3	1	05/16/12	5/16/12	
Iron, Total Recoverable	6010B	3 U	ug/L	100	3	1	05/16/12	5/16/12	
Lead, Dissolved	6020	0.12 U	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Lead, Total Recoverable	6020	0.12 U	ug/L	0.50	0.12	1	05/17/12	5/16/12	
Mercury, Dissolved	7470A	0.02 U	ug/L	0.10	0.02	1	05/17/12	5/16/12	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	05/17/12	5/16/12	
Nickel, Dissolved	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Nickel, Total Recoverable	6020	0.5 U	ug/L	2.0	0.5	1	05/17/12	5/16/12	
Selenium, Dissolved	6020	1.1 U	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	05/17/12	5/16/12	
Silver, Dissolved	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Silver, Total Recoverable	6020	0.06 U	ug/L	0.50	0.06	1	05/17/12	5/16/12	
Sodium, Dissolved	6010B	<b>0.14 I</b>	mg/L	0.50	0.03	1	05/16/12	5/16/12	
Sodium, Total Recoverable	6010B	<b>0.06 I</b>	mg/L	0.50	0.03	1	05/16/12	5/16/12	
Thallium, Dissolved	6020	0.05 U	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	05/17/12	5/16/12	
Vanadium, Dissolved	6020	0.3 U	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Vanadium, Total Recoverable	6020	0.3 U	ug/L	2.0	0.3	1	05/17/12	5/16/12	
Zinc, Dissolved	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	
Zinc, Total Recoverable	6020	1.6 U	ug/L	5.0	1.6	1	05/17/12	5/16/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

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## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1202270-MB

**Service Request:** J1202270  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Ammonia as Nitrogen	350.1	0.007 U	mg/L	0.010	0.007	1	05/21/12 11:06	
Chloride	300.0	0.11 U	mg/L	0.50	0.11	1	05/15/12 12:50	
Nitrate as Nitrogen	300.0	0.03 U	mg/L	0.20	0.03	1	05/15/12 12:50	
Solids, Total Dissolved	SM 2540 C	10 U	mg/L	10	10	1	05/16/12 13:22	

**COLUMBIA ANALYTICAL SERVICES, INC.**

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QA/QC Report

**Client:** Waste Services of Florida, Inc.**Service Request:** J1202270**Project:** JED SWDF**Sample Matrix:** Water**SURROGATE RECOVERY SUMMARY**

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Sample Name	Lab Code	1,2-Dichloroethane-d4	4-Bromofluorobenzene	Dibromofluoromethane
		72 - 121	86 - 113	86 - 112
MW-16A	J1202270-001	86	104	88
MW-16B	J1202270-002	86	103	90
MW-16C	J1202270-003	86	102	89
MW-19A	J1202270-004	87	103	88
MW-19B	J1202270-005	87	102	90
Equipment Blank-1	J1202270-006	76	106	83
Trip Blank	J1202270-007	83	103	89
Lab Control Sample	JQ1203047-03	86	102	89
Method Blank	JQ1203047-04	83	106	86
MW-16C	JQ1203047-05	85	98	86
MW-16C	JQ1203047-06	82	102	87

**COLUMBIA ANALYTICAL SERVICES, INC.**

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QA/QC Report

**Client:** Waste Services of Florida, Inc.**Service Request:** J1202270**Project:** JED SWDF**Sample Matrix:** Water**SURROGATE RECOVERY SUMMARY**

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Sample Name	Lab Code	Toluene-d8
		88 - 115
MW-16A	J1202270-001	111
MW-16B	J1202270-002	108
MW-16C	J1202270-003	110
MW-19A	J1202270-004	113
MW-19B	J1202270-005	112
Equipment Blank-1	J1202270-006	113
Trip Blank	J1202270-007	112
Lab Control Sample	JQ1203047-03	106
Method Blank	JQ1203047-04	115
MW-16C	JQ1203047-05	112
MW-16C	JQ1203047-06	110

## COLUMBIA ANALYTICAL SERVICES, INC.

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## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12  
**Date Received:** 05/15/12  
**Date Analyzed:** 05/17/12

**Duplicate Matrix Spike Summary**  
**Volatile Organic Compounds by GC/MS**

**Sample Name:** MW-16C  
**Lab Code:** J1202270-003  
**Analysis Method:** 8260B

**Units:** ug/L  
**Basis:** NA

Analyte Name	Matrix Spike JQ1203047-05				Duplicate Matrix Spike JQ1203047-06					
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND	21.5	20.0	107	20.8	20.0	104	77-118	3	30
1,1,1-Trichloroethane (TCA)	ND	17.2	20.0	86	17.4	20.0	87	70-122	<1	30
1,1,2,2-Tetrachloroethane	ND	20.2	20.0	101	19.5	20.0	97	66-135	4	30
1,1,2-Trichloroethane	ND	20.2	20.0	101	19.1	20.0	95	75-122	6	30
1,1-Dichloroethane (1,1-DCA)	ND	17.1	20.0	85	17.0	20.0	85	79-117	<1	30
1,1-Dichloroethene (1,1-DCE)	ND	17.7	20.0	88	17.8	20.0	89	72-128	1	30
1,2,3-Trichloropropane	ND	18.6	20.0	93	16.8	20.0	84	70-123	10	30
1,2-Dibromo-3-chloropropane (DBCP)	ND	17.9	20.0	89	18.9	20.0	94	60-122	5	30
1,2-Dibromoethane (EDB)	ND	19.3	20.0	97	18.7	20.0	94	76-118	3	30
1,2-Dichlorobenzene	ND	20.1	20.0	100	20.8	20.0	104	81-115	3	30
1,2-Dichloroethane	ND	15.0	20.0	75	15.1	20.0	75	70-117	<1	30
1,2-Dichloropropane	ND	17.0	20.0	85	16.6	20.0	83	79-117	2	30
1,4-Dichlorobenzene	ND	21.0	20.0	105	21.7	20.0	108	82-115	3	30
2-Butanone (MEK)	ND	73.1	100	73	72.8	100	73	62-138	<1	30
2-Hexanone	ND	99.7	100	100	92.4	100	92	74-127	8	30
4-Methyl-2-pentanone (MIBK)	ND	96.6	100	97	87.4	100	87	77-120	10	30
Acetone	ND	70.4	100	70	70.7	100	71	42-161	<1	30
Acrylonitrile	ND	69.4	100	69	66.7	100	67	63-132	4	30
Benzene	ND	17.2	20.0	86	17.2	20.0	86	80-117	<1	30
Bromochloromethane	ND	16.1	20.0	80	15.7	20.0	79	78-118	2	30
Bromodichloromethane	ND	16.4	20.0	82	16.3	20.0	81	75-118	<1	30
Bromoform	ND	21.1	20.0	106	20.6	20.0	103	63-121	3	30
Bromomethane	ND	17.5	20.0	88	17.1	20.0	86	31-153	2	30
Carbon Disulfide	ND	92.6	100	93	92.1	100	92	72-128	<1	30
Carbon Tetrachloride	ND	17.0	20.0	85	17.1	20.0	85	67-124	<1	30
Chlorobenzene	ND	21.0	20.0	105	20.9	20.0	105	83-118	<1	30
Chloroethane	ND	16.9	20.0	85	17.5	20.0	88	68-132	3	30
Chloroform	ND	17.2	20.0	86	16.6	20.0	83	77-116	3	30
Chloromethane	ND	16.1	20.0	80	15.5	20.0	78	60-128	3	30
cis-1,2-Dichloroethene	ND	16.2	20.0	81	16.3	20.0	82	78-117	<1	30
cis-1,3-Dichloropropene	ND	21.3	20.0	106	20.4	20.0	102	80-119	4	30
Dibromochloromethane	ND	20.8	20.0	104	20.2	20.0	101	74-121	3	30
Dibromomethane	ND	15.8	20.0	79	15.4	20.0	77	76-117	2	30
Ethylbenzene	0.840	24.0	20.0	116	22.7	20.0	109	82-119	6	30

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

## COLUMBIA ANALYTICAL SERVICES, INC.

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## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270**Date Collected:** 05/14/12**Date Received:** 05/15/12**Date Analyzed:** 05/17/12

**Duplicate Matrix Spike Summary**  
**Volatile Organic Compounds by GC/MS**

**Sample Name:** MW-16C  
**Lab Code:** J1202270-003  
**Analysis Method:** 8260B

**Units:** ug/L**Basis:** NA

Analyte Name	Matrix Spike JQ1203047-05				Duplicate Matrix Spike JQ1203047-06					
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Iodomethane	ND	91.9	100	92	92.6	100	93	51-137	<1	30
m,p-Xylenes	ND	42.8	40.0	107	42.8	40.0	107	79-122	<1	30
Methylene Chloride	ND	16.6	20.0	83	16.4	20.0	82	75-123	1	30
o-Xylene	ND	21.5	20.0	107	21.4	20.0	107	80-119	<1	30
Styrene	ND	21.9	20.0	110	20.1	20.0	101	80-121	9	30
Tetrachloroethene (PCE)	ND	23.6	20.0	118	23.3	20.0	116	75-126	1	30
Toluene	ND	22.7	20.0	113	22.5	20.0	112	52-152	<1	30
trans-1,2-Dichloroethene	ND	17.5	20.0	87	17.0	20.0	85	75-121	3	30
trans-1,3-Dichloropropene	ND	21.1	20.0	106	19.8	20.0	99	76-118	6	30
trans-1,4-Dichloro-2-butene	ND	11.1	20.0	55	10.4	20.0	52	10-198	6	30
Trichloroethene (TCE)	ND	17.3	20.0	87	17.5	20.0	87	78-122	<1	30
Trichlorofluoromethane	ND	15.0	20.0	75	14.9	20.0	74	58-134	<1	30
Vinyl Acetate	ND	71.5	100	71	69.8	100	70	36-169	2	30
Vinyl Chloride	ND	17.2	20.0	86	16.8	20.0	84	69-138	2	30

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

## COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Analyzed:** 05/17/12

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

**Units:** ug/L

**Basis:** NA

**Analysis Lot:** 291924

**Lab Control Sample**  
**JQ1203047-03**

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	20.8	20.0	104	77-118
1,1,1-Trichloroethane (TCA)	18.7	20.0	94	70-122
1,1,2,2-Tetrachloroethane	20.2	20.0	101	66-135
1,1,2-Trichloroethane	19.2	20.0	96	75-122
1,1-Dichloroethane (1,1-DCA)	17.4	20.0	87	79-117
1,1-Dichloroethene (1,1-DCE)	19.4	20.0	97	72-128
1,2,3-Trichloropropane	17.8	20.0	89	70-123
1,2-Dibromo-3-chloropropane (DBCP)	19.7	20.0	99	60-122
1,2-Dibromoethane (EDB)	19.6	20.0	98	76-118
1,2-Dichlorobenzene	20.8	20.0	104	81-115
1,2-Dichloroethane	15.4	20.0	77	70-117
1,2-Dichloropropane	17.1	20.0	86	79-117
1,4-Dichlorobenzene	21.3	20.0	107	82-115
2-Butanone (MEK)	81.4	100	81	62-138
2-Hexanone	97.5	100	98	74-127
4-Methyl-2-pentanone (MIBK)	92.6	100	93	77-120
Acetone	79.1	100	79	42-161
Acrylonitrile	74.1	100	74	63-132
Benzene	17.3	20.0	87	80-117
Bromochloromethane	16.6	20.0	83	78-118
Bromodichloromethane	16.9	20.0	85	75-118
Bromoform	21.4	20.0	107	63-121
Bromomethane	18.7	20.0	94	31-153
Carbon Disulfide	98.8	100	99	72-128
Carbon Tetrachloride	18.0	20.0	90	67-124
Chlorobenzene	21.0	20.0	105	83-118
Chloroethane	18.0	20.0	90	68-132
Chloroform	16.9	20.0	84	77-116
Chloromethane	16.8	20.0	84	60-128
cis-1,2-Dichloroethene	17.0	20.0	85	78-117
cis-1,3-Dichloropropene	20.6	20.0	103	80-119
Dibromochloromethane	21.0	20.0	105	74-121
Dibromomethane	16.5	20.0	82	76-117
Ethylbenzene	22.3	20.0	111	82-119
Iodomethane	99.2	100	99	51-137
m,p-Xylenes	42.1	40.0	105	79-122
Methylene Chloride	17.3	20.0	87	75-123
o-Xylene	21.1	20.0	105	80-119
Styrene	21.1	20.0	106	80-121
Tetrachloroethene (PCE)	22.9	20.0	114	75-126
Toluene	22.0	20.0	110	52-152



**COLUMBIA ANALYTICAL SERVICES, INC.**

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QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Analyzed:** 05/17/12

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 291924

**Lab Control Sample**  
**JQ1203047-03**

<b>Analyte Name</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
trans-1,2-Dichloroethene	18.0	20.0	90	75-121
trans-1,3-Dichloropropene	21.0	20.0	105	76-118
trans-1,4-Dichloro-2-butene	19.7	20.0	99	10-198
Trichloroethene (TCE)	17.8	20.0	89	78-122
Trichlorofluoromethane	18.6	20.0	93	58-134
Vinyl Acetate	82.9	100	83	36-169
Vinyl Chloride	17.8	20.0	89	69-138

**COLUMBIA ANALYTICAL SERVICES, INC.**

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QA/QC Report

**Client:** Waste Services of Florida, Inc.**Service Request:** J1202270**Project:** JED SWDF**Sample Matrix:** Water**SURROGATE RECOVERY SUMMARY****1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography****Analysis Method:** 8011**Extraction Method:** Method

1,1,1,2-Tetrachloroethane		
Sample Name	Lab Code	70 - 130
MW-16A	J1202270-001	115
MW-16B	J1202270-002	91
MW-16C	J1202270-003	122
MW-19A	J1202270-004	110
MW-19B	J1202270-005	103
Equipment Blank-1	J1202270-006	126
Method Blank	JQ1203265-01	161
Lab Control Sample	JQ1203265-02	101
MW-16A	JQ1203265-03	75
MW-16A	JQ1203265-04	90

**COLUMBIA ANALYTICAL SERVICES, INC.**

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## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12  
**Date Received:** 05/15/12  
**Date Analyzed:** 05/26/12  
**Date Extracted:** 05/25/12

**Duplicate Matrix Spike Summary****1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Sample Name:** MW-16A **Units:** ug/L  
**Lab Code:** J1202270-001 **Basis:** NA  
**Analysis Method:** 8011  
**Prep Method:** Method

**Matrix Spike**

JQ1203265-03

**Duplicate Matrix Spike**

JQ1203265-04

<b>Analyte Name</b>	<b>Sample Result</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.242	0.251	96	0.218	0.249	88	65-135	10	30
1,2-Dibromoethane (EDB)	ND	0.216	0.251	86	0.191	0.249	77	65-135	12	30

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Analyzed:** 05/26/12  
**Date Extracted:** 05/25/12

**Lab Control Sample Summary**

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analysis Method:** 8011  
**Prep Method:** Method

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 293716

**Lab Control Sample  
JQ1203265-02**

<b>Analyte Name</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
1,2-Dibromo-3-chloropropane (DBCP)	0.249	0.250	100	70-130
1,2-Dibromoethane (EDB)	0.225	0.250	90	70-130

## COLUMBIA ANALYTICAL SERVICES, INC.

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## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12  
**Date Received:** 05/15/12  
**Date Analyzed:** 05/16/12 - 05/17/12

**Duplicate Matrix Spike Summary**  
**Inorganic Parameters**

**Sample Name:** MW-19A  
**Lab Code:** J1202270-004

**Units:** ug/L  
**Basis:** NA

Matrix Spike J1202270-004MS2						Duplicate Matrix Spike J1202270-004DMS2					
Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Antimony, Dissolved	6020	0.2	51.3	50.0	103	52.2	50.0	104	75-125	2	20
Arsenic, Dissolved	6020	6.4	56.8	50.0	101	56.8	50.0	101	75-125	<1	20
Barium, Dissolved	6020	15.6	67.5	50.0	104	67.9	50.0	105	75-125	<1	20
Beryllium, Dissolved	6020	0.22	49.4	50.0	98	49.4	50.0	98	75-125	<1	20
Cadmium, Dissolved	6020	0.10	49.4	50.0	99	49.1	50.0	98	75-125	<1	20
Chromium, Dissolved	6020	13.8	63.8	50.0	100	63.5	50.0	99	75-125	<1	20
Cobalt, Dissolved	6020	0.9	50.5	50.0	99	50.6	50.0	99	75-125	<1	20
Copper, Dissolved	6020	0.3	48.3	50.0	96	48.2	50.0	96	75-125	<1	20
Iron, Dissolved	6010B	4430	9410	5000	100	9540	5000	102	75-125	1	20
Lead, Dissolved	6020	1.95	51.3	50.0	99	51.6	50.0	99	75-125	<1	20
Mercury, Dissolved	7470A	0.02	0.88	1.25	71 *	0.93	1.25	74 *	75-125	5	20
Nickel, Dissolved	6020	1.8	49.9	50.0	96	49.8	50.0	96	75-125	<1	20
Selenium, Dissolved	6020	3.0	33.9	50.0	62 *	34.2	50.0	62 *	75-125	<1	20
Silver, Dissolved	6020	0.06	48.3	50.0	97	47.8	50.0	96	75-125	<1	20
Thallium, Dissolved	6020	0.15	49.9	50.0	100	50.4	50.0	100	75-125	<1	20
Vanadium, Dissolved	6020	17.1	68.3	50.0	102	67.3	50.0	100	75-125	1	20
Zinc, Dissolved	6020	1.6	96.1	100	96	96.4	100	96	75-125	<1	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12  
**Date Received:** 05/15/12  
**Date Analyzed:** 5/16/12

**Duplicate Matrix Spike Summary**  
**Inorganic Parameters**

**Sample Name:** MW-19A  
**Lab Code:** J1202270-004

**Units:** mg/L  
**Basis:** NA

Matrix Spike J1202270-004MS2						Duplicate Matrix Spike J1202270-004DMS2					
Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Sodium, Dissolved	6010B	21.9	47.0	25.0	101	47.1	25.0	101	75-125	<1	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12  
**Date Received:** 05/15/12  
**Date Analyzed:** 5/17/12

**Duplicate Matrix Spike Summary  
Inorganic Parameters**

**Sample Name:** MW-16A  
**Lab Code:** J1202270-001

**Units:** ug/L  
**Basis:** NA

**Matrix Spike**  
J1202270-001MS1

**Duplicate Matrix Spike**  
J1202270-001DMS1

Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Antimony, Total Recoverable	6020	0.2	51.6	50.0	103	52.1	50.0	104	75-125	<1	20
Arsenic, Total Recoverable	6020	1.2	51.2	50.0	100	51.8	50.0	101	75-125	1	20
Barium, Total Recoverable	6020	8.6	59.6	50.0	102	60.9	50.0	105	75-125	2	20
Beryllium, Total Recoverable	6020	0.04	48.1	50.0	96	49.4	50.0	99	75-125	3	20
Cadmium, Total Recoverable	6020	0.13	51.1	50.0	102	50.3	50.0	100	75-125	2	20
Chromium, Total Recoverable	6020	1.5	52.3	50.0	102	52.3	50.0	102	75-125	<1	20
Cobalt, Total Recoverable	6020	0.3	51.6	50.0	103	51.4	50.0	102	75-125	<1	20
Copper, Total Recoverable	6020	0.3	50.3	50.0	101	50.4	50.0	101	75-125	<1	20
Lead, Total Recoverable	6020	0.25	51.2	50.0	102	51.9	50.0	103	75-125	1	20
Nickel, Total Recoverable	6020	0.5	51.3	50.0	103	51.5	50.0	103	75-125	<1	20
Selenium, Total Recoverable	6020	1.1	35.2	50.0	70 *	35.5	50.0	71 *	75-125	<1	20
Silver, Total Recoverable	6020	0.06	50.5	50.0	101	51.2	50.0	102	75-125	1	20
Thallium, Total Recoverable	6020	0.15	50.8	50.0	101	51.6	50.0	103	75-125	2	20
Vanadium, Total Recoverable	6020	3.6	54.5	50.0	102	54.7	50.0	102	75-125	<1	20
Zinc, Total Recoverable	6020	1.6	101	100	101	102	100	102	75-125	1	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Collected:** 05/14/12  
**Date Received:** 05/15/12  
**Date Analyzed:** 05/17/12  
**Date Extracted:** 05/16/12

**Duplicate Matrix Spike Summary**  
**Inorganic Parameters**

**Sample Name:** MW-19B **Units:** ug/L  
**Lab Code:** J1202270-005 **Basis:** NA  
**Analysis Method:** 7470A  
**Prep Method:** Method

Analyte Name	Sample Result	Result	Matrix Spike J1202270-005MS3		Result	Duplicate Matrix Spike J1202270-005DMS3		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
Mercury, Total	ND	1.1	1.25	86	1.1	1.25	86	75-125	<1	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



## COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Analyzed:** 05/16/12 - 05/17/12

**Lab Control Sample Summary**  
**Inorganic Parameters**

Units: ug/L

Basis: NA

**Lab Control Sample**

J1202270-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Antimony, Dissolved	6020	53.5	50.0	107	80-120
Antimony, Total Recoverable	6020	52.2	50.0	104	80-120
Arsenic, Dissolved	6020	49.8	50.0	100	80-120
Arsenic, Total Recoverable	6020	50.7	50.0	101	80-120
Barium, Dissolved	6020	50.5	50.0	101	80-120
Barium, Total Recoverable	6020	52.9	50.0	106	80-120
Beryllium, Dissolved	6020	47.0	50.0	94	80-120
Beryllium, Total Recoverable	6020	47.7	50.0	95	80-120
Cadmium, Dissolved	6020	49.6	50.0	99	80-120
Cadmium, Total Recoverable	6020	50.1	50.0	100	80-120
Chromium, Dissolved	6020	51.1	50.0	102	80-120
Chromium, Total Recoverable	6020	50.4	50.0	101	80-120
Cobalt, Dissolved	6020	50.9	50.0	102	80-120
Cobalt, Total Recoverable	6020	51.7	50.0	103	80-120
Copper, Dissolved	6020	50.1	50.0	100	80-120
Copper, Total Recoverable	6020	51.0	50.0	102	80-120
Iron, Dissolved	6010B	5060	5000	101	80-120
Iron, Total Recoverable	6010B	5000	5000	100	80-120
Lead, Dissolved	6020	51.7	50.0	103	80-120
Lead, Total Recoverable	6020	51.7	50.0	103	80-120
Mercury, Dissolved	7470A	1.16	1.25	93	80-120
Mercury, Total	7470A	1.16	1.25	93	80-120
Nickel, Dissolved	6020	50.2	50.0	100	80-120
Nickel, Total Recoverable	6020	51.4	50.0	103	80-120
Selenium, Dissolved	6020	49.7	50.0	99	80-120
Selenium, Total Recoverable	6020	49.6	50.0	99	80-120
Silver, Dissolved	6020	50.1	50.0	100	80-120
Silver, Total Recoverable	6020	50.6	50.0	101	80-120
Thallium, Dissolved	6020	51.3	50.0	103	80-120
Thallium, Total Recoverable	6020	51.0	50.0	102	80-120
Vanadium, Dissolved	6020	51.0	50.0	102	80-120
Vanadium, Total Recoverable	6020	50.8	50.0	102	80-120
Zinc, Dissolved	6020	99.8	100	100	80-120

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Analyzed:** 05/16/12 - 05/17/12

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** ug/L  
**Basis:** NA

**Lab Control Sample**  
J1202270-LCS

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Zinc, Total Recoverable	6020	101	100	101	80-120

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Analyzed:** 5/16/12

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** mg/L**Basis:** NA

**Lab Control Sample**  
J1202270-LCS

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Sodium, Dissolved	6010B	25.6	25.0	102	80-120
Sodium, Total Recoverable	6010B	25.4	25.0	102	80-120

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202270  
**Date Analyzed:** 05/15/12 - 05/21/12

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:** mg/L**Basis:** NA**Lab Control Sample**

J1202270-LCS

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Ammonia as Nitrogen	350.1	0.981	1.00	98	90-110
Chloride	300.0	52.2	50.0	104	90-110
Nitrate as Nitrogen	300.0	5.11	5.00	102	90-110
Solids, Total Dissolved	SM 2540 C	304	300	101	85-115

Cooler Receipt Form

Client: WSE  
Project: SED

Service Request #: 51202270

Cooler received on 5-15-12 and opened on 5-15-12 by SL

COURIER: ALS ☒ UPS ☐ FEDEX Client Other \_\_\_\_\_ Airbill # 12X5W0982210006709

- 1 Were custody seals on outside of cooler? ☒ Yes No  
If yes, how many and where? #: 1 on lid other
- 2 Were seals intact and signature and date correct? ☒ Yes No N/A
- 3 Were custody papers properly filled out? ☒ Yes No N/A
- 4 Temperature of cooler(s) upon receipt (Should be > 0°C and < 6°C) 3.6
- 5 Thermometer ID 171
- 6 Temperature Blank Present? ☒ Yes No
- 7 Were Ice or Ice Packs present ☒ Ice Packs No
- 8 Did all bottles arrive in good condition (unbroken, etc....)? ☒ Yes No N/A
- 9 Type of packing material present  
Netting Vial Holder ☒ Bubble Wrap  
Paper Styrofoam Other N/A
- 10 Were all bottle labels complete (sample ID, preservation, etc....)? ☒ Yes No N/A
- 11 Did all bottle labels and tags agree with custody papers? ☒ Yes No N/A
- 12 Were the correct bottles used for the tests indicated? ☒ Yes No N/A
- 13 Were all of the preserved bottles received with the appropriate preservative?  
☒ HNO3 pH<2 ☒ H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2  
Preservative additions noted below
- 14 Were all samples received within analysis holding times? ☒ Yes No N/A
- 15 Were all VOA vials free of air bubbles? If present, note below ☒ Yes No N/A
- 16 Where did the bottles originate? ☒ ALS Client

Sample ID	Reagent	Lot #	ml added	Initials Date/Time

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted:

Date:



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

SR #

J1202270

CAS Contact

9143 Phillips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE 1 OF 1

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Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Description)															
Project Manager		Email Address		PRESERVATIVE		1		0		3		2		0		2			
Company/Address		WSI		11500 43rd St. N		Clearwater, FL		33762		FAX#		813-943-8633		Joe Terry		Joe Terry			
Client Sample ID		LAB ID		SAMPLING DATE		TIME		MATRIX		NUMBER OF CONTAINERS		TDS, Cu, Pb		NH <sub>3</sub>		Boil			
MW-16A				5.14.12	1105			GW	9	3	3	1	1	1					
MW-16B					1015				9										
MW-16C					0935				9										
MW-19A					1220				10										
MW-19B					1145			GW	9										
Equipment Blank-1				5.14.12	1040			D <sub>2</sub> H <sub>2</sub> O	9	3	3	1	1	1					
Trip Blank				4.27.12	0800			D <sub>2</sub> H <sub>2</sub> O	2	2									
SPECIAL INSTRUCTIONS/COMMENTS																			
Cooler ID: 12135-JED																			
See QAPP <input type="checkbox"/>																			
SAMPLE RECEIPT: CONDITION/COOLER TEMP: 3.6																			
RELINQUISHED BY				RECEIVED BY				CUSTODY SEALS: Y N				RELINQUISHED BY				RECEIVED BY			
Signature: Joe Terry				Signature: Shawn Lighty				Signature: Shawn Lighty				Signature: Shawn Lighty				Signature: Shawn Lighty			
Printed Name: Joe Terry				Printed Name: Shawn Lighty				Printed Name: Shawn Lighty				Printed Name: Shawn Lighty				Printed Name: Shawn Lighty			
Firm: WSI				Firm: WSI				Firm: WSI				Firm: WSI				Firm: WSI			
Date/Time: 5.14.12/1330				Date/Time: 5.15.12 0930				Date/Time: 5.15.12 0930				Date/Time: 5.15.12 0930				Date/Time: 5.15.12 0930			

Distribution: White - Return to Originator; Yellow - Retained by Client

JSOC-3/11



June 29, 2012

Service Request No: J1202829

Kirk Wills  
Waste Services of Florida, Inc.  
11500 43rd Street North  
Clearwater, FL 33762

**Laboratory Results for: JED SWDF**

Dear Kirk,

Enclosed are the results of the sample(s) submitted to our laboratory June 15, 2012  
For your reference, these analyses have been assigned our service request number **J1202829**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. If required, the laboratory can provide uncertainty measurements for each method employed in sample analysis; this uncertainty measurement would be generated using method validation studies and the laboratory's quality control data.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at [CMyers@caslab.com](mailto:CMyers@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc. dba ALS Environmental**

Craig Myers  
Project Manager



ADDRESS 9143 Philips Highway, Suite 200, Jacksonville, FL 32256

PHONE +1 904 739 2277 | FAX +1 904 739 2011

Columbia Analytical Services, Inc.

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Environmental

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**State Certifications, Accreditations, and Licenses**

<b>Agency</b>	<b>Number</b>	<b>Expire Date</b>
Florida Department of Health	E82502	6/30/2012
North Carolina Department of Environment and Natural Resources	527	12/31/2012
Virginia Environmental Accreditation Program	460191	12/14/2012
Louisiana Department of Environmental Quality	02086	6/30/2012
Kentucky Division of Waste Management	63	7/5/2013
South Carolina Department of Health and Environmental Control	96021001	6/30/2012
Maine Department of Health and Human Services	2011006	2/3/2013
Pennsylvania Department of Environmental Protection	68-04835	7/31/2012
New Jersey Department of Environmental Protection	FL019	6/30/2012



## **Data Qualifiers**

### **Florida-DEP**

- ! Data deviates from historically established concentration ranges
- \* Not reported due to interference
- ? Data is rejected and should not be used
- A Value reported is the arithmetic mean of two or more determinations
- B Results based upon colony counts outside the acceptable range.
- D Measurement was made in the field.
- E Extra samples were taken at composite stations
- H Value based on field kit determination; results may not be accurate.
- I The reported value is between the laboratory method detection limit and the laboratory PQL.
- J Estimated value.
- K Off scale low. The value is less than the lowest calibration standard.
- L Off scale high. The analyte is above the acceptable level of quantitation.
- M The MDL/MRL has been elevated because the analyte could not be accurately quantified.
- N Presumptive evidence of presence of material.
- O Sampled, but analysis lost or not performed
- Q Sample held beyond the acceptable holding time.
- R Significant rain in the past 48 hours (typically in excess of 0.5 inches)
- T Estimated value, less than the MDL
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- X Insufficient individuals were present in the sample to achieve a minimum of 280 organisms for identification (Stream Condition Index Analysis only)
- Y The laboratory analysis was from an unpreserved or improperly preserved sample.
- Z Too many colonies were present, the numeric value represents the filtration volume

## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF

**Service Request:** J1202829

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1202829-001	MW-11B	6/14/2012	1600
J1202829-002	MW-12A	6/14/2012	1525

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202829  
**Date Collected:** 06/14/12 16:00  
**Date Received:** 06/15/12 09:25

**Sample Name:** MW-11B  
**Lab Code:** J1202829-001

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Benzene	5.05	1.00	0.210	1	06/15/12 13:54	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	111	72 - 121	06/15/12 13:54	
4-Bromofluorobenzene	98	86 - 113	06/15/12 13:54	
Dibromofluoromethane	99	86 - 112	06/15/12 13:54	
Toluene-d8	97	88 - 115	06/15/12 13:54	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-12A  
**Lab Code:** J1202829-002

**Service Request:** J1202829  
**Date Collected:** 06/14/12 15:25  
**Date Received:** 06/15/12 09:25  
**Basis:** NA

**Inorganic Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Date Extracted</b>	<b>Q</b>
Iron, Total Recoverable	6010B	36500	ug/L	100	3	1	06/18/12 20:11	6/18/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202829  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** JQ1203792-04

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Benzene	0.210 U	1.00	0.210	1	06/15/12 12:59	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	110	72 - 121	06/15/12 12:59	
4-Bromofluorobenzene	99	86 - 113	06/15/12 12:59	
Dibromofluoromethane	98	86 - 112	06/15/12 12:59	
Toluene-d8	100	88 - 115	06/15/12 12:59	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

## Analytical Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1202829-MB

**Service Request:** J1202829  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**Inorganic Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>MDL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Date Extracted</b>	<b>Q</b>
Iron, Total Recoverable	6010B	10 I	ug/L	100	3	1	06/19/12 17:44	6/18/12	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.**Service Request:** J1202829**Project:** JED SWDF**Sample Matrix:** Water**SURROGATE RECOVERY SUMMARY**

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260B

Sample Name	Lab Code	1,2-Dichloroethane-d4	4-Bromofluorobenzene	Dibromofluoromethane
		72 - 121	86 - 113	86 - 112
MW-11B	J1202829-001	111	98	99
Lab Control Sample	JQ1203792-03	110	87	101
Method Blank	JQ1203792-04	110	99	98



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.**Service Request:** J1202829**Project:** JED SWDF**Sample Matrix:** Water**SURROGATE RECOVERY SUMMARY****Volatile Organic Compounds by GC/MS****Analysis Method:** 8260B

Sample Name	Lab Code	Toluene-d8
		88 - 115
MW-11B	J1202829-001	97
Lab Control Sample	JQ1203792-03	97
Method Blank	JQ1203792-04	100

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202829  
**Date Analyzed:** 06/15/12

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260B

**Units:** ug/L

**Basis:** NA

**Analysis Lot:** 296536

<b>Sample Name</b>	<b>Lab Code</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Lab Control Sample	JQ1203792-03	18.4	20.0	92	80-117

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Waste Services of Florida, Inc.  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1202829  
**Date Analyzed:** 06/19/12  
**Date Extracted:** 06/18/12

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Analysis Method:** 6010B  
**Prep Method:** EPA 3005A

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 296799

<b>Sample Name</b>	<b>Lab Code</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Lab Control Sample	J1202829-LCS	5090	5000	102	80-120

### Cooler Receipt Form

 Client: WSE

 Service Request #: J1202829

 Project: JED SMDP

 Cooler received on 6-15-12

 and opened on 6-15-12 by SC

 COURIER: ALS ☒ UPS ☐ FEDEX Client Other \_\_\_\_\_

 Airbill # 1240663V2210001447

- |    |  |                                      |   |  |
|----|--|--------------------------------------|---|--|
| 1  | Were custody seals on outside of cooler?                                       | <input checked="" type="radio"/> Yes | <input type="radio"/> No                |  |
|    | If yes, how many and where?  | #: <u>1</u>                          | <input checked="" type="radio"/> on lid | other _____  |
| 2  | Were seals intact and signature and date correct?                              | <input checked="" type="radio"/> Yes | <input type="radio"/> No                | N/A  |
| 3  | Were custody papers properly filled out?                                       | <input checked="" type="radio"/> Yes | <input type="radio"/> No                | N/A  |
| 4  | Temperature of cooler(s) upon receipt (Should be > 0°C and < 6°C) <u>1.5°C</u> |                                      |   |  |
| 5  | Thermometer ID <u>781</u>  |                                      |   |  |
| 6  | Temperature Blank Present?   | <input checked="" type="radio"/> Yes | <input type="radio"/> No                |  |
| 7  | Were Ice or Ice Packs present  | <input checked="" type="radio"/> Ice | <input type="radio"/> Ice Packs         | <input type="radio"/> No   |
| 8  | Did all bottles arrive in good condition (unbroken, etc....)?                  | <input checked="" type="radio"/> Yes | <input type="radio"/> No                | N/A  |
| 9  | Type of packing material present   | <input type="radio"/> Netting        | <input type="radio"/> Vial Holder       | <input type="radio"/> Bubble Wrap                                |
|    |  | <input type="radio"/> Paper          | <input type="radio"/> Styrofoam         | <input type="radio"/> Other <input checked="" type="radio"/> N/A |
| 10 | Were all bottle labels complete (sample ID, preservation, etc....)?            | <input checked="" type="radio"/> Yes | <input type="radio"/> No                | N/A  |
| 11 | Did all bottle labels and tags agree with custody papers?                      | <input checked="" type="radio"/> Yes | <input type="radio"/> No                | N/A  |
| 12 | Were the correct bottles used for the tests indicated?                         | <input checked="" type="radio"/> Yes | <input type="radio"/> No                | N/A  |
| 13 | Were all of the preserved bottles received with the appropriate preservative?  | <input checked="" type="radio"/> Yes | <input type="radio"/> No                | N/A  |
|    | <u>HNO3</u> pH<2    H2SO4 pH<2    ZnAc2/NaOH pH>9    NaOH pH>12    HCl pH<2    |                                      |   |  |
|    | Preservative additions noted below   |                                      |   |  |
| 14 | Were all samples received within analysis holding times?                       | <input checked="" type="radio"/> Yes | <input type="radio"/> No                | N/A  |
| 15 | Were all VOA vials free of air bubbles? If present, note below                 | <input checked="" type="radio"/> Yes | <input type="radio"/> No                | N/A  |
| 16 | Where did the bottles originate?   | <input checked="" type="radio"/> ALS | <input type="radio"/> Client            |  |

Sample ID	Reagent	Lot #	ml added	Initials Date/Time

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted:

Date:



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

9143 Phillips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE 1 OF 1

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SR # **J1202829**

CAS Contact

Project Name <b>JED SWDF</b>		Project Number <b>5</b>	
Project Manager <b>Joe Terry</b>		Waste Services of Florida, Inc.	
Company/Address <b>WSI</b>		JED SWDF	
11500 43rd St. N		ANALYSIS REQUESTED (Include Method Number at)	
Clearwater, FL 33762		PRESERVATIVE <b>1 2</b>	
Phone # <b>813-943-8633</b>		NUMBER OF CONTAINERS <b>3</b>	
Fax#		FIRM/ALTERNATE DESCRIPTION <b>Iron</b>	
Sampler's Signature <b>Joe Terry</b>		Sampler's Printed Name <b>Joe Terry</b>	
CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	MATRIX
MW-11B		6.14.12/1600	GW
MW-12A		6.14.12/1525	GW
SPECIAL INSTRUCTIONS/COMMENTS <b>Cook ID: 12166-5ED</b>			
TURNAROUND REQUIREMENTS <input checked="" type="checkbox"/> RUSH (SURCHARGES APPLY) <input checked="" type="checkbox"/> STANDARD REQUESTED FAX DATE REQUESTED REPORT DATE			
REPORT REQUIREMENTS <input checked="" type="checkbox"/> I. Results Only <input checked="" type="checkbox"/> II. Results + QC Summaries (LCS, DUP, MSMSD as required) <input type="checkbox"/> III. Results + QC and Calibration Summaries <input type="checkbox"/> IV. Data Validation Report with Raw Data <input type="checkbox"/> V. Specialized Forms / Custom Report Edita Yes No			
INVOICE INFORMATION PO# BILL TO:			
RECEIVED BY <b>UPS</b> Signature Printed Name Firm Date/Time			
RECEIVED BY <b>UPS</b> Signature Printed Name Firm Date/Time			

Distribution: White - Return to Originator; Yellow - Retained by Client

JSCOC-3/11